OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM BOARD MEETING

FRIDAY September 27, 2013 1:00 P.M.		PERS 11410 SW 68th Parkway Tigard, OR
	ITEM	**PRESENTER**
A.	**Administration**	
1.	July 26, 2013 Board Meeting Minutes Director's Report a. Forward-Looking Calendar b. OIC Investment Report c. Operating Budget Report d. PHIP Third-Party Administrator Contract e. 2013 Customer Service Survey Results f. Special Legislative Session Update	CLEARY
B.	**Administrative Rulemaking**	
1. 2. 3. 4. 5. 6.	Notice of Recovery of Overpayments Rule Notice of Tier One / Tier Two Division of Benefits Rule Notice of SB 771 Judge Member Beneficiary Rules Adoption of OPSRP Pension Benefits Rule Adoption of SB 822 Tax Remedy Rules Adoption of Assumed Rate Rule	RODEMAN
C.	**Action and Discussion Items**	
1. 2.	Adoption of Actuarial Methods and Assumptions 2012 Valuation Results	MILLIMAN
D.	**Executive Session Pursuant to ORS 192.660(2)(f), (h), and/or ORS 40.225**	
1.	Litigation Update	LEGAL COUNSEL

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OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
BOARD MEETING MINUTES

July 26, 2013
Tigard, Oregon

Board Members:	**Staff:**		
John Thomas, Chair	Donna Allen	Debra Hembree	Jason Stanley
Krystal Gema	Helen Bamford	Danielle Keyser	Marjorie Taylor
Michael Jordan	Karen Chavez	Elaine King	Nancy Van Dyke
Pat West	Paul Cleary	Kyle Knoll	Stephanie Vaughn
Rhoni Wiswall	Clint Christopher	Mini Kobbervig	Dale Wakabayashi
	David Crosley	Daniel Rivas	Yong Yang
	Brian Harrington	Steve Rodeman	

Others:

Duane Bales	Steve Elzinga	Keith Kutler	Ernie Pressman
Mary Botkin	Ursula Euler	Matt Larrabee	Steven B. Resnikoff
Nancy Brewer	Marc Feldesman	David Lacy	John D. Skjervem
Greg C.	Amy Goodall	Elizabeth McCann	Deborah Tremblay
Alison Chan	Mary Gruss	Michael McCoy	Brendan Watkins
Lance Colley	Debra Guzman	Bob Oleson	Laurie Wilson-Benoit
Jonathan Cooper	Greg Hartman	Laure Pech	Scott Winkels
Susan Cutsogeorge	Celia Heron	P. Peg	Peter Wong
Roger Dawes	Susan K. Jones	Scott Peppernau	Denise Yunker

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

ADMINISTRATION

A.1. BOARD MEETING MINUTES OF MAY 31, 2013

The Board unanimously approved the minutes from the May 31, 2013 Board meeting.

A.2. DIRECTOR'S REPORT

Executive Director Paul Cleary presented the Forward Looking calendar. He noted the next Board meeting is scheduled for September 26 that will include agenda items for the Adoption of Assumed Rate Rule and the 2012 Valuation Results. Presenting the OPERF investment returns for the period ending June, 2012, Cleary noted the regular account was up by 5.4 percent year-to-date and the variable was up 6.5 percent for the same period. Cleary reviewed the agency July 2013 Budget Report, stating that the agency's 2011-13 biennial operating budget projected variance is $2,784,630, or 3.6% of the operating budget.

Cleary presented a report on the Working After Retirement Project related to the PERS statute that allows retirees to work only a limited number of hours after retirement. Cleary said that working more than the allowed hours would result in stoppage of benefits, member payback of overpayments, and additional employer contributions. Cleary said that this is a plan qualification issue and PERS is legally obligated to pursue collection of any overpaid benefits.

Cleary reported on the Strunk/Eugene Overpayment Recovery Project (S/E 2.0), implementing the October 6, 2011, Oregon Supreme Court decision that confirmed PERS Board's order on recovering overpayments related to 1999 earnings crediting. Following that court ruling, PERS initiated a project to recover the remaining overpayments from some 29,000 benefit recipients. Cleary said 15% of the accounts are paid in full, 77% of the accounts have agreed to payment arrangements and the remaining 8% are in the collection process. Cleary said that the project is under budget, expending only $600,000 of the $2.1 million expenditure that was approved at the May 2012 E-board legislative session.

Cleary provided a follow-up to a June 2012 Internal Audit recommendation that the PERS Health Insurance Program (PHIP) create a governance and program management model with clearly defined objectives and policies. Cleary credited PERS Health Insurance Manager Mini Kobbervig in her successful collaboration with health consultants and the PHIP Advisory Committee in producing the governance and program management documents. No Board action was required.

ADMINSTRATIVE RULEMAKING

B.1. SECOND NOTICE OF ASSUMED RATE RULE

Deputy Director Steve Rodeman presented the second notice of rulemaking for the Assumed Rate Rule. Rodeman said that due to public comment and further staff review, the proposed rule has been modified and a second public comment period will be provided. The revised Assumed Rate Rule will be presented for adoption at the September meeting. No Board action was required.

B.2. NOTICE OF OPSRP PENSION BENEFITS RULE

Rodeman presented the notice of rulemaking regarding a new rule to clarify retirement benefit eligibility of OPSRP Pension Program members who die after the effective date of retirement but before the first monthly pension benefit payment is issued. Rodeman explained that OPSRP statutes varied from Tier 1 and Tier 2 statutes and required a separate set of rules. No Board action was required.

B.3. NOTICE OF SB 822 TAX REMEDY RULES

Rodeman presented notice of rulemaking for modifications that will conform existing administrative rules to Senate Bill 822 (2013) that prohibits PERS from paying increased benefits provided under various "tax remedy" statutes if the recipients' benefit payments are not subject to Oregon personal income tax because the recipient is not an Oregon resident. No Board action was required.

B.4. ADOPTION OF PAYMENT OF RETIREMENT BENEFITS RULE

Rodeman presented the Payment of Retirement Benefits rule for adoption. This rule deletes obsolete language and clarifies the current administration of retirement benefit payments. Rodeman noted no modifications have been made since the rule was first noticed at the May Board meeting.

Board member Pat West moved and Rhoni Wiswall seconded to adopt the Payment of Retirement Benefit rule as presented. The motion passed unanimously.

<u>ACTION AND DISCUSSION ITEMS</u>

C.1. <u>2013 LEGISLATIVE SESSION RESULTS</u>

Senior Policy Analyst Marjorie Taylor summarized the closing of the 2013 legislative session reporting on several bills that were approved by the legislature that impact the beneficiaries of judge members (SB 771); OHSU police officers (SB 565); and specific non-vested, OPSRP members (HB 3243 and HB 3487). Taylor also reviewed the implementation of SB 822 that includes reducing COLA from a 2% maximum to 1.5% fixed for July 1, 2013 benefits; applies a progressive marginal rate COLA schedule in 2014 and beyond; and eliminates the Oregon income tax remedy for non-resident benefit recipients.

C.2. <u>2012 EXPERIENCE STUDY AND ADOPTION OF ACTUARIAL METHODS AND ASSUMPTIONS</u>

Milliman actuaries Matt Larrabee and Scott Preppernau continued a presentation of Actuarial Methods and Economic Assumptions requesting Board direction on various recommended demographic and economic assumptions and actuarial methods. Larrabee said those methods and assumptions will be used to conduct a system valuation as of December 31, 2012, that will be presented at the September 27, 2013 Board meeting.

Larrabee, Rodeman, and Cleary answered questions from the Board and from audience members. Each of the Board members provided their perspectives on the proposed actuarial method and assumption changes. Following that discussion, the Board directed the actuary to apply the recommended economic and demographic assumptions from the 2012 Experience Study; move to the Entry Age Normal (EAN) cost allocation method; re-amortize the accumulated Tier One/Tier Two UAL over 20 years; modify the employer rate collar structure as recommended; and use an assumed earnings rate of 7.75 percent in completing the December 31, 2012 system valuation.

No executive session was held.

Thomas adjourned the Board meeting at 3:25 PM.

Respectfully submitted,

Paul R Cleary

Paul R. Cleary
Executive Director

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PERS Board Meeting
Forward-Looking Calendar

Friday, November 22, 2013

Adoption of Recovery of Overpayments Rule
Adoption of Tier One / Tier Two Division of Benefits Rule
Adoption of SB 771 Judge Member Beneficiary Rules
Notice of SB 822 COLA Rule
Notice of Data Verification Rules
Notice of Health Insurance Program Rules
Notice of In-Plan Roth Conversion Rule
Notice of Retirement Credit Rules
Financial Modeling and Employer Rate Projections
Audit Committee Meeting

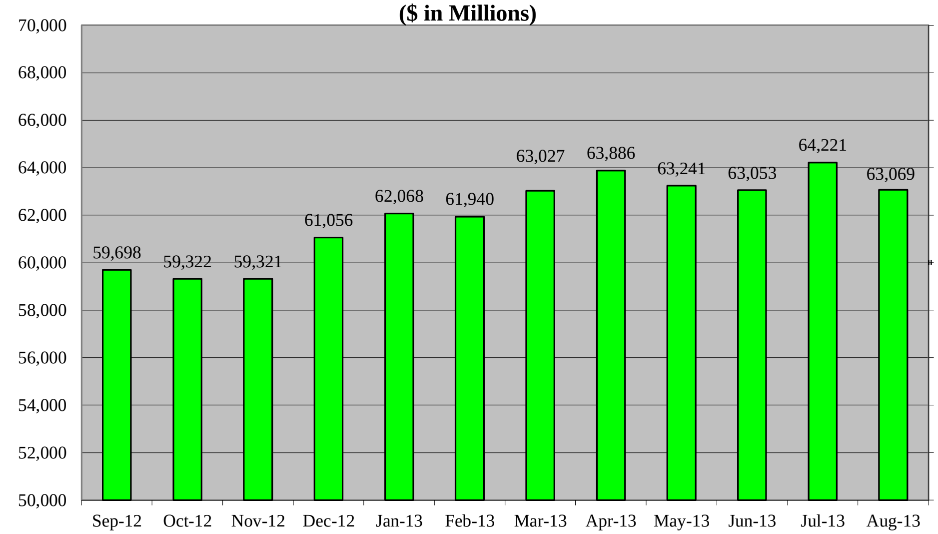
Returns for periods ending 8/31/13 **Oregon Public Employees Retirement Fund**

OPERF	Policy[1]	Target[1]	$ Thousands[2]	Actual	Year-To-Date[3]	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
	Regular Account				Historical Performance (Annual Percentage)							
Public Equity	38-48%	43%	$ 24,044,296	38.6%	11.13	18.69	12.37	13.23	11.07	4.88	3.87	7.65
Private Equity	12-20%	16%	13,790,976	22.1%	7.86	12.74	9.66	13.44	17.00	6.82	9.47	14.32
Total Equity	**54-64%**	**59%**	**37,835,272**	**60.7%**								
Opportunity Portfolio			819,594	1.3%	9.19	15.44	10.01	11.69	14.98	8.96	6.65	
Total Fixed	**20-30%**	**25%**	**15,762,357**	**25.3%**	(1.21)	1.18	5.17	5.57	7.86	7.99	6.60	6.35
Real Estate	**8-14%**	**11%**	**7,241,292**	**11.6%**	6.27	12.64	11.60	13.51	9.29	1.38	3.52	10.29
Alternative Investments	**0-8%**	**5%**	**636,991**	**1.0%**	4.80	5.34	0.21					
Cash	**0-3%**	**0%**	**1,103**	**0.0%**	0.35	0.66	0.93	0.78	0.82	0.89	1.96	2.20
TOTAL OPERF Regular Account		**100%**	**$ 62,296,609**	**100.0%**	6.50	11.73	9.62	11.30	11.34	5.72	5.37	8.24
OPERF Policy Benchmark					6.34	11.28	10.23	10.99	11.10	6.09	5.61	8.04
Value Added					0.16	0.45	(0.61)	0.31	0.24	(0.37)	(0.24)	0.20
TOTAL OPERF Variable Account			**$ 772,420**		9.47	16.58	11.37	12.42	10.40	4.54	2.46	

Asset Class Benchmarks:

Russell 3000 Index	16.95	20.32	18.66	18.87	15.42	7.63	5.86	7.60
MSCI ACWI Ex US IMI Net	3.26	13.43	5.24	7.11	6.24	1.92	2.46	8.77
MSCI ACWI IMI Net	9.31	16.22	10.93	12.06	10.07	4.30	3.75	7.78
Russell 3000 Index + 300 bps--Quarter Lagged	12.98	17.96	14.11	16.33	25.21	10.26	8.85	13.06
Oregon Custom FI Benchmark	(1.62)	0.32	4.42	3.70	5.15	5.60	5.47	5.20
NCREIF Property Index--Quarter Lagged	5.17	10.52	11.95	13.30	7.08	2.32	5.81	8.51
91 Day T-Bill	0.05	0.11	0.08	0.10	0.11	0.23	1.34	1.73

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



[1] OIC Policy 4.01.18, as revised April 2011.

[2] Includes impact of cash overlay management.

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

Returns for periods ending 7/31/13 **Oregon Public Employees Retirement Fund**

	Regular Account				Historical Performance (Annual Percentage)							
OPERF	**Policy[1]**	**Target[1]**	**$ Thousands[2]**	**Actual**	**Year-To-Date[3]**	**1 YEAR**	**2 YEARS**	**3 YEARS**	**4 YEARS**	**5 YEARS**	**7 YEARS**	**10 YEARS**
Public Equity	38-48%	43%	$ 25,031,152	39.5%	**13.44**	**24.19**	**8.81**	**12.61**	**12.70**	**4.92**	**4.52**	**8.16**
Private Equity	12-20%	16%	13,995,925	22.1%	**7.86**	**12.74**	**9.66**	**13.44**	**17.00**	**6.82**	**9.47**	**14.32**
Total Equity	**54-64%**	**59%**	**39,027,077**	**61.5%**								
Opportunity Portfolio			826,681	1.3%	**9.55**	**17.96**	**9.44**	**12.20**	**16.22**	**8.97**		
Total Fixed	**20-30%**	**25%**	**15,573,409**	**24.6%**	**(0.69)**	**2.29**	**5.15**	**6.17**	**8.49**	**8.23**	**6.92**	**6.50**
Real Estate	**8-14%**	**11%**	**7,369,643**	**11.6%**	**7.42**	**13.95**	**11.51**	**13.92**	**10.13**	**1.59**	**3.78**	**10.43**
Alternative Investments	**0-8%**	**5%**	**611,652**	**1.0%**	**2.63**	**(0.09)**	**1.70**					
Cash	**0-3%**	**0%**	**15,788**	**0.0%**	**0.34**	**0.77**	**0.78**	**0.80**	**0.87**	**0.94**	**2.03**	**2.21**
TOTAL OPERF Regular Account		**100%**	**$ 63,424,250**	**100.0%**	**7.62**	**14.08**	**8.29**	**11.25**	**12.31**	**5.76**	**5.80**	**8.54**
OPERF Policy Benchmark					**7.57**	**13.87**	**8.89**	**10.95**	**11.96**	**6.17**	**6.06**	**8.33**
Value Added					**0.05**	**0.21**	**(0.60)**	**0.30**	**0.35**	**(0.41)**	**(0.26)**	**0.21**
TOTAL OPERF Variable Account			**$ 796,393**		**11.72**	**21.72**	**8.26**	**11.84**	**12.01**	**4.56**	**3.02**	

Asset Class Benchmarks:

	Year-To-Date	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Russell 3000 Index	20.31	26.86	16.69	18.09	17.26	8.57	6.66	8.14
MSCI ACWI Ex US IMI Net	4.64	17.44	1.29	6.63	7.63	1.22	3.07	9.24
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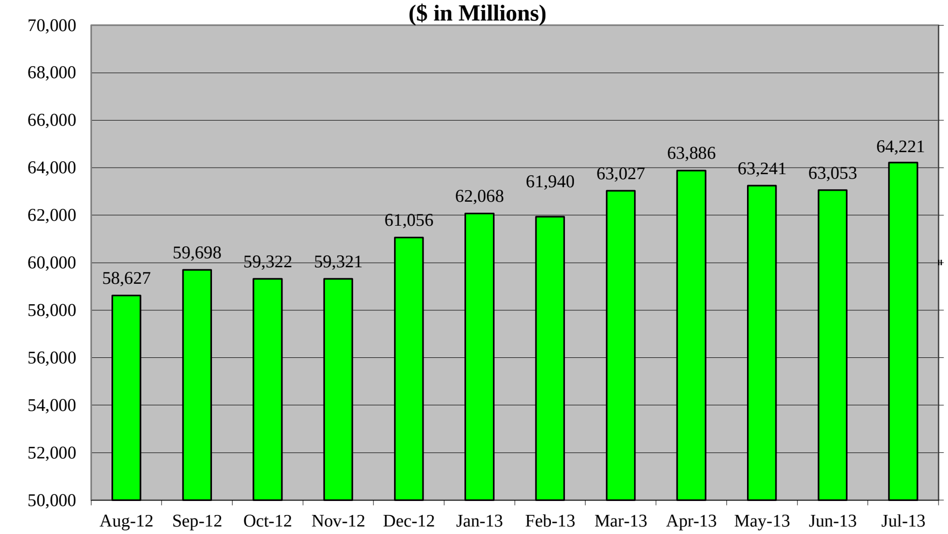
NCREIF Property Index--Quarter Lagged	5.17	10.52	11.95	13.30	7.08	2.32	5.81	8.51
91 Day T-Bill	0.05	0.11	0.09	0.11	0.12	0.26	1.40	1.74

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



[1]OIC Policy 4.01.18, as revised April 2011.

[2]Includes impact of cash overlay management.

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

Oregon

John A. Kitzhaber, M.D., Governor

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September 27, 2013

TO: Members of the PERS Board

FROM: Kyle J. Knoll, Interim Financial & Administrative Services Division Administrator

SUBJECT: September 2013 Budget Report

2013-15 OPERATIONS BUDGET

Operating expenditures for July and August 2013 were $2,564,757 and $2,987,862 respectively.

- To date, through the first two months (8.33%) of the 2013-15 biennium, the Agency has expended a total of $5,552,619, or 6.79% of PERS' legislatively adopted operations budget of $81,691,343.

- Budget allocations, projected expenditures, and related summary reports for 2013-15 have not been completed in time for this PERS Board meeting as we are reconciling several elements from the closing days of the legislative session. The usual budget reports will resume with the November 22, 2013 meeting.

2011-13 OPERATIONS BUDGET

Remaining 2011-13 expenditures paid in July and August 2013 were $994,944 and $322,199 respectively.

- PERS has now expended a total of $72,754,131, or 94.16% of PERS' legislatively approved 2011-13 operations budget of $77,260,820.

- The current projected positive variance is $3,508,481, or 4.86% of the operations budget.

- The 2011-13 operations budget will close in the Statewide Financial Management System (SFMS) December 31, 2013. A final report on 2011-13 expenditures will be submitted at the January 2014 Board Meeting.

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September 27, 2013

TO: Members of the PERS Board

FROM: Kyle J. Knoll, Interim Financial & Administrative Services Division Administrator
Mini Kobbervig, PERS Health Insurance Program Manager
Terri Roper, PERS Procurement Manager

SUBJECT: PHIP Third-Party Administrator Contract

PERS has been contracting with BenefitHelp Solutions, Inc. (BHS) for retiree health insurance third-party administrator (TPA) services since 2001. The contract was awarded as a result of a competitive solicitation process, and the Board has been notified each time the contract has been renewed.

To ensure that TPA services and pricing are cost effective and aligned with the goals and needs of the PERS Health Insurance Program (PHIP), PERS is planning to conduct a new Request for Proposal (RFP) competitive solicitation. We had anticipated conducting market research and completing the RFP in 2013. However, a number of PHIP program changes and improvements that needed to be implemented in response to audit recommendations for corrective actions within the PHIP have impacted that schedule, including:

- Initiating and completing movement of Incurred but not Reported (IBNR), Terminal Liability and Rate Stabilization Reserves (RSR) from Moda (ODS) reserve accounts to Treasury
- Creating a Member's Claims Fund through Oregon State Treasury and U.S. Bank whereby Moda medical and dental claims are paid on an ongoing, as-needed basis
- Identifying and implementing actuarially-advised IBNR and PHIP surplus reserve funds policies
- Updating and creating governance documents, Mission Statement, and Rate and Reserve Policies for the PHIP
- Updating, revising, and improving the format and accuracy of reporting and tracking capabilities for carrier disbursement and claims administration, and
- Reorganizing and strengthening PHIP's operational structure through successful approval of a Policy Option Package (POP) which adds three staff positions critical to PHIP's ongoing services.

While these program improvements are being completed, PERS' contract with BHS for TPA services will be extended through December 31, 2016, in three one-year increments.

- The first year renewal period will allow for completion of the tasks necessary to stabilize PHIP operations, including recruiting and hiring the three new positions; allowing revised accounting processes to complete a full cycle; and providing time to address remaining internal audit findings.

- The second year renewal period will allow for market research regarding:
    - TPA's and their experience administering the complexities of a retiree health insurance program with subsidies, Medicare, non-Medicare, multiple carriers and multiple state coverage
    - Different service delivery and pricing models
    - Consultation with PEBB, OEBB, and other states in determining how to best approach re-soliciting for or refreshing the contract for TPA services
    - Exploring alternative approaches to delivering retiree health insurance
    - Impacts of the Affordable Care Act on TPA services
    - Development of the RFP solicitation plan
- The third year renewal period will allow for implementing and completing a plan for administering Third Party Administrator services based on the above findings.

During the renewal periods, we will continue to manage the BHS contract and Statement of Work to establish and monitor service level expectations and stay current with business and reporting needs. Ongoing research and assessment will also continue regarding anticipated and unanticipated impacts from implementation of the Affordable Care Act, some of which may impact the nature of the TPA services needed by PHIP and covered retirees.

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September 27, 2013

TO: Members of the PERS Board

FROM: David Crosley, Communications Officer

SUBJECT: 2013 Customer Service Survey Results

PERS conducted customer satisfaction surveys for members (including retirees) and employers in August 2013. This was the eighth year of our survey program.

The 2005 Legislature adopted standardized customer service performance measures and survey questions for all agencies in all branches of state government. The measures require agencies to survey customers and report results in their budget presentations.

Our 2013 surveys continue to show good overall ratings from both members and employers. We will continue to conduct yearly surveys to measure and trend improvement in our customer service.

MEMBER CUSTOMER SATISFACTION SURVEY

BACKGROUND

PERS posted a customer service survey on its website in the member and retiree sections during August 2013. We also placed a hard copy of the survey in the August 1 retiree newsletter, *Perspectives*, that retirees could complete and mail to PERS. Retirees also had the option of completing the survey online. The August 1 *Perspectives* newsletter for active members noted that the survey was available online. In total, we received approximately 1,300 responses, a number of which included individual comments. In comparison, we received approximately 1,600 responses in 2012.

We identified two key issues and suggestions from the comments received as detailed below. We also describe our strategies to address those items and the methodologies used in the survey. The following graphs and charts display the survey results and provide a comparison of responses for the 2009-2013 survey years.

In addition to the core questions, we also asked for input regarding the PERS website:

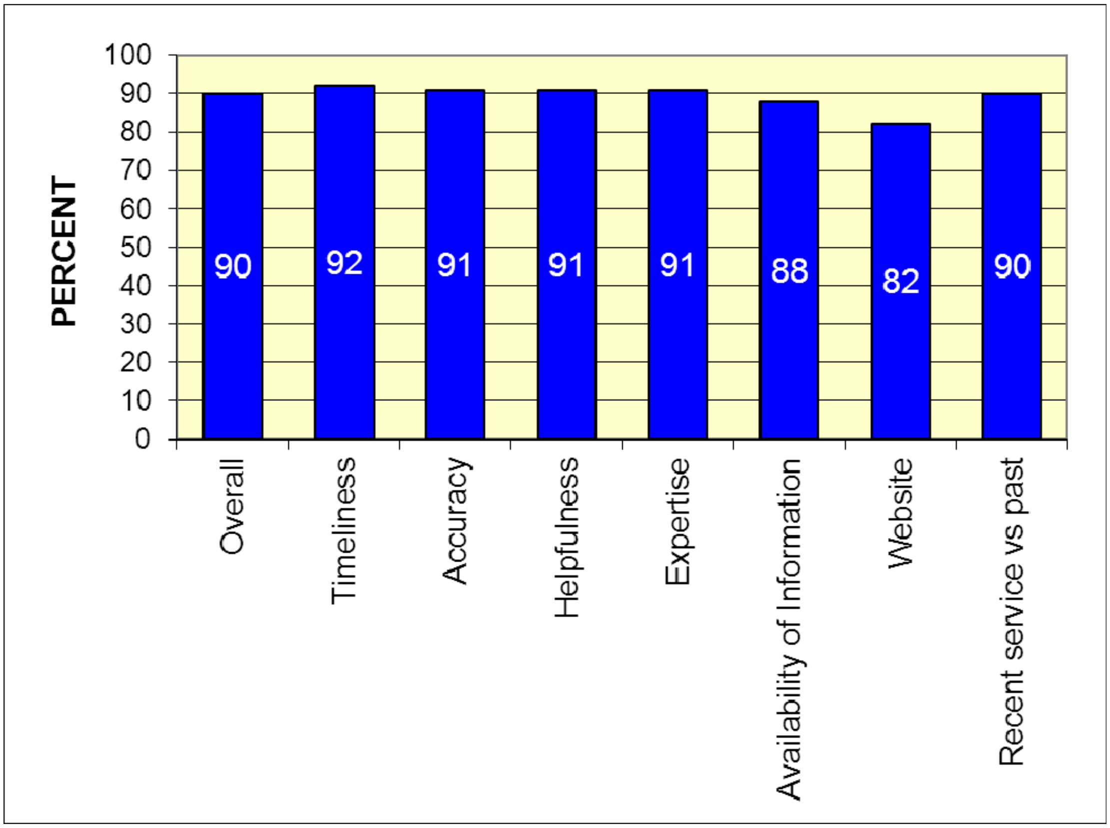
- Was the PERS website easy to navigate?
- Did you find the information you wanted?
- Are there any changes you would make to the PERS website?

Approximately 81% of member and retiree respondents who were familiar with the PERS website said the website was easy to navigate and approximately 79% found the information they were seeking. In many cases where information was not found, members and benefit recipients were looking for information related to potential legislative changes to PERS benefits.

Another questions asked: “If you rated PERS ‘Fair’ or ‘Poor’ in any part of question 3, please tell us why you did not rate us ‘Excellent’ or ‘Good.’” Many noted their dissatisfaction with enacted and potential legislative changes to PERS benefits.

Again this year we asked: "Are PERS forms easy to understand and use?" Approximately 74% of respondents answered "yes," with approximately 6% answering "no." The remainder had "not used" PERS forms.

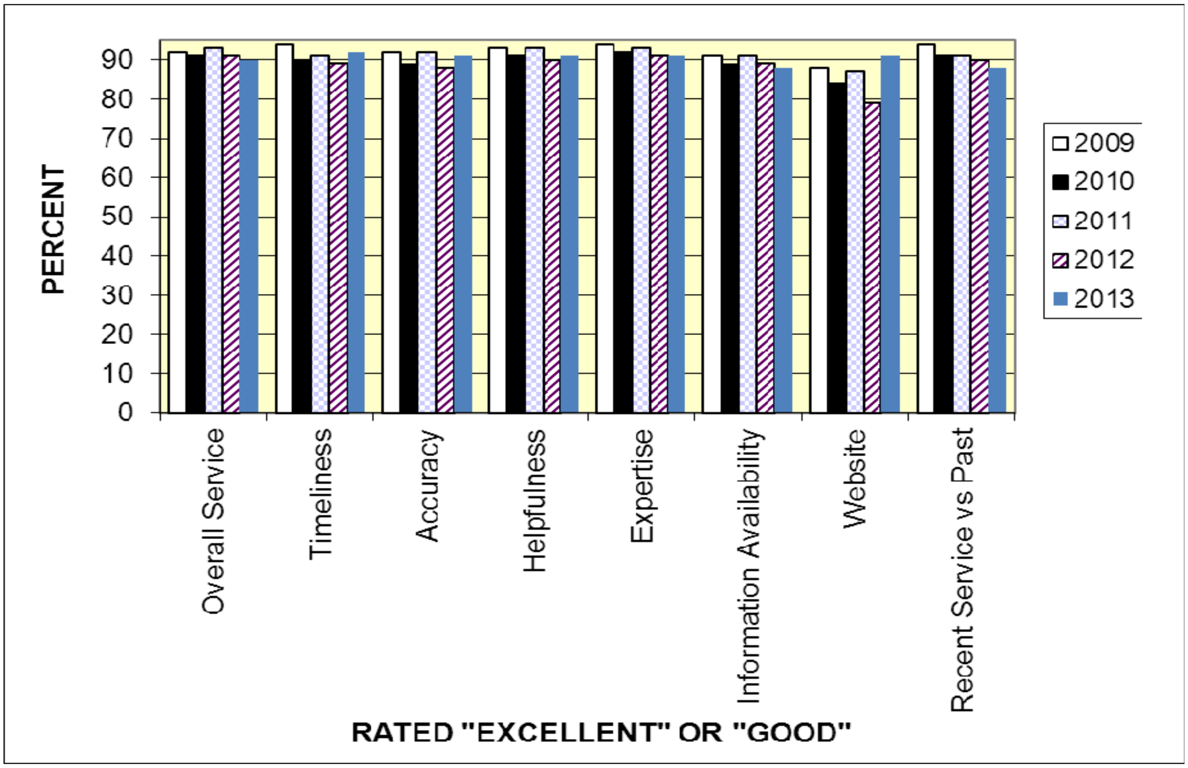
Percent of member respondents rating "excellent" or "good" (the state's Key Performance Measures do not include the "Don't Know" responses; the numbers in the graph have been rebaselined to exclude those responses).



Numerical member results (numbers rounded; may not equal 100%)

How do you rate…	Percent				
	Excellent	Good	Fair	Poor	Don't Know
The overall quality of service?	59	26	5	4	6
The timeliness of services PERS provides?	60	25	4	5	6
PERS' ability to provide services accurately the first time?	58	26	3	5	8
PERS' helpfulness?	61	23	4	5	7
The knowledge and expertise of PERS employees?	54	26	4	3	13
The availability of information at PERS?	54	27	6	5	8
The PERS website?	23	20	5	4	48
Our service in the past year compared to previous years?	44	23	4	4	25

Comparison of 2009-2013 Member Results



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

1. Members and retirees noted long wait times when telephoning PERS Customer Service.

PERS' Call Center is on track to receive more than 175,000 telephone calls this year. This is due to the legislative session, anticipated changes in the assumed rate, and employer retirement incentives. In comparison, we received 150,000 calls in 2003 (the year of "PERS Reform"). Another driver in call volume is that more than 70,000 members are eligible to retire and are now interested in the retirement process and their projected benefits.

Telephone wait times increased this year from an average of 3 minutes 9 seconds in January to 6 minutes 53 seconds in August. This is mainly due to questions from members regarding the impact of potential and enacted legislative changes to their individual PERS benefits as well as the retirement process.

Due to the complexity of PERS it is not viable to have untrained staff temporarily augment the Call Center, so this issue will require a longer-term staffing commitment.

Resolution: We will continue to encourage the use of the PERS website for information and will add more "up front" telephone message regarding particular issues while we work to secure additional Call Center staffing and related position and budget authority.

2. Members noted the wait time to receive a written retirement benefit estimate.

PERS has more than 70,000 members eligible to retire, and benefit estimate requests increased 34% through August 2013 compared to the same time period in 2012. In addition to the number of members eligible to retire, the 2013 legislative session prompted more estimate requests. Currently, the Estimate Team has more than 1,900 pending benefit estimate requests. We had 937 pending estimate requests at the same time last year.

Resolution: We will continue to encourage members to use the online benefit estimator that uses information supplied to PERS by a member's employer(s), and are deploying special enhancements to the online estimator to better meet member needs.

SURVEY METHODOLOGIES

To maximize member response, PERS created this survey online and posted it in a prominent spot on our home page. We also published the location of the survey in our member and retiree newsletters, inviting members and retirees to participate. The online survey ran throughout August 2013.

Further, we placed a hard copy of the survey in the newsletter that goes to retired members and they had several weeks to complete and mail the survey to PERS.

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

The survey included a comments section. The most common comments are summarized and addressed in the respective Key Issues and Suggestions section of this report.

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

EMPLOYER CUSTOMER SATISFACTION SURVEY

BACKGROUND

PERS surveyed employers online for the eighth consecutive year. The 2013 results are discussed below.

The employer satisfaction survey was posted online throughout August 2013. Employers received an e-mail inviting them to take the survey; 200 responses were received, a number of which included individual comments. In comparison, we received 286 responses in 2012.

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

The following graphs and charts display the survey results and provide a comparison of responses for the 2009-2013 survey years.

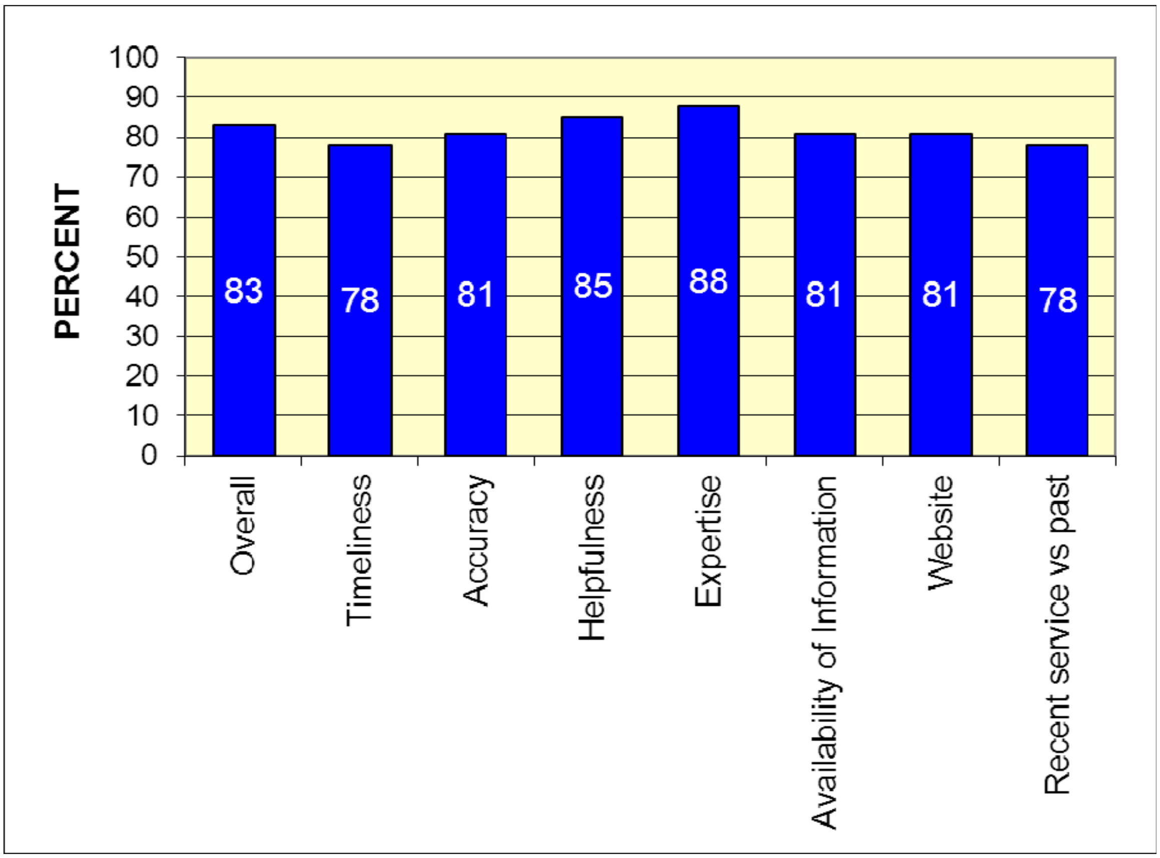
Again this year, we used three supplemental questions regarding the PERS employer website:

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

Nearly 95% of employer respondents said the employer website is “easy” or “somewhat easy” to navigate and nearly 90**%** of employer respondents said information they were seeking was “easy” or “somewhat easy” to find.

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

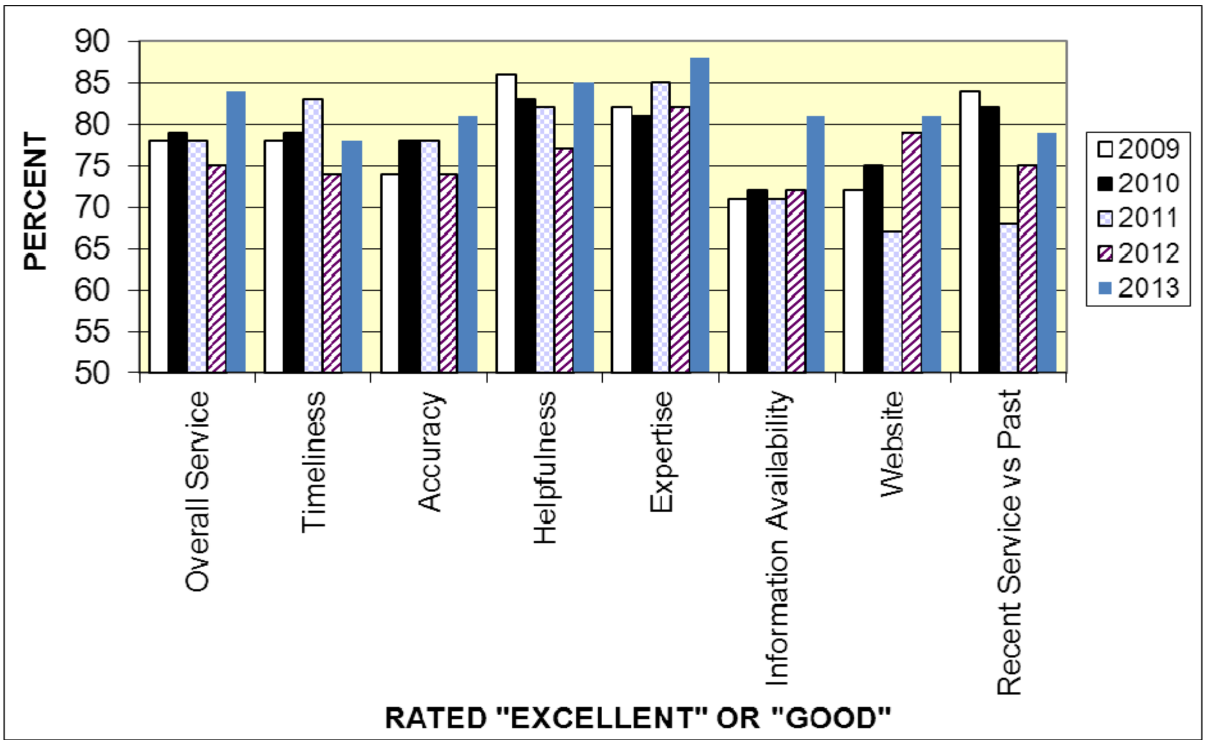
Percent of employer respondents rating “excellent” or “good” (the state’s Key Performance Measures do not include the “Don’t Know” responses; the numbers in the graph have been rebaselined to exclude those responses).



Numerical employer results (numbers rounded; may not equal 100%)

How do you rate…	Percent				
	Excellent	Good	Fair	Poor	Don't Know
The overall quality of service?	38	46	11	4	1
The timeliness of services PERS provides?	37	41	13	9	0
PERS' ability to provide services accurately the first time?	41	39	12	7	1
PERS' helpfulness?	48	37	11	4	0
The knowledge and expertise of PERS employees?	49	39	9	2	1
The availability of information at PERS?	34	47	13	5	1
The PERS employer website?	26	55	10	4	5
Our service in the past year compared to previous years?	37	42	10	5	6

Comparison of 2009-2013 Employer Results



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

1. Employers want Demographic Correction Reports (DCRs) completed in a timely manner.

Employers noted the need to have DCRs completed in a timely manner. Last year at this time, PERS had a backlog of more than 7,000 DCRs.

Resolution: The Employer Service Center (ESC) had already recognized that the backlog of DCRs had a large impact on employers, as confirmed by this year's survey. Since last year's priority was ensuring that the majority of records posted by the end of 2012, a backlog of DCRs developed. Earlier this year, ESC staff re-prioritized their processes and DCRs are now the second priority behind working with employers to post their reports. In addition, a new workflow was introduced to improve efficiency and transparency of ESC employees. Currently, only 895 DCRs remain in the original workflow and there are 472 DCRs in this new workflow (1,367 total). We continue to investigate other process improvements.

2. Employers want timely responses to their inquiries.

Timeliness has been an issue for the last couple of years due to an increase in workloads and projects to clean-up the suspended records.

Resolution: Management previously relied on employer feedback such as this survey to determine if employer representatives are meeting their service levels for calls and email. We are now looking at call monitoring and using the new management system's team and individual scorecards to measure individual service levels for better management and accountability. We will also look at surveying specific employer groups to better identify where problems may exist on the ESC team.

SURVEY METHODOLOGIES

To maximize employer response, we created this survey online and sent an email to all employers inviting them to participate. A follow-up email was sent to employers approximately 10 days before the survey deadline. The survey ran throughout August 2013. We set the survey so more than one employee per employer could respond since we often interact with more than one employer contact.

We used surveymonkey.com to create the survey, using the six key questions the state requires all state agencies to use for the Customer Satisfaction Performance Measure survey. Again this year we included two additional key questions:

1. "How do you rate the PERS website?"
2. "How do your rate our service in the past year compared to our service in previous years?"

The survey included a comments section. The most common comments are summarized and addressed in the respective Key Issues and Suggestions section of this report.

Oregon

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September 27, 2013

TO: Members of the PERS Board
FROM: Marjorie Taylor, Senior Policy Advisor
SUBJECT: Special Legislative Session Update

GOVERNOR KITZHABER CALLS A SPECIAL SESSION

Governor Kitzhaber will convene a Special Session of the Oregon Legislature on Monday, September 30, 2013. During the session, the legislature may consider a package of bills which includes changes to PERS beyond those approved in Senate Bill 822 (2013). In his proclamation, the Governor stated "we have an opportunity to combine cost savings from reforms to the Public Employee Retirement System (PERS) and new revenue to restore lost school days, provide tuition relief, fund mental health and senior services, and provide targeted tax relief for small business owners and working families."

LEGISLATIVE CONCEPT 1

Provisions of this Legislative Concept, as currently drafted, modify the cost-of-living adjustment (COLA) beginning July 2014 allowing for a 1.25% COLA on annual benefit amounts up to $60,000 and a 0.15% COLA on benefit amounts greater than $60,000. The Board is also directed to make one-time, annual supplemental payments of 0.25% to members and members' beneficiaries with yearly benefits of $20,000 or less using funds from the Contingency Reserve. If it determines to be reasonably prudent, the Board may also make supplementary payments of 0.25% to members and members' beneficiaries with yearly benefits of $20,000 to $60,000. The Board is also directed to report to the legislature by September 30, 2018 with recommendations related to the base COLA and supplementary payments. Unless otherwise specified, supplementary payments are scheduled to end in 2019.

LEGISLATIVE CONCEPT 2

Three policy provisions are currently included in this Legislative Concept: 1) modify the definition of "salary" to exclude certain specified payments for health insurance; 2) prevent new legislators from becoming members of PERS unless they have prior PERS-covered service; and 3) allow for garnishment of benefits of a retiree convicted of a crime after the effective date of the measure.

TESTIMONY to the INTERIM COMMITTEE on SPECIAL SESSION

At the Thursday, September 26, 2013 meeting of the Joint Interim Committee on Special Session, Paul Cleary, Executive Director presented information about the potential UAL and employer rate impacts of the legislative proposals.

SPECIAL SESSION – MONDAY, SEPTEMBER 30, 2013

PERS staff are working with legislative staff to refine language in LC 1 and LC 2. We will be available in the capitol on Monday to answer questions and monitor developments.
Additional information is available here: http://www.leg.state.or.us/13ss1/genInfo/home.html

Oregon

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September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Notice of Rulemaking for Recovery of Overpayments Rule:
OAR 459-005-0610, *Recovery of Overpayments*

OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Clarifies criteria and process for the recovery of overpayments and erroneous payments made by PERS.
- Policy Issue: Should the Actuarial Reduction Method (ARM) be designated by rule as a preferred method to recover overpayments?

BACKGROUND

ORS 238.715 directs PERS to adopt rules establishing the procedures to be followed in recovering overpayments and erroneous payments. OAR 459-005-0610 outlines several options for the recovery of a debt owed to PERS from a benefit recipient.

Section (6) of the rule currently states: "...PERS shall use one of the following methods to effect a full recovery of any overpayment or erroneous payment...." The proposed rule modifications clarify that PERS is allowed more than one method of recovery.

Also, section (7) of the rule states that if an overpayment is caused solely by the actions of PERS or the employer, that an actuarial reduction method (ARM) will be the preferred method to recover that overpayment unless otherwise ordered by the Board. The edits to this rule remove the designation of a preferred method of collection (a policy issue discussed further below).

Edits to section (10) clarify that recovery of an overpayment or erroneous payment will be effected, despite the statutory restriction to six years to do so, if the recovery is required to maintain the tax qualification status of the system and the Public Employees Retirement Fund. The PERS Board's overriding imperative, in ORS 238.630(2)(g), is to take all actions necessary to maintain PERS' tax qualified status, and in limited circumstances (such as an in-service distribution), federal tax law may compel PERS to recover such a payment even though it was made beyond the six year limit in our recovery statute.

POLICY ISSUE

Should the Actuarial Reduction Method (ARM) be designated by rule as a preferred method to recover overpayments?

The actuarial reduction method (ARM) spreads the recovery of an overpayment over the member's expected life (and beneficiary if a survivor option was selected at retirement). That method was designated as a preferred method in the rule in 2006 as we embarked on the first *Strunk/Eugene* project to collect overpayments from the 1999 earnings crediting that was later revised.

In many cases where a large debt is owed, PERS can extend the recovery over the lifetime of the recipient. However, in some cases this method may not be the most viable option. The only real advantage of an ARM to the member is that the ARM allows for a longer pay off period (depending on age, around 22 years on average). If that is important in the context of a particular recovery negotiation, staff has a procedure to extend pay off periods. In the regular course, however, we do not need to designate a "preferred" collection practice and selection of the method should be left to the facts and circumstances of the individual situation rather than designating in rule a "one size is preferred for all" approach.

For these reasons, PERS staff recommends removing the designation of any particular method as "preferred." The rule modifications in section (6) clarify that one or more methods may be used, giving PERS the flexibility to negotiate the most appropriate collection method based on the particular situation. PERS would still maintain the authority to use the ARM as one of several options for collections. However, under the modifications, PERS would not be required to first eliminate the ARM in those situations where it isn't the best fit.

PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing will be held on October 22, 2013 at 3:00 p.m. at PERS headquarters in Tigard. The public comment period ends on October 29, 2013 at 5:00 p.m.

LEGAL REVIEW

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

IMPACT

Mandatory: No.

Impact: Members and staff will benefit from clarification of the criteria and process for recovery of overpayments.

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

RULEMAKING TIMELINE

August 15, 2013	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
September 1, 2013	*Oregon Bulletin* published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
September 27, 2013	PERS Board notified that staff began the rulemaking process.

October 22, 2013	Rulemaking hearing to be held at 3:00 p.m. at PERS in Tigard.
October 29, 2013	Public comment period ends at 5:00 p.m.
November 22, 2013	Staff will propose adopting the rule modifications, including any changes resulting from public comment or reviews by staff or legal counsel.

NEXT STEPS

A rulemaking hearing will be held on October 22, 2013 at 3:00 p.m. at PERS headquarters in Tigard. The rule is scheduled to be brought before the PERS Board for adoption at the November 22, 2013 Board meeting.

B.1. Attachment 1 – 459-005-0610, *Recovery of Overpayments*

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

459-005-0610

Recovery of Overpayments

(1) Authority and Purpose. In accordance with ORS 238.715, this rule sets forth the criteria and process for the recovery of overpayments and erroneous payments made by PERS. It is the policy of the Board to implement wherever possible, and if cost effective, a full recovery of all overpayments and erroneous payments. Staff shall attempt recovery of overpayments and erroneous payments in the most efficient method available and in the least amount of time possible.

(2) For the purposes of this rule:

[(a) "Overpayment" refers to an amount that is in excess of the amount a payee is entitled to under ORS Chapters 238 and 238A;]

*[(b)]***(a)** *["Improperly made payment" or]* "*[e]***E**rroneous payment" means any payment that has been made from the Public Employees Retirement Fund in error, including a payment to a payee that is not entitled to receive the payment*[;]***.**

*[(c)]***(b)** "Good cause" means a cause beyond the reasonable control of the person. "Good cause" exists when it is established by satisfactory evidence that factors or circumstances are beyond the reasonable control of a rational and prudent person of normal sensitivity, exercising ordinary common sense*[;]***.**

[(d) "Monthly payment" means any gross pension, annuity, service or disability retirement allowance, death benefit, or other benefit under ORS Chapters 238 or 238A that is paid monthly to or on behalf of a payee;]

[(e)] **(c)** "Lump-sum payment" means any one-time distribution or payment made under ORS Chapters 238 or 238A, or any other law directing PERS to make a payment, including a retroactive adjustment, that is not scheduled to be paid to or on behalf of a payee on a regular monthly basis*[;]***.**

(d) "Monthly payment" means any gross pension, annuity, service or disability retirement allowance, death benefit, or other benefit under ORS Chapters 238 or 238A that is paid monthly to or on behalf of a payee.

(e) "Overpayment" refers to an amount that is in excess of the amount a payee is entitled to under ORS Chapters 238 and 238A.

(f) "Payee" means:

(A) A member, a trust established by the member, **or** the member's estate;

(B) A member's beneficiary, a trust established by the member's beneficiary, **or** the estate of the member's beneficiary;

(C) An alternate payee, as defined in OAR 459-045-0001*[(6)]***(2)**, a trust established by an alternate payee, or the estate of an alternate payee;

(D) The beneficiary of an alternate payee, a trust established by the beneficiary of an alternate payee, or the estate of the beneficiary of an alternate payee; or

(E) Any other recipient of a benefit payment by PERS.

(3) In addition to the notice of an overpayment or erroneous payment to a payee required by ORS 238.715(4), PERS shall also send an explanation of the overpayment or erroneous payment; whether the Board asserts a right to assess interest, penalties and costs of collection; and a description of the manner in which the payee may appeal the determinations reflected in the explanation, if applicable.

(4) In determining the amounts owed by a payee and setting a repayment schedule under sections (5) or (6) of this rule, PERS shall reduce the amount owed by any lump-sum payment then owed by PERS to that payee. If the payee should subsequently become entitled to any lump sum payment, it shall be applied against the amounts then owed by that payee. PERS, in its discretion, may revise the repayment schedule or continue on the established schedule until the remaining amounts owed are fully repaid.

(5) The following list includes possible methods for PERS to recover an overpayment under an agreement with the payee. These methods are listed in order of preference. Unless otherwise ordered by the Board, PERS Staff is granted the discretion to select the method deemed most likely to effect a full recovery:

(a) A repayment of all amounts owed in a single payment*[;]***.**

(b) A deduction of a percentage or fixed dollar amount, to be agreed upon between the payee and PERS, from future monthly payments for a period not to exceed two years that will fully repay the amounts owed*[;]***.**

(c) A fixed monthly dollar amount to be agreed upon between the payee and PERS that will fully repay the amounts owed*[;]***.**

(d) A deduction of a percentage or fixed dollar amount from future monthly payments, to be agreed upon between the payee and PERS, for a specified period greater than two years that will fully repay the amounts owed if PERS deems that a longer repayment period is warranted by the payee's personal financial circumstances.

(6) If the payee does not agree to one of the recovery methods under section (5) of this rule, PERS shall use one **or more** of the following methods to effect a full recovery of any overpayment or erroneous payment:

(a) Deducting not more than 10 percent from current and future monthly payments to a payee until the full amounts owed are recovered*[;]*<u>**.**</u>

(b) Making an actuarially determined reduction, not to exceed 10 percent, to current and future payments from PERS calculated to repay the full amount of the overpayment or erroneous payment during the period in which monthly payments will be made to the payee*[;]*<u>**.**</u>

(c) Seeking recovery of the overpayment or erroneous payment by using any remedy available to the Board under applicable law*[; or]*<u>**.**</u>

(d) Engaging the services of outside collection agencies.

[(7) If a recovery method has to be selected under section (6) and the overpayment is caused solely by the actions of PERS or a participating public employer, the actuarial reduction method described in (6)(b) will be the preferred method to recover that overpayment unless otherwise ordered by the Board.]

[(8)]<u>**(7)**</u> The base or original benefit payment used to calculate cost-of-living adjustments, ad hoc increases, or other benefit increases shall not be altered by an actuarial reduction provided for in subsection (6)(b) of this rule.

[(9)]<u>**(8)**</u> In the event that PERS determines that an overpayment or erroneous payment was not caused by PERS or by the actions of a participating public employer, PERS may include within the amounts owed by the payee:

(a) All costs incurred by PERS in recovering the overpayment or erroneous payment, including attorney fees, and fees assessed by an outside collection agency; and

(b) Interest in an amount equal to one percent per month on the balance of the overpayment or erroneous payment until that payment is fully recovered.

*[(10)]***(9)** The Board authorizes the Director, or the Director's designee, to waive:

(a) The interest and costs of collection associated with the recovery of an overpayment or erroneous payment for good cause shown; and

(b) The recovery of any overpayment or erroneous payment if the total amount of overpayments or erroneous payments is less than $50.

*[(11)]***(10)** Recovery of an overpayment or erroneous payment shall not be effected if PERS has not initiated recovery of those payments within six years after the date the overpayment or erroneous payment was made **unless the Board determines that the recovery is required to maintain the status of the system and the Public Employees Retirement Fund as a qualified governmental retirement plan and trust under the Internal Revenue Code and under regulations adopted pursuant to the Internal Revenue Code**. PERS initiates recovery on the date it mails the notification required by ORS 238.715(4).

*[(12)]***(11)** The recovery of an overpayment or an erroneous payment shall take precedence over other deductions or reductions as set forth in OAR 459-005-0600.

Stat. Auth.: ORS 238.715(9)**, 238.630** & 238.650

Stats. Implemented: ORS 238.715

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Oregon

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September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Notice of Rulemaking for Tier One / Tier Two Division of Benefits Rule: OAR 459-045-0010, *Tier One / Tier Two Division of Benefits*

OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Clarifies the requirements of a court-ordered divorce award.
- Policy Issue: No policy issues have been identified at this time.

BACKGROUND

OAR 459-045-0010 was adopted in 1996 to describe how PERS benefits may be divided due to a divorce. The intent of this rule is to further clarify divorce provisions so practitioners can develop court orders that can be administered by PERS.

To assist practitioners, PERS has continuously improved divorce forms that provide all of the required information needed to administer a final qualified domestic relations order for our different benefit programs.

This rulemaking will clarify the requirements for the division of lump sum benefits and provide additional design requirements for the PERS divorce forms. Sections (3) and (4) were edited to include lump sums as a benefit that may be divided by a qualified domestic relations order.

PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing will be held on October 22, 2013 at 3:00 p.m. at PERS headquarters in Tigard. The public comment period ends on October 29, 2013 at 5:00 p.m.

LEGAL REVIEW

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

IMPACT

Mandatory: Yes. No existing rule provides for the administration of court order awards for lump sum benefits.

Impact: Members, their attorneys, employers, and staff will benefit from a clear and consistent rule.

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

RULEMAKING TIMELINE

August 15, 2013	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
September 1, 2013	*Oregon Bulletin* published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
September 27, 2013	PERS Board notified that staff began the rulemaking process.
October 22, 2013	Rulemaking hearing to be held at 3:00 p.m. at PERS in Tigard.
October 29, 2013	Public comment period ends at 5:00 p.m.
November 22, 2013	Staff will propose adopting the rule modifications, including any changes resulting from public comment or reviews by staff or legal counsel.

NEXT STEPS

A rulemaking hearing will be held on October 22, 2013 at 3:00 p.m. at PERS headquarters in Tigard. The public comment period ends on October 29, 2013 at 5:00 p.m.

B.2. Attachment 1 – 459-045-0010, *Tier One / Tier Two Division of Benefits*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 045 – DOMESTIC RELATIONS ORDERS

459-045-0010

Tier One / Tier Two Division of Benefits

(1) A final court order that provides for a division of benefits must use a method described in this rule.

(a) The method must be identified on PERS divorce forms.

(b) The PERS divorce forms must be attached as exhibits to the court order, and incorporated by reference in the court order.

(2) Award of Alternate Payee Account (Non-Retired Member). If a final court order provides an award of an alternate payee account, the court order must provide:

(a) The date of annulment, separation, divorce, or property settlement. If no date is provided, PERS will use the date the judge signed the court order. The separate account will be established as of December 31 of the calendar year before this date unless:

(A) A prior year is provided in the court order; or

(B) The date is December 31.

(b) That a separate account be established in an alternate payee’s name.

(c) The method by which the award is to be calculated. One of the following methods must be used:

(A) A percentage, expressed with up to two decimal points; or

(B) A dollar amount.

(d) Whether an alternate payee is awarded matching employer dollars.

(e) That an alternate payee may elect to receive the award at any time after the member’s earliest retirement eligibility.

(3) Award of Payment from Member's *[Monthly]* Benefit (Non-Retired Member). If a final court order awards an alternate payee a reduction or deduction amount from the *[monthly]* service or disability retirement benefit that shall be paid in the future to the member, the court order must provide:

(a) The date of annulment, separation, divorce, or property settlement. If no date is provided, PERS will use the date the judge signed the court order.

(b) Whether the award is a reduction or deduction from the member's benefit. If the award is a reduction, the court order must provide whether the alternate payee is eligible to elect a separate benefit option at any time after the member reaches earliest retirement eligibility.

(c) The **benefit division calculation** method *[by which]* **that is applied to both** the monthly**, and if applicable, lump sum** award *[is to be calculated]*. One of the following **calculation** methods must be used:

(A) A percentage, expressed with up to two decimal points; *[or]*

(B) A dollar amount; or

(C) A percentage of the married time ratio. The court order must provide:

(i) The percentage, expressed with up to two decimal points; and

(ii) The years and months of creditable service time accrued by the member during a specified period or while married to the alternate payee.

(d) If there is a specific end date or dollar amount limit to the award, and what that date or limit is.

(e) Whether the award applies to service retirement benefits, disability retirement benefits, or withdrawal benefits.

(f) Whether the member is restricted from withdrawing as a member under ORS 238.265.

(g) Whether the member must select a specific benefit payment option at retirement.

(h) Whether the member is required to designate the alternate payee as a beneficiary:

(A) Before retirement*[.]***; or**

(B) At retirement.

(i) Whether an alternate payee award continues after the death of:

(A) The member*[.]***; or**

(B) The alternate payee.

(4) Award of *[Monthly]* Benefit (Retired Member). If a final court order awards an alternate payee an amount payable from a retired member's *[monthly]* **service** or disability retirement benefit, the court order must provide:

(a) The date of annulment, separation, divorce, or property settlement. If no date is provided, PERS will use the date the judge signed the court order.

(b) Whether an alternate payee award is a reduction or deduction from the member's monthly benefit**, and if applicable, lump sum**.

(c) The **benefit division calculation** method *[by which]***that is applied to both** the monthly**, and if applicable, lump sum** award *[is to be calculated]*. One of the following **calculation** methods must be used:

(A) A percentage, expressed with up to two decimal points; or

(B) A dollar amount.

(d) If there is a specific end date or dollar amount limit to the award, and what that date or limit is.

(e) Whether the member may or must change their beneficiary designation. If the member's beneficiary designation is changed, the member's monthly benefit must be recalculated.

(f) Whether a member who elected Option 2A or 3A under ORS 238.305(1) is allowed to receive the Option 1 benefit under ORS 238.305(6).

(g) Whether an alternate payee award continues after the death of:

(A) The member*[.]*<u>**; or**</u>

(B) The alternate payee.

Stat. Auth.: ORS 238.465 & 238.650

Stats. Implemented: ORS 238.465

Oregon

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September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Notice of Rulemaking for Senate Bill 771 Judge Member Beneficiary Rules:
OAR 459-040-0060, *Judge Member Death Before Retirement*
OAR 459-040-0070, *Judge Member Death After Retirement*

OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Implement provisions of Senate Bill 771 (2013), which permits a judge member to elect more than one beneficiary under ORS 238.565.
- Policy Issue: No policy issues have been identified at this time.

BACKGROUND

Senate Bill 771 (2013) became effective on June 26, 2013. Prior to passage of the bill, a judge member was prohibited from electing more than one beneficiary to receive pre-retirement death benefits and after retirement death benefits.

The provisions of this bill permit a judge member to elect more than one beneficiary. These rule modifications are intended to conform existing administrative rules to the statutory amendment.

PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing will be held on October 22, 2013 at 3:00 p.m. at PERS headquarters in Tigard. The public comment period ends on October 29, 2013 at 5:00 p.m.

LEGAL REVIEW

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

IMPACT

Mandatory: No.

Impact: Alternative methods will be used to implement the additional benefit payments to multiple beneficiaries.

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

RULEMAKING TIMELINE

August 15, 2013	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
September 3, 2013 to	*Oregon Bulletin* publishes the Notice. Notice and draft rules sent employers, legislators, and interested parties. Public comment period begins.
September 27, 2013	PERS Board notified that staff began the rulemaking process.
October 22, 2013	Rulemaking hearing to be held at 3:00 p.m. at PERS in Tigard.
October 29, 2013	Public comment period ends at 5:00 p.m.
November 22, 2013	Staff will propose adopting the new rules, including any changes resulting from public comment or reviews by staff or legal counsel.

NEXT STEPS

A hearing will be held on October 22, 2013 at 3:00 p.m. at PERS headquarters in Tigard. The rule is scheduled to be brought before the PERS Board for adoption at the November 22, 2013 Board meeting.

B.3. Attachment 1 – 459-040-0060, *Judge Member Death Before Retirement*
B.3. Attachment 2 – 459-040-0070, *Judge Member Death After Retirement*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 040 – JUDGE MEMBERS

459-040-0060

Judge Member Death Before Retirement

If a judge member dies before retiring, benefits shall be distributed and calculated as follows:

(1) For a surviving spouse:

(a) If the judge member has six or more years of service as a judge and the judge member is not an inactive judge member performing pro tem service under the provisions of ORS 238.545(4), the surviving spouse shall receive a life pension equal to two-thirds of the retirement allowance the judge member would have received under Plan A, had the judge member retired on the date of death.

(b) If the judge member has six or more years of service as a judge and the judge member is an inactive judge member performing pro tem service under the provisions of ORS 238.545(4) at the time of death, the surviving spouse shall receive a life pension equal to two-thirds of the service retirement allowance the judge member would have received under Plan B, had the judge member retired on the date of death.

(c) If the judge member has less than six years of service as a judge, the surviving spouse shall receive a lump sum payment equal to the amount credited to the judge member account in the Fund on the first of the month following the date of death.

(d) If a surviving spouse receiving a life pension under this section dies and the total amount of pension payments received by the surviving spouse is less than the amount that had been credited to the deceased judge member’s account as of the date of death of the judge member, the designated beneficiary **or beneficiaries** of the judge member shall receive a lump sum payment equal to the remainder.

(2) For purposes of computing a surviving spouse's life pension in section (1) of this rule, a judge member who dies before age 60 is deemed to have died at age 60.

(3) If the judge member has six or more years of service as a judge **and the judge member** has no surviving spouse, the designated beneficiary **or beneficiaries** shall receive a lump sum payment equal to the amount credited to the judge member account in the Fund on the first of the month following the date of death.

(4) If the judge member has no surviving spouse and designated a beneficiary or beneficiaries at death, a lump sum payment equal to the amount credited to the judge member's account on the date of death shall be paid to the judge member's beneficiary or beneficiaries.

*[(4)]***(5)** If the judge member has no surviving spouse and no designated beneficiary **or beneficiaries** at death, a lump sum payment equal to the amount credited to the judge member's account on the date of death shall be paid to the judge member's estate.

*[(5)]***(6)** If the judge member, under the provisions of ORS 238.565(8), elects to have a portion of the pension payable to a surviving spouse paid to a former spouse, the designated portion shall be paid to the former spouse as a life pension. The portion of the pension not paid to the former spouse shall be paid to the surviving spouse, if any.

(a) The life of the first former spouse designated to receive a pension under ORS 238.565(8) will be the measuring life of the pensions payable to the surviving spouse and to any other former spouse.

(b) Upon the death of the first designated former spouse, the pensions payable to the surviving spouse and to any other former spouse shall cease.

(c) If, at the death of the first designated former spouse, the total amount of the payments received by the surviving spouse and former spouse(s) is less than the amount that had been credited to the deceased judge member's account as of the date of the judge member's death, the judge member's designated beneficiary **or beneficiaries** shall receive a lump sum payment equal to the remainder.

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.565

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 040 – JUDGE MEMBERS

459-040-0070

Judge Member Death After Retirement

If a judge member dies after the effective retirement date, benefits shall be distributed and calculated as follows:

(1) Surviving Spouse Standard Two-thirds Benefit. The surviving spouse of a judge member shall receive a life pension equal to two-thirds of the service retirement allowance the judge member is receiving or is entitled to receive on the date of death.

(2) Additional benefit for surviving spouse. The surviving spouse may be entitled to an addition to the pension described in section (1) of this rule if:

(a) The judge member selected a reduced retirement allowance under ORS 238.565(4); and

(b) The surviving spouse is the spouse of record on the effective date of retirement.

(3) No surviving spouse. If the judge member has no surviving spouse and the total amount of retirement allowance received by the retired judge member is less than the amount credited to the judge member account on the judge member's effective retirement date, the designated beneficiary **or beneficiaries** shall receive a lump sum payment equal to the remainder.

(4) Death of surviving spouse. If a surviving spouse receiving a pension under section (1) of this rule dies and the total amount received as retirement allowance by the retired judge member and as pension by the surviving spouse is less than the amount credited to the judge member account on the effective date of retirement of the judge

member, the designated beneficiary **or beneficiaries** of the judge member shall receive a lump sum payment equal to the remainder.

(5) Default beneficiary. If the judge member has no valid written designation of beneficiary **form** filed with the PERS Board before the judge member's death, the beneficiary of the judge member shall be the personal representative of the judge member's estate.

(6) Unpaid accrued retirement allowance. Any accrued retirement allowance due a retired judge member that is unpaid at the time of death of the judge member shall be paid as follows:

(a) To the surviving spouse of the judge member;

(b) If there is no surviving spouse of the judge member, to the beneficiary **or beneficiaries** of the judge member; or

(c) If there is no surviving spouse or beneficiary of the judge member, in the manner provided for payments under ORS 238.390(2).

(7) If the judge member, under the provisions of ORS 238.565(8), elects to have a portion of the pension payable to a surviving spouse paid to a former spouse, the designated portion shall be paid to the former spouse as a life pension. The portion of the pension not paid to the former spouse shall be paid to the surviving spouse, if any.

(a) The life of the first former spouse designated to receive a pension under ORS 238.565(8) will be the measuring life of the pensions payable to the surviving spouse and to any other former spouse.

(b) Upon the death of the first designated former spouse, the pensions payable to the surviving spouse and to any other former spouse shall cease.

(c) If, at the death of the first designated former spouse, the total amount of the payments received by the retired judge member and the payments received by the surviving spouse and former spouse(s) is less than the amount credited to the deceased judge member's account on the judge member's effective retirement date, the judge member's designated beneficiary **or beneficiaries** shall receive a lump sum payment equal to the remainder.

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.565

Oregon

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September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Adoption of OPSRP Pension Program Benefits Rule:
459-0075-0170, *Payment of OPSRP Pension Program Benefits*

OVERVIEW

- Action: Adopt modifications to OPSRP Pension Program Benefits rule.
- Reason: A new rule is needed to clarify retirement benefit eligibility of OPSRP Pension Program members who die after the effective date of retirement but before the first monthly pension benefit payment is issued.
- Policy Issue: No policy issues were identified.

BACKGROUND

Under ORS 238A.180, an OPSRP Pension Program member's monthly pension is payable on their effective retirement date and ends on the first day of the month in which the member's death occurs. An ambiguous event occurs when the member dies in the month of retirement and the pension payable on the first of the month also ends on the first of the same month.

This rule clarifies the accrual of pension benefits and the last pension benefit the member or their benefit recipient is entitled to receive. Under OPSRP, a member or beneficiary who is receiving a monthly pension payment will be paid that benefit for the month in which that person dies. This result is different than a Tier One or Two member or their beneficiary, because of differences in the OPSRP statute. The rule is intended to clarify this difference.

SUMMARY OF MODIFICATIONS TO RULE SINCE NOTICE

No modifications have been made to the rule.

PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing was held on August 27, 2013 at 3:00 p.m. at PERS headquarters in Tigard. No members of the public presented comment on the rule. The public comment period ended on September 6, 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: No.

Impact: Benefits members and staff by clarifying payment of pension benefits in certain situations.

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

RULEMAKING TIMELINE

June 14, 2013	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
July 1, 2013	*Oregon Bulletin* published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
July 26, 2013	PERS Board notified that staff began the rulemaking process.
August 27, 2013	Rulemaking hearing held at 3:00 p.m. at PERS in Tigard.
September 6, 2013	Public comment period ended at 5:00 p.m.
September 27, 2013	Board may adopt the permanent rule modifications.

BOARD OPTIONS

The Board may:

1. Pass a motion to "adopt modifications to OPSRP Pension Program Benefits 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: A new rule is needed to clarify retirement benefit eligibility of OPSRP Pension Program members who die after the effective date of retirement but before the first monthly pension benefit payment is issued.

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.4. Attachment 1 – 459-0075-0170, *Payment of OPSRP Pension Program Benefits*

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

459-075-0170

Payment of OPSRP Pension Program Benefits

(1) Definitions. For purposes of this rule:

(a) "Benefit recipient" means an OPSRP Pension Program member, surviving beneficiary or alternate payee who is entitled to receive a retirement benefit under the OPSRP Pension Program.

(b) "Non-survivorship benefit" means a lifetime benefit that is paid to an eligible benefit recipient and ends after death.

(c) "Survivorship benefit" means a survivor monthly pension benefit that is paid to a surviving beneficiary after an OPSRP Pension Program member's death.

(2) An OPSRP monthly pension benefit accrues on the first day of the calendar month and shall be paid to the benefit recipient on the first day of the following month.

(3) If a benefit recipient who is receiving an OPSRP pension dies during a calendar month:

(a) Non-survivorship benefits shall accrue on the first day of the month of death and shall be paid to the deceased member or deceased alternate payee on the first day of the following month.

(b) Survivorship benefits shall accrue on the first day of the month after the last payable OPSRP pension benefit to a deceased member or deceased alternate payee.

(4) If the member or alternate payee is entitled to receive a cash-out of a small benefit under ORS 238A.195, the benefit accrues on the member's or alternate

payee's effective retirement date and shall be paid to the member or alternate payee.

Stat. Auth.: ORS 238A.450

Stats. Implemented: ORS 238A.180, 238A.185, 238A.190, 238A.195

Oregon

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September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Adoption of SB 822 Tax Remedy/Increased Benefits Rules:
OAR 459-013-0310, *Payment of Increased Benefits under ORS 238.375 to 238.384*
OAR 459-013-0320, *Payment of Increased Benefits to an Alternate Payee*

OVERVIEW

- Action: Adopt modifications to the Senate Bill 822 Tax Remedy/Increased Benefits rules.
- Reason: Implement provisions of Senate Bill 822 (2013) which affect payment of tax remedy benefits to out-of-state residents.
- Policy Issue: No policy issues were identified.

BACKGROUND

Senate Bill 822 (2013) became effective on May 6, 2013. The bill prohibits PERS from paying increased benefits provided by SB 656 (Chapter 796, Oregon Laws 1991), or HB 3349 (Chapter 569, Oregon Laws 1995) if the benefit payments are not subject to Oregon personal income tax because the recipient is not an Oregon resident (as provided in ORS 316.127(9)). The rule modifications are intended to conform existing administrative rules to this new law.

SUMMARY OF MODIFICATIONS TO RULES SINCE NOTICE

OAR 459-013-0310, *Payment of Increased Benefits under ORS 238.375 to 238.384*:
Edits to section (3) clarify that residency status information provided by a person who may be eligible for tax remedy and received by PERS in the current calendar year will supersede residency information provided by the Department of Revenue for the same calendar year.

OAR 459-013-0320, *Payment of Increased Benefits to an Alternate Payee*:
No modifications have been made to the rule.

PUBLIC COMMENT AND HEARING TESTIMONY

A rulemaking hearing was held on August 27, 2013 at 3:00 p.m. at PERS headquarters in Tigard. No members of the public presented comment on the rule. The public comment period ended on September 6, 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: No.

Impact: Clarify eligibility for a benefit increase resulting from taxation of PERS benefits for PERS participants.

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

RULEMAKING TIMELINE

June 14, 2013	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.
July 1, 2013	*Oregon Bulletin* published the Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
July 26, 2013	PERS Board notified that staff began the rulemaking process.
August 27, 2013	Rulemaking hearing held at 3:00 p.m. at PERS in Tigard.
September 6, 2013	Public comment period ended at 5:00 p.m.
September 27, 2013	Board may adopt the permanent rule modifications.

BOARD OPTIONS

The Board may:

1. Pass a motion to "adopt modifications to the SB 822 Tax Remedy/Increased Benefits rules, as presented."
2. Direct staff to make other changes to the rules or explore other options.

STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: Implement provisions of Senate Bill 822 (2013) which affect payment of tax remedy benefits to out-of-state residents.

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.5. Attachment 1 – OAR 459-013-0310, *Payment of Increased Benefits under ORS 238.375 to 238.384*
B.5. Attachment 2 – OAR 459-013-0320, *Payment of Increased Benefits to an Alternate Payee*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 013 – RETIREMENT BENEFITS

459-013-0310

Payment of Increased Benefits under ORS 238.372 to 238.384

(1) For purposes of determinations under ORS 238.372 to 238.384:

(a) “Person” includes *[but is not limited to a trust or charitable organization that is]* **a member, an alternate payee, or** a beneficiary.

(b) The increased benefit percentage to be added to a benefit paid to a beneficiary under ORS 238.390, 238.395, 238.400, 238.405, or under an optional form of retirement allowance under ORS 238.305 or 238.325 will be determined based on:

(A) The increased benefit percentage(s) for which the member is otherwise eligible under ORS 238.364**,** *[and]* 238.366 **and 238.368**; and

(B) The residency of the beneficiary.

(2) PERS will make the following determinations on residency status for the purpose of determining increased benefit eligibility under ORS 238.372 to 238.384, based upon the yearly Oregon personal income tax return information provided by the Department of Revenue.

(a) If the Department of Revenue notifies PERS that a person:

(A) Filed Oregon personal income tax as a resident, PERS will treat the person as a resident of Oregon.

(B) Filed Oregon personal income tax as a non-resident, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(C) Did not file Oregon personal income tax, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(D) Filed Oregon personal income tax as a partial-year resident and the prior year the person filed personal income tax as a resident, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(E) Filed Oregon personal income tax as a partial-year resident and the prior year the person filed personal income tax as a non-resident, PERS will treat the person as a resident of Oregon.

(F) Filed Oregon personal income tax as a partial-year resident and the prior year the person did not file personal income tax, PERS will treat the person as a resident of Oregon.

(b) If PERS cannot make a residency status determination based upon information provided by the Department of Revenue or the person did not otherwise provide PERS with residency status information, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(3) Residency status information submitted on a form provided by PERS and received between January 1 and December 15 of the current calendar year will supersede any Oregon personal income tax return information provided by the Department of Revenue in section (2) for the same calendar year.

[(c) A payment begins before January 1, 2012 if the effective date of the payment, as described in this chapter, is before January 1, 2012.]

[(2) This rule is effective January 1, 2012.]

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.362, 238.364, 238.366**, 238.368** & 238.372 to 238.384

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 013 – RETIREMENT BENEFITS

459-013-0320

Payment of Increased Benefits to an Alternate Payee

(1) The provisions of this rule apply to an alternate payee who*[:]*

*[(a) R]***r**eceives retirement benefit payments derived from an "alternate payee account" or a separate benefit option as provided under OAR 459-045-0010(2) or (3)(b)**.***[; and]*

[(b) Has an effective retirement date on or after January 1, 2012.]

(2) If an alternate payee is eligible to receive increased benefits under ORS 238.465(5), the percentage of the increased benefit payable to the member, as determined under ORS 238.364, 238.366, **238.368,** and 238.372 to 238.384, is the increased benefit percentage for which the alternate payee is eligible. If the member predeceases the alternate payee, the increased benefit percentage payable to the member at the time of death remains the increased benefit percentage for which the alternate payee is eligible.

(3) **If the alternate payee is eligible for the increased benefit under section (2),** *[P]***p**ayment of the increased benefit to the alternate payee under ORS 238.372 to 238.384 is *[governed]* **determined** by the residency of the alternate payee.

[(4) An alternate payee described in section (1) of this rule whose effective retirement date is before January 1, 2012 may receive an increased benefit under ORS 238.364 or 238.366 regardless of the member's or alternate payee's residency.]

[(5) This rule is effective January 1, 2012.]

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.362, 238.364, 238.366, **238.368,** 238.465 & 238.372 to 238.384

Oregon

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September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Adoption of Modified SB 822 Tax Remedy/Increased Benefits Rule: OAR 459-013-0310, *Payment of Increased Benefits under ORS 238.375 to 238.384*

OAR 459-013-0320, *Payment of Increased Benefits to an Alternate Payee*

At the request of the Oregon Department of Revenue, the following changes are proposed to Section (3) of OAR 459-013-0310 as presented in the board packet: (1) clarify that the residency status information provided on the PERS form is only used for PERS' purposes of determining increased benefit eligibility; and (2) avoid confusion regarding the timing of the residency information provided to PERS by the member and the Department of Revenue.

These changes are incorporated in the rule as attached to this memo, but shown in detail below for your reference.

> (3) Residency status information submitted on a form provided by PERS and received between January 1 and December 15 of the current calendar year will**, for purposes of determining increased benefit eligibility under ORS 238.372 to 238.384,** supersede any Oregon personal income tax return information provided by the Department of Revenue **pursuant to** *[in]* section (2) **of this rule** *[for the same calendar year]*.

BOARD OPTIONS

The Board may:

1. Pass a motion to "adopt modifications to the SB 822 Tax Remedy/Increased Benefits rules, as presented with this memo."
2. Direct staff to make other changes to the rules or explore other options.

STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: Implement provisions of Senate Bill 822 (2013) which affect payment of tax remedy benefits to out-of-state residents.

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.5. Attachment 1 – OAR 459-013-0310, *Payment of Increased Benefits under ORS 238.375 to 238.384*
B.5. Attachment 2 – OAR 459-013-0320, *Payment of Increased Benefits to an Alternate Payee*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 013 – RETIREMENT BENEFITS

459-013-0310

Payment of Increased Benefits under ORS 238.372 to 238.384

(1) For purposes of determinations under ORS 238.372 to 238.384:

(a) "Person" includes *[but is not limited to a trust or charitable organization that is]* **a member, an alternate payee, or** a beneficiary.

(b) The increased benefit percentage to be added to a benefit paid to a beneficiary under ORS 238.390, 238.395, 238.400, 238.405, or under an optional form of retirement allowance under ORS 238.305 or 238.325 will be determined based on:

(A) The increased benefit percentage(s) for which the member is otherwise eligible under ORS 238.364**,** *[and]* 238.366 **and 238.368**; and

(B) The residency of the beneficiary.

(2) PERS will make the following determinations on residency status for the purpose of determining increased benefit eligibility under ORS 238.372 to 238.384, based upon the yearly Oregon personal income tax return information provided by the Department of Revenue.

(a) If the Department of Revenue notifies PERS that a person:

(A) Filed Oregon personal income tax as a resident, PERS will treat the person as a resident of Oregon.

(B) Filed Oregon personal income tax as a non-resident, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(C) Did not file Oregon personal income tax, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(D) Filed Oregon personal income tax as a partial-year resident and the prior year the person filed personal income tax as a resident, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(E) Filed Oregon personal income tax as a partial-year resident and the prior year the person filed personal income tax as a non-resident, PERS will treat the person as a resident of Oregon.

(F) Filed Oregon personal income tax as a partial-year resident and the prior year the person did not file personal income tax, PERS will treat the person as a resident of Oregon.

(b) If PERS cannot make a residency status determination based upon information provided by the Department of Revenue or the person did not otherwise provide PERS with residency status information, PERS will treat the person as a non-resident of Oregon, except as provided in section (3) below.

(3) Residency status information submitted on a form provided by PERS and received between January 1 and December 15 of the current calendar year will, for purposes of determining increased benefit eligibility under ORS 238.372 to 238.384, supersede any Oregon personal income tax return information provided by the Department of Revenue pursuant to section (2) of this rule.

[(c) A payment begins before January 1, 2012 if the effective date of the payment, as described in this chapter, is before January 1, 2012.]

[(2) This rule is effective January 1, 2012.]

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.362, 238.364, 238.366**, 238.368** & 238.372 to 238.384

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 013 – RETIREMENT BENEFITS

459-013-0320

Payment of Increased Benefits to an Alternate Payee

(1) The provisions of this rule apply to an alternate payee who*[:]*

*[(a) R]***r**eceives retirement benefit payments derived from an "alternate payee account" or a separate benefit option as provided under OAR 459-045-0010(2) or (3)(b)**.***[; and]*

[(b) Has an effective retirement date on or after January 1, 2012.]

(2) If an alternate payee is eligible to receive increased benefits under ORS 238.465(5), the percentage of the increased benefit payable to the member, as determined under ORS 238.364, 238.366, **238.368,** and 238.372 to 238.384, is the increased benefit percentage for which the alternate payee is eligible. If the member predeceases the alternate payee, the increased benefit percentage payable to the member at the time of death remains the increased benefit percentage for which the alternate payee is eligible.

(3) **If the alternate payee is eligible for the increased benefit under section (2),** *[P]***p**ayment of the increased benefit to the alternate payee under ORS 238.372 to 238.384 is *[governed]* **determined** by the residency of the alternate payee.

[(4) An alternate payee described in section (1) of this rule whose effective retirement date is before January 1, 2012 may receive an increased benefit under ORS 238.364 or 238.366 regardless of the member's or alternate payee's residency.]

[(5) This rule is effective January 1, 2012.]

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.362, 238.364, 238.366, **238.368,** 238.465 & 238.372 to 238.384

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September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Adoption of Assumed Rate Rule:
OAR 459-007-0007, *Assumed Rate*

OVERVIEW

- Action: Adopt new Assumed Rate rule.
- Reason: An administrative rule is needed to adopt the new assumed rate with an effective date of January 1 following adoption of the change.
- Policy Issue: When should a change in the assumed rate be effective for PERS transactions?

BACKGROUND

At the July 26, 2013 PERS Board meeting, staff gave second notice of rulemaking, proposing a new rulemaking cycle to imbed the new assumed rate in rule and, based on public comment, to move the implementation of any rule change to an effective date of January 1 for all PERS transactions. The proposed rule sets forth a new assumed rate and specifies when the assumed rate will be effective for PERS transactions.

SUMMARY OF MODIFICATIONS TO RULE SINCE SECOND NOTICE

The assumed rate percentage of 7.75% was added in section (3).

POLICY ISSUE

When should a change in the assumed rate be effective for PERS transactions?

Originally, the proposed rule would have different implementation dates for transactions related to the assumed rate. Based on public comment and the compressed time between rule adoption and the proposed effective dates, PERS staff concluded that impacts to workload, the need for clear communication with members and employers, and the need for staff training on the impact and use of a changed assumed rate, made a single implementation date preferable.

STAFF RECOMMENDATION

These proposed rule modifications that adopt the assumed rate also implement that change with an effective date of January 1.

PUBLIC COMMENT AND HEARING TESTIMONY

Staff submitted a revised Notice of Rulemaking on July 15, 2013 to start a new public comment period. A public hearing on the revised rule was held on August 27, 2013 at 3:00 p.m. at PERS headquarters in Tigard. Three members of the public attended but did not provide testimony. The public comment period ended on September 3, 2013, at 5:00 p.m. Three public comments were received on the revised version of the rule.

Douglas Crummé submitted a letter on July 16, 2013. A copy of his letter is included as Attachment 2 to this memo. Mr. Crummé requested that the Board raise the assumed rate to 8.55%. Kathy Kincaid submitted an email on July 23, 2013. A copy of her email is included as Attachment 3 to this memo. Ms. Kincaid asks for the Board to credit accounts at no less than the current 8% assumed rate. Both of these comments rely predominantly on past performance, which is not necessarily an indicator of future returns and investment advisors are cautious about the longer-term forecast in light of fundamental changes in key market segments like Fixed Income. Staff continues to support the proposed reduction to 7.75% because of these cautions.

State Representative Peter Buckley submitted an email on July 24, 2013. A copy of his email is included as Attachment 4 to this memo. Representative Buckley asks that the Board approach any PERS changes with patience and caution, rather than a quick fix. He stresses the need to focus on controlling employer rates first, and the assumed rate second. He recommends gradually lowering the assumed rate to 7.75% and amortizing out to 25 years in order to stabilize employer rates and see the actual investment return as the state comes out of the recession. The Representative states that a slow and cautious move would also provide time for stakeholders and the legislature to address the cost drivers in PERS.

The PERS Board's direction to the actuary to combine the reduced assumed rate with other changes to its actuarial methods and assumptions, such as the move to Entry Age Normal and the 20 year re-amortization of the Unfunded Actuarial Liability (UAL), will have some of the mitigating effects that Rep. Buckley is advocating. Also, the delayed effective date to January 1, 2014 for all PERS transactions does allow members to consider the effect of the change and plan accordingly (e.g. retire effective December 1, 2013 to avoid the impact of the change).

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 assumed rate determined by the Board must be adopted by rule and clearly describe the effective date of the assumed rate change on PERS transactions.

Impact: The proposed rule benefits members, employers and staff by setting forth the assumed rate and a clear effective date for implementing a change in the rate.

Cost: There are no discrete costs directly attributable to specifying the assumed rate in rule.

RULEMAKING TIMELINE

May 15, 2013	Staff began the rulemaking process by filing Notice of Rulemaking with the Secretary of State.

May 31, 2013	PERS Board notified that staff began the rulemaking process.
June 1, 2013	*Oregon Bulletin* published the first Notice. Notice was sent to employers, legislators, and interested parties. Public comment period began.
June 25, 2013	First rulemaking hearing held at 2:00 p.m. at Oregon State Archives in Salem.
June 27, 2013	Second rulemaking hearing held at 3:30 p.m. at PERS headquarters in Tigard.
July 2, 2013	First public comment period ended at 5:00 p.m.
July 15, 2013	Staff restarted the rulemaking process for the new version of the rule by filing Notice of Rulemaking with the Secretary of State.
July 26, 2013	PERS Board notified that staff restarted the rulemaking process.
August 1, 2013	*Oregon Bulletin* published the second Notice. Notice was sent to employers, legislators, and interested parties. Second public comment period began.
August 27, 2013	Third rulemaking hearing held at 3:00 p.m. at PERS headquarters in Tigard.
September 3, 2013	Second public comment period ended at 5:00 p.m.
September 27, 2013	Board may adopt the permanent rule modifications.

BOARD OPTIONS

The Board may:

1. Pass a motion to “adopt a new Assumed Rate rule, as presented.”
2. Direct staff to make changes to the rule or explore other options.

STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: An administrative rule is needed to adopt the new assumed rate with an effective date of January 1 following adoption of the change.

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.6. Attachment 1 – 459-007-0007, *Assumed Rate*
B.6. Attachment 2 – Public Comment Letter from Douglas Crummé
B.6. Attachment 3 – Public Comment Email from Kathy Kincaid
B.6. Attachment 4 – Public Comment Email from Representative Peter Buckley

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 007 – EARNINGS AND INTEREST DISTRIBUTION

459-007-0007

Assumed Rate

(1) The Board will review the assumed rate in odd-numbered years as part of the Board's review and adoption of actuarial assumptions and methods.

(2) The Board may adopt a change in the assumed rate at any time. A change in the assumed rate is effective the first of the year following the Board's adoption of the change.

(3) The assumed rate is set at 7.75 percent, effective on January 1, 2014.

Stat. Auth.: ORS 238.650 & 238A.450

Stats. Implemented: ORS Chapters 238 & 238A

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To: Paul Cleary, Executive Director
PERS
P.O. Box 23700
Tigard, Oregon 97281-3700

Fr: Douglas Crummé DC
7350 N.E. Sunflower Lane
Corvallis, Oregon 97330

July 16, 2013

Re: **Board Should Increase Assumed Return Rate to 8.55%**

Dear PERS Board,

I am a State of Oregon employee nearing retirement. I respectfully request that the Board increase the PERS fund assumed return rate to 8.55% at the Board's meeting on July 26, 2013. Such an increase is warranted for several reasons.

8.55% Assumption is Most Realistic

8.55% is the actual average return that PERS reports for the regular account for the 10 years through May 31, 2013. This average was achieved despite the sharp decline in 2008. The 8.55% return is not an aberration. "*PERS: By the Numbers December 2012*" at page 14 reports that the 42-year average regular account earnings available for crediting has been 10.3%. These proven, long-term averages are a more realistic indicator of likely future returns than are consultants' forecasts, which, of necessity, are based on multiple, comparatively speculative assumptions.

Milliman Forecast Shortcomings

The May 31, 2013, Milliman 20-year, 50th-percentile return forecast of 7.54% is probably too low because it does not take into account likely "alpha" from PERS managers outperforming peers and market benchmarks. The PERS fund has historically experienced significant alpha that the assumed rate should reflect. As Treasurer Ted Wheeler emphasized in a press release on June 26, 2013,

> "...[T]he Oregon Public Employees Retirement Fund...is invested on behalf of beneficiaries and ranks among the

> best performing large pension funds in the nation according to independent reviews."

The Milliman forecast of 7.54% is also probably too low because Milliman made the forecast prior to the Oregon Investment Council's (OIC's) late-June 2013 revision to its portfolio mix. According to Treasurer Wheeler's press release, that revision caused the OIC's advisor, Strategic Investment Solutions, to increase its annual return projection by 0.3%.

Many Comparisons Inapt

Since PERS is among the best-performing large pension funds in the nation, it is potentially quite inapt to refer to the actual or forecast returns of other public pension funds to decide the assumed rate for Oregon's distinctive program. Again, the Board should take Oregon's strong record of success into account.

Additionally, as a public-sector pension fund, it would be inapt to assume PERS fund returns based on private-sector annuity-product rates. In contrast to PERS, private-sector vendors' and middle-men's profits and commissions and extra expenses such as marketing would be deducted before returns are paid to annuitants. The private sector is also an inapt comparison to the extent that PERS enjoys greater economies of scale than private sector vendors.

Avoid Unnecessary Disruption

Assuming rates that are unrealistically low would unnecessarily disrupt both employers and employees.

A low assumption would tend to increase employers' near-term contribution rates, stressing the resources available for public employers' programs and the steady operation of government over time.

A low assumption would also distort employees' timing of their retirement dates, causing some to retire unnaturally early in order to avoid the income cut that the low assumption would inflict and causing others to work longer than planned in order to regain the pension income level they need to safely retire.

Should Decide on Merits

The Board should determine the assumed rate based on the merits rather than politics and polls. It would be *ultra vires* for the Board to select a particular assumed rate simply to appease those who regret, after the fact, the statutory pension contracts that our public employers have been parties to for decades. The press and some politicians have unfortunately created a lot of public misunderstanding about the PERS system this year.

In the Alternative, Maintain 8.00% Rate

OAR 459-005-0060(1)(b) indicates that the Board should limit changes in the assumed rate to those that are statistically significant. If the Board concludes that a 0.55% increase in the assumed rate to 8.55% would not be a statistically significant, then the Board should maintain the long-time 8.00% rate.

Thank you for your service in wrestling with these complex issues.

Sincerely,

Douglas C. Crummé

Douglas Crummé

cc. Daniel Rivas, Rules Coordinator

B.6. Attachment 3

From: Kathy Kincaid <kincaidk@pps.net>
To: "PERS.BOARD@state.or.us" <PERS.BOARD@state.or.us>, "daniel.rivas@state.o...
Date: 7/23/2013 11:56 AM
Subject: Regarding Potential Lowering of PERS Assumed Rate

Dear Members of the PERS Board,

Thank you for your thoughtful consideration of my previous Email's content and the contributions by many people provided at the Public Hearings in June regarding the effective dates of any changes in the assumed rate. Due to your email, I realize that you do not look backwards when determining the assumed rate. However, much can be learned from looking back in order to gain insight to use when looking forward. Please consider the following excerpt's information.

From PERS' "PERS by the Numbers" publication:
"…
43 year averages (1970-2012)
§
Regular account earnings available for crediting: 10.4%.
§
Earnings credited to Tier One regular accounts: 9.7%
.§
Earnings credited to variable accounts: 10.9%..."

These 43 year averages were achieved despite the dire events that occurred during the 43-year period—events such as:
the oil crisis during 1973-74; October 19, 1987's Stock market plunge of 508 points in a single session, the worst decline in Wall Street history in terms of percentage decline; early 1990s' Recession; 1995-96 Government Shutdown<http://bancroft.berkeley.edu/ROHO/projects/debt/governmentshutdown.html>; destruction of the World Trade Center and other effects of the 9-11 attacks by terrorists; the shameful shenanigans that brought about the 2007-09 financial crisis; plus various bombings, military actions, and international crises-- events that hopefully will be prevented or avoided in the next 20 years. (References included the following websites.)
http://bancroft.berkeley.edu/ROHO/projects/debt/oilcrisis.html
http://www.huffingtonpost.com/2011/08/05/dow-jones-biggest-drops-falls_n_919216.html#s323006title=10_August_4th
http://www.digitalhistory.uh.edu/historyonline/chron20.cfm

Please also consider the following excerpt:
http://www.reuters.com/article/2013/07/18/us-markets-global-idUSBRE88901C20130718

By Ryan Vlastelica

NEW YORK | Thu Jul 18, 2013 4:32pm EDT

" (Reuters) - Stock markets<http://www.reuters.com/finance/markets?lc=int_mb_1001> worldwide extended their rally on Thursday, with major U.S. indexes hitting all-time highs as the Federal Reserve again reassured investors that it was flexible on the timing for ending its stimulus program. Fed Chairman Ben Bernanke testified before Congress for a second day on Thursday and reiterated that the Fed would only start phasing out its stimulus once it is sure the economy<http://www.reuters.com/finance/economy?lc=int_mb_1001> is strong enough to stand on its own. His comments lured investors to equities, pushing major indexes to all-time closing highs and gave the S&P<http://www.reuters.com/finance/markets/index?symbol=.SPX&lc=int_mb_1001> 500 its tenth positive session out of the past 11… "

Hopefully, this information will lend support to crediting Tier One PERS accounts at an assumed rate of no less than 8.0 %.

Thank you for your caring consideration.

Sincerely,

Kathy Kincaid

B.6. Attachment 4

From: Marjorie TAYLOR
To: RIVAS, Daniel
Date: 7/25/2013 2:23 PM
Subject: RE: PERS Board Meeting - 7/26

Please include in the public record for the administrative rule on assumed earnings rate. Thank you.

>>> "Rep Buckley" <rep.peterbuckley@state.or.us> 7/24/2013 8:22 PM >>>
Marjorie, Paul, Steven and Michael--

Thank you for this information. If it is not too late to offer an official comment to the PERS board on this issue, I would very much like to weigh in with a viewpoint from where I sit as a legislator and a Co-Chair of Ways & Means.

In the months of focus on PERS that I have been a part of, I have become increasingly convinced of the need to change the frame with which we are viewing the system. There is a very strong political push to "fix" PERS, to somehow take steps immediately that will result in the kind of savings and stability we are all looking for long-term. The more I have studied this issue, the more convinced I am that trying to "fix" PERS is not a workable path. The reforms of 2003 have done what is possible to change the basics of the system. Our goal instead is to manage PERS, to address the cost drivers in the system in the same manner we are, as a state, addressing the cost drivers in our health care system. I can't emphasize this point enough. With health care, we are addressing cost drivers in an comprehensive, inclusive and very effective manner. For long term success, we must approach PERS the same way.

With this framework in mind, I would strongly encourage the PERS board to act in a thoughtful and patient manner. I do not believe our overall interests are served by swinging for the fences, by trying to "fix" PERS now and forever this year. I believe our overall interests are best served on a step by step basis, focusing on employer rates first and the assumed rate of return and retiree benefits second.

If the question is "how do we sustain the system?" first and foremost, then lowering the rate of return makes clear sense. But if the question is "how do we manage the system to hold down employer rates, moving clearly towards sustainability, and keeping our commitments to our members?', then lowering the rate of return makes sense only if it is part of a more comprehensive effort.

I believe that comprehensive effort would include lowing the assumed rate down to 7.75% slowly, not immediately, perhaps eventually to 7.5% if returns warrant that, and amortizing out to 25 years at the same time in order to stabilize or even lower employer rates. A slow decrease would also not cause the same kind of angst and sense of betrayal from long term employees who see a clear threat by a swift and sharp reduction of of the assumed rate.

A thoughtful, transparent and well timed out reduction to 7.75% while amortizing to 25 years provides stability for employer rates, but perhaps more importantly, provides time to see what the actual return on investments prove to be as we come out of the recession. It would also provide time for the Governor, the Legislature and labor to work on an inclusive plan to manage the cost drivers in PERS as opposed to the legally questionable and politically explosive path of attempting a "fix" that focuses only on taking away benefits from workers and retirees.

I have no doubt that all of you, and all the members of the Board, take our obligations with the utmost seriousness, both to the PERS members and the state as a whole. I greatly appreciate your service and your willingness to wrestle with issues of this difficulty. But given the difficulty of the issue, and given the uncertainty of the forecasts we must work with on returns and rates, I strongly urge you to move with patience, and to be willing to accept that we will be working to balance the system, and to balance the competing goals and needs involved, for years to come. There is no quick fix I can see that is legally or morally acceptable, but there are steps we can take together to sustain the system, manage employer rates, keep faith with retirees, and address the needs of the state we love.

I am committed to work with all involved in an inclusive, patient and thoughtful manner as depicted above. If I can be of any assistance to the Board in this effort now or at any point in the future, please let me know. I have begun discussions with the Governor's staff, Legislative colleagues, labor and employer representatives on an inclusive, patient approach, and I again respectfully request time and support of these efforts.

Sincerely,
Rep. Peter Buckley
House Co-Chair
Joint Committee on Ways & Means

Oregon

John A. Kitzhaber, M.D., Governor

Public Employees Retirement System
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Tigard, OR 97281-3700
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www.oregon.gov/pers

September 27, 2013

TO: Members of the PERS Board

FROM: Steven Patrick Rodeman, Deputy Director

SUBJECT: Adoption of Actuarial Methods & Assumptions

BACKGROUND

Following up on the presentation from Matt Larrabee and Scott Preppernau at the PERS Board's July 26, 2013 meeting, attached is a revised draft of the 2012 Experience Study. At the July meeting, the PERS Board directed the actuary to apply the recommended economic and demographic assumptions from the draft study distributed prior to that meeting. The PERS Board also directed the actuary to move to the Entry Age Normal (EAN) cost allocation method; re-amortize the accumulated Tier One/Tier Two UAL over 20 years; modify the employer rate collar structure as the actuary recommended; and use an assumed earnings rate of 7.75 percent in completing the December 31, 2012 system valuation.

The attached version of the 2012 Experience Study incorporates the PERS Board's direction from the July meeting. Pursuant to ORS 238.605, adoption of the 2012 Experience Study will fulfill the PERS Board's duty to direct the actuary to prepare a report evaluating the current and prospective assets and liabilities of the system and indicating its current and prospective financial condition. Once adopted, staff will complete the responsibility to distribute a summary of the report to all participating public employers by posting the study on the PERS website.

BOARD OPTIONS

The Board may:

1. Pass a motion to "adopt the 2012 Experience Study, as presented."
2. Direct the actuary or staff to make further revisions to the Experience Study methods and assumptions, and return with a revised study for the Board's consideration.

STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

- Reason: The 2012 Experience Study, as presented, reflects the methods and assumptions necessary to competently report the current and prospective assets and liabilities of the system and to indicate its current and prospective financial condition.

C.1. Attachment 1 – 2012 Experience Study from Milliman

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

2012 Experience Study (Updated)

Prepared by:

Milliman, Inc.

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

Scott Preppernau, FSA, EA, MAAA
Consulting Actuary

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September 18, 2013

Board of Trustees
Oregon Public Employees Retirement System

Re: 2012 Experience Study (Updated) – Oregon Public Employees Retirement System

Dear Members of the Board:

The results of an actuarial valuation are based on the actuarial methods and assumptions used in the valuation. These methods and assumptions are used in developing employer contribution rates, disclosing employer liabilities pursuant to GASB requirements and for analyzing the fiscal impact of proposed legislative amendments. The 2012 Experience Study report has been updated from the version originally published on July 25, 2013 to reflect input received from the PERS Board at its July 26, 2013 public meeting.

This experience study report has been prepared exclusively for the Oregon Public Employees Retirement System (PERS) and its governing PERS Board (Board). **The study recommends to the Board the actuarial methods and assumptions to be used in the December 31, 2012 and 2013 actuarial valuations of PERS.**

Except where otherwise noted, the analysis in this study was based on data for the experience period from January 1, 2009 to December 31, 2012 as provided by PERS. PERS is solely responsible for the validity, accuracy and comprehensiveness of this information; the results of our analysis can be expected to differ and may need to be revised if the underlying data supplied is incomplete or inaccurate.

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.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

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. Assumptions related to the health care cost inflation rates for the RHIPA retiree healthcare program discussed in this report were determined by Milliman actuaries qualified in such matters.

Sincerely,

Matthew R. Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

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

Table of Contents

1. Executive Summary

This experience study report has been prepared exclusively for the Oregon Public Employees Retirement System (PERS) and the PERS Board (Board) in order to analyze the system's experience from January 1, 2009 through December 31, 2012 and to recommend actuarial methods and assumptions to be used in the December 31, 2012 and 2013 actuarial valuations of PERS.

A brief summary of the recommended method and assumption changes as well as items for discussion and review at the July 2013 Board meeting contained in this report follows:

Actuarial Methods

- Change the actuarial cost method to Entry Age Normal (EAN) from the current Projected Unit Credit (PUC) method. The Entry Age Normal method provides for funding benefits according to a level cost allocation as a percent of payroll over a member's projected full working career. A change to EAN will also allow PERS to use the same cost method for contribution rate calculations as will soon be required by the Governmental Accounting Standards Board (GASB) under recently revised financial reporting standards.
- Consider pros and cons of re-amortizing all accumulated Tier 1/Tier 2 shortfall (UAL) as of the date of the next rate-setting valuation (December 31, 2013) over a closed 20-year period as a level percentage of projected payroll. If the Board elects to re-amortize, the re-amortization would manage and provide partial mitigation to rate increases from recommended changes to the cost method and investment return assumption. A decision to re-amortize involves trade-offs between rate stability and protection of funded status, and those trade-offs are assessed in our July 2013 Board presentation materials. At the July 2013 meeting, the Board did elect to re-amortize the Tier 1/Tier 2 shortfall.
- Modify the "grade-in range" over which the rate collar gradually doubles so that the collar doubles as funded status decreases from 70% to 60% excluding side accounts. Previously the range had been from 80% to 70%. In combination with the recommended change to the EAN cost method, a stress test indicates that this change provides increased near-term rate predictability while not materially impacting the long-term risk profile of the program. Details on the stress tests are in our July 2013 Board presentation.

Allocation Procedures

- When allocating accrued liability for Tier 1/Tier 2 active members who have earned service with multiple PERS employers, base 70% of the allocation on service with each employer (95% for police & fire members) and base the rest on the member account balance associated with each employer. These assumptions have increased 10% and 5%, respectively, since the prior experience study. This movement illustrates the continued migration of projected future Tier 1/Tier 2 retirement benefits away from the frozen Money Match calculation, which is based on account balances, and toward the ongoing Full Formula approach, which is based on final average salary.

Economic Assumptions

- Lower the regular account rate of return assumption from the current assumption of 8.00% per year. Based on the current target asset allocation of the Oregon PERS Fund, analyses under two different sets of capital market assumptions indicate the best estimate of future expected returns falls between 7.50% and 7.75%. At the July 2013 meeting, the Board selected an assumed return of 7.75%.
- Set the variable account rate of return assumption to be equal to the assumed rate of return on regular accounts. In previous studies, this was set to be 25 basis points greater than assumed rate of return on

regular accounts, but based on Milliman's current capital market assumptions the relationship between the relevant asset classes no longer warrants a distinction.

Demographic Assumptions

- Adjust the healthy mortality assumption for two groups to reflect statistically significant recent experience.
- Adjust retirement rates for most groups modestly to more closely align with recent and expected future experience.
- Lower the merit component of the salary increase assumption for school district members based on observations of the last eight years of experience, with the most pronounced decreases for long-service school district members.
- Convert the pre-retirement termination of employment assumptions from an age-based select and ultimate approach with separate tables for Tier 1/Tier 2 and OPSRP to a set of service-only tables used for all members.
- Slightly lower assumed rates of duty disability for general service members.
- Add new categories to the Tier 1 unused vacation cash out assumption. Compared to the prior assumption, the recommendations moderately decrease the Tier 1 unused vacation cash out assumption for the state general service and state police & fire groups, while significantly increasing the assumption for the local police & fire group.
- Modestly adjust the Tier 1/Tier 2 unused sick leave assumption for most groups.
- Slightly decrease the participation assumption for the RHIA retiree healthcare programs.
- Restructure the participation assumption for the RHIPA retiree healthcare program to a service-based assumption, with higher rates for long-service members and lower rates for shorter service members when compared to the previous assumption.

2. Actuarial Methods and Allocation Procedures

Overview

Actuarial methods and allocation procedures are used as part of the valuation to determine actuarial accrued liabilities, to determine normal costs, to allocate costs to individual employers and to amortize unfunded liabilities. The following Board objectives were considered in developing the actuarial methods and allocation procedures:

- Transparency of shortfall and funded status calculations
- Predictable and stable employer contribution rates
- Protection of the plan's funded status to enhance benefit security for members
- Equity across generations of taxpayers funding the program
- Actuarial soundness - crafting policy that will fully fund the system if assumptions are met
- Compliance with GASB (Governmental Accounting Standards Board) requirements

The actuarial methods used for the December 31, 2011 actuarial valuation and the changes recommended for the December 31, 2012 and 2013 actuarial valuations are shown in the table below.

Method	December 31, 2011 Valuation	December 31, 2012 and 2013 Valuations
Cost method	Projected Unit Credit (PUC)	Entry Age Normal (EAN)
UAL Amortization method	UAL amortized as a level percent of combined Tier 1/Tier 2 and OPSRP payroll	No change
UAL Amortization period	▪ UAL bases – Closed amortization from the first rate setting valuation in which experience is recognized – Tier 1/Tier 2 – 20 years – OPSRP – 16 Years – RHIA/RHIPA – 10 years ▪ Newly established side accounts – Aligned with the new Tier 1/Tier 2 base from the most recent rate-setting valuation ▪ Newly established transition liabilities or surpluses – 18 years from the date joining the SLGRP (State & Local Government Rate Pool)	▪ UAL bases – Per Board direction, re-amortize all accumulated Tier 1/Tier 2 shortfall as of 12/31/2013 over a closed 20-year period ▪ Newly established side accounts – No change ▪ Newly established transition liabilities or surpluses – No change
Asset valuation method	Market value	No change
Exclusion of reserves from valuation assets	Contingency Reserve, Capital Preservation Reserve, and Tier 1 Rate Guarantee Reserve (RGR) excluded from valuation assets. RGR is not excluded from valuation assets when RGR is negative (i.e., when the RGR is a deficit reserve).	No change
Allocation of Benefits in Force (BIF) Reserve	The BIF is allocated to each rate pool in proportion to the retiree liability attributable to the rate pool.	No change

Method	December 31, 2011 Valuation	December 31, 2012 and 2013 Valuations
Rate collar	Change in base contribution rate limited (i.e., collared) to greater of 20% of current base rate or 3% of payroll. Size of collar doubles if funded percentage excluding side accounts falls below 70% or increases above 130%. 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. Exclude RHIA and RHIPA (retiree medical) rates from the rate collar calculation.	Modify the "grade-in range" of the double rate collar feature, such that the size of the collar doubles if funded percentage excluding side accounts falls below 60% or increases above 140%. If the funded percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.
Liability allocation for actives with several employers	▪ Allocate Actuarial Accrued Liability 40% (10% for police & fire) based on account balance with each employer and 60% (90% for police & fire) based on service with each employer	Change allocation to 30% (5% for police & fire) based on account balance and 70% (95% for police & fire) based on service with each employer.
	▪ Allocate Normal Cost to current employer	No change

The methods or procedures are described in greater detail on the following pages.

Actuarial Cost Method

The total cost of the Tier 1/Tier 2 program, over time, will be equal to the benefits paid less investment earnings and is not affected directly by the actuarial cost method. The actuarial cost method is simply a tool to allocate costs to past, current or future years and thus primarily affects the timing of cost recognition.

The December 31, 2011 valuation used the Projected Unit Cost (PUC) method. PUC, which was first adopted for the December 31, 2004 actuarial valuation, allocates all benefits projected to be paid under the Tier 1/Tier 2 “Money Match” formula to past service since additional member account contributions are not permitted subsequent to 2003. The PUC method had the additional benefit of being compliant under the GASB 25 & GASB 27 financial reporting standards.

Last year, revised financial reporting standards (GASB 67 & GASB 68) were enacted. The new standards will incrementally become effective over the next two years and will replace the GASB 25 & GASB 27 standards. Under GASB 67 & 68, all financial reporting calculations must be made using the Entry Age Normal (EAN) actuarial cost method. Unlike PUC, the EAN method will allocate projected “Money Match” retirement liabilities across the full projected working careers of Tier 1 members. For Tier 1 members projected to retire with Money Match benefits, the EAN method will lower the liability allocated to past service (accrued liability) while increasing the liability allocated to current year service (normal cost). For OPSRP members, EAN will increase both accrued liability and the current year normal cost for OPSRP in total due to the differing allocation patterns of those two methods. EAN allocates costs as a level percentage of payroll across the full projected working career. In contrast, PUC allocates costs in accordance with an economic value pattern of benefit accruals, resulting in increasing costs as a percentage of payroll over the projected working career as active member gets closer to his or her projected retirement age.

Since EAN is now mandated for financial reporting purposes, we recommend changing to the EAN method for employer contribution rate calculations. Using EAN will be more understandable to interested parties as only one set of liability and normal cost calculations will be made for each employer. The EAN approach is widely used in the actuarial and public plan sponsor community because it provides a realistic estimate of the long-term costs of a retirement program as a level percentage of payroll if all assumptions are met. While the unique Money Match benefit formula provided a rationale for using PUC in the last several valuations, Money Match is now a less dominant formula among the active member population. Combined with the reasons noted above, this makes a change to the EAN cost method at this time appropriate.

Amortization Method

Unfunded Actuarial Liability

The unfunded actuarial liability (UAL) is amortized as a level percentage of combined payroll (Tier 1/Tier 2 plus OPSRP) in order to maintain more level contribution rates as payroll for the closed group of Tier 1/Tier 2 members declines and payroll of OPSRP members increases. We recommend this methodology continue.

The UAL is currently amortized over the following closed periods as a level percent of projected payroll from the first rate-setting valuation in which the experience is recognized:

- Tier 1/Tier 2 – 20 years
- OPSRP – 16 years
- RHIA/RHIPA – 10 years

As noted in the section above, the recommended change to the EAN method will increase calculated normal cost rates for most members and will increase the calculated actuarial accrued liability for OPSRP members.

Both of these changes will cause calculated employer rates prior to the application of the rate collar (discussed in a subsequent section) to increase, even though the change to EAN does not affect projected member benefit levels. As a policy decision to manage and partially mitigate near-term rate increases associated with the recommended change to EAN, the Board should consider the pros and cons of re-amortizing all existing Tier 1/Tier 2 shortfall (unfunded actuarial liability or UAL) at the date of the next rate-setting actuarial valuation (December 31, 2013). The considered amortization would be as a level percentage of payroll over a closed 20-year period. A 20-year period is suggested because that payoff duration avoids significant negative amortization. Amortization periods longer than 20 years can incur significant negative amortization, wherein the calculated shortfall can increase even if all contributions are made and all assumptions are met.

The decision whether or not to re-amortize the Tier 1/Tier 2 shortfall as part of other changes in methods and assumptions involves striking a balance between competing Board objectives, including protecting funded status and promoting predictable and stable contribution rates. Material discussing the trade-offs associated with a re-amortization are included in our July 2013 presentation materials to the Board.

After consideration at their July 2013 meeting, the PERS Board did elect to re-amortize the existing Tier 1/Tier 2 shortfall over a 20-year period as of December 31, 2013.

Side Accounts and Transition Liabilities/Surpluses

Prior to the 2010 Experience Study, side accounts and transition liabilities/surpluses were amortized over the period ending December 31, 2027. To better match the amortization periods for new side accounts and new transition liabilities with the amortization of the Tier 1/Tier 2 UAL and to avoid issues related to a shortening amortization period, as part of the 2010 Experience Study the PERS Board adopted the following amortization procedures which are not tied to a fixed date:

- Newly established side accounts are amortized over the same period as the new Tier 1/Tier 2 UAL base from the most recent rate-setting valuation. For example, a side account created in July 2013 would be amortized to December 31, 2031, aligned with the Tier 1/Tier 2 UAL base created in the December 31, 2011 valuation.
- New transition liabilities/surpluses would be amortized over the 18 year period beginning when the employer joins the SLGRP. This amortization period aligns with the last Tier 1/Tier 2 amortization base established as an independent employer.

We recommend no change to the amortization method or periods of side accounts and new transition liabilities/surpluses.

Asset Valuation Method

Effective December 31, 2004, the Board adopted market value as the actuarial value of assets, replacing the four-year smoothing method previously used to determine the actuarial asset value, which is used for shortfall (UAL) calculations. Although asset smoothing is a common method for smoothing contribution rates in public sector plans, the smoothed asset value does not provide a transparent measure of the plan’s funded status and UAL. Market value provides more transparency to members and other interested parties regarding the funded status of the plan. Instead of smoothing assets, a rate collar method (described below) is used to smooth contribution rates.

We recommend no change to the asset valuation method.

Excluded Reserves

Statute provides that the Board may establish Contingency and Capital Preservation reserve accounts to mitigate gains and losses of invested capital and other contingencies, including certain legal expenses or judgments. In addition, statute requires the establishment and maintenance of a Rate Guarantee or Deficit reserve to fund earnings crediting to Tier 1 member regular accounts when actual earnings are below the investment return assumption selected by the Board.

The Contingency and Capital Preservation reserves are excluded from the valuation assets used for employer rate-setting calculations. We recommend no change to the treatment of the Contingency and Capital Preservation reserves.

The Rate Guarantee Reserve (RGR) has been negative (in deficit status) since the 12/31/2008 valuation. All else being equal, excluding a negative reserve increases the level of valuation assets used in employer rate-setting calculations. This occurs because subtracting a negative amount is mathematically equivalent to adding a positive amount of the same magnitude. If the negative reserve was larger in absolute value than the sum of the other reserves, this approach would lead to the actuarial value of assets used in shortfall (UAL) calculations being larger than the market value of assets.

As part of the 2010 Experience Study, the Board decided to only exclude the RGR from assets when it is in positive surplus position, and to not treat a negative RGR as an asset when it is in deficit status. We recommend this treatment of the RGR continue.

Rate Collar Method

Effective December 31, 2004, a rate collar method was adopted that limits biennium to biennium changes in contribution rates to be within a specified "collar". The existing rate collar method restricts the change in an employer's "base" Tier 1/Tier 2 contribution rate (i.e., the rate before contemplation of side account rate offsets or rate adjustments for any pre-pooled obligations) to the greater of 20 percent of the current rate or 3% of payroll. If the funded status excluding side accounts is less than 70% or greater than 130%, the size of the rate collar is doubled. 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.

In combination with the recommended move to EAN, we recommend a revision to the rate collar's methodology. The recommendation is that the funded status "grade in range" of the double collar be adjusted by 10%. As noted above, previously the collar gradually doubled in size between 80% funded status and 70% funded status or between 120% funded status and 130% funded status. Our recommendation is that if the funded status excluding side accounts is less than 60% or greater than 140%, the size of the rate collar is doubled. If the funded percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale. This change serves to improve the predictability of near-term contribution rates for a large percentage of PERS employers. A stochastic stress test under a wide variety of potential future investment return scenarios was used to assess this recommendation. The testing indicated that this recommendation, when combined with the recommended change to the EAN actuarial cost method, did not materially alter the risk profile of the system for several key "negative event" metrics related to low funded status or high employer contribution rates. Results of that stress test, which serve as the basis for this recommendation, and the underlying methodology of the test can be found in our July 2013 Board presentation materials.

The rate collar is applied for each employer (or rate pool) prior to any adjustments to the employer contribution rate for side accounts, transition liabilities, or pre-SLGRP pooled liabilities. The rate collar only applies to employer contribution rates for pension benefits. The effect of any significant benefit changes adopted by the Legislature is applied to the base contribution rate before determining the collar. Rates attributable to RHIA and RHIPA (retiree medical) programs are not subject to the collar.

Liability Allocation for Actives with Several Employers

Over the course of a member's working career, a member may work for more than one employer covered under the Tier 1/Tier 2 program. Since employer contribution rates are developed on an individual employer basis, the member's liability should be allocated between such a member's various Tier 1/Tier 2 employers. If all of the member's employers participate in the same rate pool, the allocation has no effect on rates, but if the employers participate in different pools or are independent, the allocation can have an impact on the different employers' rates.

When a member retires, PERS allocates the cost of the retirement benefit between the employers the member worked for based on the formula that produces the member's retirement benefit. If the member's benefit is calculated under the Money Match approach, the cost is allocated in proportion to the member's account balance attributable to each employer. If the member's benefit is calculated under the percent of final average pay Full Formula approach, the cost is allocated in proportion to the service attributable to each employer.

In the period prior to the 2003 system reforms and shortly thereafter, the vast majority of retirement benefits were calculated under Money Match, so the member liability in valuations prior to December 31, 2006 had been allocated in proportion to the member's account balance attributable to each employer. With no new member contributions to Tier 1/Tier 2, however, this procedure meant no liability was allocated to employers for service after December 31, 2003 in the valuation. As Money Match benefits became less dominant and retirements with Full Formula benefits become more prevalent, a change in the procedure to allocate liability among employers was warranted.

Effective with the December 31, 2006 valuation, a change was made to allocate a member's actuarial accrued liability among employers based on a weighted average of the Money Match methodology, which utilizes account balance, and the Full Formula methodology, which utilizes service. The methodologies were weighted according to the percentage of the system-wide actuarial accrued liability for new retirements projected to be attributable to Money Match and Full Formula, respectively, as of the next rate-setting valuation. For the December 31, 2010 and December 31, 2011 valuations, the Money Match method was weighted 60 percent for general service members and 10 percent for police & fire members.

A summary of the portion of the actuarial accrued liability for new retirements projected to be attributable to Money Match benefits over the next several years is shown in the table below:

December 31,	General Service	Police & Fire
2011	34%	7%
2012	32%	6%
2013	30%	5%
2014	28%	5%

Since the next rate-setting valuation is the December 31, 2013 valuation, we recommend the Money Match method be weighted 30 percent for general service members and 5 percent for police & fire members. This weighting will continue to be reviewed with each experience study and updated as necessary.

As in prior valuations, the member's normal cost will continue to be assigned to his or her current employer. Due to the recommended change in actuarial cost method, some members previously assigned zero normal cost will now have non-zero normal cost amounts.

3. Economic Assumptions

Overview

Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations,* provides guidance on selecting economic assumptions used in measuring obligations under defined benefit pension plans. ASOP No. 27 suggests that economic assumptions be developed using the actuary's professional judgment, taking into consideration past experience and the actuary's expectations regarding the future. The process for selecting economic assumptions involves:

- Identifying components of each assumption and evaluating relevant data;
- Developing a best-estimate range for each economic assumption; and
- Evaluating measurement specific factors and selecting a point within the best-estimate range.

The Actuarial Standard of Practice noted above is currently in a "review and revision" process. When this process is complete, the revised ASOP is likely to include a requirement that an economic assumption does not merely fall within a best-estimate range. Instead, the assumption will need to be "unbiased", such that it is not anticipated to result in actual performance being persistently above or below assumption based on the outlook at the time the assumption is selected. We have reflected this consideration in our recommendations.

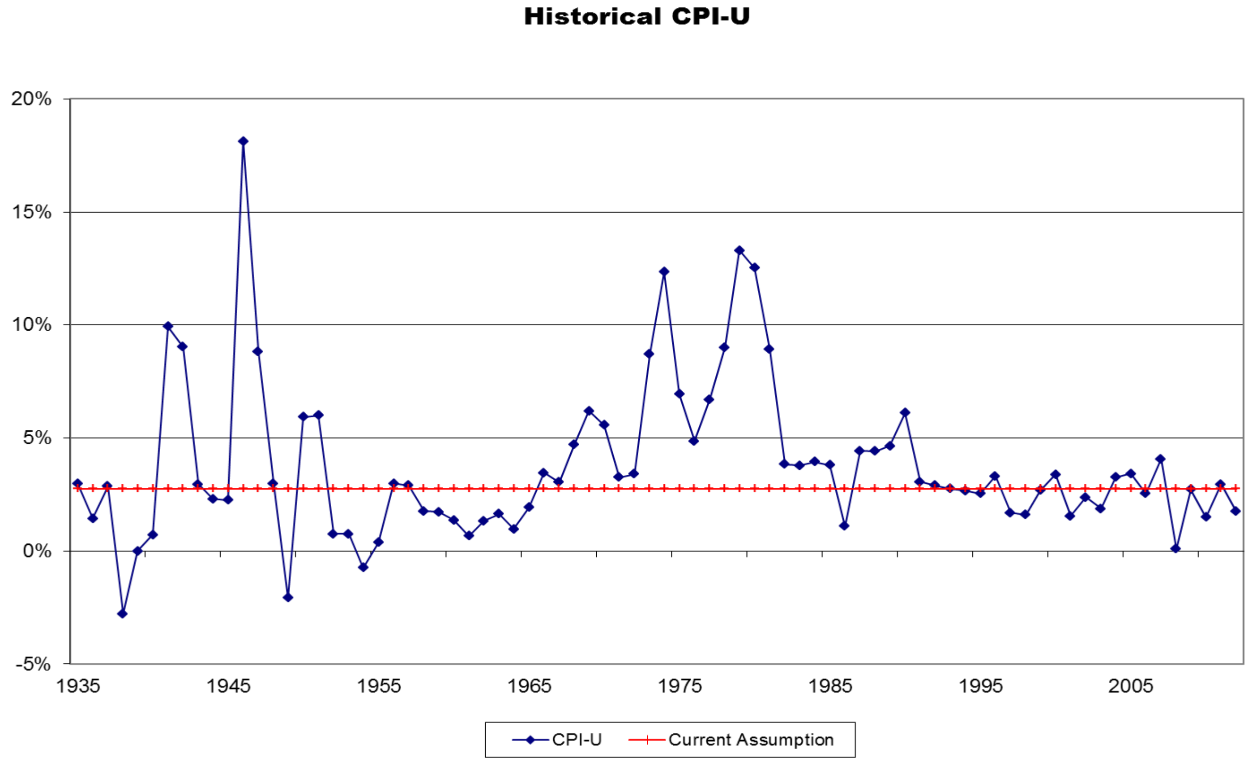
A summary of the economic assumptions used for the December 31, 2011 actuarial valuation and those recommended for the December 31, 2012 and 2013 actuarial valuations are shown below:

Assumption	December 31, 2011 Valuation	December 31, 2012 and 2013 Valuations
Inflation (other than healthcare)	2.75%	No Change
Real wage growth	1.00%	No Change
Payroll growth	3.75%	No Change
Regular investment return	8.00%	7.50% - 7.75% (7.75% selected by Board at its July 2013 meeting)
Variable account investment return	8.25%	Same as regular investment return
OPSRP administrative expenses	$6.6 million/year	$5.5 million/year
Healthcare cost inflation rates		
▪ 2013 rate	7.00%	8.00%
▪ Ultimate inflation rate	4.50%	4.70%
▪ Year reaching ultimate rate	2029	2083

The recommended assumptions shown above, in our opinion, were selected in a manner consistent with the requirements of ASOP No. 27. Each of the above assumptions is described in detail below and on the following pages.

Inflation

The assumed inflation rate is the basis for all of the other economic assumptions. It affects other assumptions including payroll growth, investment return, and healthcare inflation.



In selecting an appropriate inflation assumption, we consider both historical data and the breakeven inflation rates inherent in current long-term Treasury Inflation Protection Securities (TIPS). The chart above shows the annual inflation rate for the years ending December 31 from 1935 through 2012 as reported by the Bureau of Labor Statistics. The mean and median annual rates over this period are **3.77** percent and **2.97** percent respectively.

Historical inflation rates vary significantly from period to period and may not be an indication of future inflation rates. With the development of a TIPS market, we can calculate an estimated breakeven inflation rate by comparing yields on regular Treasury securities to the yields on TIPS. The table below shows yields as of December 31, 2012, for 10-year and 30-year Treasury bonds and TIPS.

As of 12/31/2012	**10-Year**	**30-Year**
Treasury Yield	1.78%	2.95%
TIPS Yield	-0.67%	0.41%
Breakeven Inflation	**2.45%**	**2.54%**

We also considered two other inflation measures in our analysis: Social Security's current intermediate inflation assumption of **2.8** percent, and the Congressional Budget Office's projection of CPI of an average of **2.15** percent inflation over the period 2013-2023.

Based on the information shown above, we do not see a compelling rationale to modify the long-term inflation assumption. We therefore recommend no change to the assumed annual inflation rate of 2.75 percent.

Real Wage Growth

The expected salary growth assumption is the sum of three factors:

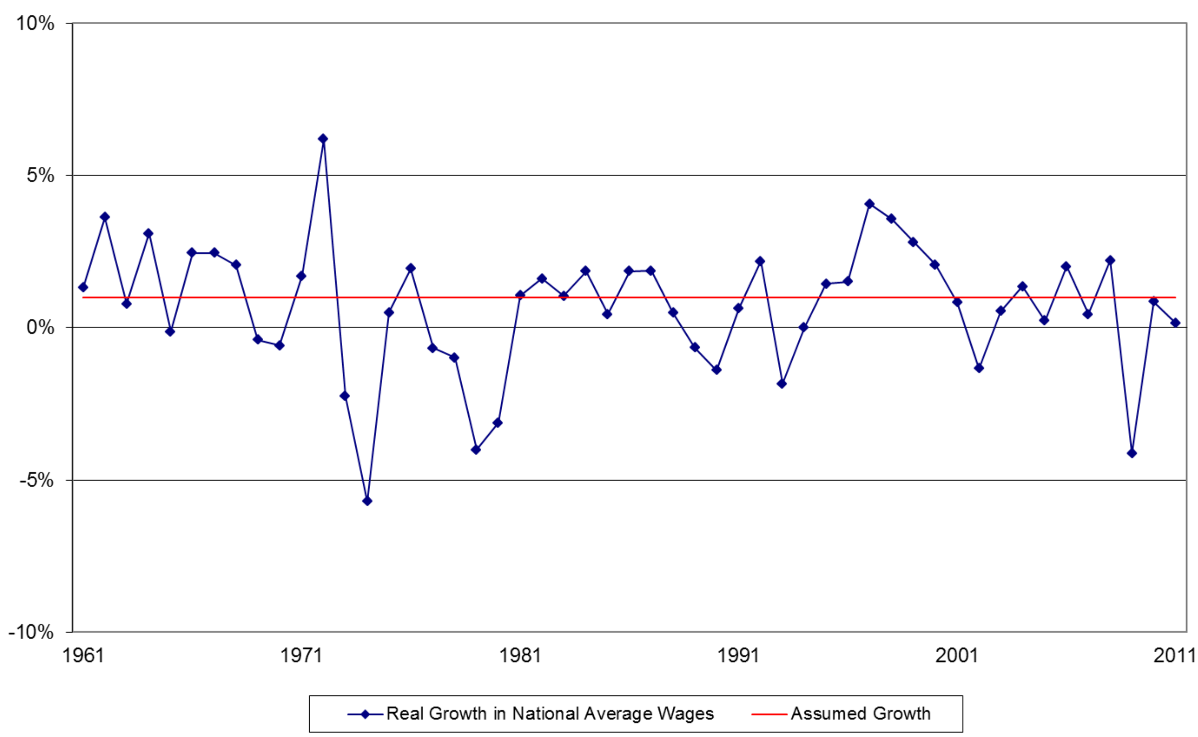
- Inflation,
- Real wage growth, and
- Merit and longevity wage growth.

Real wage growth represents the increase in wages above inflation for the entire group due to improvements in productivity and competitive pressures. Merit and longevity wage growth, in contrast, represent the increases in wages for an individual due to factors such as performance, promotion, or seniority.

Real wage growth combined with inflation represents the expected growth in total payroll for a stable population. Changes in payroll due to an increase or decline in the covered population are not captured by this assumption. The payroll growth assumption is used to develop the annual amount necessary to amortize the unfunded actuarial liability as a level percentage of expected payroll.

The chart below shows the real growth in national average wages over the past fifty years based on data compiled by the Social Security Administration.

Historical Real Growth in National Average Wages



While the change in any one year has been volatile, the change over longer periods of time is more stable as shown in the table below. However, the significant outlier result of a 4.1 percent productivity decrease in 2009 (measuring change in national average wages from 2008 to 2009) has a strong downward impact on the trailing averages shown in the table below. For example, the 10 year trailing average ending on December 31, 2008, is 1.11 percent.

Length of Period Ending December 31, 2011	Average Real Growth in National Average Wages
10 years	0.22%
20 years	0.93%
30 years	0.88%
40 years	0.47%
50 years	0.67%

We also considered the Social Security Administration's current intermediate wage growth assumption of 1.12 percent in our analysis.

Based on this data, a reasonable best-estimate range is from 0.75 percent to 1.25 percent. We recommend no change to the current assumption of 1.00 percent.

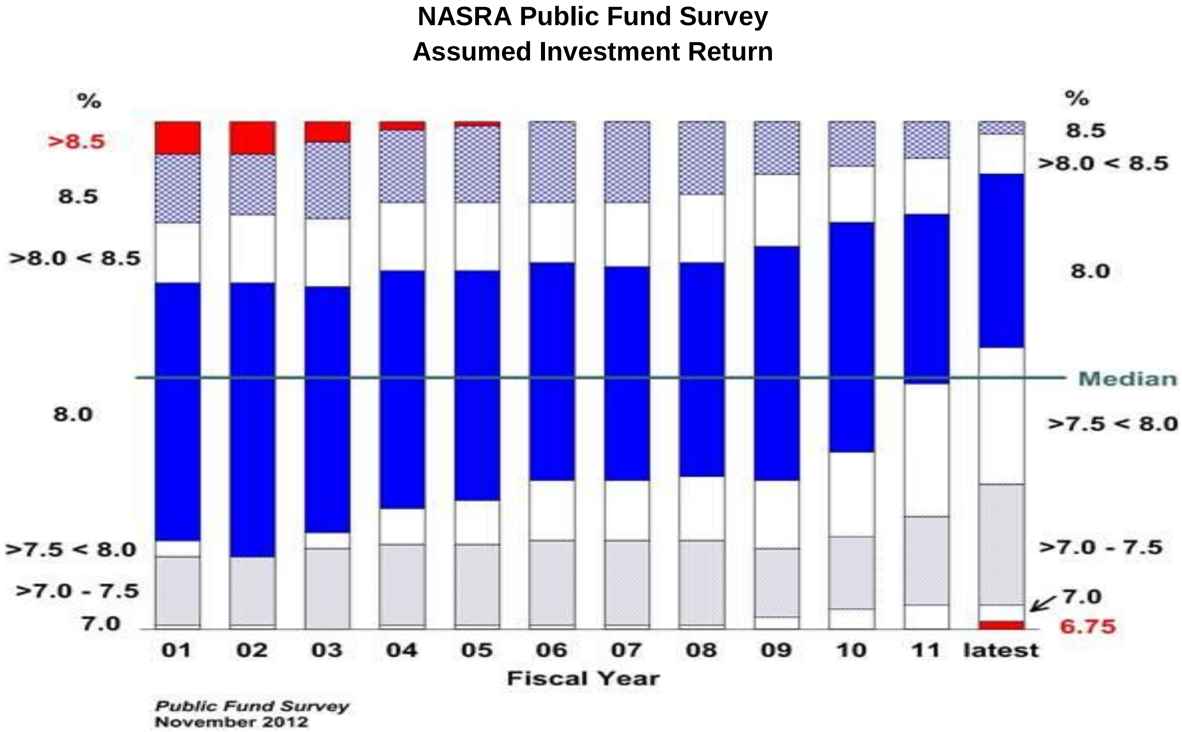
Payroll Growth

Payroll growth is the sum of inflation and real wage growth. Since we are recommending no changes to the inflation or the real wage growth assumptions, the payroll growth assumption will remain at 3.75 percent.

Investment Return

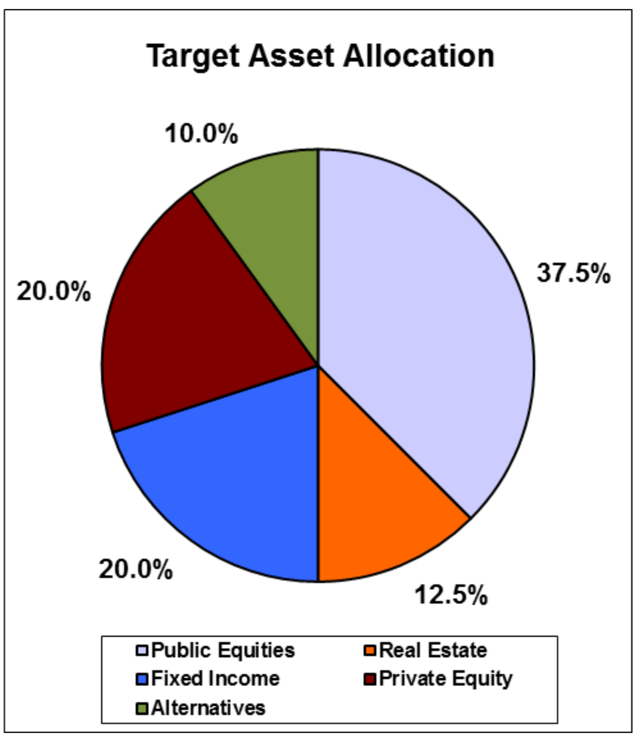
The assumed rate of investment return is used to discount the future projected benefit payments from the retirement plan to the valuation date, to project interest credits on member accounts to retirement, to convert member accounts to a monthly retirement allowance under the Money Match formula, and to convert the retirement allowance to optional joint & survivor benefits. As such, it is one of the most important assumptions used in valuing the plan's liabilities and developing contribution rates. The assumption is intended to reflect the long-term expected future return on the portfolio of assets that fund the benefits.

To provide some perspective on this assumption, the chart below shows the assumptions used by the 120 largest US public sector systems in a regularly updated survey published by the National Association of State Retirement Administrators (NASRA). As can be seen from the chart, the Oregon PERS assumption of 8.0% used in the prior valuation is no longer the median assumption for large US public sector systems. The majority of systems have investment return assumptions below 8%, with the median assumption in the most recent survey update lying in the 7.51%-7.99% range. Given the consensus view among investment professionals regarding lower long-term expected returns for fixed income investments, we believe that this downward trend in the survey will continue in the future as systems periodically revisit their investment return assumptions.



Regular Accounts

Based on the Oregon Investment Council's (OIC) Statement of Investment Objectives and Policy Framework for the Oregon Public Employees Retirement Fund revised as of December 18, 2012 and the revised allocation adopted at the June 26, 2013 OIC meeting, we understand the target asset allocation adopted by the OIC is as follows:



To develop an analytical basis for Board's selection of the investment return assumption, we use long-term assumptions developed by Milliman's capital market assumptions team for each of the asset classes in which the plan is invested based on the OIC's long-term target asset allocation. Since the OIC uses broader asset classes than those for which Milliman's investment actuaries develop long-term return assumptions, we used OIC's description of each asset class to map it to the classes shown below. For example, the OIC's allocation to "alternatives" was distributed among hedge funds, real estate, and commodities based on the detail available. Each asset class assumption is based on a consistent set of underlying assumptions, including the inflation assumption. These assumptions are not based on historical returns, but instead are based on a forward-looking capital market economic model. Based on the target allocation and investment return assumptions for each of the asset classes, our 50th percentile best estimate assumption is developed as follows:

Asset Class	Target Allocation	Compound Annual Return	Annual Arithmetic Return	Standard Deviation
Core Fixed Income	7.20%	4.50%	4.70%	6.60%
Short-Term Bonds	8.00%	3.70%	3.76%	3.45%
Intermediate-Term Bonds	3.00%	4.10%	4.23%	5.15%
High Yield Bonds	1.80%	6.66%	7.21%	11.10%
Large Cap US Equities	11.65%	7.20%	8.60%	17.90%
Mid Cap US Equities	3.88%	7.30%	9.38%	22.00%
Small Cap US Equities	2.27%	7.45%	10.38%	26.40%
Developed Foreign Equities	14.21%	6.90%	8.73%	20.55%
Emerging Market Equities	5.49%	7.40%	11.51%	31.70%
Private Equity	20.00%	8.26%	11.95%	30.00%
Hedge Funds/Absolute Return	5.00%	6.01%	6.46%	10.00%
Real Estate (Property)	13.75%	6.51%	7.27%	13.00%
Real Estate (REITS)	2.50%	6.76%	8.41%	19.45%
Commodities	1.25%	6.07%	7.71%	19.70%
Portfolio – Gross of Expenses	100.00%	7.62%	8.39%	13.01%
Portfolio – Net of Expenses	**100.00%**	**7.57%**	**8.34%**	**13.01%**

Based on capital market expectations developed by Milliman.

In addition, we compared the expected return to the range of returns developed using a mean-variance model and the capital market assumptions of both Milliman and Strategic Investment Solutions (SIS), the OIC's investment consultant. Returns shown below are net of administrative and passive investment expenses. Administrative expenses were assumed to be equal to 5 basis points; passive investment expenses vary by asset class but represented 12 basis points on a portfolio-wide average. We assume that expenses incurred for active management are offset by additional returns gained from active management.

The table below compares the distribution of expected annualized returns over 20 years calculated on a geometric basis for the Regular Account based on Milliman's and SIS' capital market assumptions.

Percentile	Milliman	SIS
25th	5.64%	5.61%
45th	7.21%	7.28%
50th	7.57%	7.66%
55th	7.93%	8.05%
75th	9.53%	9.75%

The expected annualized return percentiles shown above do not include any upward adjustment for the potential value of active fund management. SIS expects the fund to earn additional long-term return due to the value of active management. Thus, after adjusting for any additional expected returns due to active management, SIS would anticipate median returns in excess of those shown in the 50th percentile of the table above.

Based on Milliman's capital market outlook, we believe the investment return assumption should be reduced from the current 8.0% assumption. An assumption between 7.50% and 7.75% would fall in the reasonable range. Before any potential active management adjustments, the reasonable range based on the SIS capital market outlook would be approximately the same.

Variable Account

The expected investment return on the variable account is developed in the same manner as the assumption for regular accounts.

Based on the target allocation and investment return assumptions for each of the asset classes in the variable account, the best estimate assumption is developed as follows:

Asset Class	Target Allocation	Compound Geometric Annual Return	Annual Arithmetic Return	Standard Deviation
Large Cap US Equities	31.06%	7.20%	8.60%	17.90%
Mid Cap US Equities	10.35%	7.30%	9.38%	22.00%
Small Cap US Equities	6.06%	7.45%	10.38%	26.40%
Developed Foreign Equities	37.88%	6.90%	8.73%	20.55%
Emerging Market Equities	14.65%	7.40%	11.51%	31.70%
Portfolio – Gross of Expenses	100.00%	7.58%	9.27%	19.42%
Portfolio – Net of Expenses	**100.00%**	**7.53%**	**9.22%**	**19.42%**

The variable account is invested entirely in Public Equities, which we mapped to the above asset classes based on OIC's description of the Public Equity asset class. The annual arithmetic return is significantly higher than for the regular account, but so is the standard deviation. The result is a long-term compounded geometric annual return slightly lower than the regular account. In the recent valuations, the compound geometric variable account return has been assumed to be 25 basis points higher than the regular account return. Based on Milliman's current capital market outlook assumptions, the relationship between the various asset classes no longer warrants such a distinction, and we recommend setting the variable account return assumption equal to the regular account return assumption.

OPSRP Administrative Expenses

In the mature Tier 1/Tier 2 program, administrative expenses are modest compared to program asset levels. As such, administrative expenses for Tier 1/Tier 2 are estimated by a 5 basis point adjustment to the expected plan investment return, as noted previously in this report.

In contrast, administrative expenses for the relatively new OPSRP program are significant in comparison to OPSRP assets. As such, the December 31, 2011 valuation included an explicit administrative expense assumption for the OPSRP program of $6.6 million.

A cost allocation change in PERS policy resulted in lower OPSRP administrative expenses in 2012 than in prior years, and is expected to keep expenses at around this new level in future years. On this basis, we recommend a reduction in the assumption for regular administrative expenses, from $6.6 million to $5.5 million per year. A summary of our recommendation is below.

	Current		Recommended	
Valuation Year	Dollar Amount	Percentage of Beginning of Year Assets	Dollar Amount	Percentage of Beginning of Year Assets
2010	$6.6	1.48%	N/A	N/A
2011	$6.6	1.00%	N/A	N/A
2012	$6.6	0.79%	$5.5	0.65%
2013	$6.6	0.55%	$5.5	0.46%

Health Cost Inflation Rates

Health cost inflation rates are used to predict increases in the RHIPA subsidy. The subsidy increased an average of 5.1 percent per year over the last five years. Based on analysis performed by Milliman's healthcare actuaries, we recommend the following change to the health cost inflation assumption. These rates include consideration of the excise tax that will be introduced in 2018 by the Patient Protection and Affordable Care Act.

Note that the following chart shows sample rates. A full chart can be found in the appendices.

Year[1]	December 31, 2010 and 2011 Valuations	December 31, 2012 and 2013 Valuations
2011	7.0%	N/A
2012	6.9%	N/A
2013	6.9%	8.0%
2014	6.9%	6.1%

[1] *For valuation purposes, the health cost trend rates are assumed to be applied at the beginning of the plan year.*

Year[1]	December 31, 2010 and 2011 Valuations	December 31, 2012 and 2013 Valuations
2015	6.9%	5.9%
2016	6.8%	5.5%
2017	6.8%	6.2%
2018	6.6%	5.9%
2019	6.4%	5.8%
2020	6.2%	5.9%
2021	6.0%	6.0%
2022	5.8%	6.0%
2023	5.6%	6.5%
2024	5.4%	6.9%
2025	5.2%	6.9%
2030	4.5%	6.6%
2035	4.5%	6.4%
2040	4.5%	5.9%
2045	4.5%	5.7%
2050	4.5%	5.6%
2060	4.5%	5.5%
2070	4.5%	5.3%
2080	4.5%	4.9%
2083+	4.5%	4.7%

4. Demographic Assumptions

Overview

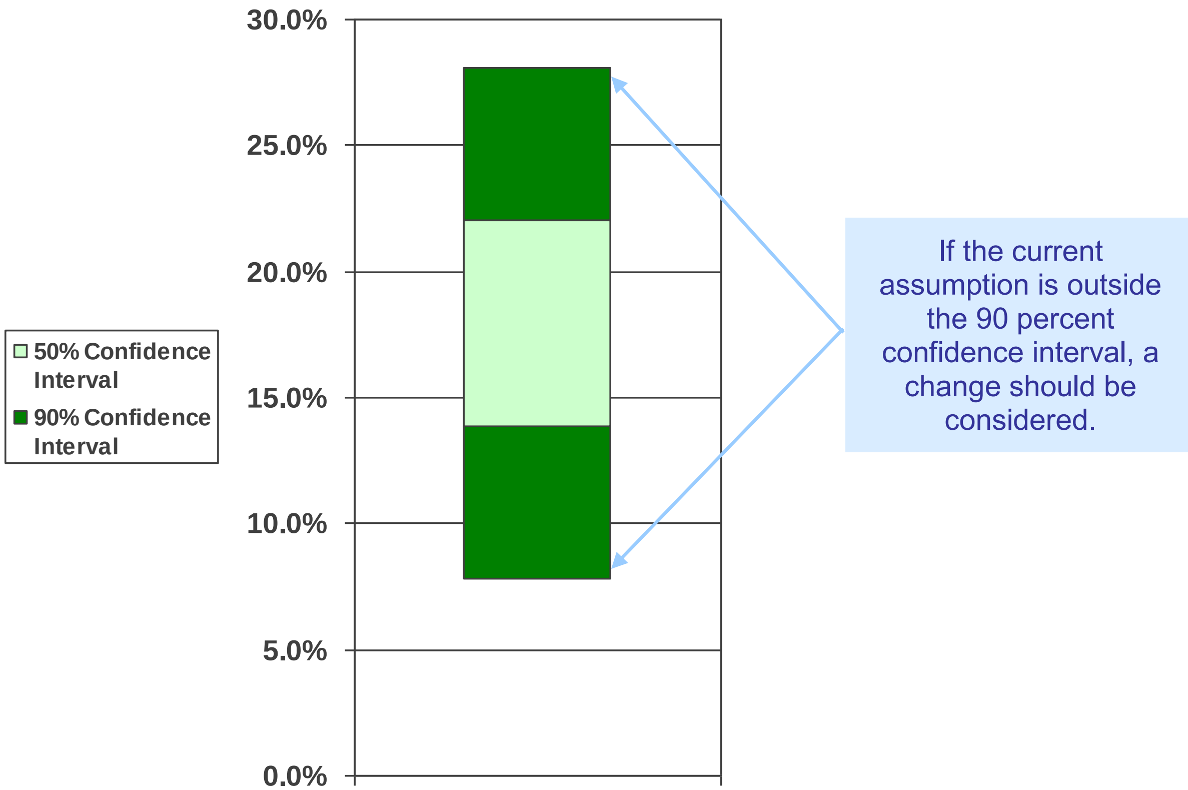
Actuarial Standard of Practice (ASOP) No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations,* provides guidance on selecting demographic assumptions used in measuring obligations under defined benefit pension plans. The general process for recommending demographic assumptions as defined in ASOP No. 35 is as follows:

- Identify the types of assumptions;
- Consider the relevant assumption universe;
- Consider the assumption format;
- Select the specific assumptions; and
- Evaluate the reasonableness of the selected assumption.

The purpose of the demographic experience study is to compare actual experience against expected experience based on the assumptions used in the most recent actuarial valuation. The observation period used in this study is January 1, 2009 through December 31, 2012, and the current assumptions are those adopted by the Board for the December 31, 2011 actuarial valuation. If the actual experience differs significantly from the overall expected experience, or if the pattern of actual decrements by age, sex, or duration does not follow the expected pattern, new assumptions are considered.

Confidence intervals have been used to measure observed experience against current assumptions to determine the reasonableness of the assumption. The floating bars represent the 50 percent and 90 percent confidence intervals around the observed experience. The 90 percent confidence interval represents the range around the observed rate that could be expected to contain the true rate during the period of study with 90 percent probability. The size of the confidence interval depends on the number of observations and the likelihood of occurrence. If an assumption is outside the 90 percent confidence interval and there is no other information to explain the observed experience, a change in assumption should be considered. A sample graph with confidence intervals is shown below:

Overview (continued)



The demographic assumptions used for the December 31, 2011 actuarial valuation and the recommended assumptions for the December 31, 2012 and December 31, 2013 actuarial valuations are shown in detail in the following sections.

A summary of the changes recommended to the Board are as follows:

- Modest adjustment to male mortality for non-disabled police & fire retirees to better reflect statistically significant recent observed experience
- Minor adjustment to school district male mortality assumption for non-disabled school district retirees to simplify the computation of mortality tables
- Modest adjustments to mortality assumption for three active member groups (school district males, police & fire males, non-school district females) to better align tables with recent observed experience
- Modest adjustments to mortality tables for disabled retirees to better align tables with recent experience
- Adjust retirement rates for most groups modestly to more closely align with recent and expected future experience, with the most notable trend being a lowering of retirement rates for full career Tier 1/Tier 2 members in their early-to-mid 50s and an increase in rates for those members in their mid-to-late 60s
- Material decrease in the merit component of the salary increase assumption for school district members, most notably for long service members, to reflect observed experience over the past eight years
- Slightly lower assumed rates of duty disability for general service members and slightly raise assumed rates of duty disability for police & fire members
- Decrease the Tier 1 unused vacation cash out assumption for the state general service and state police & fire groups and increase it for local police & fire members

Overview (continued)

- Minor adjustment to the Tier 1/Tier 2 unused sick leave assumption for most groups
- Minor modifications to participation assumptions for the RHIA retiree healthcare programs
- Significant restructuring of the participation assumptions for the RHIPA retiree healthcare program via introduction of an assumption that varies by service, with rates decreased for low service members and materially increased for long service members

The recommended assumptions, in our opinion, were selected in a manner consistent with the requirements of ASOP No. 35.

Mortality

Mortality rates are used to project the length of time benefits will be paid to current and future retirees and beneficiaries. The selection of a mortality assumption affects plan liabilities because the estimated value of retiree benefits depends on how long the benefit payments are expected to continue. There are clear differences in the mortality rates among healthy retired members, disabled retired members and non-retired members. As a result, each of these groups is reviewed independently.

A summary of the current assumed mortality rates and recommended changes is shown below:

Assumption	December 31, 2011 Valuation	Recommended December 31, 2012 and 2013 Valuations
Healthy Annuitant Mortality	**RP2000 Generational, Combined Active/Healthy Annuitant, Sex Distinct**	**No change**
▪ School District male	White collar, set back 18 months	No collar, set back 24 months
▪ Other General Service male (and male beneficiary)	Blended 25% blue collar, set back 12 months	No change
▪ Police & Fire male	Blended 33% blue collar, no setback	Blended 25% blue collar, set back 12 months
▪ School District female	White collar, set back 24 months	No change
▪ Other female (and female beneficiary)	White collar, no setback	No change
Disabled Retiree Mortality	**RP 2000 Static, Combined Active/Healthy Annuitant, No Collar, Sex distinct**	**RP 2000 Static, Disabled, No Collar, Sex distinct**
▪ Male	Set forward 60 months, minimum of 2.25%	65% of Disabled table
▪ Female	Set forward 48 months, minimum of 2.25%	90% of Disabled table
Non-Annuitant Mortality	**Fixed Percentage of Healthy Annuitant Mortality**	**No change**
▪ School District male	75%	70%
▪ Other General Service male	85%	No change
▪ Police & Fire male	70%	95%
▪ School District female	60%	No change
▪ Other female	50%	55%

Mortality (*continued*)

Healthy Annuitant Mortality

Mortality assumptions for healthy retired members are separated into five groups based on employment category and gender (school district males, school district females, police & fire males, other general service males, all other females). Experience for female police & fire members was not sufficient for them to be rated on their own, so they were combined with non-school district general service females.

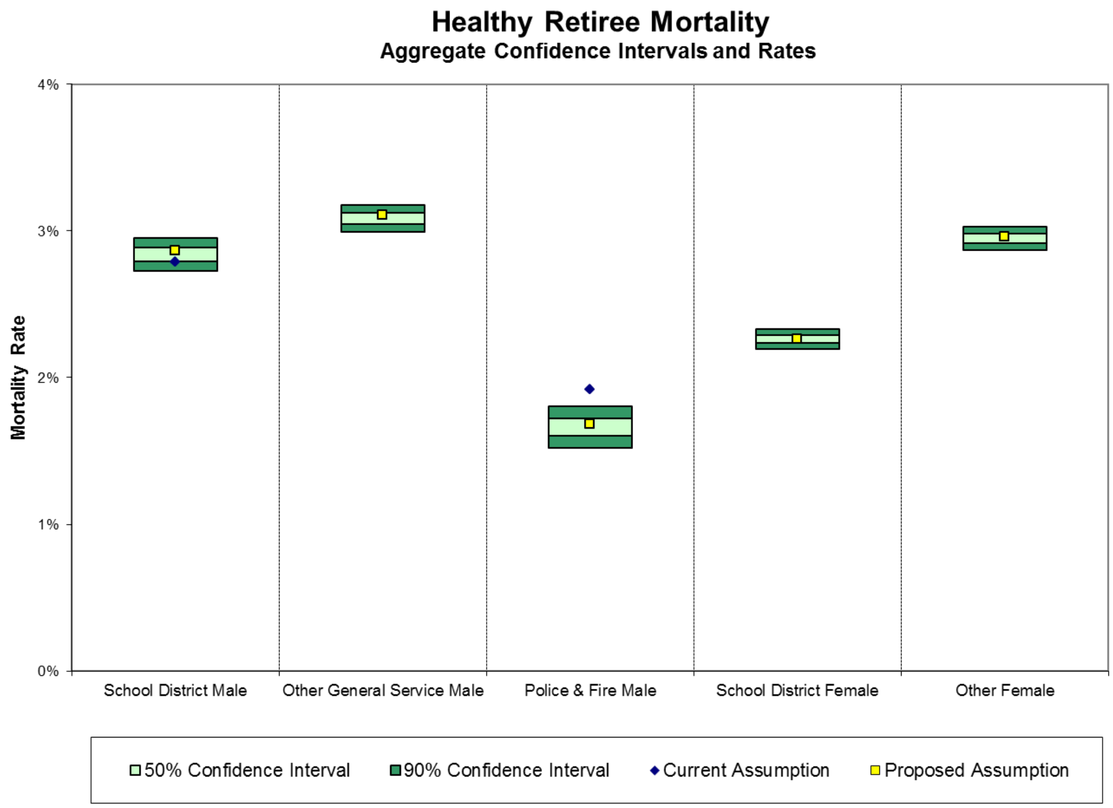
Mortality rates are expected to continue to decrease in the future, and the resulting increased longevity should be anticipated in the actuarial valuation. For Oregon PERS, this is done through the use of a generational mortality table. A generational mortality table anticipates future improvements in mortality by using a different static mortality table for each year of birth, with the tables for later years of birth assuming lower mortality than the tables for earlier years of birth.

To determine whether the current mortality assumption remains reasonable, we calculated the ratio of actual deaths to expected deaths (A/E ratio) during the experience study period for each of the five groups described above. With a generational mortality table, we target A/E ratios of 100 percent.

			Current Assumption		Recommended Assumption	
	Exposures	Actual Deaths	Expected Deaths	A/E Ratio	Expected Deaths	A/E Ratio
School District male	60,373	1,714	1,683	102%	1,731	99%
Other General Service male	93,151	2,875	2,893	99%	2,893	99%
Police & Fire male	22,001	366	422	87%	370	99%
School District Female	123,215	2,789	2,789	100%	2,789	100%
Other female	120,624	3,559	3,568	100%	3,568	100%

The A/E ratios for four of the five groups are near 100 percent. For the police & fire males, the A/E ratio is below 100 percent by an amount that was determined to be statistically significant at the 90 percent confidence level given the number of exposures in the study. For this group, we recommend changes to the mortality assumption to bring the A/E ratio closer to 100 percent. We also recommend making a change to the school district male mortality assumption to simplify the adjustment to the base mortality table used while maintaining a statistically justified assumption.

Mortality (*continued*)



The RP 2000 generational mortality table has a number of adjustments that can be applied to match the mortality rates of Oregon PERS. At times we use a "set back" to adjust the mortality rates. A "set back" of 12 months, for example, treats all members as if they were 12 months younger than they really are when applying the mortality table. In addition to a "set back," we have also applied a collar adjustment as defined in the RP 2000 table. Essentially, a "white collar" adjustment further reduces the rates of mortality while a "blue collar" adjustment increases the rates of mortality. The basic table reflects a blend of approximately 55 percent "white collar" and 45 percent "blue collar." Please note that "white collar" and "blue collar" are used in this context only to describe the adjustments made to the RP 2000 generational mortality table and are not intended to classify any members as either "blue collar" or "white collar."

Mortality (*continued*)

A summary of the current and recommended healthy retiree mortality assumptions is shown below:

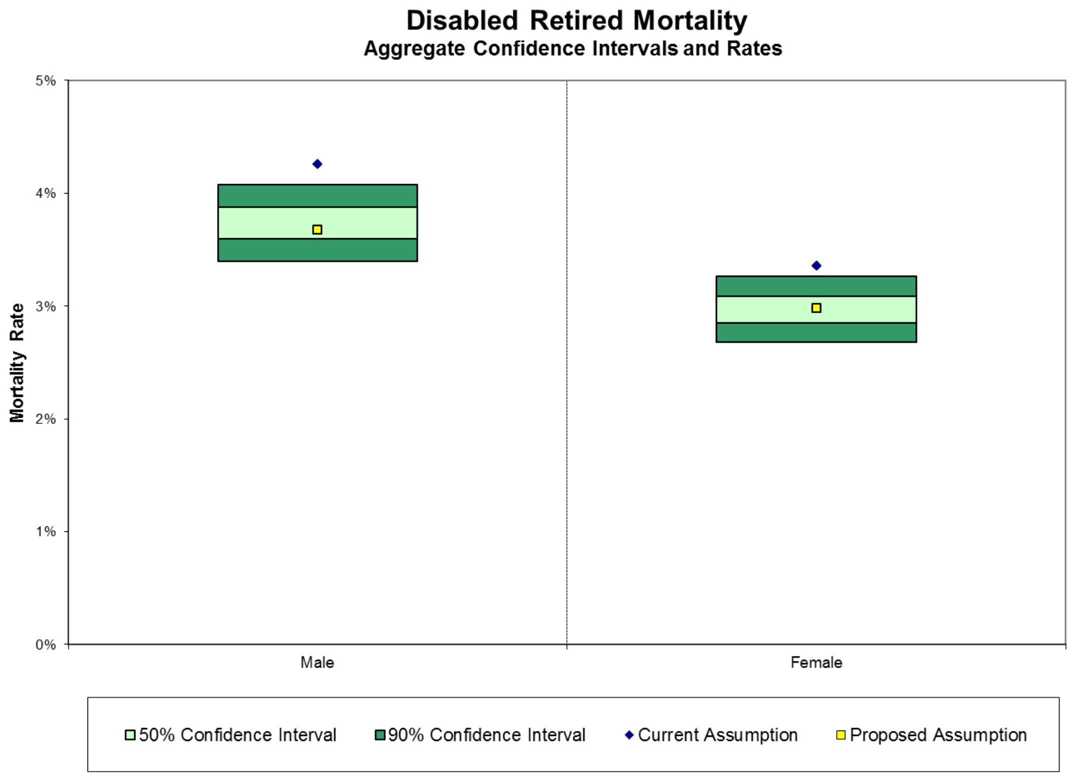
	December 31, 2011 Valuation	Recommended December 31, 2012 and 2013 Valuations
Basic Table	**RP2000 Generational, Combined Active/Healthy Annuitant, Sex distinct**	**No change**
School District male	White collar, set back 18 months	No collar, set back 24 months
Other General Service male (and male beneficiary)	Blended 25% blue collar, set back 12 months	No change
Police & Fire male	Blended 33% blue collar, no setback	Blended 25% blue collar, set back 12 months
School District female	White collar, set back 24 months	No change
Other female (and female beneficiary)	White collar, no setback	No change

Disabled Retiree Mortality

Disabled members are expected to have a shorter life expectancy than healthy retired members. In addition, future life expectancies for disabled members are not expected to increase as significantly as the future life expectancies for healthy retirees. As a result, we do not use generational mortality for disabled retirees and target A/E ratios at or near 100 percent. The A/E ratio for the current assumption is below 100 percent for both male and female mortality. For both groups, the results fell outside the 90 percent confidence interval for aggregate mortality rates, given the number of exposures in the study. We recommend a change to both assumptions. Our recommended new assumptions are based on a percentage of a standard national disabled mortality table, rather than an adjusted healthy mortality table as was previously the case.

			December 31, 2011 Valuation		Recommended December 31, 2012 and 2013 Valuations	
	Exposures	Actual Deaths	Expected Deaths	A/E Ratio	Expected Deaths	A/E Ratio
Male	8,270	309	352	88%	310	100%
Female	9,222	274	310	89%	276	99%

Mortality (*continued*)



A summary of current and recommended disabled retiree mortality assumptions is shown below:

	December 31, 2011 Valuation	Recommended December 31, 2012 and 2013 Valuations
Basic Table	**RP 2000, Combined Active/Healthy Retired, No Collar, Sex Distinct**	**RP 2000 Disabled Mortality, Sex Distinct**
Male	Set forward 60 months, minimum of 2.25%	65% of basic table rates
Female	Set forward 48 months, minimum of 2.25%	90% of basic table rates

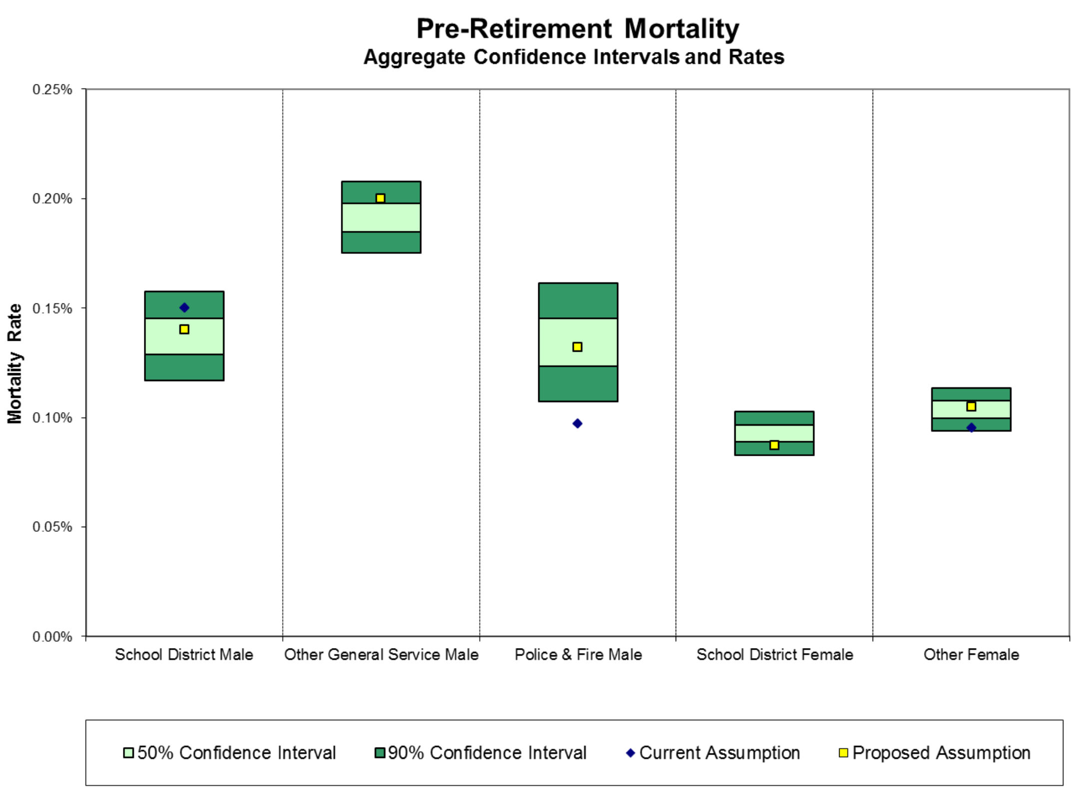
Non-Annuitant Mortality

The non-annuitant mortality assumption applies to active members and dormant members (those members who have terminated employment but are vested and entitled to a future benefit), and is a fixed percentage of the healthy annuitant mortality rates. Because the healthy annuitant mortality assumptions have changed for two groups, the associated non-annuitant mortality assumptions have also changed. The analysis below compares the current fixed percentages as applied to the recommended healthy annuitant mortality assumptions to determine if a change also needs to be made in the fixed percentages for each of the groups. A/E ratios for non-annuitants have been targeted around 100 percent.

Mortality (*continued*)

			December 31, 2011 Valuation		Recommended December 31, 2012 and 2013 Valuations	
	Exposures	Actual Deaths	Expected Deaths	A/E Ratio	Expected Deaths	A/E Ratio
School District male	90,732	125	136	91%	127	98%
Other General Service male	194,422	372	389	96%	389	96%
Police & Fire male	49,861	67	48	138%	66	102%
School District female	260,301	242	227	107%	227	107%
Other female	290,742	301	277	109%	305	99%

With the very limited number of deaths in the experience period, the A/E ratio tends to fluctuate, particularly for police & fire males. For the police & fire males, the A/E ratio is above 100 percent by an amount that was determined to be statistically significant at the 90 percent confidence level given the number of exposures in the study. While the experience for school district males falls inside of the 90 confidence interval, the underlying healthy retiree table has changed. The experience for non-school district females fell near the bottom of the 90% confidence interval for the second consecutive study. As such, we recommend assumption changes for those groups.



Mortality (*continued*)

A summary of the current and recommended non-retired mortality assumptions is shown below:

	December 31, 2011 Valuation	Recommended December 31, 2012 and 2013 Valuations
Basic Assumption	Fixed Percentage of Healthy Annuitant Mortality	No change
School District male	75%	70%
Other General Service male	85%	No change
Police & Fire male	70%	95%
School District female	60%	No change
Other female	50%	55%

Retirement Assumptions

The retirement assumptions used in the actuarial valuation include the following assumptions:

- Retirement from active status
- Probability a member will elect a lump sum option at retirement
- Percentage of members who elect to purchase credited service at retirement.

Retirement from Active Status

Members are eligible to retire as early as age 55 (50 for police & fire members) or earlier if the member has 30 years of service. In our analysis, we have found significant differences in the retirement patterns based on length of service, employment category (general service or police & fire), and eligibility for unreduced benefits.

A summary of the early, normal, and unreduced retirement dates under the plan are as follows:

Employment Category	Tier	Normal Retirement Age	Early Retirement Age	Unreduced Retirement
General Service	1	58	55	30 years of service
General Service	2	60	55	30 years of service
General Service	OPSRP	65	55	Age 58 with 30 years
Police & Fire	1 and 2	55	50	Age 50 with 25 years of service, or 30 years of service
Police & Fire	OPSRP	60	50	Age 53 with 25 years

Structure for Retirement Rates

The structure of the PERS retirement rate assumption separates rates by job classification and by service level. General service rates differ across three service bands: less than 15 years, 15 to 29 years, and 30 or more years of service. The first two service bands have different assumptions for school districts versus all other general service members. Police & fire rates employ the following three service bands: less than 13 years, 13 to 24 years, and 25 or more years of service.

The service band structure anticipates that member retirement decisions will contemplate the amount of the retirement benefit and the affordability of retirement.

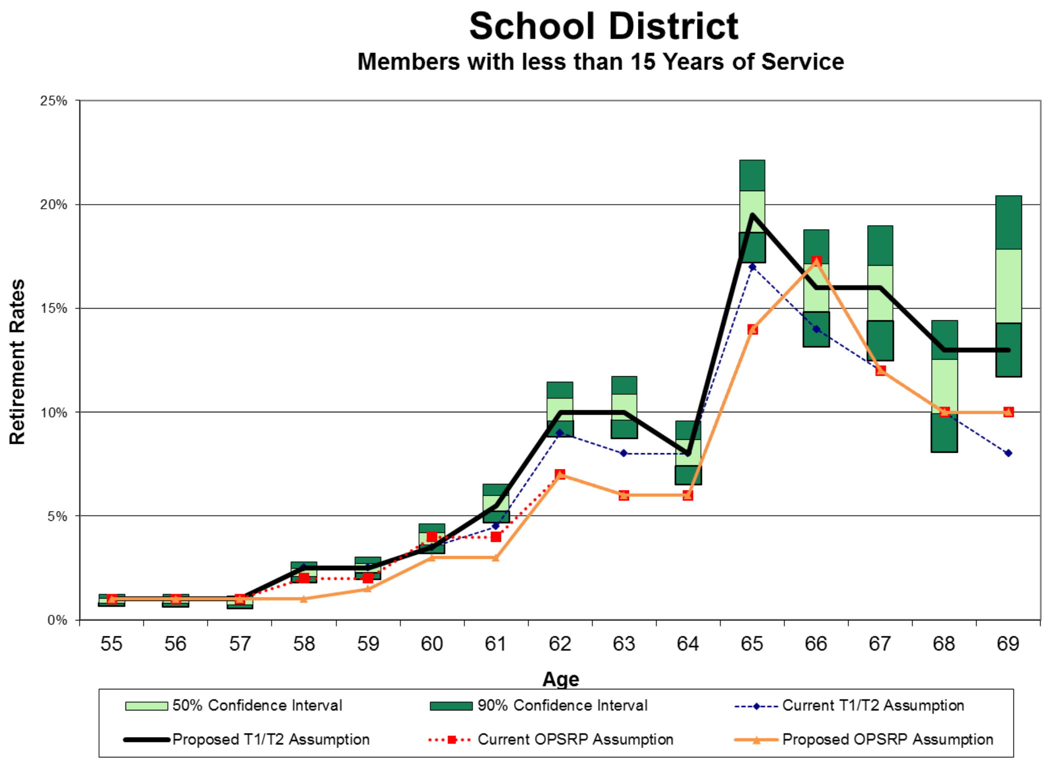
School District and General Service Retirement Rates

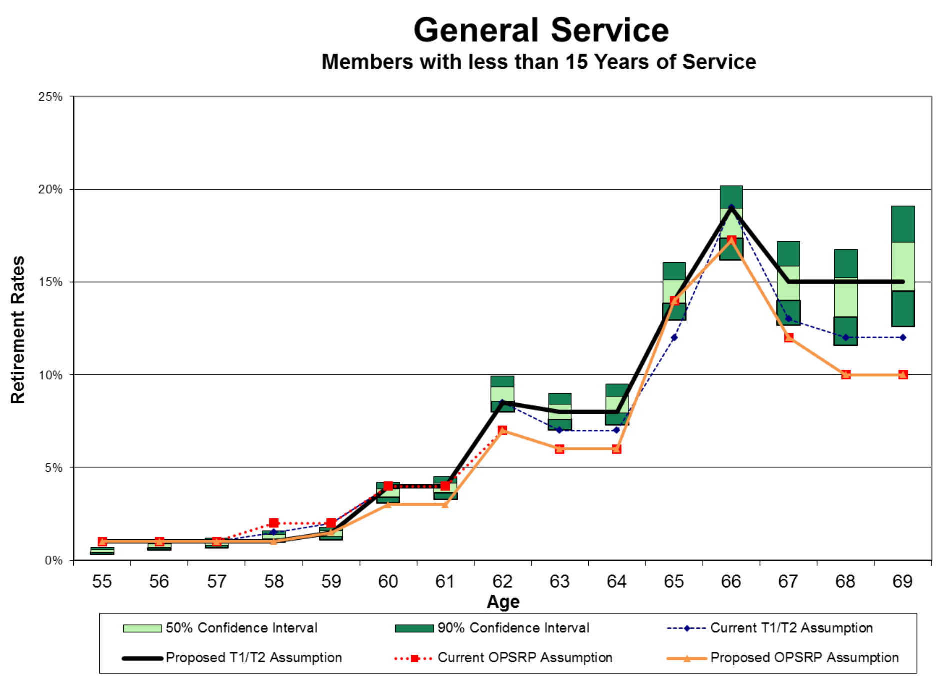
Members with Less Than 15 Years of Service

Retirement decisions by members with less than 15 years of service are likely to be heavily influenced by the availability of resources other than PERS benefits, including Social Security, prior employment, spousal benefits, and savings.

The following charts show the current assumed rates of retirement, the confidence interval around observed experience and the recommended retirement rates (if different than the current rates) for school district and general service members retiring with less than 15 years of service.

Retirement Assumptions (*continued*)



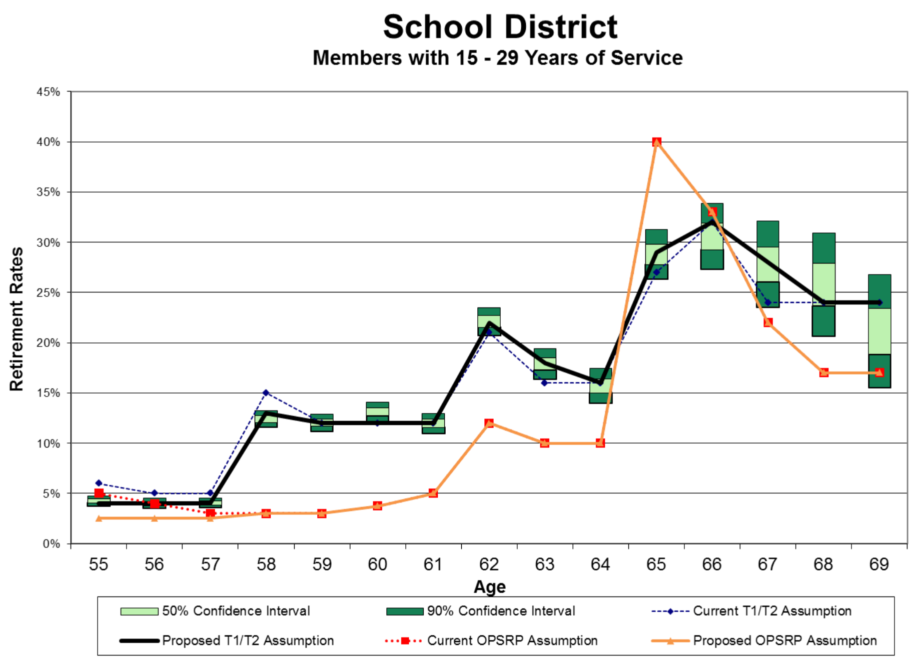


Retirement Assumptions (*continued*)

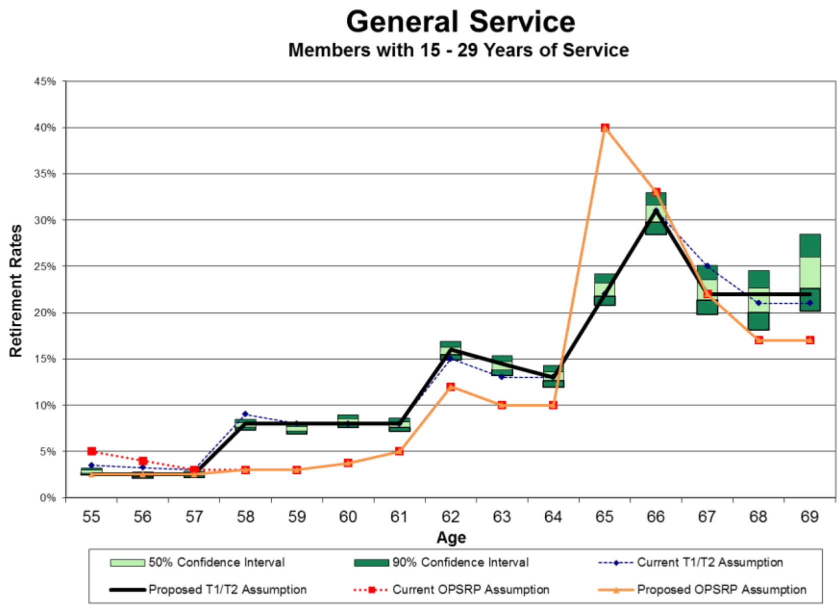
Members with 15 to 30 Years of Service

Retirement decisions by members with 15 to 29 years of years of service are likely to be influenced by the structure of PERS benefits as well as the availability of other resources, including Social Security, prior employment, spousal benefits and savings.

The following charts show the current assumed rates of retirement, the confidence interval around observed experience and the recommended retirement rates (if different than the current rates) for school district and general service members retiring with more than 15 years of service and less than 30 years of service.



Retirement Assumptions (*continued*)

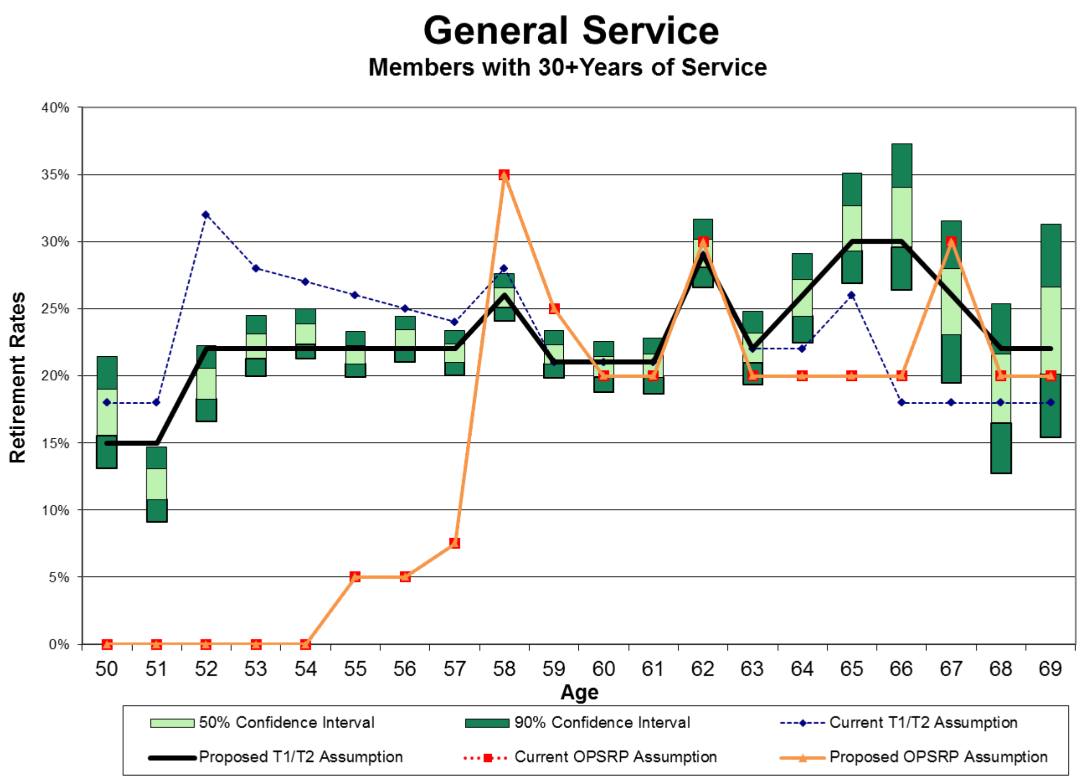


Retirement Assumptions (*continued*)

Members with 30 or More Years of Service

The retirement rate assumption for members with 30 or more years of service at retirement is not differentiated for school district and all other general service members. Instead, one set of rates is developed for all general service members with 30 or more years of service. Our analysis indicated that actual retirement rates for members with 30 or more years of service were somewhat lower than the current assumption for ages less than 59 and were somewhat higher than the current assumption after 62. This reflects a consistent pattern we have observed when analyzing year-by-year data. Our recommended assumption reflects this experience.

The following graph shows the current assumed rates of retirement, the confidence interval around observed experience and the recommended retirement rate assumption for members retiring with more than 30 years of service. No change is recommended to the assumption for OPSRP members.



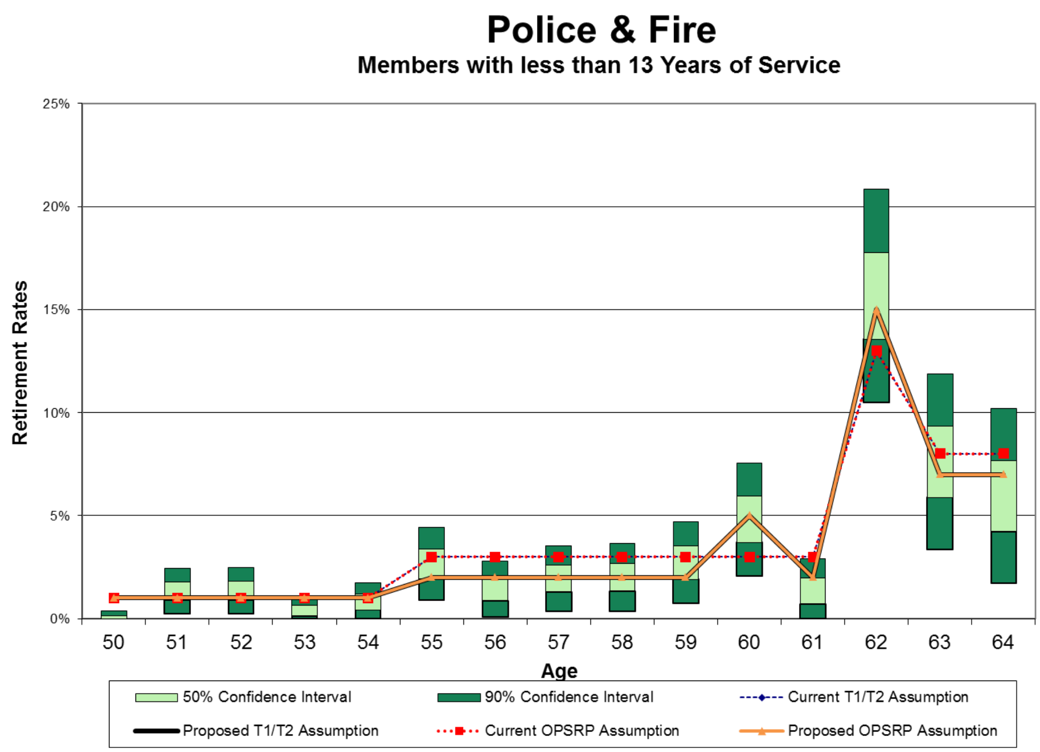
Retirement Assumptions (*continued*)

Police & Fire

Members with Less Than 13 Years of Service

The retirement assumption for police & fire members differs for members retiring with less than 13 years of service, those retiring with between 13 and 24 years of service, and those retiring with more than 25 years of service. Retirement rates for members with less than 13 years of service are likely to be heavily influenced by the availability of resources other than PERS benefits, including Social Security, prior employment, spousal benefits and savings.

The following graph shows the current assumed rates of retirement, the confidence interval around observed experience and the recommended retirement rate assumption for police & fire members retiring with less than 13 years of service. At many ages, we recommend modest changes to more closely align with experience.

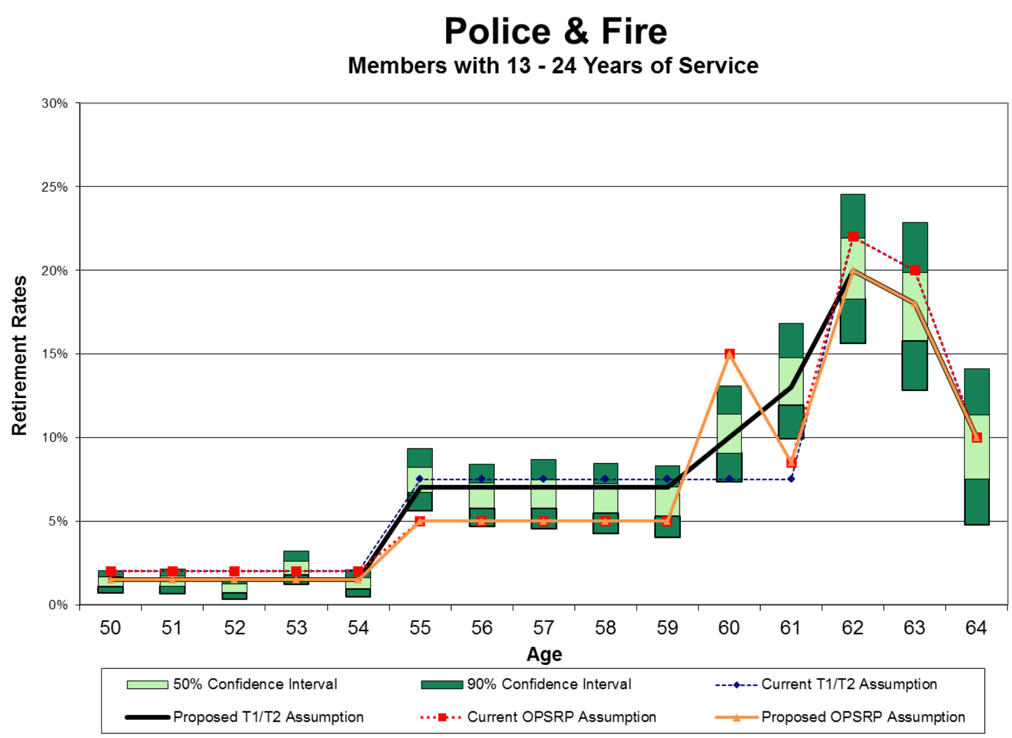


Retirement Assumptions (*continued*)

Members with 13 to 24 Years of Service

Retirement rates for members with 13 to 24 years of service are likely to be influenced by the structure of PERS benefits as well as the availability of other resources, including Social Security, prior employment, spousal benefits and savings.

The following graph shows the current assumed rates of retirement, the confidence interval around observed experience and the recommended retirement rate assumption for police & fire members retiring with between 13 and 24 years of service. At many ages, we recommend changes to more closely align with experience.

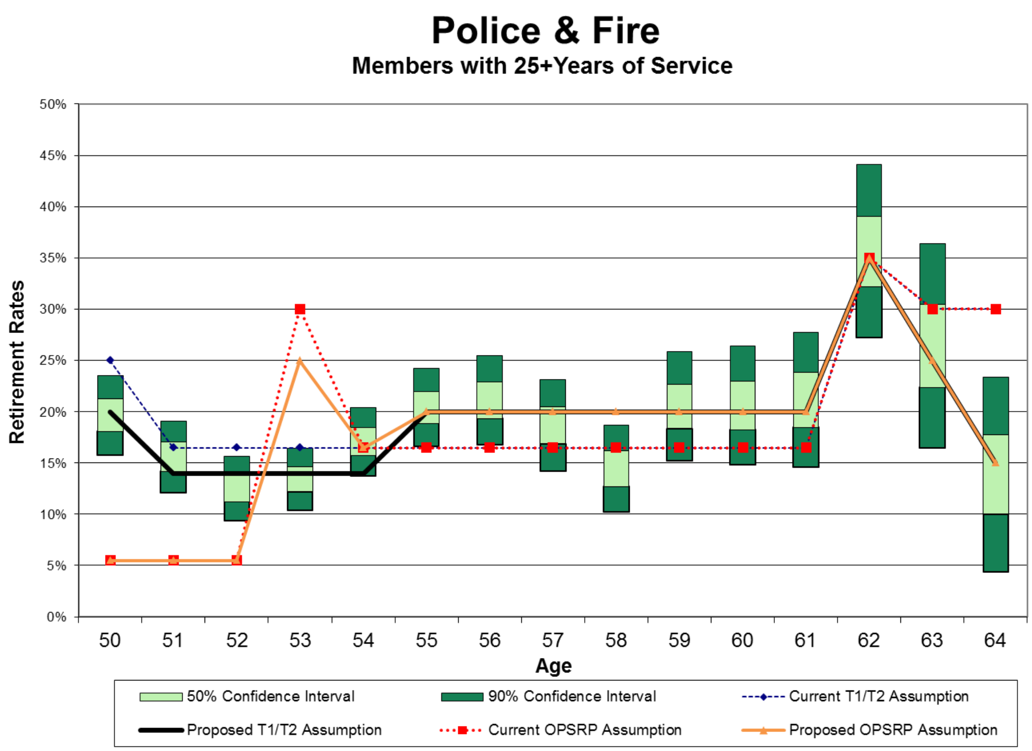


Retirement Assumptions (*continued*)

Members with 25 or More Years of Service

Police & fire members with 25 or more years of service can retire immediately at age 50 (53 for OPSRP) with unreduced retirement benefits. As a result, retirement rates at all ages are relatively high, with a spike at first eligibility for unreduced benefits, and another increase when Social Security benefits become available.

The following graph shows the current assumed rates of retirement, the confidence interval around observed experience and the recommended retirement rate assumption for police & fire members retiring with more than 25 years of service. At many ages, we recommend changes to more closely align with experience.



Retirement Assumptions (*continued*)

Summary of Recommended Retirement Rates

The following table summarizes our recommended Tier 1/Tier 2 retirement rates:

	Tier 1/Tier 2 Recommended December 31, 2012 and 2013 Valuations								
	Police & Fire			General Service		School Districts		General Service (Including School Districts)	Judges
Age	< 13 yrs	13-24 yrs	25+ yrs	<15 yrs	15-29 yrs	<15 yrs	15-29 yrs	30+ yrs	
Less than 50								15.00%	
50	1.00%	1.50%	20.00%					15.00%	
51	1.00%	1.50%	14.00%					15.00%	
52	1.00%	1.50%	14.00%					22.00%	
53	1.00%	1.50%	14.00%					22.00%	
54	1.00%	1.50%	14.00%					22.00%	
55	2.00%	7.00%	20.00%	1.00%	2.50%	1.00%	4.00%	22.00%	
56	2.00%	7.00%	20.00%	1.00%	2.50%	1.00%	4.00%	22.00%	
57	2.00%	7.00%	20.00%	1.00%	2.50%	1.00%	4.00%	22.00%	
58	2.00%	7.00%	20.00%	1.00%	8.00%	2.50%	13.00%	26.00%	
59	2.00%	7.00%	20.00%	1.50%	8.00%	2.50%	12.00%	21.00%	
60	5.00%	10.00%	20.00%	4.00%	8.00%	3.50%	12.00%	21.00%	10.00%
61	2.00%	13.00%	20.00%	4.00%	8.00%	5.50%	12.00%	21.00%	10.00%
62	15.00%	20.00%	35.00%	8.50%	16.00%	10.00%	22.00%	29.00%	10.00%
63	7.00%	18.00%	25.00%	8.00%	14.50%	10.00%	18.00%	22.00%	10.00%
64	7.00%	10.00%	15.00%	8.00%	13.00%	8.00%	16.00%	26.00%	10.00%
65	100.00%	100.00%	100.00%	14.00%	22.00%	19.50%	29.00%	30.00%	10.00%
66				19.00%	31.00%	16.00%	32.00%	30.00%	10.00%
67				15.00%	22.00%	16.00%	28.00%	26.00%	10.00%
68				15.00%	22.00%	13.00%	24.00%	22.00%	10.00%
69				15.00%	22.00%	13.00%	24.00%	22.00%	30.00%
70				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Retirement Assumptions (*continued*)

The following table summarizes our recommended OPSRP retirement rates:

	OPSRP Recommended December 31, 2012 and 2013 Valuations					
	Police & Fire			General Service/School District		
Age	< 13 yrs	13-24 yrs	25+ yrs	<15 yrs	15-29 yrs	30+ years
50	1.00%	1.50%	5.50%			
51	1.00%	1.50%	5.50%			
52	1.00%	1.50%	5.50%			
53	1.00%	1.50%	25.00%			
54	1.00%	1.50%	16.50%			
55	2.00%	5.00%	20.00%	1.00%	2.50%	5.00%
56	2.00%	5.00%	20.00%	1.00%	2.50%	5.00%
57	2.00%	5.00%	20.00%	1.00%	2.50%	7.50%
58	2.00%	5.00%	20.00%	1.00%	3.00%	35.00%
59	2.00%	5.00%	20.00%	1.50%	3.00%	25.00%
60	5.00%	15.00%	20.00%	3.00%	3.75%	20.00%
61	2.00%	8.50%	20.00%	3.00%	5.00%	20.00%
62	15.00%	20.00%	35.00%	7.00%	12.00%	30.00%
63	7.00%	18.00%	25.00%	6.00%	10.00%	20.00%
64	7.00%	10.00%	15.00%	6.00%	10.00%	20.00%
65	100.00%	100.00%	100.00%	14.00%	40.00%	20.00%
66				17.25%	33.00%	20.00%
67				12.00%	22.00%	30.00%
68				10.00%	17.00%	20.00%
69				10.00%	17.00%	20.00%
70				100.00%	100.00%	100.00%

Lump Sum Option at Retirement

At retirement, a member has the option of electing a total lump sum distribution equal to two times the member's account balance, a partial lump sum distribution equal to the member's account balance with a reduced monthly allowance, or a monthly allowance with no lump sum distribution. The percentage of active members electing a lump sum distribution at retirement has declined slightly from the prior experience study. The results of our analysis are as follows:

Retirement Assumptions (*continued*)

Election at Retirement	Number of Retired Members	Percentage of Retirements	December 31, 2011 Valuation Assumption	Recommended December 31, 2012 and 2013 Valuations
Partial Lump Sum	800	4.8%	6.0%	5.0%
Total Lump Sum				
• 2009	141	3.7%	N/A	N/A
• 2010	159	4.5%	N/A	N/A
• 2011	247	4.7%	5.0%	N/A
• 2012	154	3.8%	4.5%	N/A
• 2013	TBD	TBD	4.0%	No change
• 2014	TBD	TBD	3.5%	No change

When a member elects a total or partial lump sum under Money Match or a partial lump sum under Full Formula, he or she gives up the value of future COLAs (cost of living allowances) on the lump sum amount. A total lump sum election under Full Formula may cause the member to give up significantly more. Because there are no new contributions to member accounts and the system is projected to become dominated by Full Formula over time, we expect the total lump sum rate to decline over time.

Based on the data shown above, we recommend lowering the partial lump sum assumption of 6.0 percent to 5.0 percent. We recommend no change to the total lump sum assumption of 4.0 percent in 2013 decreasing by 0.5 percent per year until reaching 0.0 percent.

Purchase of Credited Service

A member has the option of purchasing service at retirement to enhance his or her retirement benefits. Service may be purchased under one or more of the following categories:

- Purchase of forfeited service
- Credit for waiting time
- Credit for educational service
- Credit for military service
- Credit for seasonal positions
- Credit for police officers and firefighters
- Purchase of retirement credit for disability time

Most purchases are full cost purchases, meaning the member pays both the member and employer cost to obtain the service. Since the member pays the full cost of the service purchased, the purchase produces no impact or only a small impact on projected Tier 1/Tier 2 employer costs. The most common, and predictable, non-full cost service purchase made by members is purchasing credit for the six-month waiting period. Thus, for valuation purposes, we have included an adjustment to account for those members who are expected to make the waiting period service purchase.

Retirement Assumptions (*continued*)

For Money Match retirements, the purchase of credited service is generally cost-neutral to the system, because the member is depositing both the member and employer contributions. Therefore, in reviewing actual experience, we examined non-Money Match retirements. For this assumption, we focused on experience during 2011 and 2012 only, as reliable data was not available for the earlier portion of the study period. The following table shows the number of members who retired in the experience period and elected to purchase credit for the six-month waiting period:

	Count	Number Electing to Purchase Waiting Time Service	Percentage of Retirements	December 31, 2011 Valuation Assumption	Recommended December 31, 2012 and 2013 Valuations
Non-Money Match Retirements	5,854	3,371	58%	60%	60%

We recommend maintaining the assumption of non-Money Match retirements purchasing credited service for the six month waiting period at 60 percent.

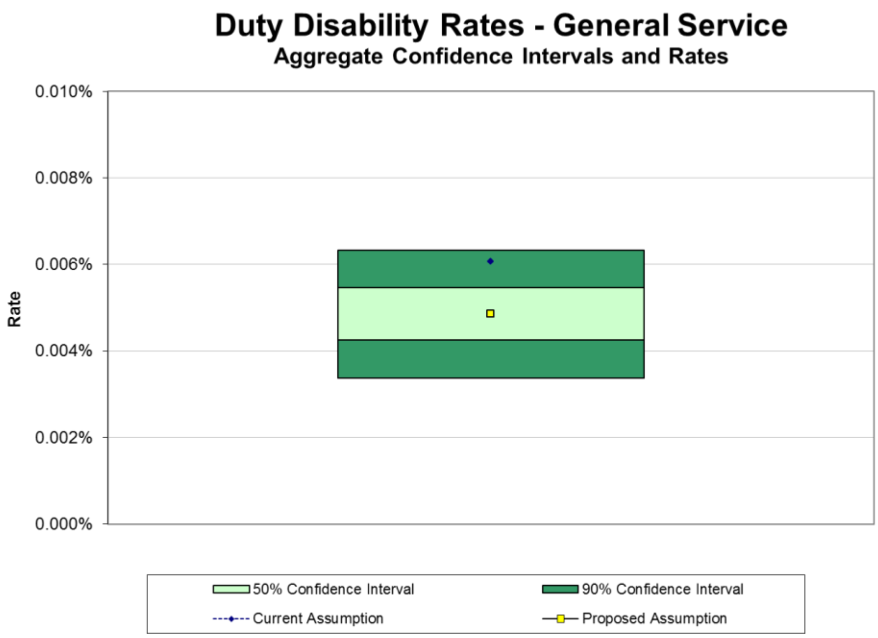
Disability Incidence Assumptions

The Plan provides duty and non-duty disability benefits to members. Members are eligible to receive duty disability benefits if they become disabled as a direct result of a job-related injury or illness, regardless of length of service. Members are eligible for non-duty disability benefits (also referred to as ordinary disability) if they become disabled after ten years of service (six years if a judge), but prior to normal retirement eligibility.

Duty disability incidence rates are developed separately for police & fire and general service members. Ordinary (non-duty) disability rates are developed for the system as a whole.

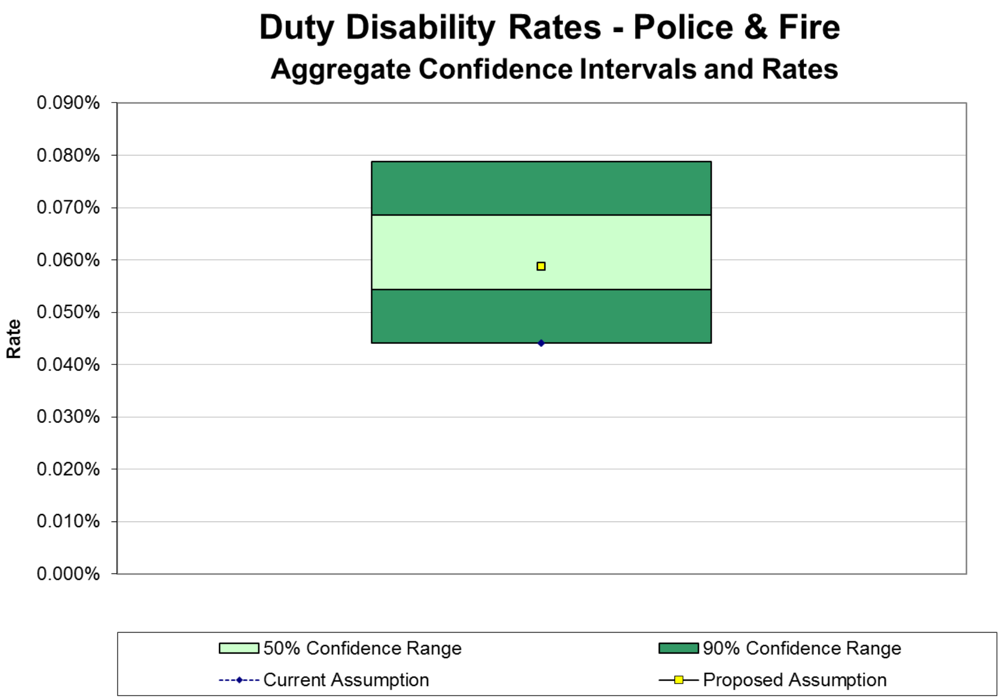
Duty Disability

Due to the limited amount of experience data available at some ages, this assumption employs a standard table adjusted to fit within the aggregate confidence interval. We recommend updating the duty disability incidence assumption for both general service and police & fire members at this time. While the current assumed aggregate rate for the general service assumption is within the 90 percent confidence interval of the disability rates experienced, it sits near the top of the confidence interval for the second consecutive study. As such, we recommend updating the assumption.



The current assumed aggregate rate for the police & fire assumption is below the 90 percent confidence interval of the disability rates experienced. We recommend updating the assumption to more closely match observed experience.

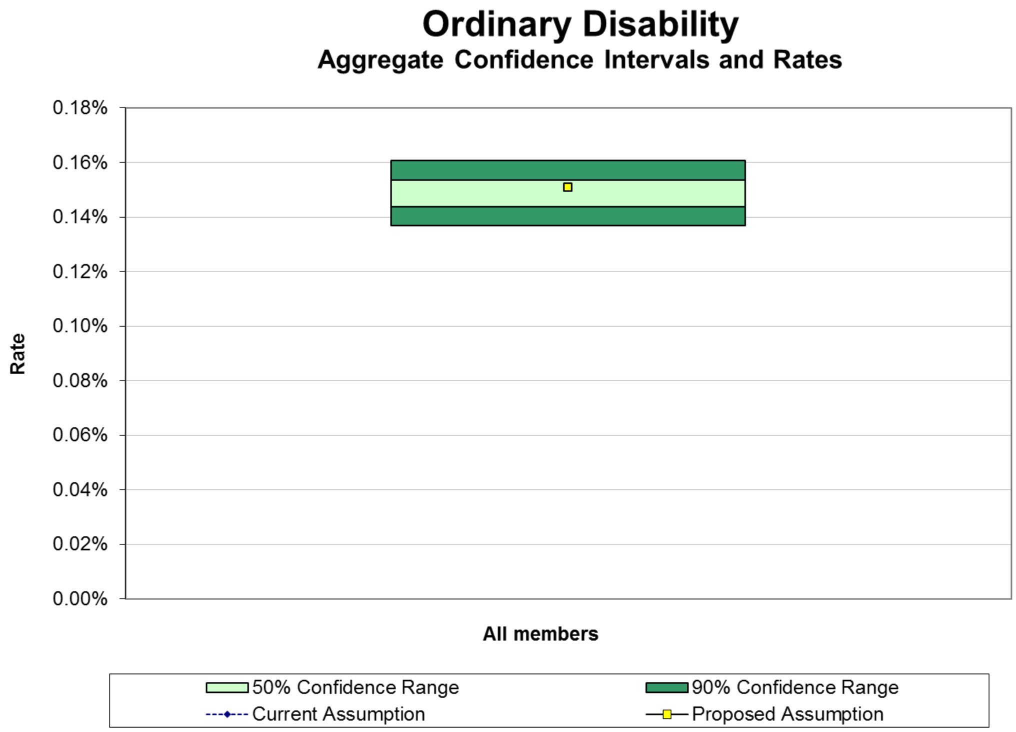
Disability Incidence Assumptions (*continued*)



Ordinary (Non-Duty) Disability

As with duty disability, the experience data for ordinary disability was very limited at specific ages. Therefore, this assumption also uses a standard table adjusted to fit within the aggregate confidence interval. Based on the disability rates experienced, we recommend no change to the ordinary disability incidence assumption at this time.

Disability Incidence Assumptions (*continued*)



The following table summarizes our recommended disability incidence rates:

	Percentage of the 1985 Disability Class 1 Rates	
	December 31, 2011 Valuation	**Recommended December 31, 2012 and 2013 Valuations**
Duty Disability		
• Police & Fire	15% (0.005% – 0.127%)	20% (0.007% – 0.169%)
• General Service	1.5% (0.0005% – 0.013%)	1.2% (0.0004% – 0.010%)
Ordinary Disability	50% with 0.18% cap (0.015% – 0.180%)	No change

Termination Assumptions

Not all active members are expected to continue working for covered employers until retirement. Termination rates represent the probabilities that a member will leave covered employment at any given point during their working career. In previous studies, termination rates were established by age with select rates for the first three years of employment. Since Tier 1 and Tier 2 have been closed for more than three years, the select rates only apply to OPSRP members.

With this study, we recommend shifting the structure of the termination assumption from an age-based table with a select period to a service-based assumption. Service-based assumptions will reflect the experience of Tier 1, Tier 2, and OPSRP members, with each group affecting the period of the table relating to the relevant service amount.

We recommend developing assumptions on this basis for the following groups:

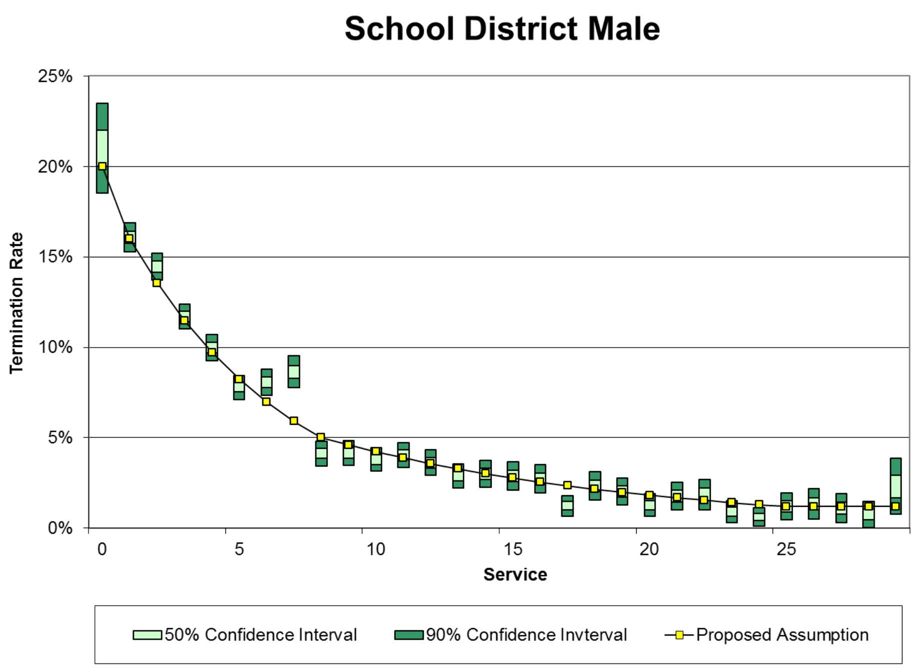
- School District males
- School District females
- Other General Service males
- Other General Service females
- Police & Fire (single table for both males & females)

Termination Rates

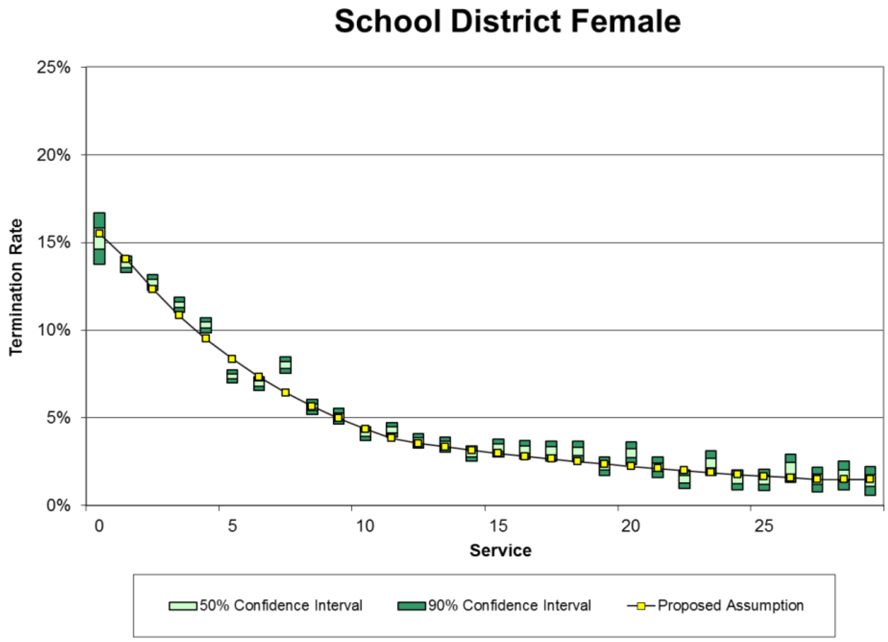
The following charts show the confidence interval around observed experience and the recommended rates of termination by year of service. There is not an entry for the current assumption in these charts, as the previous structure of the assumption does not readily map to a service-only table. These charts are based on the observed experience of members in the relevant group during the study period.

Full listings of recommended termination assumptions are included in the appendix.

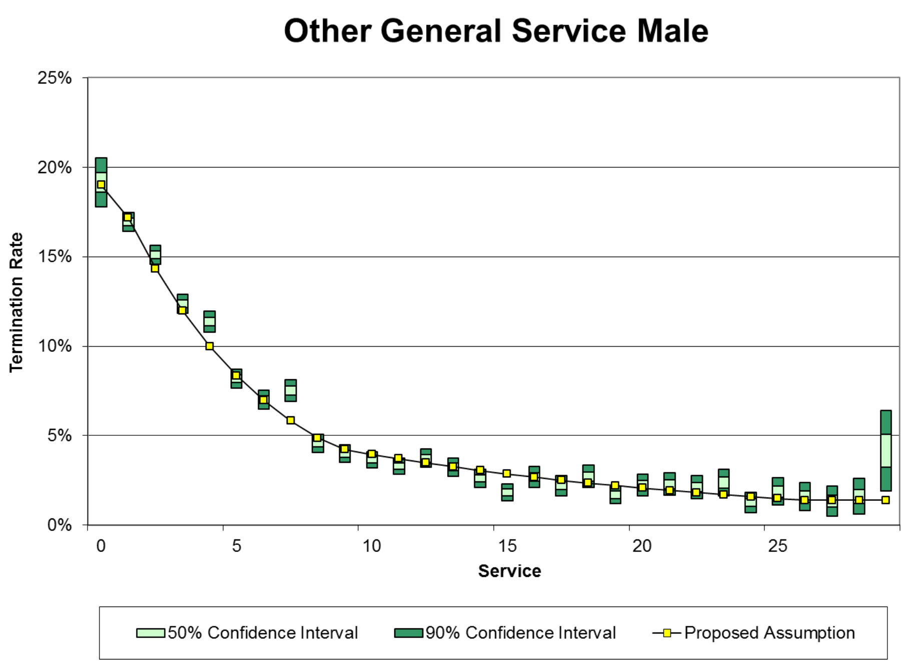
School Districts



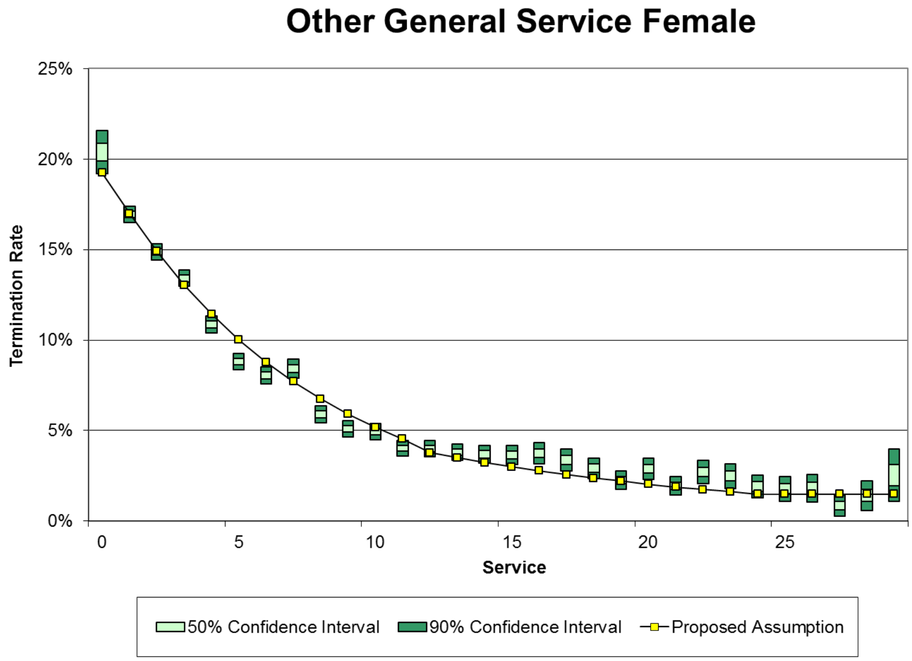
Termination Assumptions (*continued*)



General Service

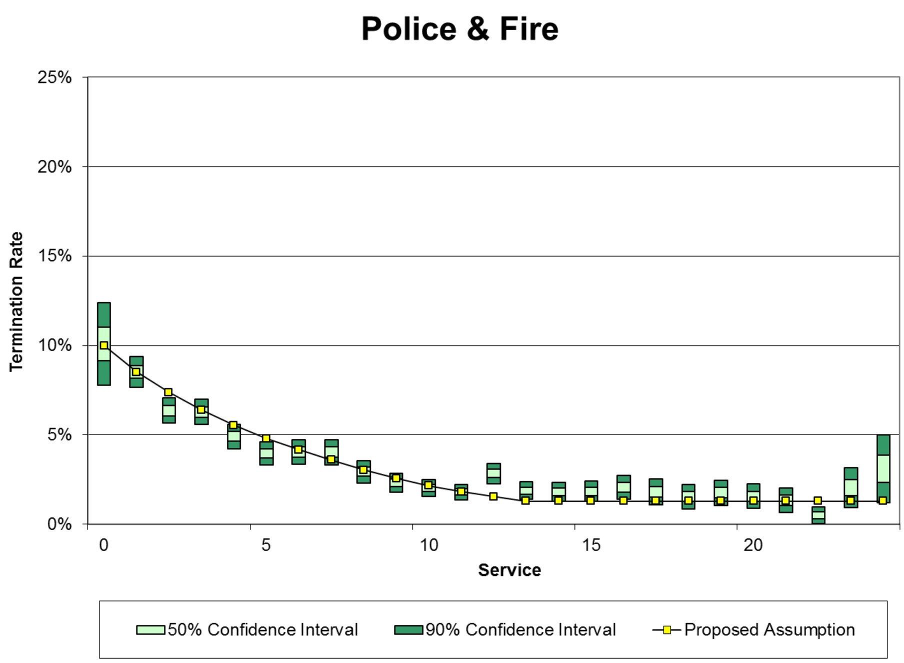


Termination Assumptions (*continued*)



Police & Fire

All police & fire members were rated together, with no variation by group or gender.



Salary Increase Assumptions

The salary increase assumptions analyzed with demographic experience were:

- Merit scale increases
- Unused sick leave adjustments.
- Unused vacation cash out adjustments

Merit Scale

The merit scale assumption is used in conjunction with the inflation and real wage growth assumptions to project individual member salaries to retirement. To focus on the merit and longevity component of salary increases, actual inflation and assumed long-term real wage growth were subtracted from observed salary increases. Our analysis assumes a one-year lag in the impact of actual inflation on a member's salary increase. For example, the actual 2011 inflation level is expected to impact the salary increase from 2011 to 2012. In our analysis, our assumed level of annual real wage growth was used instead of the actual annual changes in the Average Wage Index (AWI) published by the Social Security Administration because a stable annual productivity assumption was judged to be a more appropriate measure for the salary increase expectations of members and employers in, for example, a bargaining process to set salary increases.

In order to capture experience across a broader range of budget, collective bargaining and economic cycles, the analysis covered observed salary increase experience from 2005 through 2012. As shown in the table below, actual inflation was measured using CPI-U and the assumed real growth in wages is the 1.00 percent assumption adopted by PERS.

Year	Actual Inflation (CPI-U)	Assumed Real Wage Growth
2004	3.26%	1.00%
2005	3.42%	1.00%
2006	2.54%	1.00%
2007	4.08%	1.00%
2008	0.09%	1.00%
2009	2.72%	1.00%
2010	1.50%	1.00%
2011	2.96%	1.00%

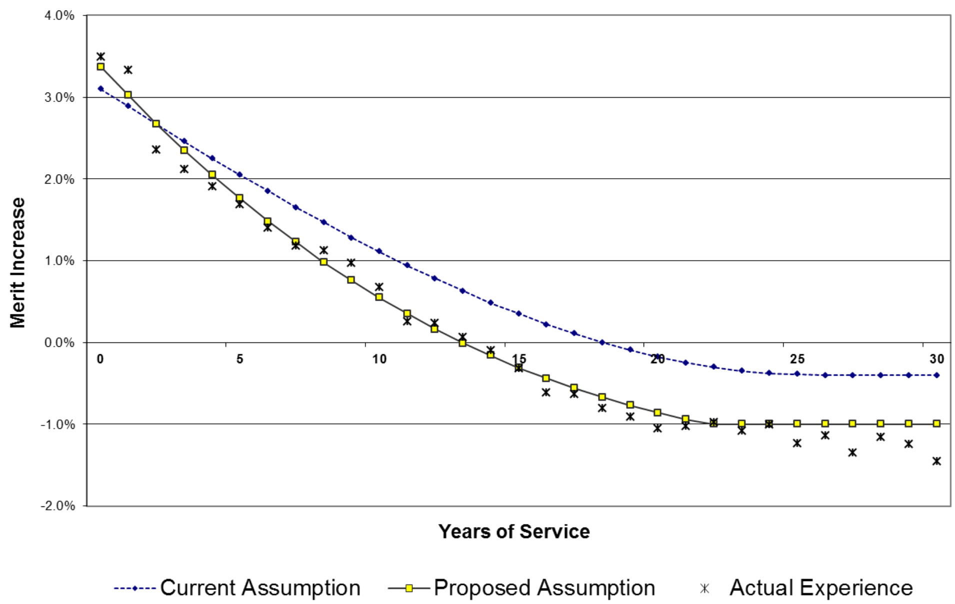
In the past, separate assumptions have been set for:

- School Districts
- Other General Service
- Police & Fire

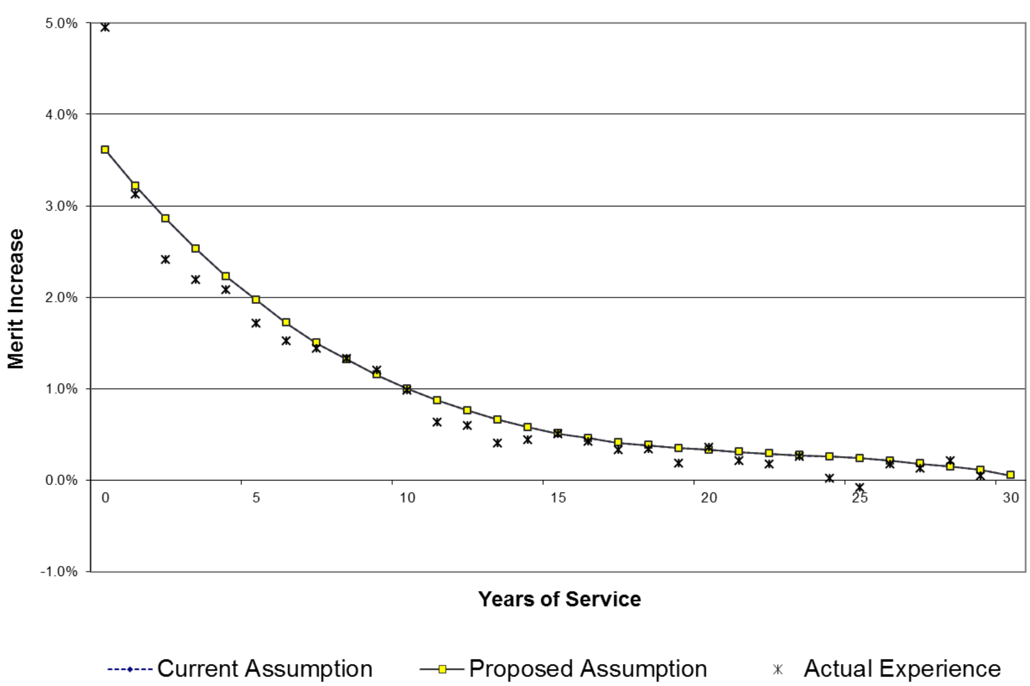
The following charts show the current assumed rates of merit salary increases, the eight-year average of merit increases based on observed experience, and the recommended rates of merit salary increases. We recommend decreases in the merit salary increase assumptions for school districts, but no change to the other general service or police & fire assumptions. For school districts, the merit increase at long-service ages was restricted to a minimum of -1.0% even though recent observed experience indicated moderately lower rates. The -1.0% floor was put in place so that it would be assumed that long service school district employees would receive increases not less than the inflation assumption of 2.75%.

Salary Increase Assumptions (*continued*)

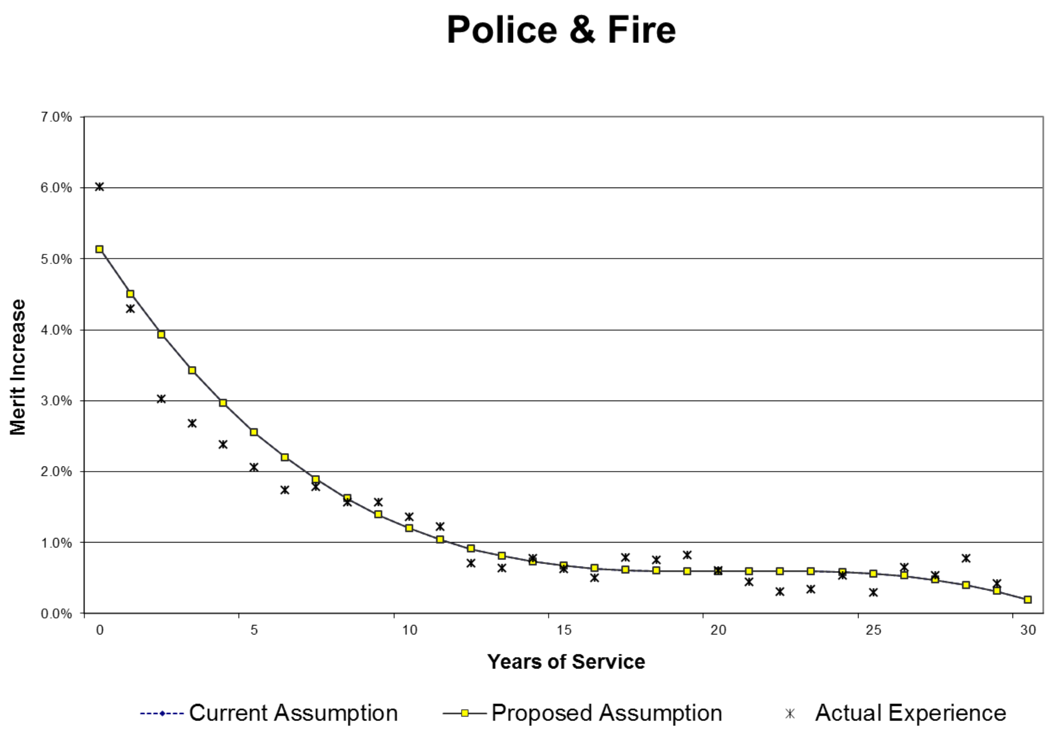
School Districts



Other General Service



Salary Increase Assumptions (*continued*)

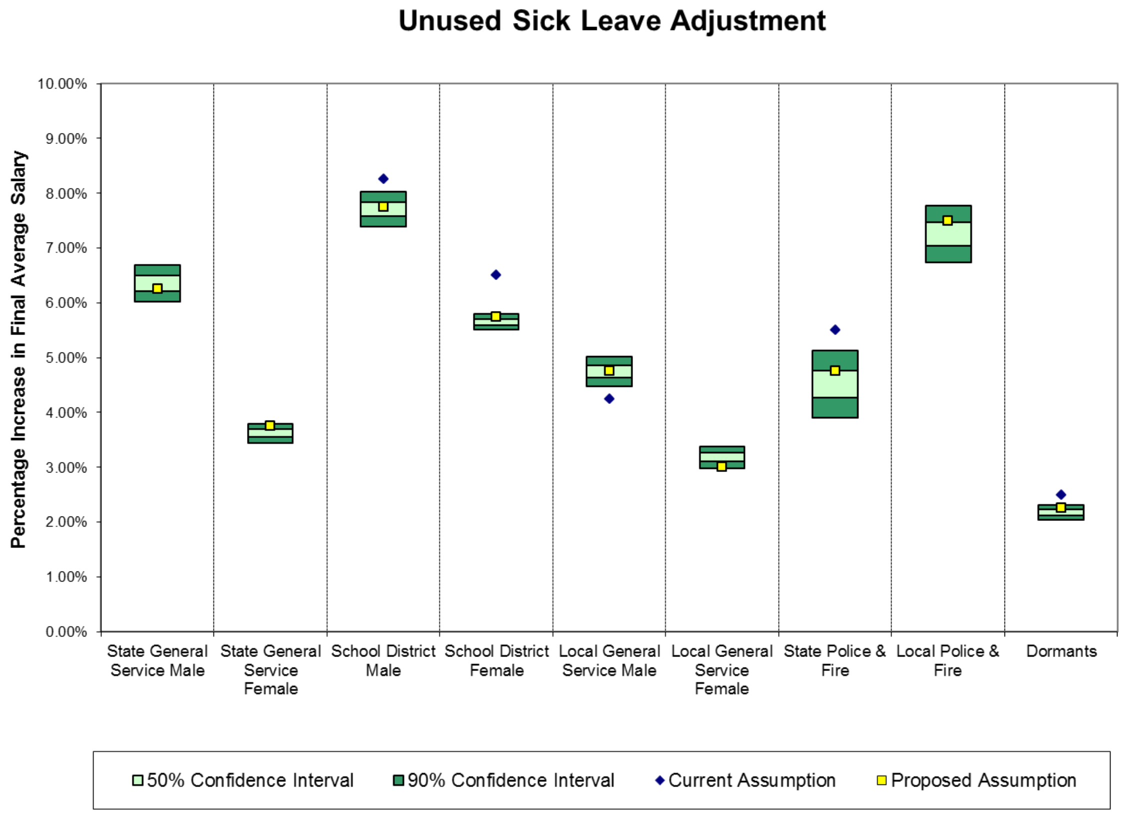


Unused Sick Leave Adjustment

Employers may elect to participate in the Unused Sick Leave Program. This program allows Tier 1/Tier 2 members to convert the value of one-half of their accumulated sick leave into additional retirement benefits. The assumption represents the percentage increase in a member's final average pay due to the inclusion of the value of 50 percent of the member's accumulated sick leave, and is only applied to employers who participate in the program.

For active members, there are currently eight sets of rates developed by employer group, employment category (general service or police & fire) and gender. The chart below shows the current assumption, the confidence intervals of the observed experience, and the recommended assumption for each of the groups studied.

Salary Increase Assumptions (*continued*)



Due to the volatility in experience from one study to the next, for the groups where we recommended changes the recommended change is between the prior assumption and the actual observed experience, but within the confidence interval around current experience.

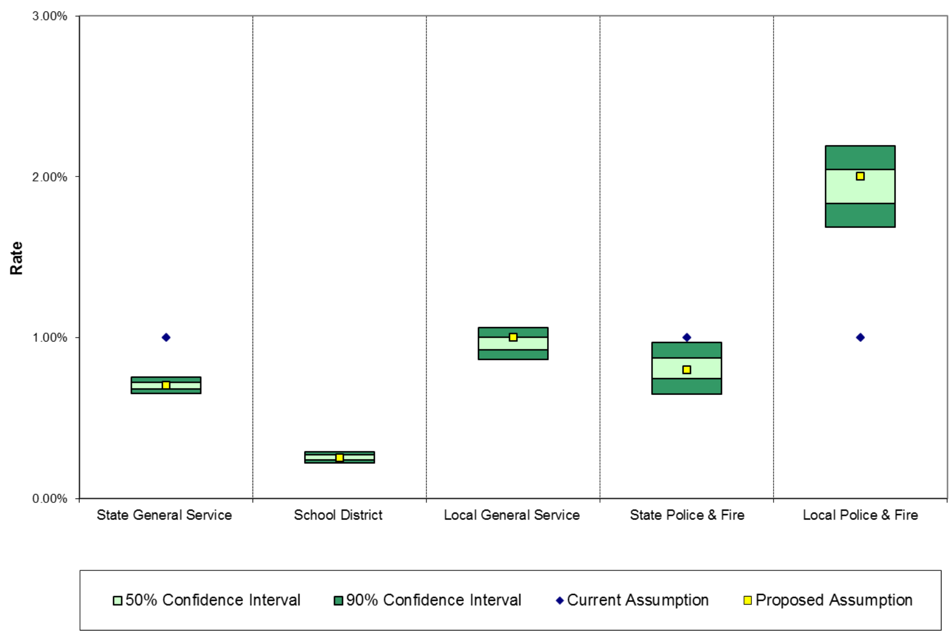
Unused Vacation Cash Out Adjustment

Tier 1 members are eligible to include the value of any lump sum payment of unused vacation pay in the calculation of their final average salary. The assumption shown below represents the percentage increase in a member's final average salary expected to result from this provision.

In previous valuations, this assumption distinguished only by Tier 1 school district members versus all other Tier 1 members. We are recommending developing assumptions according to the five categories of members shown below.

Salary Increase Assumptions (*continued*)

Unused Vacation Cash Out Adjustment



Retiree Healthcare Assumptions

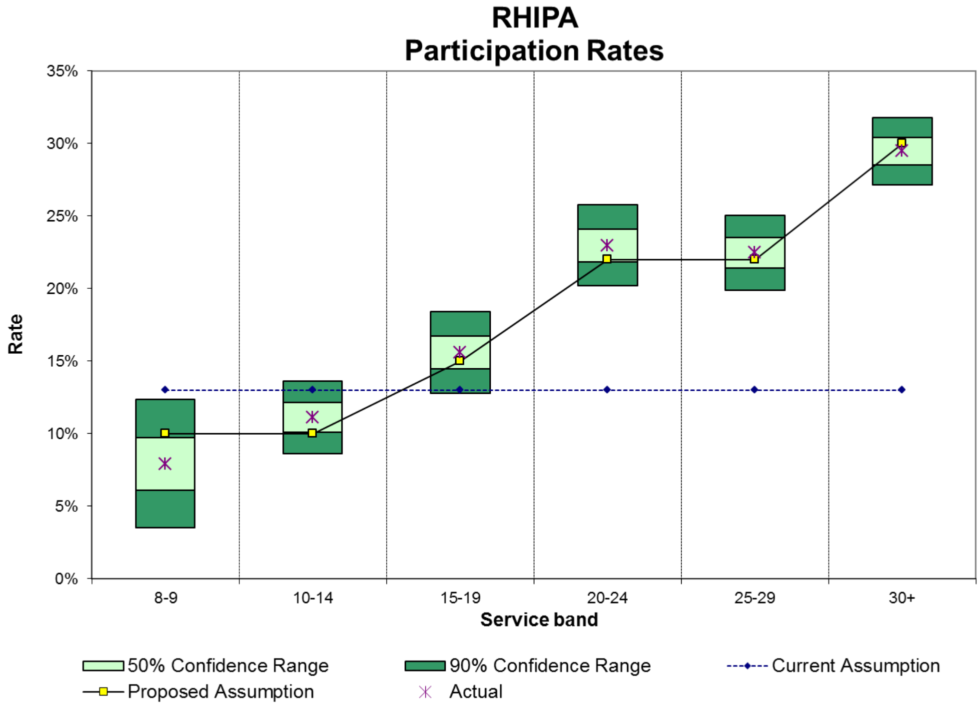
There are two retiree healthcare programs offered to eligible members, the Retiree Health Insurance Premium Account (RHIPA) and the Retiree Health Insurance Account (RHIA).

RHIPA

RHIPA is a program for eligible retirees from State of Oregon employment that provides a subsidized pre-Medicare insurance plan. In the previous valuation, the participation rate assumption for future eligible retirees was set at a flat 13 percent, which was slightly above the actual rate experienced during the prior observation period. During the current observation period, participation increased significantly. If the current flat assumption structure was maintained, we would recommend increasing the assumed participation rate to over 20 percent.

However, for this study we recommend a restructuring of the assumption. In our recommendation, the assumed participation rate varies based on service at the time of retirement. This modification attempts to more closely anticipate future experience, as the level of employer-paid benefits in the RHIPA program varies by service level. We believe this change will increase the liability and lower the funded status for the program, which already had a very low funded status at the most recent valuation. This level of participation in RHIPA may be affected, at least in part, by economic conditions, cost of coverage, competition from alternative programs available to retirees, and the impact of healthcare reform legislation becoming effective. Since changes in these factors could change participation rates in RHIPA quickly and because the program's funded status is very low, we recommend that PERS closely monitor participation on a regular basis.

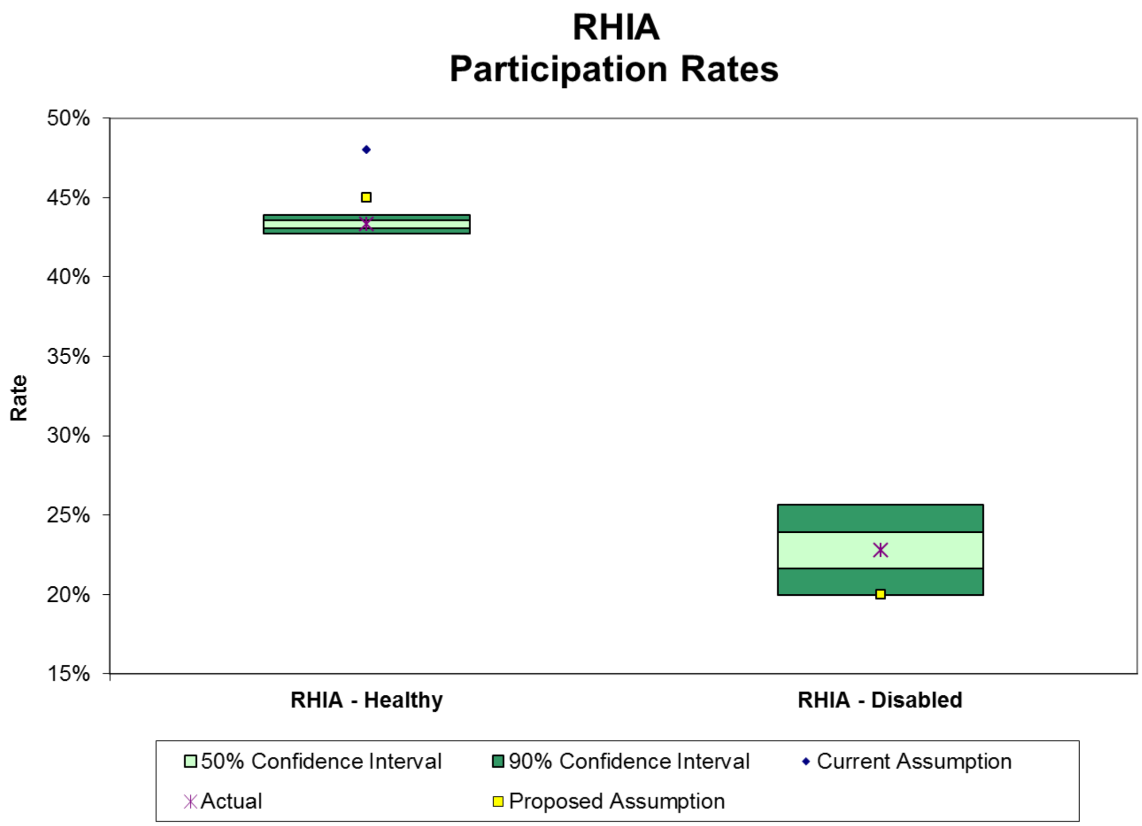
Retiree Healthcare Assumptions (*continued*)



RHIA

RHIA is a subsidized Medicare supplemental insurance program offered to all eligible retirees. Participation rates during the period of study decreased to approximately 43 percent for healthy retirees compared to our assumption of 48 percent. For disabled retirees, the participation followed our assumption of 20 percent fairly closely. As shown in the table below, we recommend decreasing the healthy assumption to 45 percent and maintaining the disabled assumption of 20 percent. Healthy RHIA participation behavior has been somewhat volatile in recent study periods, which contributes to our recommendation to not move the assumption all the way down to the recently observed experience. This will provide a measure of conservatism in establishing rates for this program, which is currently underfunded.

Retiree Healthcare Assumptions (*continued*)



5. Appendix

Data

Except where noted, the analysis in this study was based on data for the experience period from January 1, 2009, to December 31, 2012, as provided by the Oregon Public Employees Retirement System (PERS). PERS is solely responsible for the validity, accuracy and comprehensiveness of this information; the results of our analysis can be expected to differ and may need to be revised if the underlying data supplied is incomplete or inaccurate.

The member data was summarized according to the actual and potential member decrements for each year in the study. Actual and potential decrements were grouped according to age or service depending on the demographic assumption.

Assumption Tables

A complete listing of all the assumptions, methods and procedures presented to the Board for review on July 26, 2013 that are used in the actuarial valuation are summarized on the following pages.

Methods and Procedures

Actuarial cost method: Entry Age Normal (changed from projected unit credit)

UAL amortization method: Level percent of combined Tier 1, Tier 2, and OPSRP payroll

UAL amortization period:

- Closed amortization from the first rate setting valuation in which the experience is recognized
  - Tier 1/Tier 2 – All accumulated Tier 1/Tier 2 UAL shortfall as of 12/31/2013 to be re-amortized over a closed 20 year period per direction from the Board at the July 2013 Board meeting)
  - OPSRP – 16 years
  - RHIA/RHIPA – 10 years
- New side accounts are aligned with the new Tier 1/Tier 2 base from the most recent rate-setting valuation.
- New transition liabilities are amortized over the 18-year period beginning when the employer joins the SLGRP.

Asset valuation method: Market value

Excluded reserves: Contingency Reserve, Capital Preservation Reserve. Rate Guarantee Reserve is excluded only when it is positive.

Contribution Rate Stabilization Method: Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) are confined to a collar based on the prior contribution rate (prior to application of side accounts, pre-SLGRP liabilities, and 6 percent Independent Employer minimum). The new contribution rate will generally not increase or decrease from the prior contribution rate by more than the greater of 3 percentage points or 20 percent of the prior contribution rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funded percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale. The recommended “sliding scale” range was modified from 70%-80% and 120%-130 to 60%-70% and 130%-140%, to be first effective with the advisory December 31, 2012 valuation.

Liability Allocation for Actives with Several Employers: Allocate Actuarial Accrued Liability 30% (5% for police & fire) based on account balance with each employer and 70% (95% for police & fire) based on service with each employer.

Allocate Normal Cost to current employer.

Allocation of Benefits-In-Force (BIF) Reserve: The BIF is allocated to each rate pool in proportion to the retiree liability attributable to the rate pool.

Recommended Economic Assumptions

Inflation	2.75%
Real wage growth	1.00%
Payroll growth	3.75%
Investment Return	7.50%-7.75% (7.75% selected by the Board at its July 2013 meeting)
Interest Crediting	
▪ Regular account	Equal to investment return assumption
▪ Variable account	Equal to investment return assumption
Health cost trend rates	
▪ 2013 trend rate	8.00%
▪ Ultimate trend rate	4.70%
▪ Year reaching ultimate trend	2083

Demographic Assumptions

Mortality

	Healthy Annuitant Mortality										Beneficiary Mortality			
Age	School District Male		Other General Service Male		Police & Fire Male		School District Female		Other Female		Male		Female	
Year of Birth	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960
50	0.001860	0.001583	0.001948	0.001641	0.001948	0.001641	0.001344	0.001121	0.001589	0.001339	0.001948	0.001641	0.001589	0.001339
51	0.001961	0.001652	0.002049	0.001709	0.002049	0.001709	0.001437	0.001198	0.001739	0.001480	0.002049	0.001709	0.001739	0.001480
52	0.002062	0.001719	0.002322	0.001917	0.002322	0.001917	0.001535	0.001293	0.001871	0.001625	0.002322	0.001917	0.001871	0.001625
53	0.002312	0.001908	0.002468	0.002017	0.002468	0.002017	0.001684	0.001433	0.002024	0.001794	0.002468	0.002017	0.002024	0.001794
54	0.002460	0.002010	0.002638	0.002156	0.002638	0.002156	0.001818	0.001579	0.002212	0.002001	0.002638	0.002156	0.002212	0.002001
55	0.002636	0.002154	0.002822	0.002306	0.002822	0.002306	0.001976	0.001751	0.002484	0.002292	0.002822	0.002306	0.002484	0.002292
56	0.002831	0.002313	0.003142	0.002594	0.003142	0.002594	0.002168	0.001961	0.002846	0.002680	0.003142	0.002594	0.002846	0.002680
57	0.003169	0.002616	0.003570	0.002977	0.003570	0.002977	0.002445	0.002256	0.003202	0.003045	0.003570	0.002977	0.003202	0.003045
58	0.003632	0.003029	0.003901	0.003286	0.003901	0.003286	0.002812	0.002648	0.003573	0.003398	0.003901	0.003286	0.003573	0.003398
59	0.004022	0.003388	0.004295	0.003655	0.004295	0.003655	0.003170	0.003015	0.003983	0.003788	0.004295	0.003655	0.003983	0.003788
60	0.004488	0.003819	0.004715	0.004012	0.004715	0.004012	0.003537	0.003364	0.004448	0.004231	0.004715	0.004012	0.004448	0.004231
61	0.004978	0.004237	0.005238	0.004458	0.005238	0.004458	0.003943	0.003751	0.005015	0.004770	0.005238	0.004458	0.005015	0.004770
62	0.005560	0.004732	0.005940	0.005107	0.005940	0.005107	0.004404	0.004189	0.005638	0.005363	0.005940	0.005107	0.005638	0.005363
63	0.006307	0.005422	0.006720	0.005777	0.006720	0.005777	0.004965	0.004722	0.006384	0.006072	0.006720	0.005777	0.006384	0.006072
64	0.007087	0.006093	0.007745	0.006727	0.007745	0.006727	0.005582	0.005309	0.007150	0.006801	0.007745	0.006727	0.007150	0.006801
65	0.008104	0.007038	0.008677	0.007536	0.008677	0.007536	0.006320	0.006011	0.008024	0.007632	0.008677	0.007536	0.008024	0.007632
66	0.009002	0.007818	0.009721	0.008442	0.009721	0.008442	0.007079	0.006733	0.009035	0.008594	0.009721	0.008442	0.009035	0.008594
67	0.010022	0.008705	0.011067	0.009710	0.011067	0.009710	0.007944	0.007556	0.010051	0.009560	0.011067	0.009710	0.010051	0.009560
68	0.011385	0.009989	0.012179	0.010685	0.012179	0.010685	0.008945	0.008508	0.011115	0.010572	0.012179	0.010685	0.011115	0.010572
69	0.012537	0.010999	0.013080	0.011360	0.013080	0.011360	0.009951	0.009464	0.012280	0.011680	0.013080	0.011360	0.012280	0.011680
70	0.013480	0.011707	0.014243	0.012370	0.014243	0.012370	0.011005	0.010467	0.013737	0.013065	0.014243	0.012370	0.013737	0.013065
71	0.014727	0.012791	0.015395	0.013236	0.015395	0.013236	0.012157	0.011563	0.014867	0.013999	0.015395	0.013236	0.014867	0.013999
72	0.015925	0.013691	0.016770	0.014417	0.016770	0.014417	0.013599	0.012935	0.016455	0.015494	0.016770	0.014417	0.016455	0.015494
73	0.017356	0.014921	0.018331	0.015760	0.018331	0.015760	0.014689	0.013831	0.017784	0.016578	0.018331	0.015760	0.017784	0.016578
74	0.018981	0.016319	0.020096	0.017277	0.020096	0.017277	0.016258	0.015308	0.019616	0.018285	0.020096	0.017277	0.019616	0.018285
75	0.020825	0.017904	0.022095	0.018996	0.022095	0.018996	0.017536	0.016347	0.021038	0.019415	0.022095	0.018996	0.021038	0.019415
76	0.022885	0.019675	0.024958	0.021676	0.024958	0.021676	0.019342	0.018030	0.023120	0.021335	0.024958	0.021676	0.023120	0.021335
77	0.025856	0.022456	0.027514	0.023896	0.027514	0.023896	0.020703	0.019105	0.026097	0.024327	0.027514	0.023896	0.026097	0.024327
78	0.028415	0.024678	0.031151	0.027330	0.031151	0.027330	0.022751	0.020995	0.028720	0.026772	0.031151	0.027330	0.028720	0.026772
79	0.032094	0.028158	0.035331	0.031313	0.035331	0.031313	0.025733	0.023987	0.031622	0.029477	0.035331	0.031313	0.031622	0.029477
80	0.036286	0.032159	0.040114	0.035914	0.040114	0.035914	0.028320	0.026398	0.034894	0.032527	0.040114	0.035914	0.034894	0.032527
81	0.041112	0.036807	0.045546	0.041191	0.045546	0.041191	0.031181	0.029066	0.038556	0.035940	0.045546	0.041191	0.038556	0.035940
82	0.046666	0.042203	0.052136	0.047629	0.052136	0.047629	0.034407	0.032073	0.042623	0.039732	0.052136	0.047629	0.042623	0.039732
83	0.053458	0.048837	0.059677	0.055071	0.059677	0.055071	0.038018	0.035439	0.047194	0.043992	0.059677	0.055071	0.047194	0.043992
84	0.061252	0.056524	0.066041	0.060944	0.066041	0.060944	0.042029	0.039178	0.052284	0.048737	0.066041	0.060944	0.052284	0.048737
85	0.067731	0.062504	0.075475	0.070355	0.075475	0.070355	0.046536	0.043379	0.060102	0.056591	0.075475	0.070355	0.060102	0.056591
86	0.077484	0.072228	0.083300	0.077649	0.083300	0.077649	0.051555	0.048058	0.069158	0.065777	0.083300	0.077649	0.069158	0.065777
87	0.085407	0.079613	0.091898	0.085664	0.091898	0.085664	0.059383	0.055914	0.079737	0.076605	0.091898	0.085664	0.079737	0.076605
88	0.094028	0.087650	0.105256	0.099109	0.105256	0.099109	0.068469	0.065121	0.088458	0.084983	0.105256	0.099109	0.088458	0.084983
89	0.107583	0.101300	0.120599	0.114703	0.120599	0.114703	0.079101	0.075993	0.101634	0.098626	0.120599	0.114703	0.101634	0.098626
90	0.123231	0.117206	0.132883	0.126386	0.132883	0.126386	0.087752	0.084304	0.111866	0.108555	0.132883	0.126386	0.111866	0.108555
91	0.135504	0.128879	0.151997	0.146025	0.151997	0.146025	0.101025	0.098035	0.122475	0.118850	0.151997	0.146025	0.122475	0.118850
92	0.154992	0.148903	0.165063	0.158578	0.165063	0.158578	0.111196	0.107904	0.133097	0.129157	0.165063	0.158578	0.133097	0.129157
93	0.168143	0.161537	0.186260	0.180747	0.186260	0.180747	0.121742	0.118138	0.149963	0.146991	0.186260	0.180747	0.149963	0.146991
94	0.189782	0.184165	0.200581	0.194644	0.200581	0.194644	0.132299	0.128384	0.160690	0.157505	0.200581	0.194644	0.160690	0.157505
95	0.204113	0.198071	0.214555	0.208205	0.214555	0.208205	0.149364	0.146403	0.170819	0.167434	0.214555	0.208205	0.170819	0.167434
96	0.218333	0.211871	0.239200	0.234459	0.239200	0.234459	0.160048	0.156876	0.187310	0.183597	0.239200	0.234459	0.187310	0.183597
97	0.243470	0.238644	0.258410	0.253288	0.258410	0.253288	0.170137	0.166764	0.205353	0.203309	0.258410	0.253288	0.205353	0.203309
98	0.257893	0.252781	0.272379	0.266980	0.272379	0.266980	0.186561	0.182864	0.213446	0.211321	0.272379	0.266980	0.213446	0.211321
99	0.271834	0.266446	0.300212	0.297223	0.300212	0.297223	0.204942	0.202902	0.220317	0.218124	0.300212	0.297223	0.220317	0.218124
100	0.299911	0.296926	0.314095	0.310968	0.314095	0.310968	0.213020	0.210899	0.225880	0.223631	0.314095	0.310968	0.225880	0.223631
101	0.313781	0.310657	0.327416	0.324156	0.327416	0.324156	0.219877	0.217688	0.244834	0.244834	0.327416	0.324156	0.244834	0.244834
102	0.327088	0.323832	0.358628	0.358628	0.358628	0.358628	0.225428	0.223184	0.254498	0.254498	0.358628	0.358628	0.254498	0.254498
103	0.358628	0.358628	0.371685	0.371685	0.371685	0.371685	0.244834	0.244834	0.266044	0.266044	0.371685	0.371685	0.266044	0.266044
104	0.371685	0.371685	0.383040	0.383040	0.383040	0.383040	0.254498	0.254498	0.279055	0.279055	0.383040	0.383040	0.279055	0.279055
105	0.383040	0.383040	0.392003	0.392003	0.392003	0.392003	0.266044	0.266044	0.293116	0.293116	0.392003	0.392003	0.293116	0.293116
106	0.392003	0.392003	0.397886	0.397886	0.397886	0.397886	0.279055	0.279055	0.307811	0.307811	0.397886	0.397886	0.307811	0.307811
107	0.397886	0.397886	0.400000	0.400000	0.400000	0.400000	0.293116	0.293116	0.322725	0.322725	0.400000	0.400000	0.322725	0.322725
108	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.307811	0.307811	0.337441	0.337441	0.400000	0.400000	0.337441	0.337441
109	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.322725	0.322725	0.351544	0.351544	0.400000	0.400000	0.351544	0.351544
110	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.337441	0.337441	0.364617	0.364617	0.400000	0.400000	0.364617	0.364617
111	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.351544	0.351544	0.376246	0.376246	0.400000	0.400000	0.376246	0.376246
112	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.364617	0.364617	0.386015	0.386015	0.400000	0.400000	0.386015	0.386015
113	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.376246	0.376246	0.393507	0.393507	0.400000	0.400000	0.393507	0.393507
114	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.386015	0.386015	0.398308	0.398308	0.400000	0.400000	0.398308	0.398308
115	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.393507	0.393507	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
116	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.398308	0.398308	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
117	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
118	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
119	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
120	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Demographic Assumptions (continued)

Disabled Retired Mortality			Non-Annuitant Mortality										
			Age	School District Male		Other General Service Male		Police & Fire Male		School District Female		Other Female	
Age	Male	Female	Year of Birth	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960
45	0.014671	0.006705	30	0.000275	0.000275	0.000350	0.000350	0.000391	0.000391	0.000141	0.000141	0.000156	0.000156
46	0.015501	0.007366	31	0.000288	0.000288	0.000379	0.000379	0.000424	0.000424	0.000149	0.000149	0.000179	0.000179
47	0.016331	0.008063	32	0.000311	0.000311	0.000417	0.000417	0.000466	0.000466	0.000170	0.000170	0.000200	0.000200
48	0.017163	0.008798	33	0.000349	0.000349	0.000461	0.000461	0.000515	0.000515	0.000195	0.000195	0.000221	0.000221
49	0.017997	0.009571	34	0.000393	0.000393	0.000508	0.000508	0.000568	0.000568	0.000218	0.000218	0.000239	0.000239
50	0.018834	0.010382	35	0.000442	0.000442	0.000557	0.000557	0.000622	0.000622	0.000241	0.000241	0.000256	0.000256
51	0.019674	0.011229	36	0.000491	0.000491	0.000608	0.000608	0.000679	0.000679	0.000261	0.000261	0.000273	0.000273
52	0.020516	0.012110	37	0.000541	0.000541	0.000658	0.000658	0.000736	0.000736	0.000280	0.000280	0.000290	0.000290
53	0.021358	0.013019	38	0.000589	0.000589	0.000707	0.000707	0.000790	0.000790	0.000298	0.000298	0.000309	0.000309
54	0.022199	0.013947	39	0.000633	0.000633	0.000757	0.000757	0.000846	0.000846	0.000316	0.000316	0.000329	0.000329
55	0.023037	0.014890	40	0.000675	0.000675	0.000807	0.000807	0.000902	0.000902	0.000337	0.000337	0.000355	0.000355
56	0.023876	0.015838	41	0.000715	0.000710	0.000859	0.000852	0.000960	0.000952	0.000359	0.000354	0.000384	0.000379
57	0.024717	0.016789	42	0.000755	0.000743	0.000915	0.000899	0.001023	0.001005	0.000387	0.000375	0.000420	0.000407
58	0.025567	0.017739	43	0.000799	0.000778	0.000980	0.000951	0.001096	0.001063	0.000419	0.000401	0.000460	0.000440
59	0.026434	0.018691	44	0.000851	0.000817	0.001055	0.001009	0.001179	0.001128	0.000458	0.000431	0.000507	0.000477
60	0.027327	0.019655	45	0.000909	0.000860	0.001139	0.001072	0.001273	0.001199	0.000502	0.000466	0.000559	0.000516
61	0.028258	0.020642	46	0.000978	0.000910	0.001237	0.001143	0.001382	0.001278	0.000553	0.000505	0.000615	0.000555
62	0.029238	0.021672	47	0.001056	0.000963	0.001332	0.001207	0.001489	0.001349	0.000610	0.000545	0.000676	0.000595
63	0.030280	0.022764	48	0.001131	0.001011	0.001435	0.001272	0.001604	0.001422	0.000671	0.000585	0.000739	0.000639
64	0.031400	0.023940	49	0.001214	0.001059	0.001543	0.001334	0.001724	0.001491	0.000737	0.000626	0.000805	0.000683
65	0.032613	0.025223	50	0.001302	0.001108	0.001656	0.001395	0.001851	0.001559	0.000806	0.000672	0.000874	0.000736
66	0.033938	0.026635	51	0.001373	0.001156	0.001742	0.001452	0.001946	0.001623	0.000862	0.000719	0.000956	0.000814
67	0.035393	0.028193	52	0.001443	0.001203	0.001974	0.001629	0.002206	0.001821	0.000921	0.000776	0.001029	0.000893
68	0.036991	0.029911	53	0.001618	0.001336	0.002098	0.001714	0.002345	0.001916	0.001010	0.000860	0.001113	0.000987
69	0.038748	0.031802	54	0.001722	0.001407	0.002242	0.001832	0.002506	0.002048	0.001091	0.000948	0.001217	0.001100
70	0.040679	0.033872	55	0.001845	0.001508	0.002399	0.001960	0.002681	0.002190	0.001186	0.001051	0.001366	0.001261
71	0.042797	0.036126	56	0.001982	0.001619	0.002671	0.002205	0.002985	0.002464	0.001301	0.001177	0.001565	0.001474
72	0.045113	0.038566	57	0.002218	0.001831	0.003034	0.002530	0.003391	0.002828	0.001467	0.001354	0.001761	0.001675
73	0.047640	0.041192	58	0.002542	0.002120	0.003316	0.002794	0.003706	0.003122	0.001687	0.001589	0.001965	0.001869
74	0.050383	0.044006	59	0.002815	0.002372	0.003650	0.003107	0.004080	0.003472	0.001902	0.001809	0.002191	0.002084
75	0.053344	0.047007	60	0.003141	0.002673	0.004007	0.003410	0.004479	0.003812	0.002122	0.002019	0.002447	0.002327
76	0.056518	0.050199	61	0.003485	0.002966	0.004452	0.003789	0.004976	0.004235	0.002366	0.002250	0.002758	0.002623
77	0.059897	0.053591	62	0.003892	0.003312	0.005049	0.004341	0.005643	0.004852	0.002642	0.002513	0.003101	0.002950
78	0.063466	0.057191	63	0.004415	0.003795	0.005712	0.004911	0.006384	0.005488	0.002979	0.002833	0.003511	0.003340
79	0.067205	0.061014	64	0.004961	0.004265	0.006583	0.005718	0.007358	0.006390	0.003349	0.003186	0.003933	0.003740
80	0.071092	0.065081	65	0.005672	0.004927	0.007375	0.006405	0.008243	0.007159	0.003792	0.003607	0.004413	0.004198
81	0.075104	0.069422	66	0.006301	0.005473	0.008263	0.007176	0.009235	0.008020	0.004247	0.004040	0.004970	0.004727
82	0.079220	0.074068	67	0.007016	0.006093	0.009407	0.008253	0.010514	0.009224	0.004767	0.004534	0.005528	0.005258
83	0.083423	0.079054	68	0.007970	0.006992	0.010352	0.009082	0.011570	0.010151	0.005367	0.005105	0.006114	0.005815
84	0.087700	0.084415	69	0.008776	0.007699	0.011118	0.009656	0.012426	0.010792	0.005970	0.005679	0.006754	0.006424
85	0.092042	0.090183	70	0.009436	0.008195	0.012106	0.010514	0.013531	0.011751	0.006603	0.006280	0.007555	0.007186
86	0.097906	0.096389	71	0.010309	0.008953	0.013086	0.011250	0.014625	0.012574	0.007294	0.006938	0.008177	0.007699
87	0.108774	0.103061	72	0.011147	0.009584	0.014254	0.012255	0.015931	0.013696	0.008160	0.007761	0.009050	0.008521
88	0.122346	0.110218	73	0.012149	0.010445	0.015582	0.013396	0.017415	0.014972	0.008814	0.008299	0.009781	0.009118
89	0.137387	0.117875	74	0.013287	0.011423	0.017082	0.014686	0.019091	0.016413	0.009755	0.009185	0.010789	0.010057
90	0.152141	0.126044	75	0.014578	0.012533	0.018781	0.016146	0.020990	0.018046	0.010522	0.009808	0.011571	0.010678
91	0.170049	0.134728	76	0.016019	0.013772	0.021214	0.018424	0.023710	0.020592	0.011605	0.010818	0.012716	0.011734
92	0.185408	0.145214	77	0.018099	0.015719	0.023387	0.020312	0.026138	0.022701	0.012422	0.011463	0.014353	0.013380
93	0.203829	0.159246	78	0.019890	0.017275	0.026478	0.023231	0.029593	0.025964	0.013651	0.012597	0.015796	0.014725
94	0.220161	0.170979	79	0.022466	0.019710	0.030031	0.026616	0.033564	0.029747	0.015440	0.014392	0.017392	0.016212
95	0.236208	0.182121	80	0.025400	0.022512	0.034097	0.030527	0.038108	0.034118	0.016992	0.015839	0.019192	0.017890
96	0.255537	0.200103	81	0.028778	0.025765	0.038714	0.035012	0.043269	0.039132	0.018709	0.017439	0.021206	0.019767
97	0.276611	0.212459	82	0.032666	0.029542	0.044316	0.040485	0.049529	0.045248	0.020644	0.019244	0.023443	0.021853
98	0.292149	0.221053	83	0.037420	0.034186	0.050725	0.046810	0.056693	0.052317	0.022811	0.021263	0.025957	0.024196
99	0.311222	0.228397	84	0.042876	0.039567	0.056135	0.051803	0.062739	0.057897	0.025217	0.023507	0.028756	0.026806
100	0.325940	0.234398	85	0.047412	0.043752	0.064153	0.059801	0.071701	0.066837	0.027921	0.026027	0.033056	0.031125
101	0.340104	0.244834	86	0.054239	0.050559	0.070805	0.066002	0.079135	0.073767	0.030933	0.028835	0.038037	0.036177
102	0.358628	0.254498	87	0.059785	0.055729	0.078113	0.072814	0.087303	0.081381	0.035630	0.033549	0.043856	0.042133
103	0.371685	0.266044	88	0.065820	0.061355	0.089468	0.084242	0.099994	0.094153	0.041081	0.039073	0.048652	0.046741
104	0.383040	0.279055	89	0.075308	0.070910	0.102509	0.097498	0.114569	0.108968	0.047460	0.045596	0.055899	0.054244
105	0.392003	0.293116	90	0.086262	0.082044	0.112950	0.107428	0.126239	0.120067	0.052651	0.050583	0.061526	0.059705
106	0.397886	0.307811	91	0.094853	0.090215	0.129197	0.124122	0.144397	0.138724	0.060615	0.058821	0.067361	0.065368
107	0.400000	0.322725	92	0.108495	0.104232	0.140303	0.134791	0.156810	0.150649	0.066717	0.064743	0.073203	0.071037
108	0.400000	0.337441	93	0.117700	0.113076	0.158321	0.153635	0.176947	0.171710	0.073045	0.070883	0.082480	0.080845
109	0.400000	0.351544	94	0.132848	0.128915	0.170494	0.165448	0.190552	0.184912	0.079380	0.077030	0.088379	0.086628
110	0.400000	0.364617	95	0.142879	0.138650	0.182372	0.176974	0.203828	0.197795	0.089618	0.087842	0.093951	0.092088
111	0.400000	0.376246	96	0.152833	0.148310	0.203320	0.199290	0.227240	0.222736	0.096029	0.094125	0.103020	0.100979
112	0.400000	0.386015	97	0.170429	0.167051	0.219648	0.215294	0.245489	0.240623	0.102082	0.100059	0.112944	0.111820
113	0.400000	0.393507	98	0.180525	0.176947	0.231522	0.226933	0.258760	0.253631	0.111937	0.109718	0.117395	0.116227
114	0.400000	0.398308	99	0.190284	0.186512	0.255180	0.252639	0.285201	0.282362	0.122965	0.121741	0.121174	0.119968
115	0.400000	0.400000	100	0.209938	0.207848	0.266981	0.264323	0.298390	0.295420	0.127812	0.126539	0.124234	0.122997
116	0.400000	0.400000	101	0.219646	0.217460	0.278303	0.275533	0.311045	0.307949	0.131926	0.130613	0.134659	0.134659
117	0.400000	0.400000	102	0.228962	0.226683	0.304834	0.304834	0.340697	0.340697	0.135257	0.133911	0.139974	0.139974
118	0.400000	0.400000	103	0.251040	0.251040	0.315932	0.315932	0.353101	0.353101	0.146900	0.146900	0.146324	0.146324
119	0.400000	0.400000	104	0.260180	0.260180	0.325584	0.325584	0.363888	0.363888	0.152699	0.152699	0.153480	0.153480
120	1.000000	1.000000	105	0.268128	0.268128	0.333203	0.333203	0.372403	0.372403	0.159626	0.159626	0.161214	0.161214

Demographic Assumptions (continued)

Retirement Assumptions (Tier 1/Tier 2)

Retirement from Active Status (Tier 1/Tier 2)

	Police & Fire			General Service / School Districts					Judges
				General Service		School Districts			
Age	<13 Years	13 - 24	25+ Years	< 15 years	15-29 Years	< 15 years	15-29 Years	30+ Years	
< 50								15.00%	
50	1.00%	1.50%	20.00%					15.00%	
51	1.00%	1.50%	14.00%					15.00%	
52	1.00%	1.50%	14.00%					22.00%	
53	1.00%	1.50%	14.00%					22.00%	
54	1.00%	1.50%	14.00%					22.00%	
55	2.00%	7.00%	20.00%	1.00%	2.50%	1.00%	4.00%	22.00%	
56	2.00%	7.00%	20.00%	1.00%	2.50%	1.00%	4.00%	22.00%	
57	2.00%	7.00%	20.00%	1.00%	2.50%	1.00%	4.00%	22.00%	
58	2.00%	7.00%	20.00%	1.00%	8.00%	2.50%	13.00%	26.00%	
59	2.00%	7.00%	20.00%	1.50%	8.00%	2.50%	12.00%	21.00%	
60	5.00%	10.00%	20.00%	4.00%	8.00%	3.50%	12.00%	21.00%	10.00%
61	2.00%	13.00%	20.00%	4.00%	8.00%	5.50%	12.00%	21.00%	10.00%
62	15.00%	20.00%	35.00%	8.50%	16.00%	10.00%	22.00%	29.00%	10.00%
63	7.00%	18.00%	25.00%	8.00%	14.50%	10.00%	18.00%	22.00%	10.00%
64	7.00%	10.00%	15.00%	8.00%	13.00%	8.00%	16.00%	26.00%	10.00%
65	100.00%	100.00%	100.00%	14.00%	22.00%	19.50%	29.00%	30.00%	10.00%
66				19.00%	31.00%	16.00%	32.00%	30.00%	10.00%
67				15.00%	22.00%	16.00%	28.00%	26.00%	10.00%
68				15.00%	22.00%	13.00%	24.00%	22.00%	10.00%
69				15.00%	22.00%	13.00%	24.00%	22.00%	30.00%
70				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Demographic Assumptions (continued)

Retirement Assumptions (OPSRP)

Retirement from Active Status (OPSRP)

	Police & Fire			General Service / School Districts				
				General Service		School Districts		
Age	<13 Years	13 - 24	25+ Years	< 15 years	15-29 Years	< 15 years	15-29 Years	30+ Years
50	1.00%	1.50%	5.50%					
51	1.00%	1.50%	5.50%					
52	1.00%	1.50%	5.50%					
53	1.00%	1.50%	25.00%					
54	1.00%	1.50%	16.50%					
55	2.00%	5.00%	20.00%	1.00%	2.50%	1.00%	2.50%	5.00%
56	2.00%	5.00%	20.00%	1.00%	2.50%	1.00%	2.50%	5.00%
57	2.00%	5.00%	20.00%	1.00%	2.50%	1.00%	2.50%	7.50%
58	2.00%	5.00%	20.00%	1.00%	3.00%	1.00%	3.00%	35.00%
59	2.00%	5.00%	20.00%	1.50%	3.00%	1.50%	3.00%	25.00%
60	5.00%	15.00%	20.00%	3.00%	3.75%	3.00%	3.75%	20.00%
61	2.00%	8.50%	20.00%	3.00%	5.00%	3.00%	5.00%	20.00%
62	15.00%	20.00%	35.00%	7.00%	12.00%	7.00%	12.00%	30.00%
63	7.00%	18.00%	25.00%	6.00%	10.00%	6.00%	10.00%	20.00%
64	7.00%	10.00%	15.00%	6.00%	10.00%	6.00%	10.00%	20.00%
65	100.00%	100.00%	100.00%	14.00%	40.00%	14.00%	40.00%	20.00%
66				17.25%	33.00%	17.25%	33.00%	20.00%
67				12.00%	22.00%	12.00%	22.00%	30.00%
68				10.00%	17.00%	10.00%	17.00%	20.00%
69				10.00%	17.00%	10.00%	17.00%	20.00%
70				100.00%	100.00%	100.00%	100.00%	100.00%

Lump Sum Option at Retirement

Partial Lump Sum	5.0% for all years
Total Lump Sum	4.0% for 2013, declining by 0.5% per year until reaching 0.0%

Purchase of Credited Service at Retirement

Money Match Retirements	0%
Non-Money Match Retirements	60%

Disability Assumptions

	Duty Disability		Ordinary Disability
Age	**Police & Fire**	**General Service**	
20	0.006%	0.000%	0.015%
25	0.009%	0.001%	0.022%
30	0.013%	0.001%	0.032%
35	0.020%	0.001%	0.049%
40	0.032%	0.002%	0.079%
45	0.052%	0.003%	0.130%
50	0.090%	0.005%	0.180%
55	0.169%	0.010%	0.180%
60	0.241%	0.014%	0.180%

Termination Assumptions

Duration	School District Male	School District Female	General Service Male	General Service Female	Police & Fire
0	20.00%	15.50%	19.00%	19.23%	10.00%
1	16.00%	14.05%	17.16%	16.99%	8.50%
2	13.55%	12.34%	14.34%	14.89%	7.37%
3	11.48%	10.83%	11.98%	13.05%	6.39%
4	9.72%	9.51%	10.00%	11.44%	5.54%
5	8.24%	8.35%	8.36%	10.02%	4.80%
6	6.98%	7.33%	6.98%	8.78%	4.16%
7	5.91%	6.44%	5.83%	7.70%	3.61%
8	5.01%	5.66%	4.87%	6.74%	3.03%
9	4.60%	4.97%	4.23%	5.91%	2.56%
10	4.23%	4.36%	3.96%	5.18%	2.16%
11	3.89%	3.83%	3.71%	4.54%	1.82%
12	3.57%	3.55%	3.48%	3.78%	1.54%
13	3.28%	3.35%	3.26%	3.50%	1.30%
14	3.02%	3.16%	3.06%	3.24%	1.30%
15	2.78%	2.98%	2.86%	3.00%	1.30%
16	2.55%	2.81%	2.68%	2.78%	1.30%
17	2.35%	2.66%	2.51%	2.57%	1.30%
18	2.16%	2.51%	2.36%	2.38%	1.30%
19	1.98%	2.37%	2.21%	2.21%	1.30%
20	1.82%	2.23%	2.07%	2.04%	1.30%
21	1.68%	2.11%	1.94%	1.89%	1.30%
22	1.54%	1.99%	1.82%	1.75%	1.30%
23	1.42%	1.88%	1.70%	1.62%	1.30%
24	1.30%	1.77%	1.59%	1.50%	1.30%
25	1.20%	1.67%	1.49%	1.50%	1.30%
26	1.20%	1.58%	1.40%	1.50%	1.30%
27	1.20%	1.50%	1.40%	1.50%	1.30%
28	1.20%	1.50%	1.40%	1.50%	1.30%
29	1.20%	1.50%	1.40%	1.50%	1.30%
30 +	1.20%	1.50%	1.40%	1.50%	1.30%

Merit Salary Increase Assumptions

Duration	School District	Other General Service	Police & Fire
0	3.37%	3.61%	5.13%
1	3.02%	3.22%	4.50%
2	2.67%	2.86%	3.93%
3	2.35%	2.53%	3.42%
4	2.05%	2.23%	2.96%
5	1.76%	1.97%	2.55%
6	1.48%	1.72%	2.20%
7	1.23%	1.50%	1.89%
8	0.98%	1.32%	1.62%
9	0.76%	1.15%	1.39%
10	0.55%	1.00%	1.20%
11	0.35%	0.87%	1.04%
12	0.16%	0.76%	0.91%
13	-0.01%	0.66%	0.81%
14	-0.16%	0.58%	0.73%
15	-0.31%	0.51%	0.67%
16	-0.44%	0.46%	0.63%
17	-0.56%	0.41%	0.61%
18	-0.67%	0.38%	0.60%
19	-0.77%	0.35%	0.59%
20	-0.86%	0.33%	0.59%
21	-0.94%	0.31%	0.59%
22	-1.00%	0.29%	0.59%
23	-1.00%	0.27%	0.59%
24	-1.00%	0.26%	0.58%
25	-1.00%	0.24%	0.56%
26	-1.00%	0.21%	0.53%
27	-1.00%	0.18%	0.47%
28	-1.00%	0.15%	0.40%
29	-1.00%	0.11%	0.31%
30	-1.00%	0.05%	0.19%
31 +	-1.00%	0.00%	0.00%

Unused Sick Leave Adjustment

Actives	
• State General Service Male	6.25%
• State General Service Female	3.75%
• School District Male	7.75%
• School District Female	5.75%
• Local General Service Male	4.75%
• Local General Service Female	3.00%
• State Police & Fire	4.75%
• Local Police & Fire	7.50%
Dormants	2.25%

Unused Vacation Cash Out Adjustment

Tier 1	
• State General Service	0.70%
• School District	0.25%
• Local General Service	1.00%
• State Police & Fire	0.80%
• Local Police & Fire	2.00%
Tier 2	0.00%

Probability of Account Withdrawal Before Retirement

None.

Retiree Healthcare Assumptions

Retiree Healthcare Participation

RHIPA	
• 8 – 9 years of service	10.0%
• 10 – 14 years of service	10.0%
• 15 – 19 years of service	15.0%
• 20 – 24 years of service	22.0%
• 25 – 29 years of service	22.0%
• 30+ years of service	30.0%
RHIA	
• Healthy Retired	45.0%
• Disabled Retired	20.0%

Health Cost Inflation Rates

Year	Rate
2013	8.00%
2014	6.10%
2015	5.90%
2016	5.50%
2017	6.20%
2018	5.90%
2019	5.80%
2020	5.90%
2021-2022	6.00%
2023	6.50%
2024-2025	6.90%
2026	6.80%
2027-2029	6.70%
2030-2031	6.60%
2032-2033	6.50%
2034-2035	6.40%
2036	6.20%
2037	6.10%
2038-2039	6.00%
2040-2041	5.90%
2042-2043	5.80%
2044-2047	5.70%
2048-2052	5.60%
2053-2060	5.50%
2061-2065	5.40%
2066-2072	5.30%
2073-2074	5.20%
2075-2076	5.10%
2077-2078	5.00%
2079-2080	4.90%
2081-2082	4.80%
2083 +	4.70%

Oregon

John A. Kitzhaber, M.D., Governor

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September 27, 2013

TO: Members of the PERS Board

FROM: Paul R. Cleary, Director

SUBJECT: 2012 Valuation Results

Milliman actuaries Matt Larrabee and Scott Preppernau will present the results of the 2012 systemwide valuation. That valuation will reflect the system assets and liabilities as of December 31, 2012, with the liabilities adjusted for the COLA and out-of-state tax remedy provisions of SB 822 (2013). It will also reflect the Board's direction on updated and revised actuarial methods and assumptions provided at the July 26, 2013 Board meeting.

The Milliman presentation will be circulated electronically to the Board and posted on the PERS website as soon as it is available. Hard copies will be provided to the Board at the meeting. This presentation is a discussion item only, with no Board action required.

DECEMBER 31, 2012 ACTUARIAL VALUATION

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

September 27, 2013

Presented by:
Matt Larrabee, FSA, EA
Scott Preppernau, FSA, EA

Milliman

Introduction

- Today we will review preliminary system average valuation results for the Tier 1/Tier 2 & OPSRP retirement programs
- All work is based on:
  - Asset levels at year-end 2012 as reported by Treasury
  - Member demographics at year-end 2012
  - Current benefit provisions including Senate Bill 822
- Results are advisory in nature
  - Indicate where 2015 - 2017 rates would be if set today
  - Assess program funded status and UAL shortfall

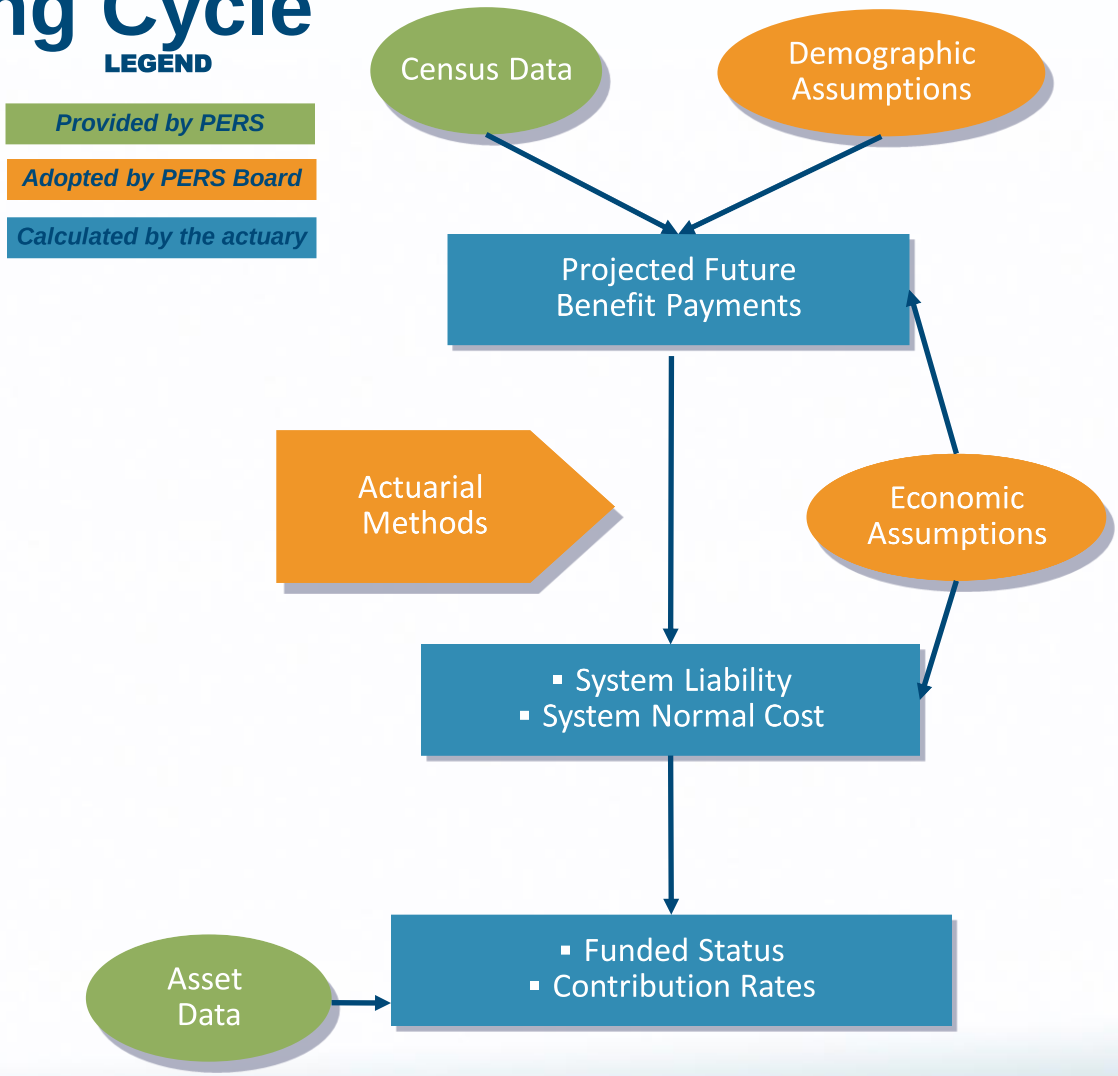
Valuation Process and Timeline

- Actuarial valuations are conducted annually
  - Alternate between "rate setting" and "advisory" valuations
  - The 12/31/2012 valuation is advisory
- The Board adopts rate setting valuation results, and rates go into effect 18 months subsequent to the valuation date

Valuation Date	Employer Contribution Rates
12/31/2011 →	July 2013 – June 2015
12/31/2013 →	July 2015 – June 2017

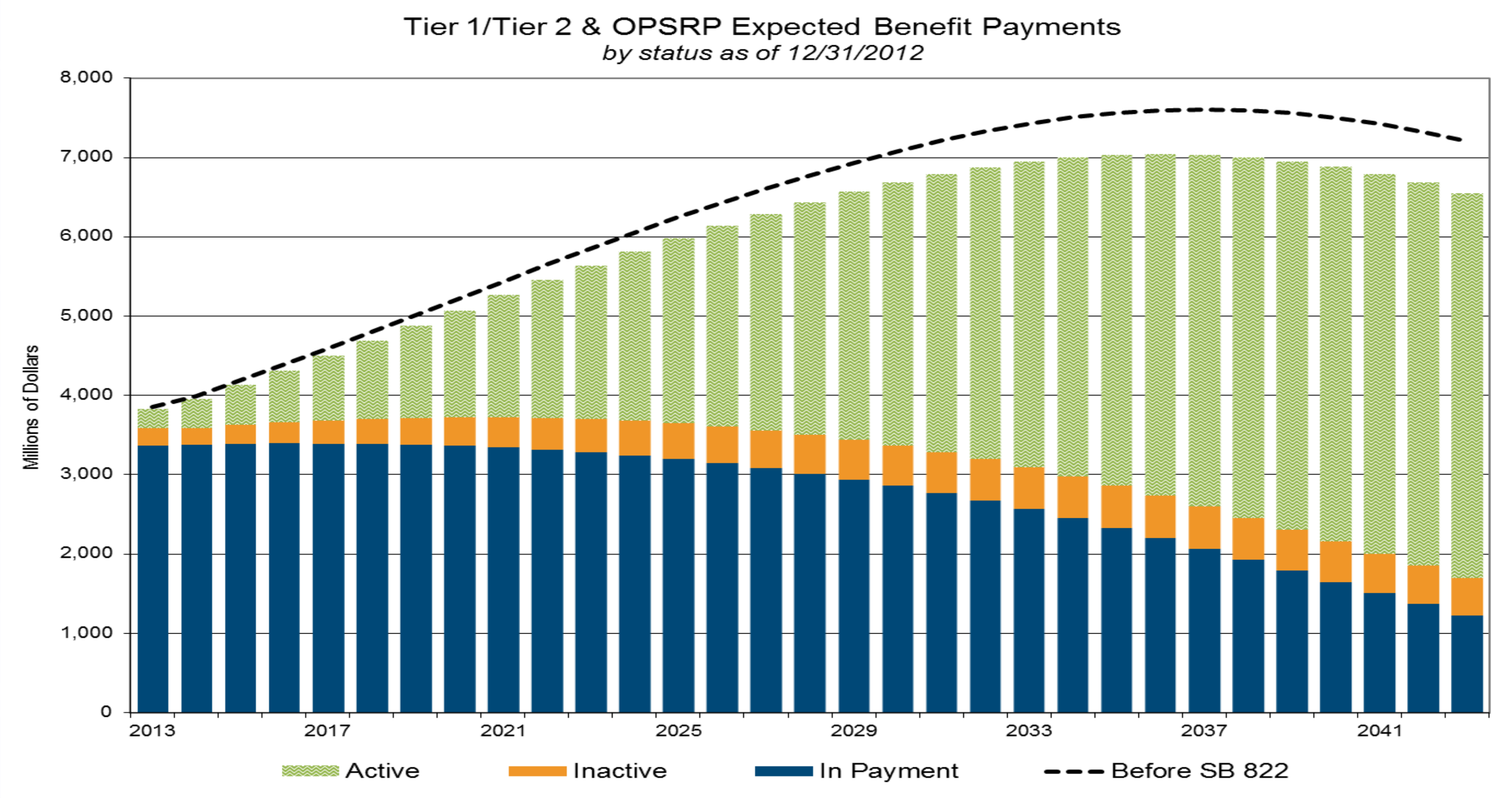
Two-Year Rate-Setting Cycle

- July 2013: Assumptions & methods endorsed by Board in consultation with the actuary
- **September 2013: System-wide 12/31/12 "advisory" actuarial valuation results**
- November 2013: Advisory 2015-2017 employer-specific contribution rates
- July 2014: System-wide 12/31/13 "rate-setting" actuarial valuation results
- September 2014: Disclosure & adoption of employer-specific 2015-2017 contribution rates



Development of Liabilities

Liabilities are calculated from projected benefit payments



Changes to Assumptions & Methods

- In addition to updates for assets, demographics and Senate Bill 822, the following changes affect year-to-year results
  - Investment return assumption
    - Reduced from 8.00% to 7.75%
  - Actuarial cost allocation method
    - Changed to entry age normal (EAN)
    - The cost method defines what portion of projected retirement benefits are allocated to:
      - Past service (Accrued Liability)
      - Current service (Normal Cost)

12/31/2012 Preliminary Valuation Results

Tier 1/Tier 2 & OPSRP (Excluding Side Accounts & Retiree Health Care)

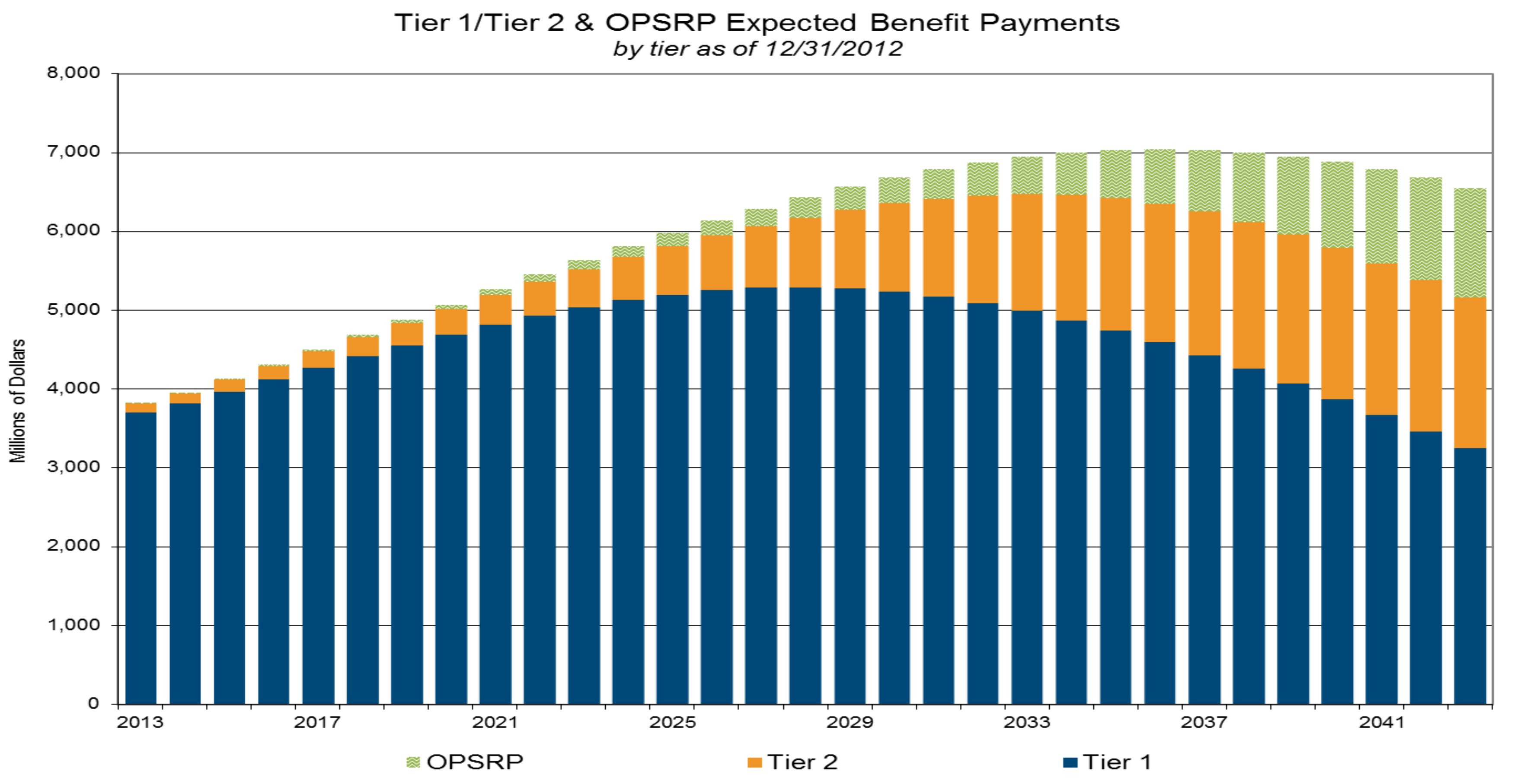
(amounts in billions)	**Pre-SB 822 12/31/2011**	**Post-SB 822 12/31/2011[1]**	**12/31/2012[1]**
Accrued Liability	$61.2	$58.6	$62.5
Assets	$44.9	$44.9	$49.3
Unfunded Accrued Liability (UAL)	$16.3	$13.7	$13.2
Funded Status	73%	77%	79%

68% of liability is attributable to members no longer in PERS-covered employment

[1]Reflects the liability reductions of Senate Bill 822

Development of Liabilities

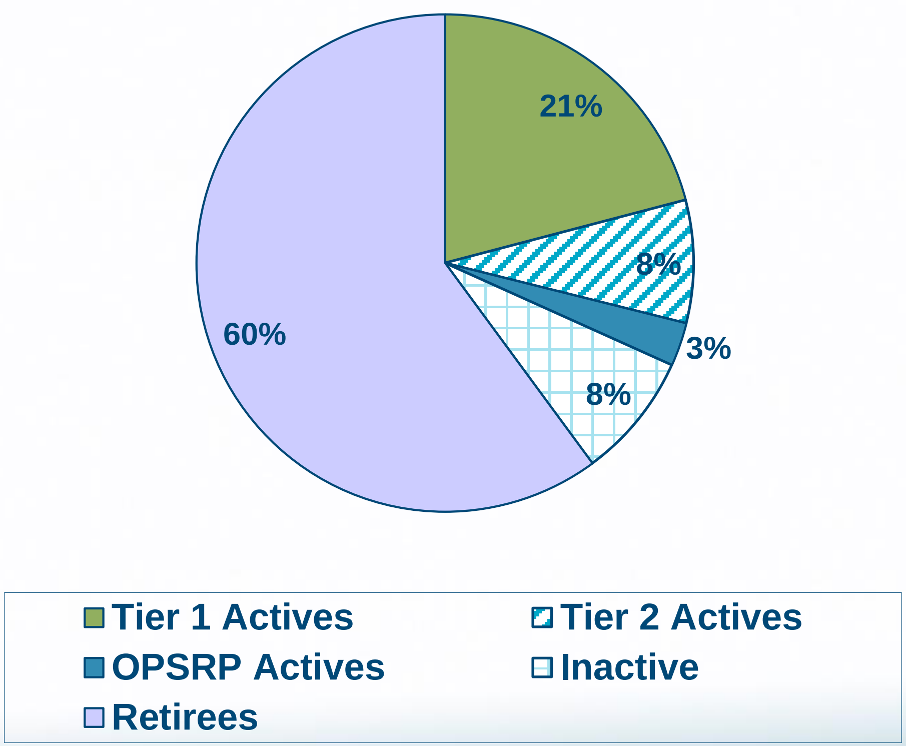
This chart shows benefit payments split by membership group



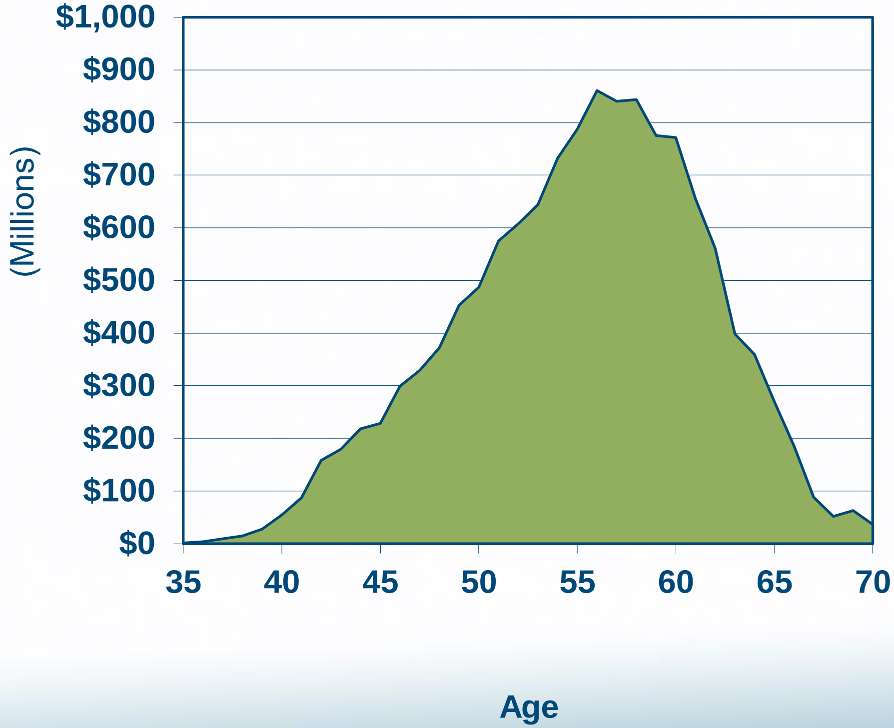
Division of Accrued Liability by Category

12/31/2012 Tier 1/Tier 2 and OPSRP Actuarial Accrued Liability

Actuarial Accrued Liability by Member Category



Age Distribution of Tier 1 Active Liability



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Contribution Rate Components

- All employer rates have at least two components
  - Normal Cost Rate
    - Economic value of projected benefits allocated to this year
    - Paid at 100 cents on the dollar
  - UAL (shortfall) Rate
    - Calculated to recover shortfall in a systematic manner over a specific time period if assumptions are met
- If future experience follows assumption and contributions are made in line with policy, funded status will return to 100% over the specified time period

Normal Cost Rates

Tier 1/Tier 2 & OPSRP (Excluding Retiree Health Care & IAP)

Normal Cost Rate (% of payroll)	12/31/2011	12/31/2012
Tier 1/Tier 2	9.00%	13.92%
OPSRP	6.56%	8.12%
System Average	8.16%	11.72%

Changing to Entry Age Normal (the GASB-endorsed method) allocates a portion of Tier 1/Tier 2 Money Match costs to current and future years

For OPSRP, the EAN method immediately increases the normal cost rate to a projected career-average level

Uncollared Rates

- The first employer contribution rate calculation step is development of the uncollared rate, which is:
  - Normal Cost Rate, plus
  - UAL (unfunded accrued liability or shortfall) Rate
- Actuarial method and assumption changes endorsed by the Board in July increased both the calculated Normal Cost Rate and the UAL
- To partially mitigate these increases, in July the Board endorsed re-amortizing all accumulated Tier 1/Tier 2 UAL as a level percentage of projected payroll over a closed twenty year period

Uncollared System Average Rates

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

	12/31/2011[1] 2013 - 2015 Final			12/31/2012[1] 2015 - 2017 Advisory		
	Tier 1 / Tier 2	OPSRP	System-Wide	Tier 1 / Tier 2	OPSRP	System-Wide
Normal Cost	9.00%	6.56%	8.16%	13.92%	8.12%	11.72%
Tier 1/Tier 2 UAL	14.77%	14.77%	14.77%	10.62%	10.62%	10.62%
OPSRP UAL	0.15%	0.15%	0.15%	0.68%	0.68%	0.68%
Valuation Uncollared Rate	**23.92%**	**21.48%**	**23.08%**	**25.22%**	**19.42%**	**23.02%**
SB 822 Benefit Provisions	**-2.50%**	**-2.50%**	**-2.50%**			
Uncollared Rate	**21.42%**	**18.98%**	**20.58%**			

SB 822 benefit provisions reflected in 12/31/12 valuation rates

12/31/2012 uncollared rates reflect a re-amortization (as a level percentage of payroll) of Tier 1/Tier 2 UAL over twenty years

[1] *For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate.*

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UAL Rates

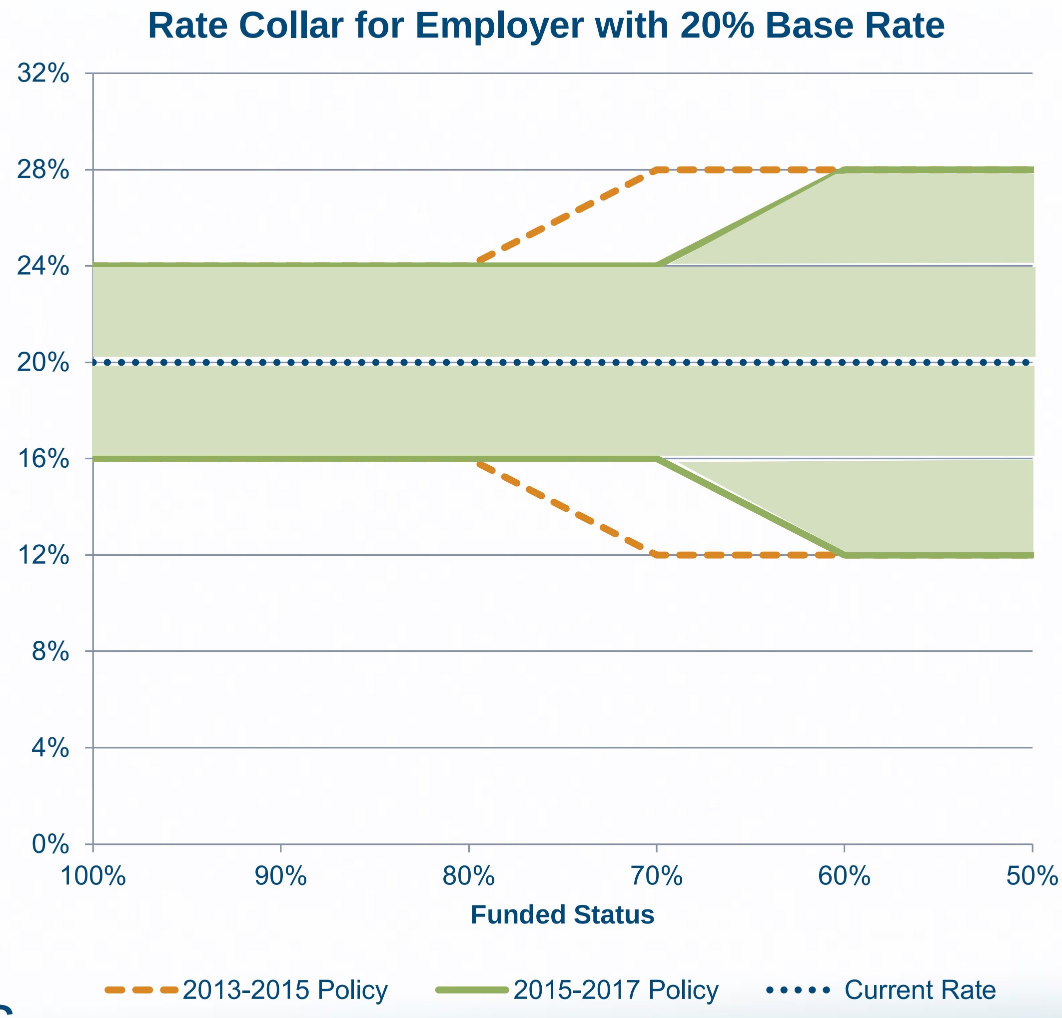
- The Tier 1/Tier 2 UAL Rate change results from:
  - 2012 asset returns greater than assumed (lowered UAL)
  - SB 822 changes to benefit provisions (lowered UAL)
  - Lowering of investment return assumption and other assumption changes (increased UAL)
  - Re-amortization of Tier 1 / Tier 2 UAL over 20 years (lowered UAL rate)
  - Change to EAN cost method (slightly increased Tier 1 / Tier 2 UAL)
- The OPSRP UAL Rate change is primarily driven by investment return assumption and cost method modifications

The Rate Collar

- The uncollared rate is not always the rate charged as, following periods of significant volatility, the “rate collar” limits biennium to biennium rate changes
  - Any increases that are not permitted at a given biennium due to collar limitations are deferred to the next biennium
- The collar only indirectly affects the calculation of the uncollared rate, which is the forecast long-term level of needed rates
  - This effect is illustrated by SB 822’s rate deferral provision
- The collar directly affects the steepness of the biennium-to-biennium rate increases to reach the needed long-term level

The Rate Collar

- In addition to changes already noted, the rate collar calculation was modified for this valuation
- The funded status at which the collar width begins to double was lowered from 80% to 70%
- This change was assessed using a stress test under a wide variety of future noisy investment return scenarios



Collared System Average Base Rates

Excludes Retiree Health Care & IAP Contributions, Side Account Offsets

	12/31/2011[1] 2013 - 2015 Final			12/31/2012[1] 2015 - 2017 Advisory		
	Tier 1 / Tier 2	OPSRP	System-Wide	Tier 1 / Tier 2	OPSRP	System-Wide
Uncollared Rate	**21.42%**	**18.98%**	**20.58%**	**25.22%**	**19.42%**	**23.02%**
Collar Adjustment	(2.30%)	(2.30%)	(2.30%)	(3.94%)	(3.94%)	(3.94%)
SB 822 Rate Deferral	(1.78%)	(1.78%)	(1.78%)	N/A	N/A	N/A
Collared Base Rate	**17.34%**	**14.90%**	**16.50%**	**21.28%**	**15.48%**	**19.08%**

2013 – 2015 collared rates reflect the rate deferral in SB 822

The collar limits increases that would be effective July 2015

Barring benefit modifications or 2013 investment returns varying significantly from assumption, final 2015 – 2017 base rates will be similar to advisory 2015 – 2017 base rates

[1] *For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate.*

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Net Rates

- Collared base rates are adjusted to develop net rates
- Net rates are the rates employers actually pay
- Adjustments fall into two major categories
  - Rate offsets for employers with side accounts
  - Charges or offsets for employers in the State & Local Government Rate Pool (SLGRP), reflecting equalization measures at the time of pooling

Collared System Average Net Rates

Excludes Retiree Health Care & IAP Contributions

	12/31/2011[1] 2013 - 2015 Final			12/31/2012[1] 2015 - 2017 Advisory		
	Tier 1 / Tier 2	OPSRP	System-Wide	Tier 1 / Tier 2	OPSRP	System-Wide
Collared Base Rate	**17.34%**	**14.90%**	**16.50%**	**21.28%**	**15.48%**	**19.08%**
Side Account (Offset)	(5.26%)	(5.26%)	(5.26%)	(5.70%)	(5.70%)	(5.70%)
SLGRP Charge/(Offset)	(0.44%)	(0.44%)	(0.44%)	(0.45%)	(0.45%)	(0.45%)
Collared Net Rate	**11.64%**	**9.20%**	**10.80%**	**15.13%**	**9.33%**	**12.93%**

Rates vary substantially by employer and by pool

Not all employers have side account offsets

Changes in side account offsets are not collared, and thus are more volatile than base rates

[1] *For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate.*

Comments on Advisory 2015 – 2017 Rates

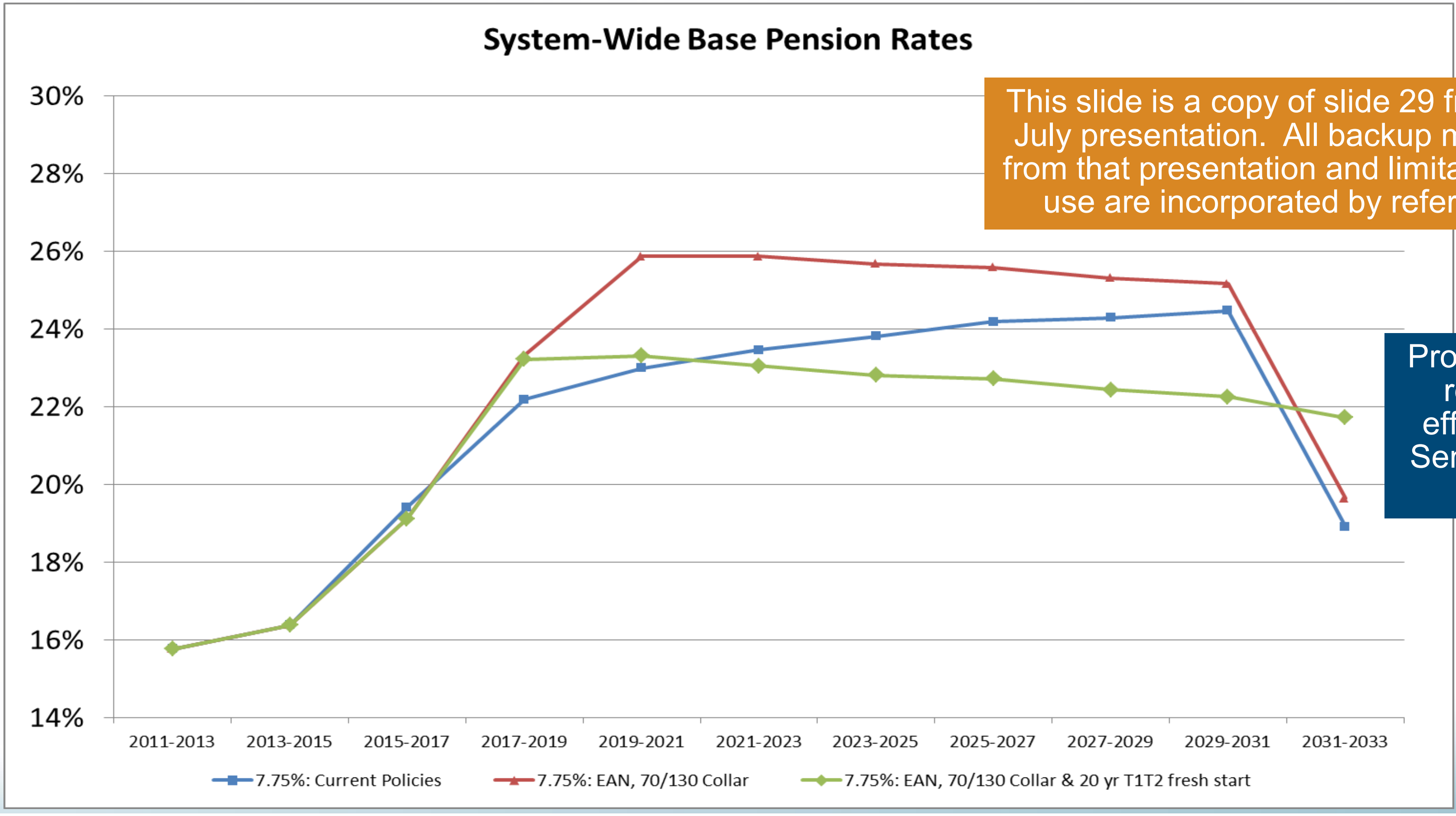
- No single employer pays the system-wide average rate
  - School district base rates are above the average
  - Most SLGRP employers’ base rates are below the average
- Rates shown do <u>not</u> include the effects of:
  - Individual Account Plan (IAP) contributions
  - Rates for the RHIA & RHIPA retiree healthcare programs
  - Debt service payments on pension obligation bonds

Rate Projections

- A variety of assumptions and method changes were endorsed in July
  - Milliman recommendations
    - Entry Age Normal (EAN) cost allocation method
    - Modification to rate collar
  - PERS staff recommendations among policy alternatives
    - Investment return assumption
    - Refinance Tier 1/Tier 2 shortfall over twenty years
- These policies are modeled as the green line on the next slide

Rate Projections

Comparison of policies under a 7.75% assumed return with 7.50% fixed actual asset return



This slide is a copy of slide 29 from our July presentation. All backup material from that presentation and limitations of use are incorporated by reference

Projections reflect effects of Senate Bill 822

Rate Projections

- We are not updating the “green line” projection this month
- The projection presented at the July meeting already reflected:
  - Effects of Senate Bill 822
  - Actual 2012 investment returns
- New information not yet reflected in the green line:
  - Actual 2013 investment returns (6.5% through August 31)
  - Updates to member demographics as of year-end 2012
- This new information would not significantly move the line
  - No near-term movements due to the rate collar
  - Long-term movement will be based on investment outcomes

Rate Projections

- In November, we will return with updated projections
- Projections will be developed using two types of models
  - Deterministic
    - Straight lines reflecting steady future investment returns
  - Stochastic
    - Probability distributions reflecting a wide variety of future noisy investment return scenarios
    - These projections will include updates to the risk metrics we used to stress test our July recommendations on the cost allocation method and rate collar structure

Wrap Up / Next Steps

- Between now and the November meeting, we will:
  – Assist PERS in responding to potential legislation
  – Develop updated actuarial equivalence factors for 2014
  – Issue system-wide and employer-specific valuation reports
- At the November meeting, we will:
  – Review the valuation results for the retiree health insurance programs, which have low funded status levels
    • Funded status, especially for RHIPA, is very low but healthcare liabilities were less than 1% of pension liabilities in the year-end 2011 valuation
  – Update long-term rate and funded status projections

Certification

This presentation summarizes key preliminary results of an actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2012, for the Plan Year ending December 31, 2012. The results are preliminary in nature and may not be relied upon to, for example, prepare the System's Consolidated Annual Financial Report (CAFR). The reliance document will be the forthcoming formal December 31, 2012 System-Wide Actuarial Valuation Report.

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

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

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

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations presented in this report under GASB Statements No. 25 and 27, 43 and 45 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's

Certification

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, and of GASB Statements No. 25 and 27, 43 and 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

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

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Appendix

12/31/2012 Preliminary Valuation Results

Tier 1/Tier 2 & OPSRP (Excluding Retiree Health Care & IAP)

12/31/2012 Normal Cost Rate (% of payroll)	Tier 1/Tier 2	OPSRP
General Service	13.41%	7.68%
Police & Fire	17.19%	11.79%
Weighted Average	13.92%	8.12%

Appendix

Data Exhibits

	December 31				
	2012				2011
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members					
Count	42,776	46,661	77,666	167,103	170,972
Average age	54.4	48.4	41.8	46.9	46.6
Average total service	22.2	12.2	4.9	11.4	11.0
Average prior year covered salary	$ 65,737	$ 56,008	$ 39,375	$ 50,768	$ 49,388
Dormant Members[1]					
Count	19,668	16,397	5,806	41,871	40,507
Average age	57.3	50.6	44.9	53.0	52.9
Average monthly deferred benefit	$ 2,116	$ 641	$ 283	$ 1,284	$ 1,235
Retired Members and Beneficiaries[1]					
Count	114,045	7,410	582	122,037	118,408
Average age	71.2	65.6	64.9	70.8	70.6
Average monthly benefit	$ 2,422	$ 879	$ 351	$ 2,318	$ 2,265
Total members	**176,489**	**70,468**	**84,054**	**331,011**	**329,887**

1. Dormant and Retiree counts are shown by lives within the system. In other words, a member is counted once for purposes of this exhibit, regardless of their service history for different rate pools.

Appendix

Actuarial Basis

Data

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

Assets as of December 31, 2012, were based on values provided by Oregon PERS reflecting the Board's earnings crediting decisions for 2012.

Methods / Policies

Actuarial Cost Method: Entry Age Normal, adopted effective December 31, 2012. December 31, 2011 results were calculated under Projected Unit Credit.

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

Appendix

Actuarial Basis

Methods / Policies (cont'd)

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

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

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

Assumptions

Assumptions for valuation calculations are as described in the 2012 Experience Study for Oregon PERS and presented to the PERS Board in July 2013.

Provisions

Provisions valued are as detailed in the 2011 Valuation Report, with the exception the provisions of Senate Bill 822, which was enacted by the legislature in April 2013.

Senate Bill 822 reduced benefits in two ways:

- Eliminated tax remedy benefit for members not subject to Oregon state income taxes
- Reduced the COLA benefit payable to members. Under SB 822, the 2013 COLA was 1.5%, and in subsequent years it will be based on the following graded marginal rate structure: 2.0% on first $20,000 of annual benefit; 1.5% on $20,000 to $40,000; 1.0% on $40,000 to $60,000; and 0.25% on benefits over $60,000.