OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM BOARD MEETING

Friday November 18, 2016 1:00 P.M.	PERS 11410 SW 68th Parkway Tigard, OR

	ITEM	PRESENTER
A.	**Administration**	
1.	September 30, 2016 Board Meeting Minutes	RODEMAN
2.	Director's Report	
	a. Forward-Looking Calendar	
	b. OPERF Investment Report	
	c. Budget Execution Report	
	d. Employer Contribution Rates Update	
B.	**Administrative Rulemaking**	
1.	Notice of IRC Limitations Rules	VAUGHN
2.	Adoption of Reemployed Retirees Rule	
3.	Disability Policy Objectives	
C.	**Action and Discussion Items**	
1.	*Moro* Implementation Project Update	ELLEDGE-RHODES
2.	Legislative Advisory Committee Appointments and Update	TAYLOR
3.	2017-19 Employer Rates for Josephine and Jackson Counties	DUNN
4.	OPSRP Contribution Start Date	ELLEDGE-RHODES
5.	Actuarial Financial Modeling	MILLIMAN

There will be an Audit Committee meeting immediately following the regular Board meeting.

In compliance with the Americans with Disabilities Act, PERS will provide this document in an alternate format upon request. To request this, contact PERS at 888-320-7377 or TTY 503-603-7766.

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
BOARD MEETING MINUTES

September 30, 2016

Board members present:

Chair John Thomas, Stephen Buckley, Krystal Gema, and Vice-chair Pat West were present.

Staff present:

David Crosley, Mary Dunn, Yvette Elledge-Rhodes, Greg Gabriel, Brian Harrington, Debra Hembree, Jordan Masanga, Beth Porter, Daniel Rivas, Janice Richards, Steve Rodeman, Jason Stanley, Marjorie Taylor, Stephanie Vaughn, Anne Marie Vu, Joli Whitney, and Yong Yang.

Others present:

Taylor Anderson, Nancy Brewer, Alison Chan, Lance Colley, Shawn Cross, Roger Davies, Katy Durant, Josh Eggleston, Steve Elzinga, Janice Essenberg, Debra Grabler, Henry Groepper, Oren Haker, Greg Hartman, Claire Hertz, Wally Hicks, Rex Kim, David Lacy, Matt Larrabee, Samantha Naluai, Gordon Oliver, Elana Pirtle-Guiney, Vince Porter, Scott Preppernau, Carol Samuels, Lori Sattenspiel, Ted Sickinger, Rick Stevens, Shauna Tobiasson, Deborah Tremblay, Trudy Vidal, Peter Wong.

Chair JohnThomas called the meeting to order at 1:00 P.M.

ADMINISTRATION

A.1. MEETING MINUTES OF JULY 29, 2016

Board member Buckley moved and Board member Gema seconded approval of the minutes submitted from the July 29, 2016 Board meeting. The motion passed unanimously.

Vice-chair West moved and Buckley seconded to approve the minutes from the September 14, 2016 Joint Oregon Investment Council (OIC)/PERS Board discussion. The motion passed unanimously.

A.2.a. DIRECTOR'S REPORT

Executive Director Steve Rodeman reviewed the Forward Looking Calendar and highlighted the important items to be considered by the Board in the coming year.

Rodeman reviewed the OIC Investment Report of the Oregon Public Employees Retirement Fund (OPERF) for the period ending August 31, 2016. The current returns have a moderate upward trend.

Rodeman presented the Budget Execution Report. The items listed in the report which were scheduled to be considered by the Emergency Board (E-Board) and the additional limitation and the receipt of the report in a budget note, have since been approved by the E-Board.

Rodeman reviewed the Executive Order on Information Security issued by the Governor on September 12. He highlighted the efforts currently underway at PERS to design and implement an Information Security program. PERS is scheduled to meet with the state Chief Information Officer (CIO) next week to discuss the agency-specific impacts of the agency's future path in information security as related to the Executive Order.

Communications Director David Crosley presented the results of the Annual Customer Service Survey. The goal is to have at least 95 percent of respondents rate customer service as excellent or good. The current results were 92 percent. Chair Thomas thanked him for the report.

ADMINSTRATIVE RULEMAKING

Stephanie Vaughn, Policy Analysis and Compliance Section Manager, presented.

B.1. NOTICE OF REEMPLOYED RETIRED MEMBER RULE

Vaughn presented notice of rulemaking for Reemployed Retired Members Rule, OAR 459-017-0060. This is rule is being edited to reflect changes from recent legislative sessions and for comprehensiveness and clarity. A rulemaking hearing has been scheduled for October 25, 2016, at PERS Headquarters. The public comment period ends October 31, 2016. No Board action was required.

B.2. ADOPTION OF ACCOUNTS RECEIVABLE FRAUD RULE

Vaughn presented the new Accounts Receivable – Fraud rule, OAR 459-005-0260, for adoption. A rulemaking hearing was held August 23, 2016. The public comment period ended September 2, 2016. No public comments were received and no one attended the hearing. This rule establishes a formal fraud detection, investigation, and resolution process.

Gema moved to adopt the Accounts Receivable - Fraud rule as presented. West seconded. The motion passed unanimously.

B.3. DISABILITY RULES UPDATE

In June, a focus group consisting of member and employer representatives as well as PERS staff formed and met on several occasions. The meetings have been productive but the group has requested additional time to develop high-level policy recommendations. Vaughn anticipated that the high-level policy objectives will be ready to present at the November board meeting. Following that presentation, if rule modifications are needed, they will be presented at the January 2017 Board meeting.

ACTION AND DISCUSSION ITEMS

C.1. *MORO* IMPLEMENTATION PROJECT UPDATE

Chief Operations Officer Yvette Elledge-Rhodes presented an update on the status of the *Moro* project. “Population C,” which represents benefit recipients who have complicated accounts with issues such as a second retirement or a divorce, will be resolved through a system batch update in October. There are about 1,000 members in this group. “Population D” is all benefit recipients who passed away before their cost-of-living-adjustment was adjusted and represents about 7,400 recipients. To date, 550 letters have been sent out to this population and 74 survivor benefits accounts have submitted the information to be paid. The cases with known survivors are being processed first. Accounts are being researched to determine whether an authorized representative was established for the recipient’s estate, and, if not, attempting to notify the recipient’s survivors of the amount of unclaimed benefits that may be available.

No Board action was required.

C.2. LEGISLATIVE UPDATE

Senior Policy Director Marjorie Taylor presented. Taylor highlighted the decisions made by the Emergency Board Subcommittee in the prior week. PERS was directed to report to the committee via a budget note on a statutory review to identify recommendations for simplifying and reducing the costs of the statutory benefits structure and its administration. PERS provided the report as requested. Also at the E-Board, PERS sought approval for an increase in budget limitation to fund the directive of the state CIO to develop and implement an Information Security Program as well as other itemized security activities. This request was approved.

Taylor also reviewed Rodeman's September 21 presentation before the PERS Solutions Workgroup, which was formed by Senators Tim Knopp and Betsy Johnson to discuss several proposals for PERS reform.

No Board action was required.

C.3. 2017-19 EMPLOYER RATE ADOPTION

Actuaries Matt Larrabee and Scott Preppernau of Milliman presented the 2017-19 employer rates for adoption.

Buckley asked about the rates which were assessed to Jackson and Josephine counties. Rodeman explained the reason that those counties were assessed a transition liability for the now dissolved Jobs Council, which was an inter-governmental agency established by Jackson and Josephine counties.

Wally Hicks, legal counsel for Josephine County and Oren Haker of Stoel Rives LLP, outside counsel for Josephine County, appeared before the Board to ask that the transition liability that is being assessed to Josephine County be absorbed by the system as a whole due to the unique situation surrounding the way that the liability was incurred.

The Board discussed the options available as outlined in the staff recommendations and possible other options for consideration.

Gema moved to adopt the rates as presented with the exception of Josephine and Jackson counties, which will be continued to the November meeting. West seconded.

Buckley asked if, additionally, information on past practices for dealing with this type of issue could also be included at the November meeting.

Thomas adjourned the Board meeting at 2:10 PM.

The Board recessed briefly to be joined by the Oregon Investment Council for a joint discussion.

JOINT PERS BOARD OIC DISCUSSION

Board members present:

Chair John Thomas, Stephen Buckley, Lawrence Furnstahl, Krystal Gema, and Vice-chair Pat West were present.

Others present:

Members of the Oregon Investment Council (OIC): Chair Katy Durant, Vice-Chair Rukaiyah Adams, Rex Kim, and Steve Rodeman. Milliman actuaries Matt Larrabee and Scott Preppernau were also present.

Chair Thomas called the joint PERS Board/OIC meeting to order at 2:25 P.M. The Board and the OIC resumed previous discussions regarding the funded status and unfunded actuarial liability of the PERS Fund.

Furnstahl introduced the idea of re-financing the historic unfunded liability to take advantage of the low carrying cost based on current low interest rates. A discussion followed regarding who the likely creditor would need to be to pursue this opportunity.

The meeting ended at 3:25 P.M.

Respectfully submitted,

Steven Patrick Rodeman
Executive Director

PERS Board Meeting
Forward-Looking Calendar

Friday, January 27, 2017

Board Scorecard Report on Agency Performance Measures
Notice of Public Records Requests Rule
Payment of *Moro* Attorneys' Fees
Legislative Session Preview
Preliminary 2016 Earnings Crediting and Reserving

Monday, March 27, 2017

Final 2016 Earnings Crediting and Reserving
Audit Committee Meeting

Friday, May 26, 2017

Board Scorecard Report on Agency Performance Measures
2018 Retiree Health Insurance Plan Renewals and Rates
Economic Assumptions and Actuarial Methods

Friday, July 28, 2017

2017 Legislative Session Review
Valuation Methods and Assumptions Including Assumed Rate of Return
Audit Committee Meeting

Friday, September 29, 2017

Adoption of Actuarial Methods and Assumptions and 2016 Valuation Results

Friday, November 17, 2017

2016 Valuation Update and Financial Modeling Results
Audit Committee Meeting

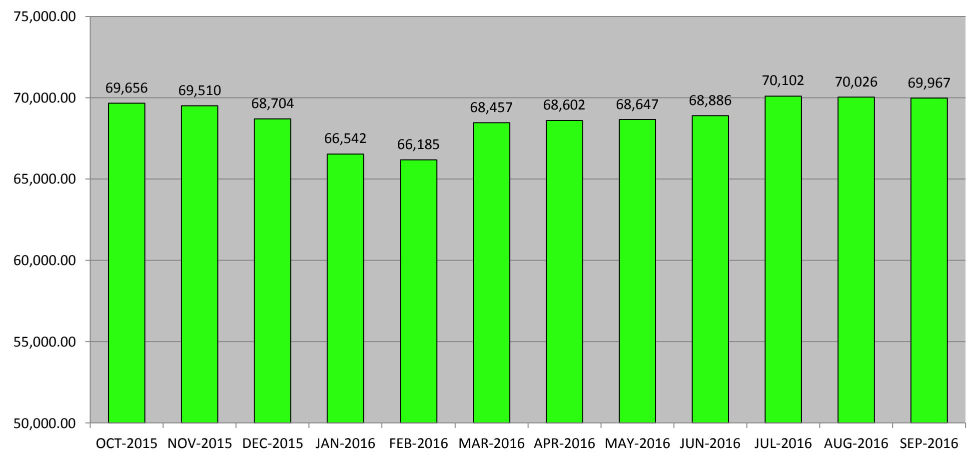
Returns for periods ending SEP-2016 **Oregon Public Employees Retirement Fund**

OPERF	Policy[1]	Target[1]	$ Thousands[2]	Actual	Year-To-Date[3]	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
	Regular Account				Historical Performance (Annual Percentage)							
Public Equity	32.5-42.5%	37.5%	$ 26,842,143	38.7%	**7.33**	**12.16**	**3.27**	**5.50**	**9.34**	**11.69**	**8.76**	**4.80**
Private Equity	13.5-21.5%	17.5%	$ 13,731,084	19.8%	**2.85**	**2.59**	**5.56**	**10.63**	**11.64**	**10.10**	**13.48**	**9.48**
Total Equity	**50.0-60.0%**	**55.0%**	**$ 40,573,227**	**58.5%**								
Opportunity Portfolio	0-3%	0%	$ 1,455,524	2.1%	**2.54**	**3.18**	**3.18**	**5.74**	**8.05**	**8.55**	**9.91**	**6.54**
Total Fixed	**15-25%**	**20.0%**	**$ 15,109,234**	**21.8%**	**5.42**	**4.89**	**3.20**	**3.51**	**2.99**	**4.56**	**5.73**	**5.69**
Real Estate	**9.5-15.5%**	**12.5%**	**$ 8,710,350**	**12.6%**	**7.21**	**10.11**	**10.78**	**11.28**	**12.04**	**12.05**	**10.35**	**5.82**
Alternative Investments	**0-12.5%**	**12.5%**	**$ 3,496,307**	**5.0%**	**3.28**	**3.13**	**(1.49)**	**1.57**	**2.52**	**0.95**		
Cash w/Overlay	**0-3%**	**0%**	**$ 7,759**	**0.0%**	**1.01**	**1.04**	**0.79**	**0.74**	**0.72**	**0.90**	**0.79**	**1.56**
TOTAL OPERF Regular Account		**100.0%**	**$ 69,352,402**	**100.0%**	**5.74**	**7.85**	**4.49**	**6.70**	**8.40**	**9.29**	**9.17**	**5.94**
OPERF Policy Benchmark					**7.65**	**8.73**	**4.98**	**7.52**	**8.97**	**10.23**	**9.38**	**6.42**
Value Added					**(1.91)**	**(0.88)**	**(0.50)**	**(0.81)**	**(0.57)**	**(0.94)**	**(0.21)**	**(0.47)**
TOTAL OPERF Variable Account			**$ 615,050**		**7.30**	**12.60**	**3.02**	**5.60**	**8.79**	**11.26**	**8.40**	**3.68**

Asset Class Benchmarks:

Benchmark	Year-To-Date	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Russell 3000	8.18	14.96	6.96	10.44	13.13	16.36	13.18	7.37
OREGON MSCI ACWI EX US IMI NET	6.08	9.81	(1.37)	0.62	4.47	6.37	4.05	2.60
MSCI ACWI IMI NET	7.00	12.25	2.61	5.24	8.44	10.87	8.06	4.63
RUSSELL 3000+300 BPS QTR LAG	12.57	5.20	7.81	14.43	17.00	14.92	18.32	11.00
OREGON CUSTOM FI BENCHMARK	5.08	4.25	2.93	3.05	2.45	3.91	4.21	4.75
OREGON CUSTOM REAL ESTATE BENCHMARK	7.41	10.72	11.84	11.63	11.41	11.53	10.29	7.41
CPI +4%	5.11	5.52	4.74	5.06	5.10	5.30	5.62	5.79
91 Day Treasury Bill	0.24	0.27	0.15	0.11	0.11	0.10	0.11	0.93

Total OPERF NAV
(includes Variable Fund assest)
One year ending SEP-2016
($ in Millions)



[1]OIC Policy revised June 2015.

[2]Includes impact of cash overlay management.

[3]For mandates beginning after January 1 (or with lagged performance), YTD numbers are "N/A". Performance is reflected in Total OPERF. YTD is not annualized.

Oregon
Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
(503) 598-7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Linda M. Barnett, Budget Officer

SUBJECT: November 2016 Budget Execution Report

2015-17 OPERATIONS BUDGET

Operating expenditures for September 2016 were $3,647,657. Preliminary expenditures for October 2016 were not available due to the early meeting date this month. Final expenditures for October and November will be included in the January 2017 report to the Board. To date, through the first 15 months (or 62.5%) of the 2015-17 biennium, the Agency has expended a total of $60,592,619 or 56.66% of PERS' legislatively approved operations budget of $106,949,449. The current projected positive variance is $3,579,529 or approximately 3.35% of the operations budget. The Agency's goal is to maintain a positive variance of at least $2.1 million (2%).

As of October 2016, PERS is awaiting approval from the Legislative Fiscal Office to request the rescheduling of $3,466,176 to do the following:

- $1,659,976 Pkg. 104 – IT Maintenance & Enhancements
- $1,581,200 Pkg. 105 – to further develop the agency's Disaster Recovery and Business Continuity technology infrastructure in support of the Oregon Retirement Information Online Network (ORION).
- $225,000 Pkg. 840 – to implement SB 370; this established a new benefit that allows an ex-spouse of an Oregon Public Service Retirement Plan (OPSRP) member to receive a death benefit if the member, who is vested, dies pre-retirement.

The budget figures above include the September 2016 Emergency Board adoption of an increase in Other Funds limitation in the amount of $381,074 to fund PERS' contract with Hewlett Packard Enterprise. The contract was in response to a directive from the Office of the State Chief Information Officer and Legislative Fiscal Office to address specific PERS information security activities, including implementing an information security program that is aligned with the State of Oregon's enterprise security standards. The contract also provides project management services to ensure completion of all related tasks and deliverables, and provides required project artifacts and status reporting to PERS and the Oregon State Chief Information Office.

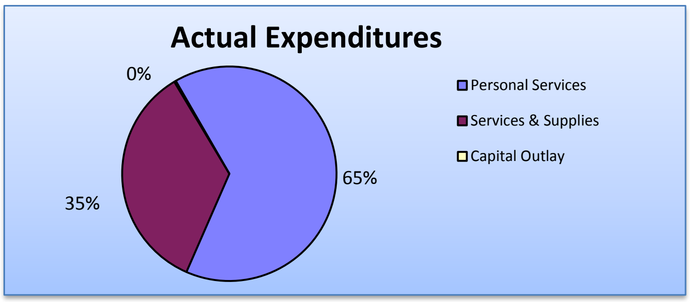
A.2.c. Attachment 1 – 2015-17 Agency-wide Budget Execution Summary Analysis

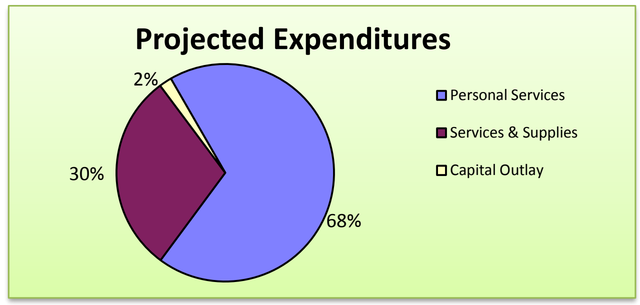
2015-17 Agency-wide Budget Execution
Summary Budget Analysis
For the Month of: September 2016

Limited - Operating Budget

2015-17 Biennial Summary

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expenditures	2015-17 LAB	Variance
Personal Services	39,321,182	26,917,343	66,238,525	69,268,743	3,030,218
Services & Supplies	21,116,631	11,655,396	32,772,027	33,118,723	346,696
Capital Outlay	154,806	738,386	893,192	1,095,807	202,615
Unscheduled	0	3,466,176	3,466,176	3,466,176	0
Total	**60,592,619**	**42,777,301**	**103,369,920**	**106,949,449**	**3,579,529**





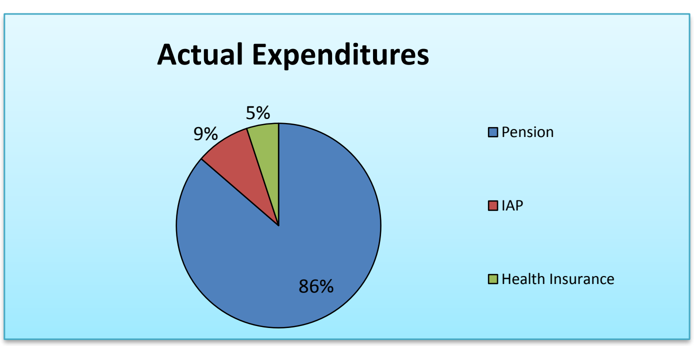
Monthly Summary

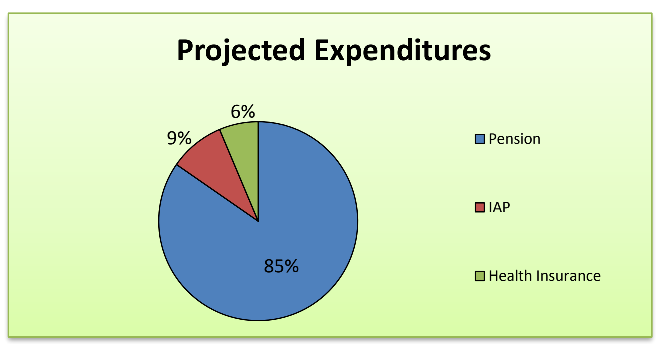
Category	Actual Exp.	Projections	Variance	Avg. Monthly Actual Exp.	Avg. Monthly Projected Exp.
Personal Services	2,651,881	2,908,223	256,342	2,621,412	1,794,490
Services & Supplies	941,252	788,904	(152,348)	1,407,775	777,026
Capital Outlay	54,524	54,524	(0)	10,320	49,226
Total	**3,647,657**	**3,751,651**	**103,994**	**4,039,507**	**2,620,742**

Non-Limited Budget

2015-17 Biennial Summary

Programs	Actual Exp To Date	Projected Expenditures	Total Est. Expenditures	Non-Limited LAB	Variance
Pension	4,996,404,439	3,090,198,566	8,086,603,005	8,291,874,726	205,271,721
IAP	498,008,348	328,715,007	826,723,355	873,488,891	46,765,536
Health Insurance	292,673,468	231,577,158	524,250,626	558,094,445	33,843,819
Total	**5,787,086,255**	**3,650,490,731**	**9,437,576,986**	**9,723,458,062**	**285,881,076**





Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
(503) 598-7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Executive Director

SUBJECT: Employer Contribution Rates Update

Following the PERS Board's adoption of 2017-19 employer contribution rates at its last meeting, there have been a number of articles published about the local effects of those rate increases. Attached to this memo are a few articles from around the state where local government officials explained how these rate increases will be addressed for their entity.

As these articles reveal, many employers took steps to increase reserves in anticipation of these rate increases. In the fall of 2015, we released advisory rates based on the 2014 system valuation which ended up being very close to the actual rates that the PERS Board adopted. I also conducted an Employer Tour where I travelled to 22 cities around Oregon to explain the system dynamics that were driving these increases.

Apparently, these education efforts resonated with some employers who have been able to weather this cycle's increases but, as we have consistently pointed out through these and other communication efforts, rates will be increasing for the foreseeable future as a result of the large system unfunded actuarial liability. These increases will consume a larger portion of our employers' budget that could instead be used to provide services to their constituents; that prospect is difficult for all employers to manage but these articles show how some have done their best to adapt to this new "normal" level of employer rates.

That said, discussions and analysis continue with the PERS Board, the Oregon Investment Council, and engaged legislators and stakeholders over further possible steps to mitigate the effect of these increases on our diverse group of employers.

A.2.d. Attachment 1 – Employer Contribution Rates Articles

Government, school leaders brace for new pension demands

The Daily Astorian
Published October 3, 2016

The pension board has announced rate increases that will touch the budgets of nearly every county, city and school district in Oregon.

The higher rates, released Friday by the Public Employees Retirement System's board, go into effect in 2017.

State Sen. Betsy Johnson, D-Scappoose, and Sen. Tim Knoop, R-Bend, who are working on pension reform, said the higher rates would add significant costs to school districts and local governments.

"School districts that are already struggling to make ends meet in their annual budgets will now have to factor in even greater PERS costs to the detriment of our students and teachers who need that money in the classroom," Johnson said in a statement Friday.

Higher rates

The higher rates are influenced by several factors.

The state Supreme Court last year struck down reforms approved by the Legislature in 2013 to help contain public worker retirement costs. The court ruled that cost-of-living adjustments workers had earned before the reform law went into effect are a contractual right that could not be taken away.

Another factor is that the pension system's investment earnings have fallen short of the 7.75 percent assumed annual rate of return.

"We all should be willing to consider creative and responsible ideas that are likely to withstand legal challenge and would help us reduce and manage this unfunded liability," Gov. Kate Brown said in a statement.

"Paying it down won't be easy, but I will continue to work with the PERS Board, (Oregon Investment Council), as well as the Legislature to fund a fair, responsible, and affordable retirement system for our teachers, firefighters, law enforcement, and other critical service providers, and for taxpayers and employers throughout Oregon."

Here is an overview of how the higher rates might play out in Clatsop County:

Astoria

The city has taken a conservative approach to the pension challenge, budgeting as if the lower employer contribution rates promised by pension reform would fail to materialize. So the city was not as vulnerable when the Supreme Court struck the reforms down.

The City Council also left some cushion in the city's $37.7 million budget in anticipation that contribution rates would rise. Based on wages for city workers last spring, the city projected an estimated $150,000 impact to the general fund, a calculation that might have to be revised upward now that the actual rates have been posted.

For the city's longest-serving workers, the contribution rate will increase from 20.27 percent to 24.66 percent. For workers hired after August 2003, the rate will rise from 13.07 percent to 15.79 percent. And for police and firefighters, the rate will climb from 17.18 percent to 20.56 percent.

"I think we'll manage through it," Susan Brooks, the city's finance director, said. "But, obviously, the continuing rise of PERS rates is concerning for the long haul."

The city's budget committee and City Council will have to deal with the higher contribution rates next spring when drafting the budget for the next fiscal year, which begins in July.

While the city can likely absorb the higher rates initially, if similar rate hikes follow over several years, the impact could force trade-offs in public services or higher fees on taxpayers.

"Obviously, if the trend continues at that rate, what it means is prioritizing how we are going to spend the money coming in," Brooks said.

— *Derrick DePledge*

Warrenton

In Warrenton, the contribution rate for the oldest workers will spike from 17.56 to 22.49 percent. The rate for workers hired after 2003 will increase from 10.36 to 13.42 percent, and the rate for police and fire will rise from 14.47 to 18.19 percent.

"We knew the increases were coming, so it is not a surprise," Finance Director April Clark said in an email. "It will impact our budget, and we will have to take that into consideration when we start putting together next year's budget and as we prepare for upcoming union negotiations."

The city did not set aside money for the rate increases, she said.

This year's $32.3 million budget includes about $677,000 in retirement costs.

— *Erick Bengel*

Clatsop County

Clatsop County commissioners built an anticipated pension increase into the county's budget.

For the county's oldest workers, the rate will increase from 12.13 percent to 16.28 percent. The rate for workers hired after 2003 rose from 4.95 percent to 7.59 percent. The police and fire payroll jumped from 9.06 percent to 12.36 percent.

"We had an increase built into the budget," County Manager Cameron Moore said. "(The rates) are little bit more than we anticipated. We have to take a detailed look at how this may affect us, and it may not."

It is too early to say how the increase will impact the budget, Moore said. One option to offset the costs is to dip into some conditional funds that are stored in the budget.

The new rates are not anything the county is alarmed about, Moore said.

"We are in pretty good shape financially right now," he said. "The rates that we've seen, we should be able to accommodate."

— *Kyle Spurr*

Schools

Local school districts forecasted for an increase in pension obligations. But school administrators face an uncertain future with pension costs expected to continue rising into the 2020s, and funding levels for schools unsure.

Warrenton-Hammond, Seaside, Knappa and Jewell school districts all face 3 to 5 percent increases in pension obligations in the coming biennium.

“We budgeted (a) 4.5 percent increase, so it really wasn’t a surprise,” said Mike Moha, business manager for the Warrenton-Hammond School District.

“Knowing it’s there and not being surprised, that lessens the hurt when it comes up,” he said.

A bigger issue is what will happen as employers’ pension obligations continue increasing in subsequent budget years. Knappa’s Business Manager Nikki Fowler said rates are expected to keep going up through 2023.

Warrenton-Hammond, Seaside and Astoria all took out bonds in the 2000s to help cover future pension obligations.

Astoria timed its bonding right and ended up with some of the most modest employer contribution rates of any agency. This biennium, the district only had to contribute about one-half of a percent of employee pension costs. That increases next biennium to 3.18 percent for the longest-serving employees, while contributions for more recent hires will go down slightly to 0.43 percent.

But Astoria Superintendent Craig Hoppes is still hesitant to answer whether his district can handle all the increases. “It’s hard to say, because I don’t know how much money we’re going to get from the state,” he said of all the competing priorities for limited dollars in the state’s general fund.

— *Edward Stratton*

PERS categories

The Public Employees Retirement System has different benefit components for government workers depending on when they were hired. The government contribution rate toward pensions is higher for the longest-serving workers.

***Tier I:** Workers hired before January 1996

***Tier 2:** Workers hired between January 1996 and August 2003

***Oregon Public Service Retirement Plan:** Workers hired after August 2003

New PERS rates will cost local government

East Oregonian
Jade McDowell and Phil Wright
Published October 4, 2016
Last changed on October 5, 2016

Public employers have known since last year that their contributions to the Public Employees Retirement System will be going up again in 2017, but now they know just what the damage will be.

The PERS board released the rates for the 2017-2019 biennium last week, updating a previous forecast last fall by the actuarial firm Milliman.

More than 900 employers across the state are part of the PERS system, including cities, schools, counties and special districts. The increase in their required contributions depends on a variety of factors — such as how many of their employees are on the more generous Tier 1 benefits earned by those hired before 2003 — but the average increase is about 3.62 percent.

The need for higher contributions from employers comes from a combination of factors. About 70 percent of the system's revenue comes from investment earnings, which have been falling below the assumed 7.75 percent. Retirees are also living longer than expected, and the Oregon Supreme Court struck down reforms that lowered costs in 2015-2017, ruling them an unconstitutional breach of contract with public employees.

Umatilla County

Umatilla County Commissioner George Murdock said he, county counsel Doug Olsen, finance department head Robert Pahl and assistant Marie Simonis held a meeting Tuesday morning to look at how PERS and other issues will affect county government. PERS contributions for 2017-18 will cost the county $450,000-$500,000 of general fund dollars, he said, and the amount will only continue to grow.

The county's contribution rate for its longest-serving employees will go from 10.93 percent to 15.94 percent. New employees have a bump from 4.21 percent to 7.61 percent. And police and fire, including sheriff's deputies, will increase from 8.32 percent to 12.38 percent.

Murdock said the group plans to talk to the full board of commissioners in two weeks. And this fall, every department will undergo an audit to review structural and fiscal management.

"We're doing all this this fall," he said. "Spring is too late to begin making wise decisions for how to balance the budget for the following year."

He also said there is no point in "crying or whining about the problem." The county, he said, has to focus on finding a solution.

Cities

Based on the 2017-2019 rates released Friday, Hermiston Finance Director Amy Palmer said the city's PERS contributions will have an annual increase of $228,365 over the 2015-2017 rates.

That information is a factor in the budgeting process for 2017, although Palmer in an email said that there was only so much the city could do, planning-wise, before the rates were released on Friday.

“We did know increases were coming, but it’s difficult to prepare until you know what it is going to be,” she said.

In Pendleton, Finance Director Linda Carter said the city will see about a 5 percent increase in its PERS payments.

Many public employers in the state have at some point started picking up employees’ 6 percent match in lieu of giving them a raise, but Carter said city of Pendleton employees are still paying into the PERS system out of their own pockets, separate from what the city is paying.

School Districts

Hermiston School District is facing an increase of about $1.2 million per year in PERS contributions in the coming biennium. The money represents a 4.8 percent increase in payments.

“It will have some pretty significant impacts on us, but luckily it is not unexpected,” said director of business services Katie Saul.

Based on preliminary estimates released months ago, she said the district had been expecting about a 4 percent increase, although they knew it could be higher. She said significant increases in PERS contributions have become the new normal and are “always at the forefront of our mind” during any financial planning.

The school board established a PERS reserve fund of $2 million and used about $900,000 of it in the 2009-2011 biennium to help soften the blow when major increases hit. Saul said since then a combination of circumstances, including a healthier state school fund and higher than expected enrollment, has allowed the district to return the reserve fund’s balance to almost $2 million again.

“Looking at it ahead of time, we knew these rates were coming and knew we had to be fiscally responsible to prepare,” she said.

It will be up to the school board and budget committee to decide if — or how much — the reserve fund will be used to balance out the extra $1.2 to $1.3 million per year the district will need to come up with during the next biennium.

At Pendleton School District, Director of Business Services Michelle Jones estimated the school district will have to come up with an additional $800,000 per year in PERS contributions to meet the 4.67 percent increase they are facing.

“When we start talking budget for next year, we’ll address that,” she said.

The increase in the district’s rates would have been about twice as high, Jones said, if it weren’t for the PERS bonds the district took out and placed into a side account in 2002 to help offset costs.

“Because those did well for several years, that’s helped us out,” she said.

Like Saul, Jones said her district has been well aware that an increase in PERS contributions was coming and that future bienniums will come with further increases for public employers across the state.

“That just seems to be the path we’re on right now,” she said.

Local governments, schools bracing for PERS increases

Wallowa County Chieftain
Kathleen Ellyn
Published October 25, 2016

Public employers have known since last year that their contributions to the Public Employees Retirement System will be going up again in 2017. Now they know better what the damage will be. The numbers supplied are still “squishy” but provide some basis for planning.

The PERS board released the rates for the 2017-2019 biennium in late September, updating a previous forecast last fall by the actuarial firm Milliman.

More than 900 employers across the state are part of the PERS system, including cities, schools, counties and special districts. The increase in their required contributions depends on a variety of factors — such as how many of their employees are on the more generous Tier 1 benefits earned by those hired before 2003 — but the average increase is about 3.62 percent.

The need for higher contributions from employers comes from a combination of factors. About 70 percent of the system’s revenue comes from investment earnings, which have been falling below the assumed 7.75 percent. Retirees are also living longer than expected, and the Oregon Supreme Court struck down reforms that lowered costs in 2015-2017, ruling them an unconstitutional breach of contract with public employees.

Many counties, cities and schools are facing a real budgetary crisis, but some Wallowa County agencies are protected by a variety of factors.

At the county level the protection comes primarily from the fact that most city employees do not have PERS. Their retirement program is through Lincoln Financial. While nearby Umatilla County is looking at an increase in PERS payments that amounts to $450,000-$500,000 from its general fund, Wallowa County is getting off with a wave.

“Financially, Wallowa County is not looking at taking a big hit,” said Brenda Micka, administrative services director for Wallowa County.

Only five members of the Sheriff’s Office will be affected: one Tier 2 employee and four Oregon Public Service Retirement Plan (ORSRP) employees.

OSRP payments actually will decline by 0.43 percent in the next biennium, Micka said. And that, multiplied by the four Sheriff’s Office employees, means an overall decline of 2.15 percent. The Tier 2 employee payment goes up by 2.63 percent. This leaves the county with a 1.48 percent increase in PERS payment costs for the Sheriff’s Office.

“It’s almost a wash,” Micka said.

County Commissioner Susan Roberts revealed that discussions about the change in payments were conducted during the budget committee meeting, but it was clear there was no cause for concern.

Fire Districts throughout the county are staffed by volunteers, so there are no PERS costs there.

Enterprise

The city of Enterprise will see a 3.5 percent increase for law enforcement and about a 2.7 percent increase for all others, according to City Administrator Michele Young.

Young said she has not figured out the costs yet, but feels fairly comfortable with the 3.5 percent increase.

"We have not had any council conversations about it," she said. "We were expecting it. We see an increase every two years and I have seen them larger so I actually feel pretty good about this one. I thought it was going to be higher."

The city has three police officers and nine general employees in PERS. All city employees pay a 6 percent contribution to their funds out of their paychecks.

Wallowa

The city of Wallowa has five employees who receive PERS. The two Tier 1 and Tier 2 employees will see their percentages rise from 9.7 percent to 13.66 percent — just under a 4 percent rise, but significant amounts for a small city. The OPRSP employees percentage will go from 5.4 to 8.19 — a total of 2.79 percent.

"Man, we're paying a lot now, already," said Carol Long, city recorder. "Only one employee will see the 13.66 percent, but on that one employee the PERS payment will come to abut $1,800 annually. On the OPRSP employees combined it will be about $2,300. That adds up for a small city with a fixed budget."

The Wallowa City Council has yet to publicly discuss how it will cover the increases.

Joseph

The city of Joseph is in a very different position, according to Mayor Dennis Sands. Because of the defined benefit plan, the city is paying roughly 21 percent, 17 percent or 22 percent (depending on the Tier) into the retirement accounts of employees long gone.

The city also has six current employees on the program, two of whom work part time. What they'll get hasn't yet been calculated, but Sands believes it's about 17 percent of their annual pay. Fortunately the employees already have paid 6 percent of that into their own funds. That whittles the cost down a little, but it's still a lot of money, Sands said.

"It's a convoluted system that just defies logic," Sands said.

The Joseph council also has yet to publicly discuss how it will cover the increases.

Joseph schools

The area of greatest concern for Wallowa County residents is the hit their school districts will take.

Joseph Charter school Superintendent Lance Homan was not prepared to reveal exact numbers at this point, because of the possible adjustments that may come should Measure 97 pass. However, the issue is at the top of the list and the district will reveal the numbers as soon as they have an accurate accounting.

"The last PERS percentages I was given show an almost 5 percent increase for the 2017-18 school year," Homan said. "As far as actual numbers, I have not calculated those at this time. PERS is definitely a concern and projections seem to be that the percent will continue to grow."

Wallowa schools

Wallowa School District Superintendent Bret Uptmore confirmed that the school board had been on top of the issue as it has developed and various calculations have been made and remade to try and stay ahead of the projected costs. The bottom line: A 4.87 percent increase in the Tier

1/Tier 2 rate and a 4.23 percent increase in the OPSRP rate. The budget amount from 2016-17 will be approximately $7,000 because the district did not make a decrease PERS adjustment in their 2016-17 budget, Uptmor said.

“The budget proposal for 2017-18 will be an approximate $66,000 increased cost,” Uptmor said. “We will be able to continue operating at our current level of staffing next year as long as revenue sources remain constant.”

Enterprise schools

Enterprise School District also has crunched the numbers available and Superintendent Erika Pinkerton reports that despite expecting a Tier 1 and 2 increase of 4.87 percent and an OPRSP increase of 4.23 percent in the 2017-19 biennium, the district also appears safe from layoffs.

“The school district has done a phenomenal job of preparing and overall conservative spending,” Pinkerton said. “At this time we do not know what level the legislature will fund schools at this coming biennium. This is due to the unknown of what happens with Measure 97. We will wait to see the effect Measure 97 will have on our school district’s budget after the election. The estimated increase for Enterprise School District personnel will be $145,000, based upon the Summary of PERS Employer Contribution Rates issued by the state in late September.”

“The personnel costs alone will be an additional $145,000 for the 2017-19 biennium but the district will have enough money in our reserves to cover the costs.”

The district will take another hit in the 2020 biennium, she said, and the school board will be discussing how to be prepared for that as well.

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320-7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section

SUBJECT: Notice of Rulemaking for IRC Limitations Rules:
OAR 459-005-0525, *Ceiling on Compensation for Purposes of Contributions and Benefits*
OAR 459-005-0545, *Annual Addition Limitation*
OAR 459-080-0500, *Limitation on Contributions*

OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Update rules to reflect the 2017 Internal Revenue Code (IRC) annual limitations regarding retirement contributions and benefits.
- Policy Issue: None identified.

BACKGROUND

The Internal Revenue Service (IRS) revises various dollar limits annually based on cost-of-living adjustments. These revisions are used throughout the PERS plan's statutes and rules, but revisions to the limits must be adopted by the legislature or PERS Board to be effective.

The proposed rule modifications incorporate these federal adjustments and are necessary to ensure compliance with the IRC's limits on the amount of annual compensation allowed for determining contributions and benefits, annual benefits, and annual additions to PERS.

PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing will be held December 22, 2016, at 2:00 p.m. at PERS headquarters in Tigard. The public comment period ends December 30, 2016, at 5:00 p.m.

LEGAL REVIEW

The attached draft rules were submitted to the Department of Justice for legal review and any comments or changes will be incorporated before the rules are presented for adoption.

IMPACT

Mandatory: Yes, statute requires the Board to update its rules to reflect revisions by the IRS.

Impact: Clarifies the 2017 limits for contributions and benefits under federal law.

Cost: There are no discrete costs attributable to the rules.

RULEMAKING TIMELINE

November 15, 2016	Staff began the rulemaking process by filing a Notice of Rulemaking with the Secretary of State.
November 18, 2016	PERS Board notified that staff began the rulemaking process.
December 1, 2016	*Oregon Bulletin* publishes the Notice. Notice is sent to employers, legislators, and interested parties. Public comment period begins.
December 22, 2016	Rulemaking hearing to be held at 2:00 p.m. at PERS in Tigard.
December 30, 2016	Public comment period ends at 5:00 p.m.
January 27, 2017	Staff will propose adopting the rule modifications, including any changes resulting from public comment or reviews by staff or legal counsel.

NEXT STEPS

A rulemaking hearing will be held December 22, 2016, at 2:00 p.m. at PERS headquarters in Tigard. The rule is scheduled to be brought before the PERS Board for adoption at the January 27, 2017 Board meeting.

B.1. Attachment 1 - 459-005-0525, *Ceiling on Compensation for Purposes of Contributions and Benefit*s
B.1. Attachment 2 - 459-005-0545, *Annual Addition Limitation*
B.1. Attachment 3 - 459-080-0500, *Limitation on Contributions*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 005 – ADMINISTRATION

459-005-0525

Ceiling on Compensation for Purposes of Contributions and Benefits

(1) The purpose of this rule is to assure compliance of the Public Employees Retirement System (PERS) with Internal Revenue Code (IRC) Section 401(a)(17) relating to the limitation on annual compensation allowable for determining contribution and benefits under ORS Chapters 238 and 238A.

(2) Definitions:

(a) “Annual compensation” means “salary,” as defined in ORS 238.005 and 238.205 with respect to Chapter 238 and in 238A.005 with respect to Chapter 238A paid to the member during a calendar year or other 12-month period, as specified in this rule.

(b) “Eligible participant” means a person who first becomes a member of PERS before January 1, 1996.

(c) “Employer” means a “public employer” as defined in ORS 238.005, for the purposes of this rule as it applies to Chapter 238. For the purposes of this rule as it applies to Chapter 238A, an “employer” means a “participating public employer” as defined in 238A.005.

(d) “Noneligible participant” means a person who first becomes a member of PERS after December 31, 1995.

(e) “Participant” means an active or inactive member of PERS.

(3) For eligible participants, the limit set forth in IRC Section 401(a)(17) shall not apply for purposes of determining the amount of employee or employer contributions that may be paid into PERS, and for purposes of determining benefits due under ORS

Chapters 238 and 238A. The limit on annual compensation for eligible participants shall be no less than the amount which was allowed to be taken into account for purposes of determining contributions or benefits under former ORS 237.001 to 237.315 as in effect on July 1, 1993.

(4) For noneligible participants, the annual compensation taken into account for purposes of determining contributions or benefits under ORS Chapters 238 and 238A shall be measured on a calendar year basis, and shall not exceed *[$265,000]* **$270,000** per calendar year beginning in *[2015]* **2017**.

(a) The limitation on annual compensation will be indexed by cost-of-living adjustments in subsequent years as provided in IRC Section 401(a)(17)(B).

(b) A noneligible participant employed by two or more agencies or instrumentalities of a PERS participating employer in a calendar year, whether concurrently or consecutively, shall have all compensation paid by the employer combined for determining the allowable annual compensation under this rule.

(c) PERS participating employers shall monitor annual compensation and contributions to assure that reports and remitting are within the limits established by this rule and IRC Section 401(a)(17).

(5) For a noneligible participant, Final Average Salary under ORS 238.005 with respect to Chapter 238 and under 238A.130 with respect to Chapter 238A shall be calculated based on the amount of compensation that is allowed to be taken into account under this rule.

(6) Notwithstanding sections (4) and (5) of this rule, if the Final Average Salary as defined in ORS 238.005 with respect to Chapter 238 and as defined in 238A.130 with

respect to Chapter 238A is used in computing a noneligible participant's retirement benefits, the annual compensation shall be based on compensation paid in a 12-month period beginning with the earliest calendar month used in determining the 36 months of salary paid. For each 12-month period, annual compensation shall not exceed the amount of compensation that is allowable under this rule for the calendar year in which the 12-month period begins.

(7) With respect to ORS Chapter 238, creditable service, as defined in 238.005, shall be given for each month that an active member is paid salary or wages and allowable contributions have been remitted to PERS, or would be remitted but for the annual compensation limit in IRC Section 401(a)(17). With respect to Chapter 238A, retirement credit as determined in 238A.140, shall be given for each month that an active member is paid salary or wages and allowable contributions have been remitted to PERS, or would be remitted but for the annual compensation limit in IRC Section 401(a)(17).

(8) The provisions of this rule are effective on January 1, 2004.

Stat. Auth.: ORS 238.630, 238.650, 238A.370 & 238A.450

Stats. Implemented: ORS chapters 238 & 238A

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 005 – ADMINISTRATION

459-005-0545

Annual Addition Limitation

(1) Applicable Law. This administrative rule shall be construed consistently with the requirements of the Internal Revenue Code (IRC) Section 415(c) and the Treasury regulations and Internal Revenue Service rulings and other interpretations issued thereunder.

(2) Annual Addition Limitation. Except as otherwise provided in this rule, a member's annual additions to PERS for any calendar year after *[2014]* **2016** may not exceed *[$53,000]* **$54,000** (as adjusted under IRC Section 415(d)).

(3) Annual Additions. For purposes of this rule, the term "annual additions" has the same meaning as under IRC Section 415(c)(2).

(4) Permissive Service Credit. The following special rules shall apply with respect to purchases of permissive service credit, as defined in OAR 459-005-0540, Permissive Service Credit:

(a) If a member's after-tax contributions to purchase permissive service credit are included in the member's annual additions under section (3) of this rule, the member shall not be treated as exceeding the limitation under section (2) of this rule solely because of the inclusion of such contributions.

(b) With respect to any eligible participant, the annual addition limitation in section (2) of this rule shall not be applied to reduce the amount of permissive service credit to an amount less than the amount that could be purchased under the terms of the plan as in effect on August 5, 1997. As used in this subsection, the term "eligible participant" includes any individual who became an active member before January 1, 2000.

(5) Purchase of Service in the Armed Forces Under ORS 238.156 or 238A.150. If a member makes a payment to PERS to purchase retirement credit for service in the Armed Forces pursuant to 238.156(3)(c) or 238A.150 and the service is covered under Internal Revenue Code Section 414(u), the following special rules shall apply for purposes of applying the annual addition limitation in section (2) of this rule:

(a) The payment shall be treated as an annual addition for the calendar year to which it relates;

(b) The payment shall not be treated as an annual addition for the calendar year in which it is made; and

(c) The member shall be treated as having received the following amount of compensation for the period of service in the Armed Forces to which the payment relates:

(A) The amount of compensation the member would have received from a participating employer had the member not been in the Armed Forces; or

(B) If the amount in paragraph (A) of this subsection is not reasonably certain, the member's average compensation from the participating employer during the 12-month period immediately preceding the period of service in the Armed Forces (or, if shorter, the period of employment immediately preceding the period of service in the Armed Forces).

(6) The provisions of this rule are effective on January 1, 2004.

Stat. Auth.: ORS 238.630, 238.650, 238A.370 & 238A.450

Stats. Implemented: ORS 238.005 - 238.715, 238A.370

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 080 – OPSRP INDIVIDUAL ACCOUNT PROGRAM

459-080-0500

Limitation on Contributions

(1) Definitions. For purposes of this rule:

(a) “Annual addition” has the same meaning given the term in 26 U.S.C. 415(c)(2).

(b) “Compensation” has the same meaning given the term in 26 U.S.C. 415(c)(3)(A).

(2) Annual addition limitation. Except as otherwise provided in this rule, the annual addition to a member account for any calendar year may not exceed *[$53,000]* **$54,000** effective January 1, *[2015]* **2017**.

(3) Payment for military service. If a payment of employee contributions for a period of military service is made under OAR 459-080-0100:

(a) The payment shall be treated as an annual addition for the calendar year(s) of military service to which it relates;

(b) The payment shall not be treated as an annual addition for the calendar year in which it is made; and

(c) For the purpose of allocating payments under this section, the member’s compensation shall be the amount described in OAR 459-080-0100(3)(d).

Stat. Auth.: ORS 238A.450

Stats. Implemented: ORS 238A.370

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320 -7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section

SUBJECT: Adoption of Reemployment of Retired Members Rule:
OAR 459-017-0060, *Reemployment of Retired Members*

OVERVIEW

- Action: Adopt modifications to the Reemployment of Retired Members rule.
- Reason: Housekeeping edits to reflect changes from recent legislative sessions, new Social Security annual compensation limits, and for comprehensiveness and clarity.
- Policy Issue: None identified.

BACKGROUND

By statute, a Tier One or Tier Two retired member who returns to PERS-covered employment may continue to receive their retirement benefits so long as they work less than 1,040 hours in a calendar year. However, hour limits are not imposed on retired members who qualify for certain exceptions provided in statute.

During the 2015 and 2016 legislative sessions, three bills were adopted regarding the statutory exceptions to the hourly limit. Two bills amended existing statutory exceptions to extend the sunset dates, and one bill created a new exception for retired members employed as a teacher of career and technical education. A summary of those bills is provided below:

House Bill 2684 (2015) extended return-to-work exceptions for Tier One and Tier Two retired members who are employed by public employers as nursing instructors or as trainers for the Department of Public Safety Standards and Training (DPSST). The exception was scheduled to expire January 2, 2016, but was extended to January 2, 2026.

House Bill 3058 (2015) established a new exception to the hourly limitation for retired Tier One and Tier Two retired members who are re-employed by school districts or education service districts as teachers of career and technical education (CTE). Retired members must be certified by the Teacher Standards and Practices Commission (TSPC) as teachers of CTE. The exception is effective from June 18, 2015, through June 30, 2018.

House Bill 4022 (2016) reinstated the exemption that had expired for Tier One or Tier Two retired members who are employed by school districts or education service districts to provide services as speech-language pathologists or speech-language pathologist assistants. The bill applies to hours worked by retired members on or after January 1, 2016, and is set to expire January 2, 2026.

In addition, staff added the existing exception provided in Oregon Revised Statutes (ORS) 238.088, which had been inadvertently omitted. This exception allows certain appointed public officials to work unlimited hours if they are elected or appointed in a county with a population of fewer than 75,000 inhabitants, under certain conditions.

Finally, staff updated the federal Social Security annual compensation limits on earnings for 2017, which were recently published in October 2016. Under ORS 238.082(3), retired members receiving benefits under the Social Security Act may be employed for up to the number of hours for which their salary equals the annual Social Security compensation limit, or up to 1040, whichever is greater.

This rule will be filed in the office of the Secretary of State on January 1, 2017, the date the new Social Security annual compensation limits go into effect. The rule is effective upon filing as set forth in ORS 183.355.

SUMMARY OF MODIFICATIONS TO RULE SINCE NOTICE

On page 1, lines 9-15, the wording of subsection (2)(b) was modified for improved readability.

On page 1, lines 17 and 20, the Social Security annual compensation limitations were updated with the 2017 amounts.

On page 2, lines 12 and 14, paragraphs (4)(c)(A) and (4)(c)(B) were modified to delete the reference that the speech-language pathologist exception does not apply if the member retired at a reduced benefit under ORS 238.280(2). House Bill 4022 (2016) does not limit the exception for retired members who retired under the provisions of ORS 238.280(2), or otherwise mention that provision. *See* House Bill 4022, section 2(2) (stating "[t]his section does not apply to any member who retires under the provisions of ORS 238.280 (1) or (3) * * *,").

On page 3, line 1, the new subsection (4)(g) referred to "the member." To be consistent with the remainder of section (4), staff amended that line to refer to "the retired member."

PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing was held October 25, 2016, at 2:00 p.m. at PERS headquarters in Tigard. No members of the public attended. The public comment period ended October 31, 2016, at 5:00 p.m. No public comment was received.

LEGAL REVIEW

The attached draft rule was submitted to the Department of Justice for legal review and any comments or changes are incorporated in the rule as presented for adoption.

IMPACT

Mandatory: No.

Impact: Changes to internal process and staff training.

Cost: May be absorbed in regular course of business.

RULEMAKING TIMELINE

September 15, 2016	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
September 30, 2016	PERS Board notified that staff began the rulemaking process.
October 1, 2016	*Oregon Bulletin* published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
October 25, 2016	Rulemaking hearing held at 2:00 p.m. at PERS in Tigard.
October 31, 2016	Public comment period ended at 5:00 p.m.
November 18, 2016	Board may adopt the permanent rule modifications.

BOARD OPTIONS

The Board may:

1. Pass a motion to "adopt modifications to the Reemployment of Retired Members rule, as presented."
2. Direct staff to make other changes to the rule or explore other options.

STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: Housekeeping edits to reflect changes from recent legislative sessions, new Social Security annual compensation limits, and for comprehensiveness and clarity.

If the Board does not adopt: Staff would return with rule modifications that more closely fit the Board's policy direction if the Board determines that a change is warranted.

B.2. Attachment 1 – OAR 459-017-0060, *Reemployment of Retired Members*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 017 – REEMPLOYED RETIRED MEMBERS

459-017-0060

Reemployment of Retired Members

(1) For purposes of this rule, “retired member” means a member of the PERS Chapter 238 Program who is retired for service.

(2) Reemployment under ORS 238.082. A retired member may be employed under ORS 238.082 by a participating employer without loss of retirement benefits provided:

(a) The period or periods of employment with one or more participating employers total less than 1,040 hours in a calendar year; or

(b) If the retired member is receiving retirement, survivors, or disability benefits under the federal Social Security Act, the period or periods of employment total less than **either** 1,040 hours in a calendar year**,** or *[no more than]* the total number of hours in a calendar year that, at the retired member’s specified hourly rate of pay, *[limits]* **would cause** the annual compensation of the retired member *[to an amount that does not]* **to** exceed the following Social Security annual compensation limits*[:]***, whichever is greater**.

(A) For retired members who have not reached full retirement age under the Social Security Act, the annual compensation limit is *[$15,720]***$16,920**; or

(B) For the calendar year in which the retired member reaches full retirement age under the Social Security Act and only for compensation for the months before reaching full retirement age, the annual compensation limit is *[$41,880]***$44,880**.

(3) The limitations on employment in section (2) of this rule do not apply if the retired member has reached full retirement age under the Social Security Act.

(4) The limitations on employment in section (2) of this rule do not apply if:

(a) The retired member meets the requirements of ORS 238.082(4), (5), (6), (7) or (8), and did not retire at a reduced benefit under the provisions of ORS 238.280(1), (2) or (3);

(b) The retired member retired at a reduced benefit under ORS 238.280(1), (2) or (3), is employed in a position that meets the requirements of ORS 238.082(4), the date of employment is more than six months after the member's effective retirement date, and the member's retirement otherwise meets the standard of a bona fide retirement;

(c) The retired member is employed by a school district or education service district as a speech-language pathologist or speech-language pathologist assistant and:

(A) The retired member did not retire at a reduced benefit under the provisions of ORS 238.280(1)*[, (2),]* or (3); or

(B) If the retired member retired at a reduced benefit under the provisions of ORS 238.280(1)*[, (2),]* or (3), the retired member is not so employed until more than six months after the member's effective retirement date and the member's retirement otherwise meets the standard of a bona fide retirement;

(d) The retired member meets the requirements of section 2, chapter 499, Oregon Laws 2007**, as amended by section 1, chapter 108, Oregon Laws 2015**;

(e) **The retired member meets the requirements of section 2, chapter 475, Oregon Laws 2015;**

(f) The retired member is employed for service during a legislative session under ORS 238.092(2);

(g) The retired member meets the requirements of ORS 238.088(2), and did not retire at a reduced benefit under the provisions of ORS 238.280(1), (2) or (3); or

*[(f)]***(h)** The retired member is on active state duty in the organized militia and meets the requirements under ORS 399.075(8).

*[(g)]***(5)** For purposes of population determinations referenced by statutes listed in this *[section]***rule**, the latest federal decennial census shall first be operative on the first day of the second calendar year following the census year.

*[(h)]***(6)** For purposes of ORS 238.082(6), a retired member replaces an employee if the retired member:

(A) Is assigned to the position of the employee; and

(B) Performs the duties of the employee or duties that might be assigned to an employee in that position.

*[(5)]***(7)** If a retired member is reemployed subject to the limitations of ORS 238.082 and section (2) of this rule, the period or periods of employment subsequently exceed those limitations, and employment continues into the month following the date the limitations are exceeded:

(a) If the member has been retired for six or more calendar months:

(A) PERS will cancel the member's retirement.

(i) If the member is receiving a monthly service retirement allowance, the last payment to which the member is entitled is for the month in which the limitations were exceeded.

(ii) If the member is receiving installment payments under ORS 238.305(4), the last installment payment to which the member is entitled is the last payment due on or before the last day of the month in which the limitations were exceeded.

(iii) If the member received a single lump sum payment under ORS 238.305(4) or 238.315, the member is entitled to the payment provided the payment was dated on or before the last day of the month in which the limitations were exceeded.

(iv) A member who receives benefits to which he or she is not entitled must repay those benefits to PERS.

(B) The member will reestablish active membership the first of the calendar month following the month in which the limitations were exceeded.

(C) The member's account must be rebuilt in accordance with the provisions of section *[(7)]***(9)** of this rule.

(b) If the member has been retired for less than six calendar months:

(A) PERS will cancel the member's retirement effective the date the member was reemployed.

(B) All retirement benefits received by the member must be repaid to PERS in a single payment.

(C) The member will reestablish active membership effective the date the member was reemployed.

(D) The member account will be rebuilt as of the date that PERS receives the single payment. The amount in the member account must be the same as the amount in the member account at the time of the member's retirement.

*[(6)]***(8)** For purposes of determining period(s) of employment in section (2) of this rule:

(a) Hours of employment are hours on and after the retired member's effective retirement date for which the member receives wages, salary, paid leave, or other compensation.

(b) Hours of employment that are performed under the provisions of section (4) of this rule on or after the later of January 1, 2004**,** or the operative date of the applicable statutory provision**,** are not counted.

*[(7)]***(9)** Reemployment under ORS 238.078(1). If a member has been retired for service for more than six calendar months and is reemployed in a qualifying position by a participating employer under the provisions of 238.078(1):

(a) PERS will cancel the member's retirement effective the date the member is reemployed.

(b) The member will reestablish active membership on the date the member is reemployed.

(c) If the member elected a benefit payment option other than a lump sum option under ORS 238.305(2) or (3), the last monthly service retirement allowance payment to which the member is entitled is for the month before the calendar month in which the member is reemployed. Upon subsequent retirement, the member may choose a different benefit payment option.

(A) The member's account will be rebuilt as required by ORS 238.078 effective the date active membership is reestablished.

(B) Amounts from the Benefits-In-Force Reserve (BIF) credited to the member's account under the provisions of paragraph (A) of this subsection will be credited with earnings at the BIF rate or the assumed rate, whichever is less, from the date of retirement to the date of active membership.

(d) If the member elected a partial lump sum option under ORS 238.305(2), the last monthly service retirement allowance payment to which the member is entitled is for the month before the calendar month in which the member is reemployed. The last lump sum or installment payment to which the member is entitled is the last payment due before the date the member is reemployed. Upon subsequent retirement, the member may not choose a different benefit payment option unless the member has repaid to PERS in a single payment an amount equal to the lump sum and installment benefits received and the earnings that would have accumulated on that amount.

(A) The member's account will be rebuilt as required by ORS 238.078 effective the date active membership is reestablished.

(B) Amounts from the BIF credited to the member's account under the provisions of paragraph (A) of this subsection, excluding any amounts attributable to repayment by the member, will be credited with earnings at the BIF rate or the assumed rate, whichever is less, from the date of retirement to the date of active membership.

(e) If the member elected the total lump sum option under ORS 238.305(3), the last lump sum or installment payment to which the member is entitled is the last payment due before the date the member is reemployed. Upon subsequent retirement, the member may not choose a different benefit payment option unless the member has repaid to PERS in a single payment an amount equal to the benefits received and the earnings that would have accumulated on that amount.

(A) If the member repays PERS as described in this subsection the member's account will be rebuilt as required by ORS 238.078 effective the date that PERS receives the single payment.

(B) If any amounts from the BIF are credited to the member's account under the provisions of paragraph (A) of this subsection, the amounts may not be credited with earnings for the period from the date of retirement to the date of active membership.

(f) If the member received a lump sum payment under ORS 238.315:

(A) If the payment was dated before the date the member is reemployed, the member is not required or permitted to repay the benefit amount. Upon subsequent retirement:

(i) The member may choose a different benefit payment option.

(ii) The member's retirement benefit will be calculated based on the member's periods of active membership after the member's initial effective retirement date.

(B) If the payment was dated on or after the date the member is reemployed, the member must repay the benefit amount. Upon subsequent retirement:

(i) The member may choose a different benefit payment option.

(ii) The member's retirement benefit will be calculated based on the member's periods of active membership before and after the member's initial effective retirement date.

(iii) The member's account will be rebuilt as described in ORS 238.078(2).

(g) A member who receives benefits to which he or she is not entitled must repay those benefits to PERS.

*[(8)]***(10)** Reemployment under ORS 238.078(2). If a member has been retired for less than six calendar months and is reemployed in a qualifying position by a participating employer under the provisions of 238.078(2):

(a) PERS will cancel the member's retirement effective the date the member is reemployed.

(b) All retirement benefits received by the member must be repaid to PERS in a single payment.

(c) The member will reestablish active membership effective the date the member is reemployed.

(d) The member account will be rebuilt as of the date that PERS receives the single payment. The amount in the member account must be the same as the amount in the member account at the time of the member's retirement.

(e) Upon subsequent retirement, the member may choose a different benefit payment option.

*[(9)]***(11)** Upon the subsequent retirement of any member who reestablished active membership under ORS 238.078 and this rule, the retirement benefit of the member must be calculated using the actuarial equivalency factors in effect on the effective date of the subsequent retirement.

*[(10)]***(12)** The provisions of paragraphs *[(7)]***(9)**(c)(B), *[(7)]***(9)**(d)(B), and *[(7)]***(9)**(e)(B) of this rule are applicable to retired members who reestablish active membership under ORS 238.078 and this rule and whose initial effective retirement date is on or after March 1, 2006.

*[(11)]***(13)** Reporting requirement. A participating employer that employs a retired member must notify PERS in a format acceptable to PERS under which statute the retired member is employed.

(a) Upon request by PERS, a participating employer must certify to PERS that a retired member has not exceeded the number of hours allowed under ORS 238.082 and section (2) of this rule.

(b) Upon request by PERS a participating employer must provide PERS with business and employment records to substantiate the actual number of hours a retired member was employed.

(c) Participating employers must provide information requested under this section within 30 days of the date of the request.

*[(12)]***(14)** Sick leave. Accumulated unused sick leave reported by an employer to PERS upon a member's retirement, as provided in ORS 238.350, may not be made available to a retired member returning to employment under sections (2) or *[(7)]***(9)** of this rule.

*[(13)]***(15)** Subsections (4)(c) and (4)(d) of this rule are repealed effective January 2, *[2016]***2026**.

*[(14)]***(16)** *[This rule is effective January 1, 2015.]* **Subsection (4)(e) of this rule is repealed effective June 30, 2018.**

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.078, 238.082, **238.088,** 238.092, 399.075, *[&]* 2007 OL Ch. 499 & 774**, 2015 OL Ch. 108 & 475**

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320 -7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section

SUBJECT: Disability Policy Objectives

BACKGROUND

In response to concerns regarding changes to the disability administrative rules, specifically the eligibility criteria, we formed a focus group consisting of member representatives, employer representatives, and PERS staff. The group has been meeting regularly with the goal of reviewing PERS disability policies and processes.

The group agrees that the stated concerns affect only the approximately 20-30 percent of new disability applications that do not clearly fit within the current rules. To date in 2016, PERS has received 155 applications; 101 of those have been approved. Consistent with the information provided previously, this denotes a further decrease in the total number of applications received, and reflects generally the same approval rate as the last few years. As a side note, we have learned that workers' compensation claims have also gone down.

POLICY QUESTIONS

Through these discussions, staff has developed two areas where higher level policy direction is needed from the PERS Board:

1. What is the most appropriate specialist requirement standard that meets the statutory requirement of medical examinations by "physicians selected by the board?"

2. What is the most appropriate standard for new applications that meets the statutory "unable to perform any work for which qualified" threshold?

SPECIALIST REQUIREMENTS

To be approved for disability, ORS 238.320(1) requires a medical examination by "…physicians selected by the board…." Currently, PERS requires specialists for certain conditions; Oregon Administrative Rules (OAR) 459-015-0010(3) and 459-076-0010(3) outline these specialist requirements by category. For example, for claims of orthopedic injury or disease, PERS requires at least one report of a treating or consulting orthopedic specialist. There are four specific categories, and a catch-all category that allows PERS to require "Any other specialized physician's report that PERS deems necessary." PERS staff consults with a medical advisor to determine what, if any, specialist is appropriate for conditions that do not fall within the four categories listed in OAR.

The concerns raised regarding the current specialist requirements are:

- Cost – some members may not have health insurance, and some insurance policies will not cover exams performed solely for the purpose of determining disability
- Availability – members in more rural areas may not have access to the required specialists for their conditions and some specialists will not see patients solely for the purpose of determining disability, and
- Practice Limits – some specialists will not provide an opinion on disability, or will refer back to the primary care physician for an opinion on disability.

While PERS' specialist requirements have not changed in over 10 years, changes in the way medical services are provided have made these concerns more prevalent in recent years. In light of these changes, the group has developed the following policy question:

1. *What is the most appropriate specialist requirement standard that meets the statutory requirement of medical examinations by physicians selected by the board?*

OPTION 1 – MAINTAIN CURRENT SPECIALIST REQUIREMENTS: No changes from current requirements. This option ensures PERS receives the proper medical documentation, but makes no adjustments to address the concerns discussed above.

OPTION 2 – EXPAND CURRENT SPECIALIST REQUIREMENTS: This option would provide additional specialist options for various conditions. The first set of proposed rule modifications (which staff previously presented) were a step in this direction, such as adding another specialist option for fibromyalgia. The group has discussed some changes and additions to the specialist requirements for the other conditions as well. This option is responsive to the changes in the medical profession and still ensures PERS is receiving the proper medical documentation in support of members' disability claims. However, it may not address all the concerns listed above.

OPTION 3 – EXPAND USE OF INDEPENDENT MEDICAL EXAMS (IME) TO ADDRESS SPECIALIST REQUIREMENTS: Current practice is to request an IME when PERS receives conflicting opinions from two physicians, such as reports by two orthopedic surgeons, one who supports disability and one who does not. Under this option, PERS by rule would adopt conditions under which an IME could be requested by PERS to fulfill the specialist requirement. Under this option, modifications to the rule regarding IMEs would adopt standards to address the concerns of cost, availability, and failure of specialists to provide an opinion. Note that the burden of proving the member is disabled is on the member; the group agrees that these modifications can be carefully drafted so as not to shift the burden of proof to PERS. While this option may slightly increase PERS' administrative costs, it strikes a balance between ensuring members receive disability benefits appropriately and being responsive to the changes in the medical profession. Even with this option, the existing specialist requirements could still be expanded as described in OPTION 2.

OPTION 4 – REQUIRE SPECIALISTS AT PERS' DISCRETION: This option would do away with the current specialist requirements, but would allow PERS to require a report from a specialist when staff deems it necessary. There would be no standards in rule that define which situations would require a specialist in OAR, but instead that would be left to staff's judgment in each case. While this option does address the changes in the medical profession, whether PERS would receive the proper medical documentation in every case is not clear.

Recommendation: Staff recommends OPTION 3, as it addresses the concerns identified while ensuring that PERS receives the necessary medical documentation to assess the member's application. The expanded requirements under OPTION 2 could also be incorporated. The PERS Coalition supports OPTION 4. Staff is concerned that the lack of standards under OPTION 4 could result in a lack of transparency and consistency in evaluating members' disability applications, as opposed to clear expectations for when such a specialist's opinion is needed.

<u>ANY WORK FOR WHICH QUALIFIED</u>

PERS disability benefits are awarded only when a high statutory threshold is reached – the member must be unable to perform any work for which qualified. The group has discussed various aspects of this standard, but there is one central underlying concern: the standard is very broad and suggests that as long as the member can do even part-time, minimum wage work, they are not eligible for disability benefits.

Prior to 2011, there was an additional standard in rule, referred to as the "similar in compensation" rule. That standard looked at whether the member was able to earn 80 percent of their salary at disability. The standard was removed for new applications based on the theory that, if a member is unable to perform any work for which qualified, they could never earn something similar in compensation. The approval rate for new applications dipped slightly in 2012 and 2013 following the removal of the standard, but increased thereafter.

Since the removal of the "similar in compensation" rule, determining whether a member can perform any work for which qualified has become more challenging. While the statutory "unable to perform any work for which qualified" seems clear (ORS 238.320 and 238A.235), statute also contemplates Tier One and Tier Two members earning income while receiving a disability benefit (ORS 238.330(3), allowing an offset for earned income). The group developed the following policy question to frame up this issue:

2. *What is the most appropriate standard for new applications that meets the statutory "unable to perform any work for which qualified" threshold?*

OPTION 1 – MAINTAIN CURRENT STANDARD: No changes from current requirements. Continue current practices.

OPTION 2 – REINSTATE "SIMILAR IN COMPENSATION" STANDARD: This standard was removed from rule in 2011 for new applications, but is still applied on periodic review for members who have been approved for disability. Currently, "similar in compensation" is defined as at least 80 percent of the member's monthly salary at disability. (The 80 percent of salary was the industry standard at the time it was adopted and has since changed to 50 percent for some industries, such as private long term disability insurance.) While this standard is appropriate for periodic reviews (statute allows for an offset for earned income for Tier One and Tier Two members), as applied on application, the effect is inconsistent as it tends to more often result in disability approval for higher paid members than for members at the lower end of the salary scale.

OPTION 3 – ESTABLISH STANDARD BASED ON ABILITY TO EARN MORE THAN DISABILITY BENEFIT: This standard compares what the member may earn in a position for which they are qualified and can perform given the limitations of their condition(s) to what they would receive if they were approved for disability. If, based on their employment experience, transferable skills, education, training, age, and physical or emotional limitations, they are qualified to perform work for which they could earn more than what they would receive in disability benefits, then they would not be eligible for disability benefits. Individuals on disability retirement can sometimes become inactive, deconditioned, disengaged from the community, and fall into depression. This option promotes getting those who may be able to work, back to work.

Recommendation: OPTION 3 is supported by the focus group and PERS staff.

BOARD OPTIONS

The Board may:

1. Pass a motion to "adopt staff's recommendations of Option 3 in response to the two disability policy questions presented."
2. Pass a motion to adopt the other recommendations presented under the two disability policy questions presented in this memo.
3. Direct staff to continue discussions with the focus group to develop other options within these policy questions.

STAFF RECOMMENDATION

Staff recommends the Board adopt the motion under #1 above.

NEXT STEPS

There is a third area the group identified for policy direction, but the concern may become moot depending on the decisions the Board makes on the issues above and any related modifications made to the rules. If further policy direction is needed, the additional questions will be presented with the proposed rule modifications. The next step for the group is to take the direction from the Board's decisions today and incorporate them into the administrative rules. We anticipate presenting the rule modifications at the January 2017 board meeting.

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320-7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Yvette Elledge-Rhodes, Chief Operations Officer

SUBJECT: *Moro* Implementation Project Update

PROJECT ACTIVITIES

For the *Moro* project, Population C has now been completed and we are in the process of resolving Population D.

Population C

Population C is all benefit recipients who had not yet been adjusted, mainly due to complications in their benefit calculations such as divorce or a second retirement. There were 987 benefit recipients in this group (less than 1% of the affected recipients). These were resolved through a system batch update on October 13, 2016, to correct their benefit payments going forward. Specific data on this group can be found on the next page. There are 41 accounts remaining that need further research due to suspended benefits or other complicating factors.

Population D

Population D represents all benefit recipients who passed away before their cost-of-living adjustment (COLA) was adjusted, about 7,400 recipients. About 300 benefit recipients pass away every month, so this population is comprised of people who did so between the time that the Oregon Supreme Court's decision in the *Moro* case was issued and we adjusted the COLA in accordance with those rules.[1] We are resolving these by researching whether an authorized representative was established for the recipient's estate and, if not, attempting to notify the recipient's survivors of the amount of unclaimed benefits that may be available. Our goal is to complete this work by the end of June 2017.

As of October 26, 2016, we have sent out 1,386 letters to this population. PERS has received forms from 378 representatives and 269 accounts have been paid out. We are continuing to see about a 30% response rate based on the letters that have gone out so far.

BUDGET UPDATE

The *Moro* project has a remaining budget of $912,320 as of September 30, 2016, out of the $1.6 million approved. PERS has used $546,081 in the Information Technology professional services area, $132,280 for personnel expenses, and $12,845 for legal expenses.

---

[1] Population "A" are those recipients who were restored to a full 2% COLA effective November 1, 2015; Population "B" are those with a blended COLA, who were adjusted effective March 1, 2016.

Moro Decision Implementation Project
October 2016 Population C Adjustments

Total number of accounts updated	987
Recipients due a Moro COLA retro	937
Recipients to receive an invoice $50 or more	18
Number of combined invoices less than $50 and waived	31

Recipients due a Moro COLA retro	937
Average retro paid per account	$428.77
Largest retro paid	$6,803.41
Smallest retro paid	$0.21

Recipients receiving a benefit increase on Nov 1	886
Average monthly benefit increase per account	$28.09
Largest monthly increase	$422.54
Smallest monthly increase	$0.12
Recipients receiving a benefit decrease on Nov 1	33
Average monthly benefit decrease per account	($2.54)
Largest monthly decrease	($31.76)
Smallest monthly decrease	($0.19)
Not currently receiving a payment	68

Largest invoice owed	($701.69)
Recipients to receive an invoice $50 or more	18
Amount to be recovered from invoices $50 or more	($4,012.23)
Average over $50 invoice per account	($222.90)
Number of invoices less than $50 and waived	31
Amount not recovered from waived invoices less than $50	($437.81)
Average waived invoice per account	($14.12)

Oregon
Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320-7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Marjorie Taylor, Senior Policy Director

SUBJECT: Legislative Advisory Committee and Legislative Updates

PERS LEGISLATIVE ADVISORY COMMITTEE

ORS 238.660(9) charges the PERS Board to act as policy advisor to the Legislative Assembly on legislative proposals for changes to PERS benefits. ORS 238.660(10) requires the Board to appoint a committee to advise the Board on those proposals. The committee must include an equal number of members representing labor and management. In preparation for the 2017 legislative session, staff requests that the Board confirm membership of the Legislative Advisory Committee (LAC).

Recommended Appointments

The proposed membership is balanced between labor and management representatives, and includes members who previously participated on the LAC. Members have been contacted and are willing to serve on the committee. We will meet on December 8, 2016, to discuss the agency budget request and any other legislative topics.

Name	**Representing**
Patrick Allen	Oregon Department of Consumer and Business Services
Joe Baessler	American Federation of State, County and Municipal Employees
Rob Bovett	Association of Oregon Counties
Lance Colley	City of Roseburg
Stacy Cowan	Service Employees International Union
Jack Dempsey	Oregon Nurses Association / Oregon State Police Officers Association / Oregon Association of Corrections Employees
Ed Edwards	Oregon School Employees Association
Bob Livingston	Oregon State Fire Fighters Council
Jared Mason-Gere	Oregon Education Association
Lori Sattenspiel	Oregon School Boards Association
Hasina Squires	Special Districts Association of Oregon
Scott Winkels	League of Oregon Cities

BOARD OPTIONS:

The Board may:
1. Approve the recommended appointments, effective immediately.
2. Direct staff to solicit different or additional candidates for appointment.

Staff Recommendation:

Staff recommends the Board choose Option #1.

BOARD MEMBER APPOINTMENTS

We appreciate Pat West's continued service as a board member. His current term expired in August and we will provide additional information about his reappointment, or a new appointment, as it becomes available. The terms of remaining board members expire in 2018.

PERS BILLS OF INTEREST

The 2017 legislative session begins February 1 and the constitutional deadline to adjourn is July 10. An organizational session will be held January 8-12, 2017, for the purpose of swearing in members and bill introduction. We may have a preview of some legislation by late December, but our bill review process will intensify in January.

We anticipate introduction of a variety of legislative proposals pertaining to PERS for the 2017 session. This year, we have prepared policy papers on the following topics for legislators, stakeholders, and the public: "Police & Fire" Classification; Public Employment After Retirement; and Tax Remedy Payments. These papers reflect policy positions previously adopted by the PERS Board; if you would like to revise these positions, we can return to the Board's January 2017 meeting for another round of review, if necessary.

Also, the PERS Solutions Work Group headed by Senator Betsy Johnson and Senator Tim Knopp requested Milliman analysis of the system wide impact of potential legislative proposals that were outlined in press releases. Five separate letters, including a summary letter, are attached. Milliman representatives at the PERS Board meeting can address any questions you might have about the results of their analysis.

Attachments:

C.2. Attachment 1: PERS Policy Paper – "Police & Fire" Classification
C.2. Attachment 2: PERS Policy Paper – Public Employment After Retirement
C.2. Attachment 3: PERS Policy Paper – Tax Remedy Payments
C.2. Attachment 4: Milliman Analysis of Potential 2017 Legislation: $100,000 Final Average Salary Limit
C.2. Attachment 5: Milliman Analysis of Potential 2017 Legislation: 5-Year Final Average Salary
C.2. Attachment 6: Milliman Analysis of Potential 2017 Legislation: Reduced Pension Multipliers
C.2. Attachment 7: Milliman Analysis of Potential 2017 Legislative Concepts
C.2. Attachment 8: Milliman – Overview of October 2016 Legislative Concepts Analyses

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
(503) 598-7377
TTY (503) 603-7766
www.oregon.gov/pers

PERS Policy Paper – "Police & Fire" Classification

Background

PERS members who work in a position that meets the definition for "Police Officer" and "Firefighter" ("P&F") are eligible for special benefit provisions such as retiring at an earlier age and calculating their retirement benefit with a higher statutory factor. Frequently, legislation is introduced to expand the definition of "Police Officer" to afford P&F status to a broader range of positions. Recent proposed expansions have included dog control officers, physicians and nurses at Oregon State Hospital, juvenile detention workers, and community college police.

Policy Issue

What should determine whether a position is re-defined as a "Police Officer?"

Discussion

1. Compliance with Federal Tax Law

The federal tax code has special rules for benefits paid to "Public Safety Employees" – positions that principally engage police protection, firefighting services, or emergency medical services. Police protection positions are recognized as those that involve the custody, control, or supervision of individuals convicted of, or arrested for, a criminal offense or confined to a place of incarceration or detention. Those special tax provisions include broader exceptions from the 10% penalty for early distributions from tax-advantaged accounts like the PERS Individual Account Program (IAP) and, in certain circumstances, fully deducting health insurance premiums. Normal retirement age is another – PERS P&F members can retire at an earlier age, but if they do not meet the federal "public safety officer" definition, they could be treated as early retirements, which may change the taxation of their benefits.

Members who do not conform to the federal law definition, regardless of the classification of their position as P&F in the Oregon PERS plan, may have federal tax problems and PERS could incur compliance concerns if they do not qualify for these special federal tax provisions.

2. Cost for P&F Benefits

PERS P&F members are eligible to retire at an earlier age and their retirement benefit is calculated using a higher factor. These enhanced benefits (as well as some other provisions) mean that P&F status raises the cost of the benefits members earn while in that status by 4-5% of payroll. Those costs increase further if existing General Service (non-P&F) members move into that classification.

For example, if a 55 year old Tier One member is in a position that is reclassified as P&F, that member can take full retirement immediately instead of waiting until the General Service normal retirement age of 58. Normally, retiring three years "early" would reduce that member's benefit by about 24%. Retiring as P&F with an unreduced benefit at age 55 increases the system's costs for that member's benefits earned from General Service because the pay-out will be longer than previously expected.

3. Alternate Benefit Structure

Proponents of bills to expand PERS' "Police Officer" definition generally describe the jobs in question as having high physical demands or high stress levels. These characteristics are similar to traditional P&F classifications; members in such positions generally have shorter careers. Given the federal tax law concerns, however, expanding the "Police Officer" definition is not the most appropriate solution for members who are not in positions that principally engage in the custody, control, or supervision of individuals convicted of, or arrested for, a criminal offense or confined to a place of incarceration or detention.

A model for enhanced benefits exists in PERS for "high risk, high stress" jobs. ORS 238.280(2) has a special retirement eligibility rule for telecommunicators, otherwise known as 911 operators. Members with 25 years of service in those positions can retire earlier than General Service members. Their benefit is actuarially reduced and the member does not receive a cost of living adjustment until reaching age 55. These special provisions were added in recognition of the demanding nature of those positions, but modified to limit the cost increase of allowing these members to retire early. Similar limitations and adjustments could be made for other "high risk, high stress" jobs.

Policy Recommendation

Proposals to expand the PERS definition of "Police Officer" should use the same criteria as that classification has in federal tax law. Differences between the state and federal definition put PERS members at risk for federal tax consequences and may subject the overall plan to additional scrutiny of its tax qualified status.

Positions that fall outside the federal tax law definition could be afforded special provisions similar to telecommunicators, in light of their shortened expected careers, but similarly modified to reduce the cost impacts of a reclassification.

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
(503) 598-7377
TTY (503) 603-7766
www.oregon.gov/pers

PERS Policy Paper – Public Employment After Retirement

Background

Public employers face a complicated statutory framework if they decide to employ a member who has retired from PERS. A retired member could return as an active member – the member's benefit payments are stopped, additional credit towards retirement begins to accrue, and contributions are assessed to the member and employer upon re-entering public employment.

Instead, the retired member and their public employer more commonly want to avoid affecting the member's retired status (and have the member's benefits continue), but there are limits on how much that member can work after retirement. A retired Tier One or Tier Two member can work for up to 1,040 hours in a calendar year; retired OPSRP members may only work up to 600 hours in the calendar year that they retire before they return to active membership.

There are exceptions to the Tier One/Tier Two limits in statute (see Appendix A). These exceptions vary by the type of employer, geographic location, population of the employer's city or county, type of position, and other factors. Those limits have been adopted over time and with no consistent policy direction; consequently, a complicated framework has been built that allows certain members to "double dip" by continuing to work but still receive retirement benefits, while other members who don't fit one of these exceptions must limit their public employment after retirement. Notably, however, these restrictions only apply to public employment; a PERS retired member can work in the private sector without constraint or limitation after retirement.

By statute, the public employer has to be satisfied that the reemployment is in the public's interest, and the employer and member must carefully monitor the hours actually worked or whether they comply with exception. If not, when a retired member exceeds the limit, or their work falls outside of an allowed exception, PERS has to stop the member's retirement benefit, invoice the member for benefits paid after the member exceeded the limit, and return them to active membership. Employers must pay the contributions and earnings for the salary paid to members after they had returned to active membership.

Policy Issue

Should public employers be allowed to employ PERS retired members without affecting that member's retired status and, if so, under what conditions?

Discussion

In 1997, the "work after retirement" limit was raised from 600 to 1,040 hours; each legislative session since then has considered proposals to add or extend exceptions to that limit. This piece-meal approach has led to inconsistent expectations and results for the variety of employers and members in PERS. In reviewing this policy issue, the following perspectives should be weighed:

1. Public Employer Workforce Management

Employers have a variety of reasons to retain or employ a PERS member after that person has retired. These employees have served a significant portion of their career in public service and a fair amount of their skills and abilities have been developed while working for Oregon's taxpayers. The current reemployment restrictions mean that a large segment of the potential workforce is either foreclosed from a public employer's consideration, or subject to complicated restrictions, depending on that employer's appetite to navigate the existing maze. Appendix B shows the number of members who worked after retirement and the associated salary in 2015.

2. Administrative Challenges

When a retired member appears to exceed the limit, PERS compiles the number of hours worked, based on reports filed by their employer(s). Then, the employer(s) are engaged to evaluate whether any exceptions apply to that member's particular employment (or to part of their employment, as they could be working for multiple public employers). If reports confirm that the member has exceeded the limits and no exception applies, PERS cancels the member's retirement and then invoices the member for any benefits received and the employer(s) for contributions (and associated earnings, if any) that are owed. As employer reports can sometimes lag behind for months, these situations are not always discovered promptly. This unwinding process can occur several months after the limit was exceeded, increasing the financial consequences for members and employers.

3. Federal law considerations

PERS must maintain its status under federal tax law as a qualified retirement plan. Generally, that law requires that benefits only be paid when the member has a "bona-fide" retirement – a term that is not defined, but can include starting benefits only after the member has reached normal retirement age or been absent from employment for a certain period of time (e.g., six months). Any policy decision to relax (or eliminate) return to work restrictions must consider these federal standards so that policy is in line with, or more restrictive, than federal law allows.

Current PERS Board Policy Position

The PERS Board's policy position on new exceptions has been that they should be narrowly tailored to meet an identified workforce shortage and should sunset within a reasonable period for that shortage to be remedied. In fact, the shortages associated with the exceptions that have been enacted have not been resolved, and proponents are perpetually seeking renewal of those that would sunset. The shortages giving rise to exception requests seem to be systemic, rather than temporary, and creating or extending exceptions does not solve the core workforce management problems that have given rise to the demand. Instead, the current work after retirement scheme leads to uncertainty and confusion for both members and employers as to whether an exception applies, or may be amended to continue into the future.

Policy Recommendation

A retired PERS member may work for any private employer in the state of Oregon, or public or private employer outside the state, without limitation or constraint, and have no effect on the PERS benefit they earned through their public service in Oregon. An Oregon public employer can hire any qualified person to work for them, but if that person happens to be a retired PERS member (over 100,000 Oregonians are), that employment decision has to be balanced against that employer's appetite for negotiating the current maze of limits or exceptions.

Conversely, allowing a retired member to continue employment prevents another person from filling that position. Also, some critics don't believe that people should be able to receive both a retirement benefit and a paycheck at the same time.

The "middle ground" that has been shifting since the first "crack" was enacted in 1997 has led to frustrated member and employer expectations and serial proposals to expand that crack. Oregon's public employers would be better served by a clear and consistent standard on one side of the question or the other.

APPENDIX A –Current Exceptions to 1,040 Hour Limit for Tier One and Tier Two

- As an administrator or teacher by a school district or educational service district that has its administrative office located in a county of 35,000 or less population:

  1) As an administrator or teacher by a school district or community college district located in a county of 35,000 or less population; or

  2) As an administrator or teacher by an education service district and the retired member's primary work duties are performed in a county of 35,000 or less population.
- By the sheriff of a county with less than 75,000 population.
- By the municipal police department of a city with less than 15,000 population.
- By the state or a county for work in a correctional institution in a county of less than 75,000 population.
- By the Oregon State Police for work in a county of less than 75,000 population.
- As a temporary replacement for an employee called to active duty in the National Guard or an Armed Forces Reserve component.
- By a road assessment district organized under ORS 371.405-.535.
- By Black Butte Ranch R.F.P.D., the Black Butte Ranch Service District, or the Sunriver Service District.
- As a deputy director or assistant director of the Department of Human Services (exception must be approved by the Governor).
- As a deputy director or assistant director of the Oregon Health Authority (exception must be approved by the Governor).
- As a teacher of career and technical education (licensed by the Teacher Standards and Practices Commission to instruct any career and technical education course or program in any career and technical education field).
- As a nurse or for the purpose of teaching nursing, provided the retiree is a nurse. This exception is only available during a nursing workforce shortage declared by the Legislative Assembly or the Governor (a nursing workforce shortage was declared when this exception was passed into law).
- As a nursing instructor (the retiree must be a registered nurse).
- By the Department of Public Safety Standards and Training to provide training.
- By a school district or education service district as a speech-language pathologist or speech-language pathologist assistant.
- Is on state active duty with the National Guard and has reached "normal" retirement age (ORS 399.075(8)) (available to early retiree only if the retiree has reached normal retirement age).
- By the Legislative Assembly or the Oregon State Police for service during a legislative session. (ORS 238.092(2)).

APPENDIX B – Retired Member Hours Worked and Salary Paid in Calendar Year 2015

Tier One and Tier Two Members

	State Agencies		Local Governments		School Districts		All Employers	
Hours	**Members**	**Salary**	**Members**	**Salary**	**Members**	**Salary**	**Members**	**Salary**
< 200	452	$1,313,865	1,155	$3,877,649	2,890	$6,412,685	4,497	$11,608,243
200 – 400	307	$3,048,539	590	$6,282,686	1,345	$9,691,847	2,242	$19,025,006
401 – 600	294	$4,904,999	465	$8,527,579	974	$12,435,942	1,733	$25,869,960
601 – 800	180	$4,082,249	329	$7,833,400	696	$13,674,047	1,205	$25,590,722
801 – 1039	310	$10,346,977	415	$12,881,218	737	$22,246,622	1,462	$45,475,969
> 1039	153	$7,339,937	279	$21,531,130	231	$10,834,283	663	$39,705,860
TOTAL	**1,696**	**$31,036,565**	**3,233**	**$60,933,663**	**6,873**	**$75,295,426**	**11,802**	**$167,275,759**

OPSRP Members

	State Agencies		Local Governments		School Districts		All Employers	
Hours	**Members**	**Salary**	**Members**	**Salary**	**Members**	**Salary**	**Members**	**Salary**
< 200	24	$72,449	27	$87,102	55	$67,044	106	$226,677
200 – 400	7	$70,303	14	$154,470	17	$112,800	38	$337,603
401 – 600	12	$164,958	21	$395,036	20	$230,184	53	$790,219
601 – 800	2	$67,048	0	$0	0	$0	2	$67,048
801 – 1039	0	$0	1	$26,238	0	$0	1	$26,239
> 1039	1	$53,945	1	$13,912	0	$0	2	$67,858
TOTAL	**46**	**$428,702**	**64**	**$676,757**	**92**	**$41,0028**	**202**	**$1,515,644**

All Members

	State Agencies		Local Governments		School Districts		All Employers	
Hours	**Members**	**Salary**	**Members**	**Salary**	**Members**	**Salary**	**Members**	**Salary**
< 200	476	$1,386,313	1,182	$3,964,751	2,945	$6,479,729	4,603	$11,834,920
200 – 400	314	$3,118,841	604	$6,437,155	1,362	$9,804,646	2,280	$19,362,609
401 – 600	306	$5,069,957	486	$8,922,615	994	$12,666,127	1,786	$26,660,179
601 – 800	182	$4,149,296	329	$7,833,400	696	$13,674,047	1,207	$25,657,769
801 – 1039	310	$10,346,977	416	$12,907,456	737	$22,246,622	1,463	$45,502,207
> 1039	154	$7,393,882	280	$21,545,042	231	$10,834,283	665	$39,773,718
TOTAL	**1,742**	**$31,465,267**	**3,297**	**$61,610,420**	**6,965**	**$75,705,454**	**12,004**	**$168,791,403**

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
(503) 598-7377
TTY (503) 603-7766
www.oregon.gov/pers

PERS Policy Paper – Tax Remedy Payments

Background

Until the late 1980s, PERS benefit payments were exempt from state income taxes, while federal retirement benefits were partially exempt. A 1989 federal Supreme Court ruling directed that states must tax federal and state retirement benefits in the same manner. In 1991, the Oregon legislature passed a law to subject PERS benefits to state income tax. Imposing that tax on PERS benefits was challenged to the Oregon Supreme Court, which held that the legislature's imposition violated the benefit contract for PERS members.

Senate Bill 656 (1991) and House Bill 3349 (1995) were passed to establish "tax remedy" payments to mitigate the effect of subjecting PERS benefits to state income tax. SB 656 was found by the Oregon Supreme Court to be an inadequate remedy, and HB 3349 was enacted as a settlement of the litigation. As a result, eligible members receive the higher of the two tax remedy payments. The tax remedy formula under SB 656 is based on the member's total service time. Under HB 3349, the tax remedy is based on the amount of the member's service time before the tax was imposed.

Eligibility for Tax Remedy Payments

Tier Two and OPSRP members are NOT eligible for tax remedy payments. Tier One members who established membership before July 14, 1995, and have either service time before October 1, 1991, or at least 10 years of creditable service, are eligible. Legislation approved in 2011 (House Bill 2456) eliminated the tax remedy payment for members retiring on or after January 1, 2012, who do not pay Oregon income taxes because they are not residents of Oregon.

Recent Legislation

In 2013, Senate Bill 822 eliminated tax remedy payments for all out-of-state benefit recipients, regardless of when the member retired. This expansion was challenged and the Oregon Supreme Court, in its 2015 *Moro* decision, upheld the Legislature's elimination of the tax remedy for those who do not pay Oregon state income tax on their PERS benefits because they do not reside in Oregon. This expansion reduced employer costs by $55 million in the 2015-17 biennium because system liability was reduced by over $400 million, based on the December 31, 2013 system valuation.

Elimination or Restoration of Tax Remedy Payments

ORS 238.372-384 establishes two ways for PERS to determine a benefit recipient's residency: 1) receive information from the Oregon Department of Revenue (DOR) to determine whether the recipient filed an Oregon income tax return as a resident in the previous calendar year; or 2) receive a certification from the recipient that, under penalty of perjury, their benefit is subject to Oregon income taxes as an Oregon resident. This determination is limited to these two methods because other indications of residency (address on file, driver's license, or voter registration) do not always correlate to whether the recipient actually pays income taxes as an Oregon resident.

In mid-October each year, PERS works with the DOR to determine whether a benefit recipient from the prior calendar year did file an Oregon income tax return as a resident. If PERS cannot determine that the recipient did so, PERS then sends a letter to the recipient asking them to certify residency status, either by returning a form to PERS or going online to certify residency.

If the recipient does not certify before the end of that calendar year, the statute directs PERS to stop paying the tax remedy benefit for that next calendar year. A second letter is sent to those recipients who have not certified, explaining that the tax remedy payment will be removed for the next calendar year. If the recipient certifies at a later time that their benefit is subject to Oregon income tax as a resident, the tax remedy payment is restored for the next calendar year.

Tax Remedy Payment Data

Year Processed (following calendar year payment affected)	2013	2014	2015
# of Payment Recipients Submitted to DOR	112,707	109,374	116,469
# That DOR Reported as Tax Filing Residents in Prior Year	92,810	93,964	96,061
# That DOR Reported as NOT Filing Taxes	19,897	15,410	20,408
# of Accounts Tax Remedy Turned OFF for Next Year	17,208	1,362	2,518
Amount Turned OFF Each Month	$2,280,670	$170,015	$240,121

Policy Considerations

1. Administrative Challenges. PERS' determination that the recipient is not eligible for the tax remedy payment, because the recipient did not file an Oregon resident return with the DOR nor separately certify their status, can be challenged through the administrative review process. The following table shows the number of administrative appeals and contested case hearings that have resulted from this process over the last three years:

Year Processed (following calendar year payment affected)	2013	2014	2015
# of Tax Remedy Administrative Appeals Filed	841	76	119
# of Contested Case Hearings From Those Appeals	22	9	17
# of Tax Remedy Appeals Not Filed Timely	44	13	12

After 2013, the first year of the program, the number of challenges dropped significantly to less than 1% of the tax remedy benefit tested each year. Anecdotal complaints about the process are not a significant share of those who are reviewed each year. The once-a-year reporting and payment cycle was established to make this process administratively feasible and would always be expected to catch people both coming in and leaving Oregon over the course of time.

2. Cost Savings. Eliminating the tax remedy payment for those who do not pay Oregon income taxes saved PERS employers millions of dollars in this biennium, and those savings will persist so long as those benefits are not restored, either by relaxing controls or requiring restoration to those recipients who do not timely re-certify when prompted.

3. Judicial Review. Importantly, the Oregon Supreme Court has already reviewed the statute and found it to be a constitutional reduction in benefits, which resulted in the savings to employer costs. Modifications to the tax remedy eligibility review process not only could impact system-wide savings but also open the reduction to another round of judicial review.

Policy Recommendation

The significant employer cost savings from eliminating tax remedy payments for those recipients who do not pay Oregon income taxes because they do not reside in Oregon should remain in place. PERS will continue to seek to improve its communication and processes to ensure recipients who need to certify their eligibility understand the importance of doing so, and have simple and efficient ways to do so. Those few members who have failed to file their tax returns or process their certifications timely do not indicate that wholesale changes to the current system are warranted at this time.

SL1

111 SW Fifth Avenue
Suite 3700
Portland, OR 97204
USA

Tel +1 503 227 0634
Fax +1 503 227 7956

milliman.com

October 28, 2016

VIA E-MAIL

Steve Rodeman
Executive Director
Oregon PERS

Re: Request Number: 2016-008
Analysis of Potential 2017 Legislation: $100,000 Final Average Salary Limit

Dear Steve:

Per the request noted above, we have estimated the system-wide average effects of introducing a limit of $100,000 on the Final Average Salary. The limit would apply prospectively, and would affect both Tier 1/Tier 2 members and OPSRP pension members.

Our analysis is based upon our understanding of the current concept as informed by discussions with PERS staff.

We understand the proposed $100,000 limit on Final Average Salary would apply as follows:

- The limit would apply to the calculation of all OPSRP pension benefits and for Tier 1/ Tier 2 benefits determined under the Full Formula or Formula Plus Annuity calculation methods. Tier 1/Tier 2 benefits determined under the Money Match calculation would not be affected.
- The limit would apply prospectively beginning January 1, 2018 for members with service after that date.
- For members with a Final Average Salary of over $100,000 as of January 1, 2018, the $100,000 limit on Final Average Salary would only apply to future service as discussed below. This means two Final Average Salary amounts and two service periods would be tracked and used in subsequent benefit calculations for such members.
    - For example, suppose at January 1, 2018 a member has 20 years of service and a Final Average Salary of $120,000 as of that date, then continues to work for 5 more years after the effective date with a salary above that level. At their subsequent retirement, the pre-2018 Final Average Salary of $120,000 would apply to 20 years of service (their pre-2018 service) and the $100,000 limit would apply to 5 years of service (their post-2017 service).
- The $100,000 limit level would <u>not</u> be indexed in future years. As a result, a greater share of PERS active members would be affected by the limit over time due to the effects of inflation on wages.

Tier 2 and OPSRP pension participants are already subject to a limit on the amount of annual salary in any year that may be reflected in the FAS calculation. This limit is consistent with the level prescribed in Internal Revenue Code Section 401(a)(17), which is $265,000 in 2016 and indexed with inflation in future years.

Other than as described herein, our analysis used the same assumptions as used in the December 31, 2015 Actuarial Valuation. The analysis estimates the impact on Actuarial Accrued Liability and system-wide average advisory uncollared base pension contribution rates calculated in the December 31, 2015 Actuarial Valuation of the changes and assumed implementation dates described above.

The uncollared base pension contribution rate, which this concept lowers, is the theoretical rate which employers would need to pay starting at the valuation date to amortize the unfunded liability over the specified amortization period if future experience follows assumptions. Employers actually pay the collared base pension contribution rate reflecting the effect of the rate collar, which spreads large needed rate increases over several biennia. The system-average uncollared base pension contribution rate in the December 31, 2015 actuarial valuation is more than 8% of payroll greater than the collared base pension contribution rate for the 2017-2019 biennium[1].

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to these change concepts. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

SUMMARY OF LIABILITY RESULTS

The table below summarizes key December 31, 2015 valuation results for pension benefits prior to reflecting any legislative concept, along with the change in those results from the $100,000 Final Average Salary limit described above.

"Accrued Liability" refers to the net present value of projected future benefits allocated to service already completed as of the valuation date in accordance with the current actuarial cost allocation method, while "Total Liability" also includes the value allocated to projected future service for current active members. The contribution rate shown is a blended rate reflecting the weighted averages of Tier 1, Tier 2 & OPSRP payroll as of the valuation date. The base contribution rate is shown on an uncollared basis. Contribution rates shown in the table are rounded to the nearest 0.05% of payroll.

The change in system-wide December 31, 2015 valuation results is shown below.

[1] Slide 23, July 2016 PERS Board Presentation

	12/31/2015 Total Liability ($B)	12/31/2015 Accrued Liability ($B)	2017-2019 Uncollared Base Pension Employer Contribution Rates (% of Payroll)		
			Normal Cost	UAL	Total
12/31/2015 Pension Valuation Results	$83.8	$76.2	11.79%	17.29%	29.08%
Final Average Salary Limit of $100,000	($3.3)	($2.0)	(1.30%)	(1.55%)	(2.85%)

Our analysis assumed that employer contribution rates would continue to apply to all subject salary, including salary in excess of the $100,000 limit.

While under this proposal the $100,000 Final Average Salary limit would apply to all members, it would not affect all tiers, employer groups, or individual members to the same extent. Examples of this include:

- Liabilities for longer service and later-career members would decrease less percentage-wise than for members earlier in their careers. As a result, Tier 1 liabilities show a smaller relative percentage decrease than Tier 2 liabilities, which in turn have a smaller percentage decrease than OPSRP liabilities. This is because longer-service members will have fewer expected future working years that will be subject to the concept's Final Average Salary limit. In addition, longer-service Tier 1 members are more likely to have their benefit determined by the Money Match calculation, which is unaffected by the limit. The table below shows the percentage decrease in Actuarial Accrued Liability by tier.

	% Decrease in Accrued Liability for Active Members
Tier 1	-4.4%
Tier 2	-12.8%
OPSRP Pension	-18.1%

- The liability effects of this concept differ significantly between school district general service members, all other general service members and police and fire members. The differing impacts are primarily caused by differences in the salary distributions of different types of employers.

	% Decrease in Accrued Liability for Active Members
School Districts	-3.9%
Other General Service	-9.5%
Police & Fire	-17.4%

- The effects of this concept differ significantly from member to member; members with lower salaries may not be impacted by a Final Average Salary limit while more highly-paid members are significantly impacted. Also, as mentioned, members whose benefits are determined under the Money Match calculation would be unaffected.

DATA, METHODS, ASSUMPTIONS AND PROVISIONS

Other than the exceptions and additions discussed in this letter, the data, methods, assumptions, and plan provisions used to calculate employer contribution rates are the same as those used in the December 31, 2015 System-wide Actuarial Valuation Report, which we anticipate publishing in September 2016. That information, including a discussion of the inherent limitations of use of actuarial valuation results, is herein incorporated to this letter by reference.

Our valuation assumptions portion of the analysis does not include any assumed change in participant behavior such as retirement patterns due to the proposed changes in policy, or to bargaining agreements or employer pay practices as a result of any legislative changes. Such potential impacts merit consideration. Actual experience will vary from assumption, and sometimes the variance from assumption will be significant. The variance will affect the long-term financial impact of any proposed legislation.

In calculating the illustrative changes in uncollared employer base employer contribution rates shown above, we assumed all changes in Actuarial Accrued Liability were amortized over a closed 20-year period as a level percent of projected payroll using current valuation assumptions. This is the method currently used in the valuation when establishing new Tier 1/ Tier 2 UAL amortization bases. If a different amortization method were used, the overall impact on employer rates could be significantly different than shown in this letter.

ACTUARIAL BASIS AND QUALIFICATIONS

In preparing this letter and the valuation report on which it is based, we relied, without audit, on information (some oral and some in writing) supplied by Oregon PERS. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The updated estimates depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this estimate due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, additional cost or contribution requirements based on the plan's funded status, or a change in the cost allocation method); and changes in plan provisions or applicable law. Due to the limited scope of this estimate, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the valuation assumptions and adopted the assumptions used in the December 31, 2015 valuation in September 2015.

Actuarial computations presented in this estimate are for purposes of providing a high-level analysis of the requested change concepts to the System. As such, they cannot be relied upon for financial reporting or other purposes, and calculations for purposes other than this use may be significantly different from the estimates contained in this letter. Accordingly, additional determinations may be needed for other purposes.

Milliman’s work is prepared solely for the use of Oregon PERS. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to the change concepts. Milliman’s advice is not intended to be a substitute for qualified legal or accounting counsel.

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

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

If you have any questions about our response or need any additional information, please let us know.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott D. Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

MRL:sdp

cc: Debra Hembree, Marjorie Taylor

Milliman

111 SW Fifth Avenue
Suite 3700
Portland, OR 97204
USA

Tel +1 503 227 0634
Fax +1 503 227 7956

milliman.com

October 28, 2016

VIA E-MAIL

Steve Rodeman
Executive Director
Oregon PERS

Re: Request Number: 2016-008
Analysis of Potential 2017 Legislation: 5-year Final Average Salary

Dear Steve:

Per the request noted above, we estimated the system-wide average effects of changing the calculation of Final Average Salary from a 3-year average to 5-year average. This change would apply prospectively, and would affect both Tier 1/Tier 2 members and OPSRP pension members.

Our analysis is based upon our understanding of the proposed change as informed by discussions with PERS staff.

Currently, Final Average Salary is defined as the greater of:

- The average salary earned during the three calendar years in which a member was paid the highest salary (for OPSRP members, the three calendar years must be consecutive);
- One-third of the total salary earned over the last 36 months of employment

For simplicity in this letter, we will refer to the current calculation method as a 3-year Final Average Salary and the proposed new method as a 5-year Final Average Salary.

We understand the proposed change in the Final Average Salary would apply as follows:

- The change would apply to the calculation of all OPSRP pension benefits and also apply to Tier 1/Tier 2 benefits determined under the Full Formula or Formula Plus Annuity calculation methods. Tier 1/Tier 2 benefits determined under the Money Match calculation would not be affected.
- The change from a 3-year Final Average Salary to a 5-year Final Average Salary would apply prospectively beginning January 1, 2018 for members with service after that date. The 3-year Final Average Salary calculated as of January 1, 2018 would be preserved as a minimum Final Average Salary for all members.
    - For example, for a member retiring as of January 1, 2020, the 5-year Final Average Salary at that date (reflecting all salary history) would be compared to the 3-year Final Average Salary as of January 1, 2018 (reflecting salary history

through the end of 2017). The larger amount would be the Final Average Salary used in the pension benefit calculation.

- The Final Average Salary determined as described above would apply to all of a member's service in a benefit calculation. In other words, Final Average Salary will not be bifurcated and applied differently to service earned before January 1, 2018 than to service earned after that date.

Other than as described herein, our analysis used the same assumptions as used in the December 31, 2015 Actuarial Valuation. The analysis estimates the impact of the changes and assumed implementation dates described above on the Actuarial Accrued Liability and system-wide average uncollared base pension contribution rates calculated in the December 31, 2015 Actuarial Valuation.

The uncollared base pension contribution rate, which this concept lowers, is the theoretical rate which would need to be contributed starting at the valuation date to amortize the unfunded liability over the specified amortization period if future experience follows assumptions. Employers actually contribute the collared base pension contribution rate reflecting the effect of the rate collar, which spreads large needed rate increases over several biennia. The system-average uncollared base pension contribution rate in the December 31, 2015 actuarial valuation is more than 8% of payroll greater than the collared base pension contribution rate for the 2017-2019 biennium[1].

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to these change concepts. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

SUMMARY OF LIABILITY RESULTS

The table below summarizes key December 31, 2015 valuation results for pension benefits prior to reflecting any legislative concept, along with the change in Final Average Salary calculation described above.

"Accrued Liability" refers to the net present value of projected future benefits allocated to service already completed as of the valuation date in accordance with the current actuarial cost allocation method, while "Total Liability" also includes the value allocated to projected future service for current active members. The contribution rate shown is a blended rate reflecting the weighted averages of Tier 1, Tier 2 & OPSRP payroll as of the valuation date. The base contribution rate is shown on an uncollared basis. Contribution rates shown in the table are rounded to the nearest 0.05% of payroll.

[1] Slide 23, July 2016 PERS Board Presentation

The change in system-wide December 31, 2015 valuation results is shown below.

	12/31/2015 Total Liability ($B)	12/31/2015 Accrued Liability ($B)	2017-2019 Uncollared Base Pension Employer Contribution Rates (% of Payroll)		
			Normal Cost	UAL	Total
12/31/2015 Pension Valuation Results	$83.8	$76.2	11.79%	17.29%	29.08%
5-year Final Average Salary Effective 1/1/2018	($0.7)	($0.5)	(0.25%)	(0.40%)	(0.65%)

DATA, METHODS, ASSUMPTIONS AND PROVISIONS

Other than the exceptions and additions discussed in this letter, the data, methods, assumptions, and plan provisions used to calculate employer contribution rates are the same as those used in the December 31, 2015 System-wide Actuarial Valuation Report, published on September 27, 2016. That information, including a discussion of the inherent limitations of use of actuarial valuation results, is herein incorporated to this letter by reference.

Our valuation assumptions portion of the analysis does not include any assumed change in participant behavior such as retirement patterns due to the proposed changes in policy, or to bargaining agreements or employer pay practices as a result of any legislative changes. Such potential impacts merit possible consideration but are beyond the scope of this assignment. Actual experience will vary from assumption, and sometimes the variance from assumption will be significant. The variance will affect the long-term financial impact of any proposed legislation.

In calculating the illustrative changes in uncollared employer base employer contribution rates shown above, we assumed all changes in Actuarial Accrued Liability were amortized over a closed 20-year period as a level percent of projected payroll using current valuation assumptions. This is the method currently used in the valuation when establishing new Tier 1/Tier 2 UAL amortization bases. If a different amortization method were used, the overall impact on employer rates could be significantly different than shown in this letter.

ACTUARIAL BASIS AND QUALIFICATIONS

In preparing this letter and the valuation report on which it is based, we relied, without audit, on information (some oral and some in writing) supplied by Oregon PERS. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. These estimates depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this estimate due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, additional cost or contribution requirements based on the plan's funded status, or a change in the cost allocation method); and changes in plan provisions or applicable law. Due to the limited scope of this estimate, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the valuation assumptions and adopted the assumptions used in the December 31, 2015 valuation in September 2015.

Actuarial computations presented in this estimate are for purposes of providing a high-level analysis of the requested change concepts to the System. As such, they cannot be relied upon for financial reporting or other purposes, and calculations for purposes other than this use may be significantly different from the estimates contained in this letter. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the use of Oregon PERS. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to the change concepts. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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

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

If you have any questions about our response or need any additional information, please let us know.

Sincerely,

Matt Larrabee, FSA, EA, MAAA	Scott D. Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary	Principal and Consulting Actuary

MRL:sdp

cc: Debra Hembree, Marjorie Taylor

111 SW Fifth Avenue
Suite 3700
Portland, OR 97204
USA

Tel +1 503 227 0634
Fax +1 503 227 7956

milliman.com

October 28, 2016

VIA E-MAIL

Steve Rodeman
Executive Director
Oregon PERS

Re: Request Number: 2016-008
Analysis of Potential 2017 Legislation: Reduced Pension Multipliers

Dear Steve:

Per the request noted above, we estimated the system-wide average effects of changing the pension multiplier used in final average pay benefit calculations according to two different proposals. Both proposals would apply changes prospectively, and would affect both Tier 1/ Tier 2 members and OPSRP pension members.

Our analysis is based upon our understanding of the proposed changes as informed by discussions with PERS staff.

The two alternative proposals analyzed are:

- For service after January 1, 2018, change the pension multiplier to 1.00% of Final Average Salary (FAS) per year of service for general service members and 1.20% of FAS for police & fire members.
- For service after January 1, 2018, change the pension multiplier to 0.25% of FAS per year of service for general service members and 0.30% of FAS for police & fire members.

We understand the proposed changes would apply as follows:

- The change would apply to the calculation of all OPSRP pension benefits and to Tier 1/Tier 2 benefits determined under the Full Formula calculation method. Tier 1/Tier 2 benefits determined under the Money Match or Formula Plus Annuity calculation methods would not be affected. Also, we understand benefits for the state judiciary would be unaffected.
- Service earned prior to January 1, 2018 would continue to receive the current pension multiplier in benefit calculations. The current multipliers are summarized below:

Current Pension Multipliers	General Service	Police & Fire
Tier 1/Tier 2 (Full Formula)	1.67%	2.00%
OPSRP	1.50%	1.80%

Other than as described herein, our analysis used the same assumptions as used in the December 31, 2015 Actuarial Valuation. The analysis estimates the impact of the changes and assumed implementation dates described above on the Actuarial Accrued Liability and system-wide average uncollared base pension contribution rates calculated in the December 31, 2015 Actuarial Valuation.

The uncollared base pension contribution rate, which this concept lowers, is the theoretical rate which would need to be contributed starting at the valuation date to amortize the unfunded liability over the specified amortization period if future experience follows assumptions. Employers actually contribute the collared base pension contribution rate reflecting the effect of the rate collar, which spreads large needed rate increases over several biennia. The system-average uncollared base pension contribution rate in the December 31, 2015 actuarial valuation is more than 8% of payroll greater than the collared base pension contribution rate for the 2017-2019 biennium[1].

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to these change concepts. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

SUMMARY OF LIABILITY RESULTS

The table below summarizes key December 31, 2015 valuation results for pension benefits prior to reflecting any legislative concept, along with the reductions in pension multipliers described above.

"Accrued Liability" refers to the net present value of projected future benefits allocated to service already completed as of the valuation date in accordance with the current actuarial cost allocation method, while "Total Liability" also includes the value allocated to projected future service for current active members. The contribution rate shown is a blended rate reflecting the weighted averages of Tier 1, Tier 2 & OPSRP payroll as of the valuation date. The base contribution rate is shown on an uncollared basis. Contribution rates shown in the table are rounded to the nearest 0.05% of payroll.

The change in system-wide December 31, 2015 valuation results is shown below.

[1] Slide 23, July 2016 PERS Board Presentation

	12/31/2015 Total Liability ($B)	12/31/2015 Accrued Liability ($B)	2017-2019 Uncollared Base Pension Employer Contribution Rates (% of Payroll)		
			Normal Cost	UAL	Total
12/31/2015 Pension Valuation Results	$83.8	$76.2	11.79%	17.29%	29.08%
Reduce multipliers to 1.0%/1.2%	($2.8)	($1.8)	(1.20%)	(1.35%)	(2.55%)
Reduce multipliers to 0.25%/0.30%	($6.5)	($4.0)	(2.85%)	(3.00%)	(5.85%)

Illustration of Benefit Changes

Consider an OPSRP general service member who retires with a Final Average Salary of $60,000 and performed 10 years of service prior to 2018 and 20 years after January 1, 2018.

Under the current plan provisions, the member's annual benefit at retirement would be:

$60,000 x 1.5% x 30 = $27,000

Under the first proposal, the member's annual retirement benefit would be:

$60,000 x 1.5% x 10 + $60,000 x 1.0% x 20 = $21,000

Under the second proposal, the member's annual retirement benefit would be:

$60,000 x 1.5% x 10 + $60,000 x 0.25% x 20 = $12,000

The example above illustrates the benefit amount for a member with service both before and after January 1, 2018. Related to the analysis described in this letter, it is also worthwhile to consider the change in the benefit that would be provided to a member who worked a full career under the proposed changes. The table below illustrates the percent of Final Average Salary for an OPSRP member at normal retirement under current plan provisions and under both proposals analyzed:

	Benefit as Percent of Final Average Salary		
	Current Multiplier	**Multiplier: 1.0%/1.2%**	**Multiplier: 0.25%/0.3%**
OPSRP General Service with 30 years of service	45%	30%	7.5%
OPSRP Police & Fire with 25 years of service	45%	30%	7.5%

LONG-TERM EFFECT ON COST OF BENEFITS

The “Summary of Liability Results” table above shows immediate reductions in the 2017-19 uncollared base pension contribution rates as calculated in the December 31, 2015 actuarial valuation. Those immediate reductions in the uncollared rate reflect the system’s membership as of the actuarial valuation date. As shown by the table, the immediate rate reduction reflects a decrease in both the normal cost rate and the UAL (amortization) rate. The changes to the 2017-19 normal cost rate reflect a blend of the impact that each proposal would have on different groups of members (Tier 1, Tier 2, and OPSRP). Each group of members – and each individual member – would be affected to varying degrees based on the proportion of their PERS-covered employment that occurs after the proposed January 1, 2018 effective date.

For example, the proposal to reduce the multiplier to 1.0% for General Service and 1.2% for Police & Fire is estimated to lower the system-average 2017-19 normal cost (calculated as of a 12/31/2015 actuarial valuation date) from 11.79% to 10.59% based on the change of -1.20% shown in the table. However, there is wide variation from that system-wide average effect for individual members. Members who are near the end of their career, or whose benefits are projected to be determined under the Money Match calculation, will have little or no change to their normal cost rate. In contrast, recent OPSRP hires and younger Tier 2 members would have a much larger reduction in normal cost rate, because a larger proportion of their projected PERS-covered employment would be performed under the new lower multipliers.

Another way to illustrate the effect of the proposals is to consider the change in the expected normal cost rate for future members hired after the effective date. This is an indication of where the system-average normal cost would trend to in the long term, once effectively all active members are covered under the new provisions for their entire working careers. Currently, the system-average OPSRP normal cost rate (8.56% of pay, as shown in the December 31, 2015 actuarial valuation) is an estimate of the long-term system normal cost rate once effectively all active members are in the OPSRP tier. Over time the current system-average normal cost of 11.79% would be expected to gradually trend down to the OPSRP normal cost rate of 8.56% once all active members are covered under OPSRP, assuming all experience follows assumption and there are no future changes to assumptions or plan provisions.

The proposed reductions to the pension multipliers would lower the expected long-term normal cost rate of the system. The table below refers to this rate as the “year 30 normal cost rate” – because by 30 years after a plan change effectively all of the active membership would be subject to the new multipliers for the entirety of their working careers. The table below estimates the year 30 normal cost rate under current provisions and under the proposals analyzed.

	12/31/2015 System-Avg Normal Cost	Post-change System-Avg Normal Cost	Year 30 Normal Cost	Year 30 Normal Cost Change
No change to provisions	11.79%	11.79%	8.56%	N/A
Reduce multipliers to 1.0%/1.2%	11.79%	10.59%	5.80%	(2.76%)
Reduce multipliers to 0.25%/0.30%	11.79%	8.94%	1.70%	(6.86%)

DATA, METHODS, ASSUMPTIONS AND PROVISIONS

Other than the exceptions and additions discussed in this letter, the data, methods, assumptions, and plan provisions used to calculate employer contribution rates are the same as those used in the December 31, 2015 System-wide Actuarial Valuation Report, published on September 27, 2016. That information, including a discussion of the inherent limitations of use of actuarial valuation results, is herein incorporated to this letter by reference.

Our valuation assumptions portion of the analysis does not include any assumed change in participant behavior such as patterns in retirement and other termination of employment due to the proposed changes in policy, or modification to bargaining agreements or employer pay practices as a result of any legislative benefit changes. The potential impact of such participant behavior modification merit consideration, but are beyond the scope of this analysis. Actual experience will vary from assumption, and sometimes the variance from assumption will be significant. The variance will affect the long-term financial impact of any proposed legislation.

In calculating the illustrative changes in uncollared employer base employer contribution rates shown above, we assumed all changes in Actuarial Accrued Liability were amortized over a closed 20-year period as a level percent of projected payroll using current valuation assumptions. This is the method currently used in the valuation when establishing new Tier 1/Tier 2 UAL amortization bases. If a different amortization method were used, the overall impact on employer rates could be significantly different than shown in this letter.

ACTUARIAL BASIS AND QUALIFICATIONS

In preparing this letter and the valuation report on which it is based, we relied, without audit, on information (some oral and some in writing) supplied by Oregon PERS. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. These estimates depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this estimate due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, additional cost or contribution requirements based on the plan's funded status, or a change in the cost allocation method); and changes in plan provisions or applicable law. Due to the limited scope of this estimate, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the valuation assumptions and adopted the assumptions used in the December 31, 2015 valuation in September 2015.

Actuarial computations presented in this estimate are for purposes of providing a high-level analysis of the requested change concepts to the System. As such, they cannot be relied upon for financial reporting or other purposes, and calculations for purposes other than this use may be significantly different from the estimates contained in this letter. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the use of Oregon PERS. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to the change concepts. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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

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

If you have any questions about our response or need any additional information, please let us know.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott D. Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

MRL:sdp

cc: Debra Hembree, Marjorie Taylor

Milliman

111 SW Fifth Avenue
Suite 3700
Portland, OR 97204
USA

Tel +1 503 227 0634
Fax +1 503 227 7956

milliman.com

October 28, 2016

VIA E-MAIL

Steve Rodeman
Executive Director
Oregon PERS

Re: Request Number: 2016-008
Analysis of Potential 2017 Legislative Concepts

Dear Steve:

Per the request noted above, we have estimated the system-wide average effects of several potential legislative concepts for modifying the benefits and/or financing of PERS.

These concepts were studied previously based on results of the December 31, 2014 in connection with Actuarial Service Request 2016-002, with that analysis summarized in a letter dated January 25, 2016. This letter updates the analysis based on results of the December 31, 2015 actuarial valuation and revised effective dates of these concepts, as requested.

Our analysis is based upon our understanding of each concept as informed by discussions with PERS staff. Based on these discussions, our analysis includes the following concepts:

- **Redirect IAP contributions:** The 6% member contribution currently made to the defined contribution Individual Account Plan (IAP) would be redirected to fund Tier 1/Tier 2 and OPSRP benefits. These contributions would not add to the Money Match-eligible account balance for Tier 1/Tier 2 members. For estimating financial impact, we assumed redirected contributions would commence January 2018.
- **Money Match Annuitization:** The Money Match annuitization interest rate to convert account balances to monthly lifetime annuities would be lowered, possibly tied to a market index, and would be independent of the long-term investment return assumption adopted by the PERS Board. For estimating financial impact, we used an illustrative interest rate of 3.5% and assumed this provision was first effective for 2018 retirements.
- **Tier 1/Tier 2 Sick Leave and Vacation Payments**: We understand concepts have been discussed that could limit the amount of unused sick leave or vacation time payments that are included in a Tier 1/Tier 2 member's FAS calculation. While we have not analyzed a specific proposal, we estimated the financial impact if such a concept either reduced or eliminated the benefit increase we assume (based on recent observed experience) to result from such payments. For estimating financial impact, we assumed any such change affected benefit amounts beginning with 2018 retirements.

The first concept can be considered a financing modification, as it does not change the projected benefits paid under Tier 1/Tier 2 and OPSRP but rather adds an additional source of contributions used to fund those benefits. (Of course, this change would modify IAP benefits by lowering the account balance members are projected to accumulate in the IAP.) The remaining concepts can be considered benefit modifications since they would reduce the projected benefits paid under Tier 1/Tier 2 and OPSRP and hence the system's accrued liability and normal cost rate.

Other than as described herein, our analysis used the same assumptions as fully detailed in the December 31, 2015 actuarial valuation. Changes in member retirement patterns could significantly affect the liability reduction ultimately realized if these concepts were enacted. In particular, if a window of time existed for retirements prior to the effective date of changes reducing projected benefits for future retirees, we would expect to see at least some "anti-selection", where a portion of members who would be most affected by the changes accelerate their retirements to precede the effective date.

The analysis estimates the impact on accrued liability and system-wide average uncollared 2017-19 pension contribution rates calculated in the December 31, 2015 actuarial valuation of the changes and assumed implementation dates described above.

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to these change concepts. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

SUMMARY OF LIABILITY RESULTS

The table below summarizes key December 31, 2015 valuation results for pension benefits prior to reflecting any legislative concept.

"Accrued Liability" refers to the net present value of projected future benefits allocated to service already completed as of the valuation date in accordance with the current actuarial cost allocation method, while "Total Liability" includes the value attributable to anticipated future service for current active members. The contribution rate shown is a blended rate reflecting the weighted averages of Tier 1, Tier 2 & OPSRP payroll as of the valuation date. The base pension contribution rate is shown on an "uncollared" basis and excludes contributions to either the defined contribution IAP or the RHIA and RHIPA retiree healthcare programs.

	12/31/2015 Total Liability ($B)	12/31/2015 Accrued Liability ($B)	2017-2019 Uncollared Base Pension Employer Contribution Rates (% of Payroll)		
			Normal Cost	UAL	Total
12/31/2015 Pension Valuation Results	$83.8	$76.2	11.79%	17.29%	29.08%

Analysis of Financing Modification: Redirecting Member IAP Contributions

The offset to the employer contribution rate provided by redirecting future member contributions represents 6% of payroll for the affected member population. The estimated dollar amount of contributions can be calculated for each biennium and converted to a percentage of system-wide payroll that would offset the share of the total contribution paid by employers. If the member contributions were only redirected for Tier 1/Tier 2 members, the amount of this offset would diminish over time as the payroll associated with the closed Tier 1/Tier 2 group declines. If IAP contributions were redirected for all members, the offset would remain at 6% of system payroll. The estimated impact by biennium using the valuation assumptions is shown in the following table.

System-Wide Average Employer Rate Offset Provided by Redirecting Member Contributions Starting January 2018 to Fund Defined Benefits

	Redirect Tier 1/Tier 2 Only	Redirect for All Members*
2017-2019	1.9%	4.6%
2019-2021	2.1%	6.0%
2021-2023	1.7%	6.0%
2023-2025	1.4%	6.0%
2025-2027	1.1%	6.0%
2027-2029	0.8%	6.0%

*Redirection is shown prior to any estimated effects of a return of member contributions for OPSRP members who fail to satisfy minimum vesting requirements. Estimating any such effects would require an articulated policy regarding interest crediting on returned member contributions.

The 2017-2019 impact is lower than the 2019-2021 impact because the assumed implementation date falls 6 months into the 2017-2019 biennium. The estimates under the option for redirecting only Tier 1/Tier 2 contributions are sensitive to the actual rates of retirement and termination for Tier 1/Tier 2 members and employer hiring practices.

This analysis assumes that total system payroll grows at the valuation assumption of 3.5% per year. The projected system payroll for each biennium is shown below.

Estimated System Payroll – Subject Salary ($Billions)	
2017-2019	$20.5
2019-2021	$21.9
2021-2023	$23.5
2023-2025	$25.1
2025-2027	$26.9
2027-2029	$28.9

Another way to illustrate the effect of redirecting future member contributions is to consider the present value of the future employee contributions that would fund the pension benefits under such a concept. At the December 31, 2015 valuation, considering only active members of the system at that date and assuming that contributions were redirected beginning in 2018, the present value as of December 31, 2015 of the redirected 6% member contributions for Tier 1/Tier 2 members is approximately $1.3 billion. The present value for OPSRP members is approximately $2.3 billion. As a result, if the full IAP contribution was redirected for all members, the present value as of December 31, 2015 would be $3.6 billion. For reference, the system's unfunded actuarial liability, excluding side accounts, for pension benefits as of December 31, 2015 was $21.8 billion.

Analysis of Benefit Modifications

The decrease in both Total Liability and Accrued Liability associated with each benefit modification concept is shown separately below. **Please note that if multiple concepts are implemented together, the resulting effect <u>would not</u> be the cumulative amount of the separate concepts illustrated below. Instead, the interactions between the various benefit modifications would produce a reduction in liability and uncollared contribution rate of smaller magnitude than the sum of the reductions shown below. If more than one concept will be incorporated into a legislative proposal, an additional analysis should be conducted to study the combined effects.**

The effects of the different change concepts are discussed individually below.

Annuitize Money Match at 3.5%

The Money Match benefit formula calculation for Tier 1/Tier 2 members annuitizes the member account balance plus the matching employer amount. The annuitization calculation uses the system's actuarial life expectancy tables and an annuitization interest rate.

For a given account balance to annuitize, using a lower annuitization interest rate provides a smaller initial monthly benefit, all else equal. Mathematically, the conversion from account balance to monthly annuity is accomplished by assuming the member lives to his or her life expectancy while receiving level monthly payments and that the undistributed portion of the account balance increases with the annuitization interest rate due to assumed future investment returns. Please note the emphasis on the word “level” in the prior sentence, as the annuitization calculation for Money Match retirees has historically been performed without regard to future cost of living allowance (COLA) increases. This means that account balances are annuitized to provide a lifetime annuity without COLA, and then employer contribution rates are calculated in a way to provide 100% employer funding of the COLA increase on the calculated annuity benefits, as directed by statute.

Currently the interest rate used for the annuitization calculation is the same as the Board’s adopted assumption for long-term future average annual investment return. For retirements in 2016, this rate is currently 7.5% and was adopted by the Board in 2015. (The rate will be reviewed in 2017 and any adopted rate change would be effective for retirements in 2018 and 2019.) We understand the legislative concept under discussion would require a different, lower interest rate for the calculation. For our analysis, we showed the effect of using a 3.5% annuitization interest rate.

The impact on system liability attributable to the lower annuitization interest rate is shown in the table below. Contribution rates shown in the table are rounded to the nearest 0.05% of payroll. The change primarily results from the effect of the annuitization change on Tier 1 General Service active members and on inactive members who have not yet commenced benefits. These two groups are most affected because they are the not-yet-retired members most likely to receive benefits under the Money Match formula.

	12/31/2015 Total Liability ($B)	12/31/2015 Accrued Liability ($B)	2017-2019 Uncollared Base Pension Employer Contribution Rates (% of Payroll)		
			Normal Cost	UAL	Total
12/31/2015 Pension Valuation Results	$83.8	$76.2	11.79%	17.29%	29.08%
Change in Money Match Interest Rate	($0.9)	($0.8)	(0.20%)	(0.60%)	(0.80%)

For reference, we provided an analysis of a similar concept in a letter dated February 1, 2013, which illustrated a 4% annuitization rate. While several aspects of the analysis have changed since that time (including the investment return assumption, the proposed annuitization rate, and the actuarial cost method), a comparison to the prior analysis illustrates the diminishing impact of such a change over time due to changes in the demographics of not-yet-retired members. The prior analysis, which assumed the lower annuitization rate would apply to retirements beginning in 2012, reduced Total Liability by $2.7 billion. As shown in the table above, our current analysis shows a Total Liability reduction of $0.9 billion, approximately 40% of the effect from the prior analysis. This is largely due to the passage of six years between the effective dates of the annuitization change in the two studies. Because the share of active members whose future retirement benefits are projected to be determined by the Money Match formula is declining, a change in the Money Match annuitization factors has a diminishing impact over time.

The table below shows the percentage decrease in the factors of a single life annuity retirement for non-disabled Tier 1 / Tier 2 members at two sample retirement ages.

	Change to Money Match Benefit Factor*	
	Age 55 Retirement	Age 65 Retirement
3.5% Annuitization Rate	-36.7%	-30.9%

Based on mortality assumption in effect for 2016-2017 retirements

Tier 1/Tier 2 members have benefits calculated under both Money Match and Full Formula, and get the larger of the two calculated benefits. (Members eligible for the Formula Plus Annuity benefit have a comparison of three benefit formulas.) Of members currently projected to have their benefit determined by Money Match, some would continue to be projected as Money Match retirements when valued under the lower annuitization rate while others would be projected to retire under Full Formula after reflecting the lower rate. For the first group of members, the changes shown above for the Money Match benefit factor are representative of the anticipated changes in their initial benefits. For the second group of members, the changes would be less than shown above because the Full Formula calculation, which is unaffected by the annuitization rate change, would serve as a floor limiting the decrease in the initial benefit amount.

The combined impact of these two outcomes would be to reduce benefits for some members and to accelerate the system's continuing transition towards Full Formula serving as the dominant Tier 1/Tier 2 benefit formula. This reduces both the Accrued Liability and Normal Cost determined under the actuarial cost method.

Of the $0.8 billion reduction in Accrued Liability shown above, approximately $0.5 billion is attributable to the effect of the change on inactive members. Inactive members no longer work in PERS-covered employment but have not yet commenced receipt of benefits. Many of these members, particularly those with the highest individual liabilities, may currently be eligible to retire immediately. A change to the Money Match annuitization rate that lowered projected benefits may cause inactive members who otherwise would have deferred retirement to accelerate their retirement to before the effective date of the change. This could significantly limit the actual liability reduction associated with a change in provisions and lead to a smaller effect than shown above.

Please note that the rate changes illustrated above are calculated assuming a 20-year amortization period is used to reflect the decreased Accrued Liability arising out of this change. If a shorter period was used – such as an average expected future working lifetime of affected members – the reduction in near-term uncollared pension contribution rates could be larger.

Tier 1/Tier 2 Sick Leave and Vacation Payments

Currently, certain Tier 1 and Tier 2 members are eligible to receive an increase in their FAS on account of two separate provisions. First, employees of employers who participate in the unused sick leave program can have the value of one-half of their accumulated unused sick leave added to the gross salary used to determine their FAS. This benefit is available to both Tier 1 and Tier 2 members whose employers elect to participate. Second, Tier 1 members are eligible to include the value of any lump sum payment for accrued vacation that occurs in their averaging period as part of the salary that will be used to calculate their FAS. The effect of both provisions is to increase FAS and, ultimately, benefits paid from the system under Tier 1/Tier 2 benefit formulas that use FAS.

OPSRP members are not eligible for an increase to their FAS on account of either unused sick leave or lump sum vacation payouts.

We understand various legislative concepts have been discussed that may reduce the amount of unused sick leave or lump sum vacation payouts a Tier 1/Tier 2 member is likely to have included in FAS. Such changes could take different forms, such as not allowing leave accrued after a specific date to count in the FAS calculation.

The FAS amount calculated for a Tier 1/Tier 2 member affects the benefits determined under both the Full Formula and Formula Plus Annuity benefit formulas, but does not affect the Money Match calculation. Because of this, the effect of reducing such amounts in the salary considered would have a varying effect between members, depending on which formula produces the greatest benefit.

For our analysis, we have not attempted to model the specific effect of any one proposal, but instead have illustrated a range of potential impacts from reducing unused sick leave and lump sum vacation payouts. We did this by calculating system-wide December 31, 2015 actuarial valuation results under two alternate assumption sets: 1.) the estimated FAS increase due to such payments is cut in half compared to that observed in the most recent experience study, or 2.) the estimated FAS increase due to such payments is completely eliminated. For both assumption sets, we assumed the change first affects retirements in 2018. The results are illustrated in the table below.

	12/31/2015 Total Liability ($B)	12/31/2015 Accrued Liability ($B)	2017-2019 Uncollared Base Pension Employer Contribution Rates (% of Payroll)		
			Normal Cost	UAL	Total
12/31/2015 Pension Valuation Results	$83.8	$76.2	11.79%	17.29%	29.08%
Sick Leave/Vacation Cut in Half	($0.35)	($0.3)	(0.08%)	(0.22%)	(0.30%)
Sick Leave/Vacation Eliminated	($0.7)	($0.6)	(0.15%)	(0.45%)	(0.60%)

The second assumption set – which illustrates the complete elimination of sick leave and vacation adjustments – is shown to estimate the share of system liabilities associated with these provisions for members active as of December 31, 2015, not because we understand legislation to completely eliminate the amounts is being considered.

The assumptions used as a starting point for this analysis are shown below and were developed in the most recent biennial review of assumptions and methods, which was published in September 2015. As part of that study, we evaluated an appropriate assumed increase attributable to both unused sick leave and lump sum vacation payouts to use in the actuarial valuation based on a review of recent retirements. The assumed increases to FAS for active members developed in that study and used in the December 31, 2015 actuarial valuation are shown below. The vacation increase in the table is applied to all Tier 1 members, while the unused sick leave increase in the table is applied only to Tier 1/Tier 2 members who work for an employer that elects to participate in the unused sick leave program.

Assumed Increase to Active Final Average Salary (FAS)	
Unused Sick Leave	
State General Service Male	6.25%
State General Service Female	3.75%
School District Male	7.25%
School District Female	5.75%
Local General Service Male	4.75%
Local General Service Female	3.25%
State Police & Fire	4.75%
Local Police & Fire	7.50%
Dormant members	3.00%

Assumed Increase to Active Final Average Salary (FAS)	
Vacation Pay	
Tier 1 State General Service	1.60%
Tier 1 School District	0.25%
Tier 1 Local General Service	2.20%
Tier 1 State Police & Fire	1.80%
Tier 1 Local Police & Fire	2.90%

DATA, METHODS, ASSUMPTIONS AND PROVISIONS

Other than the exceptions and additions discussed in this letter, the data, methods, assumptions, and plan provisions used to calculate employer contribution rates are the same as those used in the December 31, 2015 system-wide actuarial valuation report. That information, including a discussion of the inherent limitations of use of actuarial valuation results, is herein incorporated to this letter by reference.

Our valuation assumptions portion of the analysis does not include any assumed change in participant behavior such as retirement patterns due to the proposed changes in policy, or to bargaining agreements or employer pay practices as a result of any legislative changes. Such potential impacts merit consideration. In particular, an announced change in the annuitization interest rate to take effect at a future date could lead some affected members who otherwise would have retired after the effective date to accelerate retirement. This would limit the liability reduction associated with a change. Actual experience will vary from assumption, and sometimes the variance from assumption will be significant. The variance will affect the long-term financial impact of any proposed legislation.

In our analysis, it was assumed that a standalone annuitization interest rate change would not affect future interest crediting on Tier 1 member accounts over time.

In calculating the illustrative changes in uncollared employer base contribution rates shown above, we assumed all changes in Accrued Liability were amortized over a 20-year period as a level percent of payroll using current valuation assumptions. This is the method currently used in the valuation when establishing new Tier 1/Tier 2 amortization bases. If a different amortization method were used, the overall impact on employer rates could be significantly different than shown in this letter.

ACTUARIAL BASIS AND QUALIFICATIONS

In preparing this letter and the valuation report on which it is based, we relied, without audit, on information (some oral and some in writing) supplied by Oregon PERS. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The updated estimates depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this estimate due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, additional cost or contribution requirements based on the plan's funded status, or a change in the cost allocation method); and changes in plan provisions or applicable law. Due to the limited scope of this estimate, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the valuation assumptions and adopted the assumptions used in the December 31, 2014 valuation in September 2015.

Actuarial computations presented in this estimate are for purposes of providing a high-level analysis of the requested change concepts to the System. As such, they cannot be relied upon for financial reporting or other purposes, and calculations for purposes other than this use may be significantly different from the estimates contained in this letter. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the use of Oregon PERS. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to the change concepts. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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

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

If you have any questions about our response or need any additional information, please let us know.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Scott D. Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary

MRL:sdp

cc: Debra Hembree, Marjorie Taylor

111 SW Fifth Avenue, Suite 3700
Portland, OR 97204
Tel 503 227 0634

milliman.com

October 28, 2016

VIA E-MAIL

Mr. Steve Rodeman
Executive Director
Oregon PERS

Re: Overview of October 2016 Legislative Concepts Analyses

Dear Steve:

This letter provides a summary of the actuarial legislative concepts analyses performed this month. In addition to a results summary, this letter also discusses the extent of interaction between the concepts, with an emphasis on assessing how enacting more than one concept could possibly affect the financial impact of each individual concept. Detailed analysis of each individual concept is provided in separate letters. Those letters should be referenced for additional detail and are incorporated into this letter by reference.

Concepts Analyzed

- **$100,000 limit on Final Average Salary** would apply prospectively beginning January 1, 2018 for members with service after that date and would apply to the calculation of all OPSRP pension benefits and for Tier 1/Tier 2 benefits determined under the Full Formula or Formula Plus Annuity calculation methods. Tier 1/Tier 2 benefits determined under the Money Match calculation would not be affected. The limit would not be indexed in future years. For members with a Final Average Salary of over $100,000 as of January 1, 2018, the $100,000 limit on Final Average Salary would apply to service after that date. The member's Final Average Salary calculated as of January 1, 2018 would apply to service earned prior to that date.

- **5-year Final Average Salary** would apply to the calculation of all OPSRP pension benefits and also apply to Tier 1/Tier 2 benefits determined under the Full Formula or Formula Plus Annuity calculation methods. Tier 1/Tier 2 benefits determined under the Money Match calculation would not be affected. The change from a 3-year Final Average Salary to a 5-year Final Average Salary would apply prospectively beginning January 1, 2018 for members with service after that date.

- **1.00%/1.20% Multiplier** would change the pension multiplier to 1.00% of Final Average Salary per year of service for general service members and 1.20% of Final Average Salary for police & fire members for service after January 1, 2018. Service earned prior to January 1, 2018 would continue to receive the current pension multiplier in benefit calculations.

- **0.25%/0.30% Multiplier** would change the pension multiplier to 0.25% of Final Average Salary per year of service for general service members and 0.30% of Final Average Salary for police & fire members for service after January 1, 2018. Service earned prior to January 1, 2018 would continue to receive the current pension multiplier in benefit calculations.

- **Change in Money Match Interest Rate** used to convert account balances to monthly lifetime annuities from the current PERS Board's long-term investment return assumption of 7.50% to an illustrative interest rate of 3.5%, first effective for 2018 retirements. The rate would be made independent of the PERS Board's long-term investment return assumption.

- **Reducing Sick Leave and Vacation Payments** that are included in a Tier 1/Tier 2 member's FAS calculation, beginning with 2018 retirements. We understand various concepts have been discussed that could limit the amount of unused sick leave or vacation time payments that are included in a Tier 1/Tier 2 member's Final Average Salary calculation. We have not analyzed a specific proposal, but instead estimated the financial impact of:

    - **Halving Sick Leave and Vacation Payments** that are included in a Tier 1/Tier 2 member's FAS calculation, beginning with 2018 retirements.

    - **Eliminating Sick Leave and Vacation Payments** that are included in a Tier 1/Tier 2 member's FAS calculation, beginning with 2018 retirements.

- **Redirecting member contributions** from the defined contribution Individual Account Plan (IAP) to fund Tier 1/Tier 2 and OPSRP benefits beginning in January 2018. Redirected contributions would <u>not</u> add to the Money Match-eligible account balance for Tier 1/Tier 2 members.

Summary and Interaction of the Financial Impact of the Individual Concepts

Each of the above concepts if enacted would lower the 2017-2019 Uncollared Base Pension Employer Contribution Rate, and all concepts except for the redirection of member contributions would lower the Total Liability and Accrued Liability.

The decrease in both Total Liability and Accrued Liability associated with each benefit modification concept is shown separately below. **Please note that if multiple concepts are implemented together, the resulting effect <u>would not</u> be the cumulative amount of the separate concepts illustrated below. Instead, the interactions between the various benefit modifications would produce a reduction in liability and uncollared contribution rate of smaller magnitude than the sum of the reductions shown below. If more than one concept will be incorporated into a legislative proposal, an additional analysis should be conducted to study the combined effects.**

A table summarized the estimated effect of each individual concept analyzed is shown below. For more information on each concept, the detailed analysis for the concept should be referenced.

	12/31/2015 Total Liability ($B)	12/31/2015 Accrued Liability ($B)	2017-2019 Uncollared Base Pension Employer Contribution Rates (% of Payroll)		
			Normal Cost	UAL	Total
12/31/2015 Pension Valuation Results	$83.8	$76.2	11.79%	17.29%	29.08%
$100,000 Limit on Final Average Salary	($3.3)	($2.0)	(1.30%)	(1.55%)	(2.85%)
5-year Final Average Salary	($0.7)	($0.5)	(0.25%)	(0.40%)	(0.65%)
1.00%/1.20% Multipliers	($2.8)	($1.8)	(1.20%)	(1.35%)	(2.55%)
0.25%/0.30% Multipliers	($6.5)	($4.0)	(2.85%)	(3.00%)	(5.85%)
Change in Money Match Interest Rate	($0.9)	($0.8)	(0.20%)	(0.60%)	(0.80%)
Halving Sick Leave & Vacation Payments	($0.35)	($0.3)	(0.08%)	(0.22%)	(0.30%)
Eliminating Sick Leave & Vacation Payments	($0.7)	($0.6)	(0.15%)	(0.45%)	(0.60%)
Redirecting Member Contributions	($0.0)	($0.0)	(6.00%)	(0.00%)	(6.00%)

Data, Assumptions, Methods and Provisions Used in Analysis

Other than the exceptions and additions discussed in the relevant analysis letters of the individual concepts, which are incorporated herein by reference, the data, methods, assumptions, and plan provisions used to calculate employer contribution rates are the same as those used in the December 31, 2015 system-wide actuarial valuation report. The information in that report, including a discussion of the inherent limitations of use of actuarial valuation results, is also incorporated into this letter by reference.

Our valuation assumptions portion of the analysis does not include any assumed change in participant behavior such as retirement patterns due to the proposed changes in policy, or to bargaining agreements or employer pay practices as a result of any legislative changes. Such potential impacts merit consideration. For example, an announced change in the annuitization interest rate to take effect at a future date could lead some affected members who otherwise would have retired after the effective date to accelerate retirement. This would limit the liability reduction associated with a change. Actual experience will vary from assumption, and sometimes the variance from assumption will be significant. The variance will affect the long-term financial impact of any proposed legislation.

In our analysis, it was assumed that a standalone annuitization interest rate change would not affect future interest crediting on Tier 1 member accounts over time.

In calculating the illustrative changes in uncollared employer base contribution rates shown above, we assumed all changes in Accrued Liability were amortized over a 20-year period as a level percent of payroll using current valuation assumptions. This is the method currently used in the valuation when establishing new Tier 1/Tier 2 amortization bases. If a different amortization method were used, the overall impact on employer rates could be significantly different than shown in this letter.

Actuarial Basis and Qualifications

In preparing this letter and the valuation report on which it is based, we relied, without audit, on information (some oral and some in writing) supplied by Oregon PERS. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The updated estimates depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this estimate due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, additional cost or contribution requirements based on the plan's funded status, or a change in the cost allocation method); and changes in plan provisions or applicable law. Due to the limited scope of this estimate, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the valuation assumptions and adopted the assumptions used in the December 31, 2015 valuation in September 2015.

Actuarial computations presented in this estimate are for purposes of providing a high-level analysis of the requested change concepts to the System. As such, they cannot be relied upon for financial reporting or other purposes, and calculations for purposes other than this use may be significantly different from the estimates contained in this letter. Accordingly, additional determinations may be needed for other purposes.

Milliman’s work is prepared solely for the use of Oregon PERS. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to the change concepts. Milliman’s advice is not intended to be a substitute for qualified legal or accounting counsel.

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

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

If you have any questions about our response or need any additional information, please let us know.

Sincerely,

Matt Larrabee, FSA, EA, MAAA
Principal & Consulting Actuary

Scott Preppernau, FSA, EA, MAAA
Principal & Consulting Actuary

cc: Marjorie Taylor, Debra Hembree

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320-7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Mary Dunn, Assistant Chief Administration Officer

SUBJECT: 2017-19 Employer Rate Adoption for Jackson County and Josephine County

OVERVIEW

On September 30, 2016, Milliman actuaries Matt Larrabee and Scott Preppernau presented recommended 2017-19 individual employer rates for Board approval. These recommended rates were based on the December 31, 2015 valuation and, upon adoption, would be in effect for all PERS-covered payrolls dated July 1, 2017, through June 30, 2019.

The Board adopted the 2017-19 rates as recommended by Milliman for all but two employers: Jackson County and Josephine County. The Board directed staff to continue discussions with those counties about a policy decision allocating the transition liability for the dissolved Job Council between those two counties. If adopted, the recommended policy decision would increase both counties' rates.

BACKGROUND

The Job Council, an inter-governmental agency established and governed by Jackson and Josephine counties under ORS Chapter 190, joined PERS via integration in 1998. The Job Council did not provide assets to fund the employer's share of the projected cost of retroactive benefits for its integrated employees, resulting in a significant unfunded actuarial liability (UAL) from its inception as a PERS employer. In 2002, the Job Council joined the State and Local Government Rate Pool. That UAL became a transition liability according to the provisions of ORS 238.227(3), which requires that a local government's liabilities accrued prior to joining the pool be kept separate from pooled liabilities.

In 2015, Jackson County terminated the inter-governmental agreement that established the Job Council, effectively dissolving the Job Council as a governmental entity. The inter-governmental agreement forming the Job Council allowed for termination by either county. The Job Council's transition liability at the time was approximately $4.7 million, which the Job Council informed PERS it did not have the funds to pay off. As of the December 31, 2015 valuation, the Job Council's transition liability has increased to approximately $4.8 million due to accrued interest and the absence of contributions toward the liability since the Job Council's dissolution.

PERS staff concluded that Jackson and Josephine counties should be assigned the Job Council's transition liability, and directed Milliman to allocate that transition liability to each county equally. That conclusion was based on a review of the governing statutes and terms of the agreement. The resulting impact on 2017-19 rates is an increase of 0.51% of payroll for Jackson County, and an increase of 1.77% of payroll for Josephine County. The difference is due to Jackson County having a larger payroll over which to amortize the additional liability.

On September 30, 2016, after receiving oral testimony from Josephine County and written testimony from Jackson County, the Board directed staff to continue discussions with the counties to determine whether an agreement could be reached as to disposition of the Job Council's transition liability. Since then, staff has received and reviewed correspondence from and met with both counties as well as representatives from the non-profit organization that took over the Job Council's functions. PERS staff's conclusion continues to be that both the terms of the inter-governmental agreement and the general provisions of ORS Chapter 190 allow for allocation of the Job Council's liability equally between the two forming counties, and that ORS Chapters 238 and 238A do not provide for an alternate disposition under the circumstances.

Either Jackson or Josephine County may seek to challenge this allocation. Adoption by the PERS Board starts the process by which those counties can choose to have the determination reviewed in court. Without adoption of employer rates with this allocation, discussions with the counties can continue but are unlikely to result in resolution of this dispute.

PAST PRACTICE

PERS staff is not aware of a past situation in which a dissolved entity's transition liability was allocated to other employers. However, there have been a few similar situations:

- Multnomah Fire District (MFD) #10 was dissolved in 1984, leaving behind a UAL in excess of $20 million. PERS attempted to allocate the UAL between the five cities that had originally been part of MFD #10, but those cities resisted. The issue went to the legislature which, in 2003, passed a bill that allocated the MFD #10 UAL among employers in the system, with the largest share going to the five cities that had participated in the district and the remainder divided equally between all other PERS employers. The MFD #10 UAL will be part of employers' UAL rate until fully amortized in 2027.

- Oregon Advanced Technological Consortium (OATC) was formed by Oregon community colleges and joined PERS in 1997. OATC was dissolved by the colleges in 2003, leaving a UAL of approximately $500,000. After numerous meetings with PERS staff and Department of Justice attorneys, the community colleges agreed to have the UAL allocated equally between them.

- The Marion/Salem Data Center dissolved in 2003 and its functions were absorbed by the City of Salem. As part of that consolidation, the City voluntarily took over the Data Center's UAL of approximately $3 million, and submitted a lump-sum payment for that amount.

BOARD OPTIONS

The Board may:

1. Pass a motion to "adopt the 2017-19 individual employer contribution rates for Jackson County and Josephine County, as presented by the PERS actuary on September 30, 2016."

2. Direct staff to work with Milliman to develop alternative employer rates for the two counties, excluding some or all of the Job Council's transition liability, to present for the Board's consideration.

3. Direct staff to continue discussion with the counties to attempt to reach an agreement on disposition of the Job Council's transition liability.

STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: Adoption of the proposed rates complies with the Board's rate-setting principles and fulfills its statutory obligation to set employer rates for the 2017-19 biennium, and also ensures that neither the system as a whole nor the State and Local Government Rate Pool incurs liability for employer-specific decisions.

If the Board does not adopt: Staff would return with employer rates that more closely fit the Board's policy direction if the Board determines that a different direction is warranted.

Employer Advisory Group

November 4, 2016

Chair Thomas and Members of the PERS Board,

The Employer Advisory Group is requesting the PERS Board approve the use of the Contingency Reserve to fund the costs associated with correcting the Contribution Start Date (CSD) for members during the period from 2004 to 2014.

Background

In 2014, through an internal audit, PERS staff became aware of the fact that errors and inconsistencies existed in the employers' calculation of eligible wages subject to PERS contributions following the CSD for new OPSRP members since the OPSRP program's inception in 2004. PERS staff and the PERS Employer Advisory Group request the errors and inconsistencies be corrected so that contributions for employees are accurate and consistently calculated.

To that end, the PERS Employer Advisory Group has been working with PERS staff for nearly two years to understand and reconcile the variances in how employee contributions were treated following each new employee's designated CSD. This has been a complex issue to unravel, which impacts 71% of PERS employers representing more than 56,000 members. The State of Oregon alone accounts for nearly half of the total amount outstanding.

During the past two years PERS staff has worked diligently to increase the accuracy of the projected costs associated with correcting these errors and inconsistencies. At this time, the population of members has been split into two groups. Group A are those who are known to have incorrect first month contributions. Group B will require additional research, likely on an individual-by-individual basis. Cost estimates to align all members' CSD data are:

	IAP	Employer	Prior Earnings	Total Cost
Population A	$3,120,430	$3,965,627	$3,017,322	$10,103,380
Population B	3,527,264	4,311,336	3,867,911	11,706,510
Total	$6,647,694	$8,276,963	$6,885,233	$21,809,890

Members of the Employer Advisory Group are unanimous in requesting that the Board approve the use of the Contingency Reserve for the following reasons:

- In 2014, following the audit, PERS staff revised their initial 2004 interpretation of the statute that defines the CSD for new OPSRP members. This new interpretation, which is now being retroactively implemented to 2004, is a significant element of the 21.8 million dollar estimated cost.
- Between 2004 and 2014, PERS staff gave inconsistent direction to employers for whether the first remittance following CSD was based on earned-when-earned or earned-when-paid.

- Most employers followed the directions that were given by PERS staff, which led to many employers reporting information and making payments which have now been determined to be in error. Some employers were given directions that match the current interpretation of the first remittance based on CSD and pay dates.
- Some employers did not follow the directions given by staff, which resulted in the employer contributing "correctly" as later re-interpreted by PERS staff.
- For employers who are member paid, and where the employee is no longer working, the employer must try to collect the amounts from the former employee, or, in essence, pay the member contribution and overpay the former employee; neither alternative is acceptable.
- Several large State of Oregon employers have experienced resistance from the Federal Government when submitting PERS invoices related to older year adjustments for federal reimbursement.

Representatives of the Employer Advisory Group will be at the November 18 meeting to respond to any questions the Board may have.

Members of the Employer Advisory Group:

Rob Bovett, Association of Oregon Counties
Ralph Wyatt, Linn County
Jeff White, Marion County
Nancy Brewer, City of Corvallis
Celia Heron, City of Portland
Rich McDonald, Chemeketa Community College
Dave Henderson, Linn-Benton Community College
Jim Langstraat, Portland Community College
Lori Sattenspiel, Oregon School Boards Association
Michelle Morrison, Hillsboro School District
David Moore, Tigard-Tualatin School District
Hasina Squires, Special Districts
Debra Grabler, Tualatin Valley Fire and Rescue
Shauna Tobiasson, State of Oregon, Department of Administrative Services
Trudy Vidal, State of Oregon, Department of Administrative Services
Donna Chastain, Oregon State University
Kerry Gilbreth, Portland State University
Heather Mercer, Western Oregon University

Oregon

Kate Brown, Governor

Public Employees Retirement System
Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320 -7377
TTY (503) 603-7766
www.oregon.gov/pers

November 18, 2016

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Executive Director

SUBJECT: Financial Modeling Presentations

Milliman actuaries Matt Larrabee and Scott Preppernau will present updated system financial modeling results.

The analysis will include long-term estimates of key measures such as employer rates and funded status.

This is a discussion item only and will not require Board action.

The presentation will be provided electronically to the Board and posted on the PERS website as soon as it is available. Hard copies will be provided at the meeting.

Milliman

FINANCIAL MODELING

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Presented by:

Matt Larrabee, FSA, EA

Scott Preppernau, FSA, EA

November 18, 2016

Introduction

- July: System-average valuation results
  - Calculated as of December 31, 2015 for the Tier 1/Tier 2 & OPSRP programs
- September: Employer-specific 2017-2019 contribution rates
  - Based on the December 31, 2015 actuarial valuation
- Today: Long-term financial modeling projections reflecting published investment results through September 30
  - System average contribution rates
  - System funded status
  - System unfunded actuarial liability (UAL)

Models and Inputs

- System financials are projected using two different models
  - Steady return model – consistent year-to-year future investment returns
  - Variable return model – future investment returns vary from year to year
- Modeling starts with liabilities and actuarial assumptions from the 12/31/2015 system-wide actuarial valuation report
  - This includes the current Board-adopted 7.5% return assumption for valuing liabilities
- Modeling uses 12/31/2015 assets adjusted for published regular account returns of +5.7% through September 2016
  - Returns for October through December 2016 vary in our models based on scenario

Financial Modeling
Comments on System Average Rates

- Projections depict system average funded status and contribution rates
  - Comparable to system average rates shown in July 2016 presentation
- No single employer pays the system average rate
  - Contribution rates vary both by employer and by type of payroll
- Under most scenarios, the maximum rate increases allowed by the rate collar are anticipated for the next two biennia
  - Primarily driven by projected benefit changes from *Moro* Supreme Court decision
- Rates shown do not include:
  - Contribution rates for the Individual Account Plan (IAP)
  - Employer contribution rates for the RHIA & RHIPA retiree healthcare programs
  - Debt service payments on employer-specific pension obligation bonds

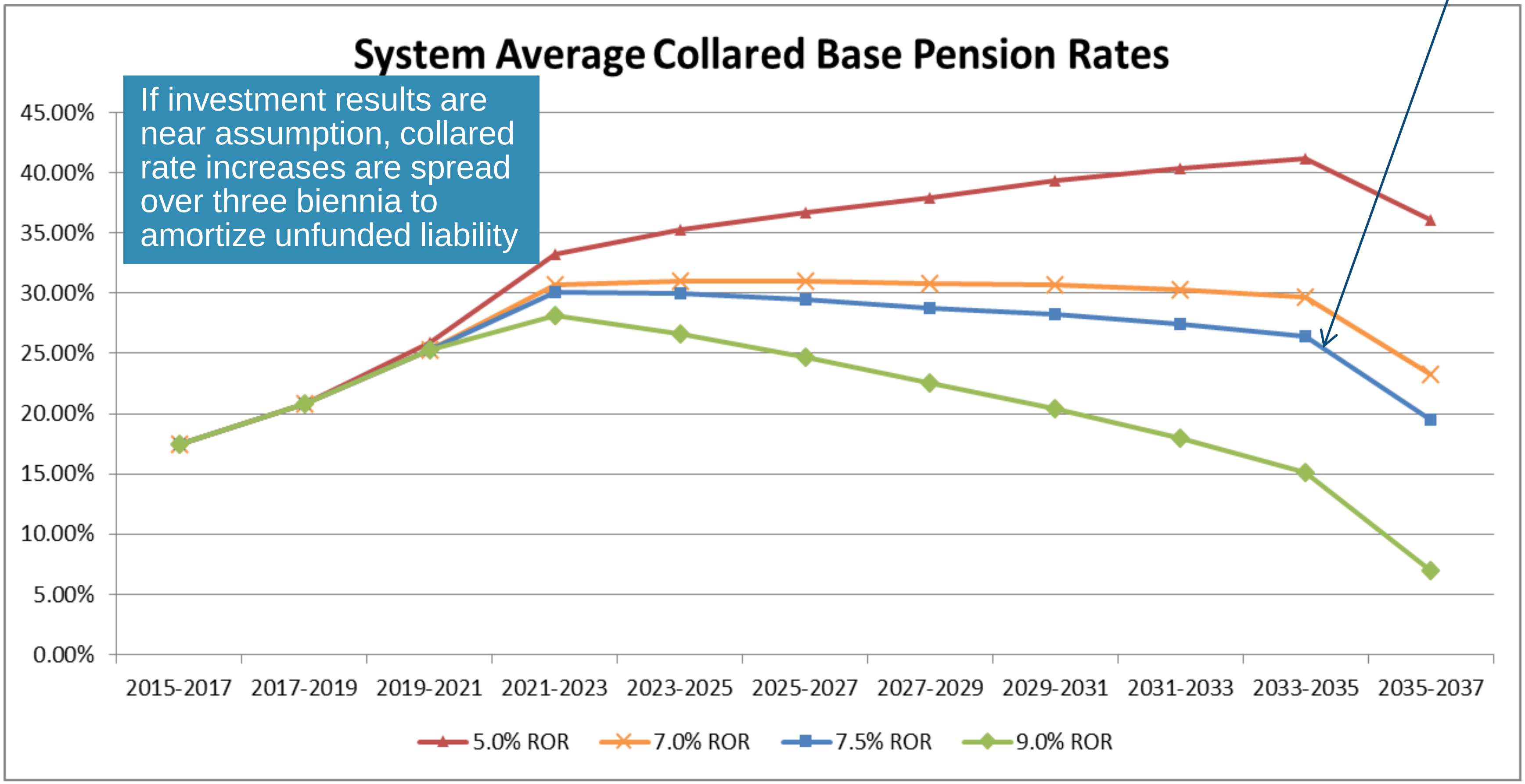
Steady Return Model
Current Rate Setting Structure

- The next four slides show financial projections under the current rate setting structure
  - Employer rates adjust each biennium, with changes limited by the rate collar
- Four scenarios for steady annual actual future investment return are shown
  - +5.0%; +7.0%; +7.5%; +9.0%
- While actual future returns won't be steady year-to-year, the steady return model clearly illustrates the financial dynamics
  - More realistic "noisy" future returns will be shown in the variable return model later in this presentation
  - The effects of near-term and/or long-term future returns worse than +5% are captured in the variable return model

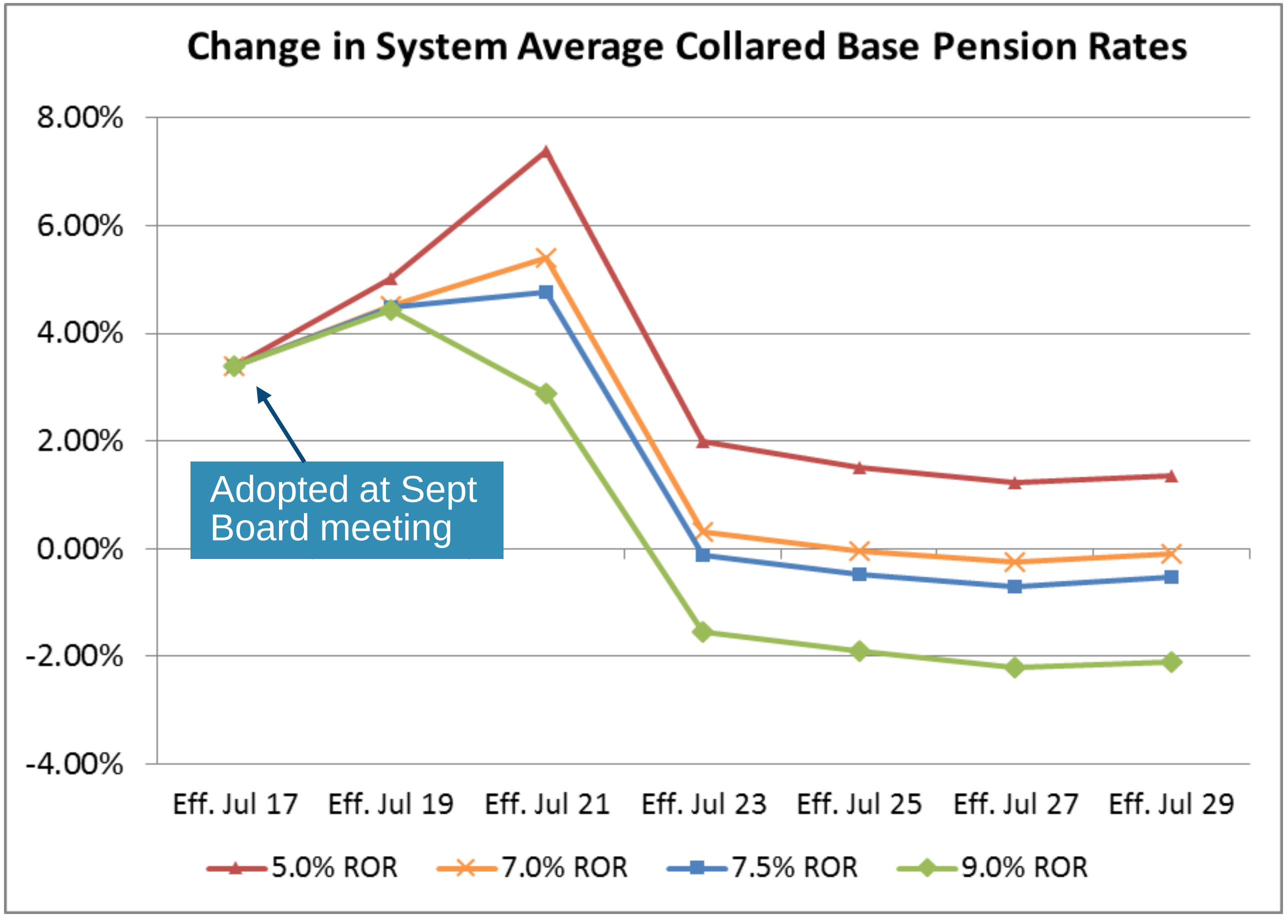
Collared Base Pension Rates
Current Rate Setting Structure

At assumed return:
- Rate eventually declines as new hire OPSRP members replace retiring Tier 1/Tier 2 members
- Rate drops significantly at 7/1/2035 after amortization of a large portion of current UAL

The steady return model illustrates impact of consistently achieving the assumed 7.50% return and three alternative returns



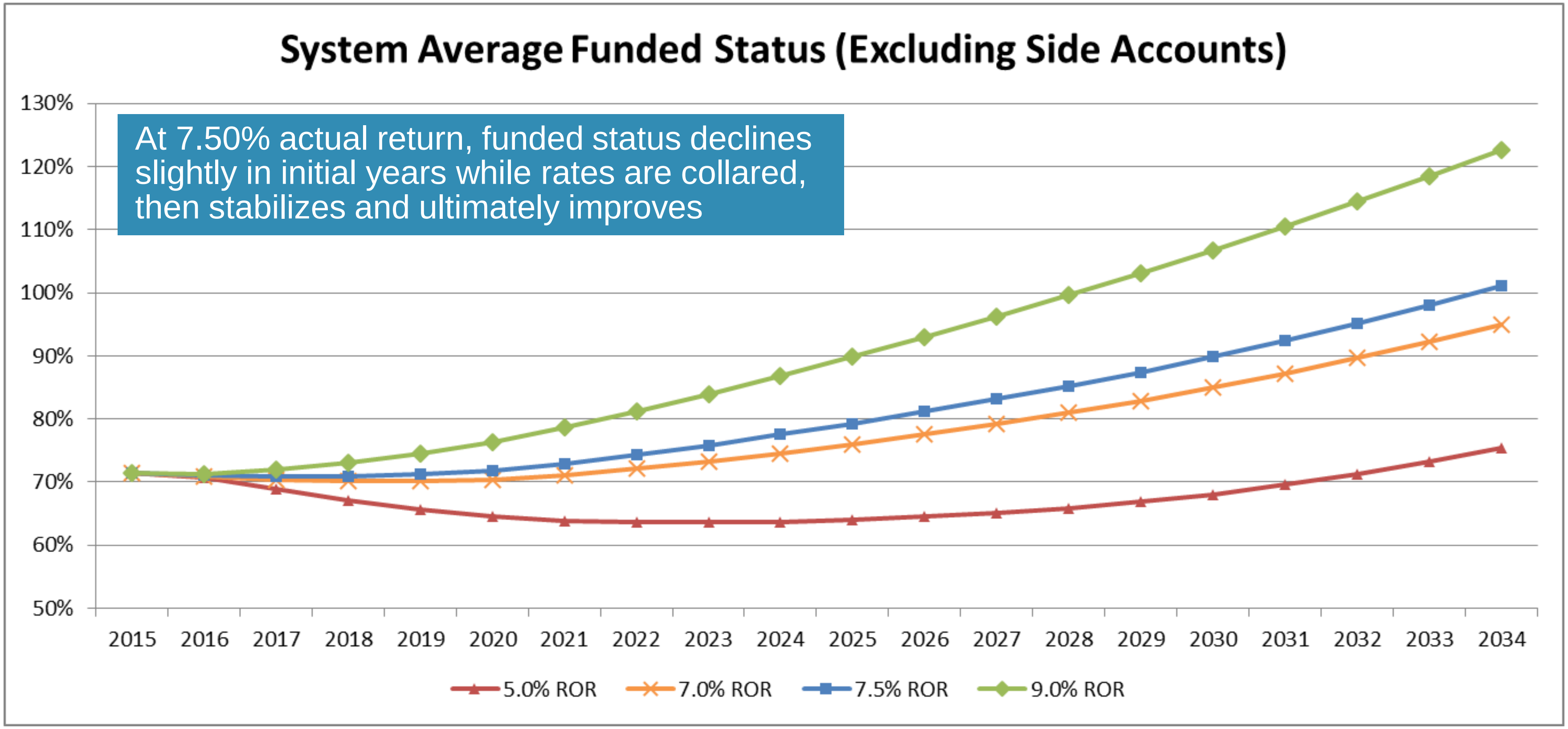
Biennial Collared Base Rate Changes
Current Rate Setting Structure



If actual investment returns are near assumption, base contribution increases of around 4% of payroll occur in each of the next three biennia, with those increases being necessary to position the system to return to 100% funded status over 20 years if future experience follows assumptions

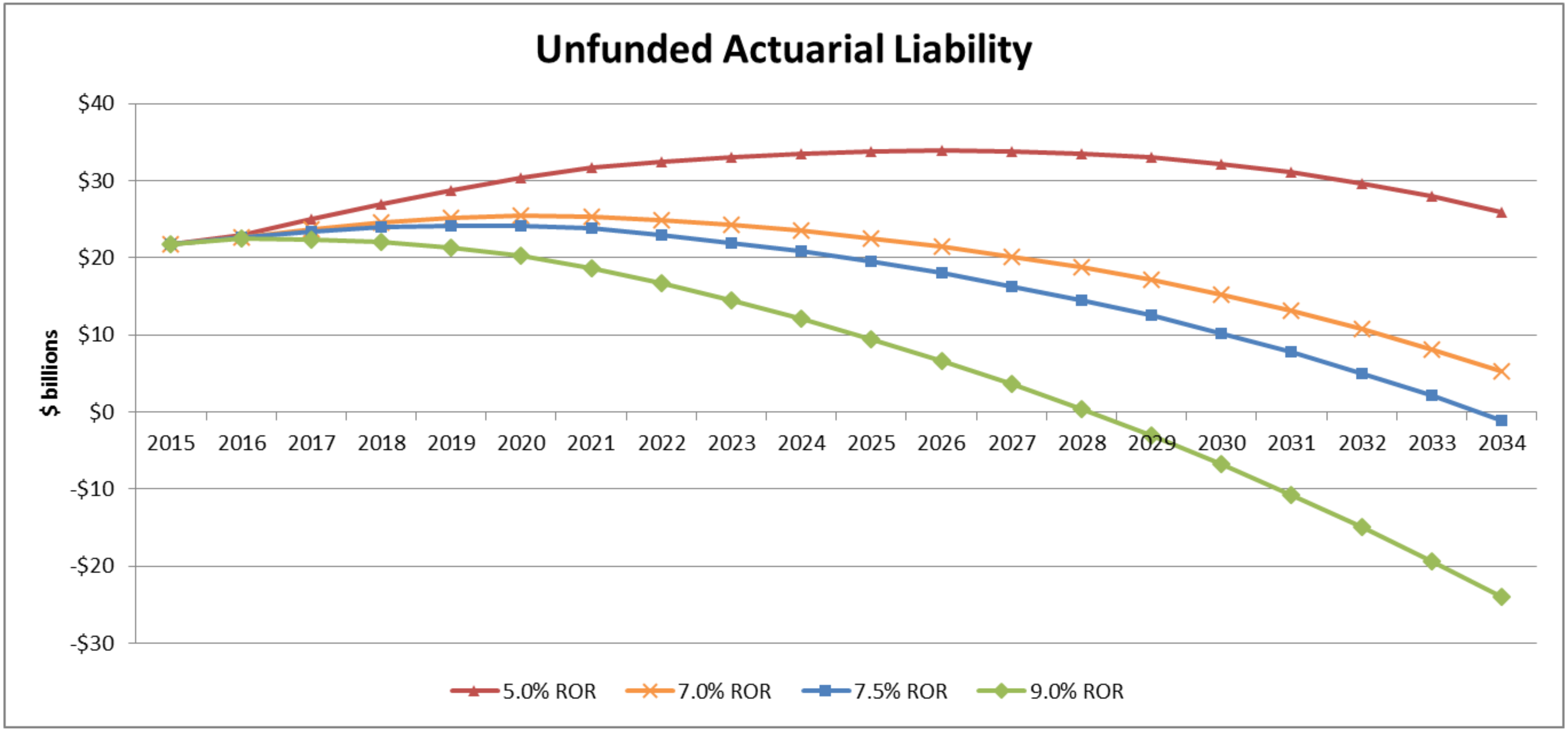
System Funded Status
Current Rate Setting Structure

Funded status reaches 100% in 2034 in the model when actual investment returns equal 7.50%



UAL (Unfunded Actuarial Liability)
Current Rate Setting Structure

With a 7.50% actual return, UAL in dollar terms grows slightly, before declining and being fully amortized by 2034

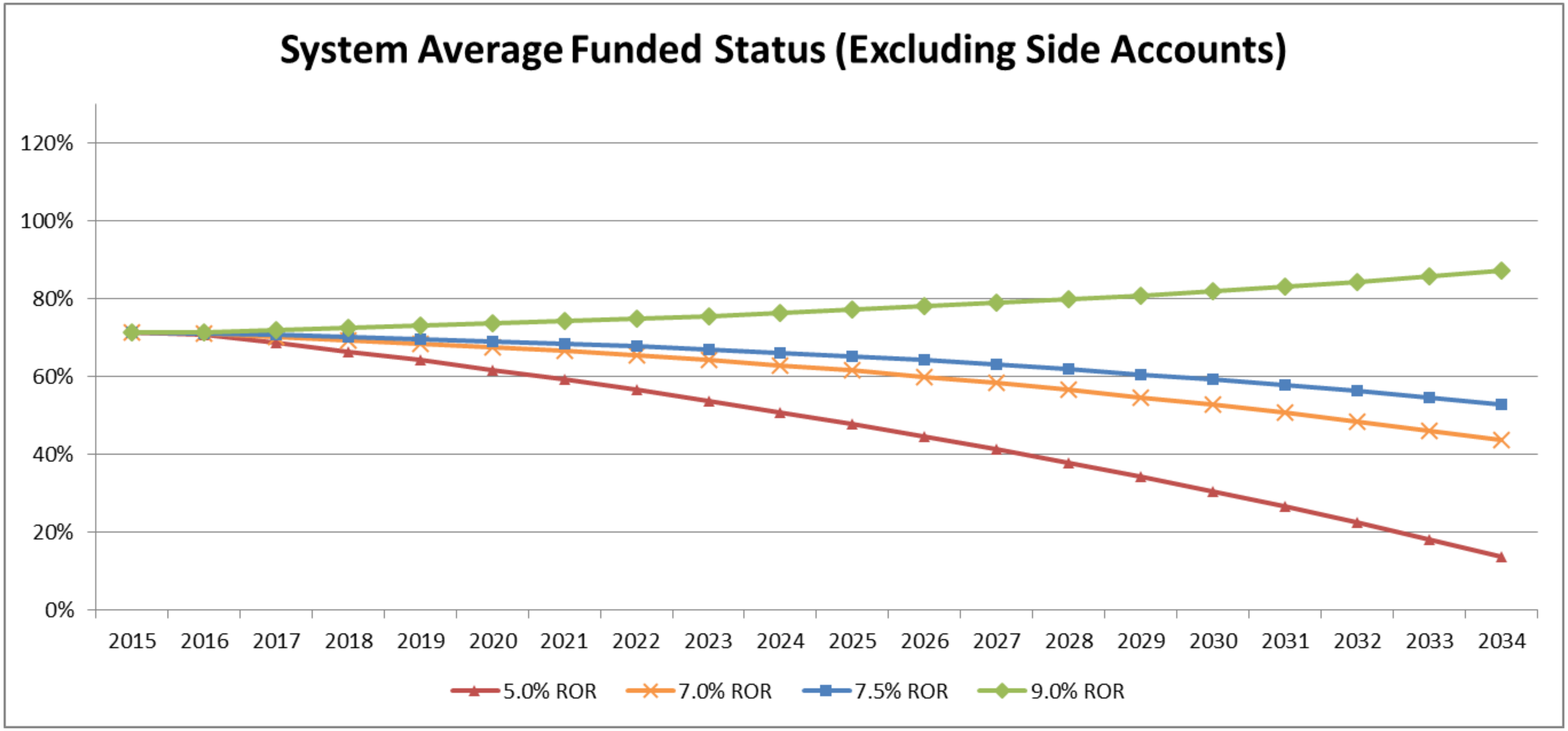


Steady Return Model
Projections Absent Future Rate Increases

- Large contribution rate increases were adopted for 2017-2019
- Our modeling projects large increases for the two subsequent biennia if actual returns are near or below assumption
- Those projected increases are needed to allow funded status to recover to 100% over time if future actual investment return experience is near the current 7.5% assumption
- The following four slides project the long-term effects of <u>not</u> having future rate increases
  - First, we project the effect if 2015-2017 collared base rates by payroll were held steady
  - Next, we project the effect if the already adopted 2017-2019 collared base rates by payroll were held steady subsequent to that biennium, rather than having subsequent increases

2015-2017 Rates Held Steady Funded Status

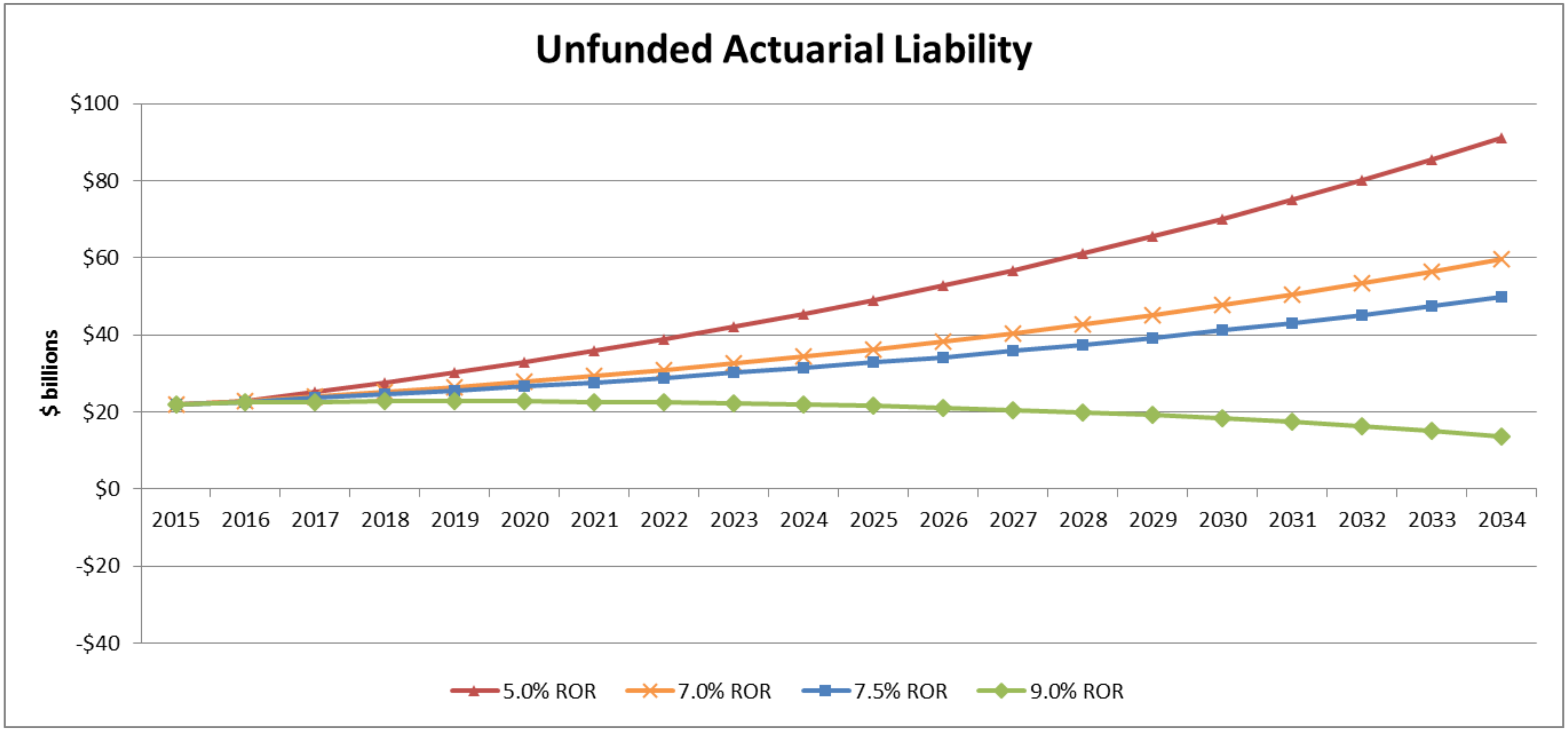
Funded status fails to improve in all but the most optimistic scenario shown. Illustrates why adjusting contribution rates based on actual prior investment experience and current projections of future benefits is necessary for actuarially sound funding.



Shows projected funded status under steady return projections if collared base contribution rates remain at 2015-2017 levels subsequent to the current biennium

2015-2017 Rates Held Steady
UAL (Unfunded Actuarial Liability)

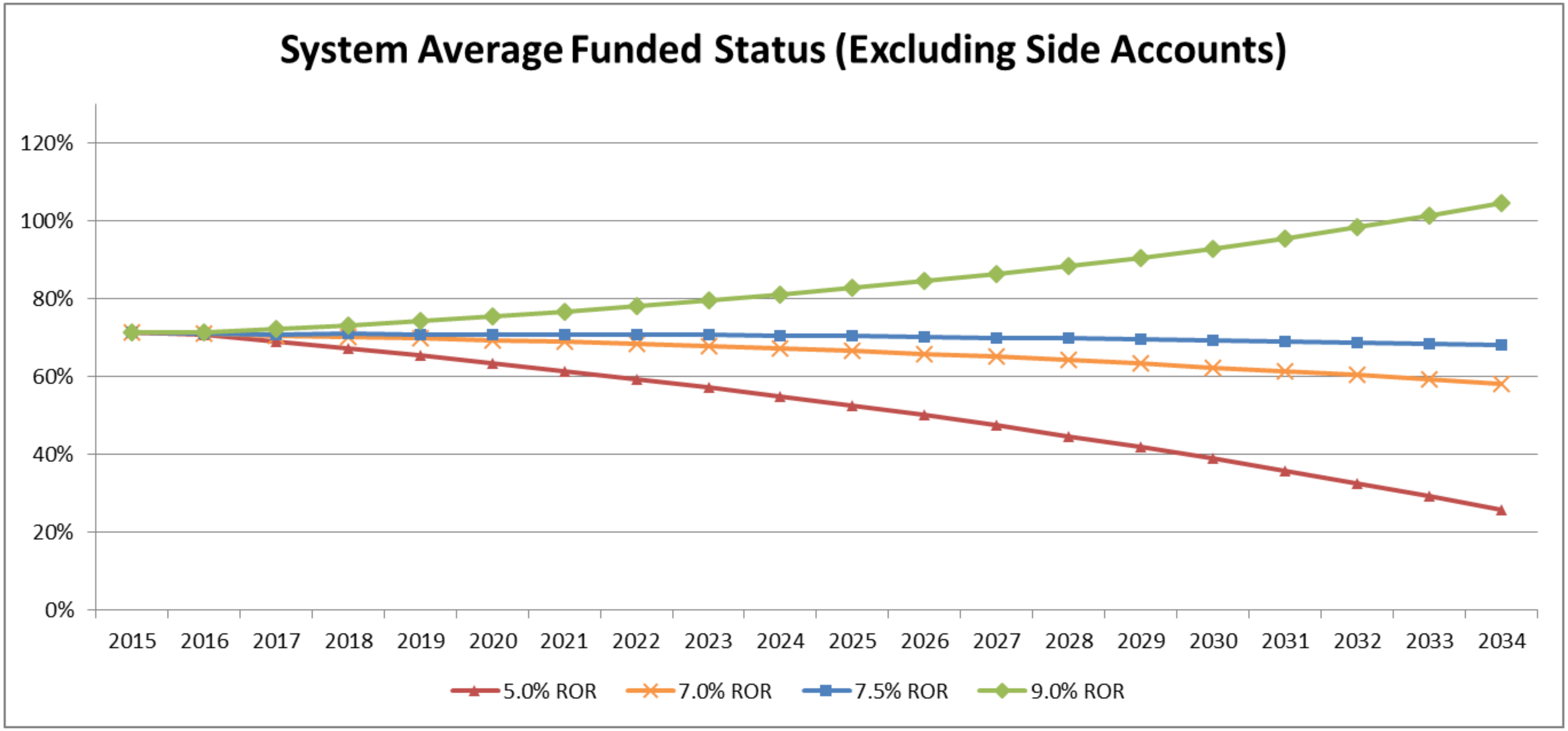
With contribution rates unchanged, UAL grows steadily in all but the most optimistic scenario shown.



Shows projected UAL under steady return projections if collared base contribution rates by payroll remain at 2015-2017 levels subsequent to that biennium

2017-2019 Rates Held Steady
Funded Status

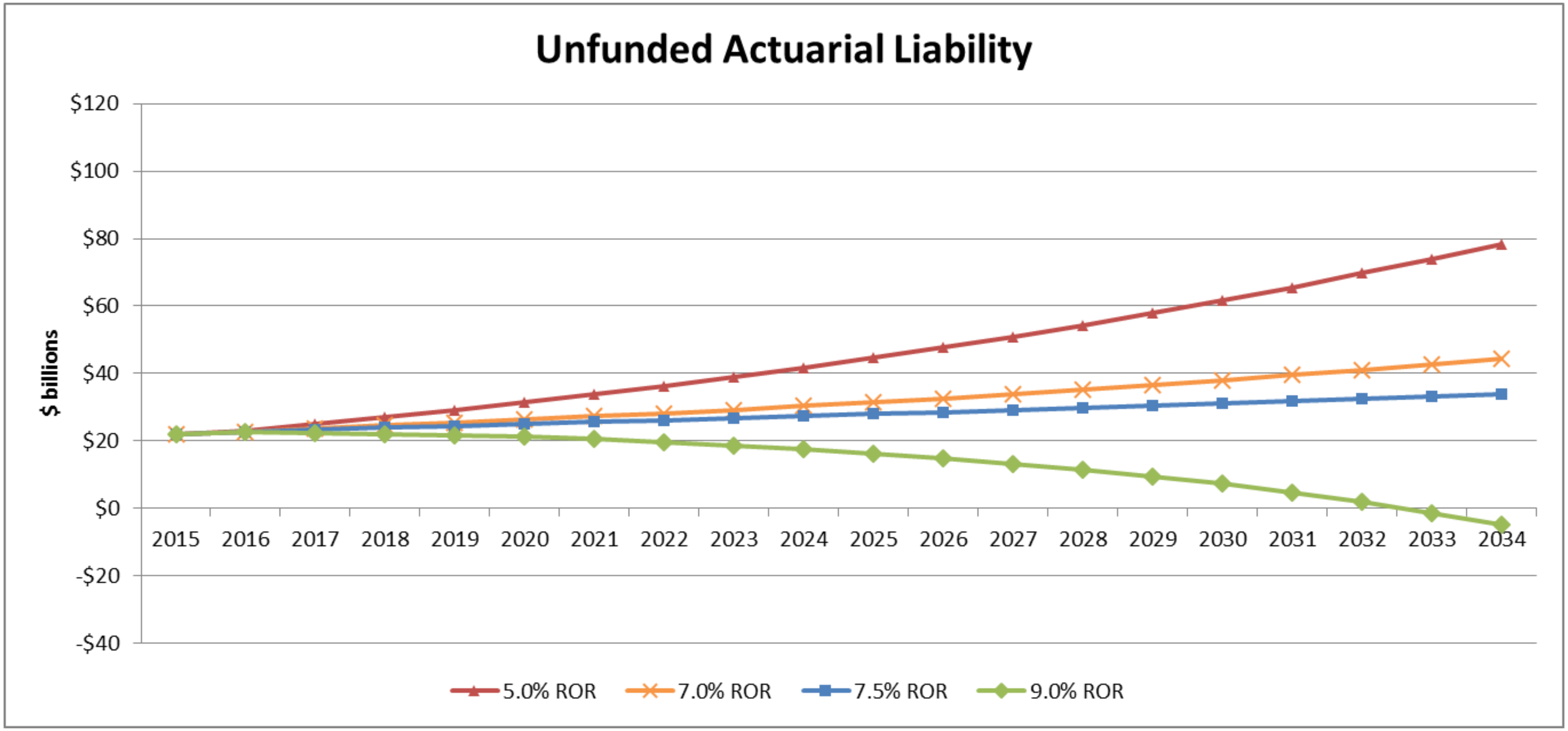
If contributions increase for 2017-19 but then are held steady, with 7.5% actual return funded status declines slightly to 68% over the projection period.



Shows projected funded status under steady return projections if collared base contribution rates <u>remain at 2017-2019 levels</u> subsequent to that biennium

2017-2019 Rates Held Steady
UAL (Unfunded Actuarial Liability)

With contribution rates at 2017-19 levels, UAL exceeds $30 billion at the end of the projection period in the 7.5% actual return scenario.



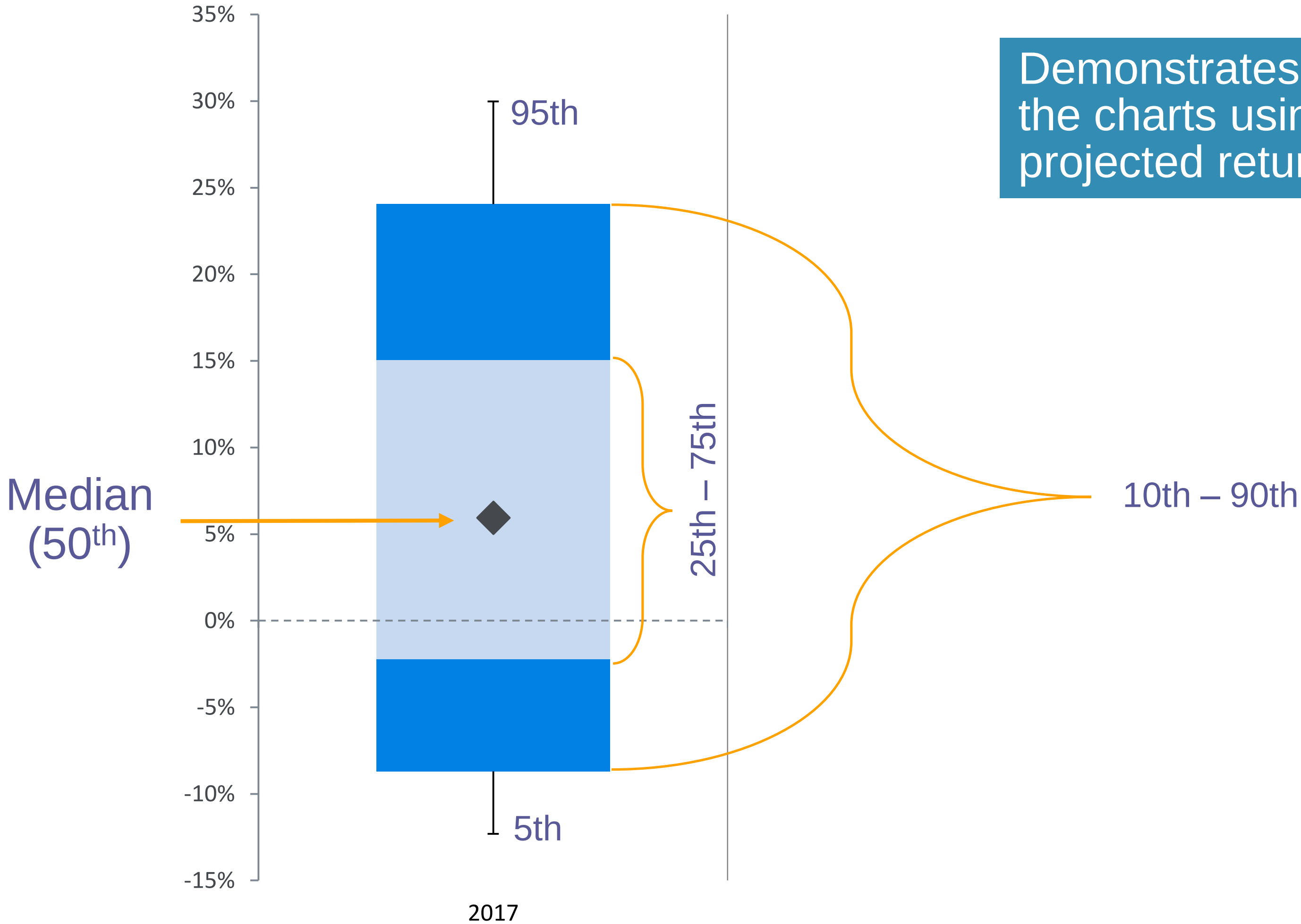
Shows projected UAL under steady return projections if collared base contribution rates <u>remain at 2017-2019 levels</u> subsequent to that biennium

Variable Return Model

- Model results are likelihood ranges instead of a single amount
  - The distribution is based on a stochastic simulation using 10,000 trials
  - Scenarios were developed by our national capital market specialists, and use the current OPERF target asset allocation policy; for these scenarios, the median annualized average geometric 20-year return is 6.84%
    - When the PERS Board last reviewed the return assumption in July 2015, Milliman's median annualized return was 6.99%; this will be reviewed again in July 2017 as part of the experience study
  - Model incorporates published 2016 returns through September 30
- In our results charts, the dots represent median outcomes
- We display model results from the 5th to 95th percentiles
  - Ten percent of model outcomes fall outside of the depicted range
- The chart format is demonstrated on the next slide

PERS Fund Rate of Return

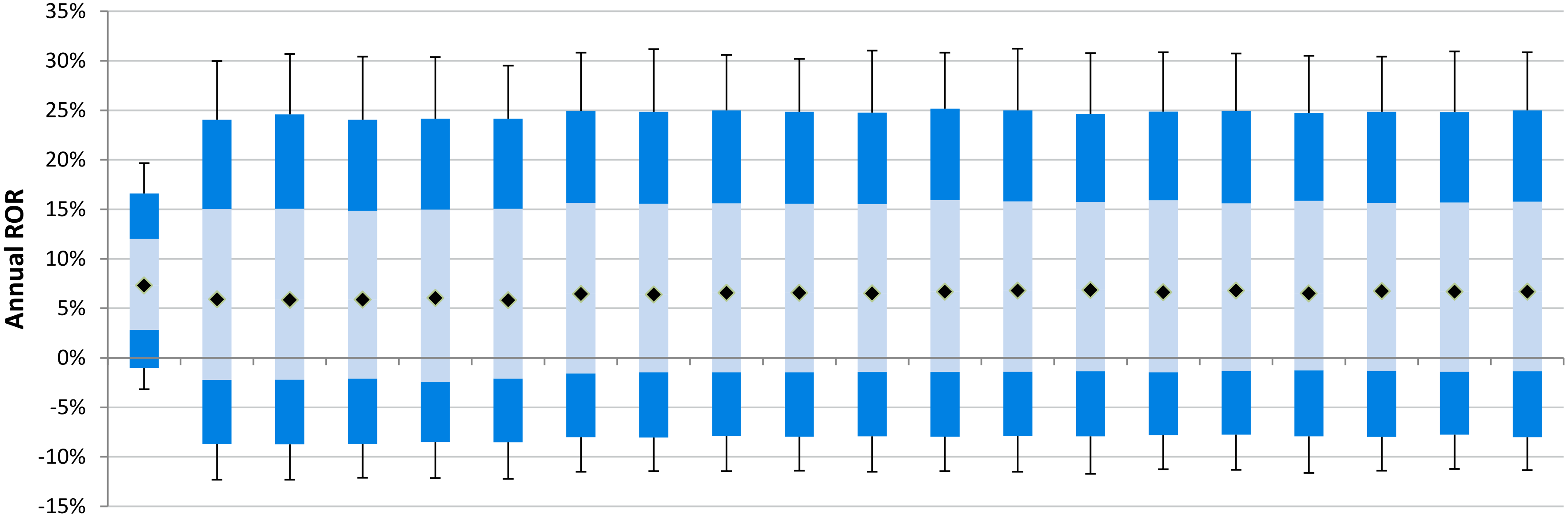
Projected 2017 Investment Returns



Demonstrates the format of the charts using single year projected returns in 2017.

Our capital market outlook model projects lower median returns in the first five years following 2016 due to current low yields on fixed income. Higher median returns are projected in the latter portion of the modeling period.

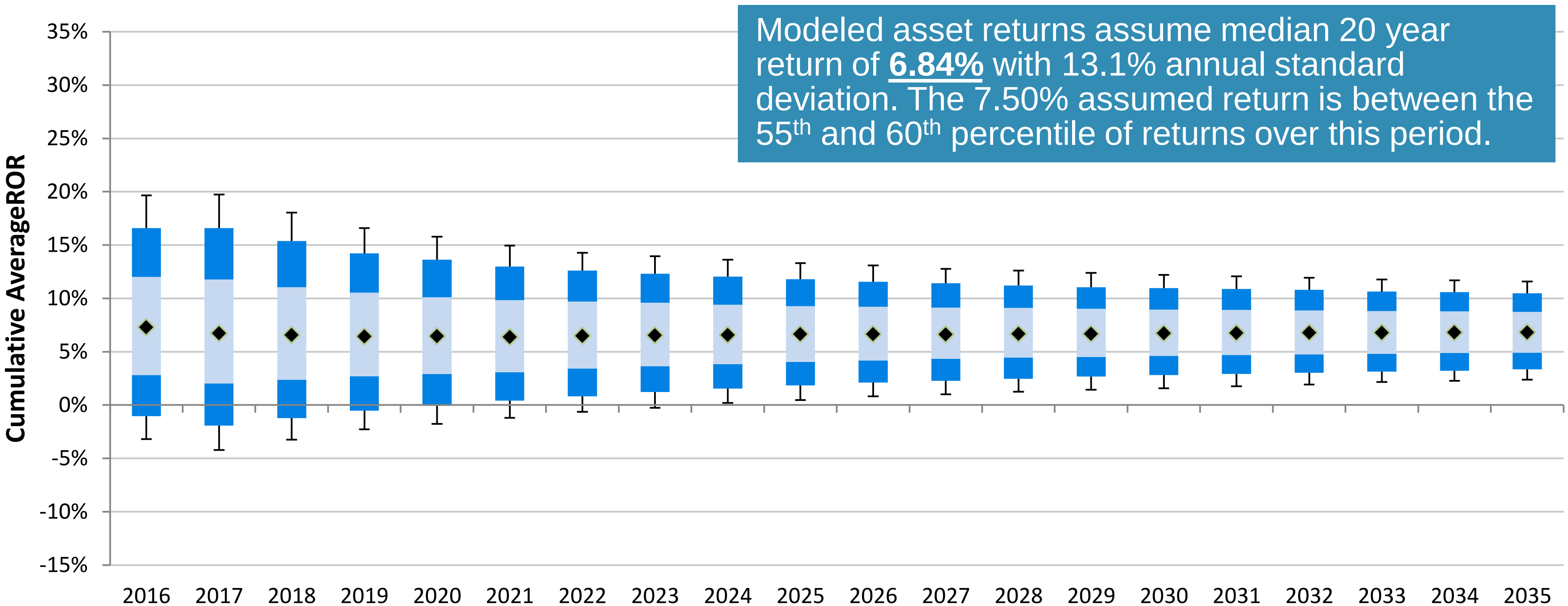
PERS Fund Rate of Return
Single Calendar Year Investment Returns



		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
95th	—	19.7%	30.0%	30.7%	30.4%	30.4%	29.5%	30.8%	31.2%	30.6%	30.2%	31.0%	30.8%	31.2%	30.8%	30.9%	30.7%	30.5%	30.4%	30.9%	30.9%
90th		16.6%	24.1%	24.6%	24.1%	24.2%	24.2%	25.0%	24.9%	25.0%	24.8%	24.8%	25.2%	25.0%	24.7%	24.9%	24.9%	24.7%	24.8%	24.8%	25.0%
75th		12.0%	15.0%	15.1%	14.9%	15.0%	15.1%	15.7%	15.6%	15.6%	15.6%	15.5%	15.9%	15.8%	15.8%	15.9%	15.6%	15.9%	15.6%	15.7%	15.8%
50th	•	7.3%	5.9%	5.9%	5.9%	6.1%	5.8%	6.5%	6.4%	6.6%	6.6%	6.5%	6.7%	6.8%	6.9%	6.6%	6.8%	6.5%	6.8%	6.7%	6.7%
25th		2.8%	-2.2%	-2.2%	-2.1%	-2.4%	-2.1%	-1.6%	-1.5%	-1.5%	-1.5%	-1.4%	-1.4%	-1.4%	-1.4%	-1.5%	-1.3%	-1.3%	-1.3%	-1.4%	-1.3%
10th		-1.0%	-8.7%	-8.7%	-8.7%	-8.5%	-8.5%	-8.0%	-8.0%	-7.9%	-8.0%	-7.9%	-8.0%	-7.9%	-7.9%	-7.8%	-7.8%	-7.9%	-8.0%	-7.8%	-8.0%
5th	—	-3.2%	-12.3%	-12.3%	-12.1%	-12.1%	-12.2%	-11.5%	-11.4%	-11.4%	-11.4%	-11.5%	-11.5%	-11.5%	-11.7%	-11.3%	-11.3%	-11.6%	-11.4%	-11.2%	-11.3%

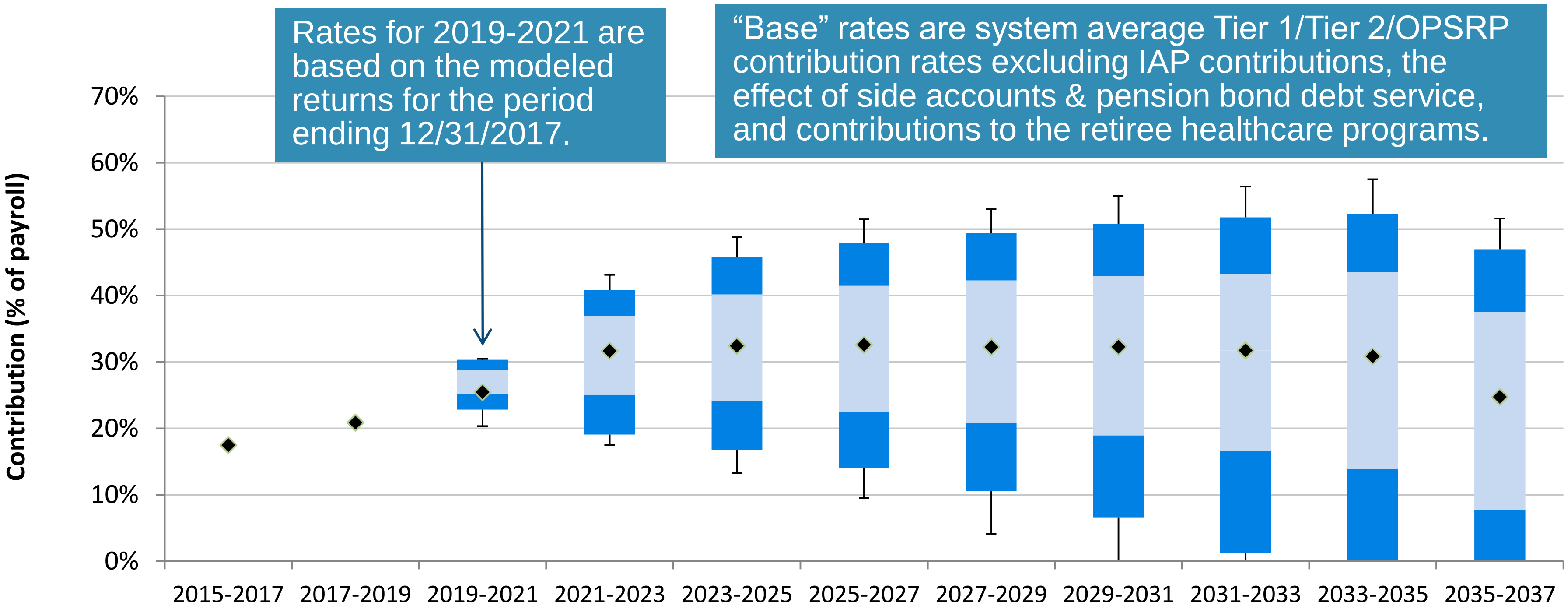
Average Annualized Rate of Investment Return

Post-2015 Modeled Returns (Geometric Average)



		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
95th	–	19.7%	19.7%	18.0%	16.6%	15.8%	14.9%	14.3%	14.0%	13.6%	13.3%	13.1%	12.8%	12.6%	12.4%	12.2%	12.1%	11.9%	11.8%	11.7%	11.6%
90th		16.6%	16.6%	15.4%	14.2%	13.6%	13.0%	12.6%	12.3%	12.0%	11.8%	11.6%	11.4%	11.2%	11.0%	11.0%	10.9%	10.8%	10.7%	10.6%	10.5%
75th		12.0%	11.8%	11.0%	10.5%	10.1%	9.8%	9.7%	9.6%	9.4%	9.3%	9.2%	9.1%	9.1%	9.0%	9.0%	8.9%	8.9%	8.8%	8.8%	8.7%
50th	•	7.3%	6.7%	6.6%	6.4%	6.5%	6.4%	6.5%	6.5%	6.6%	6.7%	6.7%	6.6%	6.7%	6.7%	6.7%	6.8%	6.8%	6.8%	6.8%	6.8%
25th		2.8%	2.0%	2.4%	2.7%	2.9%	3.1%	3.4%	3.7%	3.8%	4.0%	4.2%	4.4%	4.4%	4.5%	4.6%	4.7%	4.8%	4.8%	4.9%	4.9%
10th		-1.0%	-1.9%	-1.2%	-0.5%	-0.1%	0.4%	0.8%	1.2%	1.5%	1.8%	2.1%	2.3%	2.5%	2.7%	2.8%	2.9%	3.0%	3.1%	3.2%	3.3%
5th	–	-3.2%	-4.2%	-3.3%	-2.3%	-1.8%	-1.2%	-0.6%	-0.3%	0.2%	0.5%	0.8%	1.0%	1.2%	1.4%	1.6%	1.8%	1.9%	2.2%	2.3%	2.4%

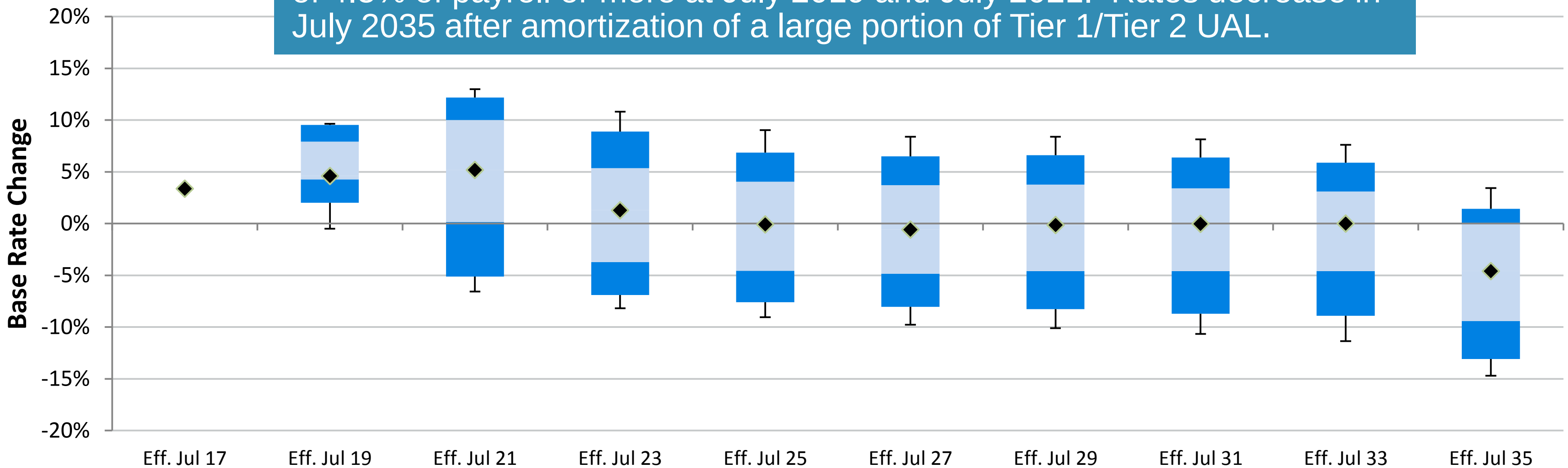
System Average Collared Base Contribution Rates



	2015-2017	2017-2019	2019-2021	2021-2023	2023-2025	2025-2027	2027-2029	2029-2031	2031-2033	2033-2035	2035-2037
5th	17.5%	20.8%	30.5%	43.2%	48.8%	51.5%	53.0%	55.0%	56.4%	57.5%	51.6%
10th	17.5%	20.8%	30.4%	40.9%	45.8%	48.0%	49.4%	50.8%	51.8%	52.3%	47.0%
25th	17.5%	20.8%	28.7%	37.0%	40.2%	41.5%	42.3%	43.0%	43.3%	43.5%	37.6%
50th	17.5%	20.8%	25.4%	31.6%	32.4%	32.6%	32.3%	32.3%	31.7%	30.9%	24.7%
75th	17.5%	20.8%	25.1%	25.1%	24.1%	22.4%	20.8%	19.0%	16.5%	13.9%	7.7%
90th	17.5%	20.8%	22.9%	19.1%	16.8%	14.1%	10.6%	6.6%	1.2%	0.0%	0.0%
95th	17.5%	20.8%	20.3%	17.5%	13.3%	9.5%	4.1%	0.0%	0.0%	0.0%	0.0%

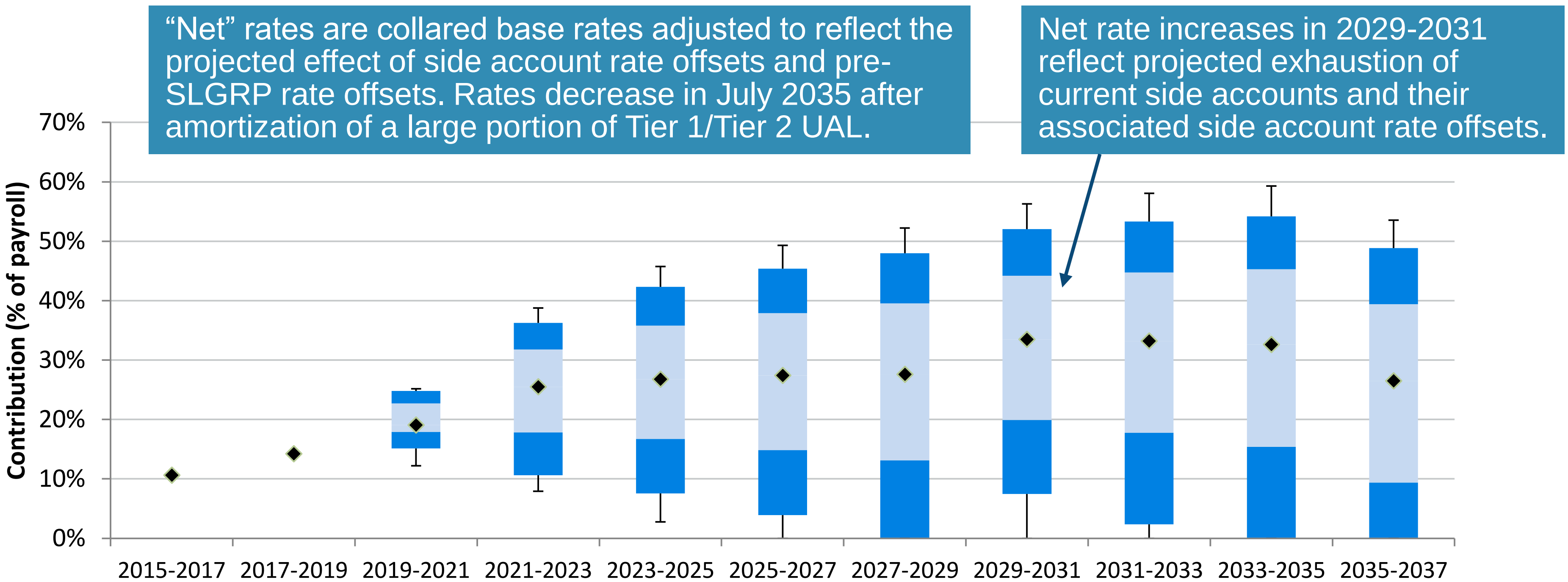
Biennial Collared Base Rate Changes
System Average Rates

Over half of the modeled scenarios show base contribution rate increases of 4.5% of payroll or more at July 2019 and July 2021. Rates decrease in July 2035 after amortization of a large portion of Tier 1/Tier 2 UAL.



		Eff. Jul 17	Eff. Jul 19	Eff. Jul 21	Eff. Jul 23	Eff. Jul 25	Eff. Jul 27	Eff. Jul 29	Eff. Jul 31	Eff. Jul 33	Eff. Jul 35
5th	—	3.4%	9.6%	13.0%	10.8%	9.0%	8.4%	8.4%	8.1%	7.6%	3.4%
10th		3.4%	9.5%	12.2%	8.9%	6.9%	6.5%	6.6%	6.4%	5.9%	1.4%
25th		3.4%	7.9%	10.0%	5.3%	4.1%	3.7%	3.8%	3.4%	3.1%	0.0%
50th	•	3.4%	4.6%	5.2%	1.3%	-0.1%	-0.6%	-0.1%	0.0%	0.0%	-4.6%
75th		3.4%	4.3%	0.1%	-3.7%	-4.6%	-4.8%	-4.6%	-4.6%	-4.6%	-9.4%
90th		3.4%	2.0%	-5.1%	-6.9%	-7.6%	-8.0%	-8.3%	-8.7%	-8.9%	-13.1%
95th	—	3.4%	-0.5%	-6.6%	-8.2%	-9.0%	-9.8%	-10.1%	-10.7%	-11.4%	-14.7%

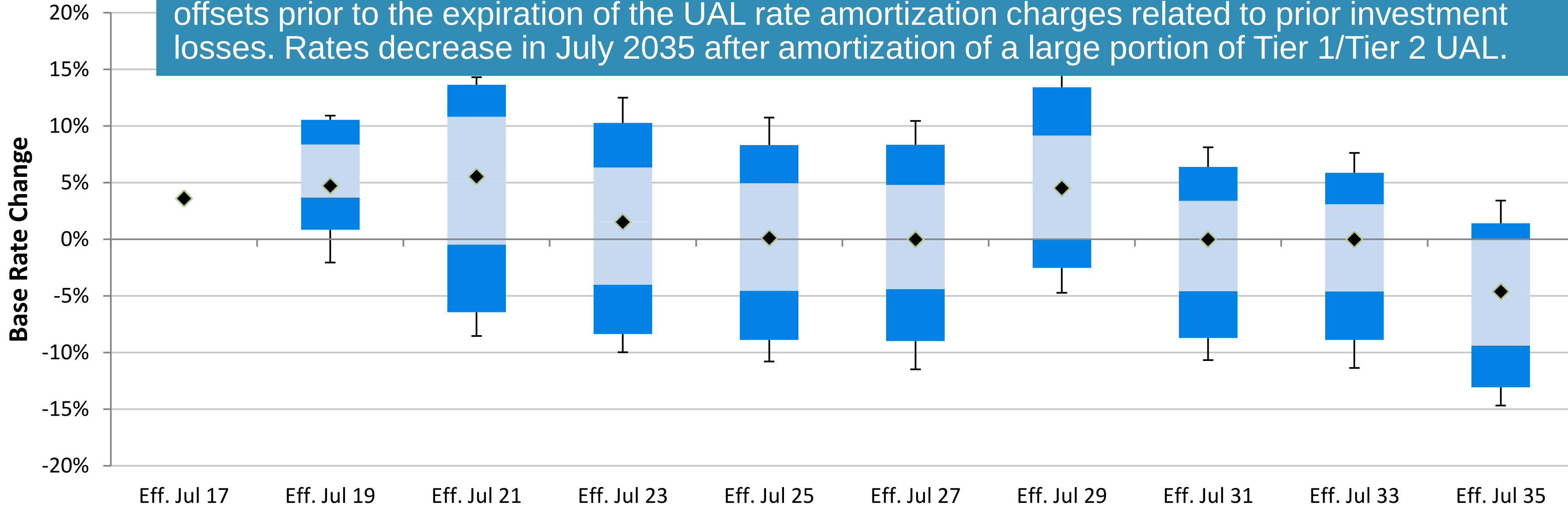
System Average Collared Net Contribution Rates



	2015-2017	2017-2019	2019-2021	2021-2023	2023-2025	2025-2027	2027-2029	2029-2031	2031-2033	2033-2035	2035-2037
5th	10.6%	14.2%	25.2%	38.7%	45.2%	48.5%	51.2%	55.0%	56.4%	57.5%	51.6%
10th	10.6%	14.2%	24.8%	36.0%	41.8%	44.6%	47.0%	50.8%	51.8%	52.3%	47.0%
25th	10.6%	14.2%	22.6%	31.6%	35.3%	37.2%	38.6%	43.0%	43.3%	43.5%	37.6%
50th	10.6%	14.2%	18.9%	25.2%	26.3%	26.8%	26.6%	32.3%	31.7%	30.9%	24.7%
75th	10.6%	14.2%	17.9%	17.6%	16.4%	14.3%	12.3%	19.0%	16.5%	13.9%	7.7%
90th	10.6%	14.2%	15.1%	10.5%	7.2%	3.6%	0.0%	6.6%	1.2%	0.0%	0.0%
95th	10.6%	14.2%	12.2%	7.9%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Biennial Collared Net Rate Changes
System Average Rates

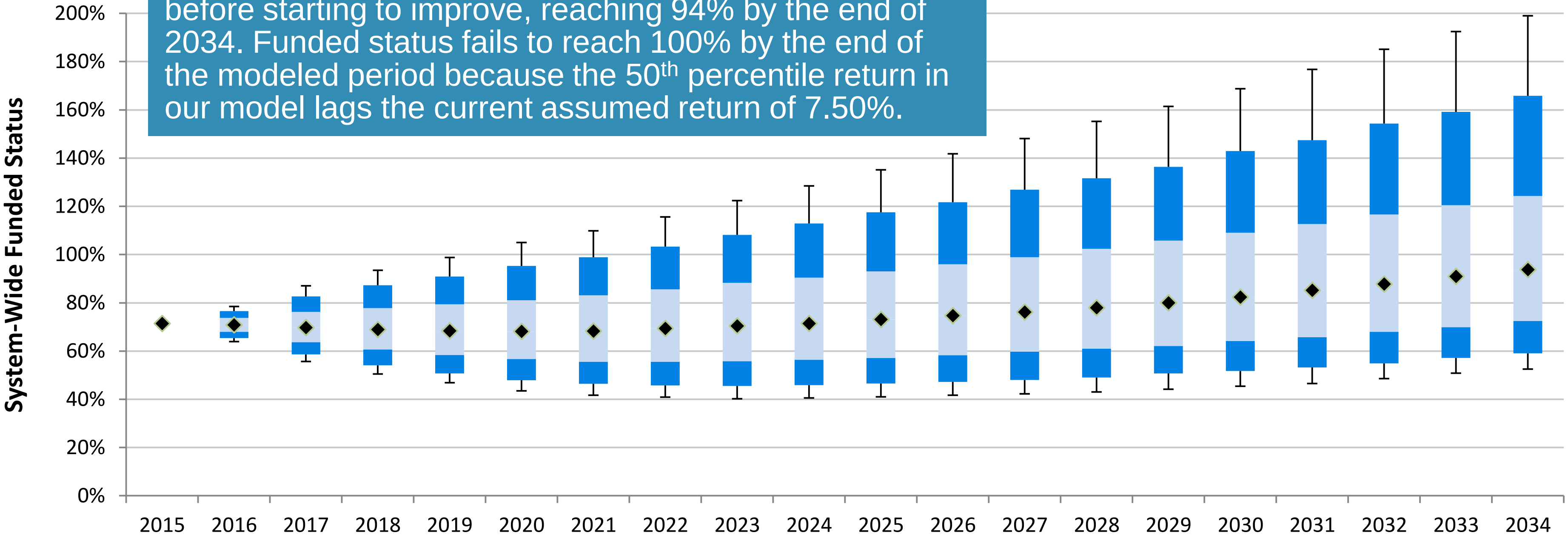
The July 2029 increase is related to the projected exhaustion of side accounts and pre-SLGRP rate offsets prior to the expiration of the UAL rate amortization charges related to prior investment losses. Rates decrease in July 2035 after amortization of a large portion of Tier 1/Tier 2 UAL.



5th	—	3.6%	10.9%	14.3%	12.5%	10.8%	10.4%	15.5%	8.1%	7.6%	3.4%
10th		3.6%	10.6%	13.6%	10.3%	8.3%	8.4%	13.4%	6.4%	5.9%	1.4%
25th		3.6%	8.4%	10.8%	6.3%	5.0%	4.8%	9.2%	3.4%	3.1%	0.0%
50th	•	3.6%	4.7%	5.5%	1.5%	0.1%	0.0%	4.5%	0.0%	0.0%	-4.6%
75th		3.6%	3.7%	-0.5%	-4.0%	-4.6%	-4.4%	0.0%	-4.6%	-4.6%	-9.4%
90th		3.6%	0.8%	-6.4%	-8.4%	-8.9%	-9.0%	-2.5%	-8.7%	-8.9%	-13.1%
95th	—	3.6%	-2.1%	-8.5%	-10.0%	-10.8%	-11.5%	-4.7%	-10.7%	-11.4%	-14.7%

Funded Status (Excluding Side Accounts)

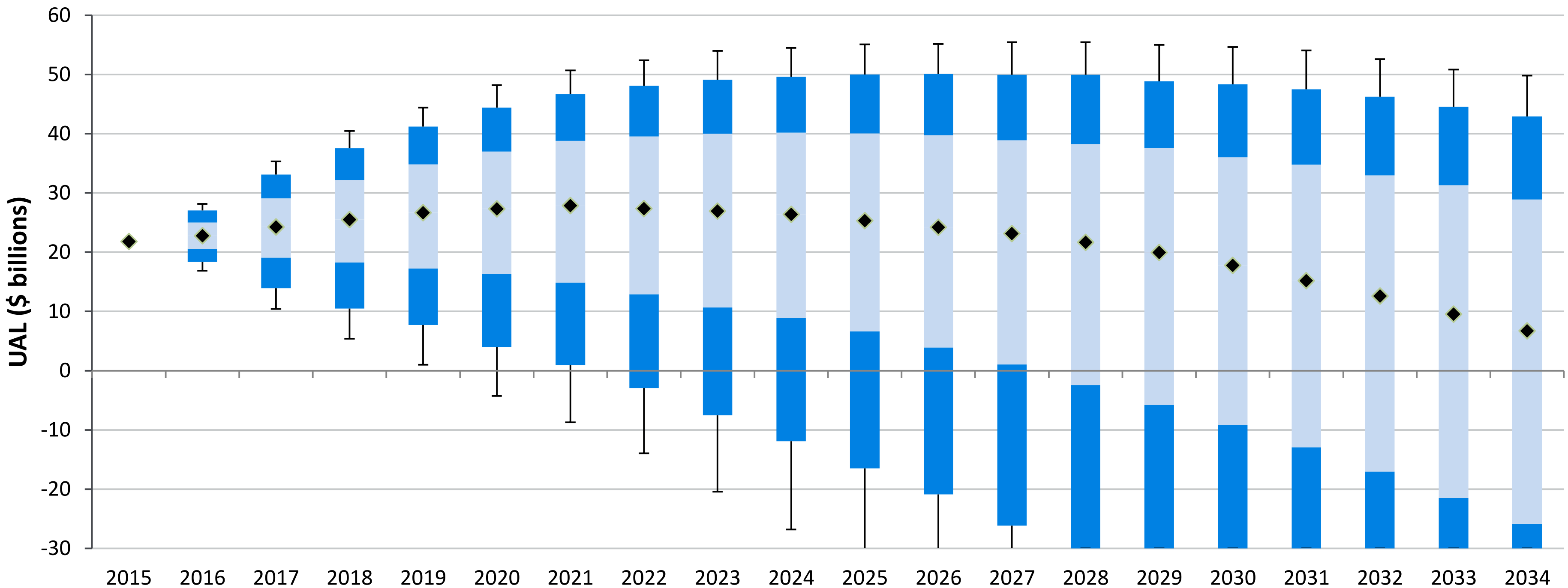
At the 50th percentile, funded status is 70.8% at year-end 2016, and decreases by 2-3% over the next four years before starting to improve, reaching 94% by the end of 2034. Funded status fails to reach 100% by the end of the modeled period because the 50th percentile return in our model lags the current assumed return of 7.50%.



		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
95th	–	71.3%	78.5%	87.0%	93.5%	98.8%	104.9%	109.9%	115.6%	122.3%	128.5%	135.1%	141.8%	148.1%	155.2%	161.4%	168.7%	176.8%	185.2%	192.4%	199.0%
90th		71.3%	76.6%	82.7%	87.3%	90.8%	95.3%	98.9%	103.3%	108.2%	112.9%	117.5%	121.7%	126.9%	131.6%	136.3%	142.9%	147.4%	154.4%	159.2%	165.8%
75th		71.3%	73.8%	76.2%	77.8%	79.4%	81.1%	83.1%	85.6%	88.3%	90.4%	93.0%	95.9%	98.9%	102.5%	105.8%	109.1%	112.7%	116.6%	120.4%	124.3%
50th	•	71.3%	70.8%	69.7%	68.9%	68.3%	68.1%	68.2%	69.3%	70.3%	71.4%	73.1%	74.6%	76.1%	77.9%	79.9%	82.3%	85.1%	87.7%	90.8%	93.7%
25th		71.3%	68.0%	63.7%	60.7%	58.4%	56.8%	55.6%	55.6%	55.8%	56.4%	57.2%	58.3%	59.8%	61.0%	62.1%	64.1%	65.7%	68.0%	69.9%	72.5%
10th		71.3%	65.4%	58.6%	54.1%	50.7%	47.9%	46.4%	45.8%	45.6%	45.9%	46.5%	47.2%	48.0%	49.0%	50.7%	51.7%	53.2%	54.9%	57.1%	59.1%
5th	–	71.3%	63.9%	55.7%	50.5%	46.9%	43.5%	41.7%	40.9%	40.2%	40.6%	41.0%	41.7%	42.3%	43.1%	44.2%	45.4%	46.5%	48.5%	50.9%	52.5%

UAL (Excluding Side Accounts)

At the 50th percentile, the UAL excluding side accounts grows to nearly $28 billion by the end of 2021, before declining to less than $7 billion by the end of 2034.



5th	–	21.8	28.1	35.3	40.5	44.4	48.2	50.7	52.4	54.0	54.5	55.1	55.1	55.5	55.5	55.0	54.6	54.1	52.6	50.8	49.8
10th		21.8	27.0	33.1	37.6	41.2	44.4	46.7	48.1	49.1	49.7	50.0	50.1	50.0	50.0	48.9	48.3	47.5	46.3	44.5	42.9
25th		21.8	25.0	29.1	32.2	34.8	37.0	38.8	39.5	40.0	40.2	40.0	39.7	38.9	38.2	37.6	36.0	34.8	33.0	31.3	28.9
50th	•	21.8	22.8	24.3	25.5	26.7	27.3	27.9	27.4	27.0	26.4	25.3	24.2	23.2	21.7	20.0	17.8	15.2	12.6	9.5	6.7
75th		21.8	20.5	19.1	18.3	17.3	16.3	14.9	12.9	10.7	8.9	6.6	3.9	1.1	-2.4	-5.8	-9.2	-12.9	-17.1	-21.5	-25.9
90th		21.8	18.3	13.9	10.5	7.7	4.0	1.0	-2.9	-7.5	-11.9	-16.5	-20.9	-26.2	-31.2	-36.5	-43.9	-48.6	-56.3	-62.2	-69.9
95th	–	21.8	16.9	10.4	5.4	1.0	-4.3	-8.7	-14.0	-20.5	-26.8	-33.1	-40.2	-47.2	-54.8	-61.8	-70.1	-79.2	-89.0	-97.1	-106.1

Variable Return Model Stress Test

- As in recent years, we also used the variable return model to do a “stress test” of the likelihood of certain events in the 10,000 scenarios modeled
- The likelihood of specified events occurring at some point during the 20 year projection period is shown below

Likelihood of Event Occurring at Some Point in Next 20 Years	
Funded Status (Excluding Side Accounts) > 100%	59%
Funded Status (Excluding Side Accounts) < 60%	64%
Funded Status (Excluding Side Accounts) < 40%	13%
Base Rate (Excluding Retiree Healthcare) > 30% of Pay	80%

Variable Return Model Stress Test

- Likelihood in the model of a collared rate increase exceeding a selected threshold in at least one of the next three biennial rate changes
  - Changes at July 2019, July 2021, and July 2023

Likelihood of a Biennial Collared Rate Increase Exceeding Threshold at Some Point in Next Three Biennia		
Threshold Increase	Base Rate	Net Rate
3% of Pay	94%	93%
4% of Pay	91%	86%
5% of Pay	74%	77%

Variable Return Model Stress Test

- Likelihood in the model of a collared rate increase exceeding a selected threshold at the July 2019 rate change

Likelihood of the July 2019 Collared Rate Increase Exceeding Threshold		
Threshold Increase	Base Rate	Net Rate
3% of Pay	87%	84%
4% of Pay	83%	67%
5% of Pay	48%	49%

Variable Return Model Stress Test

- Likelihood in the model of cumulative July 2019 and July 2021 collared rate increases exceeding a selected threshold

Likelihood of Cumulative July 2019 and July 2021 Collared Rate Increases Exceeding Threshold		
Threshold Increase	Base Rate	Net Rate
6% of Pay	69%	67%
8% of Pay	62%	61%
10% of Pay	54%	54%

Wrap Up / Next Steps

- At the January meeting, preliminary year-end 2016 investment results will be available
  - We can then comment on estimated impact on the 12/31/2016 actuarial valuation results, which will develop advisory 2019 – 2021 contribution rates

Certification

This presentation summarizes deterministic and stochastic modeling for the Oregon Public Employees Retirement System ("PERS" or "the System") over a 20 year period beginning December 31, 2015 under a wide range of potential economic scenarios. The results are based upon the same assumptions, methods, and plan provisions as described in the December 31, 2015 System-Wide Actuarial Valuation Report, except where noted otherwise.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The PERS Board has the final decision regarding the appropriateness of the assumptions.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. The computations prepared for other purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals.

Certification

The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in the appendix of this report. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the Oregon Public Employees Retirement System. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their 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 System. We are not aware of any relationship that would impair the objectivity of our work.

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

Appendix
Actuarial Basis

Data

We have based our calculation of the liabilities on the data supplied by the Oregon Public Employees Retirement System and summarized in the Valuation Report.

Assets as of December 31, 2015, were based on values provided by Oregon PERS reflecting the Board's earnings crediting decisions for 2015, as shown in the Valuation Report. Financial model projections reflect September 30, 2016 investment results for regular and variable accounts as published by Oregon State Treasury.

Methods / Policies

Actuarial Cost Method: Entry Age Normal, adopted effective December 31, 2012.

UAL Amortization: The UAL for OPSRP and Retiree Health Care as of December 31, 2007 are amortized as a level percentage of combined valuation payroll over a closed 16 year period for OPSRP and a closed 10 year period for Retiree Health Care. For the Tier 1/Tier 2 UAL, the amortization period was reset at 20 years as of December 31, 2013. Gains and losses between subsequent odd-year valuations are amortized as a level percentage of combined valuation payroll over the amortization period (20 years for Tier/Tier 1, 16 years for OPSRP, 10 years for Retiree Health Care) from the odd-year valuation in which they are first recognized.

Appendix
Actuarial Basis

Methods / Policies (cont'd)

Contribution rate stabilization method: Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) are confined to a collar based on the prior contribution rate (prior to application of side accounts, pre-SLGRP liabilities, and 6 percent Independent Employer minimum). The new contribution rate will generally not increase or decrease from the prior contribution rate by more than the greater of 3 percentage points or 20 percent of the prior contribution rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funded percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Expenses: OPSRP administration expenses are assumed to be equal to $5.5M and are added to the OPSRP normal cost.

Tier 1/Tier 2 administration expenses are assumed to be equal to $33M and are added to the Tier 1/Tier 2 normal cost.

Actuarial Value of Assets: Equal to Market Value of Assets excluding Contingency and Tier 1 Rate Guarantee Reserves. The Tier 1 Rate Guarantee Reserve is not excluded from assets if it is negative (i.e. in deficit status).

Assumptions

Assumptions for valuation calculations are as described in the 2014 Experience Study Report.

Provisions

Provisions valued are as detailed in the December 31, 2015 System-Wide Actuarial Valuation Report.

Appendix
Rate Projection Basis

Assumptions

In general, all assumptions are as described in the 2014 Experience Study Report.

The major actuarial valuation assumptions used in our projections are shown below. They are aggregate average assumptions that apply to the whole population and were held constant throughout the projection period. The economic experience adjustments were allowed to vary in future years given the conditions defined in each economic scenario.

- Valuation interest rate – 7.50%
- Tier 1 Regular account growth – 7.50%
- Actual fund investment return – Varies by scenario according to capital market assumptions
- Variable account growth – Equal to investment return on public equity portion of the fund
- Inflation assumption – 2.50%
- Inflation experience – Varies by scenario according to capital market assumptions
- Wage growth assumption – 3.50%
- Wage growth experience – 1.00% greater than inflation experience
- Demographic experience – as described in 2014 Experience Study Report

Appendix
Rate Projection Basis

Reserve Projection

Contingency Reserve as of 12/31/2015 was assumed to be $588.6M. No future increases or decreases to this reserve were assumed.

The Tier 1 Rate Guarantee Reserve ("RGR") was assumed to be $183.2M as of 12/31/2015. The reserve was assumed to grow with returns in excess of 7.50% on Tier 1 Member Accounts. When aggregate returns were below 7.50%, applicable amounts from the RGR were transferred to Tier 1 Member Accounts to maintain the 7.50% target growth on the member accounts. The RGR reserve is allowed to be negative, but the reserve is not excluded from valuation assets when it is negative. We did not include in rates any potential additional employer levy that could be required to eliminate a persistent negative RGR.

Appendix
Rate Projection Basis

Capital Market Model

For each 20-year projection, we ran 10,000 stochastic scenarios for inflation and asset class rates of return. The scenarios were calibrated to represent Milliman's capital market assumptions in terms of expected average real returns, the expected year-to-year volatility of the returns, and the expected correlation between the returns of different asset classes. Annual rates of return for each of the asset classes and inflation are generated from a multivariate lognormal probability distribution. Rates of return are independent from year to year.

For this purpose, we considered the Oregon PERS Fund to be allocated among the model's asset classes as shown below. This allocation is based on the OIC's Statement of Investment Objectives and Policy Framework for the Oregon PERS Fund, as revised December 3, 2014, and changes adopted in June 2015.

	Annual Arithmetic Mean	20-Year Annualized Geometric Mean	Annual Standard Deviation	Policy Allocation
US Broad Equity	7.60%	6.38%	16.75%	**18.37%**
Non-US Developed Large/Mid-Cap Equity	8.33%	6.78%	18.96%	**15.00%**
Emerging Markets Equity	10.52%	7.38%	27.66%	**4.13%**
Private Equity	11.32%	7.68%	30.00%	**17.50%**
US Universal Fixed Income	4.18%	4.08%	4.64%	**8.00%**
US Short Duration Bonds	3.58%	3.55%	2.72%	**8.00%**
Leveraged Loans	5.75%	5.48%	7.65%	**3.00%**
High Yield	6.92%	6.47%	10.05%	**1.00%**
Real Estate	6.32%	5.68%	12.00%	**10.00%**
Global REITs	8.27%	6.28%	21.58%	**2.50%**
Natural Resources	6.53%	5.78%	13.00%	**2.81%**
Infrastructure	7.54%	6.58%	14.79%	**3.75%**
Commodities	5.46%	3.93%	18.64%	**2.81%**
Hedge Funds	6.28%	5.93%	8.87%	**3.13%**
US Inflation (CPI-U)	2.50%	2.50%	1.89%	**N/A**
Fund Total (reflecting asset class correlations)	**7.58%**	**6.84%**	**13.05%**	**100%**