

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM BOARD MEETING

**Friday  
September 30, 2016  
1:00 P.M.**

**PERS  
11410 SW 68<sup>th</sup> Parkway  
Tigard, OR**

ITEM	PRESENTER
<b>A. Administration</b>	
1. July 29, 2016 Board Meeting Minutes	RODEMAN
2. Director's Report	
a. Forward-Looking Calendar	
b. OPERF Investment Report	
c. Budget Execution Report	
d. Governor's Executive Order 16-13- Unifying Cyber Security	
e. Customer Service Survey Results	CROSLEY
<b>B. Administrative Rulemaking</b>	
1. Notice of Reemployed Retirees Rule	VAUGHN
2. Adoption of Accounts Receivable Fraud Rule	
3. Disability Rules Update	
<b>C. Action and Discussion Items</b>	
1. <i>Moro</i> Implementation Project Update	ELLEDDGE-RHODES
2. Legislative Update	TAYLOR
3. 2017-2019 Employer Rate Adoption	MILLIMAN

The PERS Board will meet jointly with the Oregon Investment Council following the regular Board meeting to discuss system funding options. This discussion will start at 2:00 p.m.

**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.**

<http://www.oregon.gov/PERS/>

**Remaining 2016 Meetings:** November 18\* \* Audit Committee

2017 Meetings    January 27    March 27    May 26    July 28\*    September 29    November 17\*

Stephen Buckley    Lawrence Furnstahl    Krystal Gema    John Thomas, Chair    Pat West, Vice Chair    Steve Rodeman, Executive Director

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM BOARD MEETING MINUTES

July 29, 2016

## **Board members present:**

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

## **Staff present:**

David Crosley, Yvette Elledge-Rhodes, Kyle Knoll, Jordan Masanga, Beth Porter, Daniel Rivas, Janice Richards, Steve Rodeman, Jason Stanley, Marjorie Taylor, Anne Marie Vu, Joli Whitney and Yong Yang.

## **Others present:**

Stephen Barrett, Nate Carter, Dan Dellaren, Celia Heron, Mike Jaspin, David Lacy, Matt Larrabee, Sandra Montoya, Jennifer O, Scott Preppernau, Del Stevens, Deborah Tremblay, Scott Winkles, Peter Wong.

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

## **ADMINISTRATION**

### **A.1. MEETING MINUTES OF MAY 27, 2016**

Board member Furnstahl moved and vice-chair West seconded approval of the minutes submitted from the May 27, 2016 Board meeting. 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 June 30, 2016. Returns have been fairly flat for the year.

Rodeman presented the Budget Execution Report. Also included in the materials was a commendation from the Government Finance Officers Association for our achievement of excellence in financial reporting. The Financial Reporting Section has achieved this honor for many consecutive years and Rodeman acknowledged its continued exemplary reporting.

## **ADMINISTRATIVE RULEMAKING**

Chief Compliance, Audit, and Risk Officer Jason Stanley presented.

### **B.1. NOTICE OF ACCOUNTS RECEIVABLE FRAUD RULE**

Stanley presented notice of rulemaking for Accounts Receivable Fraud Rule, OAR 459-005-0260. This is a new rule is being established to provide a formal fraud detection, investigation, and resolution process for PERS. A rulemaking hearing has been scheduled for August 23, 2016, at PERS Headquarters. The public comment period ends September 2, 2016. No Board action was required.

Board member Buckley asked for an example of what might be considered 'fraud' for purposes of this rule. Stanley provided examples.

### **B.2. ADOPTION OF RECEIPT DATE RULE**

Stanley presented the revised rules to modify Receipt Date Rule, OAR 459-005-0220, for adoption. A rulemaking hearing was held June 28, 2016. The public comment period ended July 6, 2016. No public comments were received and no one attended the hearing. The changes modify the date that imaged items are deemed filed and received from three business days to one business day before the imaged date and changes the date that items recorded on PERS' daily cash receipts log and/or check log are considered received to one business day before the recorded date on the cash receipts log and/or check log.

West moved to adopt modifications to the Receipt Date rule as presented. Board member Gema seconded. The motion passed unanimously.

### **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. There was a successful system update in June to automate the new cost-of-living adjustment (COLA) rules. The next phase of the project will focus on a system batch process to adjust approximately 2,000 remaining benefit recipients who were not included in the two previous groups. Work continues on the adjustment process for the deceased member population. Temporary resources will be used to help process the over 7,000 accounts in this category. The project is still on track to resolve all impacted accounts by the end of the current biennium, June 30, 2017. No Board action was required.

West complimented the hard work of the project team to resolve these adjustments so effectively in such a short period of time. Rodeman echoed his comments.

#### **C.2. 2017 -19 AGENCY REQUEST BUDGET – APPROVAL TO SUBMIT**

Chief Administrative Officer Kyle Knoll and Budget Officer Linda Barnett presented the 2017-19 Agency Request Budget (ARB) for the Board's approval for submission to the Department of Administrative Services/Chief Financial Office and the Legislative Fiscal Office. The total request is for \$11.1 billion. The majority of this request represents benefit payments. The operating budget request is \$108 million. This amount also includes over \$11.4 million for three proposed policy packages.

Furnstahl moved to submit the ARB as presented. Gema seconded the motion. The motion passed unanimously.

#### **C.3. 2015 SYSTEM-WIDE VALUATION RESULTS**

Actuaries Matt Larrabee and Scott Preppernau of Milliman presented the 2015 System-wide Valuation Report as of December 31, 2015. The employer specific contribution rates will be presented for adoption at the September Board meeting and will be effective starting July 2017. Thomas thanked Larrabee and Preppernau for their presentation.

Thomas adjourned the Board meeting at 2:10 PM.

Respectfully submitted,



Steven Patrick Rodeman  
Executive Director

**OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**BOARD MEETING MINUTES**

September 14, 2016

**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: Chair Katy Durant, Vice-Chair Rukaiyah Adams, Rex Kim, Steve Rodeman, John Russell, and Treasurer Ted Wheeler.

Chair Durant called the Oregon Investment Council meeting to order at 9:00 A.M. The PERS Board joined the meeting at 10:45 for a presentation from Rodeman, Karl Cheng, and David Russell on a potential change to the investment methodology for the Individual Account Program (IAP). The Board and the OIC discussed the funded status and unfunded actuarial liability of the PERS Fund. In addition, the Board and the OIC reviewed the assumed earnings rate and the impacts to employer rates when this rate is changed and effects of the rate collar to this relationship. The OIC and the PERS Board agreed to meet again jointly in the near future.

The joint portion of the meeting ended at 12:15 P.M.

Respectfully submitted,



Steven Patrick Rodeman  
Executive Director

## **PERS Board Meeting Forward-Looking Calendar**

### **Friday, November 18, 2016**

Adoption of Reemployed Retirees Rule  
Board Scorecard Report on Agency Performance Measures  
Actuarial Financial Modeling  
Audit Committee Meeting

### **Friday, January 27, 2017**

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 AUG-2016

Oregon Public Employees Retirement Fund

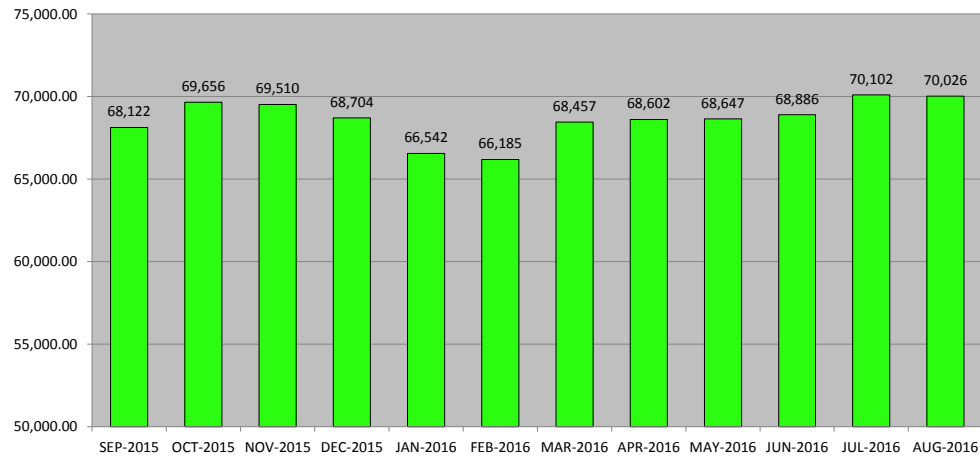
Item A.2.b.

OPERF	Regular Account				Historical Performance (Annual Percentage)							
	Policy <sup>1</sup>	Target <sup>1</sup>	\$ Thousands <sup>2</sup>	Actual	Year-To-Date <sup>3</sup>	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Public Equity	32.5-42.5%	37.5%	\$ 27,034,111	38.9%	6.28	6.92	0.93	7.14	9.91	9.20	9.37	4.84
Private Equity	13.5-21.5%	17.5%	\$ 13,590,577	19.6%	1.03	4.52	7.00	10.78	11.27	10.33	14.29	9.87
<b>Total Equity</b>	<b>50.0-60.0%</b>	<b>55.0%</b>	<b>\$ 40,624,688</b>	<b>58.5%</b>								
Opportunity Portfolio	0-3%	0%	\$ 1,440,800	2.1%	1.94	1.13	2.76	6.07	8.34	7.63	11.07	6.48
<b>Total Fixed</b>	<b>15-25%</b>	<b>20.0%</b>	<b>\$ 15,325,285</b>	<b>22.1%</b>	<b>5.25</b>	<b>4.64</b>	<b>2.87</b>	<b>3.86</b>	<b>3.19</b>	<b>4.38</b>	<b>6.13</b>	<b>5.77</b>
Real Estate	9.5-15.5%	12.5%	\$ 8,658,999	12.5%	6.26	11.46	11.20	12.24	12.34	11.99	10.54	6.06
Alternative Investments	0-12.5%	12.5%	\$ 3,353,802	4.8%	3.30	2.30	(2.03)	1.46	2.41	0.95		
Cash w/Overlay	0-3%	0%	\$ 7,854	0.0%	0.93	1.05	0.76	0.76	0.73	0.82	0.79	1.59
<b>TOTAL OPERF Regular Account</b>		<b>100.0%</b>	<b>\$ 69,411,427</b>	<b>100.0%</b>	<b>4.80</b>	<b>6.30</b>	<b>3.79</b>	<b>7.61</b>	<b>8.62</b>	<b>8.41</b>	<b>9.72</b>	<b>6.04</b>
<b>OPERF Policy Benchmark</b>					<b>6.29</b>	<b>6.40</b>	<b>4.34</b>	<b>8.30</b>	<b>9.04</b>	<b>9.07</b>	<b>9.89</b>	<b>6.41</b>
Value Added					(1.49)	(0.10)	(0.55)	(0.69)	(0.42)	(0.66)	(0.17)	(0.37)
<b>TOTAL OPERF Variable Account</b>			<b>\$ 614,437</b>		<b>6.49</b>	<b>7.77</b>	<b>0.81</b>	<b>7.18</b>	<b>9.46</b>	<b>8.84</b>	<b>9.01</b>	<b>3.85</b>

Asset Class Benchmarks:

Asset Class	8.01	11.44	5.75	11.74	13.82	14.46	13.82	7.59
Russell 3000	8.01	11.44	5.75	11.74	13.82	14.46	13.82	7.59
OREGON MSCI ACWI EX US IMI NET	4.61	3.53	(4.51)	2.46	5.10	3.57	4.60	2.46
MSCI ACWI IMI NET	6.23	7.37	0.41	6.84	9.11	8.46	8.67	4.66
RUSSELL 3000+300 BPS QTR LAG	8.88	2.65	8.98	14.45	15.32	14.32	20.48	10.50
OREGON CUSTOM FI BENCHMARK	5.02	4.35	2.64	3.38	2.61	3.79	4.39	4.84
OREGON CUSTOM REAL ESTATE BENCHMARK	5.16	11.81	12.27	11.90	11.55	11.92	9.12	7.61
91 Day Treasury Bill	0.19	0.23	0.13	0.10	0.10	0.09	0.11	0.97

**Total OPERF NAV**  
(includes Variable Fund asset)  
One year ending AUG-2016  
(\$ in Millions)



<sup>1</sup>OIC Policy revised June 2015.

<sup>2</sup>Includes impact of cash overlay management.

<sup>3</sup>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

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September 30, 2016

TO: Members of the PERS Board  
FROM: Linda M. Barnett, Budget Officer  
SUBJECT: September 2016 Budget Execution Report

### 2015-17 OPERATIONS BUDGET

Operating expenditures for July 2016 and preliminary expenditures for August 2016 were \$3,329,556 and \$8,321,927, respectively. Final expenditures for August will close in the Statewide Financial Management System (SFMS) on September 23, 2016, and will be included in the November 2016 report to the Board. To date, through the first 14 months (or 58.3%) of the 2015-17 biennium, the Agency has expended a total of \$56,940,398 or 53.40% of its legislatively approved operations budget of \$106,568,375. The current projected positive variance is \$3,430,623 or approximately 3.22% of the operations budget. The Agency's goal is to maintain a positive variance of at least \$2.1 million (2%).

As of September 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 – 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.

PERS recently attended the September 2016 Emergency Board with the following items:

- PERS addressed the Budget Note in HB 5034 (2015 Legislative Session). PERS was directed to undertake a statutory review to identify recommendations for simplifying and reducing the costs of the statutory benefits structure and its administration.
- PERS requested 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 Office and Legislative Fiscal Office to address specific PERS information security activities, including the implementation of 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.

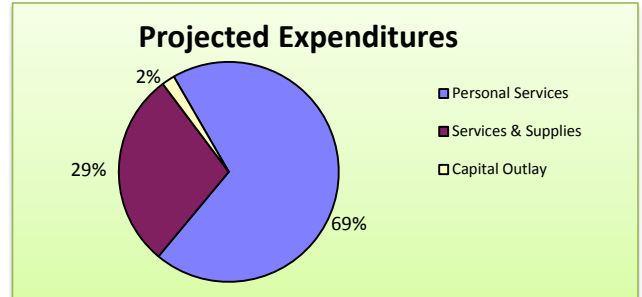
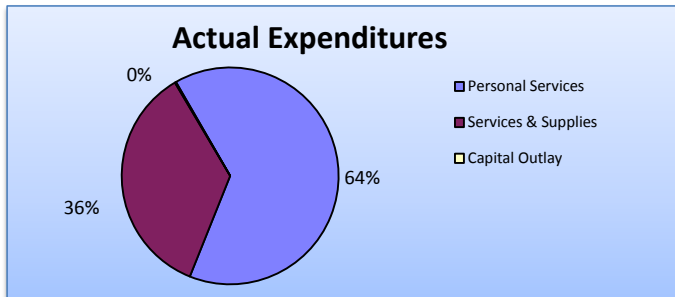
A.2.c. Attachment 1 – 2015-17 Agency-wide Budget Execution Summary Analysis

**2015-17 Agency-wide Budget Execution  
Summary Budget Analysis  
Preliminary For the Month of: August 2016**

**Limited - Operating Budget**

**2015-17 Biennial Summary**

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expenditures	2015-17 LAB	Variance
Personal Services	36,669,301	29,648,158	66,317,459	69,268,743	2,951,284
Services & Supplies	20,170,815	12,266,634	32,437,449	32,737,649	300,200
Capital Outlay	100,282	816,386	916,668	1,095,807	179,139
Unscheduled	0	3,466,176	3,466,176	3,466,176	0
<b>Total</b>	<b>56,940,398</b>	<b>46,197,354</b>	<b>103,137,752</b>	<b>106,568,375</b>	<b>3,430,623</b>



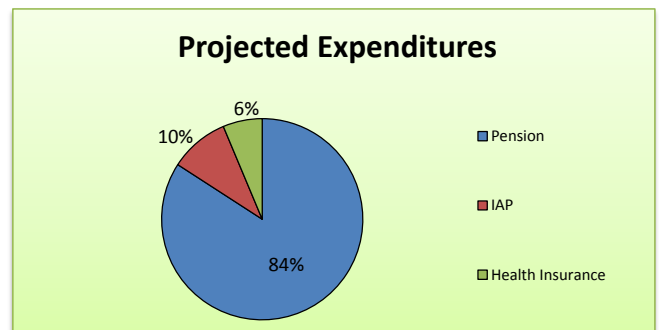
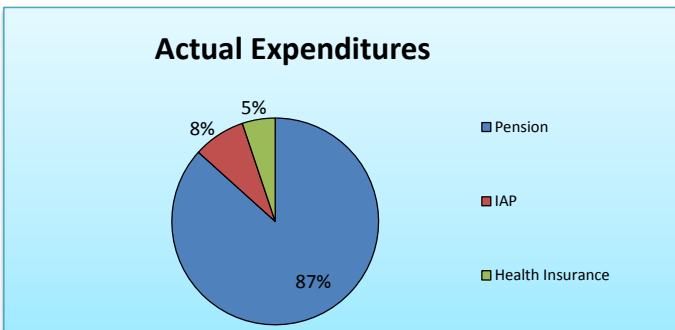
**Monthly Summary**

Category	Actual Exp.	Projections	Variance	Avg. Monthly Actual Exp.	Avg. Monthly Projected Exp.
Personal Services	2,613,989	2,900,999	287,010	2,619,236	2,117,726
Services & Supplies	5,633,574	5,987,783	354,209	1,440,772	876,188
Capital Outlay	74,364	0	(74,364)	7,163	58,313
<b>Total</b>	<b>8,321,927</b>	<b>8,888,782</b>	<b>566,855</b>	<b>4,067,171</b>	<b>3,052,227</b>

**Non-Limited Budget**

**2015-17 Biennial Summary**

Programs	Actual Exp To Date	Projected Expenditures	Total Est. Expenditures	Non-Limited LAB	Variance
Pension	4,632,348,151	3,433,120,129	8,065,468,280	8,291,874,726	226,406,446
IAP	437,405,429	389,867,626	827,273,055	873,488,891	46,215,836
Health Insurance	275,089,773	257,775,131	532,864,904	558,094,445	25,229,541
<b>Total</b>	<b>5,344,843,353</b>	<b>4,080,762,886</b>	<b>9,425,606,239</b>	<b>9,723,458,062</b>	<b>297,851,823</b>







# Oregon

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September 30, 2016

TO: Members of the PERS Board  
FROM: Steven Patrick Rodeman, Executive Director  
SUBJECT: Governor's Executive Order 16-13 – Unifying Cyber Security

Governor Kate Brown issued the attached Executive Order on September 13, 2016. The Order describes the efforts to centralize IT Information Security for Executive Branch agencies like PERS. The consequences of this order on our operations will evolve over time as the Office of the State Chief Information Officer (OSCIO) assesses where various agencies are in their efforts and develops plans to achieve the outcomes sought by the Governor's Order.

At PERS, we have always held Information Security as a Core Operating Principle, which we currently describe as, "We are constantly vigilant to safeguard confidential information." You will recall that we are currently engaged in efforts to stand up our own dedicated Information Security program, and that those efforts were accelerated at the request of the OSCIO and Legislative Fiscal Office. Also, we included a placeholder Policy Option Package (POP) in our 2017-19 Agency Request Budget for this Information Security Program, which you approved at your July 2016 meeting and which we have already submitted to the Department of Administrative Services (DAS) for its review.

The impact of this Order on our current design efforts and on the ultimate design of the 2017-19 POP is yet to be determined. We have checked in with our Salem contacts at DAS and OSCIO to ensure that our continued efforts are consistent with this Order, and will continue to stay connected.

From my perspective, I would note that IT Information Security is only one component of an Information Security Program. Information security is an Operating Principle, not an IT principle. There are sociological and organizational components of any such program that cannot be centralized, but must rather be imbedded in the agency's culture (hence, our calling this out as a Core Operating Principle for us). Even if the IT component is centralized under the OSCIO, there will be elements of our Information Security Program that will remain within our responsibility. The intersection and coordination of those efforts may be different if the IT component is outside this agency, but they all must still exist for us to meet our standard of constant vigilance.

A.2.d. Attachment 1 – Governor's Executive Order EO 16-13



**EXECUTIVE ORDER NO. 16-13**

**UNIFYING CYBER SECURITY IN OREGON**

WHEREAS, information systems, networks, and critical infrastructure around the world are threatened by increasing and evermore sophisticated cyber-attacks; and

WHEREAS, the people of and businesses operating within Oregon have entrusted state government with a large repository of information that they expect will be protected and secured; and

WHEREAS, information is a strategic asset of the state of Oregon that should be managed and secured as a valuable state resource; and

WHEREAS, the continuous and efficient operation of state government information systems is both vital and necessary to the mission of providing government services in Oregon; and

WHEREAS, vulnerabilities of the state's information systems underscore the need to enhance the security of Oregon information systems, networks, and critical infrastructure; and

WHEREAS, aging information technology infrastructure and antiquated legacy information systems in use by state agencies remain vulnerable to cyberattack, placing private information about state employees and their dependents, consumers of state services, taxpayers, and the residents and businesses of Oregon at risk; and

WHEREAS, responsibility and accountability for the security of state information systems is currently dispersed and decentralized with the exception of the enterprise information resources, technology, and telecommunications infrastructure managed and overseen by the State Chief Information Officer.

WHEREAS, ORS 182.122 imposes on state agencies the responsibility to secure their information systems or implement information security plans, policies, standards, and procedures established by the State Chief Information Officer; and

WHEREAS, unification of the state's cyber security functions under the leadership of the State Chief Information Officer is necessary to protect the availability, integrity, and confidentiality of state information systems and the information stored in state information systems pursuant to ORS 182.122;



**EXECUTIVE ORDER NO. 16-13**

**PAGE TWO**

**NOW, THEREFORE IT IS HEREBY DIRECTED AND ORDERED:**

1. All state agencies within the Executive department as defined in ORS 174.112, except the Secretary of State, State Treasurer, Attorney General of Oregon, Oregon Bureau of Labor and Industries, State Lottery, and public universities listed in ORS 352.002, shall carry out the actions necessary to unify information technology (IT) security functions.
2. Beginning on the effective date of this Executive Order, the State Chief Information Officer (CIO), or designee of the State CIO, and state agencies specified in section 1 shall work cooperatively to prepare for and develop a plan to execute the transfer of agency IT security functions and employees to the Office of the State CIO (OSCIO) by November 1, 2016.
3. In accordance with the plan, the Director of each state agency specified in section 1 shall deliver to the State CIO, or designee of the State CIO, all records related to the performance of the agency IT security functions transferred to OSCIO.
4. The Director of each state agency specified in section 1 shall execute a "Job Rotation — External Agreement" to assign employees engaged primarily in the performance of agency IT security functions to OSCIO. The job rotation shall begin within one month of the effective date of this Executive Order and shall end on June 30, 2017, or at a time decided by the mutual agreement of the sending agency's Director and the CIO. The sending agency shall continue to be responsible for the employees' compensation for the duration of the job rotation assignment.
5. The State CIO shall take possession of the records, and take charge of the employees specified in section 4, subject to the terms of the "Job Rotation — External Agreement," the state's ordinary practices in performing such agreements, applicable collective bargaining agreements, and other applicable law. As necessary to accomplish the missions and goals of the state and state agencies, the State CIO, or the State CIO's designee, may immediately redeploy transferred employees back to their respective agency of origin under the continuing supervision of the State CIO, or the State CIO's designee.
6. State agencies shall assist OSCIO and provide access to personnel and other resources necessary to successfully execute the job rotation.
7. The DAS Director, or designee of the DAS Director, shall ensure compliance with all applicable policy provisions and collective bargaining agreements,




**EXECUTIVE ORDER 16-13**  
**PAGE THREE**

including providing any notices required thereunder within the applicable time periods.

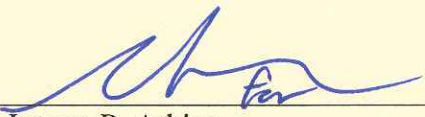
8. All state agencies shall cooperate in the development of and follow the plans, rules, policies, and standards adopted by the State CIO. Further, all state agencies shall provide OSCIO with full cooperation in the implementation of a statewide agency-by-agency risk-based security assessment and remediation program. The State CIO shall determine and charge the costs incurred by the program for third-party security evaluations, vulnerability assessments, other related technical services, and remediation measures to the state agencies that the State CIO serves. The state agency shall pay the cost to the State CIO in the same manner that other claims are paid. Additionally, state agencies will conduct and document the completion of OSCIO approved information security awareness training for all agency employees on an annual basis; report security metrics using methodologies developed by the OSCIO; and participate in activities coordinated by the OSCIO in order to better understand and address security incidents and critical cyber security threats to the state.
9. This Executive Order shall remain in effect until it is otherwise modified, amended or terminated.

Done at Salem, Oregon, this 12<sup>th</sup> day of September, 2016.



  
\_\_\_\_\_  
Kate Brown  
GOVERNOR

ATTEST:

  
\_\_\_\_\_  
Jeanne P. Atkins  
SECRETARY OF STATE



# Oregon

Kate Brown, Governor

## Public Employees Retirement System

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September 30, 2016

TO: Members of the PERS Board  
FROM: David Crosley, Communications Director  
SUBJECT: 2016 Customer Service Survey Results

PERS conducted customer satisfaction surveys for active and retired members and employers in August 2016, in accordance with requirements adopted by the 2005 Legislature for standardized customer service performance measures and survey questions for all state agencies. The measures require agencies to survey customers and report results in their budget presentations.

Our 2016 surveys continue to show good overall ratings from both members and employers. We will continue to conduct yearly surveys to measure and trend improvement in our customer service.

### MEMBER CUSTOMER SATISFACTION SURVEY

PERS posted a link to the customer service survey on its website during August 2016. We also placed a hard copy of the survey in the August 1 edition of the retired members' newsletter, *Perspectives*. The August 1 *Perspectives* newsletter for active members noted that the survey was available online. In total, we received 1,381 responses, a number of which included individual comments. In comparison, we received 1,150 responses in 2015. Approximately 80% of responses were from retired members and we are looking at ways engage more active members in the survey as part of our 2015-20 Strategic Plan.

We identified two key issues and suggestions from the comments received as detailed below. We also describe our strategies to address those items and the methodologies used in the survey. The following graphs and charts display the survey results and provide a comparison of responses for the 2012 through 2016 survey years.

In addition to the standard questions we are required to survey by the legislature, we also asked for input regarding the PERS website:

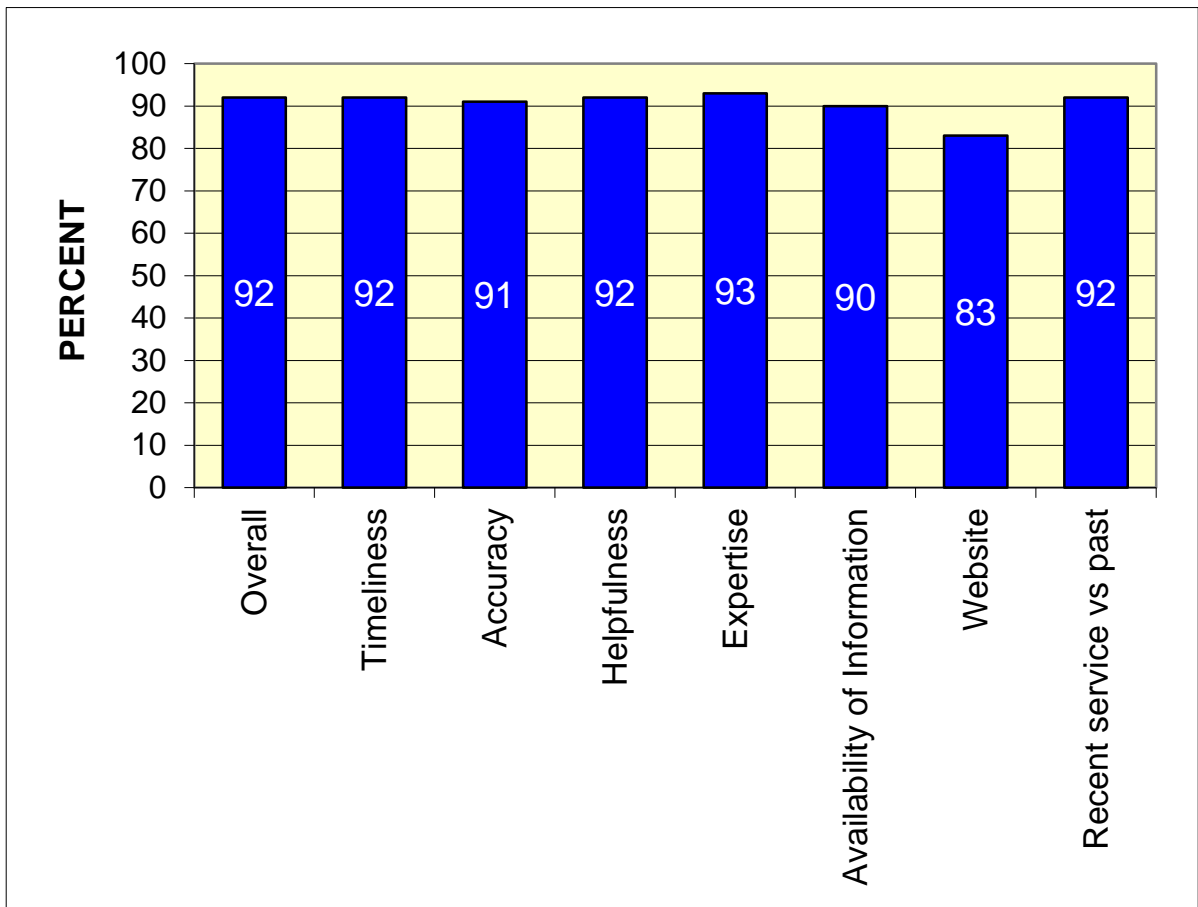
- Was the PERS website easy to navigate?
- Did you find the information you wanted?
- Are there any changes you would make to the PERS website?

Approximately 83% of respondents said the website was easy to navigate and approximately 84% found the information they were seeking.

Another question asked: "If you rated PERS 'Fair' or 'Poor' in any part of question 3, please tell us why you did not rate us 'Excellent' or 'Good.'" Many noted their dissatisfaction with legislative changes to PERS benefits.

Again this year we asked: “Are PERS forms easy to understand and use?” Approximately 74% of respondents answered “yes,” with approximately 5% answering “no.” The remainder had “not used” PERS forms.

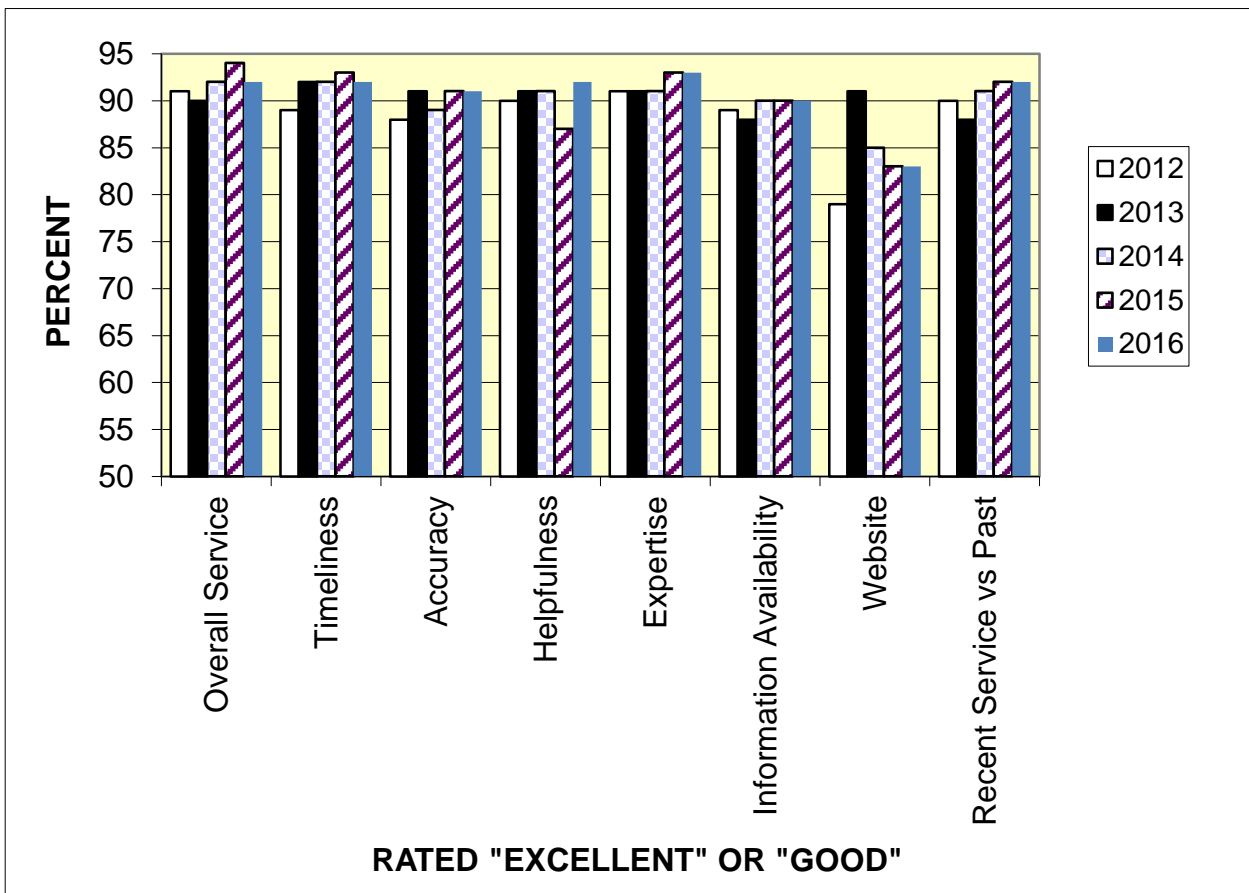
**Percent of member respondents rating “excellent” or “good” (the state’s measures do not include the “Don’t Know” responses; the numbers in the graph have been rebaselined to exclude those responses).**



**NUMERICAL MEMBER RESULTS (may not equal 100% due to rounding)**

How do you rate...	Percent				
	Excellent	Good	Fair	Poor	Don't Know
The overall quality of service?	62	27	5	3	3
The timeliness of services PERS provides?	58	30	4	3	5
PERS' ability to provide services accurately the first time?	58	28	5	3	6
PERS' helpfulness?	61	25	5	3	6
The knowledge and expertise of PERS employees?	57	28	5	3	6
The availability of information at PERS?	55	29	6	3	7
The PERS website?	24	23	7	3	43
Our service in the past year compared to previous years?	45	25	3	2	25

**COMPARISON OF 2012-2016 MEMBER RESULTS**



## **KEY MEMBER ISSUES AND SUGGESTIONS (in order of number of responses)**

### **1. Current members and retirees noted that they would like more functionality in Online Member Services (OMS).**

OMS is a 24/7 window into PERS member accounts (active, inactive, and retired). Respondents suggested more functionality in OMS. For example, retiring members would like to see the status of their retirement application. Among current capabilities, members can create benefit estimates using data supplied by their employers. Retired members can access payment data or change their address on line for example.

#### **Resolution:**

One of the goals in our 2015-20 Strategic Plan is to improve members' on-line access to secure content and process status. We are working to develop, improve, and integrate workflows into OMS to provide greater visibility to processes and transactions. Our 2017-19 budget calls for an increase in Information Technology funds to add functionality in OMS.

### **2. Respondents noted a long wait time for a benefit option change upon the death of a member or based on selections at retirement.**

Some respondents felt that the wait for a benefit option change is too long when a retired member's beneficiary dies or the member gets divorced from a beneficiary. Option changes for Tier One and Tier Two members are also allowed based on options selected at retirement. There were approximately 300 pending option changes as of the end of August 2016.

#### **Resolution:**

PERS is now processing these benefit option changes following a slowdown due to resource requirements to work on the *Moro* project that restored annual cost-of-living adjustments. The *Moro* project delayed recalculations, which are needed to perform adjustments. The calculations team is on track to resolve the backlog by the end of 2016 as is working the backlog from oldest to newest.

## **SURVEY METHODOLOGIES**

To maximize member response, PERS created this survey online and posted it in a prominent position on our home page. We also published the location of the survey in our member newsletters. The online survey ran throughout August 2016. Further, we placed a hard copy of the survey in the newsletter that goes to retired members and they had several weeks to complete and mail the survey to PERS.

We used surveymonkey.com to create the survey, using the six key questions the state requires all state agencies to use for the Customer Satisfaction Performance Measure survey.

The survey report combines the online and hard copy responses, even though only retired members received hard copies.



## **EMPLOYER CUSTOMER SATISFACTION SURVEY**

PERS surveyed employers online for the tenth consecutive year. The employer satisfaction survey was posted online throughout August 2016. Employers received an e-mail inviting them to take the survey; 188 responses were received, a number of which included individual comments. In comparison, we received 166 responses in 2015.

We identified two key issues and suggestions from the comments received as detailed below. We also describe our strategies to address those items and the methodologies used in the survey.

The following graphs and charts display the survey results and provide a comparison of responses for the 2012 through 2016 survey years.

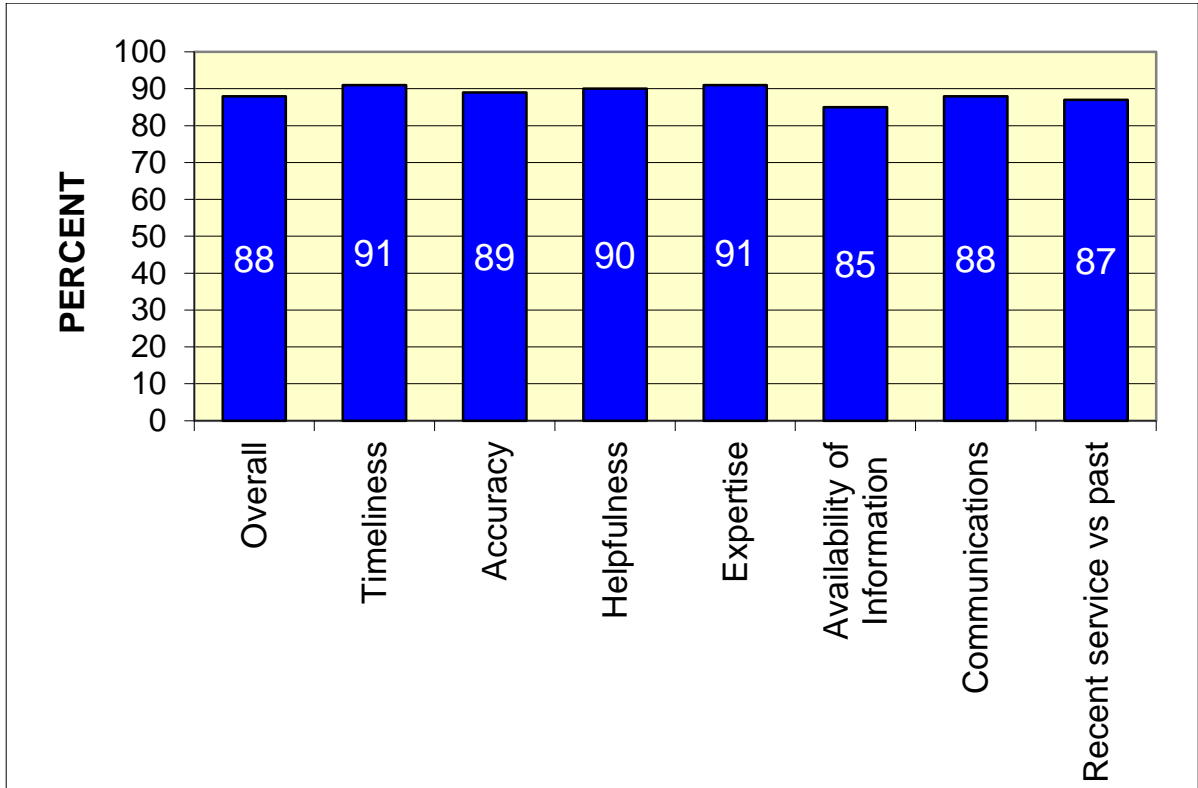
Again this year, we asked three questions regarding the PERS employer website:

- Was the PERS employer website easy to navigate?
- Did you find the information you wanted?
- Are there any changes you would make to the PERS website?

More than 91% of employer respondents said the employer website is “easy” or “somewhat easy” to navigate.

Another questions asked: “If you rated PERS ‘Fair’ or ‘Poor’ in any part of question 6, please tell us why you did not rate us ‘Excellent’ or ‘Good.’ ” Some employers noted the complexity of the electronic data reporting system.

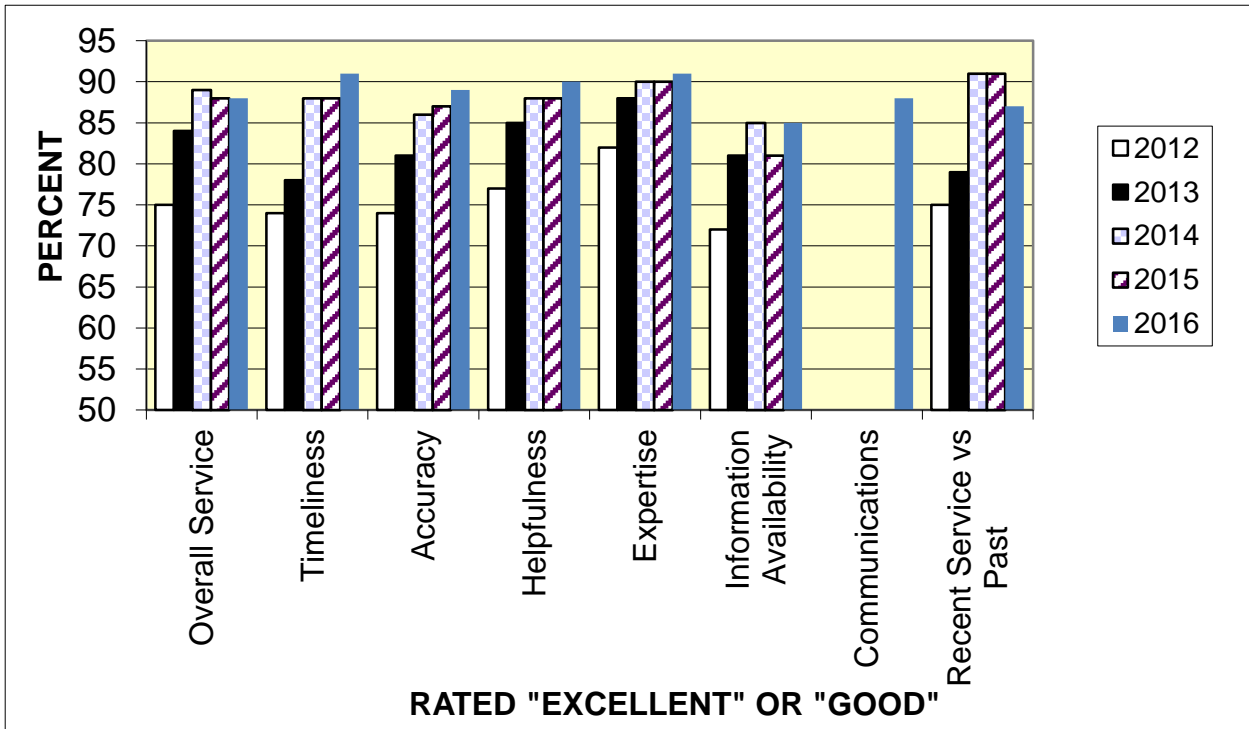
**Percent of employer respondents rating “excellent” or “good” (the state’s measures do not include the “Don’t Know” responses; the numbers in the graph have been rebaselined to exclude those responses).**



**NUMERICAL EMPLOYER RESULTS (may not equal 100% due to rounding)**

How do you rate...	Percent				
	Excellent	Good	Fair	Poor	Don't Know
The overall quality of service?	47	40	6	4	3
The timeliness of services PERS provides?	45	42	6	3	4
PERS' ability to provide services accurately the first time?	44	43	6	4	3
PERS' helpfulness?	55	33	6	3	3
The knowledge and expertise of PERS employees?	55	33	5	4	3
The availability of information at PERS?	39	45	11	3	2
The overall quality of communications to employers?	46	41	8	3	2
Our service in the past year compared to previous years?	42	33	8	3	14

**COMPARISON OF 2012-2016 EMPLOYER RESULTS**



**KEY EMPLOYER ISSUES AND SUGGESTIONS (in order of number of responses)**

**1. Employers noted the need for additional improvements in the employer reporting system.**

Employers noted that access to information and the layout of information in the employer reporting system could be improved.

**Resolution:**

We will continue to look for enhancements that simplify reporting for employers. Our 2017-19 budget seeks an increase in Information Technology funds to add functionality in the employer reporting system.

**2. Employers asked about the availability of Employer Service Center (ESC) account representatives throughout the business day.**

Employers continue to question the availability of ESC account representatives.

**Resolution:**

Employers can call their assigned ESC representative (or talk with someone else in ESC) anytime of the day. We have enhanced the front-end phone messaging to clarify that ESC account representatives are available Monday through Friday, from 8 a.m. to 5 p.m. The most recent Employer Monthly Update (sent to all PERS employers) also includes this reminder.

When account representatives are assigned new employers, the representative reaches out to the employer’s reporting staff to let them know the hours they are available. We also reach out to new reporting staff and provide them this information. The employer website currently has the

hours listed. We are redesigning the employer website and the hours ESC staff is available will be prominently displayed.

### **SURVEY METHODOLOGIES**

To maximize employer response, we created this survey online and sent an email to all employers inviting them to participate. A follow-up email was sent to employers approximately 10 days before the survey deadline. The survey ran throughout August 2016. We set the survey so more than one employee per employer could respond since we often interact with more than one employer contact.

We used surveymonkey.com to create the survey, using the six key questions the state requires all state agencies to use for the Customer Satisfaction Performance Measure survey. The survey included a comments section. The most common comments are summarized and addressed in the respective Key Employer Issues and Suggestions section of this report.



# Oregon

Kate Brown, Governor

Item B.1.

## Public Employees Retirement System

Headquarters:  
11410 S.W. 68<sup>th</sup> Parkway, Tigard, OR  
Mailing Address:  
P.O. Box 23700  
Tigard, OR 97281-3700  
888-320 -7377  
TTY (503) 603-7766  
[www.oregon.gov/pers](http://www.oregon.gov/pers)

September 30, 2016

TO: Members of the PERS Board  
FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section  
SUBJECT: Notice of Rulemaking for Reemployment of Retired Members Rule:  
OAR 459-017-0060, *Reemployment of Retired Members*

### OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Housekeeping edits to reflect changes from recent legislative sessions 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 retirees 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 retirees 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 members who are re-employed by school districts or education service districts as teachers of career and technical education (CTE). Retirees 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 retirees 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.

#### PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing will be held October 25, 2016, at 2:00 p.m. at PERS headquarters in Tigard. The public comment period ends October 31, 2016, at 5:00 p.m.

#### LEGAL REVIEW

The attached draft rule was submitted to the Department of Justice for legal review and any comments or changes will be incorporated before the rule is 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	<i>Oregon Bulletin</i> publishes the Notice. Notice is sent to employers, legislators, and interested parties. Public comment period begins.
October 25, 2016	Rulemaking hearing to be held at 2:00 p.m. at PERS in Tigard.
October 31, 2016	Public comment period ends at 5:00 p.m.
November 18, 2016	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 October 25, 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 November 18, 2016 Board meeting.

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

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

1     **459-017-0060**

2     **Reemployment of Retired Members**

3             (1) For purposes of this rule, “retired member” means a member of the PERS Chapter  
4     238 Program who is retired for service.

5             (2) Reemployment under ORS 238.082. A retired member may be employed under  
6     238.082 by a participating employer without loss of retirement benefits provided:

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

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

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

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

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

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

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

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

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

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

11 (B) If the retired member retired at a reduced benefit under the provisions of ORS  
12 238.280(1), (2) or (3), the retired member is not so employed until more than six months  
13 after the member’s effective retirement date and the member’s retirement otherwise meets  
14 the standard of a bona fide retirement;

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

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

19 (f) The retired member is employed for service during a legislative session under ORS  
20 238.092(2);

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



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

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

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

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

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

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

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

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

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

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

1 (iii) If the member received a single lump sum payment under ORS 238.305(4) or  
2 238.315, the member is entitled to the payment provided the payment was dated on or  
3 before the last day of the month in which the limitations were exceeded.

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

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

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

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

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

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

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

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

20 (6) For purposes of determining period(s) of employment in section (2) of this rule:

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

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

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

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

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

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

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

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

22           (d) If the member elected a partial lump sum option under ORS 238.305(2), the last  
23 monthly service retirement allowance payment to which the member is entitled is for the

1 month before the calendar month in which the member is reemployed. The last lump sum  
2 or installment payment to which the member is entitled is the last payment due before the  
3 date the member is reemployed. Upon subsequent retirement, the member may not choose  
4 a different benefit payment option unless the member has repaid to PERS in a single  
5 payment an amount equal to the lump sum and installment benefits received and the  
6 earnings that would have accumulated on that amount.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21 (a) PERS will cancel the member’s retirement effective the date the member is  
22 reemployed.

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

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

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

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

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

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

17 (11) Reporting requirement. A participating employer that employs a retired member  
18 must notify PERS in a format acceptable to PERS under which statute the retired member  
19 is employed.

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

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

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

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

9 (13) Subsections (4)(c) and (4)(d) of this rule are repealed effective January 2,  
10 ~~[2016]~~2026.

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

13 Stat. Auth.: ORS 238.650

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



# Oregon

Kate Brown, Governor

## Public Employees Retirement System

Headquarters:  
11410 S.W. 68<sup>th</sup> Parkway, Tigard, OR  
Mailing Address:  
P.O. Box 23700  
Tigard, OR 97281-3700  
888-320 -7377  
TTY (503) 603-7766  
[www.oregon.gov/pers](http://www.oregon.gov/pers)

September 30, 2016

TO: Members of the PERS Board  
FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section  
SUBJECT: Adoption of Accounts Receivable Fraud Rule:  
OAR 459-005-0260, *Accounts Receivable - Fraud*

### OVERVIEW

- Action: Adopt the Accounts Receivable Fraud rule.
- Reason: To establish a formal fraud detection, investigation, and resolution process.
- Policy Issue: No policy issues were identified.

### BACKGROUND

Fraud detection is an important part of PERS' fiduciary duty of ensuring that benefits are properly paid. It is also consistent with our mission "to pay the right person the right benefit at the right time." While PERS has, unfortunately, dealt with fraud situations as they have arisen, it has not previously had a formal process for fraud detection, investigation, and resolution. Historically, PERS has dealt with cases of fraud mainly as a collection matter under ORS 238.715. However, ORS 238.715(8) also recognizes that the recovery and collection remedies authorized under ORS 238.715 are supplemental to any other remedies that may be available.

The purpose of this new rule is to emphasize that PERS will actively pursue all available legal remedies in cases of fraud. These legal remedies include but are not limited to bringing civil actions under ORS 180.755 against individuals who have committed any of the enumerated acts against PERS, such as presenting for payment or approval, or cause to be presented for payment or approval, a claim that the individual knows is a false claim; and pursuing criminal charges against individuals who have defrauded or attempted to defraud PERS by committing criminal acts of perjury, mail theft, forgery, and/or identity theft as these crimes are defined under Chapters 162, 164, and 165 of the Oregon Revised Statutes.

### PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing was held August 23, 2016, at 2:00 p.m. at PERS headquarters in Tigard. No members of the public attended. The public comment period ended September 2, 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: Provide better tools for staff to detect, investigate, and resolve fraud situations.

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

### RULEMAKING TIMELINE

July 15, 2016	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
July 29, 2016	PERS Board notified that staff began the rulemaking process.
August 1, 2016	<i>Oregon Bulletin</i> published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
August 23, 2016	Rulemaking hearing held at 2:00 p.m. at PERS in Tigard.
September 2, 2016	Public comment period ended at 5:00 p.m.
September 30, 2016	Board may adopt the permanent rule.

### BOARD OPTIONS

The Board may:

1. Pass a motion to “adopt the Accounts Receivable Fraud 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: To establish a formal fraud detection, investigation, and resolution process.

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 459-005-0260, *Accounts Receivable - Fraud*

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

1 **459-005-0260**

2 **Accounts Receivable - Fraud**

3 **(1) PERS will investigate all suspected fraudulent activities in order to maintain**  
4 **the integrity and proper distribution of benefits.**

5 **(2) PERS may pursue all available legal and administrative actions in fraud**  
6 **cases discovered under section (1) of this rule, including but not limited to:**

7 **(a) Criminal prosecution under ORS Chapters 162, 164 and 165; or**

8 **(b) Civil sanctions under ORS Chapter 180.**

9 **Stat. Auth.: ORS 238.650, 238A.450**

10 **Stats. Implemented: ORS Ch. 238, 238A**



# Oregon

Kate Brown, Governor

## Public Employees Retirement System

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[www.oregon.gov/pers](http://www.oregon.gov/pers)

September 30, 2016

TO: Members of the PERS Board  
FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section  
SUBJECT: Update on Status of Disability Rules

At the PERS Board's May 27, 2016 meeting, we reported that we were suspending all proposed changes to the disability rules due to the concern regarding disability eligibility. In addition, we indicated we would form a focus group to discuss potential modifications.

In June, we formed the focus group, consisting of member representatives, employer representatives, and PERS staff. While we had originally anticipated bringing the disability rules forward for adoption or first reading at this Board meeting, the focus group is requesting additional time for discussion and has developed a plan to move forward with rule modifications.

The focus group intends to develop high-level policy objectives for presentation to the Board at its November 2016 meeting. Once the policy objectives are more clearly defined, we will review the disability administrative rules and proposed modifications to ensure they are consistent with the policy objectives. Any necessary rule modifications are scheduled to be presented at the January 2017 PERS Board meeting.



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September 30, 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, there are two major activities in process to adjust populations of benefit recipients who have yet to be resolved.

#### Population C

Population C represents all benefit recipients who have not yet been adjusted, mainly due to complications in their benefit calculations such as divorce or a second retirement. There are about 1,000 members in this group (less than 1% of the affected recipients). These will be resolved through a system batch update on October 13, 2016, to correct their benefit payments going forward. Staff is still validating the data, but we estimate that there are about 10 recipients that may have invoices over \$50. Letters will be mailed to all of these benefit recipients in early October, informing them of the adjustment and their new benefit amount, and checks will be mailed the week of October 16.

#### 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.<sup>1</sup> We will resolve these by researching whether an authorized representative was established for the recipient's estate and, if not, attempt 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 September 14, 2016, we have sent out 550 letters to this population. PERS has received forms from 65 representatives and 11 accounts have been paid out. Staff is first focusing on accounts that already have a survivor since we have a known contact in the system.

---

<sup>1</sup> 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.



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September 30, 2016

**TO:** Members of the PERS Board  
**FROM:** Marjorie Taylor, Senior Policy Director  
**SUBJECT:** Legislative Update

### SEPTEMBER LEGISLATIVE DAYS

During the September 22, 2016, meeting of the Emergency Board Subcommittee on General Government, PERS will present two items:

#### **1. House Bill 5034 (2015) Budget Note Report – Benefits Structure Review**

A budget note in the agency's 2015-17 budget noted "in consideration of a future information technology upgrade of its retirement applications, (the agency) is directed to undertake a statutory review to identify recommendations for simplifying and reducing the costs of the statutory benefits structure and its administration."

We drafted a report in response to this budget note that clarifies our information technology strategy, the statutory complexity of the PERS plan, and legal constraints on simplification efforts. However, the report suggests three areas that present administrative challenges which may benefit from legislative direction: (1) simplifying (or eliminating) the restrictions on members working after retirement for public employers; (2) enhancing member data reliability by establishing members as the quality check point for their data of record; and (3) eliminating Individual Account Program installment payments, which only about 15% of members opt for at retirement.

Discussions or improvements in these areas would not impact the actuarial value of a member's benefit, but would simplify communications with members and employers and streamline system administration.

#### **2. Increase in Budget Limitation to Fully Develop an Information Security Program**

In April 2016, PERS was directed to complete a list of prioritized Information Security activities before the end of the 2015-17 biennium. In collaboration with the State Procurement Office, Office of the State Information Officer, and Enterprise Security Office, a Request for Proposal (RFP) for consulting services to develop and implement an Information Security Program was issued on May 10, 2016. The RFP selection panel chose HP Enterprise Services. The engagement is expected to last approximately nine months. This request funds the consulting work under the engagement.

The materials we submitted to the subcommittee are attached. If passed out of the subcommittee, the full Ways & Means will address these items at their subsequent meeting on Friday, September 23, 2016. I will update you on the outcome of these items at the Board meeting.

### EXECUTIVE APPOINTMENTS

The current term of Vice Chair Pat West expired August 31, 2016. Mr. West will continue to serve in the position until reconfirmed or a new appointment is made to the position. The terms of remaining board members expire in February, September, or December 2018.

### PERS LEGISLATIVE ADVISORY COMMITTEE

In anticipation of the 2017 legislative session, and as established in ORS 238.660(10), the Board will confirm membership of the PERS Legislative Advisory Committee (LAC) at the November 18, 2016 Board meeting. The LAC is to advise the Board on legislative proposals for changes in benefits.

**PERS SOLUTIONS WORKGROUP**

On Wednesday, September 21, 2016 Senator Tim Knopp and Senator Betsy Johnson will convene the PERS Solutions Workgroup to discuss proposals for PERS Reform. PERS reform options that may be discussed include: cap final average salary calculation at \$100,000 per year; use a market rate for Money Match annuities; redirect member contributions into an account to pay for future pension benefits; prevent use of unused vacation and sick leave in final average salary calculations; spread final average salary calculations over five instead of three years; move new PERS members to a defined contribution program; and allow bargaining of employer payment of employee contributions, limiting agreements to five-year periods.

Executive Director Steve Rodeman will present background information at the meeting. A copy of the presentation is attached to this memo. As concepts are developed or further issues are asked to be addressed, PERS will provide information about the impact to members, employers, system funding, and agency operations.

- C.2. Attachment 1 – House Bill 5034 (2015) Budget Note Response
- C.2. Attachment 2 – Agency Request for Budget Increase for Information Security Program
- C.2. Attachment 3 – Presentation to the PERS Solutions Workgroup



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August 22, 2016

The Honorable Senator Peter Courtney, Co-Chair  
The Honorable Representative Tina Kotek, Co-Chair  
State Emergency Board  
900 Court St NE  
H-178 State Capitol  
Salem, OR 97301-4048

Dear Co-Chairpersons:

### **Nature of the Request**

Through a Budget Note in HB 5034 (2015 Legislative Session), PERS was directed to undertake a statutory review to identify recommendations for simplifying and reducing the costs of the statutory benefits structure and its administration.

### **Agency Action**

PERS developed the attached report, which explains the dynamics in administering the current plan and the challenges in system administration and cost that the plan's complexity presents. Given the Oregon Supreme Court's admonition that benefits earned cannot be reduced, the report instead emphasizes that future changes to the plan should be limited to avoid compounding these administrative challenges.

### **Action Requested**

Acknowledge receipt of the report.

### **Legislation Affected**

No legislation is affected by this request.

Sincerely,

Steven Patrick Rodeman  
Executive Director

Attachment: House Bill 5034 (2015) Budget Note Report – Retirement System Complexity

## House Bill 5034 (2015) Budget Note Report Retirement System Complexity September 2016

---

During the 2015 legislative session, a budget note was added to House Bill 5034, the PERS agency budget:

“The Public Employees Retirement System, in consideration of a future information technology upgrade of its retirement applications, is directed to undertake a statutory review to identify recommendations for simplifying and reducing the costs of the statutory benefits structure and its administration. The report is to be submitted to the appropriate legislative committee(s) by September 2016.”

This report will address the components of this budget note to clarify the agency’s information technology strategy, the relative complexity of the plan as it stands, and the constraints on simplification efforts. We also explore some ideas for prospective application that might contribute towards simplifying the plan’s administration.

### **Information Technology Upgrade Strategy**

PERS deployed the Oregon Retirement Information Online Network (ORION) in 2011 after successfully completing a project to replace its legacy technology. ORION is a loosely coupled set of applications and solutions that allows the agency to administer its retirement benefit programs across an array of discrete, yet integrated, technology platforms.

Even though ORION is relatively new, it has already had to evolve over time as plan administration needs have changed. ORION is not like other public sector legacy systems, however, as its architecture was planned and is being maintained to allow that evolution without a “rip and replace” strategy. Understanding this system architecture is crucial to evaluating PERS’ information technology upgrade strategy and budget requests.

The information technology upgrades that PERS is pursuing are not, therefore, system replacement approaches with which the legislature is usually presented. Rather, PERS’ information technology strategy is built around Service Oriented Architecture (SOA), where system components communicate and integrate across a shared platform. That architecture allows upgrades to focus on discrete areas of plan administration. For example, the agency’s current project to fully integrate administration of the Individual Account Program (IAP) is predicated on this strategy. Rather than ripping out the current system, this project is building modules that will provide new system functionality in coordination with its existing technology.

Future upgrades will be modeled on this same SOA approach and align with the agency’s strategic plan. Our technology and business modernization objectives are presented in more detail in our Policy Option Packages that were approved for the 2015-17 budget cycle (but not yet rescheduled), and are proposed in the Agency Request Budget for 2017-19. While this architecture allows PERS to integrate complex elements into its existing systems (e.g., the new Cost of Living Adjustment rules required to comply with the *Moro* decision), the agency’s strategy would rather focus on improving member services and benefit administration than spend those resources on adapting to more plan complexities.



### **Oregon PERS' Relative Complexity**

CEM Benchmarking is a world-wide company that provides comparisons to retirement systems of their benefit administration efficiency. According to them, Oregon PERS has one of the most complicated benefit structures among their clients: "Oregon PERS has one of the highest plan design complexity scores among the North American universe. High complexity impacts both productivity and back-office costs."

According to CEM Benchmarking's 2015 report, Oregon PERS has a total complexity score of 92 (out of 100), while our peer retirement systems average a score of 71. This relatively higher score relates directly to our administrative costs, which CEM Benchmarking measures on a "cost per member" basis. Our costs are \$128 per member, compared to our peer average of \$102. Two areas where our costs have the widest disparity from average are fewer transactions per FTE (+\$25.08) and IT Strategy, Database, and Applications (+\$12.27). Both cost drivers tie directly to system complexity. For example, to start a new retirement benefit, we do 94% more work than our peers (up to three calculation methods, 13 benefit payment options, etc.). To the extent that we can program these transactions through ORION, business rules driving that programming need to be more involved, which drives up IT costs.

Some of this complexity is inherent in the fact that this agency does administer multiple programs (Tier One, Tier Two, and OPSRP). Within these programs, numerous employers with diverse employment cultures and needs are served under the Oregon PERS plan. This diversity of perceived needs is also a major driver in PERS' complexity. Statutory changes that have been adopted or proposed are presented to resolve perceived inequities in the system or allow enhanced benefits to disparate classes of members. No system as broadly diverse as Oregon PERS could in fact be "fair" in every given circumstance.

Hence, determining whether a member has served 30 years to be eligible for full retirement involves special rules for school districts, community colleges, police, and firefighters (and subsets such as wildland firefighters). Each year or month must be reviewed to see whether the member worked a "major fraction" of that month – a term with no statutory definition (15 days? 50 hours?) – and reconciled for employment gaps or other leaves (think substitute teachers).

That's just the complications in resolving one aspect of benefit administration. Salary, contributions, eligibility, or classification all have different consequences and parameters depending on a variety of factors that have been introduced in PERS over the years. These statutory changes further complicate the benefit administration and, while this agency implements the plan as directed by the legislature, even a statute change that may be perceived as "minor" breeds administrative repercussions that have resulted in our complexity and cost rankings relative to our retirement system peers.

### **Constraints on Simplification Concepts**

The Oregon Supreme Court issued their opinion in the *Moro* case in April 2015. That opinion is generally regarded to hold that earned benefits may not be modified. Statutory changes that may simplify the system can only address prospective changes to member benefits. Therefore, the complexity level for Oregon PERS is already "baked in" relative to Tier One and, to a somewhat lesser extent, Tier Two. OPSRP is a relatively straight-forward program and, if left unchanged, the relative complexity of Oregon PERS would wear away as OPSRP becomes the predominant pension program. That only holds true, however, so long as OPSRP remains unmodified.

### **Prospective Changes to Plan Administration**

Within these constraints of not affecting benefits earned to date, staff did engage the agency's Legislative Advisory Committee in reviewing concepts that would improve member services. These concepts align with the agency's mission to "pay the right person the right benefit at the right time" and with strategic plan initiatives to Improve Member Services and Communication and in the area of Data Reliability. Three areas that currently present administrative challenges may benefit from legislative direction:

1. **Work After Retirement**: Public employers and PERS retired members who want to return to PERS-covered employment face a myriad of complications from the current statutory scheme. The limitations are not consistent across PERS programs; exceptions for certain job categories, employers, or locations have been carved out over time; and the consequences for unsuccessfully traversing this morass are disruptive and costly to both employers and members. The legislature could make a policy choice to either enact clear and consistent standards for returning to employment, or prohibit public employers from the practice. Either outcome would be preferable, from the plan administrator's standpoint, to the current scheme that inevitably complicates or frustrates plan participants.
2. **Enhanced Data Reliability**: Any system's data should be valid, accurate, and complete. Any retirement system must maintain a long personal history for each member, but public employers have varying standards and systems that write and rewrite that history over the decades. To achieve the agency's goal of getting and keeping data that meets required standards, legislative direction to members that they are the primary quality check point for their data of record and to employers that data must remain static after reporting would enhance member's reliability on the planning efforts they must make over their career if they are to have a successful retirement.
3. **IAP Installment Payments**: The legislature directed PERS to pay out IAP account balances at the member's election in monthly, quarterly, or annual installments over 5, 10, 15, or 20 years, or over the member's anticipated life span. While being paid out, investment earnings and losses are applied monthly, so each installment is different as the market value of the account changes. Members also have to choose whether they want the installment paid directly to them, rolled over to another account, or a combination of direct and roll; they can change this election at any time. In practice, even with this broad range of payment times and distribution options, 85% of members who retire take their IAP account balance as a lump sum, either in a single payout or as a rollover to another tax qualified plan. Those that do can thereby tailor their investments and distributions to their particular needs. The legislature could simplify IAP administration by removing installment payments from the IAP; PERS could then work on educating those few members who are not already planning to take a lump sum about their choices when deciding at retirement where to direct their funds.

Improvements in these three areas would not impact the actuarial value of a member's benefit, but would simplify communications with members and employers and streamline administration of the system. Moreover, if the legislature were to also refrain from adding further complexity to the plan's administration, this agency could continue to improve its service offerings by investing in technology and process improvements that add value to all members.

Thank you for your consideration.



# Oregon

Kate Brown, Governor

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August 22, 2016

The Honorable Senator Peter Courtney, Co-Chair  
The Honorable Representative Tina Kotek, Co-Chair  
State Emergency Board  
900 Court St NE  
H-178 State Capitol  
Salem, OR 97301-4048

Dear Co-Chairpersons:

### **Nature of the Request**

PERS requests an increase in Other Funds limitation in the amount of \$381,074 to fund a vendor contract to assist in improvements to the agency's information security program.

### **Agency Action**

In April 2016, PERS was directed by the State CIO and LFO to complete a list of 16 prioritized Information Security activities before the end of the 2015-17 biennium.

In collaboration with the State Procurement Office, OSCIO, and ESO, an RFP for consulting services to develop and implement an Information Security Program (and coordinate the other prioritized activities) was issued on May 10, 2016. The RFP selection panel evaluated the proposals of three vendors and, after careful review, selected HP Enterprise Services (HPES). The panel determined that they were best prepared to meet the aggressive timeline required for this effort. The entire engagement is expected to run for approximately nine months. The attached schedule shows the deliverables for HPES under this contract, which align with the accomplishment of the activities directed by the State CIO and LFO.

This request funds HPES' consulting work under this engagement. One of the directed activities is to develop an Information Security Staffing Plan. Should that plan be sufficiently developed, the agency may return to the December Emergency Board with an additional request for the positions and budget limitation to establish that program in this biennium.

### **Action Requested**

PERS requests an increase in Other Funds limitation in the amount of \$381,074 to fund PERS' contract with Hewlett Packard Enterprise Services.

### **Legislation Affected**

Section 2, Chapter 595, Oregon Laws 2015.

Sincerely,

Steven Patrick Rodeman  
Executive Director

Attachment: Schedule of HPES Deliverables

# PERS Information Security Consulting Services Contract

---

<b><u>Schedule of HPES Deliverables</u></b>	<b><u>Due Date</u></b>
<b>PERS Information Security Program Plan – identifies resources required to execute ongoing information security program.</b>	<b>9/30/2016</b>
<b>PERS Information Security Staffing Plan – includes knowledge, skills, abilities, and experience for security staffing positions; defines the Dedicated Information Security Leadership Position, including the skills, knowledge and experience required to fill that position; and includes an organization plan with roles, responsibilities, and reporting structure.</b>	<b>10/31/2016</b>
<b>Task Set 1 of PERS Information Security Remediation Project Plan – Provide improvements for current Information Security technical controls; improvements for network security architecture; and removal, isolation or compensating controls for systems no longer supported.</b>	<b>10/31/2016</b>
<b>Task Set 2 of PERS Information Security Remediation Project Plan – Review existing software development security deficiencies and provide access control and authentication procedures.</b>	<b>11/30/2016</b>
<b>Task Set 3 of PERS Information Security Remediation Project Plan – Provide log management and security incident monitoring; formal recommendation on the IAP Administrative Project Security Plan; and provide endpoint security configuration and tools.</b>	<b>12/31/2016</b>
<b>Task Set 4 of PERS Information Security Remediation Project Plan – Provide formal recommendation on all Information Security related statues, rules and policies to ensure PERS compliance and validation report.</b>	<b>1/31/2017</b>
<b>Task Set 5 of PERS Information Security Remediation Project Plan – formal recommendation on Information Security policies and procedures and updated Information Security Incident Management Plan.</b>	<b>2/28/2017</b>
<b>Complete all remaining tasks for PERS Information Security Remediation Project Plan, including a document that describes initial and ongoing estimated costs of the PERS Information Security Program..</b>	<b>3/31/2017</b>
<b>Provide Information Security End User Training Roadmap and Project Closeout.</b>	<b>4/30/2017</b>

# **Presentation to the Bipartisan PERS Solutions Work Group**

**Steven Patrick Rodeman  
PERS Executive Director**

**September 2016**



# Presentation Goals

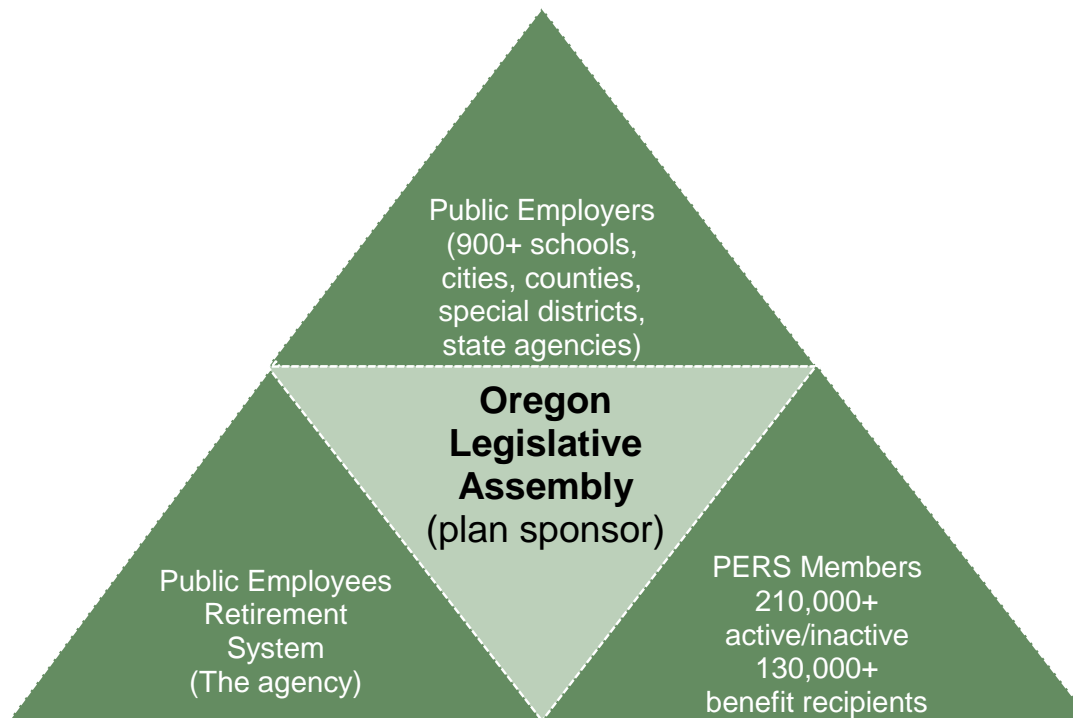
This presentation is intended to review the following:

1. The math that drives the fundamental cost equation which PERS uses to derive employer rates
2. Roles of the various governing bodies over elements of that equation
3. How the two components of employer rates, “normal cost” and “UAL rate,” represent their respective costs for the benefits provided by PERS
4. Principles used by the PERS Board to set employer rates
5. How the application of those principles affects the prospects for changes to employer rates by various legislative concepts

# PERS Overview

The Oregon Legislative Assembly is the “Plan Sponsor” for the Oregon Public Employees Retirement System and determines the benefits to participating public employees. Those benefits have been modified over time, including the creation of three benefit groups: Tier One (through 1995), Tier Two (1996-Aug. 2003), and OPSRP (August 2003 to present.)

Approximately 900 public employers participate in PERS, including school districts, special districts, cities, counties, and state agencies. Once the employer chooses to join PERS, there are no provisions for them to leave the plan.



# The PERS Funding Equation

At the end of each calendar year, the PERS actuaries calculate the system's funded status using the following basic equation:

$$B = C + E$$

**BENEFITS = CONTRIBUTIONS + EARNINGS**

present value of  
earned benefits

employer funds to pay  
pension benefits

future returns on  
invested funds

Set by:

Oregon Legislature

Set by:

PERS Board

Managed by:

Oregon Investment Council

Every two years, the PERS Board adjusts contributions so that, over time, those contributions will be sufficient to fund the benefits earned, if earnings follow assumptions.



# Employer Contribution Rate Setting Cycle

Actuarial valuations are conducted annually, but alternate between “advisory” and “rate setting”: e.g., the December 31, 2014, valuation results were used to project employer rates, but the December 31, 2015, valuation was used to set actual rates for the 2017-2019 biennium.

Once employer rates are adopted by the PERS Board (in the fall of the even-numbered year), they become effective the following July 1 of the odd-numbered year (18 months after the valuation date).

Valuation Date	Employer Contribution Rates
December 31, 2013	→ July 2015 - June 2017
December 31, 2015	→ July 2017 - June 2019
December 31, 2017	→ July 2019 - June 2021

# Solving the Equation . . .

When setting employer contribution rates, the PERS Board considers the following objectives and principles:

- Transparent process and inputs
- Predictable and stable employer contribution rates
- Protect funded status to secure future benefit payments
- Equitable across generations of taxpayers funding the system
- Actuarially sound – fully fund the system if assumptions are met
- GASB compliant

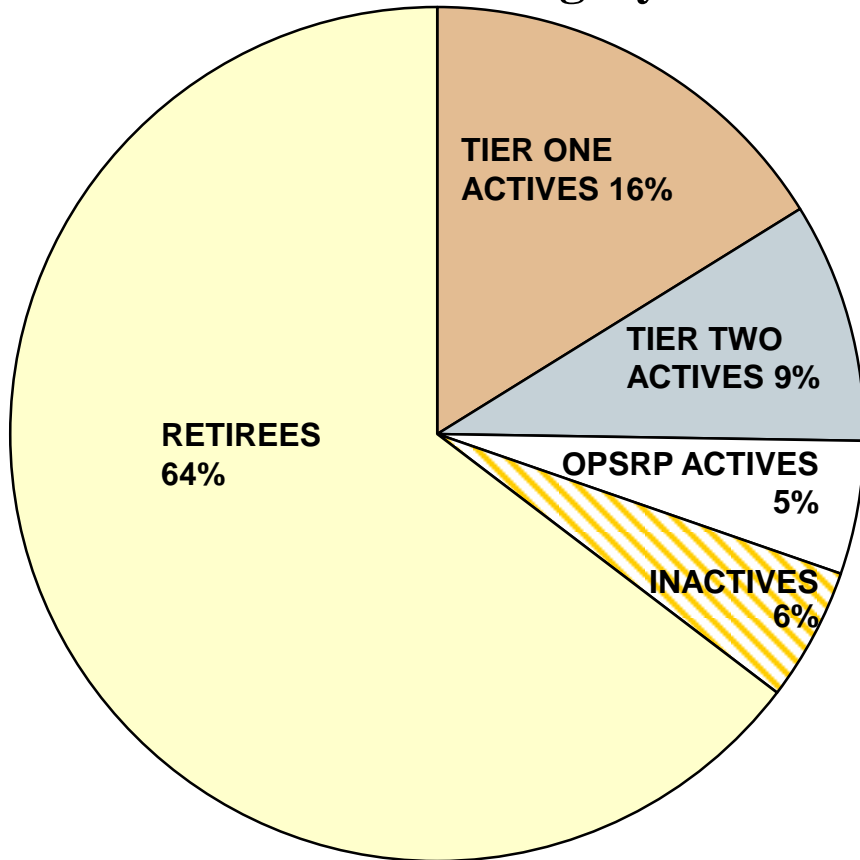
*Some of the objectives can conflict, particularly in periods with significant volatility in investment return or projected benefit levels. Overall system funding policies should seek an appropriate balance between conflicting objectives.*

# Funded Status and Unfunded Actuarial Liability (UAL) (\$ billions)

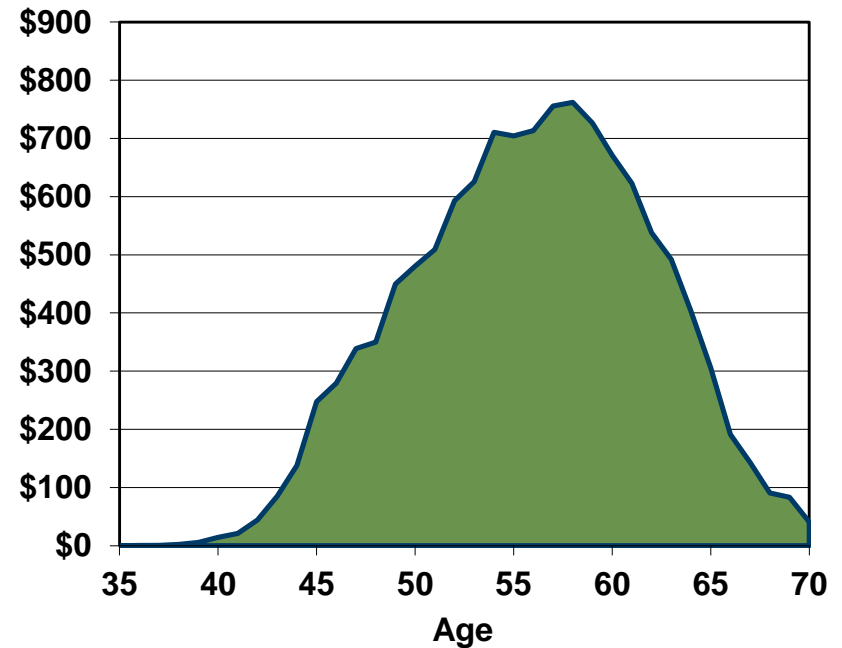
System-total Pension Funded Status (\$ billions)			
<i>Reflects:</i>	12/31/2013	12/31/2014	12/31/2015
<i>Moro decision?</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
<i>2014 Experience Study assumptions?</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
Actuarial liability	\$62.6	\$73.5	\$76.2
Assets (excluding side accounts)	<u>\$54.1</u>	<u>\$55.5</u>	<u>\$54.4</u>
UAL (excluding side accounts)	\$8.5	\$18.0	\$21.8
Funded status (excluding side accounts)	86%	76%	71%
Side account assets	<u>\$5.9</u>	<u>\$5.9</u>	<u>\$5.6</u>
UAL (including side accounts)	\$2.6	\$12.1	\$16.2
Funded status (including side accounts)	96%	84%	79%

# Actuarial Liability by Benefit Program (Tier One/Two and OPSRP as of 12-31-15)

## Actuarial Liability by Member Category



## Age Distribution of Tier One Actives' Liability (\$ millions)



# System Wide Pension Rates (% of Payroll)

Excludes Retiree Health Care and IAP Contributions

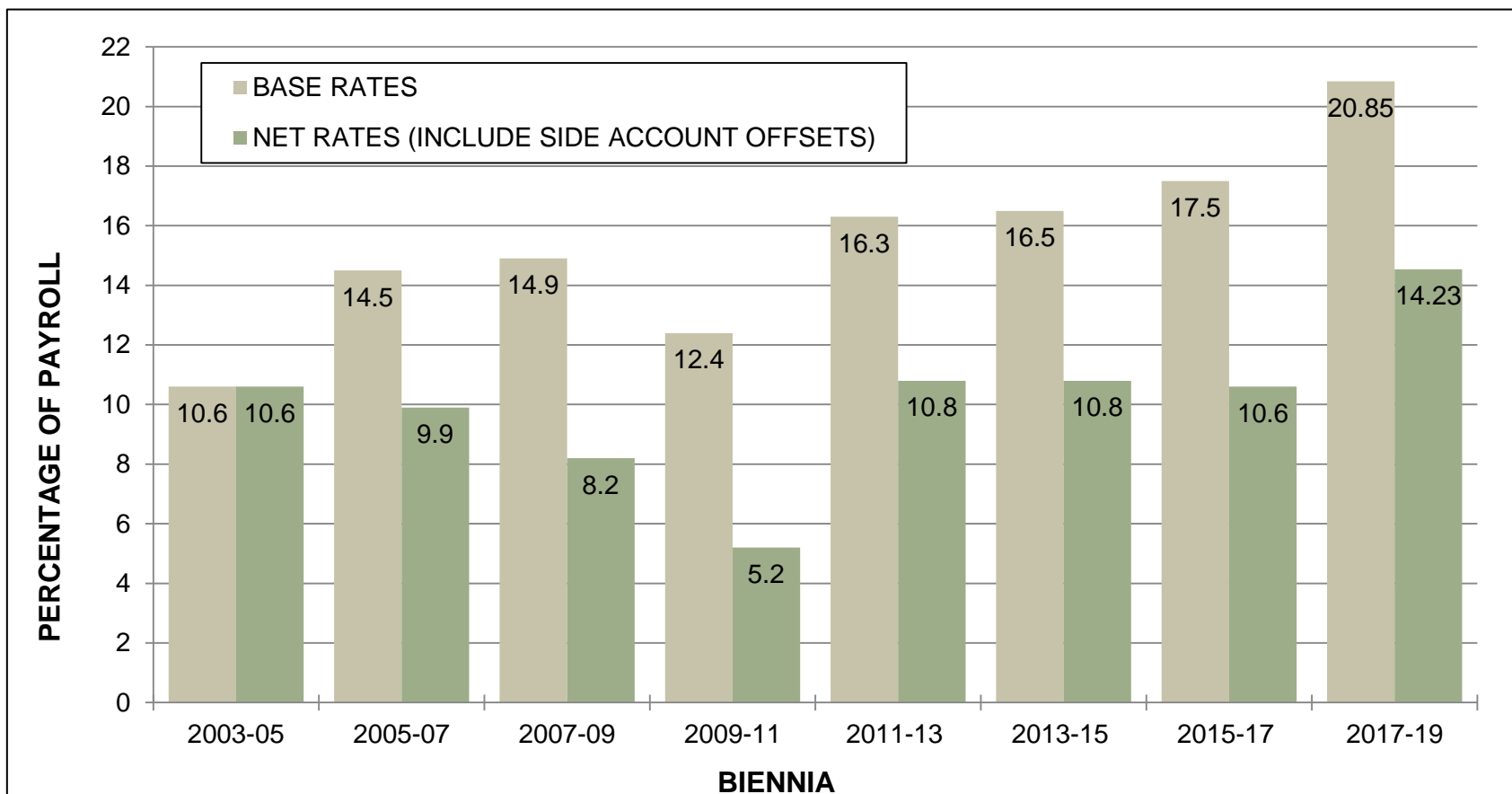
	2015 - 17 Actual Rates			2017 - 19 Proposed Rates		
	Tier One/Two	OPSRP	Weighted Average <sup>1</sup>	Tier One/Two	OPSRP	Weighted Average <sup>1</sup>
Normal Cost	13.18%	7.79%	10.94%	15.07%	8.56%	11.79%
Tier 1/Tier 2 UAL	6.63%	6.63%	6.63%	16.02%	16.02%	16.02%
OPSRP UAL	0.61%	0.61%	0.61%	1.27%	1.27%	1.27%
<b>Uncollared Rate<sup>2</sup></b>	<b>20.42%</b>	<b>15.03%</b>	<b>18.18%</b>	<b>32.36%</b>	<b>25.85%</b>	<b>29.08%</b>
<b>Increase</b>				<b>11.94%</b>	<b>10.82%</b>	<b>10.90%</b>
<b>Collar Limitation</b>	(0.72%)	(0.72%)	(0.72%)	(8.23%)	(8.23%)	(8.23%)
<b>Collared Base Rate*</b>	<b>19.70%</b>	<b>14.31%</b>	<b>17.46%</b>	<b>24.13%</b>	<b>17.62%</b>	<b>20.85%</b>
Side Account (Offset)	(6.38%)	(6.38%)	(6.38%)	(6.14%)	(6.14%)	(6.14%)
SLGRP Charge/(Offset)	(0.47%)	(0.47%)	(0.47%)	(0.48%)	(0.48%)	(0.48%)
<b>Collared Net Rate</b>	<b>12.85%</b>	<b>7.46%</b>	<b>10.61%</b>	<b>17.51%</b>	<b>11.00%</b>	<b>14.23%</b>
<b>Increase</b>				<b>4.66%</b>	<b>3.54%</b>	<b>3.62%</b>

1 Weighting based on the membership distribution (Tier 1/Tier 2, OPSRP) as of the valuation date.

2 Does not include side accounts

Milliman presentation; July 29, 2016 Board meeting

# PERS System Wide Average Employer Rates



- EXCLUDES 6% MEMBER CONTRIBUTIONS AND PENSION OBLIGATION BOND DEBT SERVICE PAYMENTS
- INCLUDES TIER ONE, TIER TWO, AND OPSRP
- RATES FOR 2005-07 AND BEFORE ARE AS OF VALUATION DATE
- 2017-19 RATES REFLECT INVESTMENT RETURNS FOR 2014 AND 2015, THE *MORO* DECISION, ASSUMED RATE DECREASE FROM 7.75% TO 7.5%, UPDATED MORTALITY ASSUMPTIONS, EXPECTED INCREASE IN UAL IN 2014 AND 2015, AND ALL OTHER ASSUMPTION CHANGES AND ACTUARIAL EXPERIENCE
- DOES NOT INCLUDE RHIA/RHIPA

# 2017-19 Contribution Increase Estimates

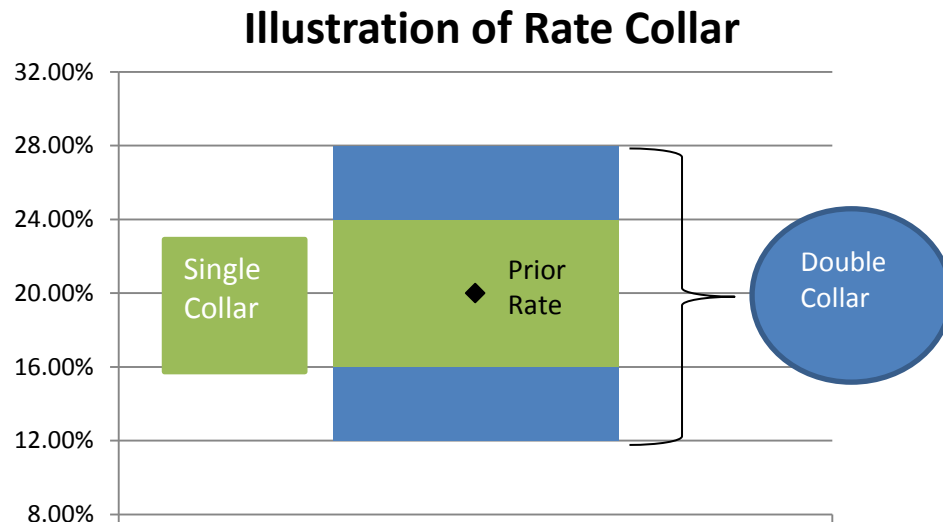
(\$ millions)	Projected 2015-17 Payroll*	(A) Projected 2015-17 Contribution	Projected 2017-19 Payroll*	(B) Projected 2017-19 Contribution	(B) - (A) Projected Contribution Increase
State Agencies	\$5,620	\$575	\$6,020	\$835	\$260
School Districts	\$6,120	\$575	\$6,560	\$910	\$335
All Others	<u>\$7,350</u>	<u>\$875</u>	<u>\$7,880</u>	<u>\$1,165</u>	<u>\$290</u>
<b>Total</b>	<b>\$19,090</b>	<b>\$2,025</b>	<b>\$20,460</b>	<b>\$2,910</b>	<b>\$885</b>

\* Assumes payroll grows at 3.50% annually based on 12/31/2015 active member census, reflecting proportional payroll composition (Tier One/Tier Two vs. OPSRP) as of 12/31/2015

- Collared net rates are used to project 2017-2019 contributions
- The advisory valuation had a projected contribution increase of \$800 million; the change from that estimate was caused primarily by 2015 investment underperformance and the leveraged effects that side accounts had on net rates

# Current Design of Rate Collar

- The maximum change typically permitted by the collar is 20% of the rate currently in effect (3% of payroll minimum collar width)
- If funded status is 60% or lower, the width of the collar doubles to 40% of rate currently in effect (6% of payroll minimum collar width)
- If the funded status is between 60% and 70%, the collar size is prorated between the initial collar and double collar level



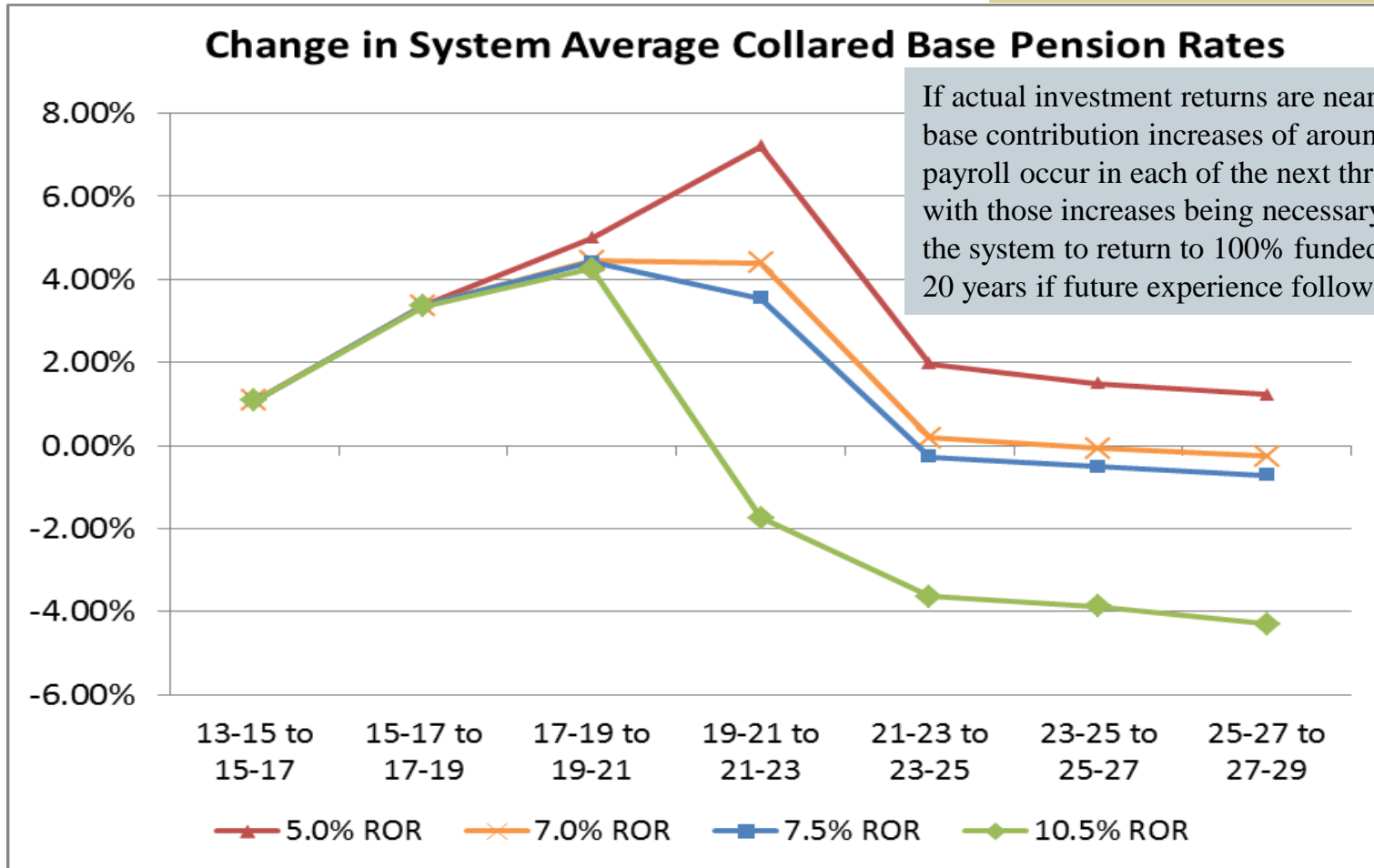
- Rate collars are calculated at a rate pool level and limit the biennium to biennium increase in the UAL rate for a given rate pool



# Contribution Increases (November 2015 Financial Modeling)

From Nov. 2015 PERS Board materials:

- Based on published returns through October 2015
- Does not reflect \$0.3 billion in 2015 demographic experience losses

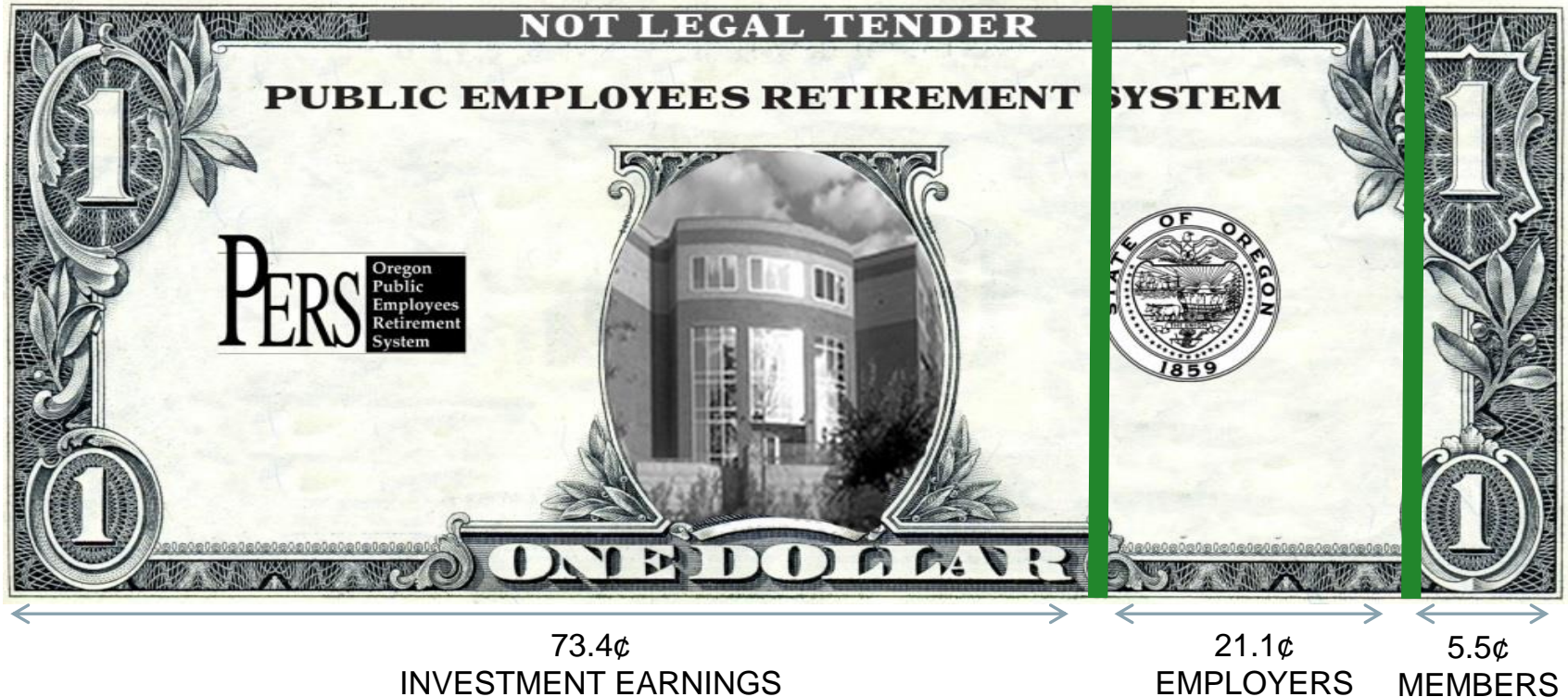


Shows biennium to biennium changes under steady return projections

Milliman presentation; July 29, 2016 Board meeting

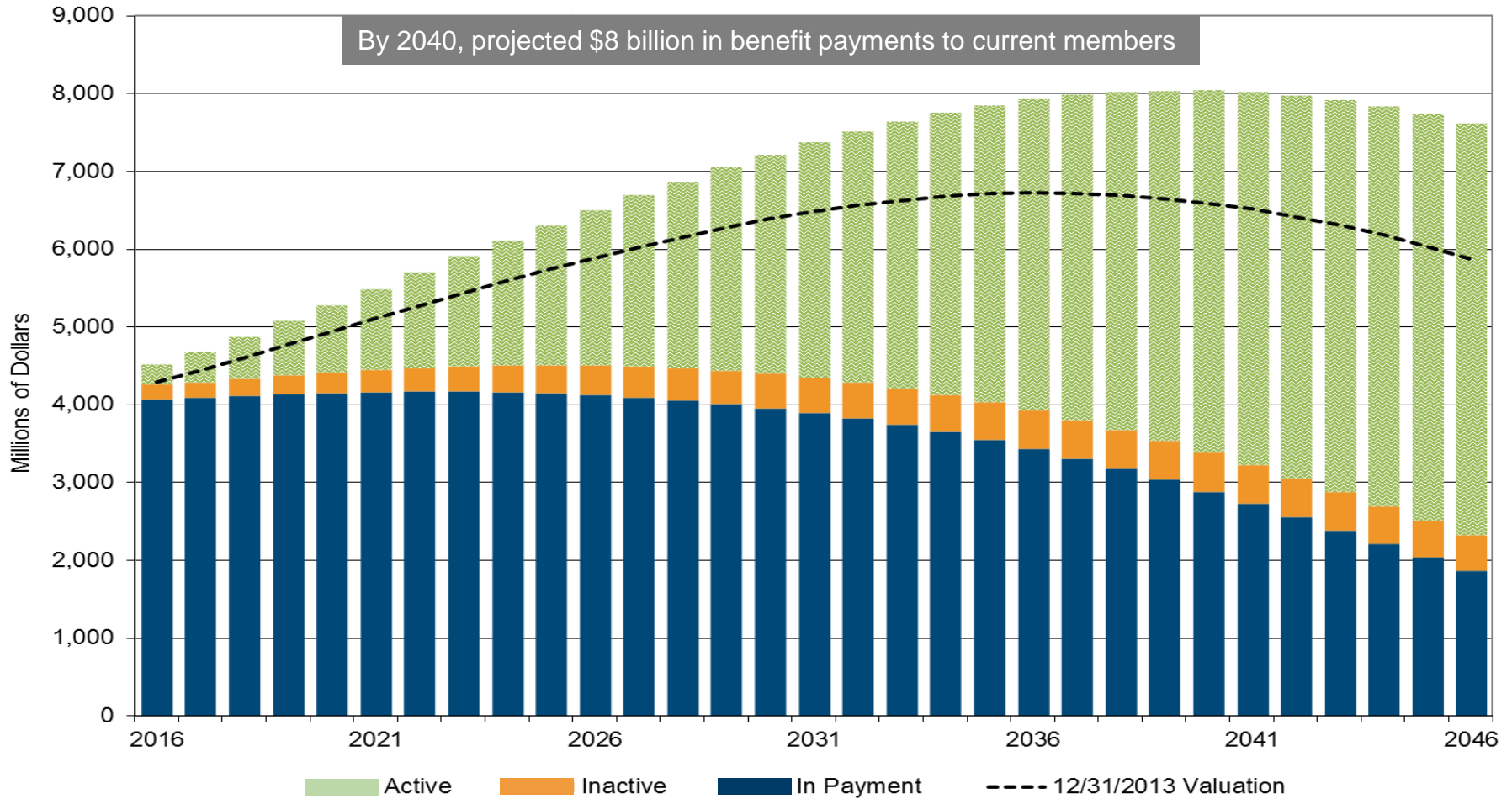
# Balancing the “B”, “C”, and “E”

## PENSION BENEFIT FUNDING SOURCES (1970-2015)



Since 1970, the total revenues into PERS to pay for Tier One and Tier Two benefits have come from these three sources. Member contributions were diverted to the Individual Account Program starting in 2004, so their share of revenue will diminish over time.

# Projected Benefit Payments by Status (as of 12-31-15)

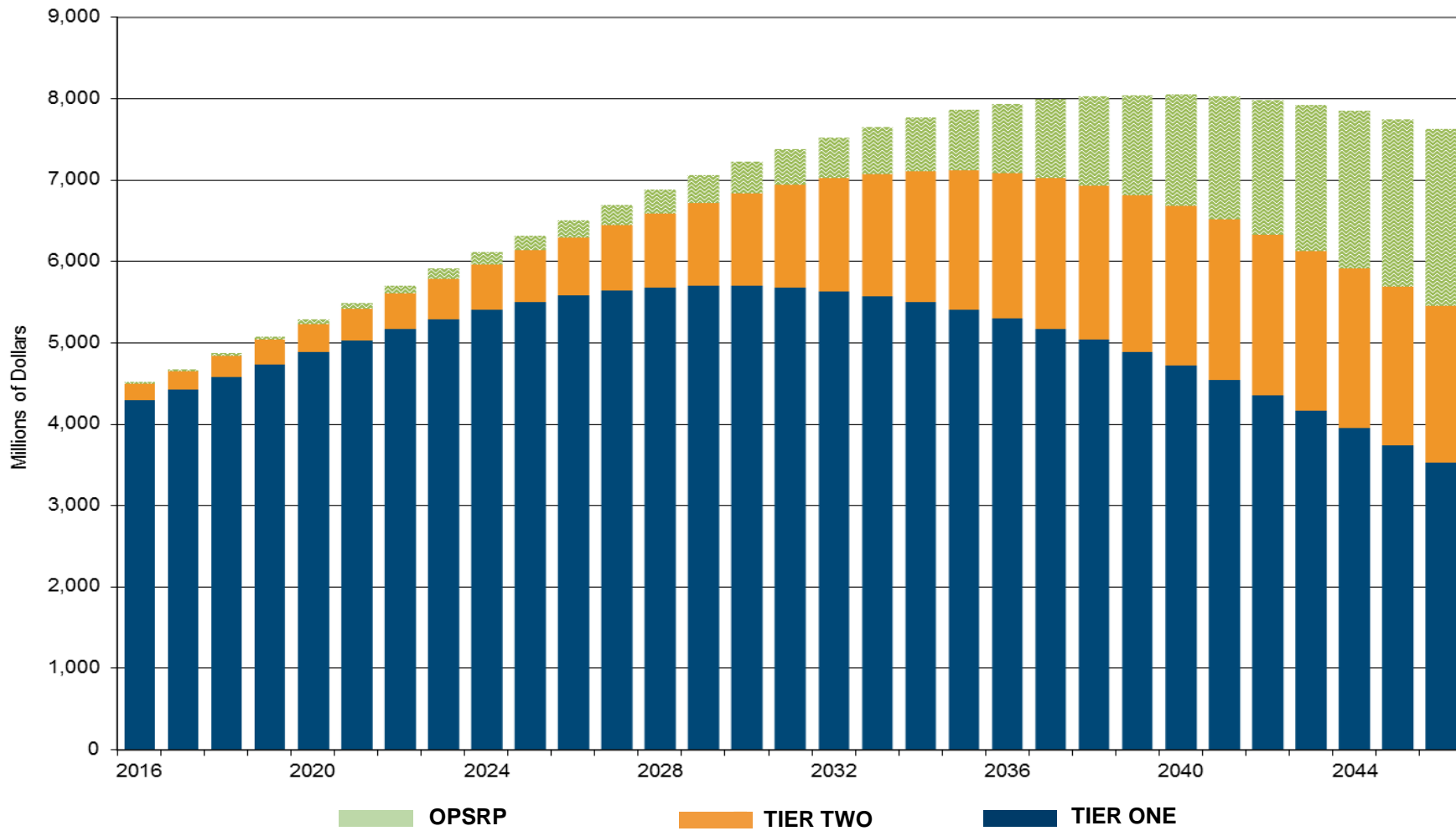


Dotted line depicts the projected payments from the 12/31/2013 rate-setting valuation, which did not reflect the *Moro* decision

Milliman presentation; July 29, 2016 Board meeting

# Projected Benefit Payments by Program

## (as of 12-31-15)



Milliman presentation; July 29, 2016 Board meeting

# Presentation Summary

1. The fundamental cost equation shows the two main drivers of the employer contribution rate: the legislature, through their changes to the benefit plan, and the Oregon Investment Council, whose earnings are a crucial funding source for those benefits
2. The principal cause for the relatively high employer rates is not the “normal cost” for the benefits earned by active members in PERS, but rather the “UAL rate” that’s charged to recover the cost for accrued benefits owed mostly to members who are no longer public employees
3. Proposed legislative concepts either shift the benefit cost from employers to members, or reduce the “normal cost” incrementally by reducing benefits for active members, but do not reduce the unfunded legacy benefits that are the principal driver of higher employer rates
4. On September 14, 2016, the PERS Board and Oregon Investment Council held a joint meeting and discussed their concerns about the growing unfunded liability; both groups have particular insight into these system funding challenges and would like to be involved in further discussions about potential solutions

**For more information, including actuarial analyses of proposed legislative concepts, please go to: [www.oregon.gov/PERS](http://www.oregon.gov/PERS)**



# Oregon

Kate Brown, Governor

## Public Employees Retirement System

Headquarters:  
11410 S.W. 68<sup>th</sup> Parkway, Tigard, OR  
Mailing Address:  
P.O. Box 23700  
Tigard, OR 97281-3700  
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[www.oregon.gov/pers](http://www.oregon.gov/pers)

September 30, 2016

TO: Members of the PERS Board

FROM: Debra Hembree, Actuarial Services Coordinator

SUBJECT: 2017-19 Individual Employer Rate Adoption

### OVERVIEW

On September 30, 2016, Milliman actuaries Matt Larrabee and Scott Preppernau will present recommended 2017-19 individual employer rates for Board adoption. The recommended employer contribution rates will be provided to the Board and posted to the PERS website before the meeting. These recommended rates are based on the December 31, 2015 actuarial valuation and, if approved, will be in effect for all PERS-covered salary paid July 1, 2017, through June 30, 2019. Milliman presented system-wide 2015 valuation results at the July 29, 2016 Board meeting.

In addition to the employer-specific 2017-19 rates calculated in the 2015 valuation, there are two employers whose proposed 2017-19 rates would be affected by recommended policy decisions: Jackson County and Josephine County.

### BACKGROUND

The Job Council, an inter-governmental agency established by Jackson and Josephine counties, joined PERS via integration in 1998. The employer did not provide assets toward an employer account, 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, and that UAL became a transition liability.

In 2015, Jackson and Josephine counties agreed to terminate the inter-governmental agreement that established the Job Council, effectively dissolving the Job Council as a governmental entity. The Job Council's transition liability at the time was approximately \$4.7 million, which the Job Council did not have the funds to pay off.

PERS staff concluded that Jackson and Josephine counties were liable for the Job Council's transition liability at the time of its dissolution, based on the terms of the interagency agreement. Staff had Milliman allocate the transition liability as of the 2015 valuation to each county equally. 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 overall payroll over which to amortize the additional liability.

Jackson and Josephine County may seek to challenge this allocation. Adoption by the PERS Board starts the process by which those counties can choose to have that determination reviewed

in court. Without adoption of employer rates with this allocation, discussions with the counties can continue but are unlikely to produce resolution of this dispute.

### BOARD OPTIONS

The Board may:

1. Pass a motion to “adopt the 2017-19 individual employer contribution rates as presented by the PERS actuary, including the specific adjustments to the rates for Jackson County and Josephine County.”
2. Pass a motion to “adopt the 2017-19 individual employer contribution rates as presented by the PERS actuary” without adopting the specific adjustments for Jackson and Josephine County.
3. Direct staff to work with Milliman to develop another set of employer rates to present for the Board’s consideration.

### 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.

## Summary of PERS Employer Contribution Rates

Rates shown reflect the effect of side account rate offsets and retiree healthcare contributions,  
and exclude contributions to the IAP and debt service for pension obligation bonds.

Employer Number	Employer Name	Net Employer Contribution Rate 7/1/15 - 6/30/17			Net Employer Contribution Rate 7/1/17 - 6/30/19				
		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll
		<b>Independent Employers</b>							
	<b>City</b>								
2167	City of Athena		7.52%	4.31%	8.42%		11.15%	8.92%	13.69%
2106	City of Beaverton		14.76%	7.82%	11.93%		18.39%	9.72%	14.49%
2107	City of Bend		15.78%	8.79%	12.90%		20.73%	12.13%	16.90%
2149	City of Canyonville		14.28%	8.08%	12.19%		17.91%	9.63%	14.40%
2186	City of Chiloquin		10.96%	5.22%	9.33%		14.59%	6.56%	11.33%
2162	City of Clatskanie		15.80%	9.40%	13.51%		19.43%	10.98%	15.75%
2152	City of Coos Bay		17.11%	8.81%	12.92%		20.93%	9.74%	14.51%
2165	City of Cornelius		12.79%	7.42%	11.53%		16.42%	10.37%	15.14%
2127	City of Cottage Grove		17.64%	9.15%	13.26%		21.57%	11.10%	15.87%
2257	City of Culver		14.15%	7.83%	11.94%		20.78%	15.72%	20.49%
2262	City of Dufur		16.49%	10.75%	14.86%		20.19%	12.98%	17.75%
2282	City of Eagle Point		15.07%	8.31%	12.42%		19.60%	10.44%	15.21%
2111	City of Eugene		17.50%	10.05%	14.16%		21.40%	12.38%	17.15%
2248	City of Fossil		9.55%	5.51%	9.62%		13.18%	7.29%	12.06%
2309	City of Gearhart		12.85%	5.03%	9.14%		16.48%	6.32%	11.09%
2264	City of Gervais		11.51%	8.39%	12.50%		15.14%	11.22%	15.99%
2250	City of Gold Beach		14.12%	8.14%	12.25%		17.75%	11.01%	15.78%
2114	City of Gresham		11.67%	3.55%	7.66%		15.39%	4.96%	9.73%
2210	City of Helix		9.49%	5.51%	9.62%		13.12%	7.61%	12.38%
2115	City of Hillsboro		16.01%	9.84%	13.95%		19.64%	11.57%	16.34%
2222	City of Jacksonville		15.10%	8.21%	12.32%		18.73%	7.32%	12.09%
2232	City of Joseph		17.39%	13.00%	17.11%		21.27%	16.93%	21.70%
2279	City of Keizer		14.09%	6.19%	10.30%		17.72%	7.30%	12.07%
2283	City of Maupin		9.60%	2.43%	6.54%		13.23%	3.90%	8.67%
2246	City of Merrill		6.61%	0.45%	0.45%		10.24%	0.43%	1.63%
2195	City of Metolius		6.61%	0.45%	0.45%		7.27%	0.43%	0.43%
2290	City of Molalla		11.56%	4.42%	8.53%		15.19%	8.04%	12.81%
2174	City of Mt Angel		10.68%	5.20%	9.31%		14.31%	6.42%	11.19%
2118	City of Ontario		22.69%	14.89%	19.00%		28.49%	17.72%	22.49%
2215	City of Powers		6.61%	0.45%	0.45%		7.27%	0.43%	1.07%
2218	City of Prairie City		9.26%	6.22%	10.33%		12.89%	9.53%	14.30%
2146	City of Prineville		8.57%	1.36%	5.47%		12.17%	3.94%	8.71%
2297	City of Rainier		12.85%	4.27%	8.38%		16.48%	6.67%	11.44%
2101	City of Salem		15.82%	8.62%	12.73%		21.07%	11.97%	16.74%
2219	City of Sheridan		11.53%	5.39%	9.50%		15.16%	7.31%	12.08%
2213	City of Stanfield		6.61%	0.45%	0.45%		7.27%	0.45%	5.22%
2129	City of Sweet Home		6.61%	0.45%	0.81%		10.24%	1.22%	5.99%
2261	City of Waldport		8.83%	3.03%	7.14%		12.46%	5.07%	9.84%
2189	City of Willamina		6.61%	0.45%	3.28%		7.27%	0.43%	3.52%



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		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll
<b>Independent Employers</b>								
<b>City</b>								
2253	Town of Butte Falls		9.55%	0.45%	0.45%	13.18%	6.09%	10.86%
<b>County</b>								
2001	Clackamas County		18.89%	12.23%	16.34%	23.07%	14.82%	19.59%
2002	Curry County		18.19%	7.56%	11.67%	22.23%	11.21%	15.98%
2003	Douglas County		26.48%	17.25%	21.36%	32.18%	20.55%	25.32%
2006	Jefferson County		16.21%	8.98%	13.09%	19.85%	10.57%	15.34%
2008	Lane County		15.11%	8.51%	12.62%	18.74%	10.34%	15.11%
2014	Linn County		18.96%	11.60%	15.71%	23.15%	14.10%	18.87%
2039	Malheur County		14.30%	6.94%	11.05%	17.93%	8.52%	13.29%
2037	Polk County		17.13%	10.12%	14.23%	20.96%	12.44%	17.21%
2050	Wallowa County		7.66%	1.17%	5.28%	11.29%	0.43%	4.85%
2015	Yamhill County		12.85%	7.19%	11.30%	16.48%	8.74%	13.51%
<b>Special Districts</b>								
2664	Applegate Valley Rural Fire Protection District #9		14.13%	7.15%	11.26%	17.76%	8.01%	12.78%
2702	Banks Fire District #13		18.28%	12.40%	16.51%	23.03%	11.41%	16.18%
2596	Bend Parks & Recreation		12.45%	7.52%	11.63%	16.08%	10.94%	15.71%
2648	Black Butte Ranch Rural Fire Protection District		12.85%	3.41%	7.52%	16.48%	3.15%	7.92%
2833	Boardman Rural Fire Protection District		18.25%	8.23%	12.34%	22.30%	9.34%	14.11%
2779	Brownsville Rural Fire Protection District		12.74%	3.65%	7.76%	16.37%	4.78%	9.55%
2678	Central Oregon Regional Housing Authority		9.12%	6.50%	10.61%	12.75%	10.84%	15.61%
2645	Chiloquin Agency Lake Rural Fire Protection District		14.65%	2.97%	7.08%	19.18%	7.71%	12.48%
2518	Clackamas County Housing Authority		17.64%	10.83%	14.94%	21.57%	14.19%	18.96%
2870	Clackamas River Water Providers		8.91%	9.02%	13.13%	11.67%	11.20%	15.97%
2679	Columbia River Public Utility District		13.68%	9.60%	13.71%	17.31%	12.24%	17.01%
2828	Deschutes Public Library District		13.02%	9.13%	13.24%	16.65%	11.18%	15.95%
2527	Deschutes Valley Water District		19.37%	13.24%	17.35%	24.38%	18.20%	22.97%
2729	Douglas County Fire District #2		23.23%	13.95%	18.06%	32.70%	21.04%	25.81%
2743	Douglas Soil & Water Conservation District		9.17%	0.45%	4.41%	7.27%	0.43%	0.43%
2529	East Fork Irrigation District		10.43%	1.91%	6.02%	14.06%	1.25%	6.02%
2618	Estacada Cemetery District		6.61%	0.45%	0.45%	7.27%	0.43%	0.43%
2132	Eugene Water & Electric Board		21.99%	16.94%	21.05%	27.51%	21.33%	26.10%
2623	Evans Valley Fire District #6		6.61%	0.45%	0.45%	10.72%	0.43%	2.95%
2785	Fern Ridge Community Library		10.16%	2.31%	6.42%	10.95%	1.44%	6.21%
2608	Gaston Rural Fire Protection District		15.05%	9.38%	13.49%	18.68%	12.87%	17.64%
2698	Halsey Shedd Rural Fire Protection District		9.52%	0.45%	3.79%	13.15%	0.43%	5.15%
2771	Harbor Water PUD		10.18%	2.98%	7.09%	13.81%	3.78%	8.55%
2815	Hermiston Rural Fire Protection District		16.70%	8.88%	12.99%	21.68%	9.81%	14.58%
2717	Ice Fountain Water District		12.85%	7.55%	11.66%	16.48%	9.71%	14.48%
2556	Jackson County Fire District #5		19.90%	9.38%	13.49%	25.41%	12.93%	17.70%

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		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll
----- Independent Employers -----									
Special Districts									
2575	Jefferson County Rural Fire Protection District #1		14.20%	9.16%	13.27%		17.83%	10.94%	15.71%
2841	Jefferson County Soil & Water Conservation District		9.55%	7.83%	11.94%		13.18%	10.85%	15.62%
2646	Keno Rural Fire Protection District		15.46%	6.34%	10.45%		19.09%	9.84%	14.61%
2515	Klamath County Fire District #1		22.44%	12.52%	16.63%		28.18%	16.67%	21.44%
2760	Knappa Svensen Burnside Rural Fire Protection District		12.50%	2.44%	6.55%		16.13%	4.26%	9.03%
2879	LaGrande Rural Fire Protection District		N/A	N/A	N/A		18.63%	9.87%	14.64%
2881	Lake Chinook Fire and Rescue District		N/A	N/A	N/A		18.63%	9.87%	14.64%
2644	Lakeside Water District		13.35%	10.58%	14.69%		16.98%	12.96%	17.73%
2521	League of Oregon Cities		14.73%	11.35%	15.46%		18.66%	14.37%	19.14%
2597	Mapleton Water District		13.16%	7.00%	11.11%		16.79%	8.16%	12.93%
2877	Mid-Columbia Fire And Rescue V1-801		15.12%	8.57%	12.68%		18.72%	9.98%	14.75%
2782	Millington Rural Fire Protection District		6.61%	0.45%	0.45%		10.24%	0.43%	0.45%
2861	Mt Angel Fire District		13.28%	5.07%	9.18%		16.91%	6.25%	11.02%
2724	Nehalem Bay Wastewater Agency		9.55%	2.39%	6.50%		13.18%	4.48%	9.25%
2740	Neskowin Regional Sanitary Authority		9.80%	5.78%	9.89%		12.80%	7.23%	12.00%
2835	North Clackamas County Water Commission		11.07%	2.23%	6.34%		16.20%	9.68%	14.45%
2637	Northeast Oregon Housing Authority		10.71%	2.75%	6.86%		14.34%	4.78%	9.55%
2550	Nyssa Road Assessment District #2		34.46%	26.52%	30.63%		36.55%	25.14%	29.91%
2524	Oak Lodge Sanitary District		13.42%	9.60%	13.71%		17.05%	12.35%	17.12%
2685	Oregon Community College Association		6.61%	0.64%	4.75%		10.24%	6.59%	11.36%
2876	Oregon Municipal Electric Utilities Association		10.95%	8.23%	12.34%		13.44%	9.37%	14.14%
2533	Owyhee Irrigation District		23.23%	17.05%	21.16%		28.28%	19.95%	24.72%
2688	Polk County Fire District #1		18.44%	10.54%	14.65%		22.53%	11.91%	16.68%
2613	Polk Soil & Water Conservation District		14.65%	8.02%	12.13%		18.28%	9.52%	14.29%
2507	Port of Astoria		11.38%	8.81%	12.92%		15.01%	9.70%	14.47%
2633	Port of Cascade Locks		6.89%	2.50%	6.61%		10.52%	4.71%	9.48%
2788	Port of Hood River		12.76%	8.95%	13.06%		16.39%	11.47%	16.24%
2570	Port of St Helens		11.10%	6.45%	10.56%		12.76%	9.71%	14.48%
2581	Port of Umatilla		18.10%	10.35%	14.46%		22.12%	10.12%	14.89%
2689	Redmond Area Park & Recreation District		10.10%	5.76%	9.87%		13.73%	8.19%	12.96%
2672	Rockwood Water PUD		15.76%	10.64%	14.75%		19.39%	13.50%	18.27%
2747	Salem Housing Authority		16.64%	11.69%	15.80%		20.37%	14.11%	18.88%
2675	Salmon Harbor-Douglas County		9.55%	3.84%	7.95%		13.18%	9.28%	14.05%
2885	Siletz Rural Fire Protection District		N/A	N/A	N/A		18.63%	9.87%	14.64%
2701	Sisters-Camp Sherman Rural Fire Protection District		20.81%	12.32%	16.43%		29.30%	17.90%	22.67%
2859	South Lane County Fire and Rescue		24.18%	14.40%	18.51%		34.03%	22.07%	26.84%
2803	Southwestern Polk County Rural Fire Protection District		11.75%	4.76%	8.87%		15.38%	6.62%	11.39%
2767	Springfield Utility Board		9.55%	3.29%	7.40%		13.18%	5.26%	10.03%
2845	Sunrise Water Authority		15.80%	13.98%	18.09%		20.93%	17.94%	22.71%

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----- Independent Employers -----									
----- Special Districts -----									
2643	Sweet Home Cemetery		18.23%	11.52%	15.63%		22.16%	13.38%	18.15%
2722	Tillamook 9-1-1		6.61%	0.45%	4.12%		10.24%	4.59%	9.36%
2821	Tillamook County Soil And Water Conservation District		13.42%	8.83%	12.94%		17.05%	11.93%	16.70%
2783	Tillamook Fire District		13.98%	5.12%	9.23%		17.61%	5.67%	10.44%
2865	Tri-County Cooperative Weed Management Area		12.61%	5.62%	9.73%		16.24%	7.48%	12.25%
2610	Turner Fire District		15.61%	3.65%	7.76%		19.24%	0.43%	3.50%
2874	Umatilla-Morrow Radio and Data District		8.86%	7.74%	11.85%		12.49%	9.89%	14.66%
2536	Valley View Cemetery		6.61%	0.45%	0.45%		7.27%	0.43%	0.43%
2797	Vernonia Fire		6.61%	4.16%	8.27%		10.24%	7.37%	12.14%
2796	West Side Rural Fire Protection District		15.90%	1.72%	5.83%		13.53%	4.77%	9.54%
2725	West Valley Fire District		15.10%	8.10%	12.21%		18.73%	4.18%	8.95%
2733	Wiard Memorial Park District		N/A	N/A	N/A		80.22%	76.20%	80.97%
2714	Winchester Bay Sanitary District		15.05%	10.41%	14.52%		18.68%	12.36%	17.13%
2878	Yamhill Fire Protection District		15.53%	8.54%	12.65%		18.63%	9.87%	14.64%

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Employer Number    Employer Name		Net Employer Contribution Rate 7/1/15 - 6/30/17			Net Employer Contribution Rate 7/1/17 - 6/30/19		
		Tier 1/ Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll
Judiciary							
2099	State Judiciary	15.03%	N/A	N/A	18.05%	N/A	N/A

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		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll
<b>School Districts</b>								
-----								
<b>School</b>								
4306	Amity School District		0.53%	0.45%	0.45%	5.10%	0.43%	4.54%
3003	Baker School District #5J		10.19%	5.50%	9.61%	15.68%	10.35%	15.12%
4035	Banks School District		16.27%	11.58%	15.69%	22.27%	16.94%	21.71%
4062	Beaverton School District		10.94%	6.25%	10.36%	17.52%	12.19%	16.96%
3291	Bend-La Pine Public Schools		12.37%	7.68%	11.79%	17.99%	12.66%	17.43%
3283	Brookings-Harbor School District #17C		4.64%	0.45%	4.06%	10.58%	5.25%	10.02%
4333	Canby School District		2.49%	0.45%	1.91%	6.93%	1.60%	6.37%
4334	Cascade School District #5		3.81%	0.45%	3.23%	9.35%	4.02%	8.79%
3859	Central School District #13J		5.48%	0.79%	4.90%	12.47%	7.14%	11.91%
3414	City of Phoenix School District		10.06%	5.37%	9.48%	14.72%	9.39%	14.16%
4259	Clackamas Education Service District		11.42%	6.73%	10.84%	15.09%	9.76%	14.53%
3179	Clatsop County School District #1C		0.53%	0.45%	0.45%	3.18%	0.43%	2.62%
3242	Coos Bay School District #9		15.30%	10.61%	14.72%	20.18%	14.85%	19.62%
3039	Corvallis School District #509J		9.43%	4.74%	8.85%	14.56%	9.23%	14.00%
3502	Creswell School District #40		17.33%	12.64%	16.75%	22.48%	17.15%	21.92%
3274	Crook County School District		1.57%	0.45%	0.99%	6.28%	0.95%	5.72%
3843	David Douglas School District		18.47%	13.78%	17.89%	23.65%	18.32%	23.09%
4291	Dayton Public Schools		4.47%	0.45%	3.89%	8.73%	3.40%	8.17%
4237	Douglas Education Service District		17.10%	12.41%	16.52%	22.18%	16.85%	21.62%
3927	Echo School District		9.42%	4.73%	8.84%	15.52%	10.19%	14.96%
4323	Estacada School District #108		9.62%	4.93%	9.04%	13.82%	8.49%	13.26%
3473	Eugene School District 4J		16.35%	11.66%	15.77%	21.57%	16.24%	21.01%
3887	Falls City School District		0.53%	0.45%	0.45%	6.59%	1.26%	6.03%
3494	Fern Ridge School District		8.28%	3.59%	7.70%	13.96%	8.63%	13.40%
4313	Forest Grove School District		13.05%	8.36%	12.47%	19.20%	13.87%	18.64%
4034	Gaston Public Schools		0.68%	0.45%	0.45%	11.28%	5.95%	10.72%
4329	Gervais School District #1		2.59%	0.45%	2.01%	5.99%	0.66%	5.43%
3160	Gladstone School District #115		0.53%	0.45%	0.45%	2.95%	0.43%	2.39%
3316	Glide School District #12		10.69%	6.00%	10.11%	15.72%	10.39%	15.16%
4260	Greater Albany School District #8J		12.68%	7.99%	12.10%	18.27%	12.94%	17.71%
4332	Gresham-Barlow School District #10		9.18%	4.49%	8.60%	13.89%	8.56%	13.33%
4326	Harney County School District #3		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%
4258	Hermiston School District #8R		11.99%	7.30%	11.41%	17.12%	11.79%	16.56%
4252	High Desert Education Service District		12.05%	7.36%	11.47%	16.76%	11.43%	16.20%
4341	Hillsboro School District #1J		10.86%	6.17%	10.28%	16.88%	11.55%	16.32%
3409	Hood River County School District		11.26%	6.57%	10.68%	16.03%	10.70%	15.47%
4223	InterMountain Education Service District		10.47%	5.78%	9.89%	13.81%	8.48%	13.25%
3729	Jefferson School District #14Cj		4.43%	0.45%	3.85%	9.36%	4.03%	8.80%
4315	John Day School District		8.77%	4.08%	8.19%	14.18%	8.85%	13.62%

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		<b>School Districts</b>							
<b>School</b>									
3965	La Grande Public Schools		9.52%	4.83%	8.94%	14.54%	9.21%	13.98%	
4268	Lake Oswego School District		7.84%	3.15%	7.26%	13.02%	7.69%	12.46%	
4276	Lane County Education Service District		13.93%	9.24%	13.35%	18.64%	13.31%	18.08%	
3579	Lincoln County School District		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%	
3447	Madras School District		13.99%	9.30%	13.41%	18.79%	13.46%	18.23%	
4142	McMinnville Schools		13.28%	8.59%	12.70%	18.33%	13.00%	17.77%	
4288	Medford School District #549C		17.01%	12.32%	16.43%	22.35%	17.02%	21.79%	
4335	Milton-Freewater Unified School District #7		2.78%	0.45%	2.20%	5.86%	0.53%	5.30%	
4331	Molalla River School District		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%	
4340	Monroe School District #1J		13.74%	9.05%	13.16%	18.92%	13.59%	18.36%	
3809	Morrow County Schools		13.34%	8.65%	12.76%	18.55%	13.22%	17.99%	
4238	Multnomah Education Service District		5.55%	0.86%	4.97%	9.23%	3.90%	8.67%	
4336	Nestucca Valley School District #101		14.84%	10.15%	14.26%	19.15%	13.82%	18.59%	
4135	Newberg School District #29Jt		5.64%	0.95%	5.06%	11.69%	6.36%	11.13%	
3245	North Bend Public Schools		11.84%	7.15%	11.26%	17.90%	12.57%	17.34%	
4321	North Clackamas School District #12		5.32%	0.63%	4.74%	11.09%	5.76%	10.53%	
3730	North Marion School District #15		7.61%	2.92%	7.03%	13.76%	8.43%	13.20%	
4342	North Santiam School District #29J		4.78%	0.45%	4.20%	10.15%	4.82%	9.59%	
4381	North Wasco County School District #21		9.60%	4.91%	9.02%	14.69%	9.36%	14.13%	
3684	Ontario School District #8C		13.09%	8.40%	12.51%	17.98%	12.65%	17.42%	
3122	Oregon City School District #62		11.33%	6.64%	10.75%	17.00%	11.67%	16.44%	
3931	Pendleton School District #16R		1.01%	0.45%	0.45%	5.68%	0.43%	5.12%	
3043	Philomath School District #17J		10.78%	6.09%	10.20%	15.32%	9.99%	14.76%	
3958	Pilot Rock School District #2R		8.93%	4.24%	8.35%	12.69%	7.36%	12.13%	
3818	Portland Public Schools		0.53%	0.45%	0.45%	6.66%	1.33%	6.10%	
4320	Rainier School District #13		7.76%	3.07%	7.18%	12.77%	7.44%	12.21%	
4311	Redmond School District #2J		12.75%	8.06%	12.17%	18.52%	13.19%	17.96%	
4312	Reedsport School District		6.08%	1.39%	5.50%	10.97%	5.64%	10.41%	
3824	Reynolds School District		6.51%	1.82%	5.93%	13.20%	7.87%	12.64%	
3847	Riverdale School		8.86%	4.17%	8.28%	16.05%	10.72%	15.49%	
3310	Roseburg Public Schools		7.58%	2.89%	7.00%	12.47%	7.14%	11.91%	
3735	Salem-Keizer Public Schools		10.53%	5.84%	9.95%	16.38%	11.05%	15.82%	
3665	Santiam Canyon School District		0.76%	0.45%	0.45%	8.18%	2.85%	7.62%	
3000	School Districts		22.33%	17.64%	21.75%	27.20%	21.87%	26.64%	
3187	Seaside Schools		11.76%	7.07%	11.18%	16.64%	11.31%	16.08%	
4317	Sherwood School District #88J		17.21%	12.52%	16.63%	22.47%	17.14%	21.91%	
4270	Silver Falls School District		11.47%	6.78%	10.89%	17.08%	11.75%	16.52%	
3296	Sisters School District		4.19%	0.45%	3.61%	8.66%	3.33%	8.10%	
3537	Siuslaw School District #97J		8.29%	3.60%	7.71%	14.16%	8.83%	13.60%	

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School Districts									
School									
3506	South Lane School District		4.37%	0.45%	3.79%		9.59%	4.26%	9.03%
3319	South Umpqua School District		0.53%	0.45%	0.45%		0.50%	0.43%	0.43%
3487	Springfield School District #19		11.40%	6.71%	10.82%		16.60%	11.27%	16.04%
4279	St Helens School District #502		0.53%	0.45%	0.45%		5.61%	0.43%	5.05%
3942	Stanfield School District		4.82%	0.45%	4.24%		8.17%	2.84%	7.61%
3353	Sutherlin School District #130		2.42%	0.45%	1.84%		7.06%	1.73%	6.50%
3618	Sweet Home School District #55		0.53%	0.45%	0.45%		5.89%	0.56%	5.33%
4338	Three Rivers U J School District		10.85%	6.16%	10.27%		16.37%	11.04%	15.81%
4316	Tigard-Tualatin School District #23J		17.62%	12.93%	17.04%		22.69%	17.36%	22.13%
3902	Tillamook Public Schools		0.53%	0.45%	0.45%		5.55%	0.43%	4.99%
3928	Umatilla School District #6R		15.59%	10.90%	15.01%		20.20%	14.87%	19.64%
3966	Union County School District		7.62%	2.93%	7.04%		12.89%	7.56%	12.33%
3195	Warrenton-Hammond School District		13.54%	8.85%	12.96%		18.82%	13.49%	18.26%
3075	West Linn School District		12.72%	8.03%	12.14%		18.56%	13.23%	18.00%
4254	Willamette Education Service District		3.44%	0.45%	2.86%		7.94%	2.61%	7.38%
4314	Willamina School District #30J		17.26%	12.57%	16.68%		22.70%	17.37%	22.14%
3349	Winston-Dillard Schools		0.53%	0.45%	0.45%		0.50%	0.43%	0.43%
4166	Yamhill-Carlton School District #1		0.53%	0.45%	0.45%		1.56%	0.43%	1.00%

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SLGRP (Default Tier 1/Tier 2 Rates)							
CC							
2901	Blue Mountain Community College	11.04%	5.49%	9.60%	14.75%	8.17%	12.94%
2999	Central Oregon Community College	15.08%	9.53%	13.64%	19.09%	12.51%	17.28%
2919	Chemeketa Community College	8.89%	3.34%	7.45%	12.88%	6.30%	11.07%
2908	Clackamas Community College	10.16%	4.61%	8.72%	14.49%	7.91%	12.68%
2900	Clatsop Community College	9.27%	3.72%	7.83%	12.40%	5.82%	10.59%
2996	Columbia Gorge Community College	13.93%	8.38%	12.49%	16.72%	10.14%	14.91%
2906	Klamath Community College	19.49%	13.94%	18.05%	23.40%	16.82%	21.59%
2904	Lane Community College	9.67%	4.12%	8.23%	11.79%	5.21%	9.98%
2910	Linn-Benton Community College	10.36%	4.81%	8.92%	13.81%	7.23%	12.00%
2905	Mt Hood Community College	5.38%	0.45%	3.94%	8.15%	1.57%	6.34%
2995	Oregon Coast Community College	11.91%	6.36%	10.47%	13.25%	6.67%	11.44%
2918	Portland Community College	11.23%	5.68%	9.79%	14.99%	8.41%	13.18%
2922	Rogue Community College	11.33%	5.78%	9.89%	15.24%	8.66%	13.43%
2998	Southwestern Community College	9.31%	3.76%	7.87%	12.78%	6.20%	10.97%
2997	Tillamook Bay Community College	10.13%	4.58%	8.69%	15.77%	9.19%	13.96%
2902	Treasure Valley Community College	8.39%	2.84%	6.95%	12.00%	5.42%	10.19%
2903	Umpqua Community College	12.03%	6.48%	10.59%	15.55%	8.97%	13.74%
City							
2258	City of Adair Village	19.78%	11.64%	15.75%	22.52%	14.69%	19.46%
2103	City of Albany	17.20%	9.93%	14.04%	21.87%	12.79%	17.56%
2235	City of Amity	11.04%	6.67%	10.78%	8.33%	4.02%	8.79%
2104	City of Ashland	18.54%	11.55%	15.66%	23.08%	14.49%	19.26%
2105	City of Astoria	20.27%	13.07%	17.18%	24.66%	15.79%	20.56%
2234	City of Aumsville	9.67%	3.30%	7.41%	17.02%	8.95%	13.72%
2272	City of Aurora	0.53%	0.45%	0.45%	8.14%	0.43%	3.31%
2159	City of Baker City	18.00%	10.69%	14.80%	22.77%	13.63%	18.40%
2150	City of Bandon	16.85%	10.84%	14.95%	20.65%	13.74%	18.51%
2231	City of Banks	6.95%	3.63%	7.74%	9.57%	5.26%	10.03%
2241	City of Bay City	10.29%	6.97%	11.08%	14.52%	10.21%	14.98%
2178	City of Boardman	16.86%	10.57%	14.68%	20.43%	13.54%	18.31%
2216	City of Brookings	16.96%	10.19%	14.30%	21.78%	13.21%	17.98%
2204	City of Burns	13.30%	6.10%	10.21%	17.18%	8.80%	13.57%
2109	City of Canby	14.33%	7.08%	11.19%	18.89%	9.77%	14.54%
2223	City of Cannon Beach	15.07%	8.60%	12.71%	19.26%	11.73%	16.50%
2198	City of Carlton	6.04%	0.45%	4.41%	10.34%	4.26%	9.03%
2182	City of Cascade Locks	28.64%	20.50%	24.61%	31.17%	21.57%	26.34%
2194	City of Cave Junction	16.53%	10.00%	14.11%	20.53%	12.85%	17.62%
2181	City of Central Point	16.43%	10.24%	14.35%	20.60%	13.01%	17.78%
2201	City of Coburg	8.30%	2.70%	6.81%	12.50%	6.41%	11.18%



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SLGRP (Default Tier 1/Tier 2 Rates)								
City								
2271	City of Columbia City		19.21%	11.02%	15.13%	23.55%	13.95%	18.72%
2177	City of Condon		27.08%	23.54%	27.65%	31.24%	26.68%	31.45%
2110	City of Coquille		19.45%	12.23%	16.34%	23.35%	15.14%	19.91%
2155	City of Corvallis		12.75%	5.54%	9.65%	16.91%	7.93%	12.70%
2236	City of Creswell		13.58%	9.56%	13.67%	18.39%	13.25%	18.02%
2202	City of Dallas		17.46%	10.79%	14.90%	22.03%	13.74%	18.51%
2252	City of Dayton		8.47%	3.20%	7.31%	14.18%	6.90%	11.67%
2294	City of Depoe Bay		16.16%	11.01%	15.12%	20.65%	13.95%	18.72%
2131	City of Drain		16.43%	11.08%	15.19%	20.48%	14.02%	18.79%
2245	City of Dundee		15.50%	9.29%	13.40%	20.39%	12.68%	17.45%
2269	City of Durham		13.55%	5.41%	9.52%	19.02%	11.19%	15.96%
2225	City of Echo		24.96%	17.34%	21.45%	29.22%	20.17%	24.94%
2205	City of Elgin		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%
2305	City of Elkton		14.44%	11.12%	15.23%	18.40%	14.09%	18.86%
2180	City of Enterprise		19.75%	12.83%	16.94%	22.34%	15.68%	20.45%
2179	City of Estacada		18.19%	12.05%	16.16%	22.26%	14.87%	19.64%
2208	City of Fairview		15.37%	9.01%	13.12%	20.55%	12.23%	17.00%
2224	City of Falls City		13.22%	8.44%	12.55%	17.05%	10.19%	14.96%
2291	City of Florence		10.52%	3.67%	7.78%	14.98%	5.93%	10.70%
2220	City of Garibaldi		19.82%	14.81%	18.92%	23.08%	17.00%	21.77%
2242	City of Gaston		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%
2304	City of Gladstone		14.47%	7.14%	11.25%	19.19%	10.00%	14.77%
2274	City of Gold Hill		3.12%	0.45%	3.91%	5.96%	1.65%	6.42%
2113	City of Grants Pass		18.98%	11.65%	15.76%	23.81%	14.46%	19.23%
2284	City of Halsey		3.53%	0.45%	4.32%	12.91%	8.60%	13.37%
2296	City of Happy Valley		14.40%	11.08%	15.19%	20.07%	14.02%	18.79%
2268	City of Harrisburg		15.33%	10.19%	14.30%	18.56%	13.11%	17.88%
2193	City of Heppner		0.53%	0.45%	0.45%	1.37%	0.43%	0.43%
2160	City of Hermiston		17.75%	11.53%	15.64%	22.23%	14.42%	19.19%
2226	City of Hines		15.65%	10.07%	14.18%	17.01%	12.70%	17.47%
2138	City of Hood River		18.21%	9.93%	14.04%	23.21%	12.98%	17.75%
2196	City of Hubbard		21.07%	12.74%	16.85%	25.85%	15.58%	20.35%
2191	City of Huntington		51.03%	44.62%	48.73%	50.59%	42.76%	47.53%
2267	City of Independence		16.11%	8.20%	12.31%	21.10%	11.43%	16.20%
2266	City of Irrigon		14.53%	9.60%	13.71%	18.41%	12.59%	17.36%
2211	City of Jefferson		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%
2229	City of John Day		9.90%	3.45%	7.56%	13.20%	5.31%	10.08%
2256	City of Jordan Valley		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%
2199	City of Junction City		16.43%	10.42%	14.53%	21.16%	13.34%	18.11%

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		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll
SLGRP (Default Tier 1/Tier 2 Rates)								
City								
2287	City of King City		16.07%	7.69%	11.80%	22.29%	11.29%	16.06%
2148	City of Klamath Falls		11.45%	4.37%	8.48%	16.09%	7.09%	11.86%
2263	City of La Grande		15.65%	6.27%	10.38%	21.11%	9.00%	13.77%
2233	City of Lafayette		14.05%	8.43%	12.54%	17.34%	11.47%	16.24%
2120	City of Lake Oswego		19.45%	11.87%	15.98%	24.31%	14.69%	19.46%
2244	City of Lakeside		7.03%	3.71%	7.82%	10.11%	5.80%	10.57%
2140	City of Lebanon		14.57%	7.26%	11.37%	19.24%	9.95%	14.72%
2298	City of Lincoln City		13.62%	7.10%	11.21%	17.89%	9.33%	14.10%
2293	City of Lowell		14.59%	9.38%	13.49%	19.33%	11.50%	16.27%
2270	City of Lyons		16.06%	11.13%	15.24%	22.56%	12.96%	17.73%
2170	City of Madras		17.66%	9.91%	14.02%	22.29%	12.33%	17.10%
2247	City of Malin		13.61%	7.68%	11.79%	17.37%	10.46%	15.23%
2281	City of Manzanita		18.31%	10.05%	14.16%	23.40%	13.01%	17.78%
2117	City of McMinnville		21.24%	14.02%	18.13%	25.98%	17.01%	21.78%
2102	City of Medford		13.49%	5.92%	10.03%	18.49%	8.94%	13.71%
2207	City of Mill City		17.19%	11.25%	15.36%	18.51%	14.20%	18.97%
2286	City of Millersburg		17.35%	11.36%	15.47%	21.48%	14.19%	18.96%
2158	City of Milton-Freewater		19.43%	12.68%	16.79%	23.83%	15.58%	20.35%
2163	City of Milwaukie		13.69%	6.25%	10.36%	19.14%	9.72%	14.49%
2157	City of Monmouth		14.81%	7.90%	12.01%	19.09%	10.81%	15.58%
2209	City of Monroe		0.53%	0.45%	0.45%	6.31%	0.43%	3.25%
2301	City of Moro		11.70%	3.56%	7.67%	15.97%	6.37%	11.14%
2302	City of Mt. Vernon		13.21%	5.36%	9.47%	18.46%	8.86%	13.63%
2197	City of Myrtle Creek		14.02%	7.08%	11.19%	17.78%	9.87%	14.64%
2183	City of Myrtle Point		11.31%	4.10%	8.21%	16.11%	7.19%	11.96%
2777	City of Newberg		15.09%	7.11%	11.22%	20.32%	10.02%	14.79%
2276	City of Newport		14.57%	4.99%	9.10%	19.43%	7.48%	12.25%
2292	City of North Bend		15.57%	8.36%	12.47%	20.57%	11.16%	15.93%
2192	City of North Plains		14.88%	8.98%	13.09%	17.85%	11.59%	16.36%
2308	City of North Powder		12.84%	9.52%	13.63%	16.78%	12.47%	17.24%
2166	City of Nyssa		18.43%	10.58%	14.69%	23.42%	13.52%	18.29%
2143	City of Oakland		26.39%	19.98%	24.09%	26.17%	21.86%	26.63%
2168	City of Oakridge		24.26%	16.85%	20.96%	29.63%	19.52%	24.29%
2119	City of Oregon City		13.38%	7.44%	11.55%	18.18%	10.67%	15.44%
2154	City of Pendleton		14.59%	6.89%	11.00%	19.88%	10.09%	14.86%
2187	City of Philomath		14.51%	7.73%	11.84%	19.95%	11.06%	15.83%
2249	City of Phoenix		7.73%	1.49%	5.60%	12.70%	5.23%	10.00%
2161	City of Pilot Rock		22.00%	14.89%	19.00%	26.04%	18.26%	23.03%
2184	City of Port Orford		16.05%	10.14%	14.25%	21.01%	13.17%	17.94%

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SLGRP (Default Tier 1/Tier 2 Rates)									
City									
2121	City of Portland		13.34%	7.53%	11.64%		17.62%	10.69%	15.46%
2122	City of Redmond		13.37%	7.04%	11.15%		18.46%	10.38%	15.15%
2139	City of Reedsport		5.80%	0.45%	3.42%		9.71%	1.78%	6.55%
2260	City of Riddle		15.80%	8.63%	12.74%		20.11%	11.96%	16.73%
2203	City of Rockaway Beach		12.75%	8.62%	12.73%		17.32%	11.98%	16.75%
2251	City of Rogue River		21.56%	14.62%	18.73%		26.09%	17.97%	22.74%
2100	City of Roseburg		19.06%	11.08%	15.19%		23.99%	14.02%	18.79%
2172	City of Sandy		16.91%	10.23%	14.34%		21.86%	13.28%	18.05%
2176	City of Scappoose		17.95%	11.26%	15.37%		22.43%	14.32%	19.09%
2254	City of Shady Cove		0.53%	0.45%	0.45%		7.22%	0.43%	4.16%
2142	City of Sherwood		17.15%	10.81%	14.92%		21.76%	13.77%	18.54%
2273	City of Silverton		15.39%	8.68%	12.79%		20.41%	11.69%	16.46%
2221	City of Sisters		11.25%	6.95%	11.06%		14.28%	9.97%	14.74%
2278	City of Springfield		12.13%	5.33%	9.44%		16.85%	8.31%	13.08%
2123	City of St Helens		21.39%	14.99%	19.10%		25.72%	18.01%	22.78%
2757	City of Stayton		18.45%	10.07%	14.18%		24.07%	13.07%	17.84%
2217	City of Sutherlin		10.43%	3.21%	7.32%		13.42%	4.92%	9.69%
2188	City of Talent		13.65%	6.09%	10.20%		19.25%	9.88%	14.65%
2295	City of Tigard		15.07%	5.88%	9.99%		20.51%	8.62%	13.39%
2128	City of Tillamook		15.47%	9.43%	13.54%		20.08%	12.27%	17.04%
2275	City of Toledo		9.38%	2.13%	6.24%		13.74%	4.49%	9.26%
2237	City of Troutdale		14.10%	7.09%	11.20%		11.11%	4.39%	9.16%
2288	City of Tualatin		19.31%	12.50%	16.61%		24.29%	15.52%	20.29%
2228	City of Turner		17.47%	12.12%	16.23%		22.17%	14.99%	19.76%
2175	City of Umatilla		8.69%	2.33%	6.44%		13.42%	5.61%	10.38%
2145	City of Vale		24.47%	18.32%	22.43%		26.40%	19.60%	24.37%
2285	City of Veneta		15.06%	8.53%	12.64%		19.27%	11.46%	16.23%
2125	City of Vernonia		9.82%	4.58%	8.69%		15.78%	7.98%	12.75%
2200	City of Wallowa		9.72%	5.47%	9.58%		13.66%	8.19%	12.96%
2238	City of Warrenton		17.56%	10.36%	14.47%		22.49%	13.42%	18.19%
2126	City of West Linn		15.64%	8.61%	12.72%		20.48%	11.68%	16.45%
2265	City of Westfir		8.68%	2.27%	6.38%		13.67%	5.84%	10.61%
2206	City of Weston		8.63%	4.69%	8.80%		9.68%	5.37%	10.14%
2147	City of Wheeler		18.87%	12.46%	16.57%		23.58%	15.75%	20.52%
2240	City of Wilsonville		16.59%	10.55%	14.66%		20.73%	13.46%	18.23%
2280	City of Winston		10.74%	2.77%	6.88%		14.65%	4.43%	9.20%
2185	City of Wood Village		15.41%	9.33%	13.44%		20.04%	12.20%	16.97%
2303	City of Woodburn		16.29%	9.24%	13.35%		20.65%	11.98%	16.75%
2300	City of Yachats		13.86%	7.56%	11.67%		17.48%	9.93%	14.70%

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<b>SLGRP (Default Tier 1/Tier 2 Rates)</b>								
<b>City</b>								
2214	City of Yamhill		11.68%	5.64%	9.75%	17.71%	9.90%	14.67%
2307	City of Yoncalla		14.02%	10.70%	14.81%	17.94%	13.63%	18.40%
2255	Town of Canyon City		20.91%	14.50%	18.61%	24.20%	16.37%	21.14%
2212	Town of Lakeview		8.24%	1.36%	5.47%	13.22%	3.78%	8.55%
<b>County</b>								
2021	Baker County		14.60%	8.59%	12.70%	19.00%	11.24%	16.01%
2040	Benton County		11.45%	5.51%	9.62%	16.37%	9.00%	13.77%
2036	Clatsop County		12.13%	4.95%	9.06%	16.28%	7.59%	12.36%
2017	Columbia County		11.50%	4.68%	8.79%	15.36%	7.19%	11.96%
2018	Coos County		20.88%	13.90%	18.01%	25.23%	16.67%	21.44%
2044	Crook County		11.80%	2.60%	6.71%	16.83%	5.02%	9.79%
2027	Deschutes County		13.26%	6.67%	10.78%	17.96%	9.68%	14.45%
2022	Gilliam County		16.38%	10.30%	14.41%	20.71%	13.22%	17.99%
2012	Grant County		1.21%	0.45%	0.45%	5.55%	0.43%	2.12%
2004	Harney County		15.08%	8.76%	12.87%	19.65%	11.89%	16.66%
2035	Hood River County		6.79%	0.91%	5.02%	11.08%	3.51%	8.28%
2005	Jackson County		16.10%	9.42%	13.53%	21.01%	12.96%	17.73%
2042	Josephine County		17.59%	11.31%	15.42%	23.54%	16.04%	20.81%
2007	Klamath County		5.99%	0.45%	1.02%	12.24%	0.54%	5.31%
2000	Lake County		14.92%	8.33%	12.44%	19.90%	11.61%	16.38%
2043	Lincoln County		11.95%	2.40%	6.51%	16.59%	4.23%	9.00%
2009	Marion County		12.44%	5.76%	9.87%	17.09%	8.76%	13.53%
2038	Multnomah County		14.79%	8.07%	12.18%	19.55%	11.29%	16.06%
2016	Sherman County		18.89%	12.78%	16.89%	23.22%	15.68%	20.45%
2013	Umatilla County		10.93%	4.21%	8.32%	15.94%	7.61%	12.38%
2020	Wasco County		15.87%	8.86%	12.97%	19.80%	11.52%	16.29%
2011	Washington County		17.75%	11.11%	15.22%	22.36%	14.05%	18.82%
<b>Special Districts</b>								
2742	Amity Fire District		16.02%	5.65%	9.76%	19.62%	6.54%	11.31%
2631	Arch Cape Water-Sanitary District		13.69%	7.55%	11.66%	13.83%	9.52%	14.29%
2602	Aumsville Rural Fire Protection District		14.43%	6.85%	10.96%	23.12%	9.70%	14.47%
2804	Aurora Rural Fire Protection District		11.45%	3.07%	7.18%	16.34%	5.34%	10.11%
2728	Baker County Library District		15.64%	10.69%	14.80%	21.12%	13.96%	18.73%
2601	Baker Valley Irrigation District		1.74%	0.45%	0.45%	0.50%	0.43%	0.43%
2749	Black Butte Ranch Police		13.87%	5.15%	9.26%	17.61%	6.61%	11.38%
2595	Canby Fire District		19.32%	10.41%	14.52%	24.00%	12.90%	17.67%
2731	Canby Utility Board		17.04%	11.23%	15.34%	21.86%	14.18%	18.95%
2840	Cannon Beach Rural Fire Protection District		19.41%	11.03%	15.14%	24.97%	13.97%	18.74%
2820	Central Oregon Coast Fire & Rescue District		13.02%	4.64%	8.75%	16.42%	8.59%	13.36%

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SLGRP (Default Tier 1/Tier 2 Rates)								
Special Districts								
2569	Central Oregon Intergovernmental Council		13.84%	8.47%	12.58%	10.78%	4.97%	9.74%
2563	Central Oregon Irrigation District		19.10%	14.03%	18.14%	23.61%	16.75%	21.52%
2567	Charleston Rural Fire Protection District		17.03%	7.23%	11.34%	22.69%	9.99%	14.76%
2699	Chetco Library Board		17.31%	10.64%	14.75%	22.57%	13.57%	18.34%
2745	Clackamas County Fire District		17.55%	8.34%	12.45%	23.83%	12.01%	16.78%
2761	Clackamas River Water		18.71%	13.86%	17.97%	22.87%	17.17%	21.94%
2538	Clackamas Vector Control		23.00%	14.86%	18.97%	27.34%	19.51%	24.28%
2707	Clatskanie Library		18.44%	11.58%	15.69%	22.72%	14.51%	19.28%
2526	Clatskanie PUD		23.28%	17.02%	21.13%	26.29%	19.73%	24.50%
2588	Clatskanie Rural Fire Protection District		14.58%	4.90%	9.01%	22.81%	10.29%	15.06%
2617	Clean Water Services		12.29%	5.96%	10.07%	16.79%	9.33%	14.10%
2681	Cloverdale Rural Fire Protection District		25.27%	15.01%	19.12%	30.74%	17.32%	22.09%
2801	Coburg Rural Fire Protection District		14.26%	5.88%	9.99%	20.24%	9.25%	14.02%
2649	Colton Fire Department		16.92%	6.55%	10.66%	23.23%	9.81%	14.58%
2671	Columbia 911 Communications District		15.13%	10.24%	14.35%	19.22%	13.13%	17.90%
2687	Columbia Drainage Vector Control District		27.00%	21.02%	25.13%	31.78%	27.47%	32.24%
2528	Columbia River Fire & Rescue		13.67%	4.66%	8.77%	19.06%	7.35%	12.12%
2612	Community Services Consortium		14.64%	9.63%	13.74%	18.36%	12.26%	17.03%
2860	Coos County Airport District		10.38%	7.06%	11.17%	14.55%	10.24%	15.01%
2603	Corbett Water District		17.49%	11.08%	15.19%	21.85%	14.02%	18.79%
2545	Council of Governments		16.57%	11.07%	15.18%	20.58%	14.01%	18.78%
2834	Crescent Rural Fire Protection District		21.97%	11.60%	15.71%	20.87%	13.04%	17.81%
2844	Crook County Rural Fire Protection District #1		18.22%	10.73%	14.84%	23.60%	13.79%	18.56%
2647	Crooked River Ranch Rural Fire Protection District		16.13%	9.72%	13.83%	20.09%	12.26%	17.03%
2571	Crystal Springs Water District		13.39%	10.07%	14.18%	18.26%	13.95%	18.72%
2718	Curry Library		0.53%	0.45%	0.45%	2.98%	0.43%	3.44%
2576	Depoe Bay Rural Fire Protection District		17.89%	9.75%	13.86%	26.59%	13.17%	17.94%
2822	Deschutes County Rural Fire Protection District #2		13.98%	10.66%	14.77%	17.93%	13.62%	18.39%
2642	Dexter Rural Fire Protection District		18.43%	8.06%	12.17%	17.31%	9.48%	14.25%
2851	East Umatilla County Rural Fire Protection District		15.60%	7.22%	11.33%	21.18%	10.18%	14.95%
2784	Eisenschmidt Pool		12.68%	9.36%	13.47%	16.23%	11.92%	16.69%
2557	Estacada Fire Department		5.43%	0.45%	0.45%	12.55%	0.43%	3.90%
2798	Fairview Water District		18.34%	10.20%	14.31%	20.91%	11.31%	16.08%
2789	Farmers Irrigation District		10.33%	2.99%	7.10%	8.15%	0.43%	4.88%
2824	Glide Fire Department		15.83%	7.69%	11.80%	25.09%	11.67%	16.44%
2573	Goshen Fire District		35.84%	29.43%	33.54%	44.00%	36.17%	40.94%
2511	Grants Pass Irrigation District		20.24%	12.10%	16.21%	24.62%	15.02%	19.79%
2765	Green Sanitary		15.31%	9.54%	13.65%	19.45%	12.64%	17.41%
2855	Harney Hospital		13.10%	8.05%	12.16%	18.08%	11.88%	16.65%

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SLGRP (Default Tier 1/Tier 2 Rates)								
Special Districts								
2819	Harrisburg Fire/Rescue		18.76%	10.38%	14.49%	24.20%	13.20%	17.97%
2838	High Desert Parks & Recreation District		14.79%	11.47%	15.58%	22.27%	14.44%	19.21%
2607	Hoodland Fire District #74		18.45%	9.33%	13.44%	24.25%	12.26%	17.03%
2510	Horsefly Irrigation District		52.13%	45.72%	49.83%	30.54%	22.71%	27.48%
2773	Housing Authority of Jackson County		17.24%	12.76%	16.87%	20.98%	15.69%	20.46%
2829	Hubbard Rural Fire Protection District		7.52%	1.11%	5.22%	0.50%	0.43%	0.43%
2564	Illinois Valley Fire District		10.73%	2.35%	6.46%	17.44%	6.44%	11.21%
2651	Imbler Rural Fire Protection District		22.10%	11.73%	15.84%	27.87%	14.45%	19.22%
2715	Jackson County Fire District #3		14.17%	5.26%	9.37%	19.91%	8.34%	13.11%
2620	Jackson County Fire District #4		23.26%	12.89%	17.00%	29.17%	15.75%	20.52%
2541	Jackson County Vector Control District		17.88%	9.74%	13.85%	19.92%	12.09%	16.86%
2712	Jefferson County EMS		15.11%	11.71%	15.82%	18.71%	14.40%	19.17%
2846	Jefferson County Library District		16.05%	12.27%	16.38%	19.97%	15.06%	19.83%
2561	Jefferson Rural Fire Protection District		10.87%	2.65%	6.76%	16.47%	4.83%	9.60%
2763	Junction City Fire Department		17.71%	9.29%	13.40%	19.76%	11.19%	15.96%
2559	Keizer Fire Department		16.34%	7.32%	11.43%	22.48%	10.82%	15.59%
2710	Klamath County Emergency Communications District		18.35%	12.79%	16.90%	22.19%	15.80%	20.57%
2721	Klamath Housing Authority		14.95%	9.15%	13.26%	14.71%	10.40%	15.17%
2624	Klamath Vector Control		21.12%	12.98%	17.09%	26.19%	18.36%	23.13%
2579	La Pine Rural Fire Protection District		16.24%	7.59%	11.70%	21.45%	10.15%	14.92%
2768	Lake County Library District		19.95%	11.81%	15.92%	23.65%	14.77%	19.54%
2522	Lane Council of Governments		17.12%	10.94%	15.05%	21.46%	14.11%	18.88%
2883	Lane Fire Authority		20.05%	10.64%	14.75%	25.45%	13.38%	18.15%
2849	Lebanon Aquatic District		15.07%	10.75%	14.86%	20.88%	14.16%	18.93%
2705	Lebanon Fire District		19.23%	9.25%	13.36%	25.04%	12.16%	16.93%
2753	Linn-Benton Housing Authority		8.91%	4.41%	8.52%	13.06%	7.40%	12.17%
2572	Local Government Personnel Institute		17.09%	11.44%	15.55%	19.07%	14.76%	19.53%
2580	Marion County Fire District #1		23.45%	14.63%	18.74%	28.96%	17.41%	22.18%
2598	Marion County Housing Authority		0.53%	0.45%	0.45%	0.50%	0.43%	0.43%
2628	McKenzie Fire And Rescue		12.96%	4.65%	8.76%	18.79%	7.79%	12.56%
2592	Medford Irrigation District		16.74%	9.70%	13.81%	21.29%	12.67%	17.44%
2594	Metro		11.82%	6.29%	10.40%	16.30%	9.71%	14.48%
2663	Metropolitan Area Communications Commission		17.10%	9.73%	13.84%	22.35%	12.75%	17.52%
2811	Mid-Columbia Center For Living		16.66%	11.34%	15.45%	20.20%	14.20%	18.97%
2657	Mid-Willamette Valley Senior Service Agency		12.76%	7.19%	11.30%	17.88%	11.51%	16.28%
2853	Mill City Rural Fire Protection District		11.22%	2.84%	6.95%	16.13%	5.13%	9.90%
2752	Mist-Birkenfeld Rural Fire Protection District		0.53%	0.45%	0.45%	8.99%	0.53%	5.30%
2758	Mohawk Valley Rural Fire District		7.60%	1.19%	5.30%	12.19%	4.36%	9.13%
2568	Molalla Rural Fire Protection District #73		25.90%	17.19%	21.30%	29.33%	17.91%	22.68%

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		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll
SLGRP (Default Tier 1/Tier 2 Rates)									
Special Districts									
2555	Monroe Fire Department		12.26%	3.88%	7.99%		17.73%	6.73%	11.50%
2873	Mosier Fire District		12.59%	5.60%	9.71%		9.17%	1.34%	6.11%
2778	Mulino Water District #23		14.59%	11.27%	15.38%		18.52%	14.21%	18.98%
2806	Multnomah County Rural Fire Protection District #14		14.29%	10.97%	15.08%		18.23%	13.92%	18.69%
2508	Multnomah Drainage		18.62%	13.91%	18.02%		21.06%	15.79%	20.56%
2869	Nehalem Bay Fire & Rescue		23.26%	12.89%	17.00%		29.15%	15.75%	20.52%
2780	Nehalem Bay Health District		13.69%	7.28%	11.39%		18.93%	11.10%	15.87%
2858	Nesika Beach-Ophir Water District		16.74%	8.73%	12.84%		20.71%	12.41%	17.18%
2716	Neskowin Water District		19.20%	11.06%	15.17%		21.81%	13.98%	18.75%
2674	Nestucca Rural Fire District		11.86%	3.48%	7.59%		17.46%	6.44%	11.21%
2818	Netarts Water District		12.60%	9.28%	13.39%		16.31%	12.00%	16.77%
2830	Netarts-Oceanside Rural Fire Protection District		18.91%	10.53%	14.64%		24.45%	13.45%	18.22%
2604	Netarts-Oceanside Sanitary District		8.68%	3.88%	7.99%		10.99%	6.68%	11.45%
2837	NORCOM		12.67%	7.38%	11.49%		17.18%	10.70%	15.47%
2781	North Bend/Coos-Curry Housing Authority		40.26%	33.72%	37.83%		57.35%	47.75%	52.52%
2884	North Central Public Health District		N/A	N/A	N/A		24.57%	15.75%	20.52%
2638	North Douglas County Fire and EMS		15.58%	7.01%	11.12%		12.92%	1.59%	6.36%
2793	North Lincoln Fire & Rescue District #1		17.97%	8.94%	13.05%		23.94%	12.15%	16.92%
2839	North Morrow Vector Control District		14.53%	11.21%	15.32%		18.46%	14.15%	18.92%
2792	North Wasco County Parks And Recreation District		19.22%	11.08%	15.19%		21.10%	14.02%	18.79%
2825	Northern Oregon Corrections		11.07%	4.38%	8.49%		14.57%	6.44%	11.21%
2504	Oak Lodge Water District		21.20%	14.94%	19.05%		25.25%	17.94%	22.71%
2852	Ochoco Irrigation District		8.30%	4.98%	9.09%		13.23%	8.92%	13.69%
2562	Odell Rural Fire Protection District		21.18%	12.80%	16.91%		29.69%	18.69%	23.46%
2816	Odell Sanitary District		15.39%	12.07%	16.18%		19.27%	14.96%	19.73%
2880	Oregon Health & Science University		12.54%	6.61%	10.72%		15.48%	8.29%	13.06%
2531	Oregon School Boards Association		19.93%	13.00%	17.11%		23.53%	15.85%	20.62%
2774	Oregon Trail Library District		18.14%	10.00%	14.11%		20.77%	12.94%	17.71%
2684	Parkdale Fire District		21.86%	13.48%	17.59%		27.28%	16.28%	21.05%
2694	Philomath Fire Department		19.03%	9.54%	13.65%		21.20%	10.20%	14.97%
2650	Pleasant Hill Fire Department		14.54%	8.13%	12.24%		19.34%	11.51%	16.28%
2513	Port of Coos Bay		16.75%	11.16%	15.27%		21.17%	14.00%	18.77%
2741	Port of Garibaldi		14.14%	8.54%	12.65%		18.26%	11.49%	16.26%
2625	Port of Newport		6.68%	0.45%	3.65%		13.54%	4.61%	9.38%
2512	Port of Portland		11.61%	5.54%	9.65%		16.34%	8.79%	13.56%
2501	Port of The Dalles		3.79%	0.45%	3.31%		8.28%	2.80%	7.57%
2713	Port of Tillamook Bay		13.06%	8.54%	12.65%		18.15%	12.06%	16.83%
2673	Port Orford Library		0.53%	0.45%	0.45%		3.81%	0.43%	4.27%
2519	Portland Housing Authority		13.06%	7.87%	11.98%		17.01%	10.94%	15.71%

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SLGRP (Default Tier 1/Tier 2 Rates)								
Special Districts								
2542	Rainbow Water District		21.22%	13.08%	17.19%	25.71%	16.11%	20.88%
2776	Rainier Cemetery District		7.67%	1.26%	5.37%	2.86%	0.43%	0.43%
2590	Redmond Fire & Rescue		16.71%	7.66%	11.77%	22.46%	10.70%	15.47%
2549	Rogue River Fire District		14.61%	5.81%	9.92%	20.26%	9.00%	13.77%
2585	Rogue River Valley Irrigation District		26.08%	22.76%	26.87%	28.22%	23.91%	28.68%
2669	Roseburg Urban Sanitary Authority		14.63%	8.10%	12.21%	18.32%	10.73%	15.50%
2802	Rural Road Assessment District #3		14.55%	11.23%	15.34%	18.56%	14.25%	19.02%
2551	Sandy Fire Department		13.94%	5.08%	9.19%	19.77%	8.18%	12.95%
2544	Santa Clara Rural Fire Protection District		21.81%	11.44%	15.55%	27.43%	14.01%	18.78%
2709	Scappoose Public Library		11.68%	3.54%	7.65%	15.29%	6.15%	10.92%
2739	Scappoose Rural Fire Protection District		19.55%	10.48%	14.59%	24.87%	13.38%	18.15%
2605	Scio Fire District		0.53%	0.45%	0.45%	16.00%	3.61%	8.38%
2734	Seal Rock Water District		11.85%	7.07%	11.18%	17.21%	10.71%	15.48%
2630	Sheridan Fire District		18.31%	7.94%	12.05%	22.82%	11.20%	15.97%
2790	Silver Falls Library District		15.25%	10.59%	14.70%	18.84%	13.68%	18.45%
2659	Silverton Fire District		17.92%	8.60%	12.71%	22.83%	11.16%	15.93%
2692	Siuslaw Public Library		13.36%	8.52%	12.63%	17.93%	11.73%	16.50%
2794	Siuslaw Rural Fire Protection District #1		22.41%	12.08%	16.19%	28.73%	15.35%	20.12%
2599	South Suburban Sanitary District		17.17%	10.88%	14.99%	21.48%	13.89%	18.66%
2766	Southwest Lincoln County Water District		13.98%	9.48%	13.59%	18.20%	12.83%	17.60%
2706	Stanfield Fire District		15.85%	5.48%	9.59%	0.50%	0.43%	0.43%
2696	Stayton Fire District		19.21%	11.34%	15.45%	24.45%	14.12%	18.89%
2799	Sublimity Fire District		14.43%	7.47%	11.58%	9.55%	5.24%	10.01%
2641	Suburban East Salem Water District		16.76%	10.65%	14.76%	20.90%	13.45%	18.22%
2857	Sunriver Service District		13.66%	5.54%	9.65%	17.84%	6.98%	11.75%
2810	Sutherlin Water Control District		15.88%	9.47%	13.58%	20.29%	12.46%	17.23%
2847	Sweet Home Fire and Ambulance District		19.62%	10.02%	14.13%	25.58%	13.13%	17.90%
2582	Talent Irrigation District		19.47%	12.25%	16.36%	23.82%	15.23%	20.00%
2553	Tangent Rural Fire Protection District		36.26%	25.89%	30.00%	41.76%	28.38%	33.15%
2652	The Oregon Consortium		21.03%	12.89%	17.00%	25.35%	15.75%	20.52%
2626	Tillamook Peoples Utility District		17.11%	10.85%	14.96%	21.19%	13.80%	18.57%
2864	Tri-City Water and Sanitary Authority		12.36%	9.04%	13.15%	16.33%	12.02%	16.79%
2660	Tualatin Valley Fire & Rescue		16.03%	7.17%	11.28%	22.04%	10.48%	15.25%
2587	Tualatin Valley Irrigation District		13.81%	7.98%	12.09%	12.38%	8.07%	12.84%
2842	Tualatin Valley Water District		13.66%	8.22%	12.33%	17.78%	11.20%	15.97%
2772	Umatilla County Soil & Water District		13.32%	6.91%	11.02%	15.98%	8.15%	12.92%
2732	Umatilla County Special Library District		10.69%	2.55%	6.66%	17.08%	7.48%	12.25%
2653	Umatilla Fire Department		18.07%	7.70%	11.81%	23.96%	10.54%	15.31%
2826	Wasco County Soil-Water Conservation District		10.84%	7.52%	11.63%	13.50%	9.19%	13.96%



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SLGRP (Default Tier 1/Tier 2 Rates)							
Special Districts							
2695	Washington County Consolidated Communications Agency	17.53%	11.79%	15.90%	21.75%	14.74%	19.51%
2578	Washington County Fire District #2	22.24%	13.61%	17.72%	27.87%	16.50%	21.27%
2540	West Extension Irrigation District	9.28%	5.96%	10.07%	10.86%	6.55%	11.32%
2867	West Multnomah Soil And Water Conservation District	19.35%	12.89%	17.00%	20.06%	15.75%	20.52%
2589	West Slope Water District	21.59%	16.86%	20.97%	30.98%	21.38%	26.15%
2606	West Valley Housing Authority	15.22%	9.29%	13.40%	16.50%	11.56%	16.33%
2754	Western Lane Ambulance District	15.43%	10.81%	14.92%	19.68%	13.79%	18.56%
2686	Weston Cemetery	12.85%	0.45%	4.30%	8.94%	4.63%	9.40%
2817	Wickiup Water District	17.36%	10.95%	15.06%	21.72%	13.89%	18.66%
2552	Winston-Dillard Fire District	29.58%	20.07%	24.18%	36.86%	24.74%	29.51%
2600	Winston-Dillard Water District	14.88%	10.09%	14.20%	19.27%	12.87%	17.64%
2676	Woodburn Fire District	27.08%	18.19%	22.30%	31.93%	20.31%	25.08%
2843	Yachats Rural Fire Protection District	18.18%	9.67%	13.78%	25.64%	14.64%	19.41%
2726	Yamhill Communications Agency	16.72%	10.97%	15.08%	20.46%	13.87%	18.64%
State							
1000	State Agencies	13.81%	7.31%	11.42%	18.67%	10.78%	15.55%

Year	Undisc	7.5%	PV	7.0%	PV	6.5%	PV	6.0%	PV	5.5%	PV	5.0%	PV	4.5%	PV	4.0%	PV	3.5%	PV	3.0%	PV
2016	4.5	103.8%	4.3	103.5%	4.3	103.3%	4.3	103.0%	4.4	102.8%	4.4	102.5%	4.4	102.3%	4.4	102.0%	4.4	101.8%	4.4	101.5%	4.4
2017	4.6	111.5%	4.2	110.7%	4.2	110.0%	4.2	109.2%	4.2	108.4%	4.3	107.6%	4.3	106.9%	4.3	106.1%	4.4	105.3%	4.4	104.5%	4.4
2018	4.9	119.9%	4.1	118.5%	4.1	117.1%	4.2	115.7%	4.2	114.4%	4.3	113.0%	4.3	111.7%	4.4	110.3%	4.4	109.0%	4.5	107.7%	4.5
2019	5.1	128.9%	4.0	126.8%	4.0	124.7%	4.1	122.7%	4.2	120.7%	4.2	118.7%	4.3	116.7%	4.4	114.7%	4.4	112.8%	4.5	110.9%	4.6
2020	5.3	138.6%	3.8	135.7%	3.9	132.8%	4.0	130.0%	4.0	127.3%	4.1	124.6%	4.2	121.9%	4.3	119.3%	4.4	116.8%	4.5	114.2%	4.6
2021	5.5	148.9%	3.7	145.2%	3.8	141.5%	3.9	137.8%	4.0	134.3%	4.1	130.8%	4.2	127.4%	4.3	124.1%	4.4	120.8%	4.5	117.7%	4.7
2022	5.7	160.1%	3.6	155.3%	3.7	150.7%	3.8	146.1%	3.9	141.7%	4.0	137.4%	4.2	133.2%	4.3	129.1%	4.4	125.1%	4.6	121.2%	4.7
2023	5.9	172.1%	3.5	166.2%	3.6	160.4%	3.7	154.9%	3.8	149.5%	4.0	144.2%	4.1	139.1%	4.3	134.2%	4.4	129.5%	4.6	124.8%	4.8
2024	6.1	185.0%	3.3	177.8%	3.4	170.9%	3.6	164.2%	3.7	157.7%	3.9	151.4%	4.0	145.4%	4.2	139.6%	4.4	134.0%	4.6	128.6%	4.7
2025	6.3	198.9%	3.1	190.3%	3.3	182.0%	3.4	174.0%	3.6	166.4%	3.8	159.0%	3.9	152.0%	4.1	145.2%	4.3	138.7%	4.5	132.4%	4.7
2026	6.5	213.8%	3.0	203.6%	3.2	193.8%	3.3	184.5%	3.5	175.5%	3.7	167.0%	3.9	158.8%	4.1	151.0%	4.3	143.5%	4.5	136.4%	4.8
2027	6.6	229.9%	2.9	217.9%	3.0	206.4%	3.2	195.5%	3.4	185.2%	3.6	175.3%	3.8	165.9%	4.0	157.0%	4.2	148.6%	4.5	140.5%	4.7
2028	6.9	247.1%	2.8	233.1%	2.9	219.8%	3.1	207.3%	3.3	195.3%	3.5	184.1%	3.7	173.4%	4.0	163.3%	4.2	153.8%	4.5	144.7%	4.8
2029	7.0	265.6%	2.6	249.4%	2.8	234.1%	3.0	219.7%	3.2	206.1%	3.4	193.3%	3.6	181.2%	3.9	169.8%	4.1	159.1%	4.4	149.1%	4.7
2030	7.2	285.6%	2.5	266.9%	2.7	249.3%	2.9	232.9%	3.1	217.4%	3.3	202.9%	3.5	189.4%	3.8	176.6%	4.1	164.7%	4.4	153.5%	4.7
2031	7.3	307.0%	2.4	285.6%	2.6	265.5%	2.8	246.8%	3.0	229.4%	3.2	213.1%	3.4	197.9%	3.7	183.7%	4.0	170.5%	4.3	158.1%	4.6
2032	7.5	330.0%	2.3	305.5%	2.5	282.8%	2.6	261.7%	2.9	242.0%	3.1	223.7%	3.3	206.8%	3.6	191.0%	3.9	176.4%	4.2	162.9%	4.6
2033	7.6	354.8%	2.2	326.9%	2.3	301.2%	2.5	277.4%	2.8	255.3%	3.0	234.9%	3.3	216.1%	3.5	198.7%	3.8	182.6%	4.2	167.8%	4.6
2034	7.7	381.4%	2.0	349.8%	2.2	320.8%	2.4	294.0%	2.6	269.4%	2.9	246.7%	3.1	225.8%	3.4	206.6%	3.7	189.0%	4.1	172.8%	4.5
2035	7.8	410.0%	1.9	374.3%	2.1	341.6%	2.3	311.6%	2.5	284.2%	2.7	259.0%	3.0	236.0%	3.3	214.9%	3.6	195.6%	4.0	178.0%	4.4
2036	7.9	440.7%	1.8	400.5%	2.0	363.8%	2.2	330.3%	2.4	299.8%	2.6	272.0%	2.9	246.6%	3.2	223.5%	3.5	202.5%	3.9	183.3%	4.3
2037	8.0	473.8%	1.7	428.5%	1.9	387.5%	2.1	350.2%	2.3	316.3%	2.5	285.6%	2.8	257.7%	3.1	232.4%	3.4	209.5%	3.8	188.8%	4.2
2038	8.0	509.3%	1.6	458.5%	1.8	412.6%	1.9	371.2%	2.2	333.7%	2.4	299.8%	2.7	269.3%	3.0	241.7%	3.3	216.9%	3.7	194.5%	4.1
2039	8.0	547.5%	1.5	490.6%	1.6	439.5%	1.8	393.4%	2.0	352.0%	2.3	314.8%	2.6	281.4%	2.9	251.4%	3.2	224.5%	3.6	200.3%	4.0
2040	8.0	588.6%	1.4	525.0%	1.5	468.0%	1.7	417.0%	1.9	371.4%	2.2	330.6%	2.4	294.1%	2.7	261.5%	3.1	232.3%	3.5	206.3%	3.9
2041	8.0	632.7%	1.3	561.7%	1.4	498.5%	1.6	442.1%	1.8	391.8%	2.0	347.1%	2.3	307.3%	2.6	271.9%	2.9	240.5%	3.3	212.5%	3.7
2042	8.0	680.2%	1.2	601.1%	1.3	530.9%	1.5	468.6%	1.7	413.4%	1.9	364.5%	2.2	321.1%	2.5	282.8%	2.8	248.9%	3.2	218.9%	3.6
2043	7.9	731.2%	1.1	643.1%	1.2	565.4%	1.4	496.7%	1.6	436.1%	1.8	382.7%	2.1	335.6%	2.3	294.1%	2.7	257.6%	3.1	225.5%	3.5
2044	7.8	786.0%	1.0	688.2%	1.1	602.1%	1.3	526.5%	1.5	460.1%	1.7	401.8%	1.9	350.7%	2.2	305.9%	2.6	266.6%	2.9	232.2%	3.4
2045	7.7	845.0%	0.9	736.3%	1.0	641.3%	1.2	558.1%	1.4	485.4%	1.6	421.9%	1.8	366.5%	2.1	318.1%	2.4	275.9%	2.8	239.2%	3.2
2046	7.6	908.3%	0.8	787.9%	1.0	682.9%	1.1	591.6%	1.3	512.1%	1.5	443.0%	1.7	383.0%	2.0	330.8%	2.3	285.6%	2.7	246.4%	3.1
Undisc	213	PV Liab Assets UAL	76 54 (22)	PV Liab Assets UAL	80 54 (26)	PV Liab Assets UAL	85 54 (31)	PV Liab Assets UAL	90 54 (36)	PV Liab Assets UAL	96 54 (42)	PV Liab Assets UAL	102 54 (48)	PV Liab Assets UAL	109 54 (54)	PV Liab Assets UAL	116 54 (62)	PV Liab Assets UAL	124 54 (70)	PV Liab Assets UAL	134 54 (79)

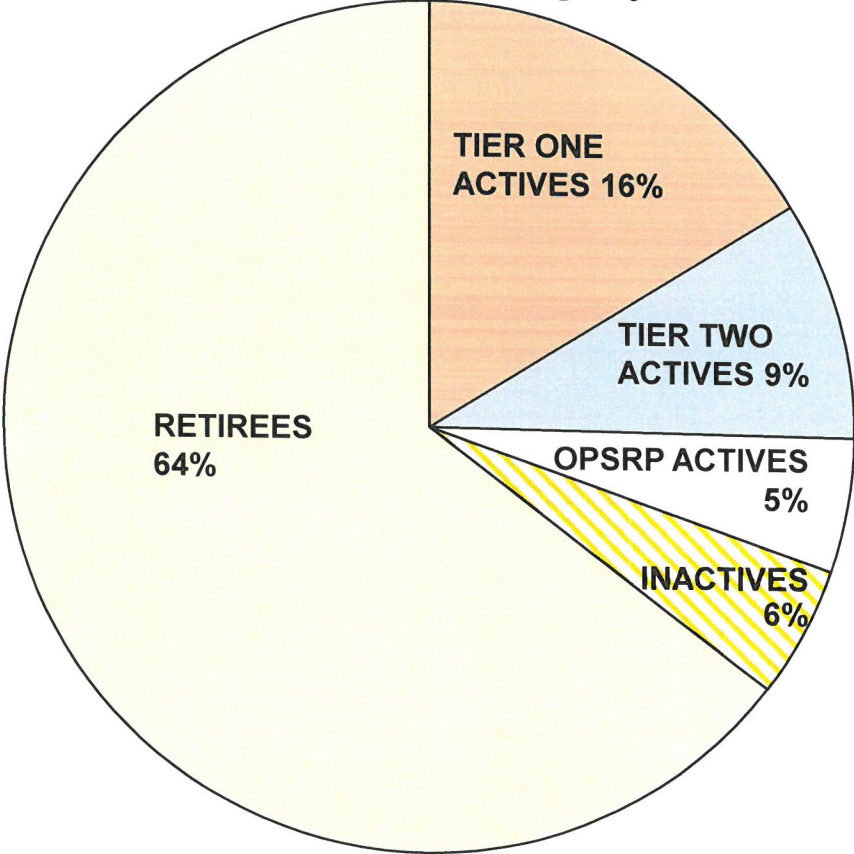
# Funded Status and Unfunded Actuarial Liability (UAL) (\$ billions)

System-total Pension Funded Status (\$ billions)			
<i>Reflects:</i>	12/31/2013	12/31/2014	12/31/2015
<i>Moro decision?</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
<i>2014 Experience Study assumptions?</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
Actuarial liability	\$62.6	\$73.5	\$76.2
Assets (excluding side accounts)	<u>\$54.1</u>	<u>\$55.5</u>	<u>\$54.4</u>
UAL (excluding side accounts)	\$8.5	\$18.0	\$21.8
Funded status (excluding side accounts)	86%	76%	71%
Side account assets	<u>\$5.9</u>	<u>\$5.9</u>	<u>\$5.6</u>
UAL (including side accounts)	\$2.6	\$12.1	\$16.2
Funded status (including side accounts)	96%	84%	79%

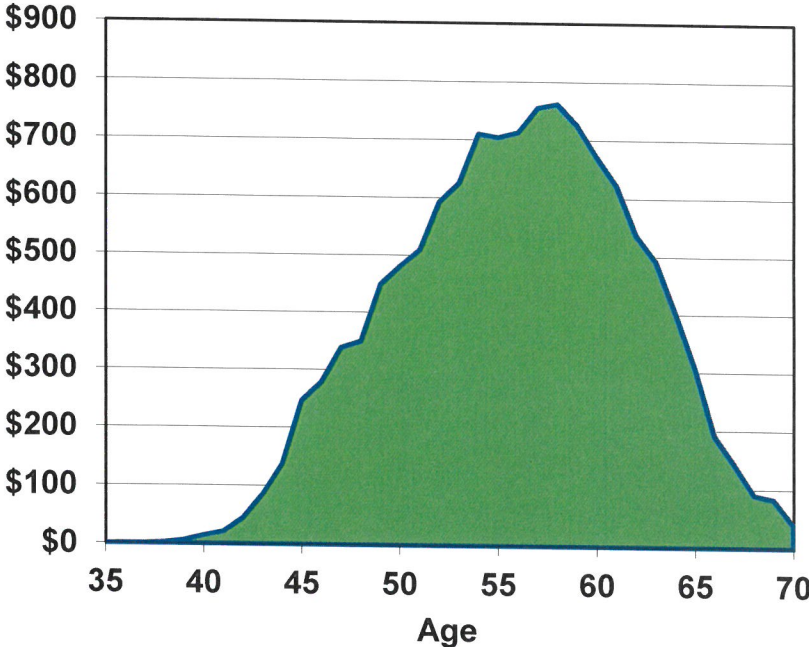
Milliman presentation; July 29, 2016 Board meeting

# Actuarial Liability by Benefit Program (Tier One/Two and OPSRP as of 12-31-15)

Actuarial Liability by Member Category



Age Distribution of Tier One Actives' Liability (\$ millions)



Milliman presentation; July 29, 2016 Board meeting

# System Wide Pension Rates (% of Payroll)

Excludes Retiree Health Care and IAP Contributions

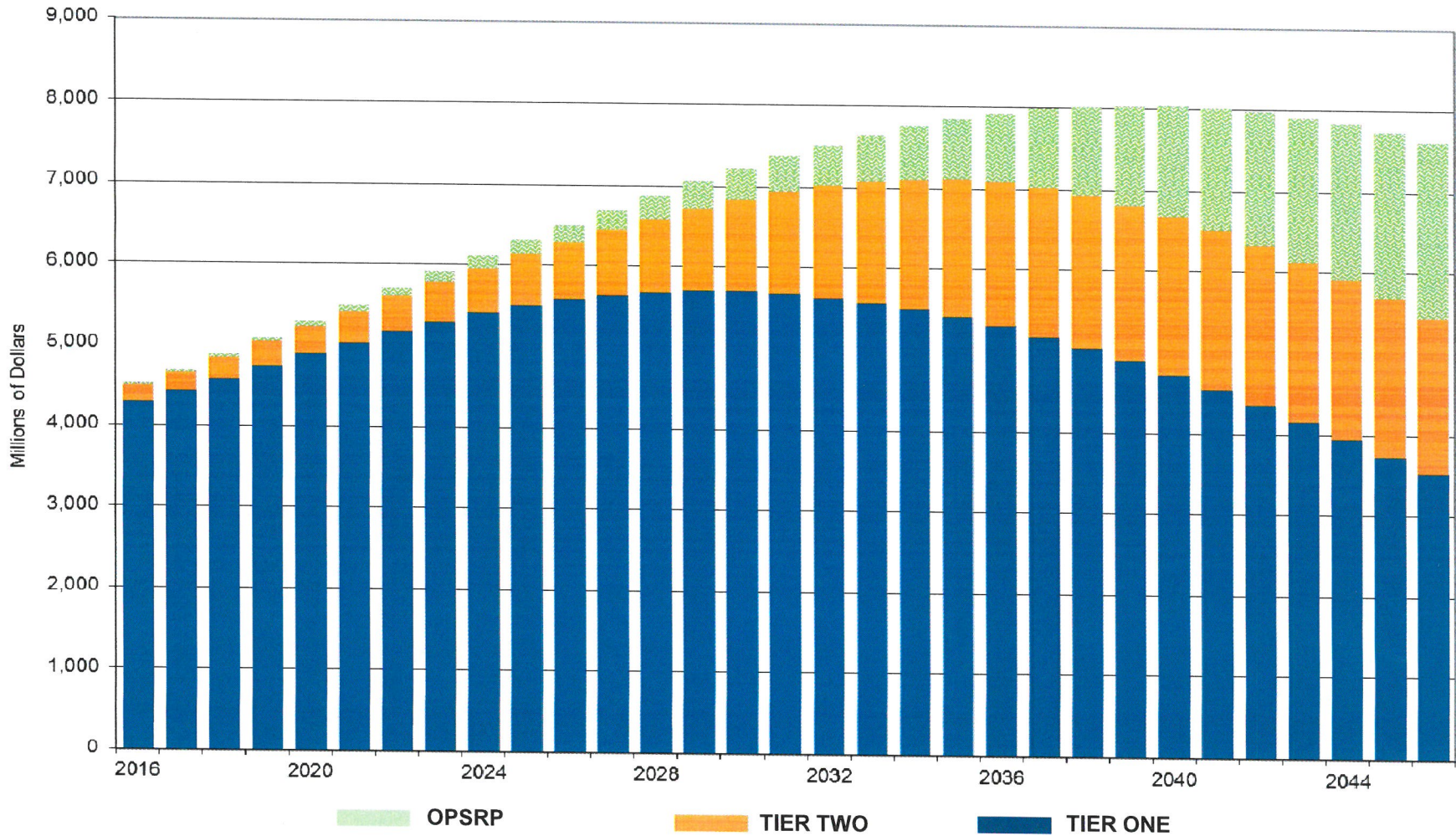
	2015 - 17 Actual Rates			2017 - 19 Proposed Rates		
	Tier One/Two	OPSRP	Weighted Average <sup>1</sup>	Tier One/Two	OPSRP	Weighted Average <sup>1</sup>
Normal Cost	13.18%	7.79%	10.94%	15.07%	8.56%	11.79%
Tier 1/Tier 2 UAL	6.63%	6.63%	6.63%	16.02%	16.02%	16.02%
OPSRP UAL	0.61%	0.61%	0.61%	1.27%	1.27%	1.27%
Uncollared Rate <sup>2</sup>	<b>20.42%</b>	<b>15.03%</b>	<b>18.18%</b>	<b>32.36%</b>	<b>25.85%</b>	<b>29.08%</b>
<b>Increase</b>				<b>11.94%</b>	<b>10.82%</b>	<b>10.90%</b>
Collar Limitation	(0.72%)	(0.72%)	(0.72%)	(8.23%)	(8.23%)	(8.23%)
Collared Base Rate*	<b>19.70%</b>	<b>14.31%</b>	<b>17.46%</b>	<b>24.13%</b>	<b>17.62%</b>	<b>20.85%</b>
Side Account (Offset)	(6.38%)	(6.38%)	(6.38%)	(6.14%)	(6.14%)	(6.14%)
SLGRP Charge/(Offset)	(0.47%)	(0.47%)	(0.47%)	(0.48%)	(0.48%)	(0.48%)
Collared Net Rate	<b>12.85%</b>	<b>7.46%</b>	<b>10.61%</b>	<b>17.51%</b>	<b>11.00%</b>	<b>14.23%</b>
<b>Increase</b>				<b>4.66%</b>	<b>3.54%</b>	<b>3.62%</b>

<sup>1</sup> Weighting based on the membership distribution (Tier 1/Tier 2, OPSRP) as of the valuation date.

<sup>2</sup> Does not include side accounts

Milliman presentation; July 29, 2016 Board meeting

# Projected Benefit Payments by Program (as of 12-31-15)



Milliman presentation; July 29, 2016 Board meeting

**Market Commentary**

- Last week, markets focused on central bank action in the U.S. and Japan as equity and commodity prices increased while long-term MMD and UST yields declined on the back of positive labor data later in the week<sup>1,2,3</sup>
  - The Bank of Japan maintained the deposit rate and announced a yield curve control monetary policy that "disappointed relative to market expectations"<sup>4</sup>
  - As generally anticipated, the FOMC did not hike the target rate but did express expectations of at least one hike during 2016<sup>2</sup>
    - Initial and continuing claims results were generally positive echoing FOMC rhetoric that the labor market continues to show signs of improvement<sup>1,2</sup>
    - Following the meeting, J.P Morgan Research revised their rate forecasts upward, with 30-year MMD expected to be 2.30% by yearend
  - The S&P 500 ended the week 1.2% higher, while crude oil added \$1.45 per barrel on the back of the FOMC decision<sup>1</sup>
- Week-over-week, 30-year MMD and UST yields declined 1 and 11 bps, respectively, but between the FOMC meeting and Friday, 30-year MMD and UST yields declined 3 and 6 bps, respectively<sup>1,3</sup>
  - In the municipal market, several of the larger deals later in the week were well received despite over \$8 billion of overall supply<sup>1,5</sup>
  - Municipal bond funds saw \$518 million of inflows for the period ended September 21, bringing cumulative year-to-date inflows to almost \$50 billion<sup>6,7</sup>
- Short-term tax-exempt yields continued to move higher last week as SIFMA and 1-year MMD increased 8 bps in advance of the October 14 MMF reform deadline<sup>1</sup>
  - Dealer inventories of VRDBs at the end of the week remained elevated near \$7.5 billion, as Friday afternoon's inventories of daily reset products was more than 4x Street levels at the beginning of September<sup>8</sup>
- This week, primary municipal supply is expected to be \$7 billion as market participants look to Thursday and Friday's inflation data following Wednesday's reiteration of the FOMC policy objectives (See page 2)<sup>1</sup>

<sup>1</sup>Bloomberg  
<sup>2</sup>Federal Reserve Board, *Press Release*, 9/21/2016, [federalreserve.gov](http://federalreserve.gov)  
<sup>3</sup>Thomson Reuters Municipal Market Data  
<sup>4</sup>J.P. Morgan Research, *US Fixed Income Markets Weekly - Cross Sector Overview*, 9/23/2016, [jpmm.com](http://jpmm.com)  
<sup>5</sup>TM3, *MMD Closing Commentary*, 9/22/2016, [tm3.com](http://tm3.com)  
<sup>6</sup>Lipper iMoneyNet, 9/21/2016  
<sup>7</sup>J.P. Morgan Research, *US Fixed Income Markets Weekly - Municipals*, 9/23/2016, [jpmm.com](http://jpmm.com)  
<sup>8</sup>Bloomberg, *BOOM Inventory*, as of 9/23/2016

**Market Monitor**

Short Term Municipal Market	9/23/2016	9/16/2016	10Y Average	
SIFMA Index	0.78%	0.70%	0.83%	
1-Month LIBOR	0.52%	0.53%	1.13%	
SIFMA / 1-Month LIBOR Ratio	149.36%	131.63%	73.14%	
Tax-exempt MMF Flows 4-week Avg. <sup>1</sup>	-\$3.3bn	-\$4.0 bn	--	
Long Term Municipal Market	9/23/2016	9/16/2016	10Y Average	
AAA MMD (30-Year)	2.30%	2.31%	3.78%	
AA MMD (30-Year)	2.55%	2.56%	3.98%	
A MMD (30-Year)	2.85%	2.86%	4.42%	
BBB MMD (30-Year)	3.05%	3.06%	5.00%	
AAA MMD (30 - 2 Year)	1.50%	1.56%	2.71%	
30-Year SIFMA Swap Rate <sup>2</sup>	1.53%	1.57%	3.14%	
30-Year 3M LIBOR Swap Rate <sup>2</sup>	1.79%	1.89%	3.64%	
All Muni Fund Flows 4-week Avg. <sup>3</sup>	\$1.1 bn	\$1.2 bn	--	
Corporate Spreads to UST (bps)	9/23/2016	9/16/2016	10Y Average	
J.P. Morgan JULI Index	167	170	199	
J.P. Morgan Domestic HY Index	567	584	650	
Equities	9/23/2016	1-week Δ	YTD Δ	5-day trend
S&P 500	2,165	1.19%	7.55%	
DJIA	18,261	0.76%	6.49%	
NASDAQ 100	4,859	0.85%	8.03%	
Energy (\$)	9/23/2016	1-week Δ	YTD Δ	5-day trend
WTI Crude Oil (per bbl.)	44.48	1.45	7.72	
Brent Crude Oil (per bbl.)	45.89	0.12	8.67	

Source: J.P. Morgan, Bloomberg, Thomson Reuters Municipal Market Data, The Bond Buyer; Lipper FMI, iMoneyNet  
<sup>1</sup>MMF: Money Market Fund  
<sup>2</sup>Direct swaps-related questions to Dave Hand (212) 834-4686

**Yield Curve Rates and Ratios**

Benchmark / Maturity	1-Year	5-Year	10-Year	30-Year
MMD	0.76%	1.04%	1.52%	2.30%
UST	0.60%	1.15%	1.61%	2.34%
MMD / UST Ratio	127.30%	90.28%	94.17%	98.40%

Source: J.P. Morgan, Thomson Reuters Municipal Market Data

**Interest Rate Forecast**

MMD Yields	9/23/16	10/23/16	4Q16	1Q17	2Q17	3Q17
2-Year	0.80%	0.80%	0.85%	0.85%	0.95%	1.05%
5-Year	1.04%	1.10%	1.15%	1.15%	1.25%	1.35%
10-Year	1.52%	1.60%	1.55%	1.65%	1.60%	1.70%
30-Year	2.30%	2.35%	2.30%	2.35%	2.25%	2.35%
Taxable Yields	9/23/16	10/23/16	4Q16	1Q17	2Q17	3Q17
Fed Funds	0.40%	0.40%	0.65%	0.65%	0.90%	0.90%
3-Month LIBOR	0.85%	0.85%	1.10%	1.10%	1.35%	1.35%
2-Year T Note	0.75%	0.80%	0.95%	1.00%	1.15%	1.25%
5-Year T Note	1.15%	1.20%	1.35%	1.40%	1.55%	1.65%
10-Year T Note	1.61%	1.65%	1.75%	1.80%	1.85%	1.90%
30-Year T Bond	2.34%	2.35%	2.40%	2.40%	2.45%	2.45%

Source: J.P. Morgan Research, *US Fixed Income Markets Weekly - Municipals*, 9/23/2016, [jpmm.com](http://jpmm.com); J.P. Morgan Research, *US Interest Rate Forecast*, 9/23/2016, [jpmm.com](http://jpmm.com); Thomson Reuters Municipal Market Data

**2016 YTD Healthcare Negotiated League Table<sup>1</sup>**

Rank	Lead Underwriter	Par (US \$mm)	Market Share (%)	# Issues
1	Bank of America Merrill Lynch	6,271.1	22.9	49
2	J.P. Morgan	6,037.2	22.0	35
3	Morgan Stanley	4,773.6	17.4	24
4	Citi	1,898.2	6.9	12
5	Wells Fargo & Co	1,894.1	6.9	23

<sup>1</sup>Thomson Reuters SDC, League table data as of 9/23/2016. Excludes corporate CUSIPs

**Recently Priced Healthcare Transactions**

Beneficiary	State	Award Date	Issue Amount (\$mm)	MMD or UST	Yield/Yield-to-Call	Final Coupon	Final Spread (bps)	Final Maturity	Underlying Ratings	Debt Service Reserve?	Revenues/Receivables Pledge?	Mortgage Lien?
Doylestown Hospital*	PA	9/22/2016	63.88	2.330%	3.400%	5.000%	107	2046	Baa2 / BBB / NR	No	Yes	Yes
Marshfield Clinic Health*	WI	9/22/2016	208.96	2.330%	3.280%	5.000%	95	2046	NR / A- / A-	No	Yes	Yes
Holland Hospital*	MI	9/22/2016	41.32	2.330%	3.350%	4.000%	102	2046	NR / A+ / A+	No	Yes	No

Source: Thomson Reuters and Bloomberg; \*Preliminary, subject to change

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# Joint Meeting of: Oregon Investment Council Oregon PERS Board

## OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

September 30, 2016

Presented by:

Matt Larrabee, FSA, EA

Scott Preppernau, FSA, EA

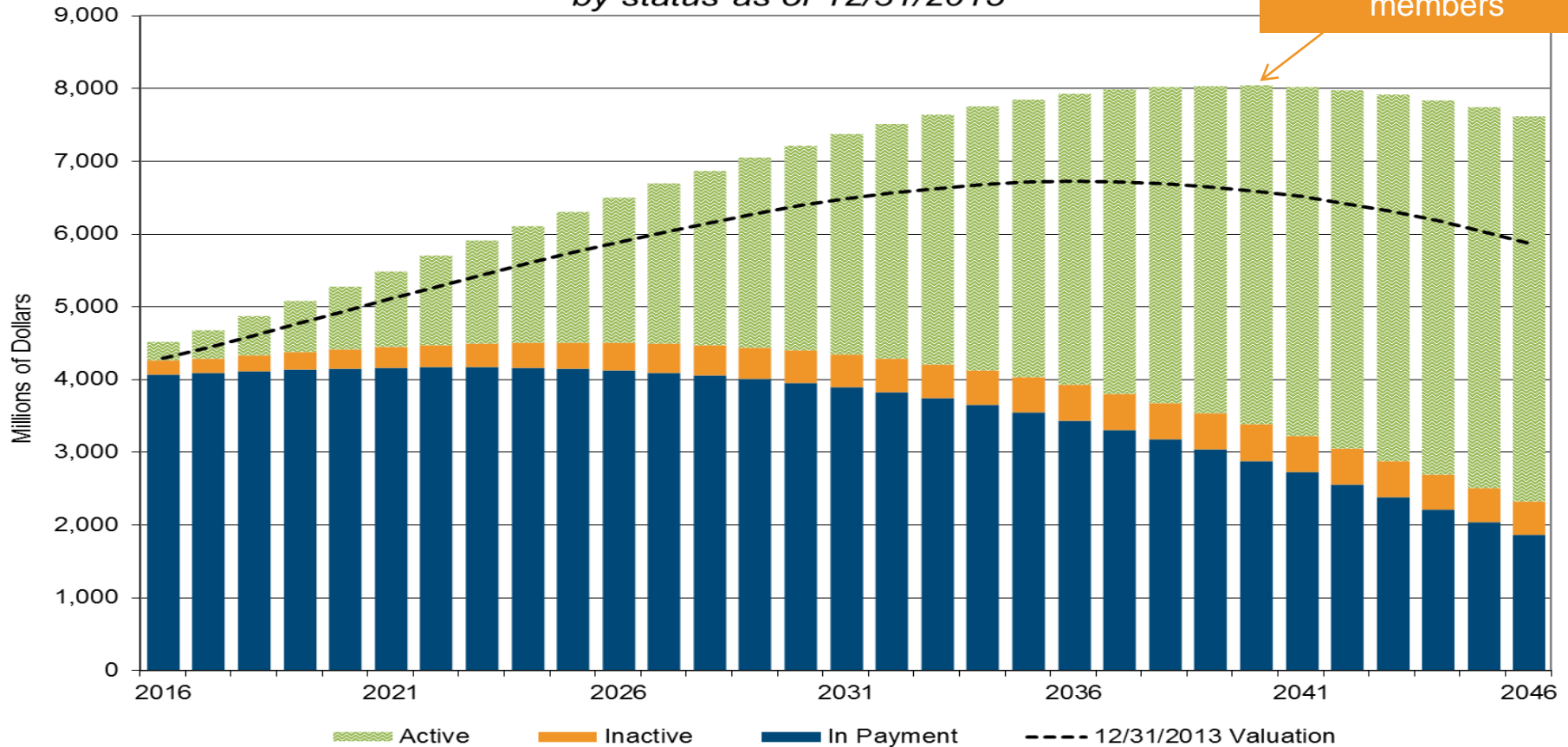




# Projected Benefit Payments

Tier 1/Tier 2 & OPSRP Expected Benefit Payments  
by status as of 12/31/2015

By 2040, projected to be \$8 billion in benefit payments to current members



The dotted line depicts the projected payments from the 12/31/2013 rate-setting valuation, which did not reflect the *Moro* decision

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# Funded Status & Unfunded Actuarial Liability (UAL)

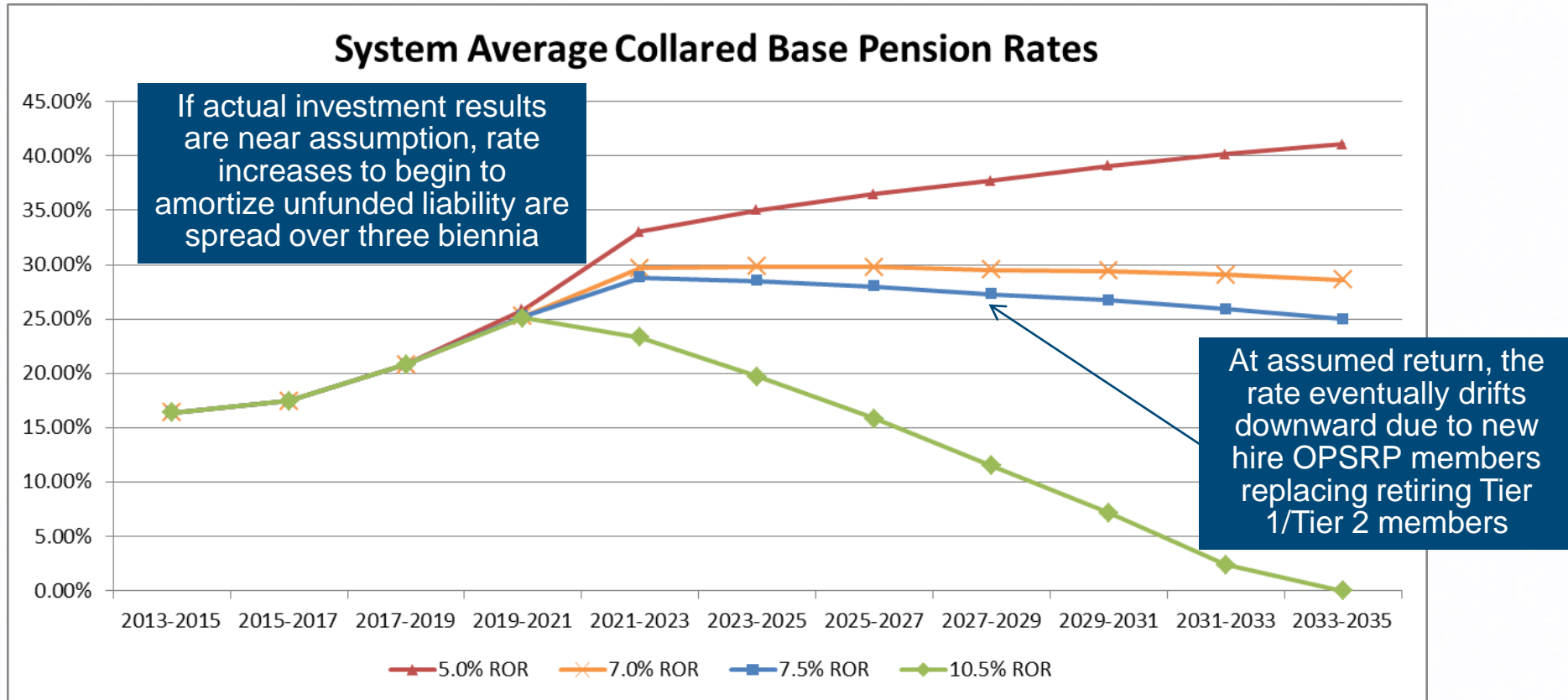
System-total Pension Funded Status (\$ billions)			
<i>Reflects:</i>	12/31/2013	12/31/2014	12/31/2015
<i>Moro decision?</i>	No	Yes	Yes
<i>Discount Rate</i>	7.75%	7.50%	7.50%
Actuarial liability	\$62.6	\$73.5	\$76.2
Assets (excluding side accounts)	<u>\$54.1</u>	<u>\$55.5</u>	<u>\$54.4</u>
UAL (excluding side accounts)	\$8.5	\$18.0	\$21.8
Funded status (excluding side accounts)	86%	76%	71%
Side account assets	<u>\$5.9</u>	<u>\$5.9</u>	<u>\$5.6</u>
UAL (including side accounts)	\$2.6	\$12.1	\$16.2
Funded status (including side accounts)	96%	84%	79%

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# Contribution Increases: November 2015 Financial Modeling

From Nov. 2015 PERS Board materials:

- Based on published returns through October 2015
- Does not reflect \$0.3 billion in 2015 demographic experience losses

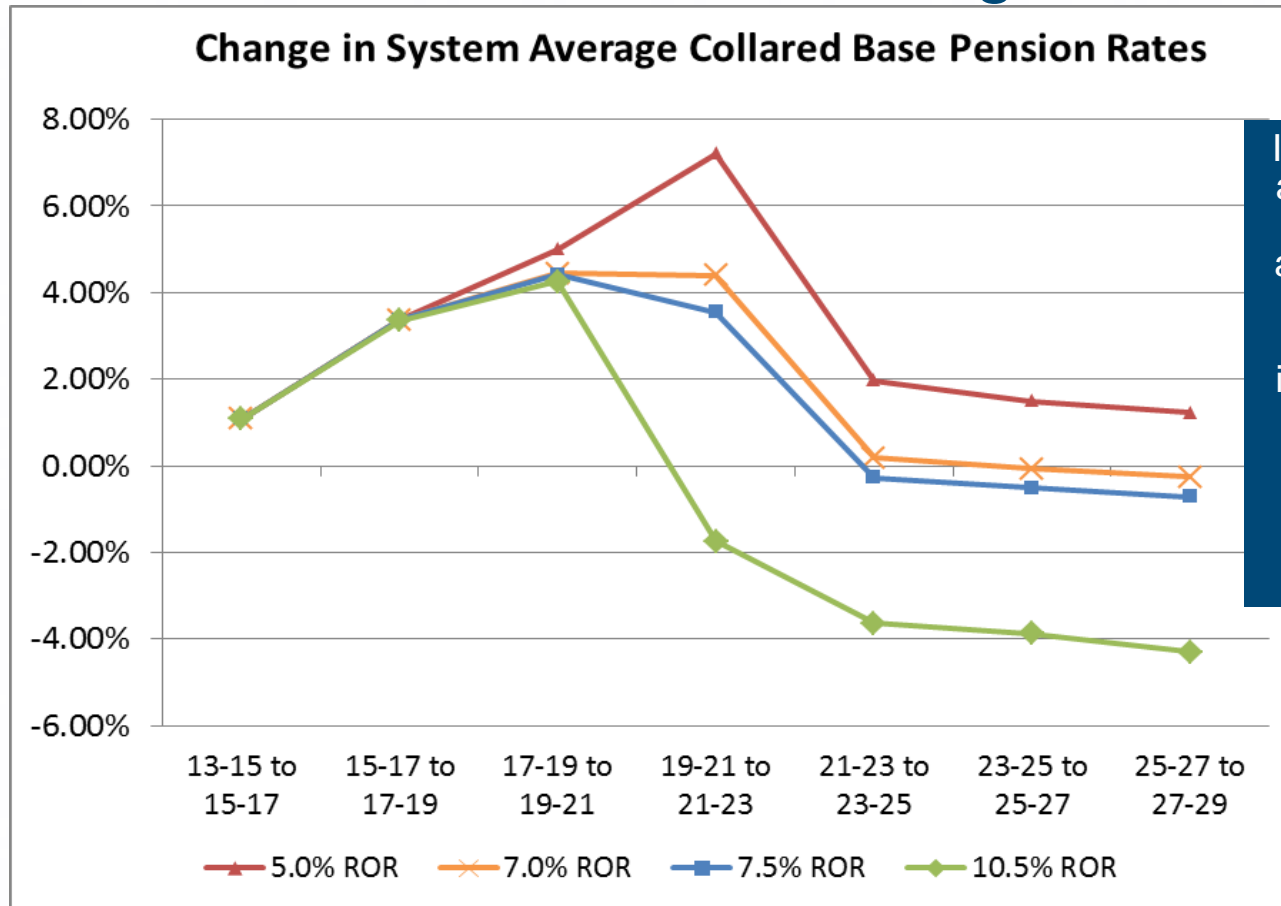


The steady rate model illustrates impact of consistently achieving the assumed 7.50% return and three alternative returns

# Contribution Increases: November 2015 Financial Modeling

From Nov. 2015 PERS Board materials:

- Based on published returns through October 2015
- Does not reflect \$0.3 billion in 2015 demographic experience losses



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

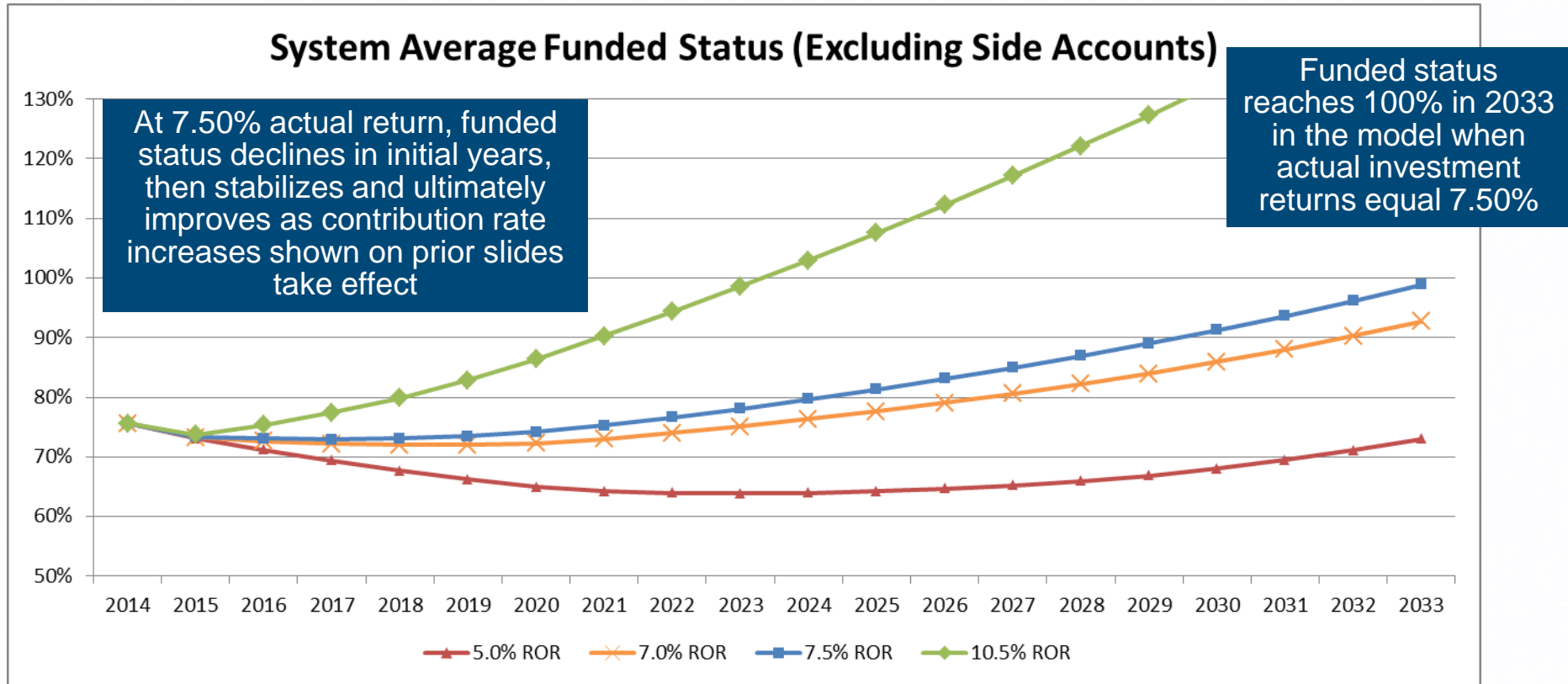
Shows biennium to biennium changes under steady return projections

# Funded Status:

## November 2015 Financial Modeling

From Nov. 2015 PERS Board materials:

- Based on published returns through October 2015
- Does not reflect \$0.3 billion in 2015 demographic experience losses



Shows projected funded status under steady return projections

# Uncollared Pension Rates – School Districts

Excludes Retiree Health Care, IAP Contributions, Rate Collar, Side Accounts

	12/31/2013 2015 - 2017 Final			12/31/2015 2017 - 2019 Final		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average <sup>1</sup>	Tier 1 / Tier 2	OPSRP	Weighted Average <sup>1</sup>
Normal Cost	11.94%	7.33%	10.14%	13.28%	8.02%	10.73%
Tier 1/Tier 2 UAL	9.25%	9.25%	9.25%	19.63%	19.63%	19.63%
OPSRP UAL	0.61%	0.61%	0.61%	1.27%	1.27%	1.27%
<b>Uncollared Rate</b>	<b>21.80%</b>	<b>17.19%</b>	<b>20.00%</b>	<b>34.18%</b>	<b>28.92%</b>	<b>31.63%</b>
<b>Increase</b>				<b>12.38%</b>	<b>11.73%</b>	<b>11.63%</b>

*The pool-average collared base and net rates for 2017-2019 are shown on subsequent slides*

<sup>1</sup> Weighting based on the pool's payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date.

# School Districts Rate Summary

## Weighted Average Rates (Tier 1/Tier 2 and OPSRP)

	2015 - 2017	2017 - 2019	Change
<b>Uncollared Base Rate</b>	<b>20.00%</b>	<b>31.63%</b>	<b>11.63%</b>
<b>Collared Base Rate</b>	<b>20.00%</b>	<b>24.15%</b>	<b>4.15%</b>
<b>Collared Net Rate</b>	<b>9.38%</b>	<b>13.89%</b>	<b>4.51%</b>

- *The collared base rate for School Districts is 7.48% of payroll below the uncollared base rate*
- *Net rates increased more than base rates due mostly to employer side accounts, which leverage the contribution rate effects of actual biennial investment performance different than assumed*

# SLGRP Rate Summary

## Weighted Average Rates (Tier 1/Tier 2 and OPSRP)

	2015 - 2017	2017 - 2019	Change
Uncollared Base Rate	17.45%	27.75%	10.30%
Collared Base Rate	16.31%	19.40%	3.09%
Collared Net Rate	10.52%	13.88%	3.36%

- *The SLGRP's collared base rate is 8.35% of payroll below the uncollared base rate*
- *Net rates increased more than base rates due mostly to employer side accounts, which leverage the rate effects of actual biennial investment performance different than assumed*



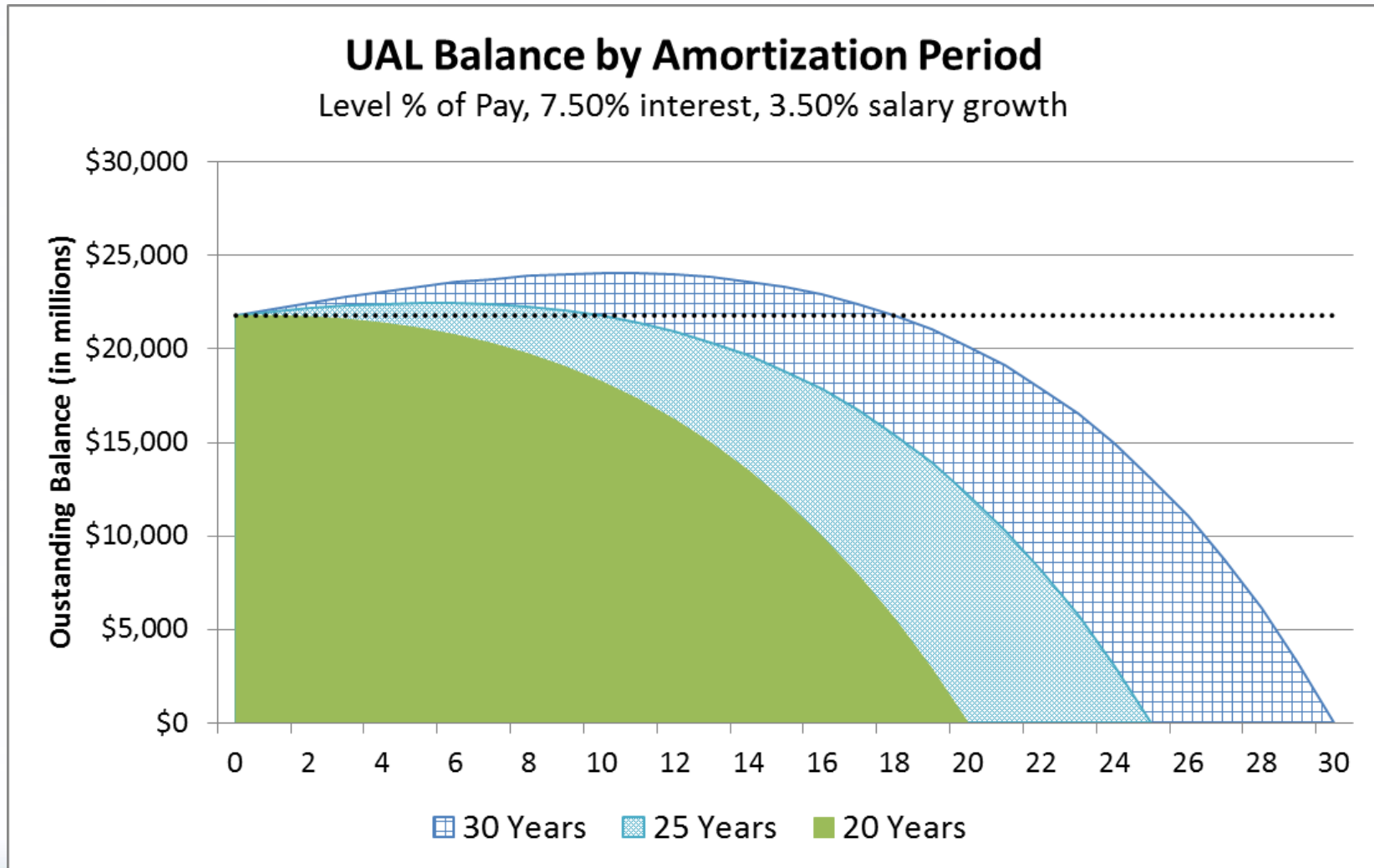
# System-Wide Rate Summary

## Weighted Average Rates (Tier 1/Tier 2 and OPSRP)

	2015 - 2017	2017 - 2019	Change
<b>Uncollared Base Rate</b>	<b>18.18%</b>	<b>29.08%</b>	<b>10.90%</b>
<b>Collared Base Rate</b>	<b>17.46%</b>	<b>20.85%</b>	<b>3.39%</b>
<b>Collared Net Rate</b>	<b>10.61%</b>	<b>14.23%</b>	<b>3.62%</b>

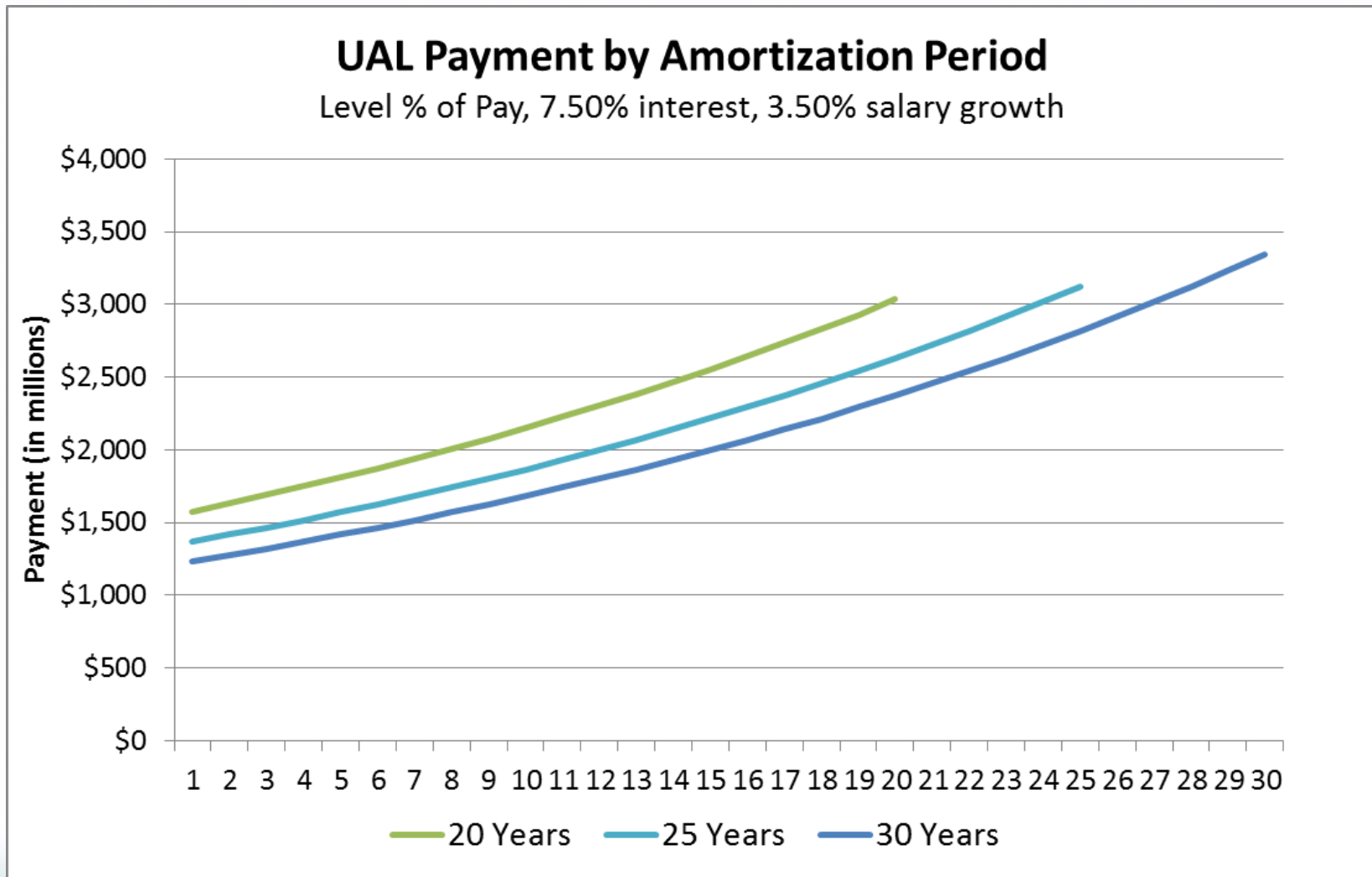
- *System-wide rates are the payroll-weighted average of rates for School Districts, SLGRP, and independent employers*
- *Net rates increased more than base rates due mostly to employer side accounts, which leverage the rate effects of actual biennial investment performance different than assumed*

# UAL Balance Amortization Patterns



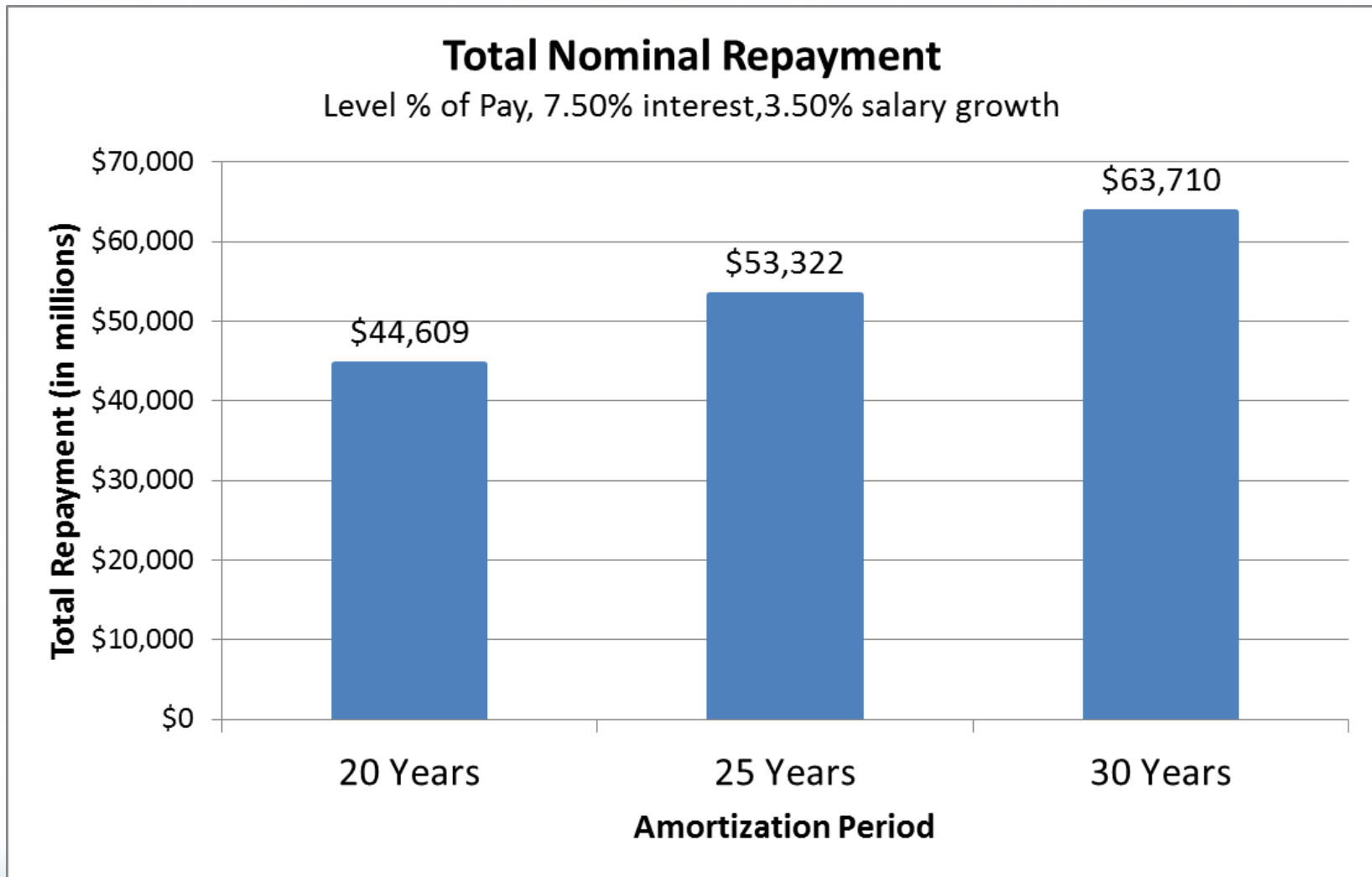
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# Annual UAL Amortization Payments



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# Total UAL Amortization Payments



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# Discount Rate

- The benefit payment stream has a very long tail
  - Given the tail's length, present-day liabilities calculated as of the valuation date vary significantly based on the discount rate used
- There are two general approaches to discount rate selection
  - Market-based / settlement approach
    - Theoretical basis: Payments are guaranteed and thus effectively risk-free, so they should be valued using current market yields on risk-free (or low risk) investments
    - Approximates what an insurance company might charge
  - Budgeting / GASB approach
    - Theoretical basis: Contributions = Benefit Payments – Investment Earnings
    - Liability calculations are used to budget long-term annual contribution levels
    - An estimate of future investment earnings is appropriate to budget future contributions
    - Long-term, rather than current market, investment return estimates are appropriate since the plan and its funding is long-term in nature

# Discount Rate

- Both approaches have valid uses
  - The budgeting/GASB approach gives an estimate of long-term annual contribution costs, but it is only an estimate
  - The market-based/settlement approach gives a sense of the risk borne by employers and taxpayers if the assumed investment results are not realized
- The OPERS valuation uses the budgeting/GASB approach, which involves a long-term future average annual investment earnings assumption
  - Actual investment earnings can deviate significantly from the assumption
    - This potential deviation presents a two-sided risk to the program sponsor:
      - If actual earnings are below the assumption, future contributions will be higher than the budget projection
      - If actual earnings exceed the assumption and benefit levels are not changed, then future contributions will be lower than budgeted projection
    - All else being equal, the lower the assumption selected the greater the chance of a positive budgeting deviation

# Discount Rate Assumption Sensitivity

## GASB Financial Disclosures – Sensitivity Measures

### June 30, 2015 GASB Financial Disclosures Discount Rate Sensitivity Illustrations

	1% Increase	Disclosure Discount Rate	1% Decrease
<i>Discount rate:</i>	8.75%	7.75%*	6.75%
Total pension liability	\$63.8	\$70.6	\$78.8
Fiduciary net position (assets including side accounts)	<u>\$64.9</u>	<u>\$64.9</u>	<u>\$64.9</u>
Net pension liability (asset)	(\$1.1)	\$5.7	\$13.9
Funded status	102%	92%	82%

Total pension liability: GASB analogue to actuarial liability

Fiduciary net position: GASB term of art for assets

Net pension liability: GASB term of art for unfunded actuarial liability (UAL)

\*The December 31, 2013 valuation, which used a 7.75% return assumption, was rolled forward to June 30, 2015 to develop financial disclosure information in a timely manner for PERS and participating employers.

# Discount Rate Assumption Sensitivity

## UAL Calculations – Sensitivity Measures

### December 31, 2015 System-total Pension Funded Status (\$ billions) & UAL

<i>Discount Rate:</i>	7.50%	6.50%	5.50%	4.50%	3.50%
Actuarial liability	\$76.2	\$85.4	\$96.6	\$110.2	\$126.9
Assets (excl. side accounts)	<u>\$54.4</u>	<u>\$54.4</u>	<u>\$54.4</u>	<u>\$54.4</u>	<u>\$54.4</u>
UAL (excl. side accounts)	\$21.8	\$31.0	\$42.2	\$55.8	\$72.5
Funded status (excl. side accounts)	71%	64%	56%	49%	43%
Side account assets	<u>\$5.6</u>	<u>\$5.6</u>	<u>\$5.6</u>	<u>\$5.6</u>	<u>\$5.6</u>
UAL (incl. side accounts)	\$16.2	\$25.4	\$36.6	\$50.2	\$66.9
Funded status (incl. side accounts)	79%	70%	62%	54%	47%

An economist's 3.50% discount rate budgeting / solvency liability calculation would be lower than that shown above, as the projected payments used to calculate actuarial liability reflect the effects of assumed future pay increases, which economists tend to disregard for their calculations.

Over the long-term the following equation, which does not use the discount rate, governs:

- Contributions = Benefit Payments – Actual Investment Earnings



# Appendix

# Guiding Principles

- In setting rates, the PERS Board has identified the following guiding principles:
  - Transparent
  - Predictable and stable rates
  - Protect funded status
  - Equitable across generations
  - Actuarially sound
  - GASB compliant
- Tension exists between some of the goals (e.g. stability of rates and protecting funded status)
  - Balancing the competing priorities is important to the policy decisions surrounding the rate-setting cycle

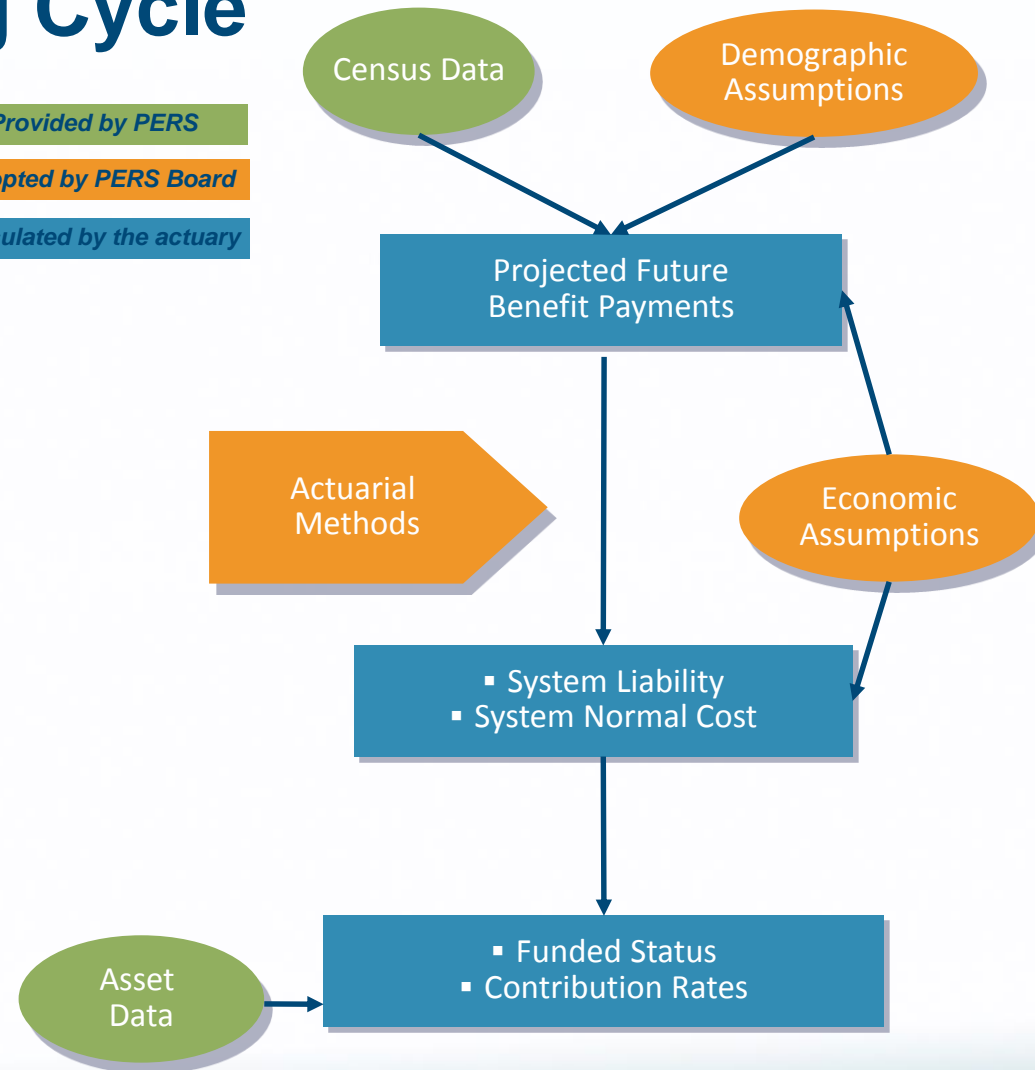
# Two-Year Rate-Setting Cycle

- **July 2015:** Assumptions and methods endorsed by Board in consultation with the actuary
- **September 2015:** System-wide 12/31/14 “advisory” actuarial valuation results reported
- **November 2015:** “Advisory” 2017-2019 employer-specific contribution rates distributed
- **July 2016:** System-wide 12/31/15 “rate-setting” actuarial valuation results
- **September 2016:** Adoption of employer-specific 2017-2019 contribution rates

Provided by PERS

Adopted by PERS Board

Calculated by the actuary

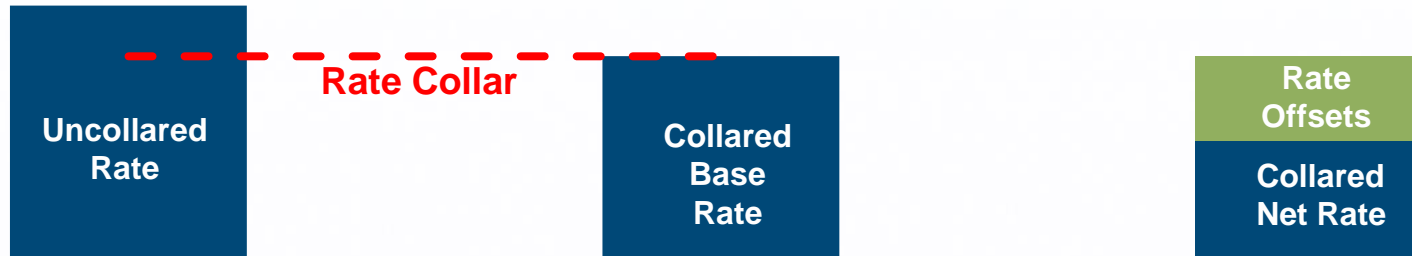


# Valuation Process and Timeline

- Actuarial valuations are conducted annually
  - Alternate between “rate-setting” and “advisory” valuations
  - The 12/31/2015 valuation is rate-setting
- The Board adopts employer contribution rates developed in rate-setting valuations, and those rates go into effect 18 months subsequent to the valuation date

Valuation Date	Employer Contribution Rates
12/31/2013	→ July 2015 – June 2017
12/31/2015	→ July 2017 – June 2019

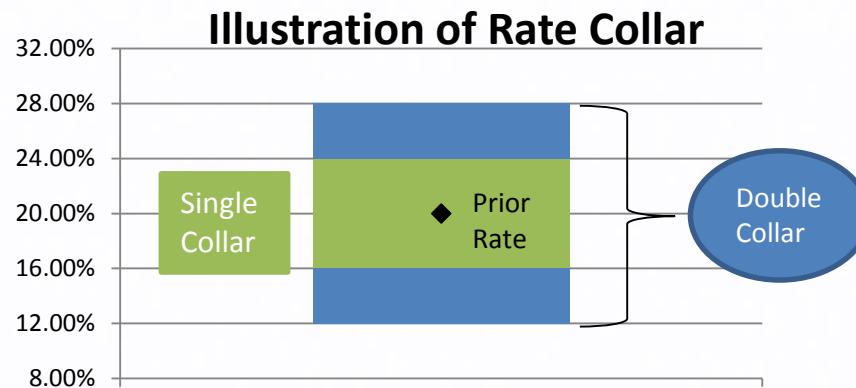
# Overview of Rate Calculation Structure



- The uncollared rate is the theoretical contribution rate to reach 100% funded status over a specified amortization period if:
  - Contributions at that rate started on the actuarial valuation date, and
  - Actual future experience mirrors the actuarial valuation's assumptions
- The rate collar sets a biennium's base rate, limiting the base rate change when there is a large change in the uncollared rate
- Employers pay the net rate, which can differ from the base rate due to adjustments that fall into two major categories
  - Side account rate offsets for employers with side accounts
  - SLGRP charges/offsets (e.g., Transition Liability/Surplus)

# Current Rate Collar Design

- The maximum change typically permitted by the collar is:
  - 20% of the rate currently in effect (3% of payroll minimum collar width)
- If funded status is 60% or lower, the width of the collar doubles
  - 40% of rate currently in effect (6% of payroll minimum collar width)
- If the funded status is between 60% and 70%, the collar size is pro-rated between the initial collar and double collar level



- Collars are calculated at a rate pool level and limit the biennium to biennium increase in the UAL Rate for a given rate pool

# Economic Assumptions

## Investment Return / Discount Rate

- Economic assumptions are combined with demographic assumptions and census data to develop a stream of future system benefit payments
  - The benefit payment stream has a very long tail, extending out to the life expectancy of the youngest OPSRP member
- Present-day system liabilities are calculated by discounting the future payments back to the valuation date using a discount rate
  - Discounting future payments is appropriate since a dollar due to a member twenty years from now is less valuable than a dollar due today
  - Given the long-tailed nature of the projected payment stream, present-day liabilities vary significantly based on the discount rate used
- There is significant debate among policy makers and experts about how the discount rate should be calculated
  - The debate is being carried out in the media by experts on each side
  - We will discuss two alternative approaches to the calculation methodology

# Economic Assumptions

## Investment Return / Discount Rate

### Approach #1: Market-based / settlement

- Theoretical basis:
  - Payments are guaranteed and thus effectively risk-free
  - Guaranteed payments should be priced using current market yields on risk-free (or low risk) investments
    - Yields on US Treasury instruments or municipal bonds are often cited as a proxy for risk-free rates
- This approach approximates what an insurance provider might charge to assume all responsibility for the benefits
  - Bear in mind insurers charge premiums to bear risks
- Several prominent studies have calculated liabilities for state pension systems using this approach
- A proposed piece of federal legislation (Public Pension Transparency Act) would effectively require state systems to report liabilities on this basis



# Economic Assumptions

## Investment Return / Discount Rate

### Approach #2: Budgeting / GASB

- Theoretical basis:
  - Total Contributions = Benefit Payments – Investment Earnings
  - Liability calculations are used to budget long-term contribution levels
  - A best estimate of future investment earnings is appropriate to budget future contributions
  - Long-term, rather than current market, investment return estimates are appropriate since the plan is long-term in nature
- Of course, actual investment earnings can and will deviate significantly from the long-term estimate
  - This deviation presents a two-sided risk to the program sponsor
    - If earnings are below assumption than contributions will be higher than the budgeted forecast
    - If earnings exceed assumption and benefit levels are not changed, then contributions will be lower than budgeted forecast
  - All else being equal, the lower the assumption selected the greater the chance of a positive budgeting deviation

# Economic Assumptions

## Investment Return / Discount Rate

- Both the market-based/settlement and the budgeting/GASB approach have valid uses
  - A May 2011 Congressional Budget Office (CBO) white paper on state pension systems reiterated the validity of both approaches
  - The Pew Center for the States study used both approaches
- The budgeting/GASB approach gives a best guess of long-term contribution costs --- but it is only a guess
- The market-based/settlement approach gives a sense of the risk borne by employers and taxpayers if the assumed investment results are not realized

# Economic Assumptions

## Investment Return / Discount Rate

- The OPERS valuation uses the budgeting/GASB approach, as do the valuations of other state systems
  - This is the approach that GASB specifies should be used in presenting financial statements for public pension plans
  - GASB is currently evaluating the discount rate issue
    - GASB has tentatively decided that in the future some systems will be required to use a blend of the two approaches for financial reporting
      - Those systems would be ones forecast **not** to recover to 100% funded status over time if all assumptions are met
- It is more difficult to state a market-based/settlement liability for OPERS than it would be for most state systems
  - The difficulty is related to the complexity of the “money match” formula, in particular the linkage between money match benefit levels and the investment return/discount rate assumption

# Caveats and Disclaimers

This presentation includes excerpted slides of actuarial calculation results presented at the November 2015 and July 2016 public meetings of the Public Employees Retirement Board (“PERB”) and GASB financial reporting calculations as of a June 30, 2015 measurement date. Full explanations of the data, assumptions, methods & provisions used to derive those calculations are detailed in the formal PERB presentation materials for those respective meetings and the GASB letter provided to Oregon PERS on November 15, 2015. The statements of reliance and limitations on the use of material noted in those presentations and that letter still apply to this presentation, and are incorporated by reference into this presentation.

This presentation also includes actuarial liability calculations as of December 31, 2015 at various illustrative alternative discount rates. Those calculations are based on the data, assumptions (other than discount rate), methods and provisions as detailed in our December 31, 2015 System-wide Actuarial Valuation Report, dated September 27, 2016. Full explanations of the data, assumptions, methods & provisions used to derive those calculations are detailed in that report. The statements of reliance and limitations on the use of material noted in that report still apply to this presentation, and are incorporated by reference.

In preparing this presentation, 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 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.

Milliman’s work product was prepared exclusively for Oregon PERS for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning PERS’ operations, and uses PERS’ data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. To the extent that Milliman’s work is not subject to disclosure under applicable public records laws, Milliman’s work may not be provided to third parties without Milliman’s prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Any third party recipient of Milliman’s work product who desires professional guidance should not rely upon Milliman’s work product, but should engage qualified professionals for advice appropriate to its own specific needs.

# Caveats and Disclaimers

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

# Certification

This presentation summarizes previously presented actuarial valuation results and financial modeling work of the Oregon Public Employees Retirement System (“PERS” or “the System”). The presentation also included Actuarial Liability calculations as of December 31, 2015 using alternative discount rates. The material in this presentation may not be relied upon to, for example, prepare the System’s Consolidated Annual Financial Report (CAFR).

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 these two 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. 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.

# Certification

Milliman's work is prepared solely for the internal business use of the Oregon Public Employees Retirement System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

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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 actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The actuaries are independent of the plan sponsors. 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.

# Actuarial Basis

## Data

We have based our calculation of the liabilities on data supplied by the Oregon Public Employees Retirement System.

Assets as of December 31, 2015, were based on values provided by Oregon PERS reflecting the Board's earnings crediting decisions for 2015.

For the financial modeling slides presented in November 2015, assets as of December 31, 2014 were based on values provided by Oregon PERS reflecting the Board's earnings crediting decisions for 2014. Those financial model projections reflect October 31, 2015 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 period 20 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.

*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.



# Actuarial Basis

## Methods / Policies (cont'd)

*Expenses:* Tier 1/Tier 2 administration expenses are assumed to be equal to \$33.0M, while OPSRP administration expenses are assumed to be equal to \$5.5M. The assumed expenses are added to the respective normal costs.

*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

Except as otherwise noted, assumptions for valuation calculations are as described in the 2014 Experience Study for Oregon PERS and presented to the PERS Board in July 2015.

## Provisions

Provisions valued are as detailed in the December 31, 2015 System-Wide Actuarial Valuation Report dated September 27, 2016.