

# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM BOARD MEETING

<b>FRIDAY</b> <b>March 29, 2013</b> <b>1:00 P.M.</b>		<b>PERS</b> <b>11410 SW 68<sup>th</sup> Parkway</b> <b>Tigard, OR</b>	
<b>ITEM</b>		<b>PRESENTER</b>	
<b>A. Administration</b>			
1.	January 25, 2013 Board Meeting Minutes Director's Report <ul style="list-style-type: none"> <li>a. Forward-Looking Calendar</li> <li>b. OIC Investment Report</li> <li>c. Operating Budget Report</li> </ul>	CLEARY	
<b>B. Administrative Rulemaking</b>			
1.	Adoption of P & F Continuous Service Rule		
2.	Adoption of IRC Limitations Rules		
3.	Adoption of Reemployment of Retired Members Rule		
<b>C. Action and Discussion Items</b>			
1.	Final 2012 Earnings Crediting and Reserving	RODEMAN/DUFRENE TAYLOR MILLIMAN	
2.	2013 Legislative Session Update		
3.	Funded Status and Contribution Rate Projections and Introduction to Actuarial Methods and Assumptions		
<b>D. Executive Session Pursuant to ORS 192.660(2)(f), (h), and/or ORS 40.225</b>			
1.	Litigation Update	LEGAL COUNSEL	

An Audit Committee meeting will be held immediately following the regular Board meeting.

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

**2013 Meetings:    May 31    July 26    September 27    November 22**

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# OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM BOARD MEETING

January 25, 2013  
Tigard, Oregon

## **Board Members:**

John Thomas, Chair  
Krystal Gema  
Michael Jordan  
Pat West  
PHONE: Rhoni Wiswall

## **Staff:**

Helen Bamford	Jon DuFrene	Brenda Pearson
Paul Brown	Stephanie Engle	Steve Rodeman
Paul Cleary	Brian Harrington	Susan Sjordal
David Crosley	Rick Howitt	Marjorie Taylor
Joe DeLillo	Danielle Keyser	Stephanie Vaughn
Kristine Cornett	Jeff Marecic	Ann Marie Vu

## **Others:**

Nancy Brewer	Marc Gonzales	Bob Oleson	Katie Schwab
Tim Collier	Rich Goward	Jay Osborne	Nikki Thompson
Myrnie Daut	Greg Hartman	Megan Phelan	Deborah Tremblay
Mike Eliason	Claire Hertz	P. Peg	Lonnie Tucker
Marc Feldesman	Hannah Hoffman	Scott Peppernau	Laurie Warner
Haley Fish	Keith Kutler	Bill Robertson	Scott Winkels
Dennis Gabrielson	Matt Larrabee	Lynn Rosik	Shirley Yee
Lisa Gardner	Michelle Morrison	Carol Samuels	

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

Board member Rhoni Wiswall joined the meeting by phone.

Chair Thomas recognized outgoing Board member Laurie Warner and read a resolution of appreciation into the record. Executive Director Paul Cleary thanked Warner for her years of dedicated service on the Board and as interim PERS director. He presented framed Oregon Bluebook covers as a token of appreciation.

Warner recognized fellow Board members and PERS staff efforts in working through PERS challenges and noted some of the key accomplishments that occurred during her tenure. Warner thanked employers and members for their involvement and encouraged them to stay fully engaged with the Board.

## **A.1. BOARD GOVERNANCE ASSIGNMENTS**

Chair Thomas introduced all Board members and reviewed PERS Board governance assignments:

Krystal Gema	Audit Committee (Chair)
Michael Jordan	Legislative Advisory Committee
John Thomas	Board Chair
	Audit Committee
Pat West	Board Vice Chair
	Retiree Health Insurance Advisory Committee
	Legislative Advisory Committee
Rhoni Wiswall	OIC Liaison with Director Paul Cleary
	Audit Committee

## **ADMINISTRATION**

### **A.2. BOARD MEETING MINUTES OF NOVEMBER 30, 2012**

The Board unanimously approved the minutes from the November 30, 2012 Board meeting.

#### **A.2.a. DIRECTOR'S REPORT**

Cleary presented the 2013 Forward Looking calendar. He noted the next Board meeting is scheduled for March 29, 2013 and will include a review of Actuarial Methods and Economic Assumptions and the Final 2012 Earning Crediting and Reserving report. Cleary also noted that an Audit Committee meeting will be held immediately following the regular Board meeting.

Cleary presented the OPERF investment return for the 2012 year-end and reported that the regular fund account earned 14.29 percent in 2012, while the variable account earned 16.98 percent.

Cleary presented the agency 2011-13 Operating Budget Report that continues to show a positive variance of nearly 2 percent. Cleary reported that there were some additional expenditures planned to update the pension application/IT systems.

Cleary reviewed a report on the Strunk and Eugene overpayment recovery project that involves 29,000 accounts and totals \$165 million in potential recoveries. Cleary said the first phase, reconciling the accounts and completing the initial billing activities, should be finished by the end of the biennium.

Cleary provided a report from Chief Auditor Jason Stanley regarding the Director's Fiscal Year 2012 Financial Transactions, which had been reviewed in detail with no identified exceptions or inappropriate transactions. Board member Pat West moved and Board member Michael Jordan seconded to acknowledge receipt of the report of Executive Director's financial transactions as presented. The motion passed unanimously.

## **ADMINISTRATIVE RULEMAKING**

### **B.1. NOTICE OF IRC LIMITATIONS RULE**

Deputy Director Steve Rodeman presented the notice of rulemaking for Internal Revenue Code (IRC) rule. The purpose of the rule is to incorporate the IRC annual changes to insure PERS compliance with the IRC's limits on the amount of annual compensation allowed for determining contributions and benefits. No Board action was required. A rulemaking public hearing will be held on February 26, 2013 at PERS headquarters in Tigard. The public comment period ends on March 1, 2013.

### **B.2. NOTICE OF SOCIAL SECURITY ANNUAL COMPENSATION LIMITS RULE**

Rodeman presented the notice of rulemaking for the Social Security Annual Compensation Limits rule. Amending the current rule would reflect the 2013 Social Security annual

compensation limits. No Board action was required. A rulemaking public hearing will be held on February 26, 2013 at PERS headquarters in Tigard. The public comment period ends on March 1, 2013.

### B.3. FIRST READING OF P & F CONTINUOUS SERVICE RULE

Rodeman presented the first reading of the OPSRP Pension Program Police Officer and Firefighter (P&F) Continuous Service rule to clarify the requirement for five year continuous employment as P&F prior to effective date of retirement and the status of a member who is employed simultaneously as P&F and other than P&F. The public comment period ends on January 31, 2013 and the rule will be presented for adoption at the March 29, 2013 Board meeting. No Board action was required.

### B.4. ADOPTION OF EMPLOYER REMITTING OF EMPLOYEE CONTRIBUTIONS RULE

Rodeman presented the Employer Remitting of Employee Contributions rule for adoption. Rodeman said that this rule would clarify that employers may use the date of hire as a standard in determination of the method of employee contribution.

West moved and Jordan seconded to adopt the new rule and modifications to the Employer Remitting of Employee Contributions rule as presented. The motion passed unanimously.

### B.5. ADOPTION OF DATA VERIFICATION RULE

Rodeman presented the Data Verification rule for adoption. Rodeman said the adoption of this rule would improve the administration of verifications by removing unnecessary delays in processing data verification requests.

West moved and Krystal Gema seconded to adopt the new rule as presented. The motion passed unanimously.

## **ACTION AND DISCUSSION ITEMS**

### C.1. PRELIMINARY 2012 EARNINGS CREDITING AND RESERVING

Rodeman reviewed the proposed Preliminary 2012 Earnings Crediting and Reserving. Final earnings crediting will be adopted at the March 29, 2013 Board meeting. Rodeman reviewed the earnings allocations and crediting options with a focus on what, if any, additional allocation should be made to the Contingency Reserve. The Board asked questions about potential Contingency Reserve uses and discussed the allocation options. Rodeman said that following the adoption of this preliminary crediting, PERS staff will present a report to the Oregon Legislature's Ways and Means Committee. Rodeman stated that any comments received from the committee would be reported to the Board at the March meeting.

Board member Jordan moved and Gema seconded to adopt the preliminary crediting of earnings for calendar year 2012, subject to final adoption at the March 29, 2013 PERS Board meeting, so that the Contingency Reserve is maintained at approximately 1% of the PERS Fund year-end balance. The motion passed unanimously.

## C.2. PERS COST CONTAINMENT CONCEPTS AND LEGISLATIVE PRINCIPLES

Rodeman introduced Senior Policy Analyst Marjorie Taylor who provided an overview of bill tracking and bill introduction for the 2013 Legislative Session. Taylor said that 1,281 bills have now been introduced with 86 of those being tracked by PERS staff. Taylor said that staff will keep the Board informed of additional bills, particularly those that directly impact PERS, noting that an additional 1,500 to 2,000 bills covering all topics are expected to be introduced by the end of February.

Rodeman recommended that PERS encourage the Legislature to apply four key principles in considering the various PERS cost containment proposals and deciding which changes to make to maintain a sustainable, secure, and affordable retirement system.

1. Focus on major cost drivers to generate real cost savings.
2. Spread the burden across all affected groups, including retirees.
3. Keep it simple: avoid unintended consequences, and enable informed retirement decisions.
4. Enhance the system's credibility by addressing perceived inequities and abuses.

The Board acknowledged the four principles, with a continued emphasis on providing factual information and well-balanced analysis to help support informed legislative decision making.

Tier One member Dennis Gabrielson addressed the Board inquiring about the rationale for allocating the variable account \$1.9 million from the Contingency Reserve. Cleary responded that the Contingency Reserve transfer was part of a court settlement of previous crediting to the variable account involving how PERS was assigning administrative expenses. Cleary said the terms of the settlement included PERS adding \$1.9 million to the variable account from the Contingency Reserve for distribution as part of the 2012 earnings crediting.

No executive session was held.

Thomas adjourned the Board meeting at 2:40 PM.

Respectfully submitted,



Paul R. Cleary  
Executive Director

Note: Lynn Rosik with the Oregon Department of Justice provided Board training on ethics during an open public session following the Board meeting.

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

### **Friday, May 31, 2013**

Employer Reporting Update  
Notice of Assumed Rate Rule  
Notice of Payment of Retirement Benefits Rule  
2013 Legislative Session Update  
Continued Review of Actuarial Methods and Assumptions  
2014 Retiree Health Insurance Plan Renewals and Rates

### **Friday, July 26, 2013**

Adoption of Assumed Rate Rule  
Adoption of Payment of Retirement Benefits Rule  
2013 Legislative Session Results  
2012 Experience Study and Adoption of Actuarial Methods and Assumptions  
Audit Committee Meeting

### **Friday, September 27, 2013**

2012 Valuation Results

### **Friday, November 22, 2013**

Employer Reporting Update  
Audit Committee Meeting

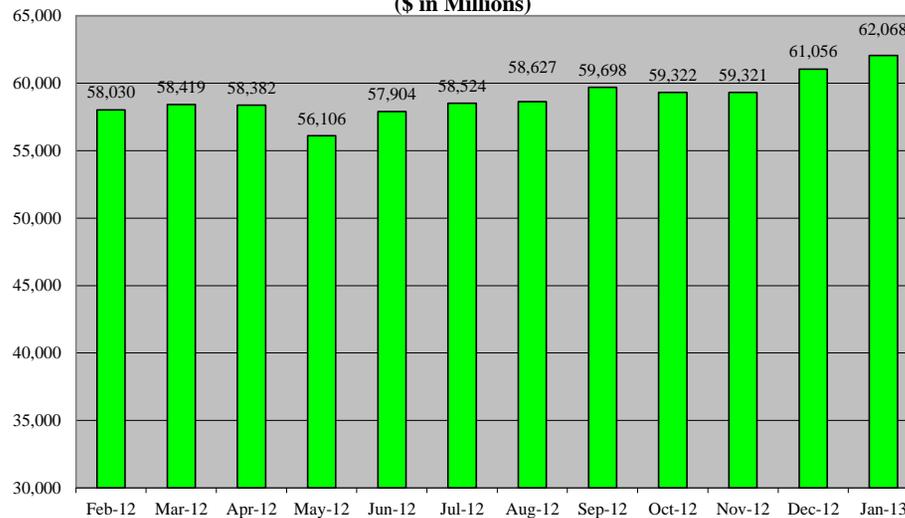
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OPERF	Regular Account				Historical Performance (Annual Percentage)							
	Policy <sup>1</sup>	Target <sup>1</sup>	\$ Thousands <sup>2</sup>	Actual	Year-To-Date <sup>3</sup>	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Public Equity	38-48%	43%	\$ 23,227,617	37.9%	5.05	16.15	5.83	10.91	18.14	2.25	3.44	9.18
Private Equity	12-20%	16%	14,069,806	23.0%	N/A	14.41	12.72	13.95	9.06	5.24	9.43	13.07
<b>Total Equity</b>	<b>54-64%</b>	<b>59%</b>	<b>37,297,423</b>	<b>60.9%</b>								
Opportunity Portfolio			942,625	1.5%	1.65	18.98	9.69	10.96	17.99	7.29		
<b>Total Fixed</b>	<b>20-30%</b>	<b>25%</b>	<b>15,212,857</b>	<b>24.8%</b>	<b>0.09</b>	<b>8.43</b>	<b>7.76</b>	<b>8.42</b>	<b>12.60</b>	<b>7.80</b>	<b>7.20</b>	<b>6.91</b>
Real Estate	8-14%	11%	7,295,403	11.9%	0.48	12.70	14.01	9.10	4.21	0.17	4.76	10.28
Alternative Investments	0-8%	5%	461,013	0.8%	0.04	(0.51)						
Cash	0-3%	0%	20,687	0.0%	0.07	1.22	0.84	0.82	1.18	1.15	2.33	2.24
<b>TOTAL OPERF Regular Account</b>		<b>100%</b>	<b>\$ 61,230,008</b>	<b>100.0%</b>	<b>1.97</b>	<b>13.33</b>	<b>8.71</b>	<b>10.77</b>	<b>13.34</b>	<b>4.00</b>	<b>5.29</b>	<b>9.05</b>
<b>OPERF Policy Benchmark</b>					<b>2.09</b>	<b>15.43</b>	<b>9.11</b>	<b>10.72</b>	<b>12.62</b>	<b>4.28</b>	<b>5.65</b>	<b>8.93</b>
Value Added					<b>(0.12)</b>	<b>(2.10)</b>	<b>(0.40)</b>	<b>0.05</b>	<b>0.72</b>	<b>(0.28)</b>	<b>(0.36)</b>	<b>0.12</b>
<b>TOTAL OPERF Variable Account</b>			<b>\$ 838,130</b>		<b>4.71</b>	<b>15.44</b>	<b>5.68</b>	<b>10.63</b>	<b>17.71</b>	<b>1.64</b>	<b>2.04</b>	

Asset Class Benchmarks:

Russell 3000 Index	5.64	16.38	9.42	14.76	20.06	4.37	4.27	8.68
MSCI ACWI Ex US IMI Net	4.10	13.83	1.76	7.23	16.59	0.31	3.55	11.02
MSCI ACWI IMI Net	4.72	14.88	5.21	10.21	17.59	1.93	3.70	9.41
Russell 3000 Index + 300 bps--Quarter Lagged	N/A	34.02	17.82	16.62	11.97	5.18	8.28	12.50
Oregon Custom FI Benchmark	(0.10)	6.83	6.82	6.34	7.28	5.95	6.05	5.55
NCREIF Property Index--Quarter Lagged	N/A	11.00	13.52	10.90	1.52	2.26	6.39	8.34
91 Day T-Bill	0.00	0.11	0.10	0.11	0.14	0.42	1.73	1.79

**TOTAL OPERF NAV**  
 (includes variable fund assets)  
 One year ending January 2013  
 (\$ in Millions)



<sup>1</sup>OIC Policy 4.01.18, as revised April 2011.

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

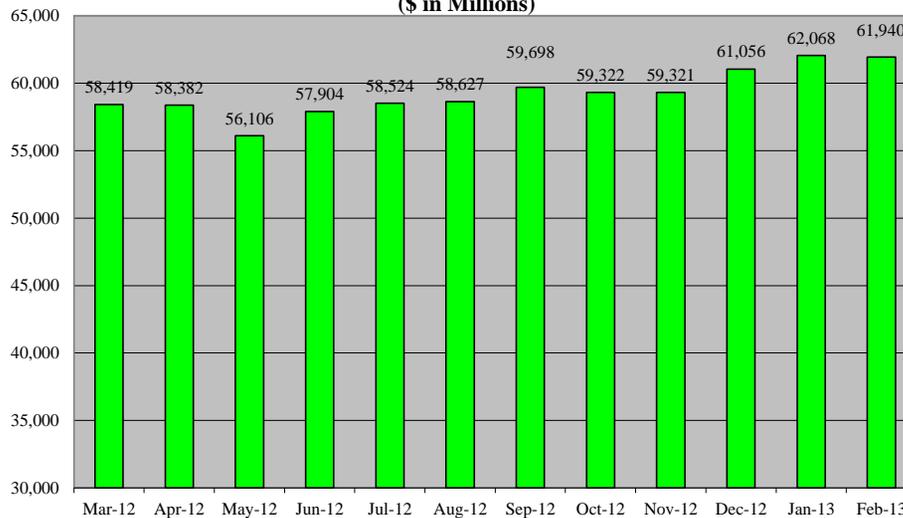
<sup>3</sup>For mandates beginning after January 1 (or with lagged performance), YTD numbers are "N/A". Performance is reflected in Total OPERF. YTD is not annualized.

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	38-48%	43%	\$ 22,939,993	37.5%	5.14	10.41	4.26	10.55	21.12	2.32	3.50	9.40
Private Equity	12-20%	16%	13,977,716	22.9%	N/A	14.41	12.72	13.95	9.06	5.24	9.43	13.07
<b>Total Equity</b>	<b>54-64%</b>	<b>59%</b>	<b>36,917,709</b>	<b>60.4%</b>								
Opportunity Portfolio			921,268	1.5%	6.89	13.65	8.95	13.83	23.15	5.38		
<b>Total Fixed</b>	<b>20-30%</b>	<b>25%</b>	<b>15,445,964</b>	<b>25.3%</b>	<b>0.49</b>	<b>7.79</b>	<b>7.61</b>	<b>8.41</b>	<b>13.22</b>	<b>8.04</b>	<b>7.18</b>	<b>6.79</b>
Real Estate	8-14%	11%	7,252,001	11.9%	0.48	12.24	13.54	8.73	4.62	0.28	4.67	10.22
Alternative Investments	0-8%	5%	565,714	0.9%	(0.17)	(0.72)						
Cash	0-3%	0%	2,333	0.0%	0.16	1.13	0.82	0.83	1.25	1.10	2.30	2.24
<b>TOTAL OPERF Regular Account</b>		<b>100%</b>	<b>\$ 61,104,989</b>	<b>100.0%</b>	<b>2.12</b>	<b>10.98</b>	<b>7.95</b>	<b>10.58</b>	<b>14.60</b>	<b>4.08</b>	<b>5.31</b>	<b>9.12</b>
<b>OPERF Policy Benchmark</b>					<b>2.18</b>	<b>12.68</b>	<b>8.39</b>	<b>10.50</b>	<b>13.98</b>	<b>4.33</b>	<b>5.65</b>	<b>9.00</b>
Value Added					<b>(0.06)</b>	<b>(1.70)</b>	<b>(0.44)</b>	<b>0.08</b>	<b>0.62</b>	<b>(0.25)</b>	<b>(0.34)</b>	<b>0.12</b>
<b>TOTAL OPERF Variable Account</b>			<b>\$ 835,398</b>		<b>4.87</b>	<b>10.08</b>	<b>4.22</b>	<b>10.16</b>	<b>20.78</b>	<b>2.39</b>	<b>2.08</b>	

Asset Class Benchmarks:

Russell 3000 Index	6.89	13.65	8.95	13.83	23.15	5.38	4.82	8.85
MSCI ACWI Ex US IMI Net	3.19	6.75	0.09	6.94	19.18	(0.44)	3.47	11.15
MSCI ACWI IMI Net	4.82	9.48	3.75	9.74	20.69	1.86	3.74	9.61
Russell 3000 Index + 300 bps--Quarter Lagged	N/A	34.02	17.82	16.62	11.97	5.18	8.28	12.50
Oregon Custom FI Benchmark	0.26	6.35	6.86	6.32	7.49	6.02	6.05	5.45
NCREIF Property Index--Quarter Lagged	N/A	11.00	13.52	10.90	1.52	2.26	6.39	8.34
91 Day T-Bill	0.00	0.11	0.10	0.11	0.13	0.39	1.69	1.78

**TOTAL OPERF NAV**  
(includes variable fund assets)  
One year ending February 2013  
(\$ in Millions)



<sup>1</sup>OIC Policy 4.01.18, as revised April 2011.

<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

John A. Kitzhaber, M.D., 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)

March 29, 2013

TO: Members of the PERS Board  
FROM: Kyle J. Knoll, Budget Officer  
SUBJECT: March 2013 Budget Report

### 2011-13 OPERATIONS BUDGET

Operating expenditures for January 2013 were \$2,611,602, and preliminary February 2013 expenditures are \$2,932,033. Final February 2013 expenditures will be included in the May 2013 Budget Report to the Board.

- To date, through the first twenty months (83.33%) of the 2011-13 biennium, the Agency has expended a total of \$58,670,418, or 75.94% of PERS' legislatively approved operating budget of \$77,260,820.
- The current projected positive variance is \$2,059,979, or 2.7% of the operating budget.

### STRUNK/EUGENE OVERPAYMENT RECOVERY PROJECT

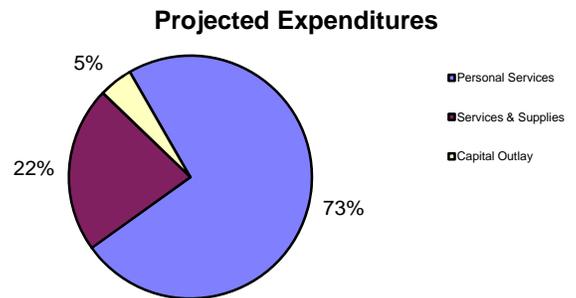
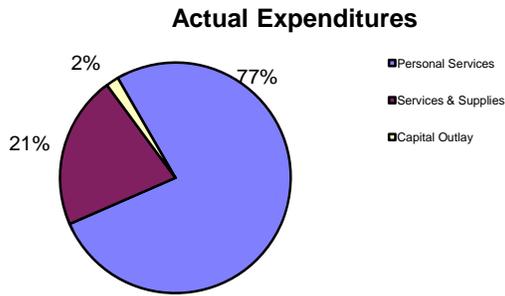
To date, the Agency has expended a total of \$396,326, or 19.1% of PERS' 2011-13 legislatively approved budget of \$2,071,410 for this project.

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**2011-13 Agency-wide Operations - Budget Execution  
Summary Budget Analysis  
For the Month of: February 2013**

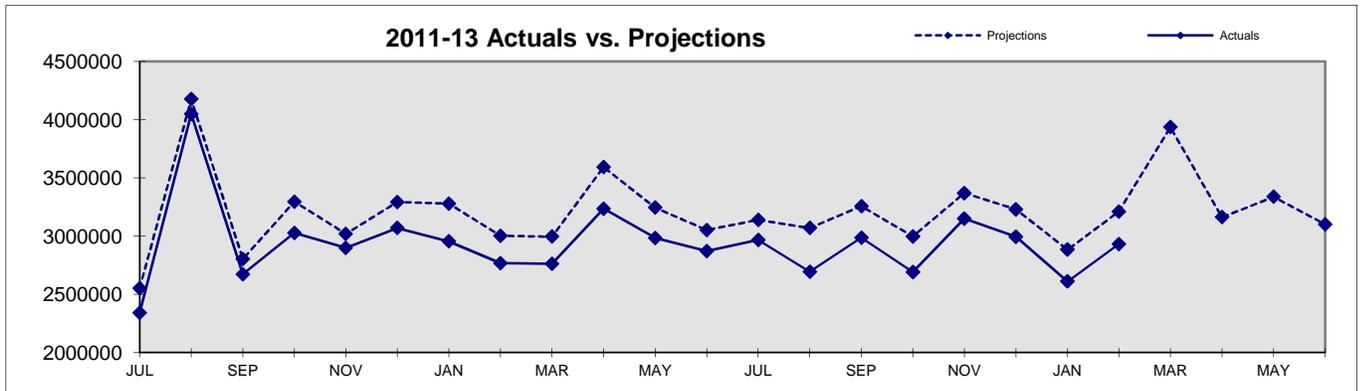
**Biennial Summary**

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expend.	2011-13 LAB	Variance
Personal Services	45,056,295	9,942,330	54,998,625	55,827,463	828,838
Services & Supplies	12,574,292	5,791,375	18,365,667	20,505,769	2,140,102
Capital Outlay	1,039,831	796,717	1,836,549	927,588	(908,961)
<b>Total</b>	<b>58,670,418</b>	<b>16,530,422</b>	<b>75,200,841</b>	<b>77,260,820</b>	<b>2,059,979</b>



**Monthly Summary**

Category	Actual Exp.	Projections	Variance	Avg. Monthly Actual Exp.	Avg. Monthly Projected Exp.
Personal Services	2,349,287	2,507,111	157,824	2,252,815	2,485,497
Services & Supplies	513,416	703,698	190,281	628,715	747,566
Capital Outlay	69,330		(69,330)	51,992	151,679
<b>Total</b>	<b>2,932,033</b>	<b>3,210,808</b>	<b>278,775</b>	<b>2,933,521</b>	<b>3,384,743</b>



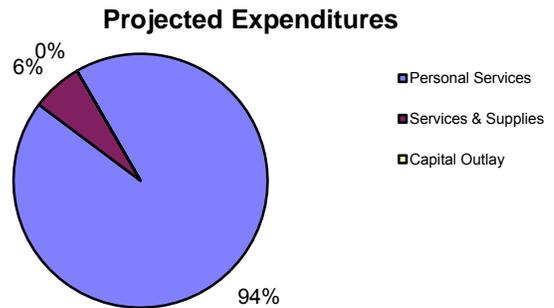
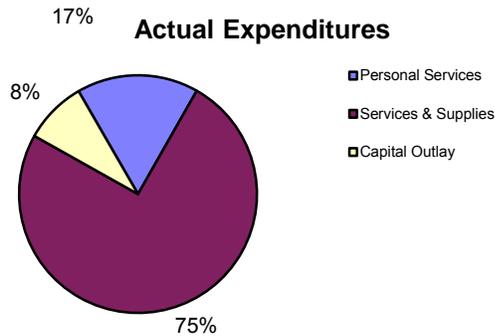
**2009-11 Biennium Summary**

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expend.	2009-11 LAB	Variance
Personal Services	50,562,257		50,562,257	52,751,494	2,189,237
Services & Supplies	25,938,410		25,938,410	29,916,870	3,978,460
Capital Outlay	1,384,164		1,384,164	593,588	(790,576)
<b>Total</b>	<b>77,884,830</b>		<b>77,884,830</b>	<b>83,261,952</b>	<b>5,377,122</b>

## 2011-13 Strunk/Eugene Overpayment Recovery Project - Budget Execution Summary Budget Analysis For the Month of: February 2013

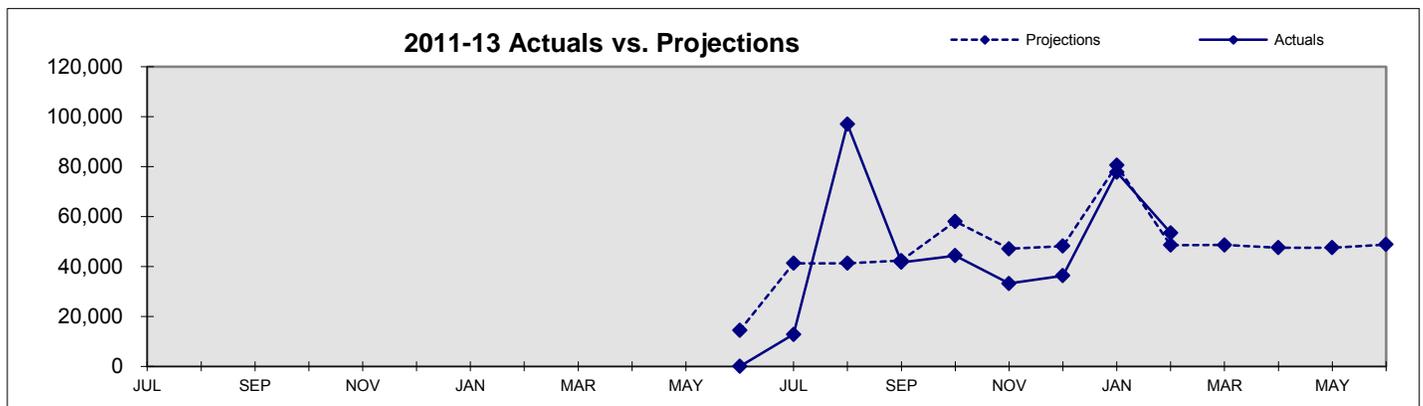
### Biennial Summary

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expend.	2011-13 LAB	Variance
Personal Services	257,722	410,449	668,171	917,155	248,984
Services & Supplies	129,251	66,120	195,371	1,154,255	958,884
Capital Outlay	9,354		9,354		(9,354)
<b>Total</b>	<b>396,326</b>	<b>476,569</b>	<b>872,896</b>	<b>2,071,410</b>	<b>1,198,514</b>



### Monthly Summary

Category	Actual Exp.	Projections	Variance	Avg. Monthly Actual Exp.	Avg. Monthly Projected Exp.
Personal Services	46,947	48,518	1,572	32,215	48,099
Services & Supplies	6,475		(6,475)	16,156	
Capital Outlay				1,169	
<b>Total</b>	<b>53,422</b>	<b>48,518</b>	<b>(4,903)</b>	<b>49,541</b>	<b>48,099</b>



### Project Tracker:

Percent of 2011-13 E-board Budget Expended:	19.1%
Percent of 2011-13 Project Duration Expired:	69.2%



# Oregon

John A. Kitzhaber, M.D., Governor

## Public Employees Retirement System

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

March 29, 2013

TO: Members of the PERS Board  
FROM: Steven Patrick Rodeman, Deputy Director  
SUBJECT: Adoption of OPSRP Pension Program Rule:  
OAR 459-075-0200, *Retirement Eligibility for Police Officer and Firefighter Members*

### OVERVIEW

- Action: Adopt modifications to the OPSRP Pension Program rule regarding retirement eligibility.
- Reason: Clarify the five year continuous employment as Police Officer and Firefighter (P&F) prior to effective date of retirement and the status of a member who is employed concurrently as P&F and other than P&F.
- Policy Issue: No policy issues have been identified.

### BACKGROUND

Under ORS 238A.160(2) and 238A.165(2), an OPSRP Pension Program member establishes eligibility for retirement as a Police Officer and Firefighter (P&F) member by working in a P&F position continuously for a period of not less than five years immediately prior to their effective date of retirement.

PERS staff presented OAR 459-075-0200 at the November 30, 2012 board meeting. At that meeting, we noted two scenarios that those modifications could address:

- 1) Separating from one P&F position and starting another P&F position does not restart the five year (60-month) clock for eligibility so long as the member does not work in a general service position during that separation.
- 2) If a member works concurrently in a P&F and general service position, the five year (60-month) clock is not restarted so long as the member remains continuously employed in the P&F position.

Staff presented further modifications at the January 25, 2013 board meeting that more closely follow the constrictions that the terms “continuous” and “immediately” commonly mean.

### SUMMARY OF MODIFICATIONS TO RULE SINCE FIRST READING

No modifications have been made to the rule.

### PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing was held on December 18, 2012 at 3:00 p.m. at PERS headquarters in Tigard. No members of the public attended. The first public comment period ended on December 31, 2012 at 5:00 p.m. The second public comment period ended on January 31, 2013 at 5:00 p.m. No public comment was received.

### LEGAL REVIEW

The attached 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: Clarifies the eligibility for early or normal retirement status of a P&F member going from one P&F position to another and concurrent employment as P&F and other than P&F.

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

### RULEMAKING TIMELINE

October 15, 2012	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
November 1, 2012	<i>Oregon Bulletin</i> published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
November 30, 2012	PERS Board notified that staff began the rulemaking process.
December 14, 2012	Staff extended the public comment period by filing Notice of Rulemaking with Secretary of State.
December 18, 2012	Rulemaking hearing held at 3:00 p.m. in Tigard.
December 31, 2012	First public comment period ended at 5:00 p.m.
January 1, 2013	<i>Oregon Bulletin</i> published the second Notice of Rulemaking.
January 25, 2013	First reading of the rule.
January 31, 2013	Second public comment period ended at 5:00 p.m.
March 29, 2013	Board may adopt the permanent rule modifications.

### BOARD OPTIONS

The Board may:

1. Pass a motion to “adopt modifications to the OPSRP Pension Program P&F Continuous Service 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: Clarify the P&F five year continuous employment prior to effective date of retirement and the status of a member who is employed concurrently as P&F and other than P&F.

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.1. Attachment 1 – 459-075-0200, *Retirement Eligibility for Police Officer and Firefighter Members*

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**OREGON ADMINISTRATIVE RULE  
PUBLIC EMPLOYEES RETIREMENT BOARD  
CHAPTER 459  
DIVISION 075 – OPSRP PENSION PROGRAM**

1 **459-075-0200**

2 **Retirement Eligibility for Police Officer and Firefighter Members**

3 (1) **For purposes of this rule:**

4 (a) “Police officer” and “firefighter” have the same meaning given them in ORS  
5 238A.005.

6 (b) **“Continuously” means a period of employment during which the member**  
7 **accrues retirement credit in consecutive months without interruption.**

8 (2) For the purpose of establishing eligibility for normal retirement under ORS  
9 238A.160(2) and early retirement under 238A.165(2), an OPSRP Pension Program member  
10 will be considered to have held a position as a police officer or firefighter continuously for a  
11 period of not less than five years immediately preceding the effective date of retirement if:

12 (a) The member was employed in a qualifying position as a police officer or firefighter  
13 **continuously** for five years prior to the date of the member’s *[separation]* **termination**  
14 from that employment; and

15 (b) The member’s **effective date of retirement is the first of the month following**  
16 **termination from that employment.** *[did not return to a qualifying position after*  
17 *separation from that employment.]*

18 (3) **A member who is concurrently employed by two or more employers in**  
19 **qualifying positions as a police officer or firefighter and as other than a police officer**  
20 **or firefighter is employed as a police officer or firefighter for purposes of this rule.**

21 Stat. Auth.: ORS 238A.450

22 Stats. Implemented: 238A.160 & 238A.165

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# Oregon

John A. Kitzhaber, M.D., Governor

## Public Employees Retirement System

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March 29, 2013

TO: Members of the PERS Board  
FROM: Steven Patrick Rodeman, Deputy Director  
SUBJECT: Adoption of IRC Limitations Rules:  
OAR 459-005-0525, *Ceiling on Compensation for Purposes of Contributions and Benefits*  
OAR 459-005-0545, *Annual Addition Limitation*  
OAR 459-080-0500, *Limitation on Contributions*

### OVERVIEW

- Action: Adopt modifications to the IRC Limitations rules.
- Reason: Update rules to reflect 2013 Internal Revenue Code (IRC) compensation limitations.
- Policy Issue: No policy issues have been identified.

### BACKGROUND

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

The IRS' revisions that are to be effective for calendar year 2013 have been announced. The proposed rule modifications incorporate these adjustments and make non-substantive edits to update citations and effective dates. These updates are necessary to ensure PERS compliance with the IRC's limits on the amount of annual compensation allowed for determining contributions and benefits, the limits on annual benefits, and the limits on annual additions to PERS. (Note that PERS staff will work with the legislature on a "federal re-connect bill" to update the necessary statutory provisions as well).

### SUMMARY OF MODIFICATIONS TO RULE SINCE NOTICE

In section 459-005-0545 (2), the original modifications changed the citation to IRC Section 415(c); that change was in error and the rule modifications as presented restore the existing reference to IRC Section 415(d).

### PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing was held on February 26, 2013 at 3:00 p.m. at PERS headquarters in Tigard. No members of the public attended. The public comment period ended on March 1, 2013 at 5:00 p.m. No public comment was received.

### LEGAL REVIEW

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

### IMPACT

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

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

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

### RULEMAKING TIMELINE

December 14, 2012	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
January 1, 2013	<i>Oregon Bulletin</i> published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
January 25, 2013	PERS Board notified that staff began the rulemaking process.
February 26, 2013	Rulemaking hearing held at 3:00 p.m. in Tigard.
March 1, 2013	Public comment period ended at 5:00 p.m.
March 29, 2013	Board may adopt the permanent rule modifications.

### BOARD OPTIONS

The Board may:

1. Pass a motion to “adopt modifications to the IRC Limitations rules, 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: Update rules to reflect 2013 Internal Revenue Code (IRC) compensation limitations.

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 – 459-005-0525, *Ceiling on Compensation for Purposes of Contributions and Benefits*

B.2. Attachment 2 – 459-005-0545, *Annual Addition Limitation*

B.2. Attachment 3 – 459-080-0500, *Limitation on Contributions*

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

1 **459-005-0525**

2 **Ceiling on Compensation for Purposes of Contributions and Benefits**

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

7 (2) Definitions:

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

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

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

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

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

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

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

5       (4) For noneligible participants, the annual compensation taken into account for  
6 purposes of determining contributions or benefits under ORS Chapters 238 and 238A  
7 shall be measured on a calendar year basis, and shall not exceed [~~\$250,000~~] \$255,000 per  
8 calendar year beginning in [~~2012~~] 2013.

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

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

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

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

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

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

7 (7) With respect to ORS Chapter 238, creditable service, as defined in 238.005, shall  
8 be given for each month that an active member is paid salary or wages and allowable  
9 contributions have been remitted to PERS, or would be remitted but for the annual  
10 compensation limit in IRC Section 410(a)(17). With respect to Chapter 238A, retirement  
11 credit as determined in 238A.140, shall be given for each month that an active member is  
12 paid salary or wages and allowable contributions have been remitted to PERS, or would  
13 be remitted but for the annual compensation limit in IRC Section 401(a)(17).

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

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

16 Stats. Implemented: ORS Chapters 238 & 238A

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

1   **459-005-0545**

2   **Annual Addition Limitation**

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

6       (2) Annual Addition Limitation. Except as otherwise provided in this rule, a member’s  
7 annual additions to PERS for any calendar year after ~~2011~~ 2012 may not exceed  
8 ~~[\$50,000]~~ \$51,000 (as adjusted under IRC Section 415(d)).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1    **459-080-0500**

2    **Limitation on Contributions**

3       (1) Definitions. For purposes of this rule:

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

5       *[as in effect on December 31, 2010.]*

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

7       *[as in effect on December 31, 2010.]*

8       (2) Annual addition limitation. Except as otherwise provided in this rule, the annual  
9       addition to a member account for any calendar year may not exceed ~~[\$50,000]~~ \$51,000  
10       effective January 1, 2013.

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

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

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

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

19       Stat. Auth.: ORS 238A.450

20       Stats. Implemented: ORS 238A.370

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# Oregon

John A. Kitzhaber, M.D., Governor

## Public Employees Retirement System

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March 29, 2013

TO: Members of the PERS Board  
FROM: Steven Patrick Rodeman, Deputy Director  
SUBJECT: Adoption of Reemployment of Retired Members Rule:  
OAR 459-017-0060, *Reemployment of Retired Members*

### OVERVIEW

- Action: Adopt modifications to Reemployment of Retired Members rule.
- Reason: The current rule needs to be amended to reflect the most recent Social Security annual compensation limitations.
- Policy Issue: No policy issues have been identified.

### BACKGROUND

Under ORS 238.082, 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 or the number of hours the member can work and not exceed the Social Security annual compensation limits.

The Social Security Administration has announced the 2013 Social Security annual compensation limits. The new limits are \$15,120 (for retired members who have not reached full retirement age under the Social Security Act), and \$40,080 (for the calendar year in which the retired member reaches full retirement age under the Social Security Act and only for compensation for the months before reaching full retirement age).

The proposed modifications to OAR 459-017-0060 reflect the 2013 Social Security earnings limitations. The new limitations are not effective for PERS purposes until adopted by the Board.

### SUMMARY OF MODIFICATIONS TO RULE SINCE NOTICE

There have been no modifications to the rule since notice.

### PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing was held on February 26, 2013 at 3:00 p.m. at PERS headquarters in Tigard. No members of the public attended. The public comment period ended on March 1, 2013 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:** Yes, the rule should be updated to reflect the statutory changes. Otherwise, the rule would provide incomplete guidance regarding reemployed retired members and outdated Social Security annual compensation limits.

**Impact:** Retired members will benefit from the updated Social Security annual compensation limits.

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

### RULEMAKING TIMELINE

January 15, 2013	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
January 25, 2013	PERS Board notified that staff began the rulemaking process.
February 1, 2013	<i>Oregon Bulletin</i> published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
February 26, 2013	Rulemaking hearing held at 3:00 p.m. in Tigard.
March 1, 2013	Public comment period ended at 5:00 p.m.
March 29, 2013	Board may adopt the permanent rule modifications.

### BOARD OPTIONS

The Board may:

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

### STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: The current rule needs to be amended to reflect the most recent Social Security annual compensation limitations.

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.

**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 the  
13   retired member to an amount that does not exceed the following Social Security annual  
14   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 [~~\$14,640~~] \$15,120; 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 [~~\$38,880~~] \$40,080.

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 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 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;

17 (e) The retired member is employed for service during a legislative session under ORS  
18 238.092(2); or

19 (f) The retired member is on active state duty in the organized militia and meets the  
20 requirements under ORS 399.075(8).

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

1 (h) For purposes of ORS 238.082(6), a retired member replaces an employee if the  
2 retired member:

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

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

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

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

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

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

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

18 (iii) If the member received a single lump sum payment under ORS 238.305(4) or  
19 238.315, the member is entitled to the payment provided the payment was dated on or  
20 before the last day of the month in which the limitations were exceeded.

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

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

3            (C) The member’s account must be rebuilt in accordance with the provisions of  
4 section (7) of this rule.

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

6            (A) PERS will cancel the member’s retirement effective the date the member was  
7 reemployed.

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

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

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

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

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

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

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

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

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

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

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

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

19            (d) If the member elected a partial lump sum option under ORS 238.305(2), the last  
20 monthly service retirement allowance payment to which the member is entitled is for the  
21 month before the calendar month in which the member is reemployed. The last lump sum  
22 or installment payment to which the member is entitled is the last payment due before the  
23 date the member is reemployed. Upon subsequent retirement, the member may not choose

1 a different benefit payment option unless the member has repaid to PERS in a single  
2 payment an amount equal to the lump sum and installment benefits received and the  
3 earnings that would have accumulated on that amount.

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

4 (13) Subsections (4)(c) and (4)(d) of this rule are repealed effective January 2, 2016.

5 (14) This rule is effective January 1, ~~2012~~2013.

6 Stat. Auth.: ORS 238.650

7 Stats. Implemented: ORS 238.078, 238.082, 238.092, 399.075, & 2007 OL Ch. 499 &

8 774

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# Oregon

John A. Kitzhaber, M.D., Governor

## Public Employees Retirement System

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March 29, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director  
Jon DuFrene, Administrator, Fiscal Services Division

SUBJECT: 2012 Final Earnings Crediting and Reserving

### OVERVIEW

- Action: Adopt 2012 final earnings crediting decisions.
- Subject: Crediting earnings for calendar year 2012 to the PERS Fund's accounts and reserves.
- Policy Issue: Is the Contingency Reserve adequately funded?

The PERS Board is charged with crediting earnings from the PERS Fund each calendar year. Some of those allocations are directed by statute or rule; the balance is at the PERS Board's discretion. At its January 25, 2013 meeting, the PERS Board adopted preliminary earnings allocations. That preliminary allocation was reported to and acknowledged at a meeting of the Joint Ways & Means General Government subcommittee on March 6, 2013. The full Joint Ways & Means Committee is expected to review the report at its meeting on Friday, March 22, 2013. Any feedback from that committee which affects the PERS Board's adoption of final 2012 earnings allocations will be presented at this meeting.

### EARNINGS ALLOCATIONS DIRECTED BY STATUTE OR RULE

The following reserves and accounts are allocated earnings by applicable statute or rule. In compliance with these restrictions, the final earnings allocation reflects the following:

- 1. Administrative Expenses:** Administrative costs are funded by earnings when they are sufficient, as they were in 2012 (ORS 238.610(1)).
- 2. Health Insurance Accounts:** These accounts are part of the PERS Fund and directed by statute to be credited with actual earnings or losses, less their administrative expense of the programs (ORS 238.410(7); 238.415(4); 238.420(4)). For 2012, the crediting rate for these accounts was 13.30% for RHIA, 10.52% for RHIPA, and 0.58% for SRHIA.
- 3. Employer Lump Sum Payment Accounts:** These accounts are credited with actual earnings or losses less administrative expenses, as authorized by ORS 238.229(2). For 2012, the crediting rate for these accounts averaged 14.67%.

- 4. Variable Annuity Account:** This account is credited with earnings or losses on its share of the PERS Fund. The Variable Annuity Account is only invested in equities and therefore its earnings are discrete from those of the more diversified components of the PERS Fund. For 2012, variable earnings are credited at 18.43%. These earnings include an allocation of \$1.9 million from the Contingency Reserve to earnings available for crediting from settlement of the *Murray v. PERB* litigation.
- 5. Individual Account Program (IAP):** These accounts are credited with actual earnings or losses as required by ORS 238A.350(1). IAP earnings for 2012 are estimated to be 14.09%.
- 6. Tier One Rate Guarantee Reserve:** This reserve, established under ORS 238.255(1), is used to credit the assumed rate to Tier One member regular accounts. The reserve is currently in deficit in the amount of (\$345.3 million) from the crediting required to Tier One member regular accounts in 2011, when earnings were less than the assumed rate of 8%. As earnings on Tier One member regular accounts for 2012 exceed the assumed rate, those excess earnings will be applied to reduce this deficit. That reduction is estimated to be \$330.3 million, unless the Board changes its preliminary allocation of earnings to the Contingency Reserve.

#### 2012 ALLOCATIONS

The PERS Board's Annual Crediting Rule (OAR 459-007-0005) directs the crediting to the Judge and Tier Two member regular accounts, as well as the OPSRP Pension, Benefits-in-Force, and Employer reserves. Staff recommends the following allocations be adopted preliminarily by the PERS Board:

#### **Non-Discretionary Allocations**

Credit administrative expenses, health insurance accounts, employer lump sum accounts, variable annuity accounts, and accounts in the Individual Account Program in the manner described above. Credit Tier One member regular accounts with the assumed earnings rate (8%).

#### **Judge Member Accounts**

Credit Judge Member Accounts with the assumed earnings rate (8%).

#### **Tier Two Member Regular Accounts**

As a term of the settlement in the above-referenced cases, PERS agreed to transfer \$2 million from the Contingency Reserve to earnings available for Tier Two member regular accounts in 2012. As a result, although Tier Two member regular accounts usually receive a proportional share of available earnings, the increase in 2012 earnings will result in a rate of 14.68%, unless the Board changes its preliminary allocation of earnings to the Contingency Reserve.

#### **Benefits-in-Force and Employer Reserves**

Credit the Benefits-in-Force and Employer reserves evenly with the remaining available earnings. The rate credited to those accounts would be 14.38%, unless the Board changes its preliminary allocation of earnings to the Contingency Reserve.

## POLICY ISSUE

- *Is the Contingency Reserve adequately funded?*

ORS 238.670(1) (copy attached) allows the PERS Board to establish a Contingency Reserve, which the Board can then allocate for specific purposes stated in the statute. The current beginning balance in the Contingency Reserve is \$533.3 million.

In adopting the preliminary rates, the Board was presented four options for consideration:

- (1) Make no allocation to the Contingency Reserve;
- (2) Allocate the Contingency Reserve its proportional share of 2012 earnings (an earnings rate of about 14.60%);
- (3) Increase the Contingency Reserve to about 1% of the PERS Fund year-end balance; or
- (4) Allocate the maximum 7.5% of total earnings to the Contingency Reserve.

The Board adopted preliminary 2012 earnings crediting following Option 3 above so that the Contingency Reserve is maintained at approximately 1% of the PERS Fund year-end balance. Staff continues to recommend that approach as a prudent benchmark for maintaining the level of the Contingency Reserve.

When the PERS Board's preliminary earnings crediting was reported to the Ways & Means General Government subcommittee, they acknowledged receipt of that report but also requested that PERS report back to the full Ways and Means Committee by April 15, 2013, on options for deploying the Contingency Reserve to reduce employer rates for the 2013-15 and the 2015-17 biennia. That report, attached to this memo, does not recommend deploying the reserve for such purposes in the 2013-15 biennium, but notes a deployment could be considered in connection with 2013 earnings crediting to affect rates in the 2015-17 biennia.

## BOARD OPTIONS

The Board may:

1. **1% Allocation to the Contingency Reserve:** Pass a motion to "adopt the final crediting of earnings for calendar year 2012 as presented, distributing \$66.9 million to the Contingency Reserve."
2. **Adopt an Alternative Allocation:** Adopt an alternative final crediting of 2012 earnings.

## STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: This option is consistent with the PERS Board's preliminary allocation that was reviewed by the Oregon Legislature and maintains the Contingency Reserve at approximately 1% of the PERS Fund year-end balance.

C.1. Attachment 1- 2012 Reserve Balances after 2012 Crediting Chart

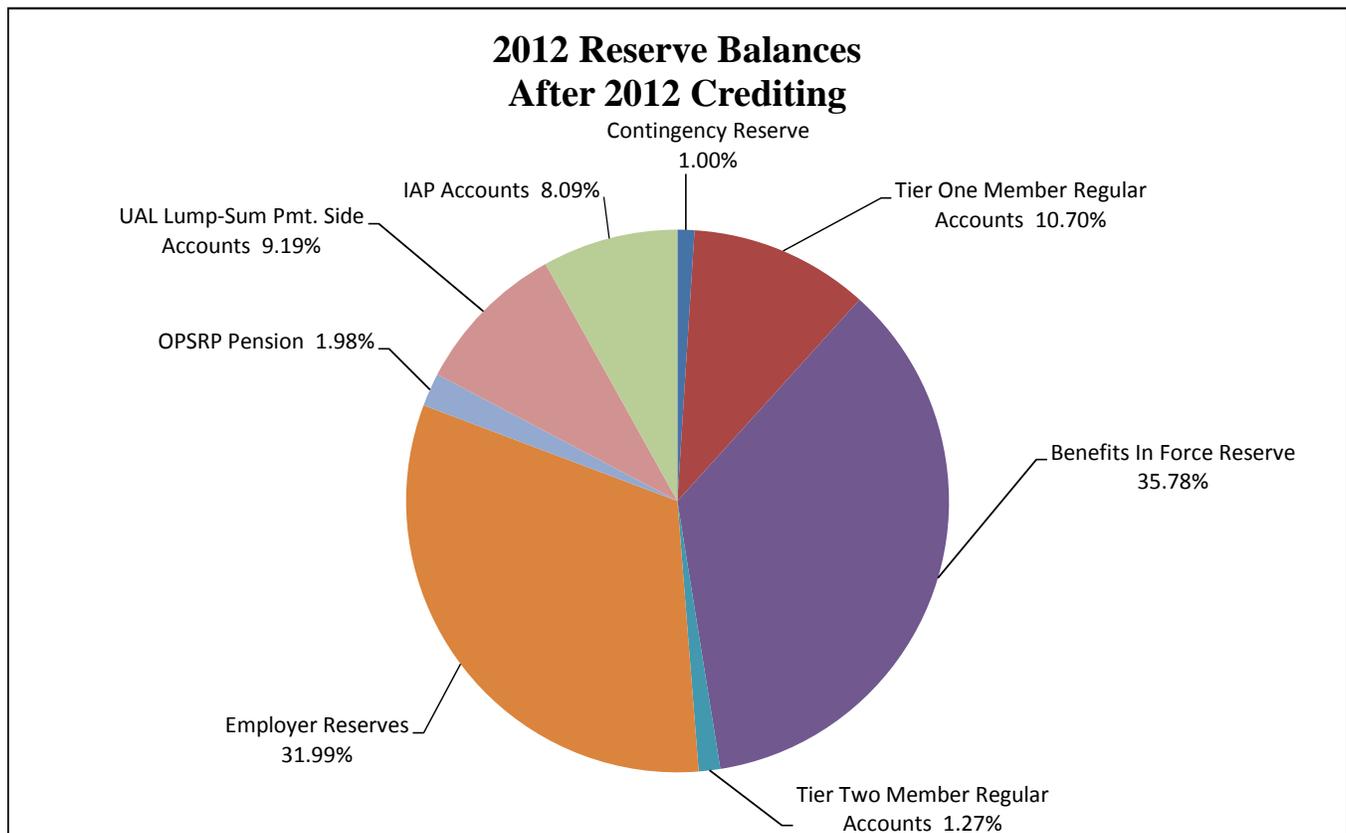
C.1. Attachment 2- ORS 238.670

C.1. Attachment 3- Report to the Joint Ways & Means Committee on Contingency Reserve Distribution

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**Oregon Public Employees Retirement System**  
**2012 Crediting and Reserving**  
**Credit Contingency Reserve to 1% of Reserves**  
 (All dollar amounts in millions)

<b>Regular Account Reserve</b>	<b>Reserves Before Crediting</b>	<b>2012 Crediting</b>	<b>Reserves After Crediting</b>	<b>2012 Rates</b>
<b>Contingency Reserve</b>	\$533.3	\$66.9	\$600.2	N/A
<b>Tier One Member Regular Accounts</b>	5,961.3	476.9	6,438.2	8.00%
<b>Tier One Rate Guarantee Reserve</b>	(345.3)	330.3	(15.0)	N/A
<b>Benefits In Force Reserve</b>	18,774.0	2,700.1	21,474.1	14.38%
<b>Tier Two Member Regular Accounts</b>	666.0	97.8	763.8	14.68%
<b>Employer Reserves</b>	16,784.2	2,412.0	19,196.2	14.38%
<b>OPSRP Pension</b>	1,041.2	145.1	1,186.3	13.94%
<b>*UAL Lump-Sum Pmt. Side Accounts</b>	4,782.3	735.9	5,518.2	Various
<b>*IAP Accounts</b>	4,262.8	592.3	4,855.1	14.09%
<b>Total</b>	<b>\$52,459.8</b>	<b>\$7,557.3</b>	<b>\$60,017.1</b>	



\*Informational only. Not affected by Board reserving or crediting decisions.  
 IAP accounts receiving installments have already received 2012 earnings.

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**238.670 Reserve accounts in fund.** (1) At the close of each calendar year in which the earnings on the Public Employees Retirement Fund equal or exceed the assumed interest rate established by the Public Employees Retirement Board under ORS 238.255, the board shall set aside, out of interest and other income received through investment of the Public Employees Retirement Fund during that calendar year, such part of the income as the board may deem advisable, not exceeding seven and one-half percent of the combined total of such income, which moneys so segregated shall remain in the fund and constitute therein a reserve account. The board shall continue to credit the reserve account in the manner required by this subsection until the board determines that the reserve account is adequately funded for the purposes specified in this subsection. Such reserve account shall be maintained and used by the board to prevent any deficit of moneys available for the payment of retirement allowances, due to interest fluctuations, changes in mortality rate or, except as provided in subsection (3) or (4) of this section, other contingency. In addition, the reserve account may be used by the board for the following purposes:

(a) To prevent any deficit in the fund by reason of the insolvency of a participating public employer. Reserves under this paragraph may be funded only from the earnings on employer contributions made under ORS 238.225.

(b) To pay any legal expenses or judgments that do not arise in the ordinary course of adjudicating an individual member's benefits or an individual employer's liabilities.

(c) To provide for any other contingency that the board may determine to be appropriate.

(2) At the close of each calendar year, the board shall set aside, out of interest and other income received during the calendar year, after deducting the amounts provided by law and to the extent that such income is available, a sufficient amount to credit to the reserves for pension accounts and annuities varying percentage amounts adopted by the board as a result of periodic actuarial investigations. If total income available for distribution exceeds those percentages of the total accumulated contributions of employees and employers, the reserves for pensions and annuities shall participate in such excess.

(3) The board may set aside, out of interest and other income received through investment of the fund, such part of the income as the board considers necessary, which moneys so segregated shall remain in the fund and constitute one or more reserve accounts. Such reserve accounts shall be maintained and used by the board to offset gains and losses of invested capital. The board, from time to time, may cause to be transferred from the reserve account provided for in subsection (1) of this section to a reserve account provided for in this subsection such amount as the board determines to be unnecessary for the purposes set forth in subsection (1) of this section and to be necessary for the purposes set forth in this subsection.

(4) The board may provide for amortizing gains and losses of invested capital in such instances as the board determines that amortization is preferable to a reserve account provided for in subsection (3) of this section.

(5) At least 30 days before crediting any interest and other income received through investment of the Public Employees Retirement Fund to any reserve account in the fund, the board shall submit a preliminary proposal for crediting to the appropriate legislative review agency, as defined in ORS 291.371 (1), for its review and comment. [Formerly 237.281; 2001 c.945 §5]

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John A. Kitzhaber, M.D., Governor

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March 29, 2013

TO: Joint Committee on Way and Means  
Sen. Richard Devlin, Co-Chair  
Rep. Peter Buckley, Co-Chair

FROM: Paul R. Cleary, PERS Director

SUBJECT: Report to the Joint Committee on Ways and Means regarding  
Contingency Reserve Options that could lower Employer Contribution Rates

The Joint Committee on Ways and Means acknowledged the receipt of the PERS Board's 2012 preliminary earnings crediting report and included the following direction:

*The PERS Board is directed to report back to the Joint Committee on Ways and Means by April 15, 2013 with options for the deployment of Contingency Reserves that could lower employer contribution rates for the 2013-15 and the 2015-17 biennia.*

For the following reasons, PERS sees few circumstances under which any such deployment is practicable for the 2013-15 biennium, but a deployment could be considered in connection with 2013 earnings crediting to affect rates in the 2015-17 biennium.

### BACKGROUND

The Contingency Reserve is established under ORS 238.670(1). Under that statute, the PERS Board can allocate earnings to the reserve only in calendar years that actual earnings exceed the assumed rate (currently 8%). When that occurs, the PERS Board can allocate up to 7.5% of the PERS Fund's earnings to the reserve. The reserve can be used only for the purposes provided in the statute, but that includes a broad grant of authority to use the reserve for any contingency "that the board may determine to be appropriate."

The Contingency Reserve is only funded from the earnings on following accounts and reserves in the PERS Fund:

- Tier One and Tier Two member regular accounts;
- Employer contribution accounts and reserves;<sup>1</sup> and
- The Benefits in Force reserve (from which member benefits are paid).

The table below shows a history of the Contingency Reserve after it was re-established in 2003 (the reserve was liquidated in 1977 and held no funds until it was credited in 2003 to conform to Judge Lipscomb's opinion, discussed below). The table shows the Contingency Reserve's balance over recent years and the reason for previous deployments. The balance currently is projected to increase to about \$600 million with the allocation of 2012 earnings, should the

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<sup>1</sup> Earnings from employer side accounts, usually funded through the proceeds of pension obligation bonds, are specifically exempted by ORS 238.229(2) from being available to fund the Contingency Reserve.

PERS Board follow its preliminary earnings crediting decision when they adopt the final allocation at their March 29, 2013 meeting.

**TABLE – CONTINGENCY RESERVE HISTORY**

<u>Year</u>	<u>Transaction</u>	<u>Balance</u>	<u>Reason</u>
2003	\$524,818,646.48	\$524,818,646.48	Reserve is credited earnings from 2003.
	\$584,784,004.07		1999 earnings re-allocated to Reserve to conform to Judge Lipscomb’s opinion.
	-\$61,410,984.00		Transfer to select employers in settlement of <i>Eugene</i> case.
2004	\$370,944,585.36	\$1,419,134,394.89	Reserve is credited earnings from 2004.
2005	-\$1,169,134,394.89		Distribute all but \$250,000,000 of Reserve proportionally to accounts and reserves following Board adoption of the rate collar as its method to stabilize employer rates.
		\$250,000,000.00	
2006	-\$3,977,823.66		Lump Sum Vacation Pay (LSVP) contributions and earnings charged to Reserve to resolve costs from 2005 law change applied retroactively to “salary” definition.
	-\$707,864.19		
	\$50,000,000.00		Reserve is credited earnings from 2006.
		\$295,314,312.15	
2007	\$357,901,761.23		Reserve is credited earnings from 2007.
		\$653,216,073.38	
2008	-\$101,713.42		Remaining LSVP Contributions and Earnings charged to Reserve.
		\$653,114,359.96	
2009		\$653,114,359.96	(No additional crediting or distributions.)
2010	\$81,312,000.00		Reserve is credited earnings from 2010.
		\$734,426,359.96	
2011	-\$199,165,108.61		Eliminate remaining deficit in Tier One Rate Guarantee Reserve from 2008 losses.
	<b><u>Current Balance:</u></b>	<b><u>\$535,261,251.35</u></b>	(Prior to 2012 earnings allocation)

## LEGAL CONSIDERATIONS

One of the first legal authorities to address the use and adequacy of the Contingency Reserve was the Honorable Paul Lipscomb back in October 2002 when he issued an opinion in the *City of Eugene* case where the PERS Board's failure to fund the Contingency Reserve was challenged by PERS employers:

“...ORS 238.670 (1) mandates that a reserve account to cover unforeseen contingencies ‘shall be maintained and used by the board to prevent any deficit of moneys available for the payment of retirement allowances....’ This language is neither discretionary nor ambiguous. The Board's persistent failure to follow this statute is improper. While the Board maintains a range of discretion in determining how much of the earnings to allocate each year to the Contingency Reserve, it has no discretion to simply ignore the legislature's specific direction that this account ‘shall be maintained and used to prevent any deficit.’

By ignoring its obligation to fund and maintain the Contingency Reserve in place, the Board has improperly impaired the overall resiliency and flexibility of the entire PERS system and has forced the system to rely almost exclusively on periodic increases to the employers' contribution obligations in order to keep its accounts in balance.”

The Contingency Reserve is part of the PERS Fund, and uses of those funds are controlled by statute. ORS 238.660(2) states in part:

“Until all liabilities to members and their beneficiaries are satisfied, assets of the fund may not be diverted or otherwise put to any use that is not for the exclusive benefit of members and their beneficiaries. “

This statutory limitation parallels federal law that requires a tax qualified retirement fund to be administered for the “exclusive benefit of ... employees or their beneficiaries.” 26 USC 401(a). These provisions constrain the PERS Board's discretion in deploying the Contingency Reserve.

Those constraints were recently discussed by the Supreme Court in *White v. PERB*, 351 Or 426, 268 P3d 600 (2011), where the court reiterated that Oregon law requires that the PERS trust be administered for the sole benefit of PERS members. In *White*, the court considered the extent to which the Board owes fiduciary duties to one member or one class of members in light of the Board's fiduciary duties to members as a whole. The court reiterated that the Board's duties are to “PERS retirees and active members.” 351 Or at 440. Its duty is to “protect the corpus of the fund and to manage the fund for the benefit of all PERS beneficiaries.”

Prior deployments of the Contingency Reserve have either been in relative proportion to the member and employer accounts and reserves that generated the Reserve, or for broad purposes that benefitted both members and employers. The Committee's request to consider deploying the Contingency Reserve solely to reduce employer rates would use funds in the Contingency Reserve for the benefit of employers only, which appears to be contrary to the constraints in Oregon and federal law.

## ADMINISTRATIVE CONCERNS AND EARNINGS CREDITING

As a practical matter, deploying the Contingency Reserve to reduce employer rates in 2013-15 is problematic. Employer rates are derived from a system valuation, which compares the liabilities

for benefits payable by the plan with assets available to pay those benefits. The employer contribution rates to become effective July 1, 2013, are based on the system valuation as of December 31, 2011, comparing the system's assets and liabilities as of that date.

In the system valuation process, assets in the Contingency Reserve are not considered, since the actuary does not know how or when they may be deployed to become available to pay member benefits. Deploying the Contingency Reserve would reduce employer rates by making more assets available to pay benefits. In general, a \$1 billion increase in assets available reduces employer rates by 1% of payroll, so deploying \$600 million in the Contingency Reserve would theoretically reduce employer rates by 0.60% of payroll.

The legislature is considering a number of concepts to contain PERS costs and is expected to direct the PERS Board to reduce the employer contributions rates that are slated to become effective on July 1, 2013, based on any concepts that may be adopted. Those concepts, however, can effectuate changes because they either reduce liabilities (i.e., drop the level of benefits expected to be paid after their adoption) or shift the cost to members (e.g., redirect members' IAP contributions). Deploying the Contingency Reserve, however, could only affect employer contribution rates if those funds were added to the assets available to pay member benefits.

The manner in which assets are brought into the system are either through contributions or earnings. Contributions from employers come into the PERS Fund over the course of time, but members no longer make contributions that are considered in setting employer rates (their contributions go into the IAP, which self-funds its benefits and does not include employer contributions). Earnings are credited only when allocating annual earnings once a year, which will occur for 2012 earnings after the PERS Board adopts the final allocation at its March 29, 2013 meeting.

Following the 2012 earnings allocation, the employers' share of deployed Contingency Reserve funds could perhaps be added to their accounts. That share would have to be deployed across the 900 participating employers by allocating those funds to each employer's reserve account, an actuarial re-computation of the impact of the change in that employer's asset value, a re-determination of that employer's resulting Unfunded Actuarial Liability (if any), and a re-calculation of their July 1, 2013 rates.

Since the rates vary by employer, there would be significant disparity. For example, employers with contribution rates already at or near 0.00 would not benefit from any rate reduction achieved through deploying the Contingency Reserve. Lastly, consider that the vast majority of employers' 2013 contribution rates have been constrained by the rate collar, pushing increases of about two percent of payroll into the next biennium. Any rate reduction from deploying the Contingency Reserve would only marginally reduce the amount of the rate collared off, and not reduce rates for 2013-15.

As complicated as that process would be for employers, there is no comparable path for member accounts. Any solution would require an ad-hoc, artificial determination of interim crediting rates until earnings for 2013 are allocated to member accounts.

#### ADEQUATE RESERVE LEVELS

Lastly, the PERS Board must consider what is an adequate level to retain in the Contingency Reserve, or run afoul of Judge Lipscomb's admonition. PERS staff have advocated that, as a

general rule, the Contingency Reserve be maintained at one percent of the PERS Fund, so the 2012 earnings allocation will raise the reserve to around \$600 million, one percent of the PERS Fund's approximately \$60 billion balance at the end of 2012. Staff continues to believe that funding level is prudent, given the uncertain nature of impending costs that could be funded from the Contingency Reserve, such as:

- Restoration of benefits should challenges to pending 2013 PERS cost containment legislation be upheld;
- Any uncollectable portion of the \$169 million in overpayments currently being recovered in the Strunk/Eugene project; and
- Employer insolvencies, particularly certain O&C Counties that may find their ability to pay PERS employer contributions curtailed (O&C counties in total are projected to pay approximately \$315 million in contributions during the 2013-15 biennium).

#### DEPLOYMENT AFFECTING 2015-17 RATES

As a review of the Contingency Reserve history shows, the PERS Board has deployed the reserve in the past when system dynamics or projected exposures seem to warrant a lower amount in reserves. That issue will be considered again when the Board allocates earnings for 2013. Any amounts deployed out of the Contingency Reserve in connection with that earnings allocation will count as assets of the system in the valuation based on December 31, 2013 assets and liabilities, and would therefore contribute towards reducing 2015-17 employer contribution rates to be effective July 1, 2015.

In conclusion, PERS reports that there do not appear to be legal or practical options for deploying the current Contingency Reserve solely to reduce employer contribution rates slated to become effective July 1, 2013. Any deployment of the Reserve occurring in the normal course of crediting earnings in future years will operate to marginally reduce employer rates that are charged after that deployment.

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March 29, 2013

TO: Members of the PERS Board

FROM: Marjorie Taylor, Senior Policy Advisor

SUBJECT: 2013 Legislative Session Update

### OVERVIEW

Since the 2013 Legislative Assembly convened, more than 2,500 bills have been introduced. More bills are introduced, and existing ones amended, each day of the session. PERS staff reviews all of these for their impact to the plan or agency and assign them to one of three categories for tracking purposes: 1) bills that impact PERS plan statutes; 2) bills that affect agency operations; or 3) bills of interest that have an indirect impact on the agency.

This memo focuses on bills from the first category. Of the 60 bills currently in that category, only a small number have been scheduled for a public hearing: the agency's budget, Oregon University System bills, the Oregon Investment Council transformation bill, tax code connection bills, OHSU police officer bill, and a bill that would vest a non-vested deceased member of OPSRP. The table below summarizes major topics addressed by various proposals contained in one, some, or all of these bills.

I look forward to communicating with the Board as activities and discussions pertaining to PERS progress through the legislative session.

<b>Topics and Examples of Proposals Contained in One, Some, or All Referenced Bills</b>	<b>Bill Nos.</b>
<p><b>Employee Contributions</b></p> <ul style="list-style-type: none"> <li>• Various modifications relating to mandatory employee contributions to the IAP, including: decreasing required employee contribution to the IAP from 6% of annual salary to 3%; allowing employee contributions to IAP to range from 1% to 6%</li> <li>• Various modifications relating to employer remittance of contributions to the IAP, including: clarifying that mandatory employee contributions to IAP must be remitted by the employer; eliminating employer pick-up of 6% mandatory employee contribution to IAP; allowing employer to agree to pay all or part of employee contribution from 1% to 6%</li> <li>• Prohibit Tier One and Tier Two members from making new contributions into their IAP accounts</li> <li>• Require employees to make additional contributions to fund their benefit and to fund the employer contribution obligation (for defined benefits)</li> </ul>	<p>HB 3058 HB 3206 HB 3312 SB 652 SB 653 SB 655 SB 657 SB 662</p>
<p><b>Employer Contributions</b></p> <ul style="list-style-type: none"> <li>• Eliminate optional employer contributions to IAP</li> <li>• Eliminate use of excess funds from employer contributions to offset contributions to the IAP</li> <li>• Various modifications relating to employer remittance of contributions to the IAP, including: prohibiting employers from entering into any collective bargaining agreements that would require employers to pay any employee contributions to the IAP related to; allowing employer flexibility to negotiate and pay less than the currently</li> </ul>	<p>HB 3058 HB 3205 HB 3312 SB 452 SB 652 SB 653 SB 655 SB 657</p>

<p>mandated 6% employee contribution; allowing employer to agree to pay all or part of employee contribution to the IAP in whole percentages ranging from 1% to 6%; requiring employers to contribute 3% of employee annual salary instead of 6% to the member IAP account; allowing employer to pay part of the employee contribution, but no more than 3% of the member annual salary; and/or dividing employer contribution obligation between the employer and employee</p> <ul style="list-style-type: none"> <li>• Create various accounts to provide additional funding for employer liabilities, such as an “Employer Contribution Savings Account” and a rate stabilization subaccount, or a new PERS fund in which a portion of ending fund balances from state agency “other fund accounts” would be deposited and applied to reduce employer contributions for local governments and school districts</li> <li>• Under certain circumstances, allow use of funds from newly created “benefit funding account,” which is funded by employee contributions, to offset employer contributions</li> </ul>	SB 662
<p><b>Modifications to IAP</b></p> <ul style="list-style-type: none"> <li>• Terminate membership in IAP for Tier One and Tier Two members, prohibit new contributions, but allow adjustments to existing IAP account balances</li> <li>• Eliminate new memberships in IAP, and cease employer, employee, or rollover contributions into IAP after January 1, 2014</li> <li>• Create new class of IAP-only members after January 1, 2014</li> </ul>	HB 3206 SB 654 SB 661 SB 738 SB 748 SB 754
<p><b>Creation of New Member Accounts for Tier One and Tier Two (not IAP accounts)</b></p> <ul style="list-style-type: none"> <li>• Direct contributions for Tier One and Tier Two members to a new member account that will be used to pay the cost of pension or other benefits</li> <li>• Create new member accounts for Tier One and Tier Two members</li> <li>• Require employees to make unspecified contributions to the new “benefit funding account” that will be used to fund their pension costs</li> </ul>	HB 3206 HB 3312 SB 738 SB 754
<p><b>Definition of Qualifying Position or Vesting Requirements (1040 hours)</b></p> <ul style="list-style-type: none"> <li>• Modify definition of “qualifying position” to require employees to work at least 1040 hours in a calendar year rather than the current 600 hour standard</li> <li>• Increase the maximum hours allowed by seasonal, emergency or casual workers and volunteer firefighters from less than 600 hours, to less than 1040 hours</li> <li>• For the OPSRP pension program, increase the vesting requirement from 600 hours of service to 1040 hours of service in each of five calendar years</li> <li>• Allow a non-vested deceased police member to be vested in OPSRP pension program under certain circumstances, and allows surviving spouse to apply for death benefits</li> </ul>	HB 3243 HB 3313 SB 748
<p><b>OPSRP – Eligibility</b></p> <ul style="list-style-type: none"> <li>• For employees hired after January 1, 2014, eliminate eligibility for membership in OPSRP pension program; allow eligibility for membership in IAP only</li> </ul>	SB 661
<p><b>OPSRP – Normal Retirement Age</b></p> <ul style="list-style-type: none"> <li>• Raise normal retirement age for OPSRP members from 65 or 58 with 30 years of credit, to later of 67 or normal retirement age under Social Security (65-67)</li> <li>• Raise P&amp;F normal retirement age to normal retirement age under Social Security minus 5 years</li> </ul>	SB 663
<p><b>Assumed Earnings Rate/Earnings Crediting Rate/Annuitization Rate</b></p> <ul style="list-style-type: none"> <li>• Require Board to establish a rate of return (crediting rate) that may be lower than the assumed earnings rate</li> <li>• Disconnects annuitization rate at 8% and establishes assumed earnings rate at 6%, 5%, or 4% for Money Match benefits</li> </ul>	HB 3203 HB 3209 SB 656 SB 738 SB 754

<p><b>Money Match Calculations</b></p> <ul style="list-style-type: none"> <li>Amend Money Match calculation by changing the annuitization rate of return to 6%, 5%, or 4%</li> </ul>	<p>HB 3209 SB 656 SB 738 SB 754</p>
<p><b>“Salary” Definition, Final Average Salary (FAS) Factors, Benefit Calculation</b></p> <ul style="list-style-type: none"> <li>Direct Board to only pay benefits funded by employee contributions only for a member convicted of certain work-related felonies</li> <li>Various modifications to the “salary” definition with respect to IAP contributions, including: exclusion of employee and employer-paid contributions to IAP from definition of “salary”; including employee contribution to IAP that is deducted from compensation as “salary,” while excluding employee paid contributions to IAP</li> <li>Various modifications to the “salary” definition with respect to exclusion of vacation and sick leave lump sum payments, and/or overtime from definition of “salary”</li> <li>Eliminate accumulated sick leave in the computation of final average salary (FAS)</li> <li>Limit number of overtime hours in determining FAS – overtime may not exceed 5% of a member’s regular salary</li> <li>Limit maximum replacement ratio of FAS to defined percentages based on prospective year of retirement</li> <li>Modify OPSRP FAS to five consecutive years or 60 calendar months of membership before the effective retirement date</li> </ul>	<p>HB 2784 HB 3056 HB 3058 HB 3204 HB 3243 SB 652 SB 653 SB 655 SB 660 SB 661 SB 662 SB 664 SB 738 SB 754</p>
<p><b>COLA Proposals</b></p> <ul style="list-style-type: none"> <li>Apply COLA to first \$3,000 of monthly benefits</li> <li>Apply COLA to first \$2,000 of monthly benefits</li> <li>Limit COLA to OPSRP members with 10 years of retirement credit at time of retirement, disability or death</li> <li>Limit COLA to Tier One and Tier Two members with 10 years of creditable service at time of retirement, disability or death</li> </ul>	<p>HB 3057 HB 3202 SB 658 SB 659 SB 738 SB 748 SB 754</p>
<p><b>Out-of State Tax Remedy</b></p> <ul style="list-style-type: none"> <li>Eliminate out-of-state tax remedy</li> </ul>	<p>HB 3059 HB 3148 SB 471 SB 738 SB 748 SB 754</p>
<p><b>Calculation of Employer Rates</b></p> <ul style="list-style-type: none"> <li>Allow employers to access funds from a new “Employer Contribution Savings Account” under certain circumstances for the purpose of stabilizing employer rates</li> <li>Require recalculation of employer rates effective July 1, 2013 based on 2013 legislation</li> </ul>	<p>HB 3205 HB 3207 SB 738 SB 754</p>
<p><b>Return to work for Tier One and Tier Two Retirees</b></p> <ul style="list-style-type: none"> <li>Eliminates exceptions for return-to-work after retirement for Tier One and Tier Two retirees, including the current 1040 hour work allowance; provides that pension payments will stop for retired members re-employed in a qualifying position</li> </ul>	<p>HB 3351</p>
<p><b>Retiree Health Insurance</b></p> <ul style="list-style-type: none"> <li>Eliminate the Retiree Health Insurance Premium Account and require remaining accounts to be transferred to the PERS Fund to be credited against employer liabilities</li> </ul>	<p>HB 3314</p>

<p><b>Non-PERS retirement benefits</b></p> <ul style="list-style-type: none"> <li>Prohibit employers from paying for or providing additional retirement benefits other than those required in statute</li> <li>Require employers who provide benefits to retirees, other than what are required in statute, to fund the benefits by annual contributions amortized over 25 years</li> </ul>	<p>HB 3379 SB 445</p>
<p><b>Legislators/Elected Officials</b></p> <ul style="list-style-type: none"> <li>Prohibit legislators from becoming members of PERS (including OPSRP) or acquiring credit in the system based on legislative service; applies to members elected or appointed after the effective date</li> <li>Prohibit legislators, judges, and statewide elected officials from becoming PERS members or for receiving credit in these positions; applies to persons elected or appointed after the effective date</li> </ul>	<p>SB 651 SB 674</p>
<p><b>Judge Members</b></p> <ul style="list-style-type: none"> <li>Prohibit judges from becoming members of PERS or acquiring credit in the system; applies to persons first appointed or elected after the effective date</li> <li>Allow a judge member to designate more than one beneficiary</li> </ul>	<p>SB 674 SB 771</p>
<p><b>Police and Fire Definition</b></p> <ul style="list-style-type: none"> <li>Allows OHSU to establish a police department with one or more police officers</li> <li>Permit community colleges to establish police departments</li> </ul>	<p>HB 3114 SB 565</p>
<p><b>Fair Retirement Plan</b></p> <ul style="list-style-type: none"> <li>Establishes the Fair Retirement Plan for persons hired on or after July 1, 2013, who have not established membership in PERS before</li> <li>Participating employers are required to make a contribution equal to 3% of employee salary regardless whether the employee makes any employee contributions</li> </ul>	<p>SB 751</p>
<p><b>Oregon University System</b></p> <ul style="list-style-type: none"> <li>Establishes PSU as an independent University for the purpose of PERS statutes</li> <li>Amend PERS statutes to clarify that PSU and U of O are separate entities and employees from OUS</li> <li>In PERS statutes, changes “State Board of Higher Education” to “State Board of Education” or makes other changes to specific terms</li> <li>Modifies provisions of the OUS Optional Retirement Plan, but retains employees’ ability to select the PERS plan</li> </ul>	<p>HB 2149 HB 2312 HB 2339 HB 3305 SB 211 SB 269 SB 270 SB 277 SB 278 SB 279</p>
<p><b>Oregon Investment Council/Corporation</b></p> <ul style="list-style-type: none"> <li>For the purpose of PERS statutes, changes “Oregon Investment Council” to “Oregon Investment Corporation”</li> </ul>	<p>SB 120</p>
<p><b>Debt Financing</b></p> <ul style="list-style-type: none"> <li>Prohibit employers from issuing revenue bonds to finance pension liability without authorization from the legislature and electors in the district</li> </ul>	<p>HB 3190</p>
<p><b>Public Records</b></p> <ul style="list-style-type: none"> <li>Exempts PERS retiree financial information from disclosure</li> </ul>	<p>SB 369</p>
<p><b>Internal Revenue Code Connection</b></p> <ul style="list-style-type: none"> <li>Reconnect all related PERS statutes to relevant IRS codes as of December 31, 2012</li> </ul>	<p>HB 2492 SB 308</p>
<p><b>Agency Budget</b></p> <ul style="list-style-type: none"> <li>Sets forth the agency’s expenditure limits for the 2013-15 biennium</li> </ul>	<p>SB 5537</p>

# Actuarial Methods, Rate Calculations & Financial Projections

## OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

March 29, 2013

Presented by:

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# Agenda

- Introduction to:
  - Actuarial methods
  - Rate calculations
- Discussion of:
  - Shortfall levels
  - Currently scheduled 2013 rate increases
- Stochastic financial projections

# Part One:

# Introduction to Actuarial Methods & Rate Calculations

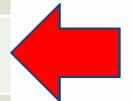
# Overview

- Actuarial methods are the foundation of rate calculations
- PERS Board reviews and approves methods every two years
  - Next scheduled review: May and July 2013 meetings
- Actuarial method changes were adopted in December 2005
  - Projected unit credit cost allocation method
  - Assets measured at fair market value
  - Direct contribution rate smoothing , also called the “rate collar”
- Another method is payoff of Tier 1/Tier 2 experience deviations from assumption over 20 years as a level percent of payroll
  - The most significant deviations are investment returns
  - 20 year amortization became fully effective for the 12/31/2007 valuation

# Contribution Rate Development

- “Base” pension contribution rates have two major components:
  - Normal Cost Rate – Economic value of benefits for current year service
  - UAL Rate – Amortization of shortfalls related to past service
- System-wide average collared rates are shown in the table below

Base Pension Rate Components	2011-2013	2013-2015
Normal Cost Rate	7.96% of payroll	8.16% of payroll
UAL Rate	7.80% of payroll	12.62% of payroll
Total Rate	15.76% of payroll	20.78% of payroll



- Base pension rates have two funding sources:
  - Employer contributions
  - Transfers from employer side accounts

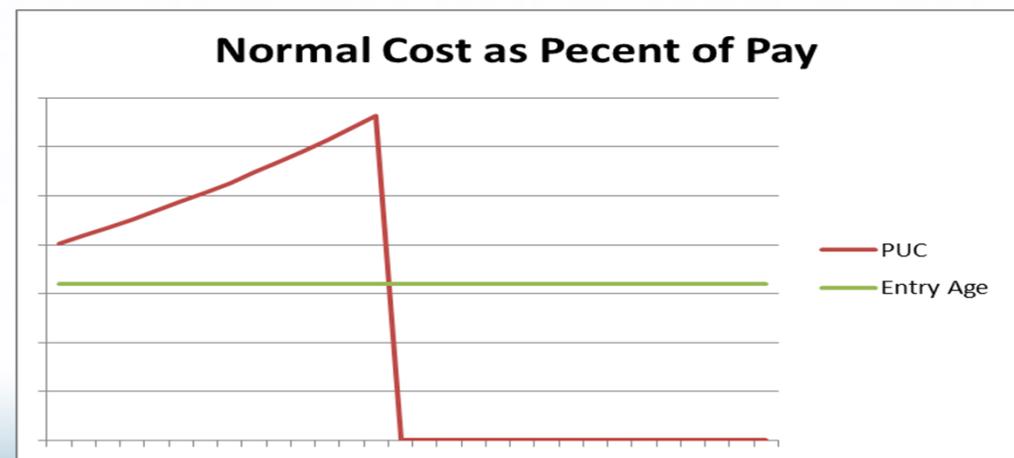
## Cost Allocation Method

- Rates are calculated to pre-fund retirement benefits during a member's working career if all assumptions are met
- The present day value of projected future benefits allocated to a particular working year is the **Normal Cost**
- The present day value of projected future benefits allocated to prior years is the **Accrued Liability**
- The division between past, current & future service is done through use of a *cost allocation method*
- The two most commonly used cost allocation methods are:
  - Entry age
  - Projected unit credit

## Cost Allocation Method

- For projected retirements under the Money Match formula, the two methods have very different cost allocation patterns
- Projected unit credit allocates the full benefit to pre-2004 service, consistent with the timing of member contributions
- Entry age allocates the benefit over the full working career, even though Money Match benefits are tied to pre-2004 contributions

This chart illustrates the normal cost pattern as a percent of pay for a sample full career active projected to retire under the Money Match formula



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## Cost Allocation Method

- Projected unit credit was adopted in 2005, with its primary advantages being viewed as increased transparency and fully accruing projected Money Match benefits
  - Projected unit credit provides a more realistic allocation of Money Match costs between past (accrued liability) and future (normal cost) service
- New GASB standards will require financial reporting calculations be done under the entry age allocation method
  - Previously six different cost allocation methods were permissible
  - GASB has made it very clear that its new standard with the entry age mandate should not serve as a template for contribution rate policy
- We will discuss the pros and cons of each allocation method for contribution rate policy at the next meeting

# Asset Measurement & Rate Smoothing

- In 2005, the Board elected to use assets measured at fair market value in rate calculations
  - The UAL Rate component of the contribution rate is based on the shortfall, which is the difference between accrued liability and fair value of assets
- To spread rate changes due to major asset swings across multiple biennia, the Board also adopted a direct rate smoothing policy
  - The smoothing policy is commonly referred to as the “rate collar”
- The fair value/rate collar approach was viewed by the Board as more transparent than the traditional asset smoothing methodology, which provides indirect rate smoothing

# Asset Measurement & Rate Smoothing

- The traditional approach has indirect rate smoothing through use of a non-market actuarial value of assets, or AVA, to calculate shortfall
- Investment return deviations from assumption are gradually recognized in the AVA over a smoothing period
- Previous to the adoption of fair value/rate collar, PERS used a four year asset smoothing period
  - A four year smoothing period would have incrementally reflected 2008 investment losses in 2008, 2009, 2010 and 2011
- If the previous approach had been continued, 2008 investment losses would have been fully reflected in the valuation that set 2013-2015 rates
  - Calculations with that approach are very similar to the scheduled rates

# Asset Measurement & Rate Smoothing

- The direct rate smoothing approach has three steps:
  - Calculate shortfall based on fair market asset values
  - Calculate the UAL Rate based on a 20 year shortfall amortization period
  - Check the calculated overall rate against the rate currently in effect
    - If the rate change is too large, part of the calculated increase is “collared” and deferred to the subsequent period
- The maximum change permitted by the initial collar is the greater of:
  - 3% of payroll OR 20% of the rate currently in effect
- If funded status is 70% or lower, the width of the collar doubles
  - Greater of 6% of payroll OR 40% of rate currently in effect
- If the funded status is between 70% and 80%, the collar size is pro-rated between the initial collar and double collar level

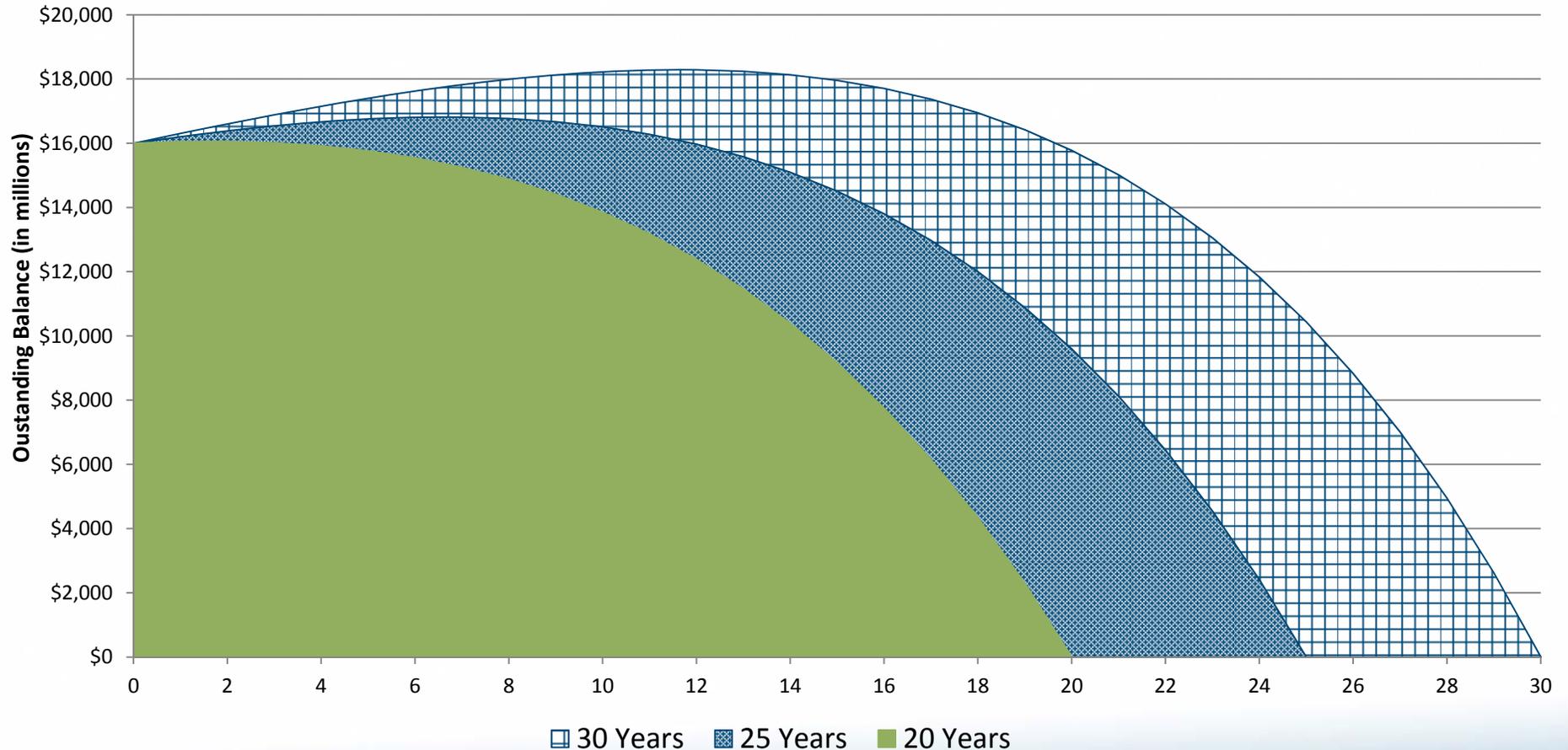
# Shortfall Amortization Periods

- Another key method is amortization of Tier 1/Tier 2 shortfalls over twenty years as a level percentage of payroll
  - Many other systems nationally use thirty-year amortization
  - Recent prominent funding guidance encourages amortization periods that are markedly shorter than thirty years
- The use of twenty years tries to balance the guiding principles of:
  - Predictable and stable rates,
  - Equitable across generations, and
  - Protect funded status

Twenty years is an amortization period that avoids significant “negative amortization”, where the shortfall actually increases in the initial “pay down” years even if assumptions are met and contributions are made

# Shortfall Amortization Periods

**UAL Balance by Amortization Period**  
Level % of Pay, 8.0% interest, 3.75% salary growth



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# The Fundamental Cost Equation

- Changes in methods or in benefits should be reviewed for their effects on the fundamental cost equation

$$BENEFITS = EARNINGS + CONTRIBUTIONS$$

- The long-term program costs are the contributions, and only two factors affect those costs:
  - Actual investment earnings
  - Future benefit levels
- Actuaries can accurately project future benefit levels
- Investment earnings are market-driven and much less predictable
  - OIC has influence via asset allocation policy and portfolio management

# The Fundamental Cost Equation

- A “current budget” emphasis can lead to an expanded equation

$$BENEFITS = EARNINGS + CONTRIBUTIONS NOW + CONTRIBUTIONS LATER$$

- Searches for savings can focus on “contributions now”, with potential solutions having differing impacts on the cost equation
- Benefit reductions lower both categories of contributions
- Deferring contributions now increases contributions later
  - The estimated annual deferral cost is the plan’s assumed earnings rate
  - \$400 million in deferred contributions now is estimated to be financially equivalent to over \$460 million in contributions made two years later

## Why Are Rate Increases So Large?

- System average base pension contribution rates are increasing 5.02% of payroll at 2013-2015
- Even with that large increase, an additional increase (2.3% of payroll) was deferred by the fair value/rate collar method
- Setting aside the effects of methods, does OPERS structurally need larger rate increases than other systems to respond to a downturn?
- Rate changes are primarily driven by investment losses but are funded as a percent of payroll on each active participant's salary
- As such, rate sensitivity can be assessed with the following measure

$$\frac{\text{Value of fair market assets}}{\text{Number of active members}}$$

## Why Are Rate Increases So Large?

- The NASRA Public Fund Survey can be used to assess how OPERS compares to the 98 other largest US state systems
  - The most recent study results (published November 2012) are below

	Oregon PERS	Survey Average
Fair market assets per active member	\$304,000	\$200,000

- These measures indicate OPERS rates are about one-and-a-half times as sensitive to investment returns as the average state system
  - For example, if actual investment returns for a year are 10% below assumption the investment loss is:
    - \$30,400 per OPERS active member
    - \$20,000 per active member of the average state system
  - Those investment losses are then translated into contribution rate increases based on the methods used by the system

## Summary – Methods & Rates

- Methods determine the timing of contributions, but long-term cost is determined by benefit provisions and the investment markets
- A fair market/rate collar approach is used to directly smooth rates
- Tier 1/Tier 2 investment losses are amortized over 20 years as a level percentage of payroll, with that pay off period selected to avoid persistent negative amortization
- The methods approved by the Board have a goal of transparency
- OPERS rates are markedly more sensitive to investment return variations than the average state system
- We will review methods in depth at the May & July meetings

# Part Two:

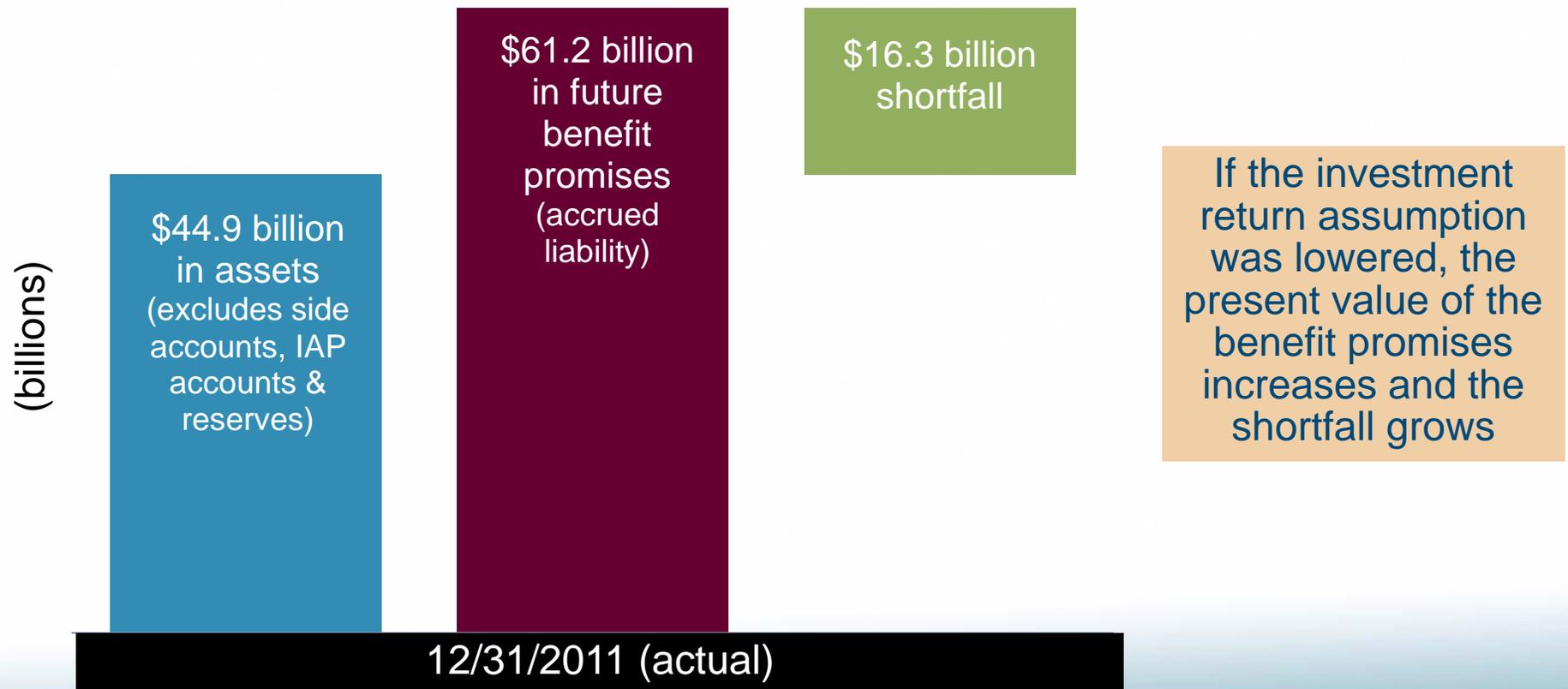
## Discussion of Shortfall Levels & 2013 Rate Increases

# Overview

- A shortfall can be defined as presently having insufficient assets on hand to fully meet a promised obligation
- The difference between the assets and the magnitude of the obligation is the shortfall
- How does a shortfall change over time?
- How will the currently scheduled July 2013 rate increases affect the shortfall?

## Shortfall Calculation and Growth

- The shortfall in our last valuation was \$16.3 billion, with the present value of future benefit promises predicated on 8% assumed future investment returns

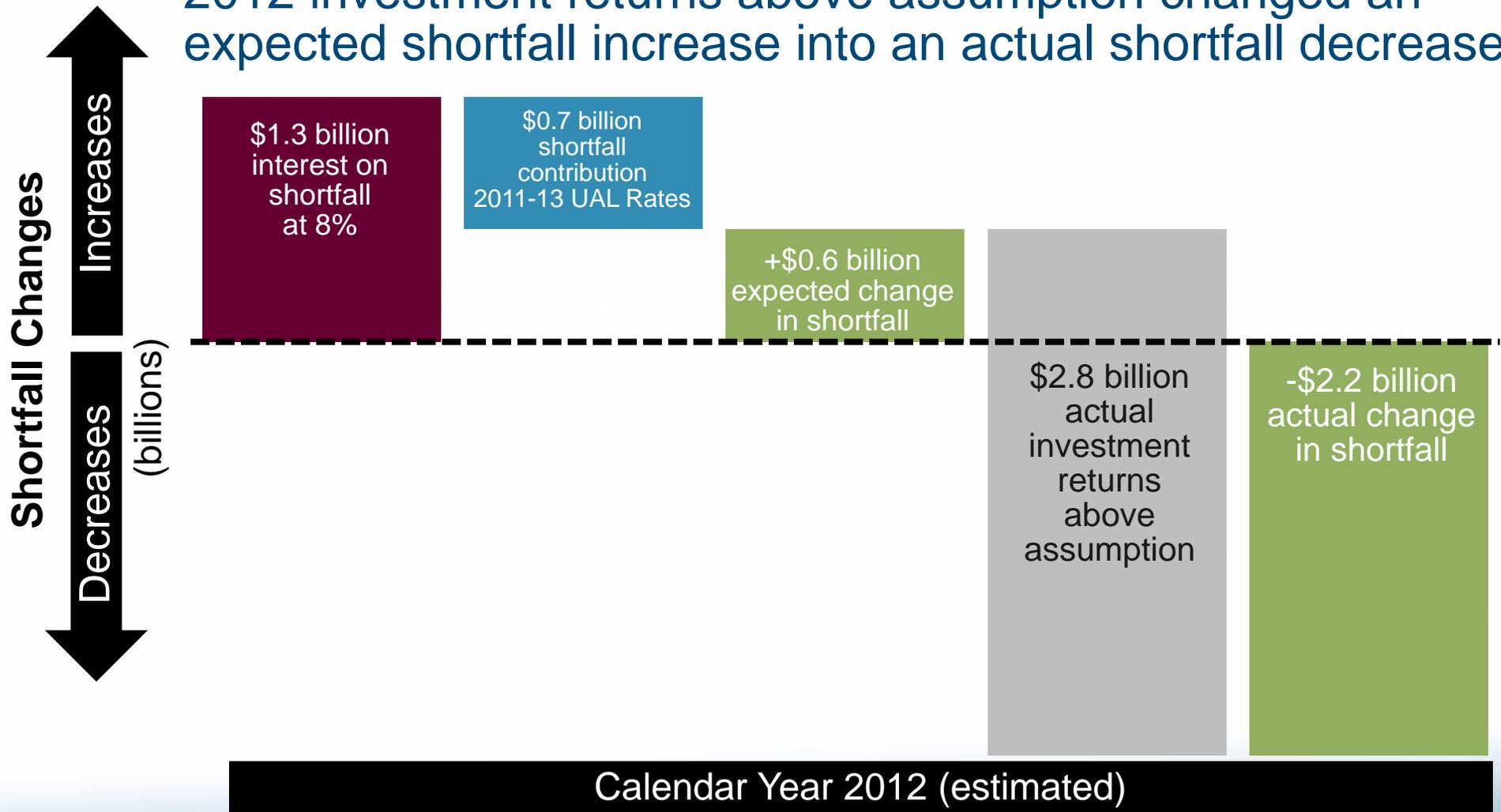


# Shortfall Calculation and Growth

- Year to year changes in shortfall can be understood through a simplified model
  - The shortfall grows with interest each year
    - The interest rate is currently 8%
  - Shortfall contributions, represented by the UAL Rate, lower shortfall
    - Employer contributions and side account transfers pay the UAL Rate
  - Shortfall is adjusted either up or down for annual deviations from the long-term investment return assumption – currently 8%
- The next slides show the estimated shortfall changes for 2012 based on both assumed and actual investment returns

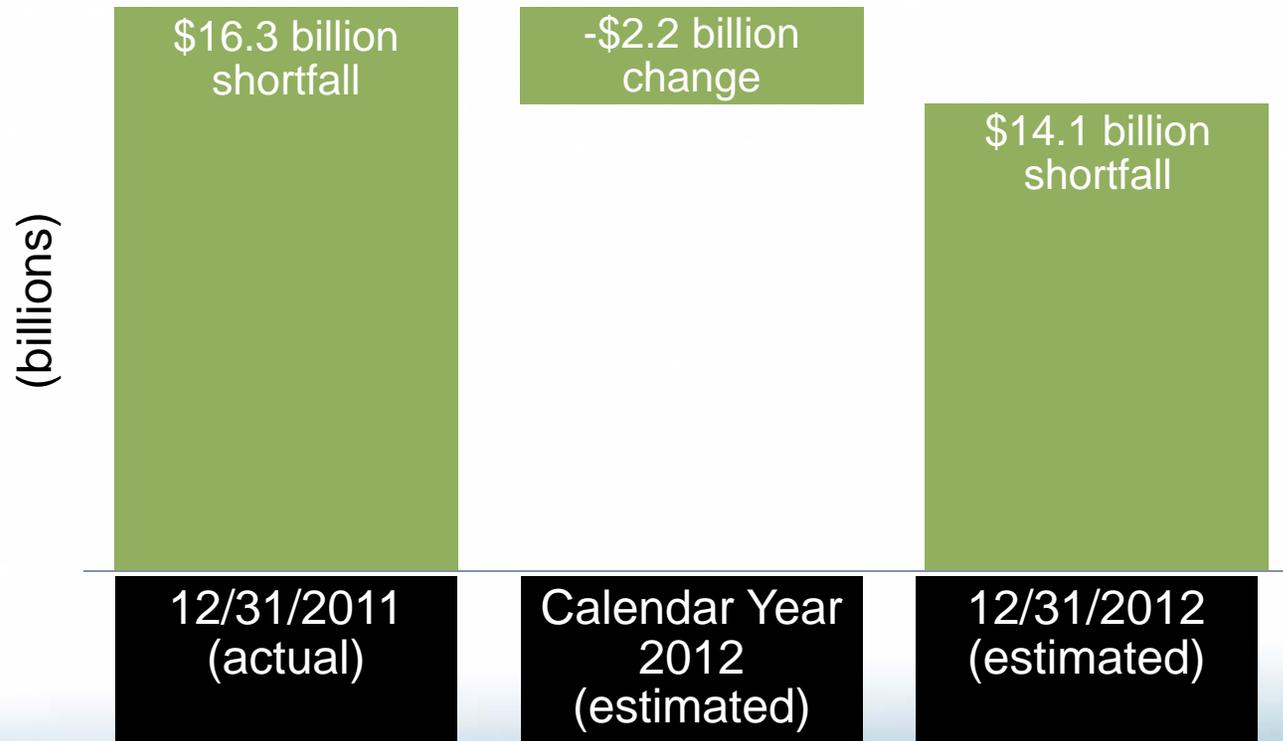
# Shortfall Calculation and Growth

2012 investment returns above assumption changed an expected shortfall increase into an actual shortfall decrease



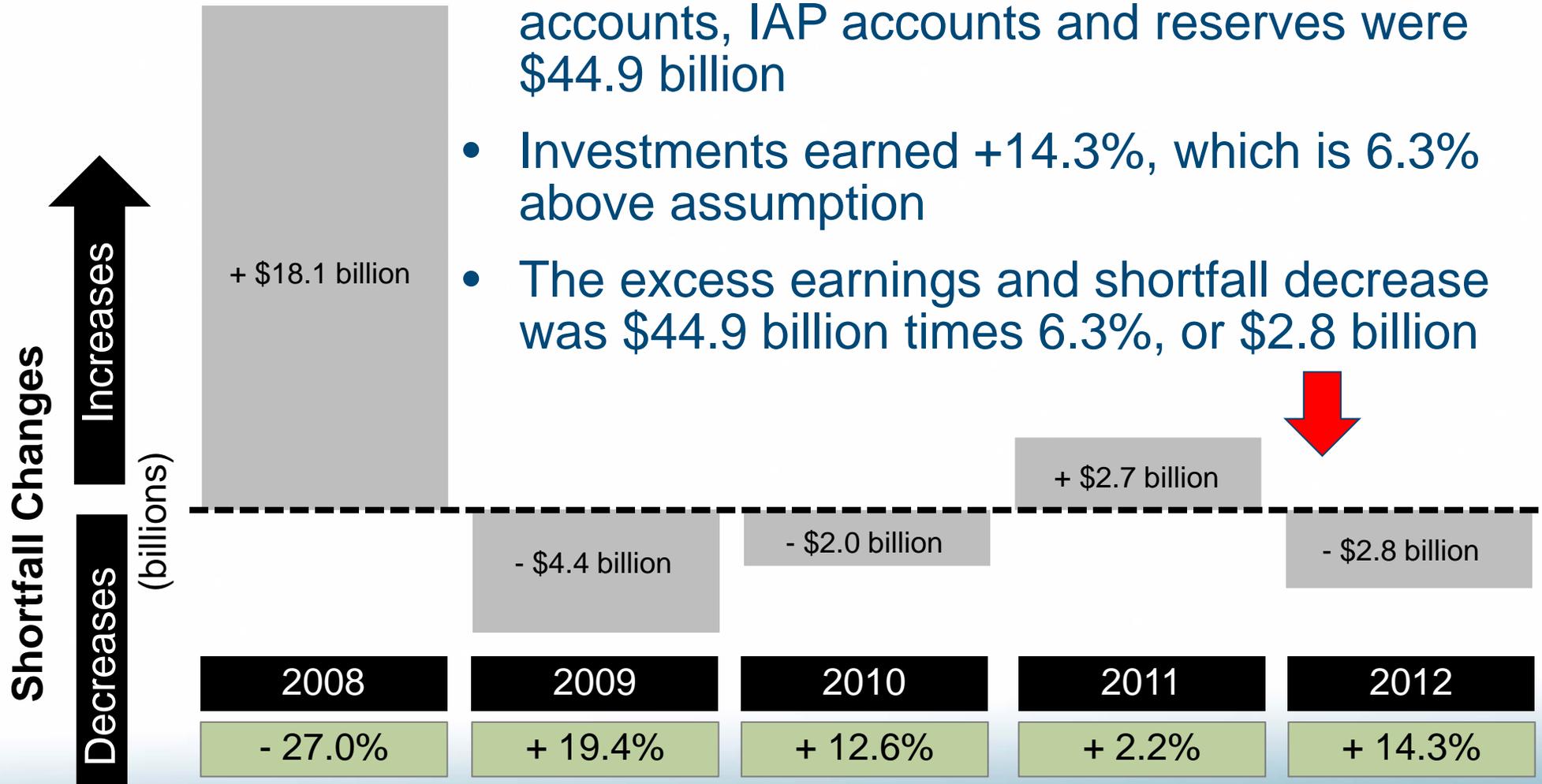
## Shortfall Calculation and Growth

- Shortfall is below all-time highs but well above pre-2008 levels
- If investments had earned exactly the assumed 8% in 2012, the shortfall would have increased
- Actual 2012 returns better than assumption lowered shortfall



# Shortfall Calculation and Growth

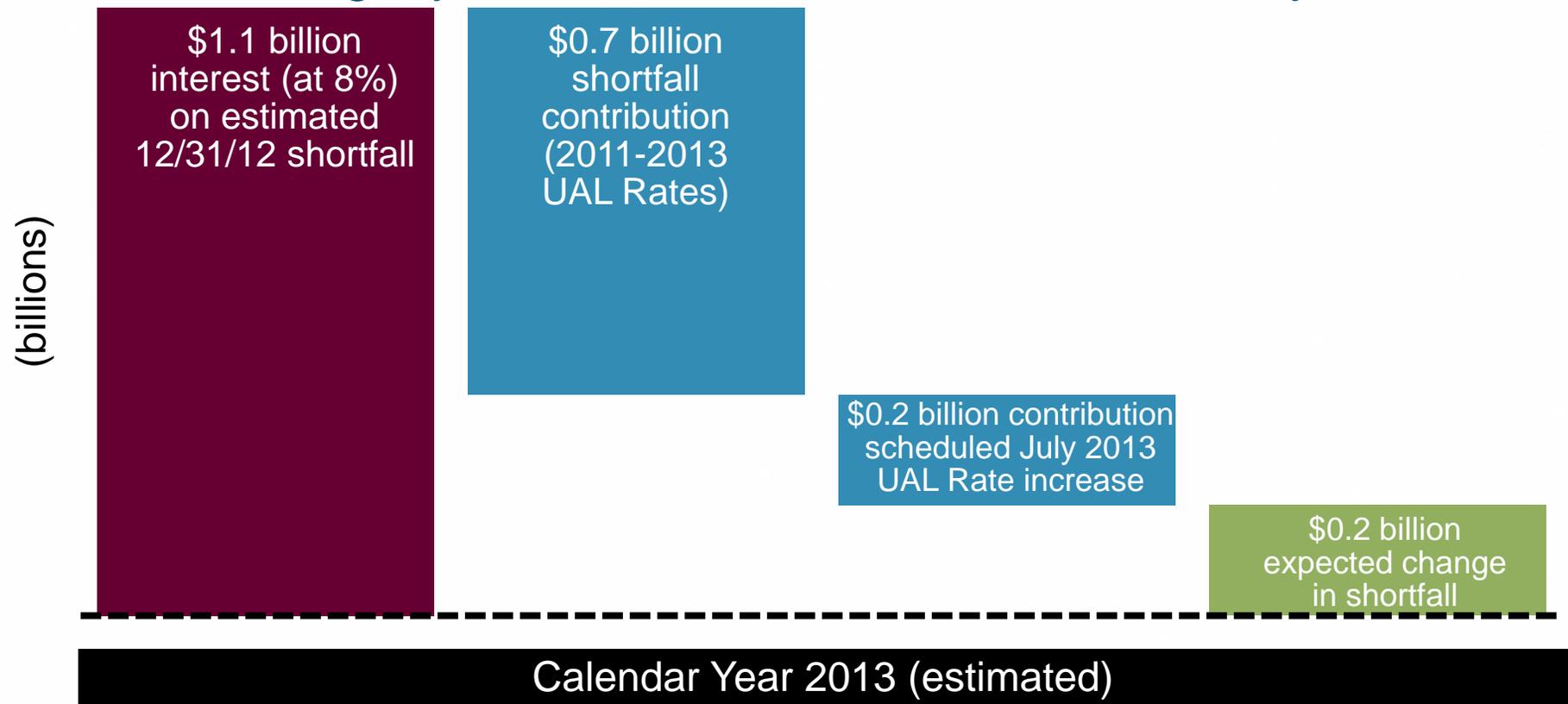
- At the start of 2012, assets excluding side accounts, IAP accounts and reserves were \$44.9 billion
- Investments earned +14.3%, which is 6.3% above assumption
- The excess earnings and shortfall decrease was \$44.9 billion times 6.3%, or \$2.8 billion



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## Shortfall Calculation and Growth

- Despite the 2012 investment returns, shortfall is expected to increase slightly in 2013 if investments earn exactly 8%

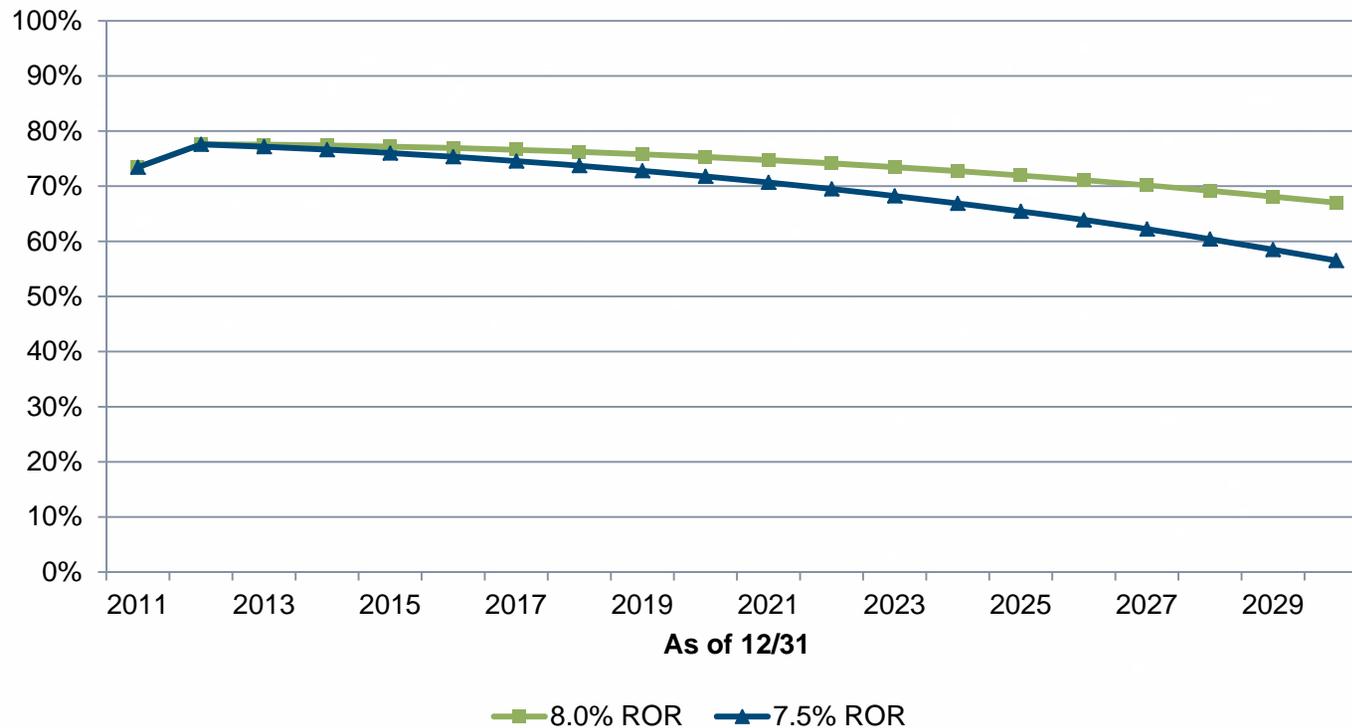


## Projected Shortfall Without Rate Increases

- The dynamic of earning 8% but still having the shortfall increase would not reverse itself without a rate increase above 2011-2013 contribution rate levels
- This is illustrated on the next slide, which shows projected funded status levels at steady annual 8% (or 7.5%) post-2012 investment returns if 2011-2013 contribution rates were used indefinitely

# Projected Shortfall Without Rate Increases

System-Wide Funded Status (excluding Side Accounts)



At 2011-2013 contribution levels, a 9.25% annual investment return would be needed to restore funded status to 100% over the projection period

- With 8% returns and 2011-2013 rates, the shortfall would increase to \$31 billion by the end of the projection period

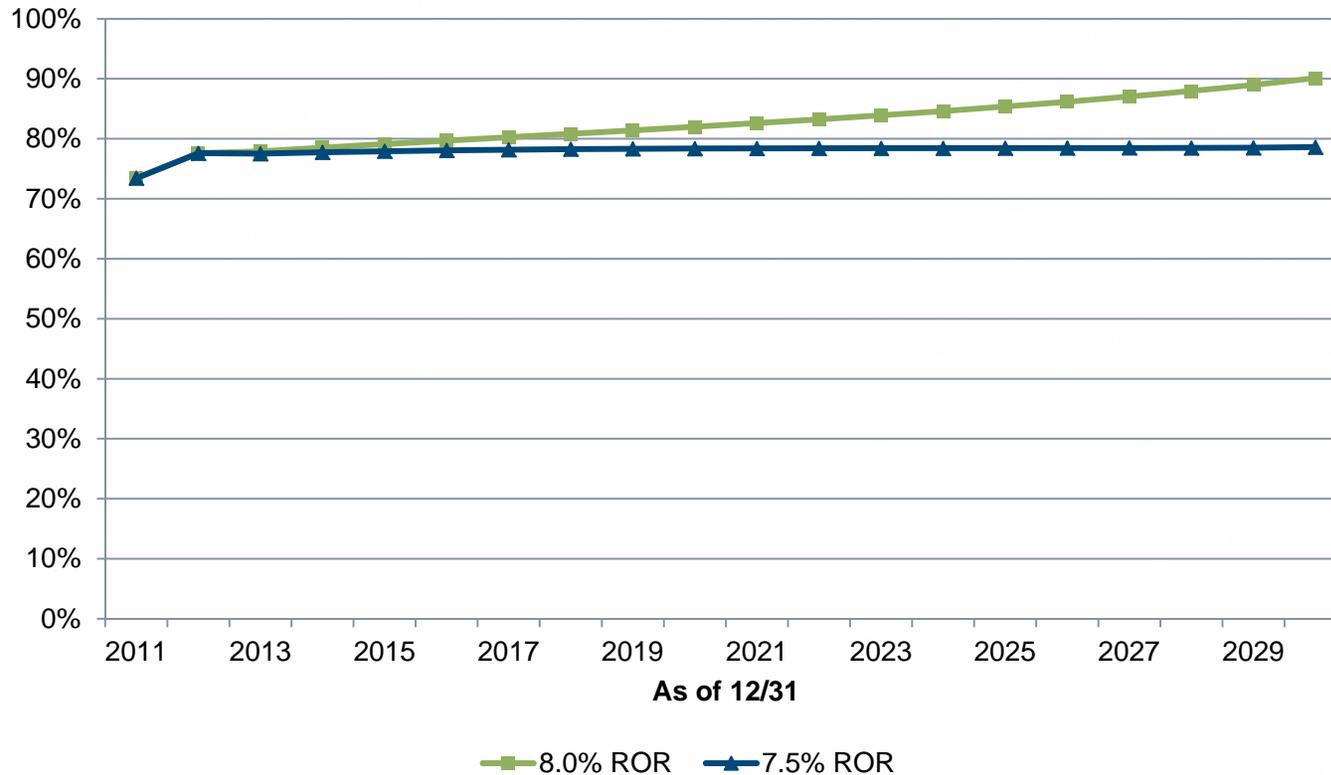
## Effect of Scheduled 2013 Rate Increases

- The currently scheduled rate increase for July 2013 is needed to reverse the dynamic of shortfall growing if investments earn 8%
- The additional \$0.5 billion contribution in 2014 means that 2014 will be the first post-downturn year where the shortfall decreases if investments return 8%\*
- Do the scheduled increases reverse the long-term trend if assumptions are met?
- The next slide projects funded status if rates are held at the currently scheduled 2013-2015 levels indefinitely

\* Assuming actual 2013 returns are near or above the 8% return assumption

# Effect of Scheduled 2013 Rate Increases

System-Wide Funded Status (excluding Side Accounts)



At currently scheduled 2013-2015 contribution levels, an 8.25% annual investment return would be needed to restore funded status to 100% over the projection period

- With 8% returns & currently scheduled 2013-2015 rates, the shortfall drops to \$9 billion by the end of the projection period

## Summary – Shortfall Levels & Rate Increases

- The shortfall has persisted since the market downturn
- The 2011 rate increase & the currently scheduled 2013 rate increase position PERS so that 2014 should be the first post-downturn year where the shortfall decreases if investment returns meet assumption
  - Taking six-plus years after a major downturn to “reverse the shortfall math” is consistent with the rate movements that would be observed with the more traditional indirect rate smoothing methods
- Without the scheduled 2013 rate increase, the shortfall would increase in magnitude if the assets returned exactly 8% annually
- The scheduled 2013 rate increase reverses that dynamic, and causes the program funded status to improve if 8% returns occur

# Part Three:

# Stochastic Financial Projections

# Overview

- When it comes to investment returns, the only thing that can be predicted with certainty is future unpredictability
- As such, we have developed financial projections to illustrate the effect of varying future investment performance
- In the prior section, we showed a “static” model with consistent annual investment returns
- This section has a more dynamic “stochastic” model that allows investment returns to vary from year to year
  - These projections, while complex, illustrate the potential effects of significant investment return volatility in the near and long-term

# Models and Inputs

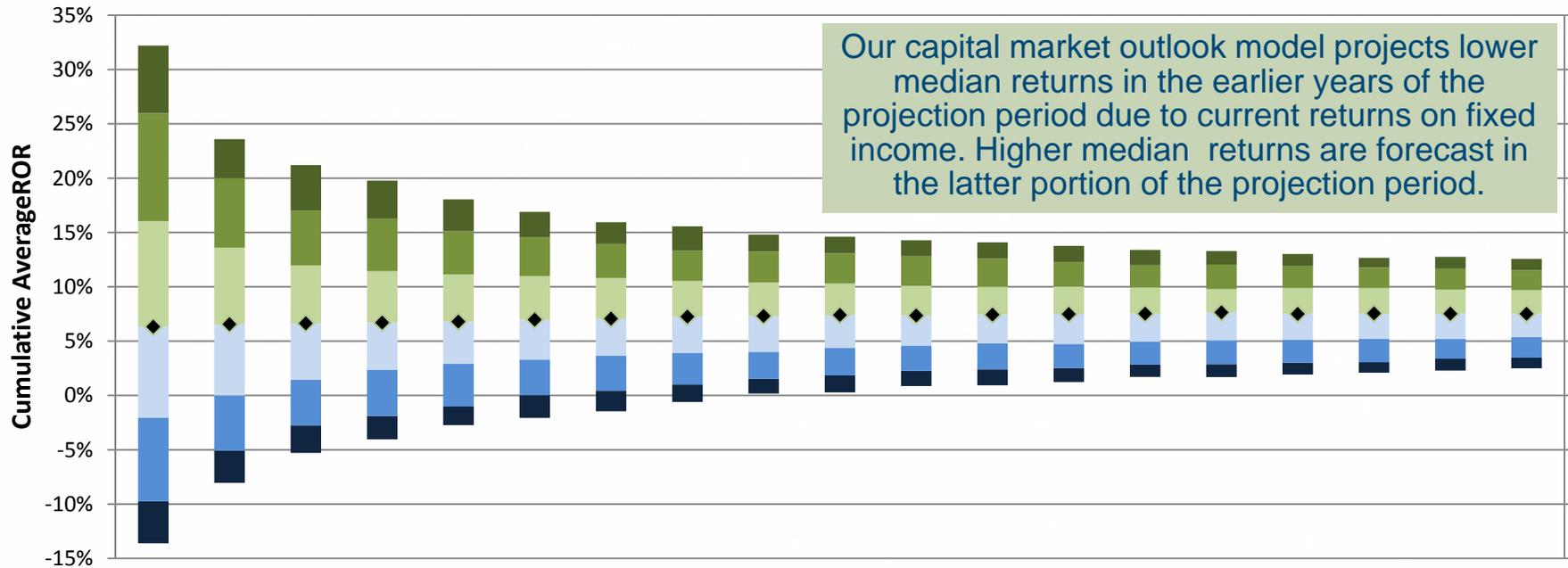
- Basis for modeling is most recent available year-end assets and liability information
  - 12/31/2011 liabilities and assumptions
    - Modeling assumes 8% annual investment return assumption remains in place for duration of modeling period
  - 12/31/2012 assets based on preliminary Board crediting decisions
    - Reflects 14.3% return during 2012
  - Current investment policy selected by the OIC
- We used a stochastic model to develop future results as a probability distribution, rather than a single amount
  - The distribution is based on a stochastic simulation using 1,000 trials
  - Economic scenarios were developed by our national team that specializes in capital market models, and uses the current OPERF asset allocation policy

# Interpreting Results

- In our distribution charts, the dots represent median outcomes
- We graphically display results from the 5<sup>th</sup> to 95<sup>th</sup> percentiles
  - Ten percent of model outcomes fall outside of the depicted range
- The chart format is demonstrated on the next slide for the actual investment return experienced by the fund

# PERS Fund Rate of Return

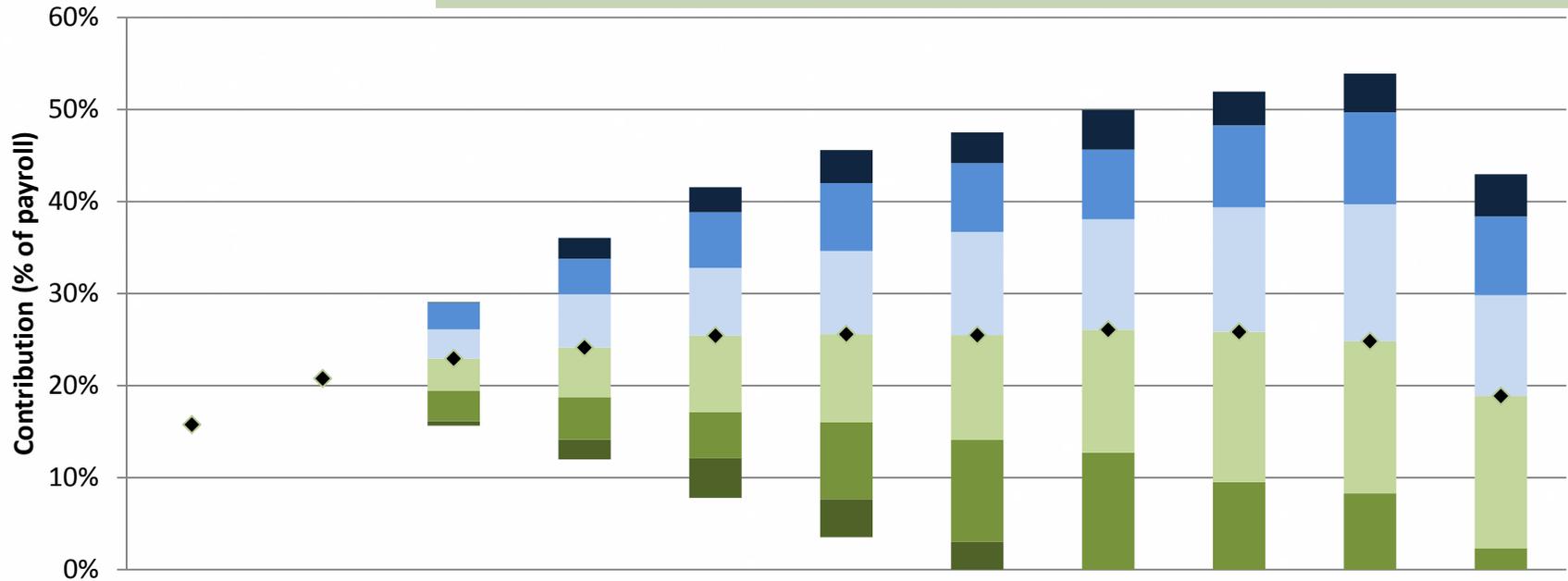
## Annualized Average Post-2012 Investment Return (Geometric Average)



PY Ending 12/31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
95th	32.2%	23.6%	21.2%	19.8%	18.1%	16.9%	16.0%	15.6%	14.8%	14.6%	14.3%	14.1%	13.8%	13.4%	13.3%	13.0%	12.7%	12.8%	12.6%
90th	26.0%	20.0%	17.0%	16.2%	15.1%	14.6%	13.9%	13.3%	13.3%	13.1%	12.8%	12.6%	12.3%	12.0%	12.1%	11.9%	11.8%	11.7%	11.5%
75th	16.0%	13.6%	12.0%	11.4%	11.2%	11.0%	10.8%	10.5%	10.4%	10.3%	10.1%	10.0%	10.0%	9.9%	9.8%	9.9%	9.9%	9.7%	9.7%
50th	6.3%	6.6%	6.6%	6.7%	6.8%	7.0%	7.1%	7.3%	7.3%	7.4%	7.4%	7.4%	7.5%	7.5%	7.6%	7.5%	7.6%	7.5%	7.5%
25th	-2.0%	0.0%	1.5%	2.4%	2.9%	3.3%	3.7%	3.9%	4.0%	4.4%	4.6%	4.8%	4.8%	4.9%	5.1%	5.1%	5.2%	5.2%	5.4%
10th	-9.7%	-5.1%	-2.7%	-1.9%	-1.0%	0.0%	0.4%	1.0%	1.5%	1.8%	2.3%	2.4%	2.5%	2.8%	2.9%	3.0%	3.1%	3.4%	3.5%
5th	-13.6%	-8.1%	-5.3%	-4.0%	-2.7%	-2.1%	-1.5%	-0.6%	0.2%	0.3%	0.9%	0.9%	1.2%	1.7%	1.7%	1.9%	2.1%	2.3%	2.5%

# Base Contribution Rates

“Base” rates are system-wide average Tier 1/Tier 2/OPSRP contribution rates excluding IAP contributions, the effect of side accounts & pension bond debt service, and contributions to the retiree healthcare programs

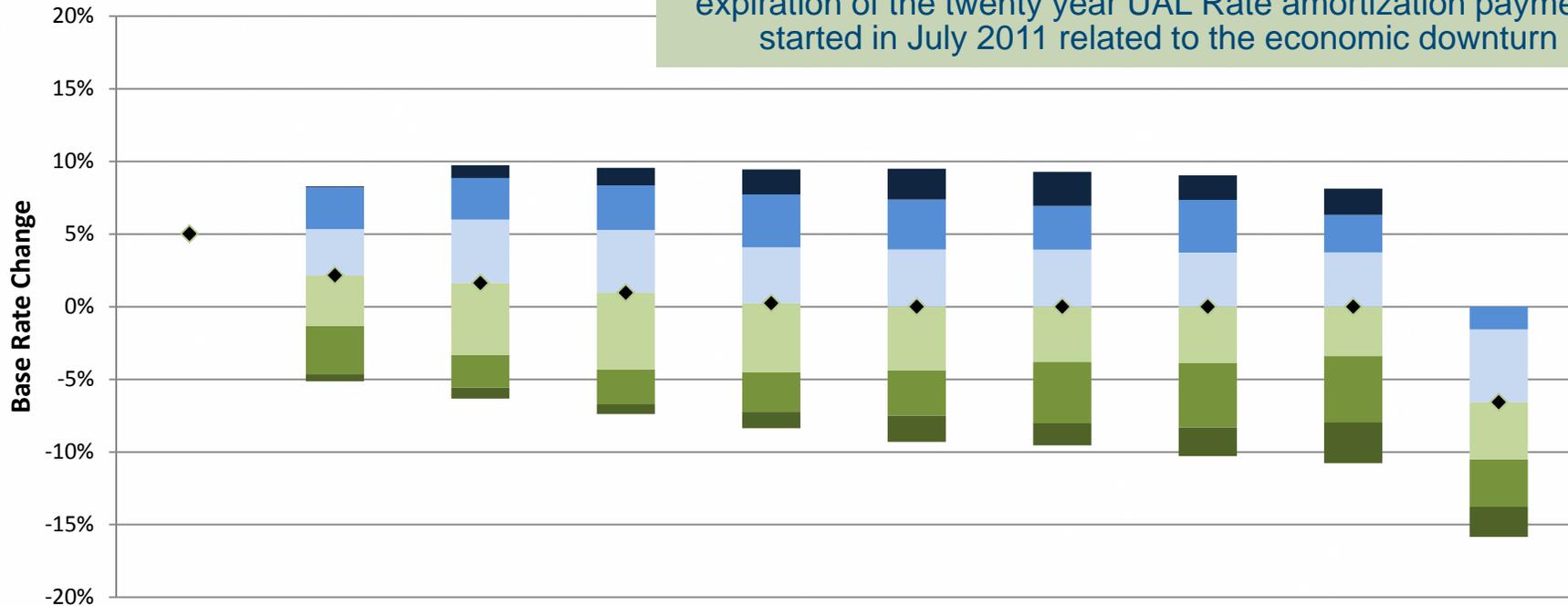


Biennium	2011-2013	2013-2015	2015-2017	2017-2019	2019-2021	2021-2023	2023-2025	2025-2027	2027-2029	2029-2031	2031-2033
5th	15.8%	20.8%	29.1%	36.1%	41.6%	45.6%	47.5%	50.0%	52.0%	53.9%	43.0%
10th	15.8%	20.8%	29.0%	33.8%	38.8%	42.0%	44.2%	45.7%	48.3%	49.7%	38.4%
25th	15.8%	20.8%	26.1%	29.9%	32.8%	34.6%	36.7%	38.1%	39.4%	39.7%	29.8%
50th	15.8%	20.8%	22.9%	24.1%	25.4%	25.6%	25.5%	26.1%	25.8%	24.8%	18.9%
75th	15.8%	20.8%	19.5%	18.8%	17.1%	16.0%	14.1%	12.7%	9.5%	8.3%	2.3%
90th	15.8%	20.8%	16.1%	14.1%	12.1%	7.6%	3.0%	0.0%	0.0%	0.0%	0.0%
95th	15.8%	20.8%	15.6%	12.0%	7.8%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%

# Biennium to Biennium Change

## Base Contribution Rates

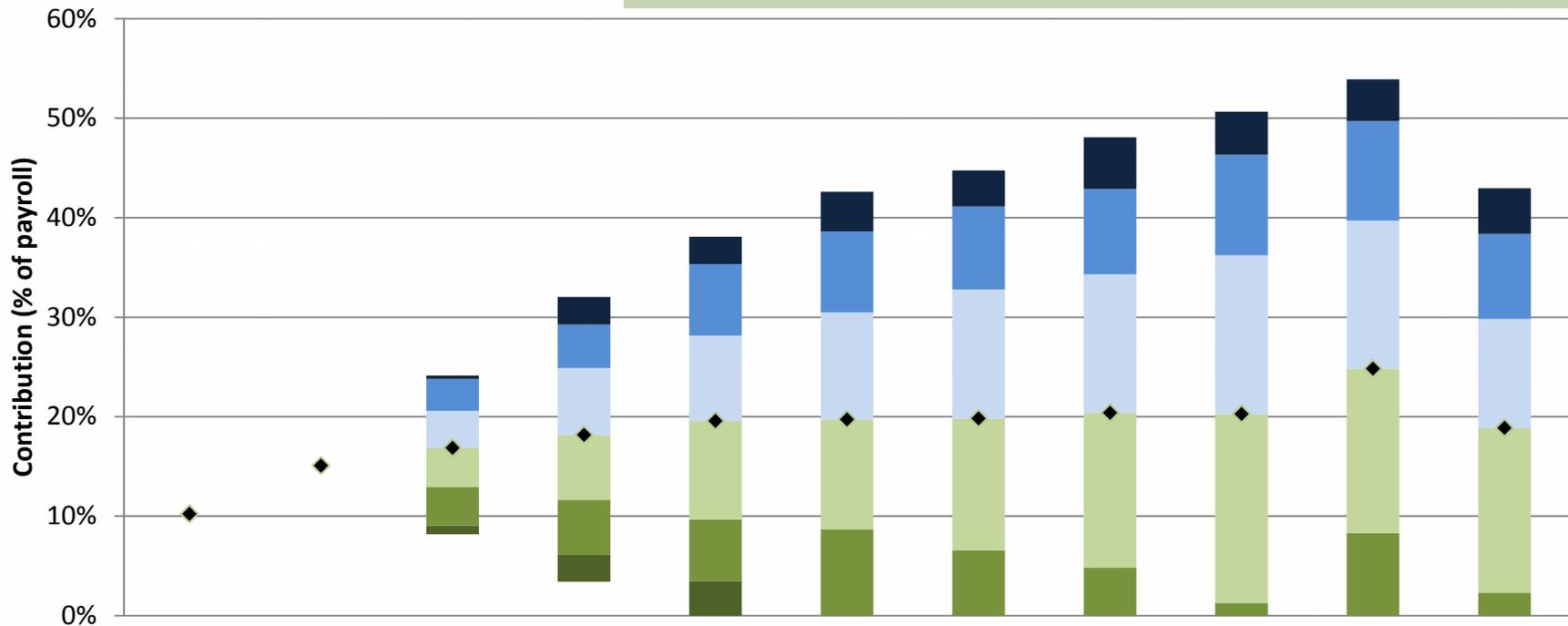
Rates are forecast to decrease at 2031-2033 due to the expiration of the twenty year UAL Rate amortization payments started in July 2011 related to the economic downturn



Change from:	2011-2013 to 2013-2015	2013-2015 to 2015-2017	2015-2017 to 2017-2019	2017-2019 to 2019-2021	2019-2021 to 2021-2023	2021-2023 to 2023-2025	2023-2025 to 2025-2027	2025-2027 to 2027-2029	2027-2029 to 2029-2031	2029-2031 to 2031-2033
5th	5.0%	8.3%	9.7%	9.6%	9.4%	9.5%	9.3%	9.0%	8.1%	0.0%
10th	5.0%	8.2%	8.9%	8.3%	7.7%	7.4%	6.9%	7.4%	6.3%	0.0%
25th	5.0%	5.3%	6.0%	5.3%	4.1%	3.9%	3.9%	3.7%	3.7%	-1.6%
50th	5.0%	2.2%	1.6%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	-6.6%
75th	5.0%	-1.3%	-3.3%	-4.3%	-4.5%	-4.4%	-3.8%	-3.9%	-3.4%	-10.5%
90th	5.0%	-4.7%	-5.6%	-6.7%	-7.2%	-7.5%	-8.0%	-8.3%	-8.0%	-13.8%
95th	5.0%	-5.1%	-6.3%	-7.4%	-8.4%	-9.3%	-9.5%	-10.3%	-10.8%	-15.8%

# Net Contribution Rates

“Net” rates are base rates adjusted to reflect the projected effect of side account rate offsets and other pre-SLGRP rate offsets

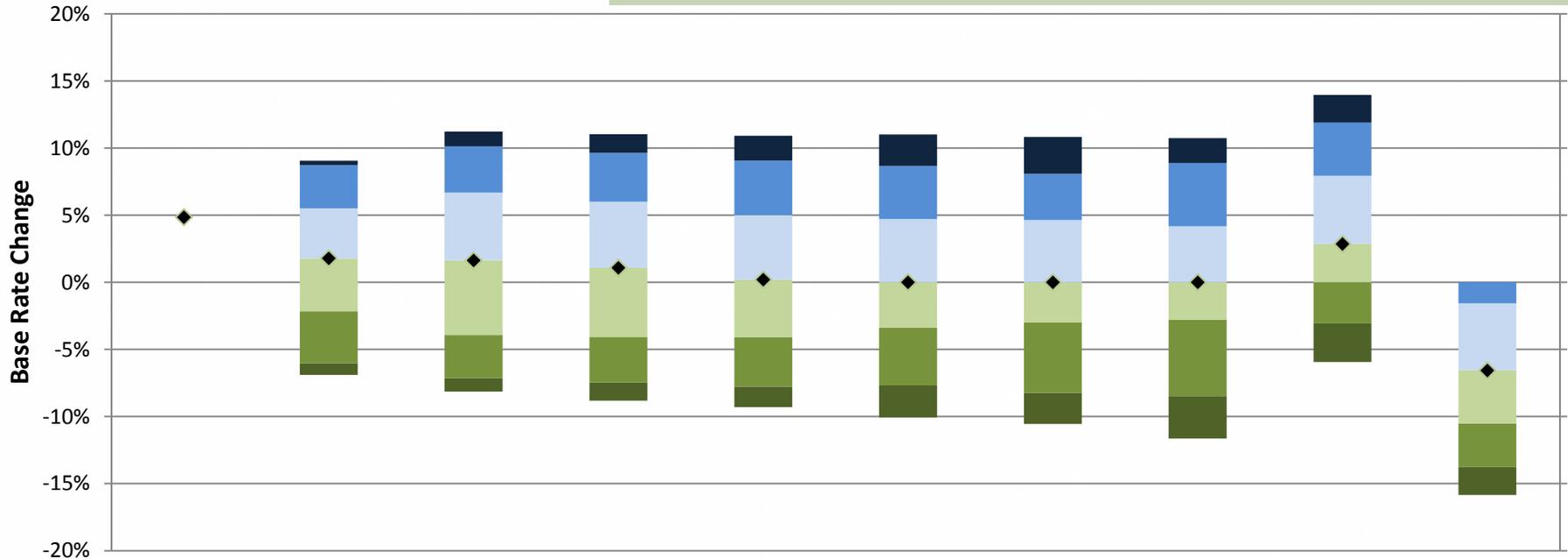


Biennium	2011-2013	2013-2015	2015-2017	2017-2019	2019-2021	2021-2023	2023-2025	2025-2027	2027-2029	2029-2031	2031-2033
5th	10.2%	15.1%	24.1%	32.0%	38.1%	42.6%	44.8%	48.1%	50.7%	53.9%	43.0%
10th	10.2%	15.1%	23.8%	29.3%	35.3%	38.6%	41.1%	42.9%	46.3%	49.7%	38.4%
25th	10.2%	15.1%	20.6%	24.9%	28.2%	30.5%	32.8%	34.3%	36.2%	39.7%	29.8%
50th	10.2%	15.1%	16.9%	18.2%	19.6%	19.7%	19.8%	20.4%	20.3%	24.8%	18.9%
75th	10.2%	15.1%	12.9%	11.6%	9.7%	8.7%	6.6%	4.8%	1.2%	8.3%	2.3%
90th	10.2%	15.1%	9.1%	6.1%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
95th	10.2%	15.1%	8.2%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

# Biennium to Biennium Change

## Net Contribution Rates

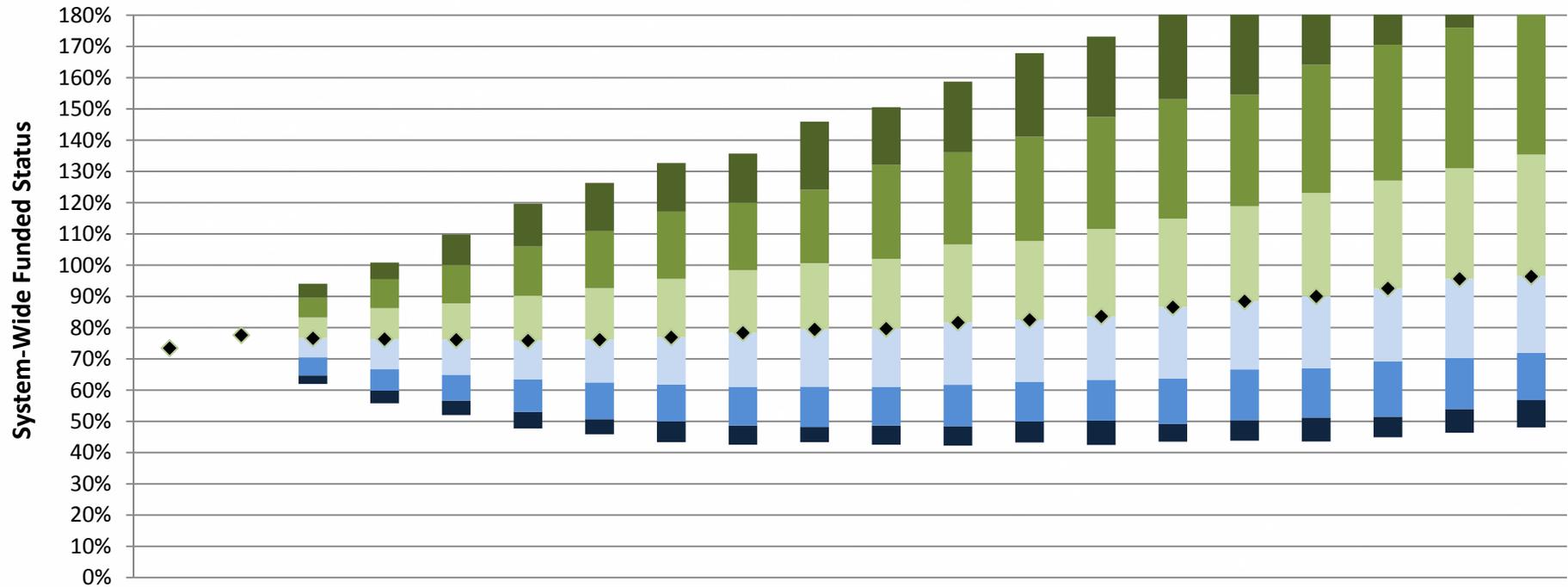
The increase at 2029-2031 is related to the expiration of most side account and pre-SLGRP rate offsets prior to the expiration of the 20 year shortfall amortization charge started in 2011-2013



Change from:	2011-2013 to 2013-2015	2013-2015 to 2015-2017	2015-2017 to 2017-2019	2017-2019 to 2019-2021	2019-2021 to 2021-2023	2021-2023 to 2023-2025	2023-2025 to 2025-2027	2025-2027 to 2027-2029	2027-2029 to 2029-2031	2029-2031 to 2031-2033
5th	4.8%	9.1%	11.2%	11.0%	10.9%	11.0%	10.8%	10.7%	14.0%	0.0%
10th	4.8%	8.7%	10.1%	9.6%	9.1%	8.7%	8.1%	8.9%	11.9%	0.0%
25th	4.8%	5.5%	6.7%	6.0%	5.0%	4.7%	4.6%	4.2%	7.9%	-1.6%
50th	4.8%	1.8%	1.6%	1.1%	0.2%	0.0%	0.0%	0.0%	2.9%	-6.6%
75th	4.8%	-2.2%	-3.9%	-4.1%	-4.1%	-3.4%	-3.0%	-2.8%	0.0%	-10.5%
90th	4.8%	-6.0%	-7.1%	-7.5%	-7.8%	-7.7%	-8.2%	-8.5%	-3.1%	-13.8%
95th	4.8%	-6.9%	-8.1%	-8.8%	-9.3%	-10.1%	-10.6%	-11.6%	-5.9%	-15.8%

# Funded Status (without side accounts)

At the 50<sup>th</sup> percentile, funded status progresses toward 100% over the modeled period



PY Ending 12/31	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
95th	73.4%	77.6%	94.0%	100.8%	109.8%	119.7%	126.3%	132.7%	135.7%	145.9%	150.5%	158.7%	167.9%	173.2%	180.7%	185.2%	198.0%	203.2%	210.4%	220.2%
90th	73.4%	77.6%	89.5%	95.5%	100.1%	106.0%	110.9%	117.2%	120.0%	124.1%	132.2%	136.1%	141.1%	147.4%	153.1%	154.5%	164.1%	170.6%	176.0%	183.7%
75th	73.4%	77.6%	83.3%	86.2%	87.8%	90.2%	92.6%	95.6%	98.4%	100.6%	102.0%	106.6%	107.7%	111.6%	114.9%	118.9%	123.1%	127.1%	131.0%	135.4%
50th	73.4%	77.6%	76.6%	76.3%	76.1%	75.8%	76.2%	76.9%	78.3%	79.5%	79.6%	81.6%	82.5%	83.6%	86.6%	88.4%	90.0%	92.5%	95.6%	96.4%
25th	73.4%	77.6%	70.5%	66.7%	64.9%	63.5%	62.5%	61.8%	61.0%	61.1%	61.0%	61.7%	62.7%	63.3%	63.7%	66.6%	67.0%	69.2%	70.3%	71.9%
10th	73.4%	77.6%	64.7%	59.8%	56.6%	53.0%	50.7%	50.0%	48.7%	48.3%	48.7%	48.5%	49.9%	50.3%	49.2%	50.4%	51.2%	51.5%	54.0%	56.8%
5th	73.4%	77.6%	61.9%	55.8%	52.0%	47.7%	45.9%	43.3%	42.5%	43.3%	42.5%	42.2%	43.2%	42.5%	43.5%	43.8%	43.5%	44.9%	46.4%	48.0%

## Wrap Up / What's Next?

- If actual 2013 investment returns are near assumption and valuation assumptions (e.g., 8% investment return) are held constant, contribution rates will increase again in 2015-2017
- Base rates in projected median scenarios are in the 24% to 26% range for an extended period of time
- The currently scheduled 2013 rate increase positions PERS to return to 100% funded status if investments earn 8% per year
- OPERS contribution rates are more sensitive to investment returns (either good or bad) than peer US state systems
- We will have additional discussion of methods and economic assumptions at the May meeting

# Certification

This presentation summarizes deterministic and stochastic modeling of the Oregon Public Employees Retirement System (“PERS” or “the System”) over a 20-year period beginning December 31, 2011. For complete actuarial valuation results, including cautions regarding the limitations of use of valuation calculations, please refer to our formal Actuarial Valuation Report as of December 31, 2011 (“the Valuation Report”) published on October 26, 2012. The Valuation Report, including all supporting information regarding data, assumptions, methods, and provisions, is incorporated by reference into this presentation.

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.

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.

A valuation report is only an estimate of the Fund’s financial condition as of a single date. It can neither predict the Fund’s future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Fund benefits, only the timing of Fund contributions or cost recognition. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements summarized in this presentation 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. The PERS Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in July 2011. This presentation contains only a limited analysis of the range of potential future measurements due to variation in investment returns.

# Certification

Actuarial computations presented in this report are based on the current methodology adopted by the PERS Board for determining the recommended funding amounts for the System. 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 other purposes may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the Oregon Public Employees Retirement System. 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):

- (a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

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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.

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.

## Circular 230 Notice

The following disclosure is provided in accordance with the Internal Revenue Service's Circular 230 (21 CFR Part 10). This communication is not intended to constitute tax advice to any specific taxpayer or for any specific situation. Any tax advice contained in this communication is intended to be preliminary, for discussion purposes only, and not final. Any such advice is not intended to be used for marketing, promoting or recommending any transaction or for the use of any person in connection with the preparation of any tax return. Accordingly, this advice is not intended or written to be used, and it cannot be used, by any person for the purpose of avoiding tax penalties that may be imposed on such person.

# Appendix

## Actuarial Basis

### Data

We have based our projection of system liabilities on the data supplied by the Oregon Public Employees Retirement System (PERS) and summarized in the December 31, 2011 Actuarial Valuation (“2011 Valuation Report”) for Oregon PERS.

Assets as of December 31, 2011, were based on values provided by Oregon PERS as shown in the 2011 Valuation Report. Calendar year 2012 asset returns were assumed to be equal to the one-year returns published by the Oregon Investment Council as of December 31, 2012. For regular accounts, this was equal to a 14.29% return; for variable accounts, it is equal to a 16.98% return.

We have assumed that the active participant data reflected in the valuation of the Plan remains stable over the projection period (i.e. participants leaving employment are replaced by new hires in such a way that the total counts remain stable from year to year). No new members are assumed to be eligible for Tier 1 and Tier 2 benefits; all new entrants are assumed to become members under the OPSRP benefit formula.

### Methods / Policies

*Actuarial Cost Method:* Projected Unit Credit, as described in the 2011 Valuation Report.

*Normal cost:* Normal cost increases with assumed wage growth adjusted for wage, demographic, and asset return experience (if applicable). Demographic experience follow assumptions described in the 2011 Valuation Report.

*Accrued liability:* Liabilities increase with normal cost and decrease with benefit payments. Results are adjusted for wage, demographic, and asset return experience (if applicable). Demographic experience follow assumptions described in the 2011 Valuation Report.

*Contribution Rates:* The projected contribution rates are calculated on each odd year valuation date in accordance with methodologies described in the 2011 Valuation Report. Rates are applied 18 months after the valuation date.

# Appendix

## Actuarial Basis

### Methods / Policies (cont'd)

*UAL Amortization:* The UAL for Tier 1/Tier 2, OPSRP, and Retiree Health Care as of December 31, 2007 are amortized as a level percentage of combined valuation payroll over a closed period. For the Tier 1/Tier 2 UAL, this period is 20 years; for OPSRP, it is 16 years; for Retiree Health Care, it is 10 years. 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:* For valuation purposes, 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 70% or increases above 130%, the size of the collar doubles. If the funded percentage excluding side accounts is between 70% and 80% or between 120% and 130%, the size of the rate collar is increased on a graded scale.

For system-wide contribution rate projections, the entire Tier 1/Tier 2 program was treated as a single rate pool.

*Expenses:* OPSRP administration expenses are assumed to be equal to \$6.6M and are added to the OPSRP normal cost.

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

# Appendix

## Actuarial Basis

### Assumptions

In general, all assumptions are as described in the 2011 Valuation Report.

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

- Valuation interest rate – 8.00%
- Tier 1 Regular account growth – 8.00%
- Actual fund investment return– Varies by scenario according to capital market assumptions
- Variable account growth – 0.25% greater than fund investment return
- Inflation assumption – 2.75%
- Inflation experience – Varies by scenario according to capital market assumptions
- Wage growth assumption – 3.75%
- Wage growth experience– 1.00% greater than inflation experience
- Demographic experience – as described in 2011 Valuation report

# Appendix

## Actuarial Basis

### Reserve Projection

Contingency Reserve as of 12/31/2012 was assumed to be \$603.7M, based on the PERS Board's preliminary 2012 crediting decisions. No future increases or decreases to this reserve were assumed.

The Tier 1 Rate Guarantee Reserve ("RGR") was assumed to be -\$19.8M (i.e., in deficit status) as of 12/31/2012, based on the PERS Board's preliminary 2012 crediting decisions. The reserve was assumed to grow with returns in excess of 8% on Tier 1 Member Accounts. When aggregate returns were below 8%, applicable amounts from the RGR were transferred to Tier 1 Member Accounts to maintain the 8% target growth on the member accounts. The RGR reserve is allowed to be negative, but the reserve is not excluded from valuation assets when it is negative. We did not include in rates any potential additional employer levy that could be required to eliminate a persistent negative RGR.

### Provisions

Provisions valued are as described in the 2011 Valuation Report.

# Appendix

## Actuarial Basis

### Capital Market Model

For each 20-year projection, we ran 1,000 stochastic scenarios for inflation and asset class rates of return. The scenarios were calibrated to represent Milliman's capital market assumptions in terms of expected average returns, the expected year-to-year volatility of the returns, and the expected correlation between the returns of different asset classes. Annual rates of return for each of the asset classes and inflation are generated from a multivariate lognormal probability distribution. Rates of return are independent from year to year.

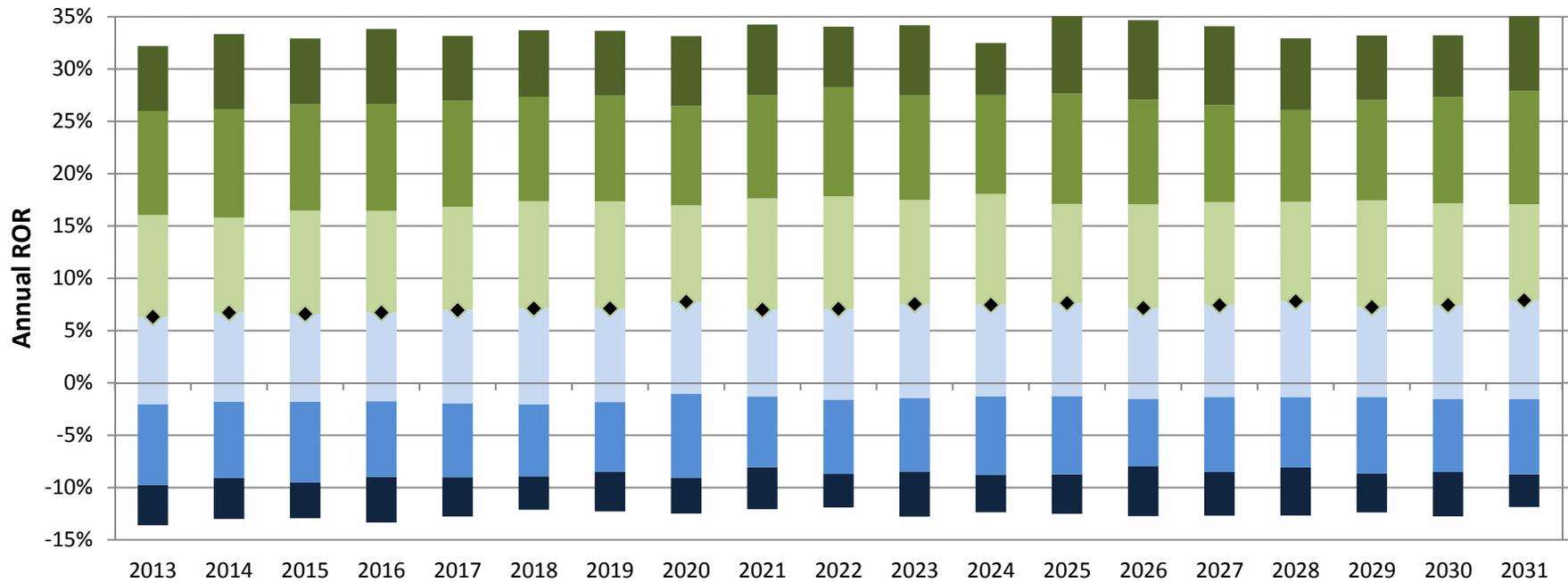
For this purpose, we considered the Oregon PERS Fund to be allocated among the model's asset classes as shown below. This allocation is based on the Oregon Investment Council's Statement of Investment Objectives and Policy Framework for the Oregon PERS Fund, as revised December 18, 2012.

	Annual Arithmetic Mean	30-Year Annualized Geometric Mean	Annual Standard Deviation	Policy Allocation
US Large/Mid-Cap Equity	8.75%	7.25%	18.45%	17.81%
US Small-Cap Equity	9.70%	7.35%	23.45%	2.61%
Non-US Developed Large/Mid-Cap Equity	9.00%	7.10%	21.30%	15.20%
Non-US Developed Small-Cap Equity	9.80%	7.70%	22.15%	2.17%
Emerging Markets Equity	11.25%	7.50%	30.10%	5.21%
Private Equity	11.70%	8.00%	30.00%	16.00%
US Universal Fixed Income	5.00%	4.90%	4.10%	15.25%
Emerging Market Bonds	7.30%	6.25%	15.25%	2.50%
Leveraged Loans	6.90%	6.40%	10.20%	5.00%
High Yield	7.80%	7.25%	11.05%	2.50%
Real Estate	7.10%	6.50%	12.00%	10.30%
Global REITs	8.90%	6.60%	23.15%	2.20%
Natural Resources	6.55%	6.25%	8.30%	2.25%
Hedge Funds	6.50%	6.25%	7.35%	1.00%
US Inflation (CPI-U)	2.75%	2.75%	1.70%	N/A
<b>Fund Total (reflecting asset class correlations)</b>	<b>8.45%</b>	<b>7.60%</b>	<b>14.25%</b>	<b>100.00%</b>

This work product was prepared for discussion purposes only and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Any recipient of this work product who desires professional guidance should engage qualified professionals for advice appropriate to its own specific needs.

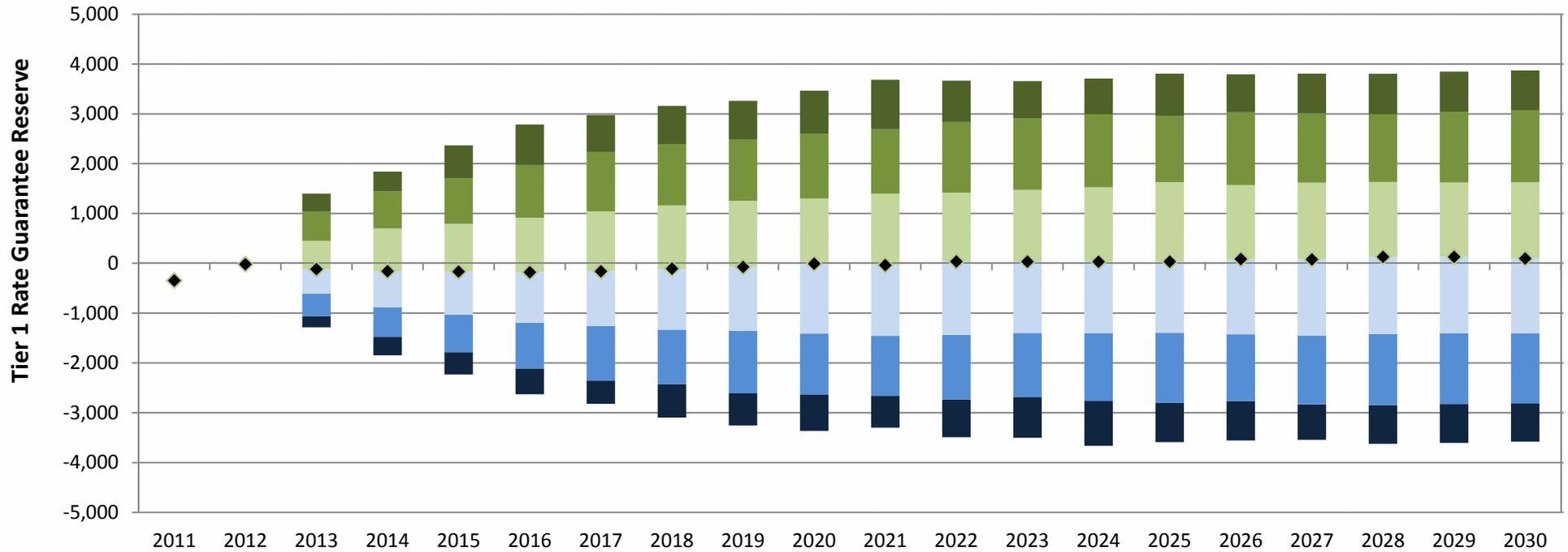
# PERS Fund Rate of Return

## Annual Investment Return



PY Ending 12/31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
95th	32.2%	33.3%	32.9%	33.8%	33.2%	33.7%	33.7%	33.2%	34.2%	34.0%	34.2%	32.5%	35.2%	34.7%	34.1%	32.9%	33.2%	33.2%	36.1%
90th	26.0%	26.2%	26.6%	26.7%	27.0%	27.4%	27.5%	26.5%	27.5%	28.3%	27.5%	27.5%	27.7%	27.1%	26.5%	26.1%	27.0%	27.3%	27.9%
75th	16.0%	15.8%	16.5%	16.4%	16.8%	17.4%	17.3%	17.0%	17.6%	17.8%	17.5%	18.1%	17.1%	17.1%	17.3%	17.3%	17.4%	17.2%	17.1%
50th	6.3%	6.7%	6.6%	6.7%	7.0%	7.1%	7.1%	7.8%	7.0%	7.1%	7.5%	7.5%	7.6%	7.2%	7.4%	7.8%	7.2%	7.4%	7.9%
25th	-2.0%	-1.8%	-1.8%	-1.7%	-1.9%	-2.0%	-1.8%	-1.1%	-1.3%	-1.6%	-1.4%	-1.3%	-1.3%	-1.5%	-1.3%	-1.4%	-1.3%	-1.6%	-1.5%
10th	-9.7%	-9.1%	-9.5%	-9.0%	-9.0%	-8.9%	-8.5%	-9.0%	-8.1%	-8.7%	-8.5%	-8.8%	-8.7%	-7.9%	-8.5%	-8.1%	-8.7%	-8.5%	-8.7%
5th	-13.6%	-13.0%	-12.9%	-13.3%	-12.8%	-12.1%	-12.3%	-12.5%	-12.1%	-11.9%	-12.8%	-12.4%	-12.5%	-12.7%	-12.7%	-12.7%	-12.4%	-12.8%	-11.9%

# Tier 1 Rate Guarantee Reserve



PY Ending 12/31	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
95th	(345.3)	(19.8)	1,397.7	1,841.1	2,366.8	2,787.0	2,976.3	3,159.6	3,261.3	3,463.7	3,684.8	3,666.6	3,656.0	3,706.8	3,807.9	3,793.9	3,806.2	3,805.2	3,849.5	3,870.5
90th	(345.3)	(19.8)	1,033.5	1,443.6	1,705.2	1,973.7	2,232.0	2,394.6	2,480.3	2,601.2	2,689.8	2,836.3	2,909.6	2,993.4	2,960.9	3,030.7	3,012.8	2,993.5	3,039.2	3,074.2
75th	(345.3)	(19.8)	451.4	698.6	792.3	915.1	1,042.5	1,161.5	1,255.9	1,299.2	1,398.4	1,420.4	1,474.2	1,526.7	1,630.5	1,569.4	1,620.5	1,632.9	1,622.2	1,626.7
50th	(345.3)	(19.8)	(118.0)	(159.6)	(167.8)	(179.0)	(162.2)	(107.8)	(72.9)	(7.4)	(36.4)	36.8	34.2	29.6	33.6	84.7	77.8	129.1	128.4	96.5
25th	(345.3)	(19.8)	(607.1)	(881.2)	(1,034.3)	(1,194.2)	(1,259.5)	(1,332.1)	(1,357.3)	(1,409.6)	(1,455.9)	(1,435.4)	(1,395.8)	(1,399.0)	(1,395.4)	(1,424.8)	(1,449.2)	(1,418.2)	(1,402.5)	(1,406.4)
10th	(345.3)	(19.8)	(1,059.3)	(1,474.2)	(1,784.7)	(2,110.6)	(2,353.5)	(2,424.9)	(2,608.7)	(2,630.2)	(2,660.4)	(2,734.8)	(2,679.6)	(2,758.8)	(2,799.1)	(2,762.3)	(2,831.8)	(2,844.2)	(2,824.0)	(2,807.1)
5th	(345.3)	(19.8)	(1,285.3)	(1,845.2)	(2,230.5)	(2,627.2)	(2,820.3)	(3,096.9)	(3,254.0)	(3,362.9)	(3,299.6)	(3,491.9)	(3,500.3)	(3,663.4)	(3,589.2)	(3,555.0)	(3,544.0)	(3,624.5)	(3,605.5)	(3,578.7)