OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

BOARD MEETING AGENDA

Friday July 31, 2020 9:00 A.M.	PERS 11410 SW 68th Parkway Tigard, OR

	ITEM	PRESENTER
A.	**Administration**	
1.	Board Meeting Minutes	SHENOY
	a. May 29, 2020 Regular Board Meeting	
	b. June 23, 2020 Supplementary Board Meeting	
2.	Director's Report	OLINECK
	a. Forward-Looking Calendar	
	b. OPERF	
	• Investment Report	
	• Oregon Investment Council Capital Market Assumption Update	
	c. Budget Execution Report	
3.	CEM Benchmarking Results	REID
B.	**Administrative Rulemaking**	
1.	Notice of Disability Definitions – Gambling Income Rules	VAUGHN
2.	Adoption of Rules to Implement the CARES Act	
3.	Adoption of SB 1049 Member Redirect – Voluntary Contributions Rule	
C.	**Action and Discussion Items**	
1.	Legislative Update	CASE
2.	SB 1049 Implementation Update	ELLEDGE-RHODES
3.	2021-2023 Agency Budget Development	GABRIEL, HORSFORD
4.	Rate Collaring - Continuation of Discussion	MILLIMAN
5.	2019 System-Wide Valuation Results	MILLIMAN

PERS Board members will be utilizing a conference call option for this meeting.
The public will not be able to attend the meeting in person. They can listen by telephone only.
Listen only phone number: Phone No. (888) 808.6929, Access Code: 8672353

Public testimony will be taken on action items at the Chair's discretion.
Please submit written testimony to PERS.Board@state.or.us (three days in advance of the meeting is preferred.)

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

2020 Meetings: October 2, December 4*
2021 Meetings: February 1, March 29*, June 4, July 23*, October 1, December 3*
***Audit Committee planned for post-Board meeting**

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
BOARD MEETING MINUTES

May 29, 2020

Board members present:

Chair Sadhana Shenoy, Vice Chair Lawrence Furnstahl, Stephen Buckley, Steve Demarest, and Jardon Jaramillo attended by phone.

Staff present:

Heather Case, Katie Brogan, Kevin Olineck, Yvette Elledge-Rhodes attended in person.

Jason Stanley, Jordan Masanga, Karen Chavez, Kevin McCartin, Matt Larabee, Matt Rickard, Richard Horsford, Scott Preppernau, Stephanie Vaughn, Elizabeth Rossman, Dean Carson, Susannah Bodman, and Shawn Dempewolf attended by phone.

Others present:

A listen-only conference line was made available for the public and PERS staff.

Chair Shenoy called the meeting to order at 9:02 a.m.

ADMINISTRATION

A.1.A. MEETING MINUTES OF MARCH 30, 2020

Vice Chair Furnstahl moved to approve the amended minutes with the suggested change from the March 30, 2020 PERS Board meeting. Board member Demarest seconded the approval of the minutes. The motion passed unanimously.

A.1.A. MEETING MINUTES OF APRIL 24, 2020

Vice Chair Furnstahl moved to approve the minutes as presented from the April 24, 2020 PERS Board meeting. Board member Demarest seconded the approval of the minutes. The motion passed unanimously.

A.2. DIRECTOR'S REPORT

Director Kevin Olineck presented the Director's Report. The Director's Report contains information on other activities that the organization is working on that do not appear on the agenda.

Olineck thanked the Incident Response Team for their COVID-19 mitigation efforts. The team is now looking at how to safely bring back staff and reopen the building. Staff are showing great resilience and productivity in the current environment. Three quarters of staff are working from home.

Olineck highlighted the State revenue forecast which came out May 20, 2020. The forecast shows a 1.8 billion dollar shortfall. The governor has requested 8.5% budget cuts proposals from general fund agencies that may result in a reduction to the Employer Incentive Fund.

Olineck presented the forward looking calendar. A supplementary board meeting is scheduled in June and the proposed 2021 meeting dates are listed.

The Oregon Public Employees Retirement Fund (OPERF) returns, for the period ending April 30, 2020 were -5.04, an improvement from March.

Operating expenditures for March, preliminary expenditures for April, and preliminary expenditures for May are $4,038,535, $4,055,550 and $4,209,088 respectively. At this time, the agency's projected variance is $500,531.

A.3. BOARD SCORECARD REPORT ON AGENCY PERFORMANCE MEASURES

Matt Rickard of the PERS Outcome-Based Management System (POBMS) Council presented the Board Scorecard Report on Agency Performance Measures, of which 48% of the reported measures are in the green range for the first quarter of 2020.

The next Board Scorecard will be presented at the December meeting.

No board action was required.

ADMINISTRATIVE RULEMAKING

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

B.1. NOTICE OF SB 1049 VOLUNTARY CONTRIBUTIONS - MEMBER REDIRECT RULE

Vaughn presented Notice of Rulemaking to Implement SB 1049 Member Redirect – Voluntary Contributions: *OAR 459-080-0410*, Voluntary Contributions to Individual Account Program (IAP). A rulemaking hearing is scheduled for June 30, 2020, at 2:00 p.m. at PERS headquarters in Tigard. However, a hearing will not be held if the building is closed to the public due to COVID-19. The public comment period ends July 3, 2020, at 5:00 p.m.

No board action was required.

B.2. TEMPORARY ADOPTION AND NOTICE OF PERMANENT RULEMAKING FOR RULES TO IMPLEMENT THE CARES ACT

Vaughn presented Temporary Adoption and Notice of Permanent Rulemaking for Rules to Implement the CARES Act: *OAR 459-050-0075*, Distributions During Employment, *OAR 459-050-0077*, Loan Program, OAR *459-050-0080*, Distribution of Funds After a Severance of Employment, *OAR 459-050-0300*, Required Minimum Distribution Requirements.

This rulemaking is needed to implement the mandatory provisions of the CARES Act. Also, it is necessary to implement the optional in-service withdrawal provision of the CARES Act. A rulemaking hearing is scheduled for June 30, 2020, at 2:00 p.m. at PERS headquarters in Tigard. However, a hearing will not be held if the building is closed to the public due to COVID-19. The public comment period ends July 3, 2020, at 5:00 p.m.

Board member Steve Demarest moved to adopt temporary rules regarding the federal CARES Act, and SECURE Act as presented. Vice Chair Lawrence Furnstahl seconded. The motion passed unanimously.

B.3. TEMPORARY ADOPTION OF COVID-19 RULE

Vaughn presented Temporary Adoption of COVID-19 Mitigation Rule: *OAR 459-001-0100*, Temporary Rule Relating to Executive Order 20-03 Declaration of Emergency Due to Coronavirus (COVID-19) Outbreak in Oregon.

Due to the nature of the COVID-19 outbreak, exceptions to certain timelines are necessary in order to accommodate Governor Brown's Executive Order 20-03.

Board member Stephen Buckley moved to adopt a new temporary rule regarding the mitigation of the impact of the Coronavirus (COVID-19) outbreak on PERS members and employers as presented. Board member Steve Demarest seconded. The motion passed unanimously.

B.4. ADOPTION OF IRC ANNUAL COMPENSATION LIMITATIONS RULES

Vaughn presented Adoption Internal Revenue Code Limitations Rules: *OAR 459-005-0545*, Annual Addition Limitation, *OAR 459-080-0250*, IAP Account Installments, and OAR *459-080-0500*, Limitation on Contributions.

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended May 5, 2020, at 5:00 p.m. No public comment was received.

Board member Steve Demarest moved to adopt modifications to the Internal Revenue Code Limitations rules, as presented. Vice Chair Furnstahl seconded. The motion passed unanimously.

B.5. ADOPTION OF SB 1049 MEMBER CHOICE RULE

Vaughn presented adoption of SB 1049 Member Choice Rule: *OAR 459-080-0015*, Investment of IAP Account Balance.

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended May 5, 2020, at 5:00 p.m. No public comment was received.

Board member Steve Demarest moved to adopt modifications to the Member Choice rule, as presented. Board member Jardon Jaramillo seconded. The motion passed unanimously.

ACTION AND DISCUSSION ITEMS

C.1. PERS HEALTH INSURANCE PLAN RESERVE POLICY

Karen Chavez, PERS Health Insurance Program (PHIP) Manager, presented.

PHIP proposes to reduce the amount of reserves being held over a period of approximately seven to 11 years using the conceptual design model and requested board input on preferred amortization period at the March 30, 2020 board meeting. At that meeting, the PERS Board stated a preference for a nine year drawdown and directed staff to make a final recommendation as to the most appropriate drawdown period. After further consideration, PHIP staff is recommending the nine year drawdown approach.

Board member Stephen Buckley moved to approve the nine year PHIP reserve drawdown recommendation beginning January 1, 2021. Board member Steve Demarest seconded. The motion passed unanimously.

C.2. 2021 RETIREE HEALTH INSURANCE PLAN RENEWALS AND RATES

Vice Chair Furnstahl recused himself from participating in this conversation, given his association with OHSU, and left the meeting.

Karen Chavez, PERS Health Insurance Program (PHIP) Manager, presented the 2021 PHIP Plans and Rates.

Board member Demarest moved to approve the proposed PHIP RFP contract awards, benefits, surcharges and rates for the 2021 Plan Year, as presented in Item C.2.Attachment 1: PHIP 2021 Proposed Rates. Board member Jaramillo seconded the motion. The motion passed unanimously.

Vice Chair Furnstahl rejoined the meeting at this time.

C.3. BOARD EDUCATION POLICY

Kevin Olineck, Director presented.

As a result of the Board Governance Review in December, management has developed a Board Education Policy. Management reviewed the policy with the Audit Committee at their March meeting and, after review, the Committee recommended that it be brought to the May board meeting for review and adoption. The policy proposes that each board member be subject to a $5,000 per annum education limit.

Board member Buckley moved to adopt the Board Education Policy, as presented. Board member Jaramillo seconded the motion. The motion passed unanimously.

C.4. SB 1049 IMPLEMENTATION UPDATE

Yvette Elledge-Rhodes, Deputy Director, presented.

Elledge-Rhodes gave an update on the five individual projects that make up the SB 1049 Implementation Program. She highlighted program activities that have been completed, or are in process, since the last board meeting. PERS staff will continue to update the board as project implementation continues throughout the next year.

Employer Programs project and Salary Limits project are in yellow status. The other three projects are green status.

Elledge-Rhodes addressed comments from Jacob Mundaden, with the Oregon Division of Financial Regulation, regarding SB 1049 salary limits.

No board action was required.

C.5. 2021-2023 AGENCY BUDGET DEVELOPMENT

Richard Horsford, Chief Financial Officer presented.

Horsford provided an update on the latest activities in 2021-23 State Agency Budget development process. A preliminary budget package was shared with the PERS Board. Final board approval of the 2021-23 Agency Request Budget will occur during the PERS Board meeting on July 31, 2020.

No board action was required.

C.6. RATE COLLARING – CONTINUATION OF DISCUSSION

Scott Preppernau and Matt Larrabee of Milliman presented a comparison of input and output actuarial smoothing methods and their impact on contribution rate calculations. The Oregon Secretary of State Actuarial Review in 2019 had recommended a more robust and detailed discussion on the rate collaring approach. With the volatility of the market this quarter, the presentation is timely. The board requested that Milliman plan for further discussions on this matter at future meetings.

Chair Shenoy adjourned the PERS Board meeting at 10:55 a.m.

Respectfully submitted,

Kevin Olineck, Director

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
BOARD MEETING MINUTES

June 23, 2020

Board members present:

Chair Sadhana Shenoy, Vice Chair Lawrence Furnstahl, Stephen Buckley, Steve Demarest, and Jardon Jaramillo attended by phone.

Staff present:

Kevin Olineck and Katie Brogan attended in person.

Richard Horsford, Louise Plata, Stephanie Vaughn, Heather Case, Elizabeth Rossman, Dean Carson, Susannah Bodman, and Shawn Dempewolf attended by phone.

Others present:

A listen-only conference line was made available for the public and PERS staff.

Chair Shenoy called the meeting to order at 9:00 a.m.

ADMINISTRATIVE RULEMAKING

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

A.1. ADOPTION OF SB 1049 MEMBER REDIRECT RULES

Vaughn presented adoption of SB 1049 Member Redirect rules: *OAR 459-005-0370,* Date of Participation and Transfer of Employee Funds to an Alternative Retirement Plan – OHSU, *OAR 459-007-0001,* Definitions, *OAR 459-007-0005,* Annual Earnings Crediting, *OAR 459-007-0320,* Crediting Earnings for IAP Account Lump Sum Payments, *OAR 459-007-0335,* Crediting Earnings for IAP Account Pre-Retirement Death Benefit Payments, *OAR 459-007-0350,* Crediting Earnings to the Employee Pension Stability Account at Retirement, *OAR 459-007-0360,*Crediting Earnings to the Employee Pension Stability Account at Death, *OAR 459-007-0370,* Crediting Earnings to the Employee Pension Stability Account on Withdrawal, *OAR 459-010-0055,* Withdrawal of Contributions, *OAR 459-070-0001*, Definitions, *OAR 459-075-0020,* Termination of OPSRP Pension Program Membership, *OAR 459-080-0020,* Withdrawal of Individual Accounts, *OAR 459-080-0200,* IAP Account Adjustments for Earnings or Losses, and *OAR 459-080-0400,* Employee Pension Stability Account (EPSA).

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended June 1, 2020, at 5:00 p.m. One public comment was received. Aruna Masih, with Bennett Hartman, submitted public comment on June 1, 2020. A copy of her email is included as Attachment 15. Ms. Masih commented that the "rules do not include any reference to refund of amounts that exceed the cost of benefits that accrue on or after July 1, 2020." In response, staff added a new section (5) to OAR 459-080-0400 which addresses her concern.

Board member Steve Demarest noted that he disagrees with the concept outlined in paragraph four of OAR 459-080-0400 regarding the Employee Pension Stability Account (EPSA). Demarest acknowledged that the concept of using service time is consistent with how COLAs are administered after the Moro decision, but is inappropriate here because, for money match retirees, none of their pension benefit is attributable to service after 2003. Demarest stated further, that, while he disagrees with the particular paragraph, it would not prevent him from voting to adopt the rules.

Board member Buckley motioned adopt the SB 1049 Member Redirect rules, as presented. Board member Jaramillo seconded. The motion passed unanimously.

Chair Shenoy adjourned the PERS Board meeting at 9:18 a.m.

Respectfully submitted,

Kevin Olineck, Director

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
DIRECTOR'S REPORT

KEVIN OLINECK, DIRECTOR

JULY 2020

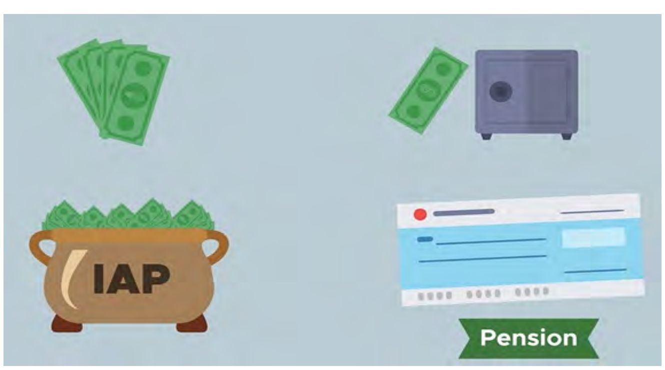
This Director's Report tries to encapsulate, at a high level, noteworthy changes that have taken place since the last board meeting, while highlighting staff accomplishments.

SENATE BILL 1049 (SB 1049)
NEW COMMUNICATION METHOD

Work continues on implementing elements of all five projects associated with SB 1049. More detailed SB 1049 implementation reports on the overall program and projects will be provided in the board packet.

As part of SB 1049 communications efforts, PERS staff produced three animated videos to help explain how SB 1049 may impact their pension benefits, particularly with regard to the Individual Account Program and Member Redirect.

The first video, entitled "The Two Parts to your PERS Retirement," has received over 6,400 views. The other videos were both named "What is Changing with Senate Bill 1049," and include a video for Tier One and Tier Two members, with over 3,200 views, and an OPSRP version, which has garnered over 2,400 views. Given these educational offerings were PERS' first foray into animated videos, we are quite proud of the results.



Screenshot from one of PERS' new educational videos.

COVID-19 RESPONSE
AGENCY AND STATE ACTIONS

One of the images from an internal PERS newsletter, from an article on working from home.

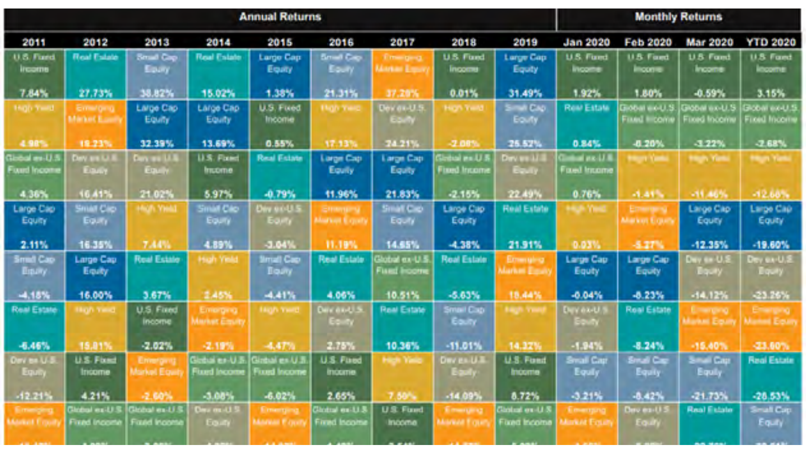
In mid-June, PERS, as a state agency, was given direction to maintain the status quo insofar as having staff continue to telework to the greatest extent possible. Knowing that our current mode of operations extended through the summer months provided staff the ability to better plan out their summers. It also allowed our Reconstitution Team the opportunity to take the time to define what our new operational model will be and how that will be implemented. Given that teleworking will become more commonplace going into the future, it is important that the agency put more permanent structures, policies, and protocols in place to enable this mode of work. The team is also working to understand what impacts this evolution may have, in the longer-term, with respect to utilizing our existing facilities and what changes may be required.

I am very proud of the collaborative efforts shown by all areas of the agency in responding to this situation. I am particularly proud of the fact that, operationally, PERS continues to provide our regular services with minimal interruption to normal service levels.

OREGON INVESTMENT COUNCIL (OIC)
CAPITAL MARKETS ASSUMPTION UPDATE

At the OIC meeting on June 3, staff provided a Capital Market Assumption Update, prepared by their investment consultant Callan. As is prudent, Callan establishes a 10-year, forward-looking capital market outlook. While cognizant of current market conditions, returns over the long-term do not vary substantially from year to year. Based on their analysis of the current environment and economic outlook, as well as long-term market history, Callan arrived at 10-year expectations for risk and return. The expected annual policy return was brought down from 7.3% to 7.1%, driven predominantly by the lowered expected return from Fixed Income from 3.75% to 2.75%. The expected volatility saw a slight reduction from 12.5% to 12.4%.

It is important to note that the results of the more in-depth biennial review of Capital Market Assumptions, including an asset/liability study, will be presented to the OIC in April 2021. These results will be taken into account when the board is reviewing and, ultimately, setting updated actuarial assumptions and methodologies.



Annual Returns									Monthly Returns			
2011	2012	2013	2014	2015	2016	2017	2018	2019	Jan 2020	Feb 2020	Mar 2020	YTD 2020
U.S. Fixed Income 7.84%	Real Estate 27.73%	Small Cap Equity 38.82%	Real Estate 15.02%	Large Cap Equity 1.38%	Small Cap Equity 21.31%	Emerging Market Equity 37.28%	U.S. Fixed Income 0.01%	Large Cap Equity 31.49%	U.S. Fixed Income 1.92%	U.S. Fixed Income 1.80%	U.S. Fixed Income -0.59%	U.S. Fixed Income 3.15%
High Yield 4.98%	Emerging Market Equity 18.23%	Large Cap Equity 32.39%	Large Cap Equity 13.69%	U.S. Fixed Income 0.55%	High Yield 17.13%	Dev ex-U.S. Equity 24.21%	High Yield -2.08%	Small Cap Equity 25.52%	Real Estate 0.84%	Global ex-U.S. Fixed Income -0.20%	Global ex-U.S. Fixed Income -3.22%	Global ex-U.S. Fixed Income -2.68%
Global ex-U.S. Fixed Income 4.36%	Dev ex-U.S. Equity 16.41%	Dev ex-U.S. Equity 21.02%	U.S. Fixed Income 5.97%	Real Estate -0.79%	Large Cap Equity 11.96%	Large Cap Equity 21.83%	Global ex-U.S. Fixed Income -2.15%	Dev ex-U.S. Equity 22.49%	Global ex-U.S. Fixed Income 0.76%	High Yield -1.41%	High Yield -11.46%	High Yield -12.68%
Large Cap Equity 2.11%	Small Cap Equity 16.35%	High Yield 7.44%	Small Cap Equity 4.89%	Dev ex-U.S. Equity -3.04%	Emerging Market Equity 11.19%	Small Cap Equity 14.65%	Large Cap Equity -4.38%	Real Estate 21.91%	High Yield 0.03%	Emerging Market Equity -5.27%	Large Cap Equity -12.35%	Large Cap Equity -19.60%
Small Cap Equity -4.18%	Large Cap Equity 16.00%	Real Estate 3.67%	High Yield 2.45%	Small Cap Equity -4.41%	Real Estate 4.06%	Global ex-U.S. Fixed Income 10.51%	Real Estate -5.63%	Emerging Market Equity 18.44%	Large Cap Equity -0.04%	Large Cap Equity -8.23%	Dev ex-U.S. Equity -14.12%	Dev ex-U.S. Equity -23.26%
Real Estate -6.46%	High Yield 15.81%	U.S. Fixed Income -2.02%	Emerging Market Equity -2.19%	High Yield -4.47%	Dev ex-U.S. Equity 2.75%	Real Estate 10.36%	Small Cap Equity -11.01%	High Yield 14.32%	Dev ex-U.S. Equity -1.94%	Real Estate -8.24%	Emerging Market Equity -15.40%	Emerging Market Equity -23.60%
Dev ex-U.S. Equity -12.21%	U.S. Fixed Income 4.21%	Emerging Market Equity -2.60%	Global ex-U.S. Fixed Income -3.08%	Global ex-U.S. Fixed Income -6.02%	U.S. Fixed Income 2.65%	High Yield 7.50%	Dev ex-U.S. Equity -14.09%	U.S. Fixed Income 8.72%	Small Cap Equity -3.21%	Small Cap Equity -8.42%	Small Cap Equity -21.73%	Real Estate -28.53%
Emerging Market Equity [illegible]	Global ex-U.S. Fixed Income [illegible]	Global ex-U.S. Fixed Income [illegible]	Dev ex-U.S. Equity [illegible]	Emerging Market Equity [illegible]	Global ex-U.S. Fixed Income [illegible]	U.S. Fixed Income [illegible]	Emerging Market Equity [illegible]	Global ex-U.S. Fixed Income [illegible]	Emerging Market Equity [illegible]	Dev ex-U.S. Equity [illegible]	Real Estate [illegible]	Small Cap Equity [illegible]

Callan Periodic Table of Investment Returns

BUDGETARY IMPACTS
ASSOCIATED WITH COVID-19

Given the impacts of falling revenue to the State, agencies that are funded via the General Fund were asked to participate in a budget reduction exercise, in an effort to better match projected revenues and expenses. While PERS is considered an "Other Funds" agency, as we are funded by the PERS System, we did receive $100 million in General Funds to set up the Employer Incentive Fund. On June 20, the governor announced that, as part of a $150 million reduction in state expenditures, the EIF commitment was not reduced. It appears a Special Session will be called by the governor, in late July, to focus in on budget discussions for the remainder of this biennium.

AGENCY HIGHLIGHTS
AND ACCOMPLISHMENTS

I want to continue to highlight where PERS staff have not only made great progress with standard operational initiatives, but also made significant progress on strategic initiatives. The following are initiatives that deserve to be highlighted, with staff publicly acknowledged for their efforts.

PERS STAKEHOLDER "TOUR"

Over the course of three days in June, PERS leadership produced a virtual "tour" of PERS operations for some of PERS' most important stakeholders: the Governor's Office, Legislative Fiscal Office, Department of Administrative Services (DAS) Chief Financial Office, and DAS Enterprise Information Systems. Each division administrator presented on their division's responsibilities, successes, and challenges. PERS' division heads also shared how they propose to address these challenges, primarily through the 2021-23 budget request process. These presentations were well received and served to help our stakeholders better understand the inner workings of the agency.

2020 REPLACEMENT RATIO STUDY

Annually, our Actuarial Activities Section (AAS) engages in a Replacement Ratio Study based on the prior year's retirement data. This information will be published in the 2020 *PERS by the Numbers*, and there is also a summary of the findings on page three of this report.

2020 REPLACEMENT RATIO STUDY SUMMARY

Average age at retirement for applicable 2019 retirees: 62 years old

Average years of service at retirement for applicable 2019 retirees: 25 years of service

Average monthly retirement benefit
For all retirees from 1990 – 2019, the average monthly retirement benefit at time of retirement was $2,429 per month, or about $29,142 annually.

- For those retirees in the most recent year (2019), the average monthly retirement benefit was $3,059 per month, or about $36,712 annually.

Average public employee salaries at retirement

- For all retirees from 1990 – 2019, the final average salary at retirement was $55,052 annually.
- For 2019 retirees, the final average salary at retirement was $84,253 annually.

Average salary replacement ratio

- For all retirees from 1990 – 2019, the average annual retirement benefit equaled 52% of final average salary at the time of retirement.
- For 2019 retirees, the average annual retirement benefit equaled 42% of final average salary.
- For all retirees from 1990 – 2019, there were 6.1% who received annual benefits more than 100% of final average salary. The average of years of service for this group was 31 years.
- For 2019 retirees, there were 1.7% who received annual benefits more than 100% of final average salary. The average of years of service for this group was 37 years.

For members who retire with 30 years of service

- From 1990 – 2019, the average retirement benefit for 30-year members equaled 77% of final average salary and the average monthly benefit was $3,720 per month.
- The average replacement ratio for 30-year members peaked at 100% of final average salary in 2000 and their average monthly benefit was $4,200 per month.
- For 2019 only, the average retirement benefit for 30-year members equaled 50% of final average salary and the average monthly benefit was $3,960 per month.
- 10.3% of retirees from 1990 – 2019 had 30 years of service.
- 8.7% of retirees in 2019 had 30 years of service.

Note: these figures exclude aggregate lump sum refund recipients (the retiree selected a monthly benefit option but still received a single Lump Sum Payments, per ORS238.315).

PERS Board Meeting
Forward-Looking Calendar

Friday, October 2, 2020
Legislative Update and Agency-Requested Legislative Concepts
Member and Employer Survey Results
Actuarial Valuation and Adoption of 2021-2023 Employer Contribution Rates

Friday, December 4, 2020*
Board Governance Assignments
Board Scorecard Report on Agency Performance Measures
Approval to File Agency-Requested Legislative Concepts
Financial Modeling Presentation

2021 Meeting Dates
9:00 a.m. Start Times
- Monday, February 1
- Monday, March 29*
- Friday, June 4
- Friday, July 23*
- Friday, October 1
- Friday, December 3*

*Audit Committee planned for post-board meeting

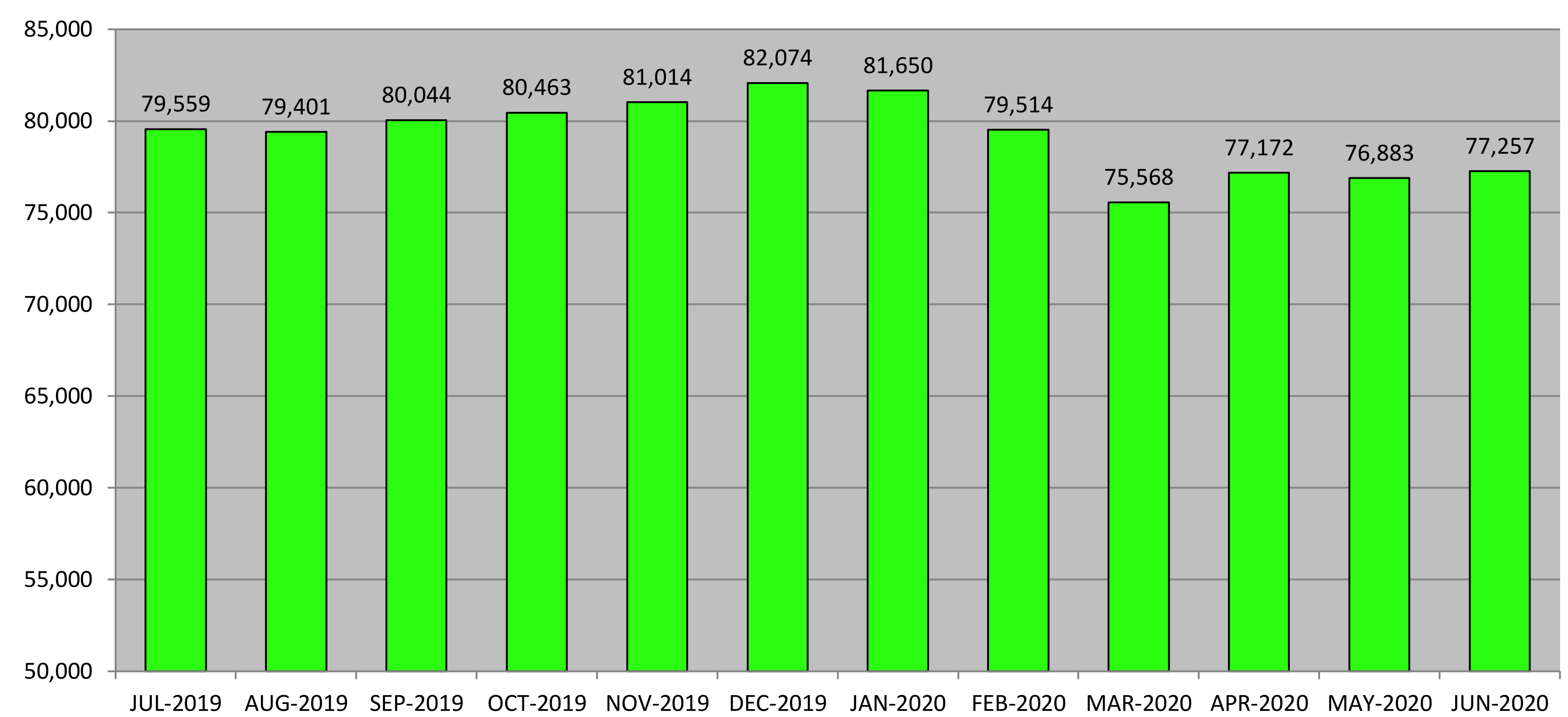
Returns for periods ending JUN-2020 **Oregon Public Employees Retirement Fund**

	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	27.5-37.5%	32.5%	$ 23,607,515	31.9%	(9.48)	(1.74)	0.91	4.39	8.16	5.53	7.45	9.24
Private Equity	13.5-21.5%	17.5%	$ 16,923,076	22.9%	(4.82)	1.07	7.82	11.04	11.43	9.91	11.08	11.79
Total Equity	**45.0-55.0%**	**50.0%**	**$ 40,530,590**	**54.7%**								
Opportunity Portfolio	0-5%	0%	$ 1,588,113	2.1%	(4.67)	(0.34)	1.59	3.45	4.86	4.57	5.74	7.83
Total Fixed	**15-25%**	**20.0%**	**$ 14,810,555**	**20.0%**	5.13	7.75	7.50	5.06	4.16	4.05	3.88	4.69
Risk Parity	**0.0-2.5%**	**2.5%**	**$ 930,526**	**1.3%**								
Real Estate	**9.5-15.5%**	**12.5%**	**$ 8,413,752**	**11.4%**	0.36	4.57	5.21	6.34	6.83	7.62	8.96	10.60
Alternative Investments	**7.5-17.5%**	**15.0%**	**$ 7,773,697**	**10.5%**	(9.09)	(9.84)	(6.31)	(2.85)	0.44	0.20	0.54	
Cash w/Overlay	**0-3%**	**0%**	**$ 5,632**	**0.0%**	1.21	2.51	2.86	2.40	2.08	1.85	1.50	1.29
TOTAL OPERF Regular Account		**100.0%**	**$ 74,052,865**	**100.0%**	(4.50)	0.52	3.48	5.42	7.07	5.86	7.10	8.51
OPERF Policy Benchmark					(2.81)	2.60	4.88	6.30	7.94	6.64	7.96	9.02
Value Added					(1.69)	(2.08)	(1.40)	(0.87)	(0.87)	(0.78)	(0.85)	(0.51)
Target Date Funds			**2,817,728**									
TOTAL OPERF Variable Account			**$ 386,678**		(6.89)	1.49	3.19	5.90	9.15	6.51	7.99	9.46

Asset Class Benchmarks:

	Year-To-Date	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Russell 3000	(3.48)	6.53	7.75	10.04	12.10	10.03	11.68	13.72
OREGON MSCI ACWI EX US IMI NET	(11.24)	(4.74)	(2.27)	0.96	5.51	2.30	3.84	5.11
MSCI ACWI IMI NET	(7.06)	1.17	2.85	5.55	8.76	6.11	7.63	9.10
RUSSELL 3000+300 BPS QTR LAG	(12.38)	(6.37)	2.41	7.12	10.56	8.93	12.21	13.43
OREGON CUSTOM FI BENCHMARK	5.34	7.70	7.42	4.97	3.81	3.78	3.53	3.84
OREGON CUSTOM REAL ESTATE BENCHMARK	2.03	3.93	5.23	5.85	6.23	7.27	8.59	9.98
CPI +4%	2.31	4.67	5.19	5.78	5.76	5.61	5.48	5.75
91 Day Treasury Bill	0.60	1.63	1.97	1.77	1.45	1.19	0.86	0.64

Total OPERF NAV
(includes Variable Fund assets)
One year ending JUN-2020
($ in Millions)



[1]OIC Policy revised April 2019.
[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.

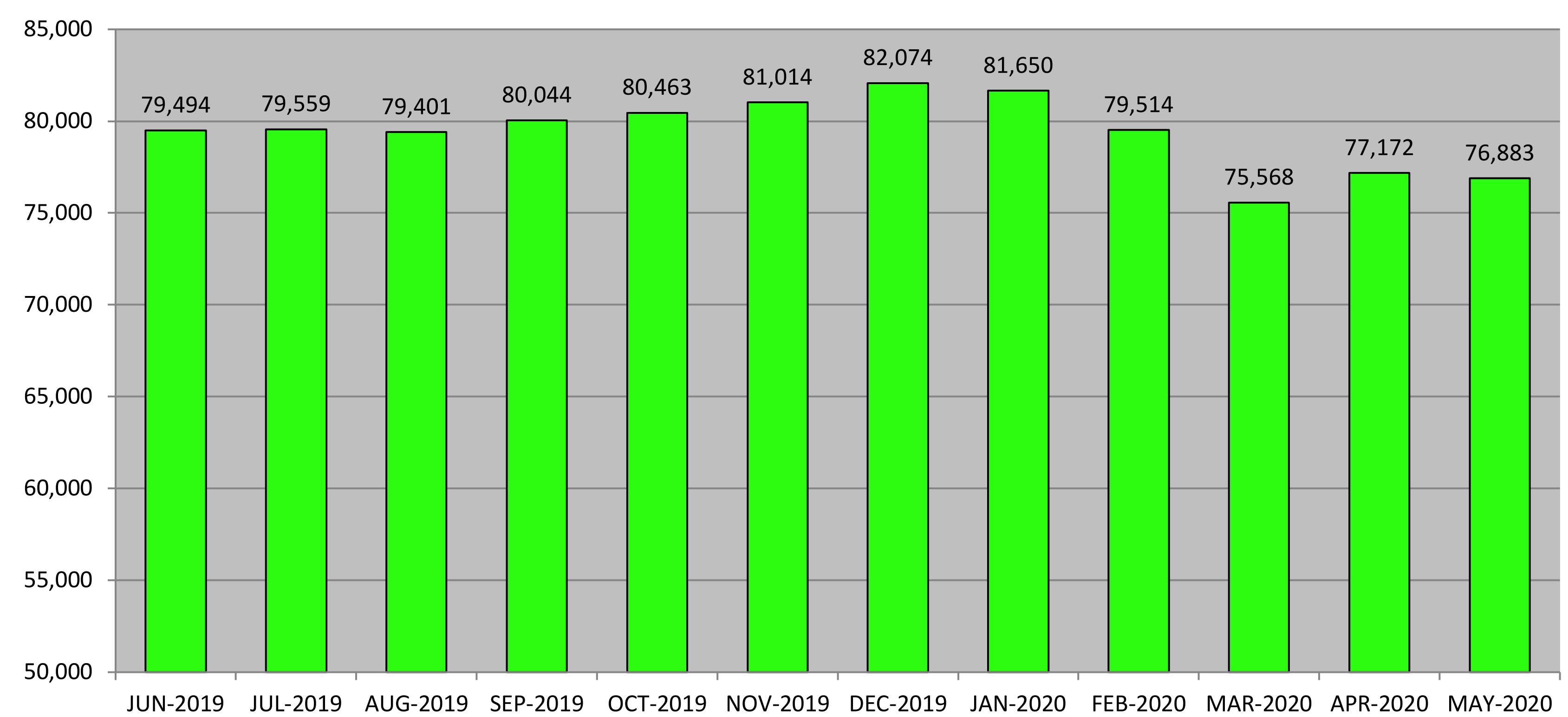
Returns for periods ending MAY-2020 **Oregon Public Employees Retirement Fund**

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	27.5-37.5%	32.5%	$ 23,260,003	31.6%	(11.81)	1.89	(0.83)	3.75	7.29	4.58	6.62	8.60
Private Equity	13.5-21.5%	17.5%	$ 17,026,271	23.1%	(4.20)	2.43	8.07	11.96	11.74	10.77	11.92	12.27
Total Equity	**45.0-55.0%**	**50.0%**	**$ 40,286,274**	**54.6%**								
Opportunity Portfolio	0-5%	0%	$ 1,588,346	2.2%	(5.43)	(2.27)	1.31	3.40	4.75	4.42	5.48	7.60
Total Fixed	**15-25%**	**20.0%**	**$ 14,754,959**	**20.0%**	4.34	8.21	7.09	4.77	4.37	3.76	3.49	4.73
Risk Parity	**0.0-2.5%**	**2.5%**	**$ 906,143**	**1.2%**								
Real Estate	**9.5-15.5%**	**12.5%**	**$ 8,471,019**	**11.5%**	0.63	4.91	5.93	6.57	7.44	7.85	9.26	10.80
Alternative Investments	**7.5-17.5%**	**15.0%**	**$ 7,713,177**	**10.5%**	(8.80)	(9.11)	(6.55)	(2.75)	0.46	0.16	0.62	
Cash w/Overlay	**0-3%**	**0%**	**$ (1,986)**	**0.0%**	0.97	2.60	2.82	2.35	2.05	1.79	1.46	1.27
TOTAL OPERF Regular Account		**100.0%**	**$ 73,717,932**	**100.0%**	(5.26)	2.30	2.90	5.38	6.98	5.65	6.93	8.41
OPERF Policy Benchmark					(2.85)	6.26	4.79	6.89	8.13	6.60	8.00	9.03
Value Added					(2.41)	(3.96)	(1.89)	(1.51)	(1.15)	(0.95)	(1.06)	(0.62)
Target Date Funds			**2,784,802**									
TOTAL OPERF Variable Account			**$ 379,770**		(9.76)	4.68	1.30	5.02	8.11	5.39	7.07	8.77

Asset Class Benchmarks:

	Year-To-Date	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Russell 3000	(5.63)	11.46	6.89	9.54	11.53	9.17	11.11	12.80
OREGON MSCI ACWI EX US IMI NET	(14.94)	(3.41)	(5.29)	(0.36)	3.94	0.87	2.54	4.54
MSCI ACWI IMI NET	(9.94)	4.34	0.94	4.65	7.72	4.97	6.69	8.40
RUSSELL 3000+300 BPS QTR LAG	(5.51)	5.74	6.36	12.18	13.14	11.14	15.26	15.03
OREGON CUSTOM FI BENCHMARK	4.80	8.27	7.14	4.76	4.12	3.56	3.16	3.94
OREGON CUSTOM REAL ESTATE BENCHMARK	1.78	4.08	5.44	6.31	6.68	7.98	8.94	10.04
CPI +4%	1.42	4.12	4.99	5.62	5.70	5.57	5.43	5.69
91 Day Treasury Bill	0.58	1.84	2.05	1.79	1.45	1.19	0.86	0.64

Total OPERF NAV
(includes Variable Fund assets)
One year ending MAY-2020
($ in Millions)



[1]OIC Policy revised April 2019.
[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.

Purpose

Provide the OIC with updated Capital Market Assumptions and revised estimates of OPERF's long-term, forward-looking risk and return.

Background

OST staff work with the Council's general consultant to annually update risk and return expectations for OPERF based on a) the consultant's Capital Market Assumptions and b) OPERF's strategic asset allocation targets. Every three to five years, the assumptions are incorporated in a rigorous study of OPERF's assets and liabilities. The Capital Market Assumptions are also more prominent every odd-number year, e.g., 2019, since they coincide with the Public Employees Retirement System (PERS) Board's biannual setting of the assumed rate of investment return. During those sessions, the PERS Board considers OPERF's asset allocation and the Capital Market Assumptions, alongside their actuary's analysis, and approves an assumed rate of return. At their July 2019 meeting, the PERS Board reaffirmed an assumed rate of 7.2%.

The Capital Market Assumptions provided by the general consultant, Callan LLC, are mostly unchanged from last year. However, they lowered the expected return for Fixed Income from 3.75% to 2.75% and lowered the expected returns for Risk Parity and Diversify Strategies by 0.25% and 0.15%, respectively. Accordingly, the *ex-ante*, average annual estimate of OPERF's "beta" return is reduced from 7.30% to 7.10%. The expected volatility (Standard Deviation) was moderately reduced from 12.5% to 12.4%.

Asset Class	**Target Allocation (%)**	**Rebalancing Range (%)**	**Expected Annual Policy Return (%)**
Public Equity	32.5	27.5 – 37.5	
Broad U.S. Equity	*16.3*		*7.2*
Global ex-U.S. Equity	*16.3*		*7.3*
Private Equity	17.5	14.0 – 21.0	9.2
Fixed Income	20.0	15.0 – 25.0	2.8
Real Estate	12.5	9.5 – 15.5	7.0
Alternatives	15.0	7.5 – 17.5	
Illiquid	*7.5*		*7.4*
Diversifying Strategies	*7.5*		*6.0*
Risk Parity	2.5	0.0 – 2.5	6.3
Total Fund	**100.0**		**7.1**

Staff Recommendation

Approve staff's proposed revision to INV 1203 (*Statement of Investment Objectives and Policy Framework for OPERF*) with updated Capital Market Assumptions and other edits.

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June 3, 2020

Oregon Public Employees' Retirement Fund

2020 Asset Allocation Update

Jason Ellement, CFA, FSA
Senior Vice President

Kevin Machiz, CFA, FRM
Vice President

Outline

- 2020 – 2029 Callan Capital Market Assumptions
  - Callan Process
  - Return and Risk Expectations
- Long-Term Strategic Policy
  - Expected Return and Risk
  - Investment Return Assumption
- Standard Deviation
  - A Wide Range of Outcomes Possible
- Correlations
  - Benefits of Diversification
- Appendix

Callan Capital Market Process

- Every year, Callan establishes a 10-year forward looking capital market outlook
  - Capital market expectations are primarily developed by Capital Markets Research with assistance from other Callan subject matter experts
  - 10-year expectations are ultimately vetted by Callan's Client Policy Review Committee (CPRC)
- Purpose of capital market expectations is to guide long-term strategic planning
  - Typically, don't vary substantially from year to year but must acknowledge recent performance
  - Critical inputs for all asset allocation/asset-liability studies
  - Forward-looking but anchored in long-term history
- Callan annual process to update 10-year projections
  1. Evaluate current environment and economic outlook
     - *Explore topical issues/themes that are pertinent to today*
  2. Examine long-term history
     - *Relationships between asset class assumptions are as important as the individual asset class level of assumptions*
  3. Develop 10-year expectations for risk, return and correlations based on steps 1 and 2
  4. Test expectations for reasonable results
- The capital market process incorporates both quantitative models as well as qualitative input of Callan consulting professionals
  - Bond and equity models
  - Scenario Analysis

2020 – 2029 Capital Market Assumptions

Asset Class	Index	Expected Return	Standard Deviation (Risk)
Equities			
Broad US Equity	Russell 3000	7.15%	18.10%
Global ex-US Equity	MSCI ACWI ex USA	7.25%	20.50%
Private Equity	OPERF Benchmark	9.20%	26.30%
Fixed Income			
US Fixed Income	Barclays Aggregate	2.75%	3.75%
Real Estate			
Private Real Estate[1]	OPERF Benchmark	7.00%	12.20%
Other			
Risk Parity	OPERF Benchmark	6.25%	11.00%
Alternatives			
Illiquid Alternatives[2]	OPERF Benchmark	7.40%	12.60%
Diversifying Strategies[3]	OPERF Benchmark	6.00%	11.00%
Inflation	CPI-U	2.25%	1.50%

1 - 55% Core Real Estate / 20% Value Add / 20% Opportunistic / 5% REITs
2 - 42% Private Infrastructure / 58% Private Energy
3 - 67% Risk Premia / 33% Trend Following

- Callan 2020 – 2029 capital market assumptions were developed in late 2019 and are intended for long-term strategic planning
- All return expectations are net of fees.

Economic Outlook

- **GDP and inflation**
  - GDP forecasts provide a very rough estimate of future earnings growth.
  - Inflation forecasts provide an approximate path for short-term yields.
  - Inflation is added to the real return forecasts for equity and fixed income.
- **GDP forecasts**
  - 2% to 3.0% for the U.S.
  - 1.5% to 2.5% for developed ex-U.S. markets
  - 2% to 5% for emerging markets
  - All forecasts are below long-term averages.
  - Path to longer-term growth will include cycles with recessions
- **Inflation forecasts**
  - 2% to 2.5% for the U.S.
  - 1.75% to 2.25% for developed ex-U.S. markets
  - 2.0% to 3.0% for emerging markets

10-Year Equity Return Expectations

$$E(R_e) \approx \frac{D}{P} - \Delta S + i + g + \Delta PE$$

- Income Return = D/P - ΔS
- Nominal Earnings Growth Return = i + g
- Repricing Return = ΔPE

Income Return = Dividend Yield + Change in Shares Outstanding (Buyback Yield)

Nominal Earnings Growth = Inflation + Real Earnings Growth

	Income Return	Inflation	Real Earnings Growth	Repricing Return	Expected Return
Broad US Equity	2.40%	2.25%	2.50%	0.00%	7.15%
Global ex-US Equity	3.10%	2.10%	2.05%	0.00%	7.25%

- **Broad U.S. equity**
  - Earnings growth likely to moderate
    - *Coming off strong period of gains, despite modest GDP growth*
    - *Benefited from expansive economic policies*
  - Dividend yield consistent with recent history
    - *Yields stable for 20 years in the face of changing interest rates*
- **Broad global ex-U.S. equity**
  - Earnings growth likely to be moderate
    - *Significant uncertainty in future economic policies*
  - Relatively high dividend yields will support returns

10-Year Fixed Income Return Expectations

Fixed Income Return = Income + Capital gain/(loss) + Credit Default + Roll Return

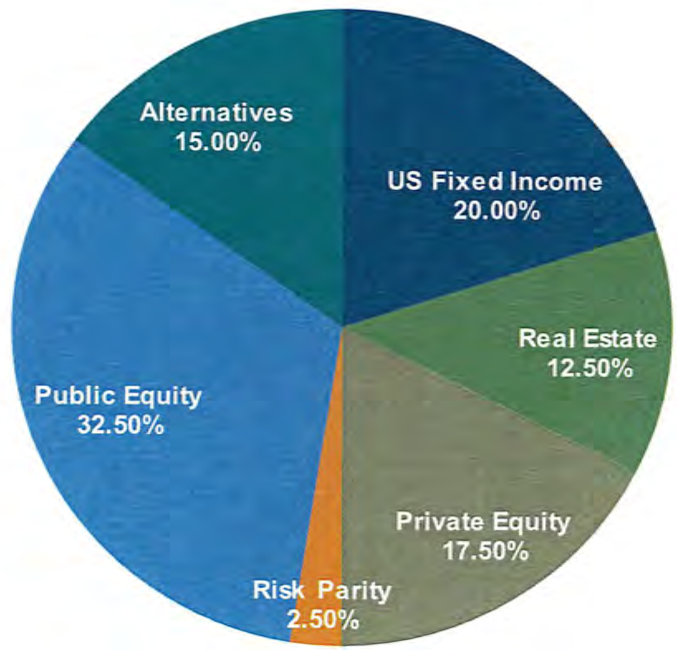
Broad U.S. fixed income

Return = 2.75%, Risk = 3.75%

- Expectation of higher yields over 10-year horizon
- Yield curve expected to gradually steepen as we return to a “normal” term structure
- Capital losses expected as yields increase
- Little impact from changing credit spreads
- Roll return expected to provide modest tailwind

	Income Return	+	Capital Gain/loss	+	Credit Default	+	Roll Return	=	Expected Return
Cash	2.25%		0.00%		0.00%		0.00%		2.25%
Core Fixed Income (Aggregate)	3.40%		-0.80%		-0.10%		0.25%		2.75%
Government	3.05%		-0.90%		0.00%		0.25%		2.40%
Securitized	3.25%		-0.50%		0.00%		0.25%		3.00%
Credit	3.95%		-0.90%		-0.30%		0.25%		3.00%
Emerging Market Sovereign Debt	6.70%		-1.20%		-1.40%		0.25%		4.35%
High Yield	7.30%		-0.70%		-2.20%		0.25%		4.65%

Current Long-Term Strategic Policy



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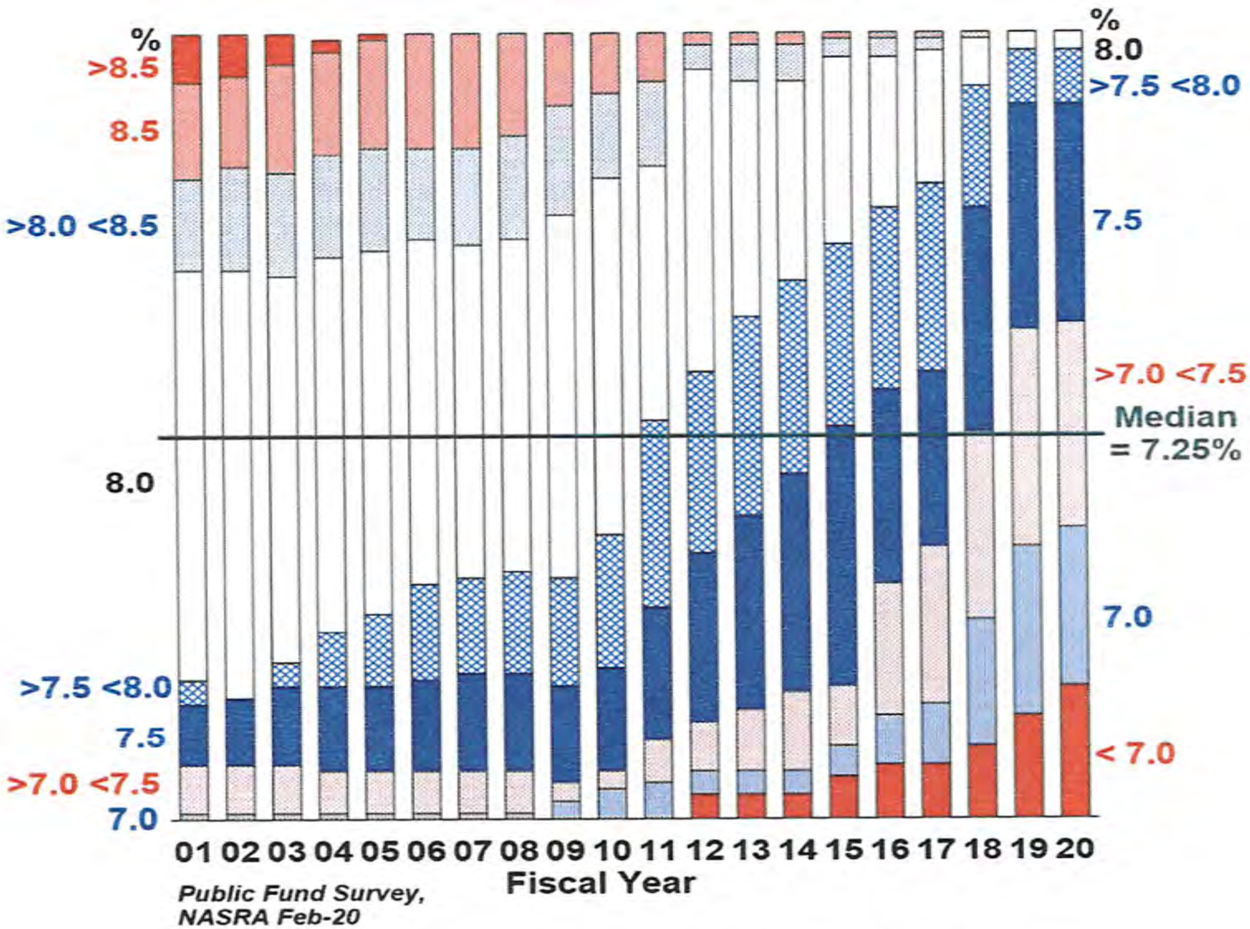
- The Expected 10-year return for the portfolio is 7.1% with a standard deviation of 12.4%
  - The current Investment Return Assumption used for valuing liabilities is 7.20%.

Peer Group: Public Investment Return Assumptions



Source: NASRA, excerpted from February 2020 NASRA Issue Brief: Public Pension Plan Investment Return Assumptions

- Oregon investment return assumption of 7.20% is close to the median of a peer group of other U.S. Public Pension Plans.

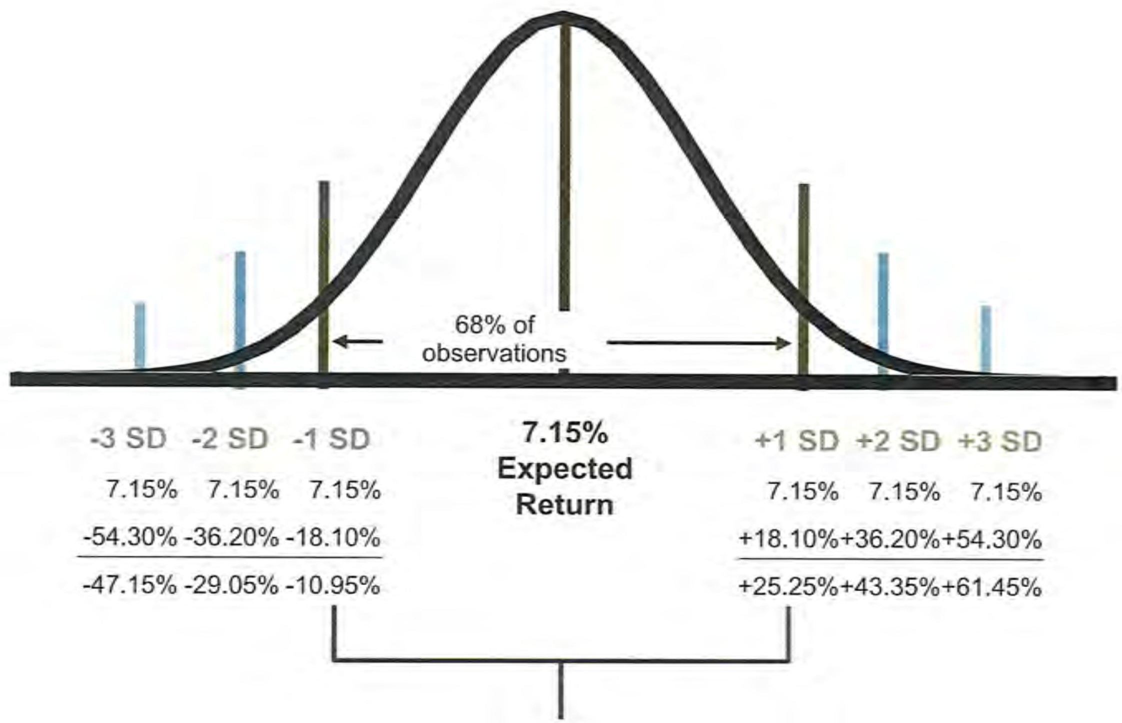
Standard Deviation (SD) - A Measure of Dispersion

- Capital market assumptions convey a range of outcomes.
  - More volatile asset classes such as equities have a wide range of outcomes (risk)
- The 68–95–99.7 rule is shorthand for describing how many observations (returns) lie within one, two, and three standard deviations from the mean (expected return)

U.S. Broad Equity

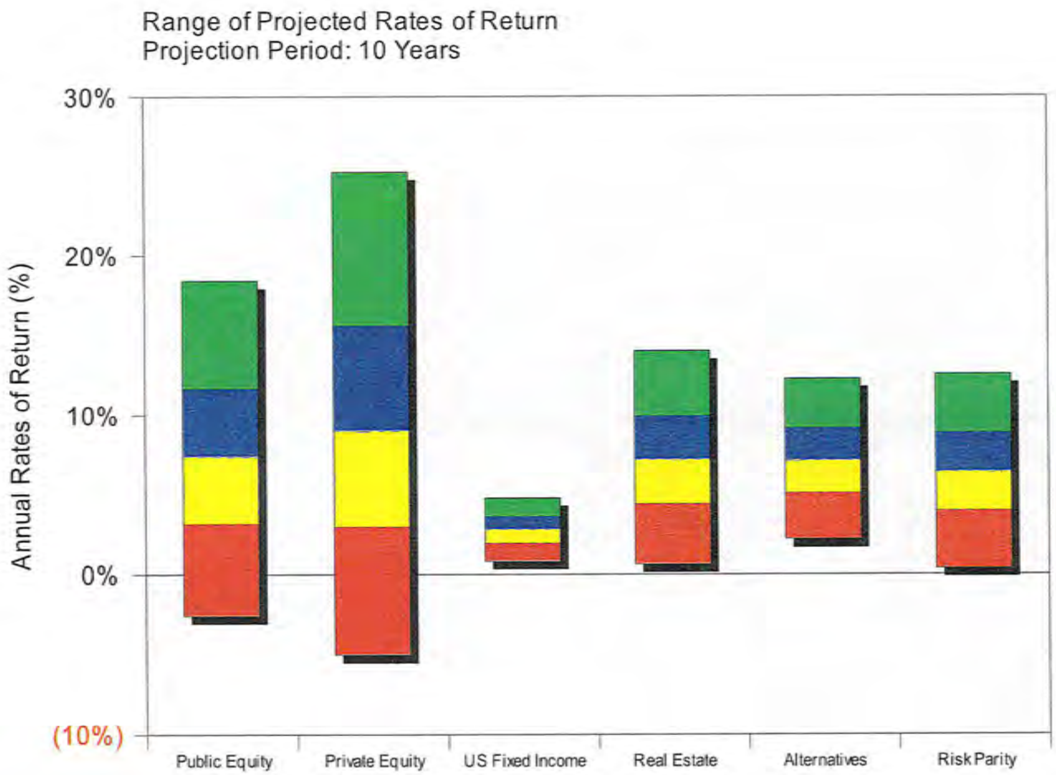
Expected Return = 7.15%

Standard deviation = 18.10%



68% of annual equity returns range from -11% to 25%

10-Year (2020 – 2029) Return Projections



	Public Equity	Private Equity	US Fixed Income	Real Estate	Alternatives	Risk Parity
5th Percentile	18.42	25.25	4.78	14.03	12.29	12.58
25th Percentile	11.68	15.62	3.60	9.94	9.17	8.89
Expected	7.33	9.20	2.75	7.00	7.08	6.25
75th Percentile	3.14	2.97	1.96	4.43	5.08	3.96
95th Percentile	-2.57	-5.00	0.83	0.64	2.19	0.37

- Range of outcomes is wide for most asset classes – the expected return is one possible outcome over 10 years

Callan 2020 – 2029 Correlations

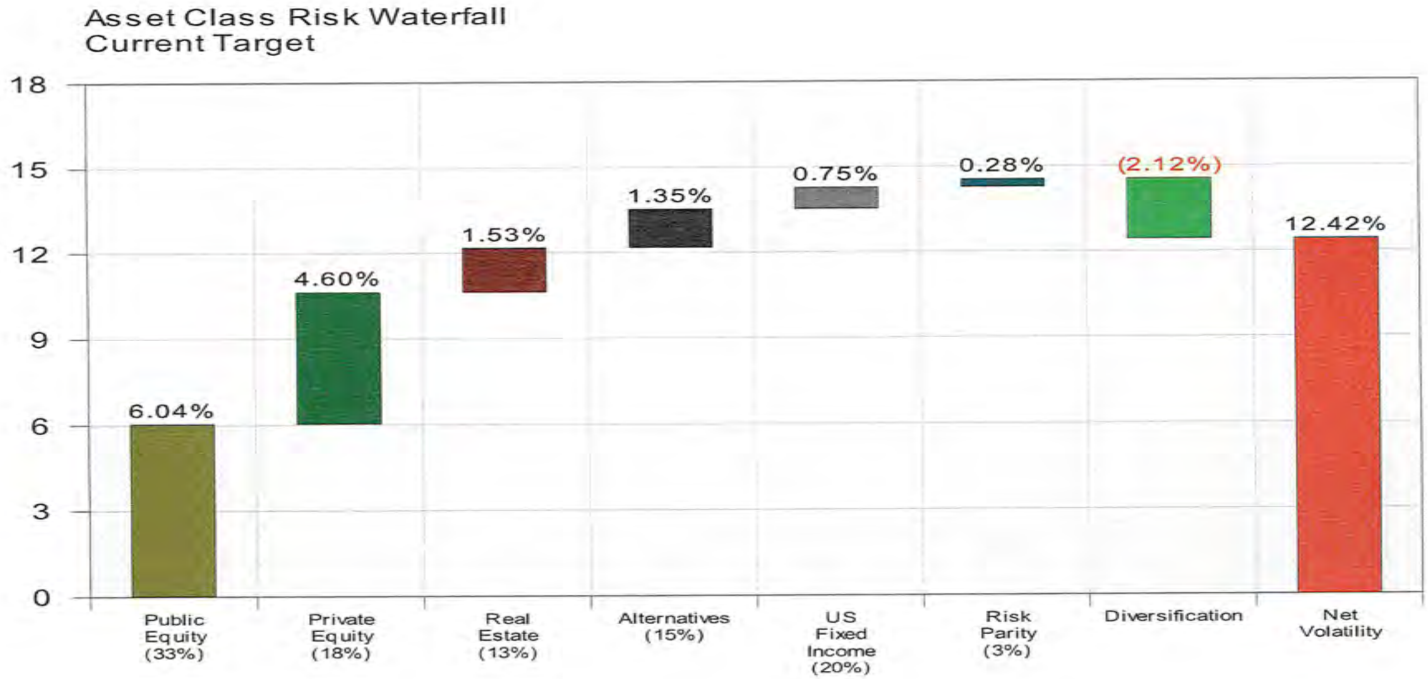
	Broad US Equity	Global ex-US Equity	Fixed Income	Real Estate	Private Equity	Illiquid Alternatives	Diversifying Strategies	Risk Parity
Broad US Equity	1.00	0.85	-0.11	0.69	0.92	0.43	0.23	0.55
Global ex-US Equity	0.85	1.00	-0.14	0.66	0.88	0.40	0.20	0.55
Fixed Income	-0.11	-0.14	1.00	-0.06	-0.23	0.02	0.15	0.45
Real Estate	0.69	0.66	-0.06	1.00	0.77	0.56	0.20	0.54
Private Equity	0.92	0.88	-0.23	0.77	1.00	0.55	0.15	0.40
Illiquid Alternatives[1]	0.43	0.40	0.02	0.56	0.55	1.00	0.17	0.29
Diversifying Strategies[2]	0.23	0.20	0.15	0.20	0.15	0.17	1.00	0.33
Risk Parity	0.55	0.55	0.45	0.54	0.40	0.29	0.33	1.00

1 - 42% Private Infrastructure and 58% Private Energy

2 - 67% Risk Premia and 33% Trend Following

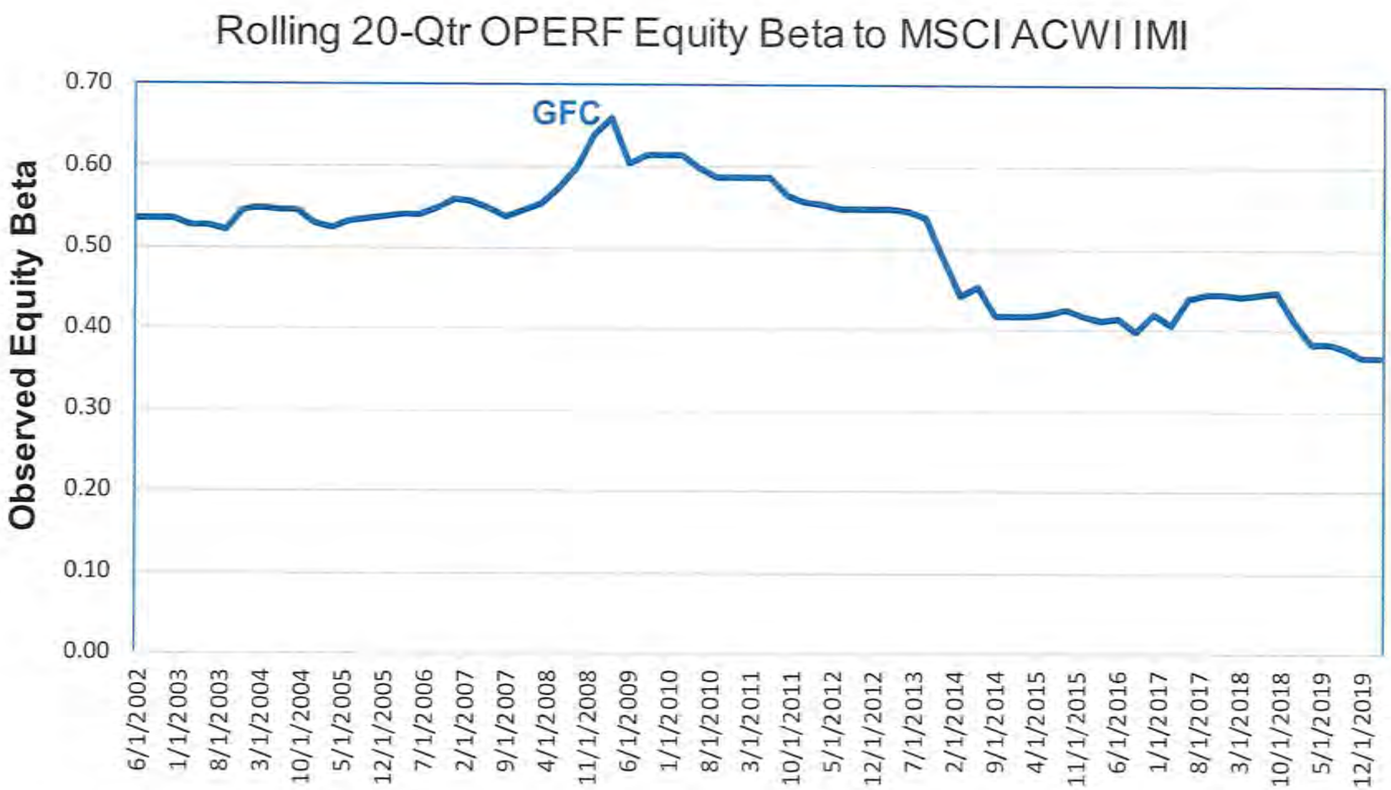
- Correlation measures the degree to which two asset classes move in relation to each other
  - Positive correlation – the pair of asset classes tend to move in the same direction
  - Negative correlation – the pair of asset classes tend to move in the opposite direction
- Correlations that are negative (red) or low positive correlation (orange) are expected to provide good diversification for the portfolio.
- Important to note that correlations are also point estimates that may not be realized.

Benefits of Diversification



- The above graph illustrates the stand alone risk contribution from each asset class, diversification benefit and net volatility
- The reduction in risk due to diversification results from the lack of co-movement between asset classes (i.e. correlations < 1.0)
- US Fixed Income and Diversifying Strategies have lower return expectations than equities but offer better diversification of the portfolio.

Equity Beta



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- The above graph illustrates the observed equity beta of the OPERF portfolio over the last 20 years. (Actual equity beta could be higher than historically observed).
- Equity risk is lower today than it was in the Global Financial Crisis (GFC).

Absolute versus Relative Performance

- In 2018, OPERF had a low return = 0.48%, and ranked 9th percentile (only 9% of Funds in the Wilshire TUCS Universe* performed better).
- In 2019, OPERF had a very strong return + 13.56% but ranked 99th percentile.
- Why the dramatic difference in rankings?
  - OPERF does not look like the peer universe
  - OPERF has a higher weight to private assets than peers – real estate and private equity
  - In years where public equity outperforms private, OPERF's rankings will be weaker
    - *E.g. 2019, Domestic Equity = +29% while Private Equity returned+11%*
- 2020 Q1 is another example of divergence between publicly traded equity and private markets
  - Terrible market for public equities
  - OPERF returned -7.1% (9th percentile) versus the median return of -11.8% in Callan's Very Large Public Fund > $10 billion peer group.
  - For the year ending March 2020, OPERF gained +1.2% - ranking in the 8th percentile
  - For 2020 Q1, public equities underperformed private equity
  - Caveat: private equity and real estate returns will likely come down over the coming quarters as appraisal valuations catch up with the market decline

* Wilshire Trust Universe Comparison Services (TUCS) public funds > $10 billion peer group, gross of fees.

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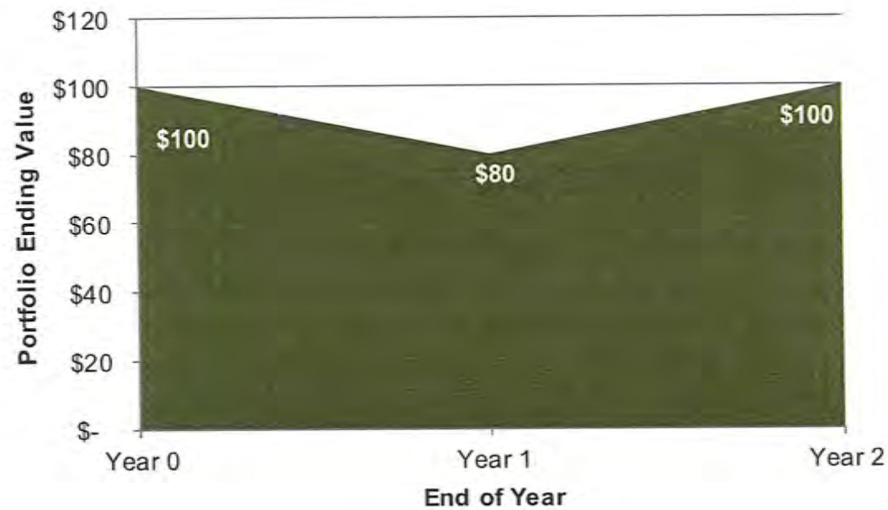
Appendix

Arithmetic vs. Geometric Return

- What is the better measure of return performance over the two year period?
  - If you start with $100 and end with $100 at the end of two years your investment return is 0%!
- For purposes of conveying forward-looking return expectations to asset owners, Callan defines the "Expected Return" as a 10-year annualized (geometric) return, sometimes called compound return



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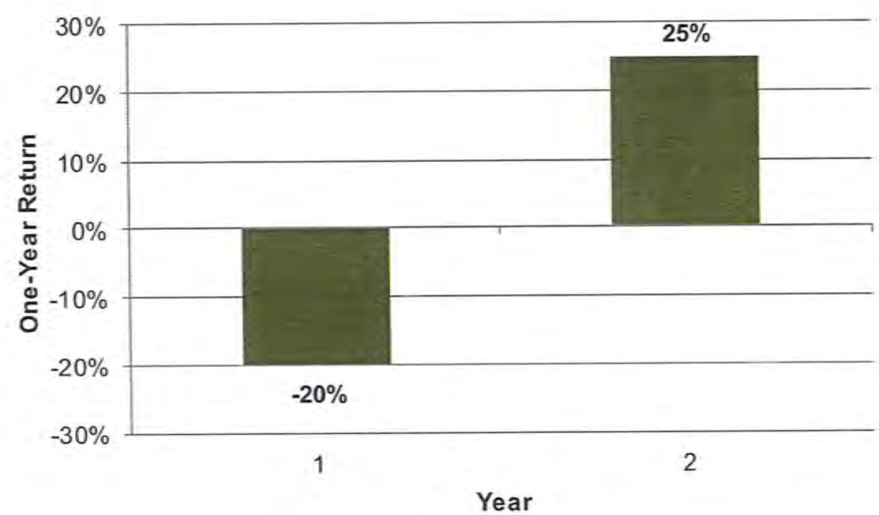
Arithmetic Return = (-20% + 25%) / 2 = 2.5%

Geometric Return = (1 - 20%) * (1 + 25%) -1 = 0%



Callan 2020 – 2029 Arithmetic And Expected Return

Asset Class	Index	Arithmetic Return	Expected Return[4]	Difference
Equities				
Broad US Equity	Russell 3000	8.6%	7.15%	1.5%
Global ex-US Equity	MSCI ACWI ex USA	9.1%	7.25%	1.9%
Private Equity	OPERF Benchmark	12.2%	9.20%	3.0%
Fixed Income				
US Fixed Income	Barclays Aggregate	2.8%	2.75%	0.1%
Real Estate				
Private Real Estate[1]	OPERF Benchmark	7.7%	7.00%	0.7%
Other				
Risk Parity	OPERF Benchmark	6.8%	6.25%	0.6%
Alternatives				
Illiquid Alternatives[2]	OPERF Benchmark	8.1%	7.40%	0.7%
Diversifying Strategies[3]	OPERF Benchmark	6.5%	6.00%	0.5%
Inflation	CPI-U	2.25%	2.25%	0.0%

1 - 55% Core Real Estate / 20% Value Add / 20% Opportunistic / 5% REITs
2 - 42% Private Infrastructure / 58% Private Energy
3 - 67% Risk Premia / 33% Trend Following
4 - The 10-year annualized (geometric) return

- The geometric return is always equal to or lower than the arithmetic return but is a more precise measure of long-term return as it captures market volatility.
- The more volatile an asset class, the larger the difference between arithmetic and geometric - a mathematical property referred to as "volatility drag".

Oregon

Kate Brown, Governor

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

July 31, 2020

TO: Members of the PERS Board

FROM: Gregory R. Gabriel, Budget Officer

SUBJECT: July 2020 PERS Board Report

2019-21 OPERATING BUDGET

Operating expenditures for May, preliminary expenditures for June, and preliminary expenditures for July are $4,001,816, $4,177,330 and $4,034,831 respectively. Final expenditures for July will close in the Statewide Financial Management System (SFMS) on August 14 and will be included in the October 2020 report to the board.

- Through July 10, 2020, the agency has expended a total of $50,950,899 or 45.2% of PERS' legislatively adopted operations budget of $112,657,461.
- At this time, the agency's projected variance is $1,052,154.
- SB 1049 expenditures for May, preliminary June, and preliminary July were $1,667,809, $1,943,762, and $1,497,182 respectively. As of July 10, the agency has expended $8,397,661 of the legislatively adopted budget of $39,059,714.

2019-21 NON-LIMITED BUDGET

The adopted budget includes $12,504,627,192 in total estimated non-limited expenditures. Non-limited expenditures include benefit payments, health insurance premiums, and third-party administration payments for both the PERS Health Insurance Program (PHIP) and the Individual Account Program (IAP).

- Preliminary Non-Limited expenditures through July 10, 2020 are $5,347,934,757.

STATEWIDE BUDGET ENVIRONMENT

PERS continues to work on multiple cost reduction options to help minimize statewide costs:

- Freezing hiring on open vacancies through the remainder of the biennium.
- Working to defer non-essential projects.
- Reducing program costs where possible, without service level interruptions.

A.2.c. Attachment – *2019-21, SB1049 Agency-wide Budget Execution Summary Analysis*

PERS Monthly Budget Report

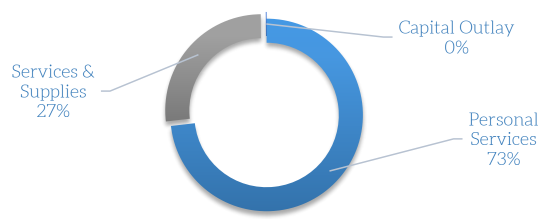
2019-21 Agency-wide Budget Execution
Preliminary Summary for the Month of July 2020

Limited - Operating Budget

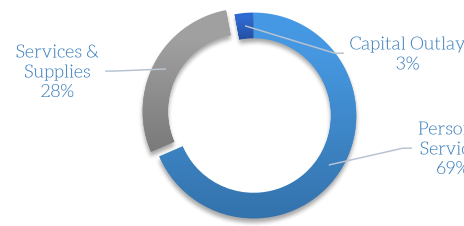
2019-21 Biennial Summary

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expenditures	2019-21 LAB	Variance
Personal Services	37,284,750	41,554,550	78,839,300	77,726,803	(1,112,497)
Services & Supplies	13,599,192	17,287,717	30,886,909	32,757,328	1,870,419
Capital Outlay	66,956	1,812,143	1,879,099	2,173,331	294,232
Total	50,950,898	60,654,410	111,605,308	112,657,462	1,052,154

Actual Expenditures



Projected Expenditures



Monthly Summary

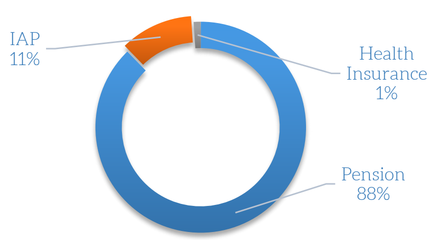
Category	Actual Exp.	Projections	Variance	Avg. Monthly Actual Exp.	Avg. Monthly Projected Exp.
Personal Services	3,235,638	3,352,993	117,356	3,553,726	3,265,712
Services & Supplies	613,654	681,838	68,184	1,485,580	1,151,091
Capital Outlay	0	0	0	0	106,597
Total	3,849,292	4,034,832	185,540	5,039,306	4,523,400

Non-Limited Budget

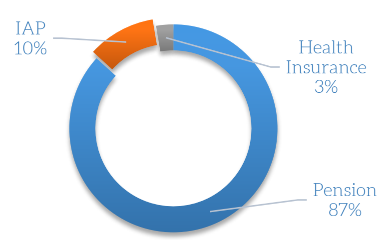
2019-21 Biennial Summary

Programs	Actual Exp To Date	Projected Expenditures	Total Est. Expenditures	Non-Limited LAB	Variance
Pension	4,691,111,630	5,709,111,428	10,400,223,058	10,347,780,673	(52,442,385)
IAP	598,936,383	695,097,715	1,294,034,098	1,423,365,167	129,331,069
Health Insurance	57,886,744	175,375,526	233,262,270	733,481,352	500,219,082
Total	5,347,934,757	6,579,584,669	11,927,519,426	12,504,627,192	577,107,766

Actual Expenditures



Projected Expenditures



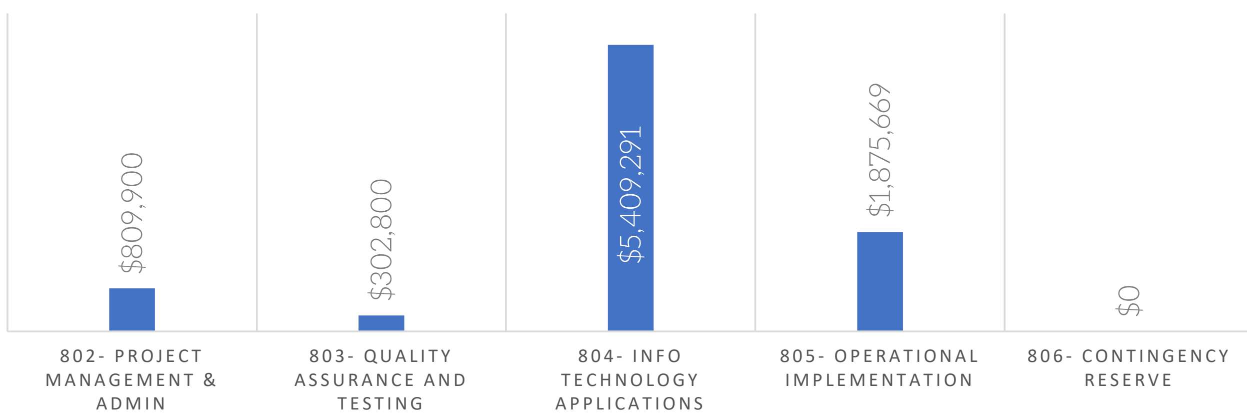
SB 1049 Budget Report

Preliminary Summary Budget Analysis
Preliminary for the Month of July 2020

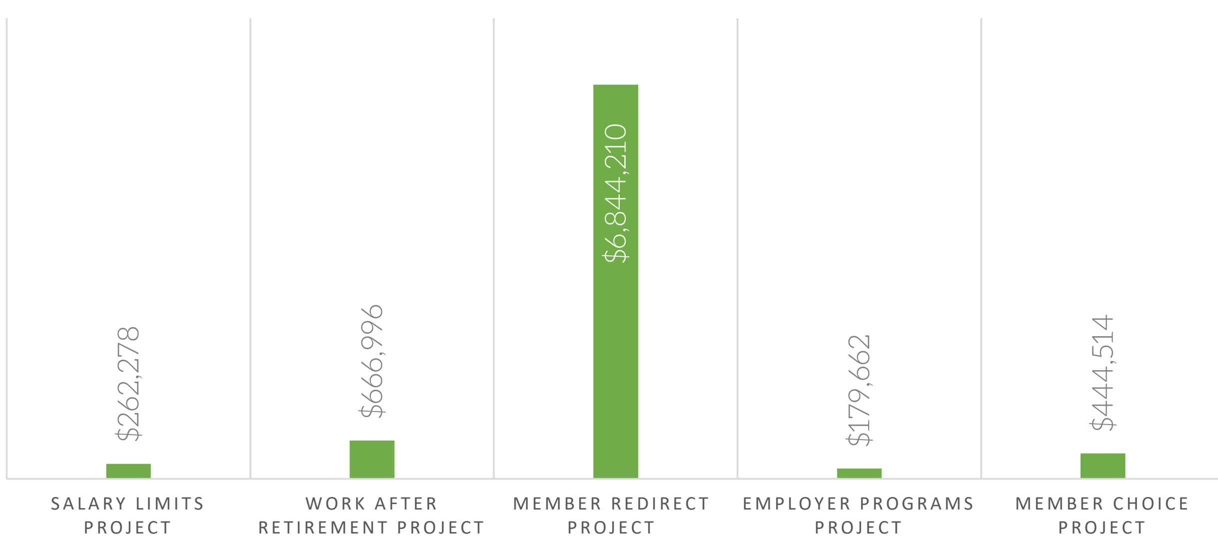
Biennial Summary

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expend.	2019-21 LAB	Variance
Personal Services	1,224,605	3,548,848	4,773,453	5,646,497	873,044
Services & Supplies	6,997,498	9,320,501	16,317,999	33,413,217	17,095,218
Capital Outlay	175,558		175,558		(175,558)
Total	8,397,661	12,869,349	21,267,010	39,059,714	17,792,704

EXPENDITURES BY PACKAGE



EXPENDITURES BY PROJECT



Oregon Public Employees Retirement System

Pension Administration Benchmarking Report FY 2019

CEM Benchmarking

Mike Reid
July 31, 2020

Key Takeaways:

Cost

- Your total pension administration cost of $131 per active member and annuitant was $22 above the peer average of $109.

- Primary reasons why your cost per member was higher:
  - more front office FTE per 10,000 members
  - higher support and IT costs

- Oregon PERS has the second highest plan design complexity scores among CEM's global universe. High complexity negatively impacts service, front office productivity, and back office costs.

Service

- Your total service score was 60. This was below the peer median of 82.

- Your service score increased from 54 to 60 between 2012 and 2019. This was mainly due to improvements in your purchases and transfers-in, website and call center.

CEM's universe of participants

Participants

United States
Arizona SRS
CalPERS
CalSTRS
Colorado PERA
Delaware PERS
Florida RS
Idaho PERS
Illinois MRF
Indiana PRS
Iowa PERS
KPERS
LACERA
Maryland SRPS
Michigan ORS
NYC ERS
NYC TRS
NYSLRS
Ohio PERS
Oregon PERS
Pennsylvania PSERS
PERS Nevada
PSRS PEERS of Missouri
South Dakota RS
STRS Ohio
Texas MRS
TRS Illinois
TRS Louisiana
TRS of Texas
Utah RS
Virginia RS
Washington State DRS
Wisconsin DETF

Canada
Alberta Teachers' RF
APS
BC Pension Corporation
Canadian Forces PP
FPSPP
LAPP
OMERS
Ontario Pension Board
Ontario Teachers
OPTrust
RCMP
SHEPP

The Netherlands*
ABN Amro PF
ABP
bpfBOUW
BPF Levensmiddelen
BPL Pensioen
Metaal en Techniek
PF PWRI
PF Vervoer
PFZW
Rabobank PF
Shell PF

United Kingdom*
Armed Forces PS
BSA NHS Pensions
BT Pension Scheme
Lothian Pension
Greater Manchester PF
Local Pensions Partnership
Merseyside PF
Pension Protection Fund
Principal Civil Service
Railways Pension Scheme
Royal Mail Pensions
South Yorkshire PF
Teachers' Pensions
Tyne & Wear PF
USS
West Midlands Metro
West Yorkshire PF

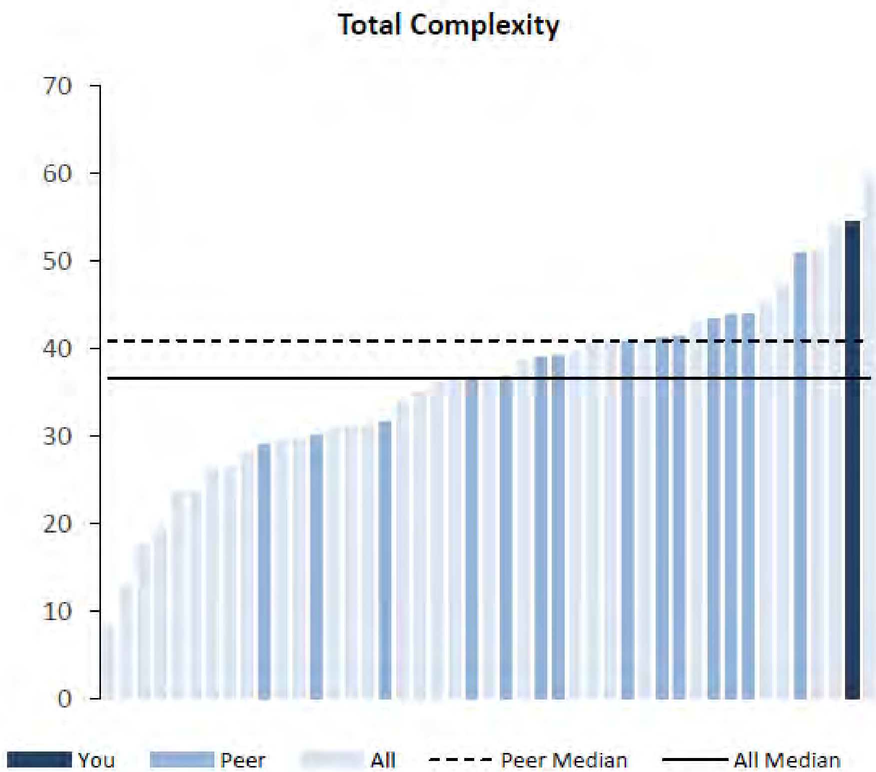
* Systems in the UK and most systems in the Netherlands complete different benchmarking surveys and hence your analysis does not include their results.

Oregon PERS was compared to the following 15 peers:

Custom Peer Group for Oregon PERS			
	Membership (in 000's)		
Peers (sorted by size)	Active Members	Annuitants	Total
Virginia RS	346	215	561
Washington State DRS	330	194	524
Ohio PERS	304	213	517
Wisconsin DETF	258	209	467
Indiana PRS	252	160	412
STRS Ohio	210	160	370
Colorado PERA	242	121	362
Arizona SRS	207	150	357
Oregon PERS	**177**	**152**	**329**
Illinois MRF	177	132	308
Iowa PERS	172	124	296
TRS Illinois	163	124	287
PSRS PEERS of Missouri	128	95	223
TRS Louisiana	92	81	172
LACERA	99	68	167
Peer Median	207	150	357
Peer Average	210	146	357

Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded because they are less costly to administer than either active members or annuitants.

Back office costs, service and productivity are impacted by system complexity. Your total complexity score of 54 was above the peer median of 40.

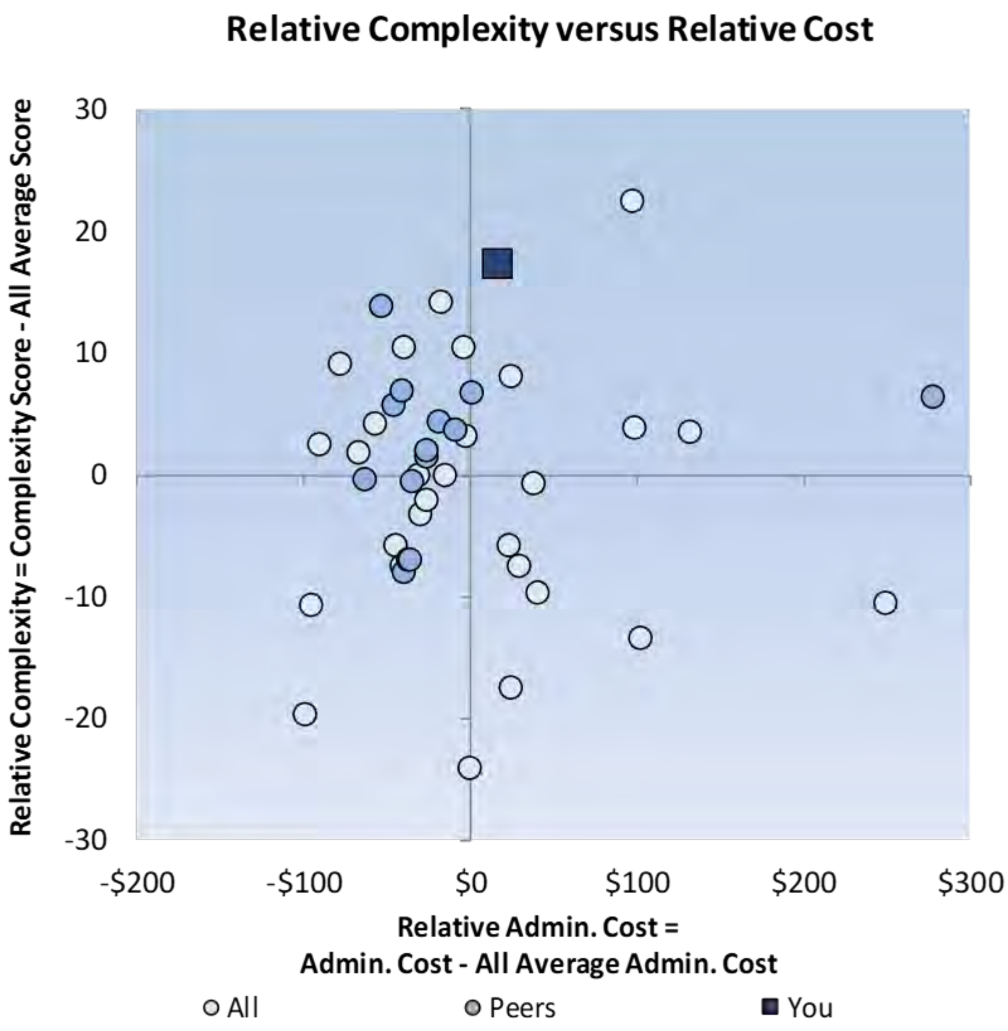


Complexity Score by Cause (0 least - 100 most)		
Cause	You	Peer Avg
Pension Payment Options	46	39
Customization Choices	26	14
Multiple Plan Types and Overlay	65	32
Multiple Benefit Formula	70	52
External Reciprocity	0	31
COLA Rules	57	31
Contribution Rates	64	38
Variable Compensation	100	81
Service Credit Rules	48	46
Divorce Rules	100	60
Purchase Rules	67	59
Refund Rules	24	43
Disability Rules	83	66
Total Complexity	54	40

Oregon PERS' high complexity:
- Negatively impacts service
- Reduces front-office productivity
- Increases costs, especially in the back-office

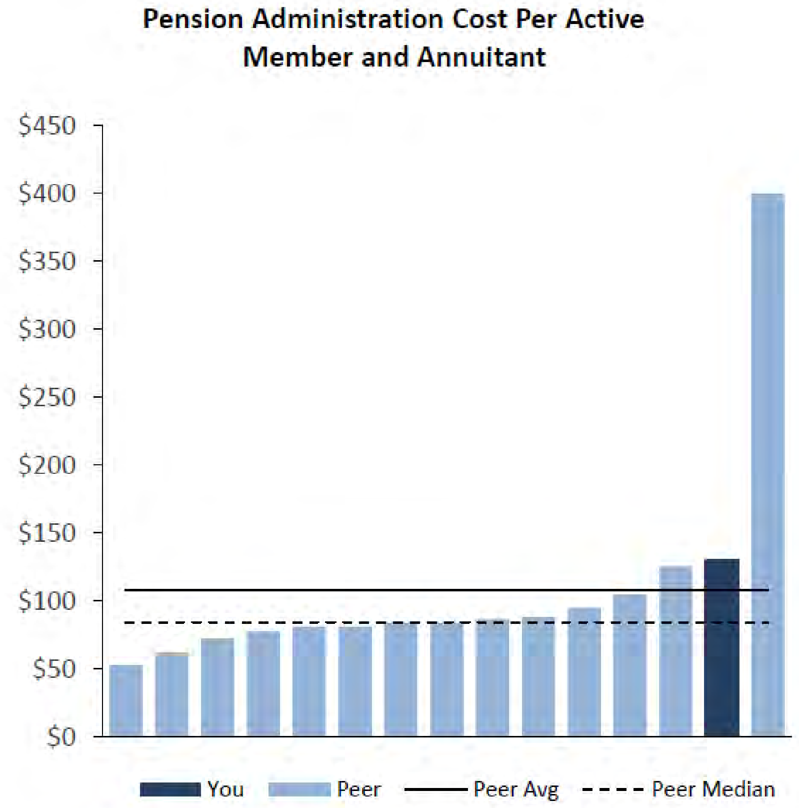
CEM Benchmarking

The relationship between complexity and pension administration cost in the CEM universe:



CEM Benchmarking

Your total pension administration cost of $131 per active member and annuitant was $21 above the peer average of $109.



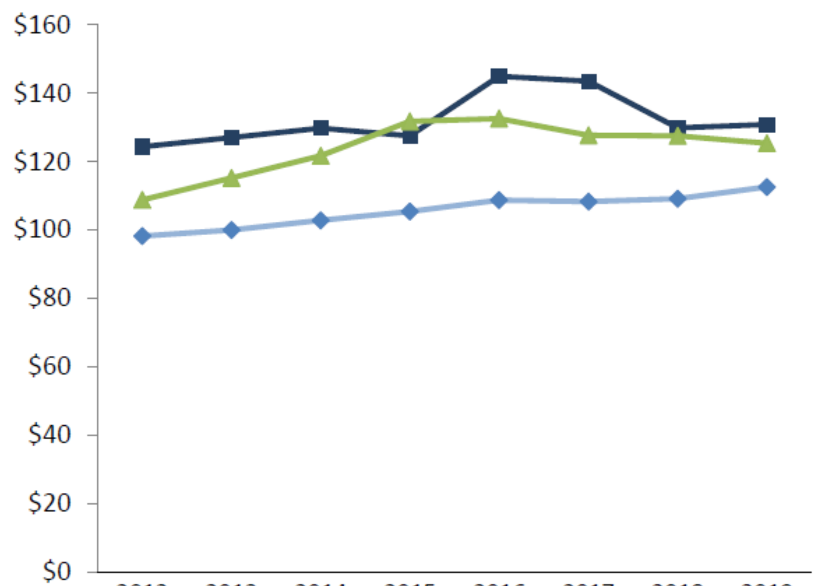
	$000s	$ per Active Member and Annuitant	
Category	You	You	Peer Avg
<u>Front office</u>			
Member Transactions	5,316	16	16
Member Communication	6,212	19	20
Collections & Data Maintenance	5,647	17	7
<u>Governance and support</u>			
Governance and Financial Control	2,603	8	8
Major Projects	3,394	10	7
Information Technology	12,135	37	27
Building	1,273	4	7
Legal	2,074	6	5
HR, Actuarial, Audit, Other	4,368	13	11
Total Pension Administration	43,022	131	109

Your total pension administration cost was $43.0 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of $13.6 million.

CEM Benchmarking

Cost trends:

Trend in Total Pension Administration Costs



	2012	2013	2014	2015	2016	2017	2018	2019
You	$124	$127	$130	$128	$145	$144	$130	$131
Peer Avg	$98	$100	$103	$105	$109	$108	$109	$113
All Avg	$109	$115	$122	$132	$133	$128	$128	$125

Between 2012 and 2019:

Your total pension administration cost per active member and annuitant increased 0.7% per annum.

During the same period, the average cost of your peers with 8 consecutive years of data increased 2.0% per annum.

Your higher costs per member in FYE 2016 & 2017 were due to State Government Service Charges.

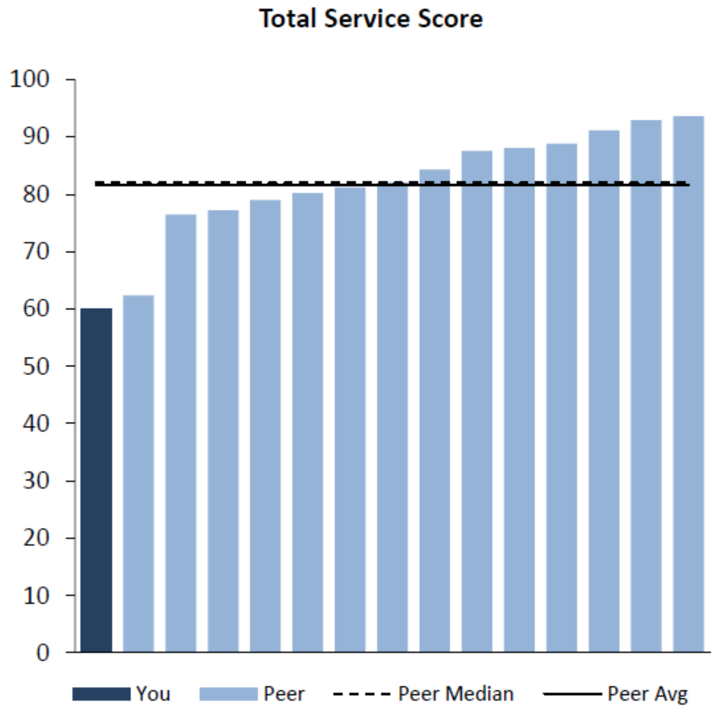
Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 35 of our 47 systems in the universe).

Reasons why your total cost was $22 above the peer average:

Reason		You	Peer Avg	Impact $ per active member and annuitant
1	More front-office FTE per 10,000 members	6.1 FTE	3.9 FTE	$22
2	Lower third party costs per member in the front-office	$3	$7	-$4
3	Higher costs per FTE			
	Salaries and Benefits	$91,964	$106,850	
	Building and Utilities	$4,106	$11,049	
	HR	$2,773	$4,949	
	IT Desktop, Networks, Telecom	$11,534	$16,672	
	Total	$110,377	$139,521	-$18
4	Lower support costs per member[1]			
	Governance and Financial Control	$9	$9	
	Major Projects	$11	$8	
	IT Strategy, Database, Applications	$29	$18	
	Actuarial, Legal, Audit, Other	$18	$12	
	Total	$67	$46	$21
Total				$22

1. To avoid double counting, peers' Governance and support costs are adjusted for differences in cost per FTE.

Your total service score of 60 was below the peer median of 82.



Service is defined from a member's perspective. Higher service means more channels, faster turnaround times, more availability, more choice, better content and higher quality.

Higher service is not necessarily cost-effective. For example, the ability to answer the telephone 24 hours a day is higher service, but not cost effective.

Service Scores by Activity

Activity	Weight	You	Peer Med	Avg	Input Relative to peers
1. Member Transactions					
a. Pension Payments	10.0%	100	100	100	0.0
b. Pension Inceptions	7.4%	9	91	85	-5.6
c. Refunds & Transfers-out	1.3%	5	95	83	-1.0
d. Purchases & Transfers-in	3.1%	70	88	77	-0.2
e. Disability	3.8%	73	86	87	-0.5
2. Member Communication					
a. Call Center	21.0%	38	76	75	-7.8
c. 1-on-1 Counseling	7.4%	71	86	86	-1.1
d. Member Presentations	6.5%	100	100	95	0.3
e. Written Pension Estimates	4.7%	25	93	85	-2.8
f. Mass Communication					
• Website	21.3%	79	86	81	-0.4
• News & targeted communication	2.8%	68	80	81	-0.4
• Member statements	4.7%	56	88	82	-1.2
3. Other					
Customer Experience Surveying	5.0%	24	35	40	-0.8
Disaster Recovery	1.0%	74	99	92	-0.2
Weighted Total Service Score	100%	60	82	82	-22.0

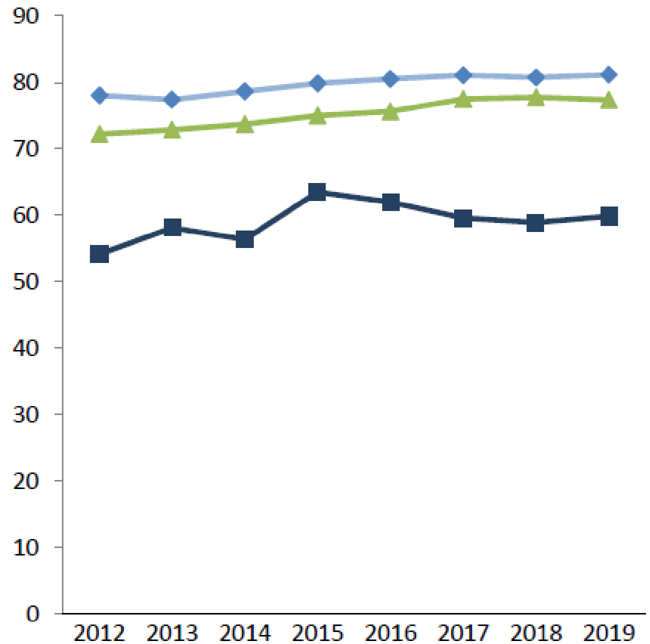
CEM Benchmarking

Examples of key service measures included in your Service Score:

Select Key Service Metrics	You 2019	Peer Avg
<u>Member Contacts</u>		
• % of calls resulting in undesired outcomes (busy signals, messages, hang-ups)	17%	10%
• Average total wait time including time negotiating auto attendants, etc.	686 secs	169 secs
<u>Website</u>		
• Can members access their own data in a secure environment?	Yes	93% Yes
• Do you have an online calculator linked to member data?	Yes	93% Yes
• # of other website tools offered such as changing address information, registering for counseling sessions and/or workshops, viewing or printing tax receipts, etc.	11	14
<u>1-on-1 Counseling and Member Presentations</u>		
• % of your active membership that attended a 1-on-1 counseling session	1.9%	5.4%
• % of your active membership that attended a presentation	7.3%	6.4%
<u>Pension Inceptions</u>		
• What % of annuity pension inceptions are paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension	6.2%	91.0%
<u>Member Statements</u>		
• How current is an active member's data in the statements that the member	5.0 mos	2.4 mos
• Do statements provide an estimate of the future pension entitlement?	No	73% Yes

Your service score increased from 54 to 60 between 2012 and 2019.

Trends in Total Service Scores



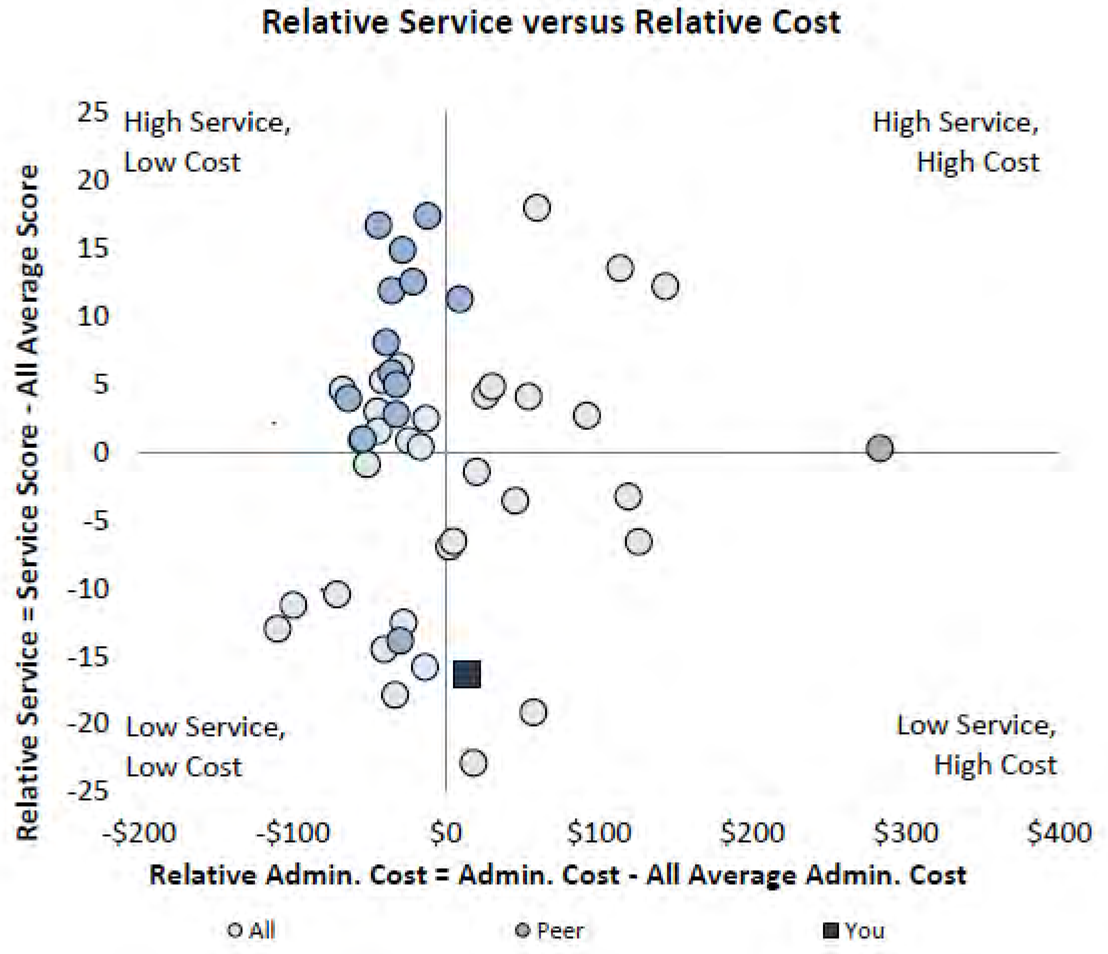
	2012	2013	2014	2015	2016	2017	2018	2019
You	54	58	56	64	62	60	59	60
Peer Avg	78	77	79	80	81	81	81	81
All Avg	72	73	74	75	76	78	78	77

Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 35 of our 47 systems in the universe).

Changes that have had a positive impact:

- Purchases: Your turnaround time for service credit purchase estimates decreased from 53 to 13 days.
- Website: You now offer educational videos and the capability to download or print tax receipts.
- Call Center: Your undesired call outcomes, such as abandoned calls in menu, in queue or on hold: decreased from 24 to 17%, and you now notify the caller of the expected wait times. This was partially offset by the increase in call wait time from 372 to 686 seconds and the 2 additional menu layers added in 2016.

The relationship between complexity and pension administration cost in the CEM universe:



CEM Benchmarking

49/337

Oregon

Kate Brown, Governor

Public Employees Retirement System
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Mailing Address:
P.O. Box 23700
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www.oregon.gov/pers

July 31, 2020

TO: Members of the PERS Board

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

SUBJECT: Notice of Rulemaking for Disability Definitions Rules:
OAR 459-015-0001, *Definitions*
OAR 459-076-0001, *Definitions*

OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Include certain forms of gambling winnings under definition of "earned income" for purposes of disability benefit eligibility.
- Policy Issue: None identified.

BACKGROUND

PERS members who receive a disability retirement allowance (Tiers One and Two) or a disability benefit (OPSRP) are subject to certain limitations regarding the receipt of "earned income" while disabled. Under ORS 238.330(3), PERS must reduce a Tier One or Two member's disability retirement allowance for any month in which the combined total of the disability retirement allowance plus earned income exceeds the member's monthly salary at the time of disability retirement. Under OAR 459-076-0005(7), an OPSRP disability benefit will be discontinued if a member receiving the benefit "becomes employed or receives earned income."

"Earned income" is defined in OAR 459-015-0001 (Tiers One and Two) and 459-076-0001 (OPSRP). These definitions provide that, in addition to salary and wages, "earned income" includes a variety of "self-employment income" sources, such as "hobby income." Historically, PERS has considered most gambling winnings to be a form of "hobby income," and therefore "earned income," for purposes of disability income limitations. Members have raised concerns about this interpretation, noting that the current definition of "earned income" does not specify how PERS treats gambling income in the disability context. In addition, a member recently challenged PERS' interpretation of the rule in a contested case hearing, arguing that gambling income should not be considered earned income. An administrative law judge upheld PERS' interpretation of the rule in that case, noting that many forms of gambling require the application of skill, judgment, and effort, which distinguishes gambling from purely passive forms of income that are excluded from the definition of "earned income."

To ensure that members have adequate notice of PERS' treatment of gambling income in the disability context, the proposed rules modify the definition of "earned income" to explicitly include most forms of gambling income. Staff have recognized a need to exclude certain forms of "unskilled" gambling—such a slot machines and lotteries—from this definition in order to avoid extreme or inequitable outcomes for members, particularly in the OPSRP context where receipt of earned income results in discontinuation of a member's disability benefit. Therefore, the rule excludes gambling income derived from "sweepstakes, lotteries, bingo, keno, or slot machines." These forms of gambling are reported via IRS Form W-2G and can be easily identified, as the nature of the gambling activity will be susceptible to documentary proof during a member's disability income review.

PUBLIC COMMENT AND HEARING TESTIMONY

No rulemaking hearing will be held because the PERS building is closed to the public due to COVID-19. The public comment period ends September 1, 2020, 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.

Benefit: Clarifies what constitutes "earned income" for purposes of determining disability benefit eligibility.

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

RULEMAKING TIMELINE

July 31, 2020	PERS Board notified that staff began the rulemaking process.
July 31, 2020	Staff files a Notice of Rulemaking with the Secretary of State, which is published in the Oregon Administrative Rules Database. Notice is sent to employers, legislators, and interested parties. Public comment period begins.
September 1, 2020	Public comment period ends at 5:00 p.m.
October 2, 2020	Staff will propose adopting the rule modifications, including any changes resulting from public comment or reviews by staff or legal counsel.

NEXT STEPS

The rules are scheduled to be brought before the PERS Board for adoption at the October 2, 2020 board meeting.

B.1. Attachment 1 – 459-015-0001, *Definitions*
B.1. Attachment 2 – 459-076-0001, *Definitions*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 015 – DISABILITY RETIREMENT ALLOWANCES

459-015-0001

Definitions

The words and phrases used in this division have the same meaning given them in ORS Chapter 238 and OAR 459-005-0001. Additional terms are defined as follows unless the context requires otherwise.

(1) “Any work for which qualified” means a job, not necessarily the last or usual job, which the applicant for a disability retirement allowance:

(a) Is physically and psychologically capable of performing; and

(b) Has, or may obtain with reasonable training the knowledge, skills and abilities, to perform the job.

(2) “Certified vocational consultant” means a person who satisfies the criteria set forth under either of the following:

(a) A Master’s Degree in vocational rehabilitation, and one year of experience in performing vocation evaluations or developing individualized return-to-work plans; or a Bachelor’s Degree and two years of such experience. All degrees must have been earned at an accredited institution; or

(b) Accredited as a Certified Rehabilitation Counselor (CRC) by the Commission on Rehabilitation Counselor Certification; as a Certified Disability Management Specialist (CDMS) by the Certification of Disability Management Specialists Commission; or a Certified Vocational Evaluation Specialist (CVE) or a Certified Work Adjustment Specialist (CWA) by the Commission on Certification of Work Adjustment and Vocational Evaluation Specialists.

(3) "Confidential information" means information of a personal nature such that disclosure would constitute an unreasonable invasion of privacy as defined by state law.

(4) "Date an application for disability retirement is filed" means the receipt date as determined pursuant to OAR 459-005-0220.

(5) "Date of disability" means the later of:

(a) The date an active member ceased to work because of inability to perform any work for which qualified due to injury or disease; or

(b) The date an inactive member became unable to perform any work for which qualified provided such inability occurred within six months after the date of separation from service.

(6) "Date of separation from service" means the later of: the last day worked or the last day of paid leave with a PERS participating employer.

(7) "Date of termination" means the date a member terminates from employment such that an employee/employer relationship no longer exists.

(8) "Earned income" means income that includes, but is not limited to:

(a) Salary or wages received as an employee;

(b) Self-employment income from:

(A) Services industry;

(B) Sales;

(C) Assembly or manufacturing;

(D) Consulting;

(E) Property management;

(F) Gambling, other than income from sweepstakes, lotteries, bingo, keno, or slot machines;

[F] **(G)** Hobby income; or

[G] **(H)** Book advances.

(c) "Earned income" does not include:

(A) Investment income;

(B) Rent; and

(C) Royalties.

(d) Earned income is deemed to be received by the member on the date it is issued by the payer.

(9) "Effective date of disability retirement" means the first day of the month following the date of disability in which all of the following has been met:

(a) The member is paid no salary from a participating employer, and

(b) The member does not receive paid leave from a participating employer except for any lump sum payment for accrued vacation leave or compensatory time.

(10) "Extended duration" means a period of not less than 90 consecutive calendar days, unless the disability is expected to result in the death of the disabled member in less than 90 days.

(11) "Granted service" means that portion of creditable service used solely to calculate a disability retirement allowance under ORS 238.320 that is not performed or earned.

(12) "Independent medical exam" means an exam or exams conducted by a physician chosen by PERS for purposes other than treatment which results in the issuance of a report or reports based on those exams, giving an opinion regarding the claimed injury or disease.

(13) "Material contributing cause" means the efficient, dominant, and proximate cause of the disability, without which the member would not be disabled.

(14) "Monthly salary" means "salary" as defined in ORS 238.005 that is earned in the last full calendar month of employment, and includes employer payments under ORS 238A.335 and differential wage payments as defined in OAR 459-005-0001.

(a) Retroactive payments or payments made due to clerical errors, paid in accordance with ORS 238.005, are allocated to the period the salary was earned or should have been earned.

(b) Payments of salary paid within 31 days of separation are allocated to the period the salary was earned and should be considered as paid on the last date of employment.

(15) "Monthly salary received" means the greater of the monthly salary paid for the last full calendar month of:

(a) Employment before the date of disability; or

(b) Differential wage payments made before the date of disability. This subsection is effective January 1, 2009.

(16) "Normal retirement age" means the age at which a member can retire without a reduced benefit as set forth under ORS 238.005 and 238.280.

(17) "Performance of duty" means whatever an employee may be directed, required or reasonably expected to do in connection with his or her employment, and not solely the duties particular to his or her position.

(18) “Periodic review” means a review of a member receiving a disability retirement allowance to determine whether or not a continued allowance is warranted.

(19) “Physician” means a medical doctor, a doctor of osteopathy, a doctor of oral surgery, a chiropractic doctor, a naturopathic doctor, or a doctor of psychology practicing only within the purview of their license issued by the designated authority of a state.

(20) “Pre-existing condition” means a condition that was not sustained in actual performance of duty in a qualifying position with a participating employer.

(21) “Protected health information” means health information created or received by a health care provider, health plan, or health care clearinghouse, where an individual has a reasonable belief that the information can identify the individual, which relates to:

(a) The past, present, or future physical or mental health of an individual;

(b) The provision of health care to an individual; or

(c) The past, present, or future payment for the provision of health care to an individual.

(22) “Similar in compensation” means salary or other earned income, excluding overtime, equaling at least 80% of the monthly salary.

(23) “Total disability” means the inability to perform any work for which qualified for an extended duration due to physical or mental incapacitation.

(24) “Training or vocational rehabilitation program” means a comprehensive, coordinated program, usually state or federally funded, to train and assist individuals with disabilities in securing gainful employment commensurate with their abilities and capabilities.

(25) “Vocational evaluation” means an evaluation conducted by a certified vocational consultant, to determine the ability of an applicant to perform any work for which they are qualified.

(26) “Work related stress” means conditions or disabilities resulting from, but not limited to:

(a) Change of employment duties;

(b) Conflicts with supervisors;

(c) Actual or perceived threat of loss of a job, demotion, or disciplinary action;

(d) Relationships with supervisors, coworkers, or the public;

(e) Specific or general job dissatisfaction;

(f) Work load pressures;

(g) Subjective perceptions of employment conditions or environment;

(h) Loss of job or demotion for whatever reason;

(i) Fear of exposure to chemicals, radiation biohazards, or other perceived hazards;

(j) Objective or subjective stresses of employment; or

(k) Personnel decisions.

Stat. Auth.: ORS 238.650

Stats. Implemented: ORS 238.320 - 238.345

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 076 – OPSRP DISABILITY BENEFIT

459-076-0001

Definitions

The words and phrases used in this division have the same meaning given them in ORS Chapter 238A and OAR 459-070-0001. Additional terms are defined as follows unless the context requires otherwise.

(1) “Any work for which qualified” means a job, not necessarily the last or usual job, which the applicant for disability benefits:

(a) Is physically and psychologically capable of performing; and

(b) Has, or may obtain with reasonable training, the knowledge, skills and abilities, to perform the job.

(2) “Certified vocational consultant” means a person who satisfies the criteria set forth under either of the following:

(a) A Master's Degree in vocational rehabilitation, and one year of experience in performing vocation evaluations or developing individualized return-to-work plans; or a Bachelor's Degree and two years of such experience. All degrees must have been earned at an accredited institution; or

(b) Accredited as a Certified Rehabilitation Counselor (CRC) by the Commission on Rehabilitation Counselor Certification; as a Certified Disability Management Specialist (CDMS) by the Certification of Disability Management Specialists Commission; or a Certified Vocational Evaluation Specialist (CVE) or a Certified Work Adjustment Specialist (CWA) by the Commission on Certification of Work Adjustment and Vocational Evaluation Specialists.

(3) “Confidential information” means information of a personal nature such that disclosure would constitute an unreasonable invasion of privacy as defined by state law.

(4) “Date an application for a disability benefit is filed” means the receipt date as determined pursuant to OAR 459-005-0220.

(5) “Date of disability” means the date an active member ceased to work because of inability to perform any work for which qualified due to injury or disease.

(6) “Date of separation from service” means the later of: the last day worked or the last day of paid leave with a PERS participating employer.

(7) “Date of termination” means the date a member terminates from employment such that an employee/employer relationship no longer exists.

(8) “Earned income” includes, but is not limited to:

(a) Salary or wages received as an employee;

(b) Self-employment income from:

(A) Services industry;

(B) Sales;

(C) Assembly or manufacturing;

(D) Consulting;

(E) Property management;

(F) Gambling, other than income from sweepstakes, lotteries, bingo, keno, or slot machines;

[F] **(G)** Hobby income; or

[G] **(H)** Book advances.

(c) “Earned income” does not include:

(A) Investment income;

(B) Rent; and

(C) Royalties.

(d) Earned income is deemed to be received by the member on the date it is issued by the payer.

(9) "Effective date of disability benefit" means the first day of the month following the date of disability, in which:

(a) The member is paid no salary from a participating employer; and

(b) The member does not receive paid leave from a participating employer, except for any lump sum payment for accrued vacation leave or compensatory time.

(10) "Extended duration" means a period of not less than 90 consecutive calendar days unless the disability is expected to result in the death of the disabled member in less than 90 days.

(11) "Independent medical exam" means an exam or exams conducted by a physician chosen by PERS for purposes other than for treatment which results in the issuance of a report or reports based on those exams, giving an opinion regarding the claimed injury or disease.

(12) "Material contributing cause" means the efficient, dominant, and proximate cause of the disability, without which the member would not be disabled.

(13) "Monthly salary" means salary as defined in ORS 238A.005 that is earned in the last full calendar month of employment and includes a differential wage payment, as defined in OAR 459-005-0001.

(a) Retroactive payments or payments made due to clerical errors, paid in accordance with ORS 238A.005, are allocated to the period the salary was earned or should have been earned.

(b) Payments of salary paid within 31 days of separation are allocated to the period the salary was earned and should be considered as paid on the last date of employment.

(14) “Monthly salary received” means the greater of the salary paid for the last full calendar month of:

(a) Employment before the date of disability; or

(b) Differential wage payments made before the date of disability. This subsection is effective January 1, 2009.

(15) “Performance of duty” means whatever an employee may be directed, required or reasonably expected to do in connection with his or her employment, and not solely the duties particular to his or her position.

(16) “Periodic review” means a review of a member receiving a disability benefit to determine whether or not a continued benefit is warranted.

(17) “Physician” means a medical doctor, a doctor of osteopathy, a doctor of oral surgery, a chiropractic doctor, a naturopathic doctor, or a doctor of psychology practicing only within the purview of their license issued by the designated authority of a state.

(18) “Pre-existing condition” means a condition that was not sustained in actual performance of duty in a qualifying position with a participating employer.

(19) “Protected health information” means health information created or received by a health care provider, health plan, or health care clearinghouse, where an individual has a reasonable belief that the information can identify the individual, which relates to:

(a) The past, present, or future physical or mental health of an individual;

(b) The provision of health care to an individual; or

(c) The past, present, or future payment for the provision of health care to an individual.

(20) “Total disability” means the inability to perform any work for which qualified for an extended duration due to physical or mental incapacitation.

(21) “Vocational evaluation” means an evaluation conducted by a certified vocational consultant, to determine the ability of an applicant to perform any work for which they are qualified.

(22) “Work related stress” means conditions or disabilities resulting from, but not limited to:

(a) Change of employment duties;

(b) Conflicts with supervisors;

(c) Actual or perceived threat of loss of a job, demotion, or disciplinary action;

(d) Relationships with supervisors, coworkers, or the public;

(e) Specific or general job dissatisfaction;

(f) Work load pressures;

(g) Subjective perceptions of employment conditions or environment;

(h) Loss of job or demotion for whatever reason;

(i) Fear of exposure to chemicals, radiation biohazards, or other perceived hazards;

(j) Objective or subjective stresses of employment; or

(k) Personnel decisions.

Stat. Auth.: ORS 238A.450

Stats. Implemented: ORS 238A.235

Oregon

Kate Brown, Governor

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July 31, 2020

TO: Members of the PERS Board

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

SUBJECT: Adoption of Rules to Implement the CARES Act:
OAR 459-050-0075, *Distributions During Employment*
OAR 459-050-0077, *Loan Program*
OAR 459-050-0080, *Distribution of Funds After a Severance of Employment*
OAR 459-050-0300, *Required Minimum Distribution Requirements*

OVERVIEW

- Action: Adopt rules to implement the federal CARES Act.
- Reason: Implement the mandatory provisions of the SECURE Act and the CARES Act, and implement the optional in-service withdrawal provision of the CARES Act.
- Policy Issue: None

BACKGROUND

These rules were adopted as temporary rules at the May board meeting. We also started permanent rulemaking at the same time. These rules contain the same amendments as the temporary rules; no changes have been made since notice. Action by the PERS Board, today, will make the temporary rules that were previously adopted permanent.

The federal Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law on March 27, 2020, and addresses the economic impacts faced by many sectors of the U.S. economy due to the COVID-19 pandemic. The provisions of the CARES Act that are incorporated into OSGP by the current rule amendments include a mandatory waiver of required minimum distributions (RMD) for calendar year 2020 and a mandatory one year delay of plan loan repayments for qualified individuals. The suspension of the RMD requirement applies to all distributions made in calendar year 2020. The delay of loan repayments applies to loan payments that would be due between March 27, 2020 and December 31, 2020, and interest will continue to accrue on the balance of the loan during this time.

Staff evaluated the CARES Act with regard to PERS, as well, and determined that, because the mandatory suspension of RMD applies only to defined contribution plans and PERS is a defined benefit plan, it does not apply to PERS. Therefore, PERS will continue to administer RMDs as usual.

The federal Setting Every Community Up for Retirement Enhancement (SECURE) Act was signed into law on December 20, 2019. Among other things, it raised the required minimum distribution (RMD) age from 70½ to 72 starting on January 1, 2020, which is applicable to the Oregon Savings Growth Plan (OSGP).

The SECURE Act also applies to PERS; however, incorporating the RMD provisions for PERS will require a statutory change. While the SECURE Act changes were effective January 1, 2020, the plan has until 2025 to incorporate the changes into the plan. We anticipate this will be addressed in the 2021 legislative session in the federal tax reconnect bill that is presented every session.

SUMMARY OF MODIFICATIONS TO RULES SINCE NOTICE

No modifications were made to the rules.

PUBLIC COMMENT AND HEARING TESTIMONY

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended July 3, 2020, at 5:00 p.m. No public comment was received.

LEGAL REVIEW

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

IMPACT

Mandatory: Yes.

Benefit: Provides direction to staff and OSGP members regarding implementation of the federal SECURE Act and CARES Act.

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

RULEMAKING TIMELINE

May 29, 2020	PERS Board adopted the temporary rules, effective for 180 days; PERS staff proceeded with permanent rulemaking.
May 29, 2020	Staff began the permanent rulemaking process by filing a Notice of Rulemaking with the Secretary of State. Secretary of State published the Notice in the Oregon Administrative Rules Database. Notice was sent to employers, legislators, and interested parties. Public comment period began.
July 3, 2020	Public comment period ended at 5:00 p.m.
July 31, 2020	Board may adopt the rules.

BOARD OPTIONS

The PERS Board may:

1. Pass a motion to “adopt rules to implement the federal CARES Act, as presented.”
2. Direct staff to make other changes to the rules or explore other options.

STAFF RECOMMENDATION

Staff recommends the PERS Board choose Option #1.

- Reason: Implement the mandatory provisions of the SECURE Act and the CARES Act, and implement the optional in-service withdrawal provision of the CARES Act.

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

B.2. Attachment 1 – 459-050-0075, *Distributions During Employment*
B.2. Attachment 2 – 459-050-0077, *Loan Program*
B.2. Attachment 3 – 459-050-0080, *Distribution of Funds After a Severance of Employment*
B.2. Attachment 4 – 459-050-0300, *Required Minimum Distribution Requirements*

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 050 – DEFERRED COMPENSATION

459-050-0075

Distributions During Employment

The purpose of this rule is to describe the types of distributions available to a participant who has not had a severance of employment. Distributions made while a participant is still employed are in-service distributions.

(1) De minimis distribution. A de minimis distribution is an in-service distribution of the entire balance of a small account before the date a participant has a severance of employment. A de minimis distribution may be made if all of the following conditions are satisfied:

(a) No prior de minimis distribution was made to the participant;

(b) The total balance of the participant's account(s) within the Deferred Compensation Program do(es) not exceed the limitations in the Internal Revenue Code Section (IRC) 457(e)(9)(A), which is $5,000;

(c) Participant has not made any contributions to the Deferred Compensation Program in the two-year period before the date of distribution; and

(d) Participant has submitted an application for a de minimis distribution on forms provided by, or other methods approved by the Deferred Compensation Program. No distribution will be paid unless a complete application is filed with, and approved by, the Deferred Compensation Program.

(2) Unforeseeable emergency withdrawal. An unforeseeable emergency withdrawal is an in-service distribution made to a participant due to an unforeseeable emergency. This withdrawal may be made before the date a participant has a severance of

employment and as defined in OAR 459-050-0150. A participant must apply for an unforeseeable emergency withdrawal using forms provided by, or other methods approved by, the Deferred Compensation Program as provided for in OAR 459-050-0150(4).

(3) Military distribution. A participant is treated as having been severed from employment during any period the participant is performing service in the uniformed services while on active duty for a period of more than 30 days for the purposes of the limitation on in-service distributions. For purposes of this rule, “uniformed services” has the same meaning as given in OAR 459-050-0072. This section applies to distributions made on or after January 1, 2009.

(4) Trustee-to-Trustee Transfers. A Trustee-to-Trustee Transfer for the purpose of purchasing permissive service credit as described in Code Section 415(n) or a Trustee-to-Trustee Transfer that meets the requirements of 26 CFR 1.457.10(b)(4) may be made while a participant is still employed.

(5) Funds available for in-service distribution. Funds contributed to the Deferred Compensation Program, and earnings on those contributions may be distributed in a de minimis distribution or unforeseeable emergency withdrawal. Any funds directly transferred or rolled over to the Deferred Compensation Program from any plan other than an IRC 457 deferred compensation plan may not be distributed for a de minimis distribution or an unforeseeable emergency withdrawal.

(6) Prohibitions on elective deferrals after an in-service distribution. A participant who receives a de minimis distribution, an unforeseeable emergency withdrawal, or a military distribution may not make elective deferrals and employee contributions to the

Deferred Compensation Program for a period of six consecutive months from the date of distribution.

(7) Notwithstanding any other sections of this rule, a participant who self-certifies through a process provided by the Deferred Compensation Program as a "qualified individual" as that term is defined in the Coronavirus Aid, Relief, and Economic Security Act of 2020, may take an in-service distribution of no more than $100,000 during calendar year 2020.

(a) A qualified individual means an individual:

(A) Who is diagnosed with the virus SARS-CoV-2 or with coronavirus disease 2019 (COVID-19) by a test approved by the Centers for Disease Control and Prevention;

(B) Whose spouse or dependent (as defined in section 152 of the Internal Revenue Code of 1986) is diagnosed with such virus or disease by such a test; or

(C) Who experiences adverse financial consequences as a result of being quarantined, being furloughed or laid off or having work hours reduced due to such virus or disease, being unable to work due to lack of child care due to such virus or disease, closing or reducing hours of a business owned or operated by the individual due to such virus or disease, or other factors as determined by the Secretary of the Treasury (or the Secretary's delegate).

(b) A distribution taken under this section, or any portion thereof, may be redeposited by the plan participant back into the participant's Deferred Compensation Account within three years beginning on the day after the date of the withdrawal.

Stat. Auth.: ORS 243.470

Stats. Implemented: ORS 243.401 – 243.507**, Pub. L. No. 116-136**

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 050 – DEFERRED COMPENSATION

459-050-0077

Loan Program

(1) Definitions. For purposes of this rule:

(a) "Cure period" is that time from when a default occurs until the end of the quarter following the quarter in which the default occurred.

(b) "Deferred Compensation Account" means the account described in OAR 459-050-0001, but does not include any amount in the Self-Directed Brokerage Option.

(c) "Designated Roth Account" means the account described in OAR 459-050-0001, but does not include any amount in the Self-Directed Brokerage Option.

(d) "Loan balance" means the outstanding principal and accrued interest due on the loan.

(e) "Participant Loan" means a loan that affects the Deferred Compensation Account, Designated Roth Account, or a combination of both, of a participant.

(f) "Promissory note" means the agreement of loan terms between the Program and a participant.

(g) "Third Party Administrator (TPA)" means the entity providing record keeping and administrative services to the Program.

(2) Eligibility for loan. Participants who are currently employed by a Plan Sponsor that has agreed to participate in a Participant Loan program are eligible for a Participant Loan. Retired participants, participants separated from employment, designated beneficiaries, and alternate payees are not eligible.

(3) Application for loan: A participant must apply for a loan and meet the requirements set forth in this rule.

(a) Once a loan is approved, a participant must execute a promissory note in the form prescribed by the Program.

(b) If a participant is deceased before the disbursement of the proceeds of a loan, the participant's loan application shall be void as of the date of death.

(4) Loan Types:

(a) General purpose loan — a loan not taken for the purpose of acquiring a principal residence. General purpose loans must be repaid over a non-renewable repayment period of up to five years.

(b) Residential loan — a loan made for the purpose of acquiring a principal residence, which is, or within a reasonable time shall be, the principal residence of the participant. Residential loans must be repaid over a non-renewable repayment period of up to 15 years. A refinancing does not qualify as a residential loan. However, a loan from the Program that will be used to repay a loan from a third party will qualify as a residential loan if the loan would qualify as a residential loan without regard to the loan from the third party.

(5) Interest Rate: The rate of interest for a loan shall be fixed at one percent (1%) above the prime interest rate as published by the Wall Street Journal on the last business day of the month before the month in which the loan is requested.

(6) Loan Fees: A loan fee of $50.00 shall be assessed when the loan is approved. The fee shall be deducted from a participant's deferred compensation account on a pro-rata basis from existing investments.

(7) Loan Limitations:

(a) The maximum loan amount is the lesser of:

(A) $50,000; or

(B) One-half of the combined value of the participant's Deferred Compensation Account and the Designated Roth Account on the date the loan is made.

(b) The minimum loan amount is $1,000.

(c) A participant may only have one outstanding loan.

(d) A participant who has received a loan may not apply for another loan until 12 months from the date the previous loan was paid in full.

(8) Source of Loan: The loan amount will be deducted from a participant's Deferred Compensation Account, Designated Roth Account, or a combination of both.

(a) Loan amounts will be deducted first from the Deferred Compensation Account.

(b) Loan amounts will be deducted pro-rata from existing investments in a participant's account(s).

(c) A participant may not transfer a loan to or from another retirement or deferred compensation plan.

(9) Repayment Terms: The loan amount will be amortized over the repayment period of the loan with interest compounded daily to calculate a level payment for the duration of the loan.

(a) Loan payments must be made by payroll deduction. To receive a loan from the Program a participant must enter into a payroll deduction agreement. For the purposes of this rule, a promissory note or other document that includes the payroll deduction amount and is signed by a participant as a requirement to obtain a loan may be a payroll deduction agreement. Except as provided in this rule, a participant may not submit a loan payment directly to the Program or the Third Party Administrator.

(b) A participant is responsible for loan repayment even if the employer fails to deduct or submit payments as directed under the payroll deduction agreement. To avoid defaulting on a loan by reason of the employer's failure to deduct or submit a payment a participant may submit a loan payment by sending a money order or certified check to the Third Party Administrator.

(c) A participant may repay the loan balance in a single payment at any time before the date the final loan payment is due.

(d) Partial payment of a scheduled payment and partial prepayment or advance payment of future payments may not be permitted.

(e) Loan payments will be allocated in a participant's account(s) in the same manner as the participant's current contribution allocation. If, for any reason, the allocation is not known, the payment will be allocated to the Stable Value Option.

(f) Any overpayment will be refunded to the participant.

(10) Leave of Absence. Terms of outstanding loans are not subject to revision except as provided in this section.

(a) Loan payments may be suspended up to one year during an authorized leave of absence if a participant's pay from the employer does not at least equal the payment amount.

(A) Interest on a loan continues to accrue during a leave of absence.

(B) A participant must immediately resume payments by payroll deduction upon return to work.

(C) The loan balance will be re-amortized upon the participant's return to work to be repaid within the remaining loan repayment period.

(D) Loan payments may be revised to extend the remaining loan repayment period to the maximum period allowed in the event the loan originally had a term shorter than the maximum period allowed under section (4) of this rule.

(E) If a participant is on a leave of absence that exceeds one year, the loan shall be in default unless repayment begins one year from the participant's last date worked or the date the final payment is due under the promissory note, whichever is earlier.

(b) Military Leave. Loan payments for participants on military leave may be suspended for the period of military service.

(A) A leave of absence for military service longer than one year will not cause a loan to be in default.

(B) Loan payments by payroll deduction must resume upon the participant's return to work.

(C) The original repayment period of a loan will be extended for the period of military service or to the maximum repayment period allowed for that type of loan, whichever is greater.

(D) Interest on a loan continues to accrue during a leave of absence for military service. If the interest rate on the loan is greater than 6%, then under the provisions of the Servicemembers Civil Relief Act of 2003, the rate shall be reduced to 6% during the period of military service.

(E) The loan balance will be re-amortized upon the participant's return to work to be repaid within the remaining loan repayment period as determined under paragraph (C) of this subsection.

(c) A participant on an authorized leave of absence or military leave may submit loan payments by sending a money order or certified check to the Third Party Administrator.

(11) Tax Reporting.

(a) The loan balance of a general purpose loan will be reported as a taxable distribution to the participant on the earlier of the last day of the loan repayment period, as adjusted under paragraphs (10)(a)(D) or (10)(b)(C) of this rule, if applicable, or if the loan is in default, the last day of the cure period.

(b) The loan balance of a residential loan will be reported as a taxable distribution to the participant on the earlier of the last day of the loan repayment period, as adjusted under paragraphs (10)(a)(D) or (10)(b)(C) of this rule, if applicable, or if the loan is in default, the last day of the cure period.

(c) If a participant dies before the loan balance being repaid, and the participant’s beneficiary does not repay the loan balance in a single payment within 90 days of the participant’s death, the loan balance will be reported as a taxable distribution to the estate of the participant.

(d) If a participant is eligible to receive a distribution under the Program, the reporting of a loan balance as a taxable distribution under this section will cancel the loan at the time the taxable distribution is reported. A canceled loan is a distribution and is no longer outstanding in a participant’s account.

(e) If a participant is not eligible to receive a distribution under the Program, a loan balance reported as a taxable distribution under this section will be a deemed distribution for tax reporting purposes. A loan deemed distributed may not be canceled until the loan balance is repaid or the participant becomes eligible to receive a distribution. The loan balance will remain outstanding in the participant's account and will continue to accrue interest until repaid or canceled.

(12) Default.

(a) A loan is in default if a payment is not paid as scheduled or under any of the provisions set forth in this rule, the promissory note, or any related loan agreement.

(b) A loan is in default if the participant separates from employment with the plan sponsor that administers the loan payment payroll deductions.

(c) If a participant with a loan in default resumes loan payments by payroll deduction before the end of the cure period, the default will be cured. The participant must pay any missed payments and accrued interest before the end of the loan repayment period.

(d) Except as provided in subsection (c) of this section, if the participant does not cure a default by repaying the loan balance before the end of the cure period, the loan balance will be reported as a taxable distribution to the participant as provided in section (11) of this rule.

(13) Notwithstanding any other sections of this rule, a participant who self-certifies through a process provided by the Deferred Compensation Program as a "qualified individual" as that term is defined in the Coronavirus Aid, Relief, and Economic Security Act of 2020, will have any repayment due date between March 27 and December 31, 2020 delayed for one year.

(a) A qualified individual means an individual:

(A) Who is diagnosed with the virus SARS-CoV-2 or with coronavirus disease 2019 (COVID-19) by a test approved by the Centers for Disease Control and Prevention;

(B) Whose spouse or dependent (as defined in section 152 of the Internal Revenue Code of 1986) is diagnosed with such virus or disease by such a test; or

(C) Who experiences adverse financial consequences as a result of being quarantined, being furloughed or laid off or having work hours reduced due to such virus or disease, being unable to work due to lack of child care due to such virus or disease, closing or reducing hours of a business owned or operated by the individual due to such virus or disease, or other factors as determined by the Secretary of the Treasury (or the Secretary's delegate).

(b) Interest will continue to accrue on the outstanding balance of the loan during the period of repayment delay.

Stat. Auth.: ORS 243.470

Stats. Implemented: ORS 243.401 – 243.507**, Pub. L. No. 116-136**

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 050 – DEFERRED COMPENSATION

459-050-0080

Distribution of Funds After a Severance of Employment

The purpose of this rule is to establish the criteria and process for obtaining a distribution of deferred compensation funds after a participant's severance of employment as defined herein. Distribution under the Deferred Compensation Program shall be made in accordance with any minimum distribution or other limitations required by Internal Revenue Code (IRC) section 401(a)(9), 26 U.S.C. 401(a)(9) and related regulations.

(1) Definitions. The following definitions apply for the purpose of this rule:

(a) "Commencement date" means the month and year that a participant will begin receiving a distribution(s) from the Deferred Compensation Program, whether by operation of the participant's election or under the terms of the plan. The commencement date is not the date that the necessary funds are liquidated for distribution.

(b) "Date of distribution" means the date funds are distributed to the participant, alternate payee, beneficiary, or other recipient in accordance with the plan, regardless of the mechanism by which those funds are distributed.

(c) "Intention to return to work" means a written or oral, formal or informal agreement has been made with the plan sponsor to return to work on a full time, part time or temporary basis at the time the severance is effective. If a participant returns to work with the plan sponsor within 30 calendar days of severance, then a rebuttable presumption exists that the participant intended to return to work as of the date of severance.

(d) “Liquidation date” means the date the Deferred Compensation Program designates for liquidation of funds. Generally, the liquidation date will not be earlier than the 25th day of the calendar month preceding the commencement date. The Deferred Compensation Program may determine the liquidation date based on normal business practices. The Deferred Compensation Program is not liable to a participant for failure to liquidate an investment on a specified date.

(e) “Liquidation of funds” means the conversion of the necessary funds from the investments in the Deferred Compensation Program into cash for payment under a specified manner of distribution.

(f) “Manner of distribution” means the manner elected by the participant, alternate payee, or beneficiary in accordance with the terms of the plan, in which a distribution is to be paid out of the Deferred Compensation Program.

(g) “Required beginning date” means April 1 of the calendar year following the later of:

(A) The calendar year in which the participant reaches 70-1/2 years of age **if the participant was born before July 1, 1949, or age 72 if the participant was born after June 30, 1949**; or

(B) The calendar year in which the participant retires.

(h) “Severance of Employment” means a participant has ceased rendering services as an employee or an independent contractor of a plan sponsor for a minimum of 30 consecutive days, including services as a temporary employee, and has no intention to return to work for the plan sponsor.

(2) Manner of distribution. Subject to the provisions of sections (3) through (5) set out below, a participant, surviving beneficiary, or alternate payee may elect a manner of distribution, designate one or more beneficiaries, and change beneficiaries at any time. The total amount distributed may not exceed the total account value. The following manners of distribution are available:

(a) Total distribution of the account value in a lump sum. A lump-sum distribution is not eligible for direct deposit;

(b) Single distribution of a portion of the account value in a lump sum. This form of lump-sum distribution is not eligible for direct deposit. Funds not distributed shall continue to receive earnings or losses based on the performance of investment option(s) in which funds are held;

(c) Systematic withdrawal distribution for a specific number of years, which may be paid annually, semiannually, quarterly or monthly. Any funds remaining after each periodic payment shall continue to receive earnings or losses based on the performance of investment option(s) in which the funds are held. The remaining number of periodic distributions may not change. However, the amount of distributions shall be adjusted depending on the earnings or losses experienced;

(d) Periodic specified dollar amount distribution. This distribution may be paid annually, semiannually, quarterly or monthly, and may be paid in specific dollar amounts in $5 increments. Any funds remaining after each periodic payment shall continue to receive earnings or losses based on the performance of investment option(s) in which the funds are held. The amount of each periodic distribution will remain the same throughout the withdrawal period. However, the withdrawal period may vary depending on the earnings or losses experienced;

(e) Required minimum distribution, which will provide an annual distribution of the minimum amount required in IRC section 401(a)(9), 26 U.S.C. 401(a)(9). This manner of distribution is available only to those who defer distribution to age 70-1/2 *[years of age]* **if the participant was born before July 1, 1949, or age 72 if the participant was born after June 30, 1949** (no later than April of the year following the year reaching 70-1/2 years of age **or 72 years of age**) or a participant who continues to work and severs employment after 70-1/2 years of age **if the participant was born before July 1, 1949, or age 72 if the participant was born after June 30, 1949**. Funds not distributed shall continue to receive earnings or losses based on the performance of investment option(s) in which funds are held; or

(f) Mandatory single lump-sum distribution of an account balance of less than $1,000. This distribution shall be made to any participant or alternate payee with an account balance of less than $1,000 within one year of the participant's severance of employment.

(3) Application Requirements. Application shall be made on forms provided by, or other methods approved by, the Deferred Compensation Program. No distribution may be paid unless a timely and complete application is filed with the Deferred Compensation Program as follows:

(a) An application for distribution or to change the manner of distribution will be considered filed in a timely manner if it is received in writing or other method approved by the Deferred Compensation Program at least 30 days before the requested commencement date. The commencement date may be no earlier than the second calendar month following the month of severance of employment.

(b) An application for distribution or to change the manner of distribution may be made by a participant, surviving beneficiary, or alternate payee or the authorized representative of a participant, surviving beneficiary or alternate payee. A valid document appointing an authorized representative such as a power of attorney, guardianship or conservatorship appointment, must be submitted to the Deferred Compensation Program. The Deferred Compensation Program retains the discretion to determine whether the document is valid for purposes of this rule.

(c) Except in the case of a qualified distribution as defined in section 402A(d)(2) of the Internal Revenue Code, the participant, surviving beneficiary, or alternate payee must file a tax-withholding certificate with the Deferred Compensation Program at least 30 days before the requested commencement date. If the certificate is not filed, the Deferred Compensation Program shall withhold state income taxes based on a marital status of single and no dependents and federal income taxes based on a marital status of married and 3 dependents, or other federally mandated tax withholding requirements. A new certificate may be filed at any time, and will be applied to distributions paid on and after the first calendar month following the date received or as soon as reasonably possible.

(d) When direct deposit is permitted under the Deferred Compensation Program, a request for periodic distributions to be transmitted to a financial institution for direct deposit must be made using a Deferred Compensation Program Automatic Deposit Agreement.

(e) Distribution of deferred compensation funds will occur no later than five days following the date funds necessary for a specified payment were liquidated. Liquidation of funds will be done on a pro-rata basis determined by the investment allocation of an account at the time the funds are liquidated or from the Stable Value account, at the participant's election. The election must be filed before the participant begins receiving distributions. If the participant elects distribution from the Stable Value account and there are insufficient funds in that account on the date of each distribution (whether monthly, quarterly, semi-annually, or annually), the distribution will be done on the pro-rata basis described above regardless of the participant’s election.

(4) Denial of distribution election. The Deferred Compensation Program may deny any distribution election if that denial is required to maintain the status of the Deferred Compensation Program under the Internal Revenue Code and regulations adopted pursuant to the Internal Revenue Code and ORS Chapter 243.

(5) Changing the manner of distribution. A participant, surviving beneficiary or alternate payee may change or discontinue the manner of distribution only as follows and subject to the requirements of section (3) above:

(a) Manners of distribution under sections (2)(c), (2)(d) and (2)(e) of this rule may be changed at any time upon application as required under section (3) of this rule.

(b) Distributions under sections (2)(c) and (2)(d) of this rule may be discontinued upon written notification or by other methods approved by the Deferred Compensation Program. The participant, surviving beneficiary, or alternate payee must submit an application, as required in section (3) of this rule, to restart distributions and elect a manner of distribution for the remaining account.

(c) Subject to the requirements of this rule, a participant, surviving beneficiary or alternate payee who has commenced receiving a required minimum distribution may apply under the requirements of section (3) of this rule:

(A) For one or more additional distributions in a lump sum not to exceed the total value of the account; and

(B) To change the manner of distribution so long as future distributions will be continuous and equal to or greater than the minimum distribution required.

Stat. Auth.: ORS 243.470

Stats. Implemented: ORS 243.401 – 243.507**, Pub. L. No. 116-136**

OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 050 – DEFERRED COMPENSATION

459-050-0300

Required Minimum Distribution Requirements

(1) Definitions. The following definitions apply for the purposes of this rule:

(a) “Designated Beneficiary” means:

(A) A natural person designated as a beneficiary by the participant, alternate payee, or surviving beneficiary as provided in OAR 459-050-0060; or

(B) If a trust is designated as a beneficiary, the individual beneficiaries of the trust will be treated as designated beneficiaries if the trust satisfies the requirements in section (2) of this rule and applicable Treasury Regulations, including but not limited to Proposed Treasury Regulation Section 1.401(a)(9)-1, Q&A-D-5.

(C) If the beneficiary is not a person or a trust satisfying these requirements, the participant, alternate payee, or surviving beneficiary will be deemed to have no designated beneficiary only for purposes of required minimum distributions under IRC 409(a)(9), and distribution shall be made in accordance with section (11) of this rule.

(b) “Life Expectancy” means the length of time a person of a given age is expected to live as set forth in Treasury Regulation Section 1.72-9. Required minimum distributions shall be calculated so as to satisfy the requirements of Section 401(a)(9) using the life expectancy tables provided in Treasury regulations. Life expectancies may not be recalculated after the initial determination, except as otherwise required under Oregon or federal law.

(c) “Required Beginning Date” means April 1 of the calendar year following the later of:

(A) The calendar year in which the participant reaches 70-1/2 years of age **if the participant was born before July 1, 1949, or age 72 if the participant was born after June 30, 1949**; or

(B) The calendar year in which the participant retires.

(d) "Required Commencement Date" means the date that the deferred compensation plan must begin to distribute all or part of an account to a surviving beneficiary.

(2) A trust as beneficiary. If a trust is designated as a beneficiary, the individual beneficiaries of the trust will be treated as designated beneficiaries as defined in paragraph (1)(c)(B) if by December 31 of the calendar year following the death of a person who designated a trust as beneficiary, the trust satisfies the following conditions:

(a) The trust must be irrevocable, or become irrevocable by its terms at the time of the person's death;

(b) The trust's beneficiaries must be natural persons who are identifiable from the trust instrument; and

(c) One of the following must be provided to the Deferred Compensation Program:

(A) A list of all beneficiaries of the trust, including contingent beneficiaries, along with a description of the portion to which they are entitled and any conditions on their entitlement, all corrected certifications of trust amendments, and a copy of the trust instrument if requested by the Deferred Compensation Program; or

(B) A copy of the trust instrument and copies of any amendments after they are adopted.

(3) Applicable law. Distributions under the Deferred Compensation Program shall be made in accordance with Internal Revenue Code (IRC) Section 401(a)(9), Treasury

regulations, Internal Revenue Service rulings and other interpretations issued, including Proposed Treasury Regulation Section 1.401(a)(9)-2. IRC Section 401(a)(9) overrides the provisions of this rule and any other statute or rule pertaining to the required minimum distribution requirements and any manners of distributions, if they are found to be inconsistent with IRC Section 401(a)(9).

(a) If a participant, alternate payee, or surviving beneficiary has not begun distribution or elected a minimum distribution by the beginning date or commencement date required in this rule and IRC Section 401(a)(9), the Deferred Compensation Program shall begin distribution of the minimum amount required as provided under OAR 459-050-0080(2)(e) or, if required, the entire account. Distribution under this subsection is subject to the provisions of OAR 459-050-0120(5).

(b) The required minimum distribution amount may never exceed the entire account balance on the date of distribution.

(4) Minimum distribution requirements for participants. Distributions must begin no later than the participant's required beginning date.

(a) The participant's entire account balance shall be distributed over the participant's life expectancy or over a period not extending beyond the participant's life expectancy without regard to the designated beneficiary's age unless the designated beneficiary is a spouse who is more than 10 years younger than the participant.

(b) If the designated beneficiary is a spouse and is more than 10 years younger than the participant, the entire account balance shall be distributed over the joint lives of the participant and the designated beneficiary.

(c) The participant's entire account(s) balance in the Deferred Compensation Program shall be distributed first from the Deferred Compensation Account unless the participant indicates otherwise.

(5) Minimum distribution requirements for alternate payees. The minimum distribution requirements applicable to an alternate payee are determined by whether a Qualified Domestic Relations Order (QDRO) allocates a separate account to the alternate payee or provides that a portion of a participant's benefit is to be paid to the alternate payee.

(a) If a separate account is established in the name of the alternate payee under OAR 459-050-0210, required minimum distributions to the alternate payee must begin no later than the participant's required beginning date. The alternate payee's entire account balance shall be distributed over the alternate payee's life expectancy or over a period not extending beyond the alternate payee's life expectancy.

(b) If no separate account is established in the name of the alternate payee and the alternate payee is paid a portion of a participant's benefit, the alternate payee's portion of the benefit shall be aggregated with the amount distributed to the participant and will be treated, for purposes of meeting the minimum distribution requirement, as if it had been distributed to the participant.

(6) Manners of distribution available to surviving designated beneficiaries. A surviving designated beneficiary may choose a manner of distribution and apply for a distribution as provided for in OAR 459-050-0080. If the distribution to a participant or alternate payee has begun in accordance with section 401(a)(9)(A)(ii) and the participant dies before the entire account has been distributed or after distributions are required to

begin under section (4) of this rule, distributions to the surviving designated beneficiary must be made at least as rapidly as under the manner of distribution used before the participant's or alternate payee's death.

(7)(a) Distributions treated as having begun. Distributions from an individual account are not treated as having begun to a participant in accordance with section 401(a)(9)(A)(ii) until the participant's required minimum distribution beginning date, without regard to whether distributions from an individual account have been made before the required beginning date.

(b) If distribution has been made before the required beginning date in the form of an irrevocable annuity, the distributions are treated as having begun if a participant dies after the annuity starting date but before the required beginning date. The annuity starting date will be deemed the required minimum distribution beginning date.

(8) Required commencement date for a surviving designated beneficiary. If a participant dies before distributions are required to begin or are treated as having begun, the entire account balance must be distributed by December 31 of the calendar year containing the fifth anniversary of the participant's death, unless the beneficiary makes the following distribution election in the manner prescribed by the Deferred Compensation Plan:

(a) Distributions must begin no later than December 31 of the calendar year following the year of the participant's or alternate payee's death; and

(b) Distribution of payments over the designated beneficiary's lifetime or over a period not exceeding the designated beneficiary's life expectancy.

(A) The beneficiary's life expectancy is calculated using the age of the beneficiary in the year following the year of the participant's death, reduced by one for each subsequent year.

(B) If the participant has more than one designated beneficiary as of December 31 of the calendar year following the year of the participant's death and the account has not been divided into separate accounts for each beneficiary, the beneficiary with the shortest life expectancy is treated as the designated beneficiary.

(9) Required commencement date for a spousal beneficiary. If distributions have not begun before the participant's death and if the sole designated beneficiary is the participant's surviving spouse, distributions to the surviving spouse must commence on or before the later of the dates set forth in subsections (a) and (b) below:

(a) December 31 of the calendar year immediately following the calendar year in which the participant died; or

(b) December 31 of the calendar year in which the participant would have attained 70-1/2 years of age **if the participant was born before July 1, 1949, or age 72 if the participant was born after June 30, 1949**.

(c) The distribution period during the surviving spouse's life is the spouse's single life expectancy.

(10)(a) Required commencement date for a surviving spouse's beneficiary. If the surviving spouse dies after the participant's death but before distributions to the spouse have begun, any death benefits payable to the surviving spouse's beneficiary will be applied as if the surviving spouse were the participant. The date of death of the surviving spouse will be substituted for the date of death of the participant.

(b) A death benefit payable to the surviving spouse of the deceased participant's surviving spouse shall be distributed as provided in section (8) of this rule. The provisions of section (9) of this rule do not apply to a death benefit payable to a surviving spouse of the deceased participant's surviving spouse.

(11)(a) Required commencement date if no designated beneficiary: If a participant dies before the required beginning date with no designated beneficiary as defined in paragraph (1)(c)(C) of this rule, the total account balance must be distributed as provided for in OAR 459-050-0060, by December 31 of the calendar year containing the fifth anniversary of the participant's or alternate payee's death.

(b) If a participant dies after the required beginning date with no designated beneficiary as defined in paragraph (1)(c)(C) of this rule, the applicable distribution period must not be longer than the participant's life expectancy.

(12) Determining the designated beneficiary. The designated beneficiary will be determined based on the beneficiary(s) designated as of December 31 of the calendar year following the calendar year of the participant's, alternate payee's, or surviving beneficiary's death.

(a) A participant may change beneficiaries after his or her required beginning date.

(b) A beneficiary may be changed after a participant's death, such as by one or more beneficiaries disclaiming benefits.

(13) Notwithstanding any other sections of this rule and pursuant to the Coronavirus Aid, Relief, and Economic Security Act of 2020, required minimum distribution under IRC 401(a)(9) is waived for calendar year 2020, including 2019

required minimum distribution that would be made between January 1 and April 1, 2020.

Stat. Auth.: ORS 243.470

Stats. Implemented: ORS 243.401 - 243.507**, Pub. L. No. 116-136**

Oregon

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July 31, 2020

TO: Members of the PERS Board

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

SUBJECT: Adoption of SB 1049 Member Redirect – Voluntary Contributions Rule: OAR 459-080-0410, *Voluntary Contributions to Individual Account Program (IAP)*

OVERVIEW

- Action: Adopt new SB 1049 Member Redirect – Voluntary Contributions rule.
- Reason: Establish how members may make voluntary contributions to the Individual Account Program (IAP).
- Policy Issue: None identified.

BACKGROUND

During the 2019 Legislative Session, the Oregon Legislature passed Senate Bill (SB) 1049, which made significant amendments to ORS Chapters 238 and 238A. The Member Redirect portion of the bill requires that, effective July 1, 2020, a portion of the member six percent mandatory contribution will be directed to a new Employee Pension Stability Account (EPSA) when the funded status of the plan is below 90% (including side accounts) and the member's monthly salary is more than $2,500 (indexed for inflation). When those conditions are met, 2.5% of Tier One and Tier Two members' subject salary will be redirected to the EPSA and 0.75% of OPSRP members' subject salary will be redirected to the EPSA.

When the redirect is in effect, the legislation includes language allowing members the option of making after-tax contributions to their regular IAP accounts. This option is available only when the mandatory member contributions are being redirected to the EPSA, and only in the amount redirected. Per SB 1049, voluntary member contributions cannot be "picked up" by employers.

PERS introduced OAR 459-080-0410 to clarify how the voluntary contribution option provided in SB 1049 will be administered by the agency. Though the Member Redirect project team diligently worked to ensure necessary processes would be in place for the July 1, 2020 effective date, due to the size and scope of the necessary system changes, the agency was unable to have the voluntary contribution election process ready for the July 1, 2020 effective date. For this reason, though the voluntary contribution election is prospective only, OAR 459-080-0410 includes language for a brief period of retroactivity to ensure members are provided the opportunity to make voluntary contribution elections for the time period provided in SB 1049.

Given that members must meet eligibility requirements to make the voluntary contributions and that eligibility must be determined month-to-month, PERS will be invoicing employers in arrears for the voluntary employee contributions. Employers expressed concern about collecting contributions in arrears and the prospect of collecting from employees who have left service. To address this concern, the rule directs employers to begin deducting the contributions from the member's pay as of the voluntary contribution effective date. If the member does not meet the eligibility requirement for the month, the employer will refund the contributions to the member. The employers will essentially be withholding the contributions in "real time" subject to PERS' eligibility determination.

As mentioned at Notice, the voluntary contribution process requires not only changes to agency procedures and programming, but also requires that our employer partners make updates to their practices. Staff will continue to work with employers, balancing the member's election against established payroll cycles and address the additional invoicing that will result from the voluntary contribution elections.

Staff continues to evaluate options to address employers' concern regarding retroactive contributions triggered by account adjustments, specifically when the employee is no longer employed with the participating employer, and ways to address concerns regarding the administration of the retroactive contributions allowed back to July 1. To that end, we anticipate amendments/additions to the rules as we make adjustments through long-term implementation.

SUMMARY OF MODIFICATIONS TO RULE SINCE NOTICE

Non-substantive edits were made throughout the rule for purposes of clarifying wording and reformatting sections.

PUBLIC COMMENT AND HEARING TESTIMONY

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended July 3, 2020, 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, but statute authorizes the board to update its rules as necessary to implement SB 1049, including the voluntary contribution option.

Benefit: Clarifies the administration of the voluntary contribution option.

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

RULEMAKING TIMELINE

May 29, 2020	PERS Board notified that staff began the rulemaking process.
May 29, 2020	Staff began the rulemaking process by filing a Notice of Rulemaking with the Secretary of State. Secretary of State published the Notice in the Oregon Administrative Rules Database.

	Notice was sent to employers, legislators, and interested parties. Public comment period began.
July 3, 2020	Public comment period ended at 5:00 p.m.
July 31, 2020	Board may adopt the new rule.

BOARD OPTIONS

The PERS Board may:

1. Pass a motion to "adopt the SB 1049 Member Redirect – Voluntary Contributions rule, as presented."
2. Direct staff to make other changes to the rule or explore other options.

STAFF RECOMMENDATION

Staff recommends the PERS Board choose Option #1.

- Reason: Establish how members may make voluntary contributions to the Individual Account Program (IAP).

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

B.3. Attachment 1 – 459-080-0410, *Voluntary Contributions to Individual Account Program (IAP)*

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

459-080-0410

Voluntary Contributions to Individual Account Program (IAP)

(1) Definitions.

(a) “Voluntary contribution effective date” is the:

(A) First day of the month following one full calendar month after the voluntary contribution election date, if the voluntary contribution election date is on or after the second day of the month.

(B) First day of the following month if the voluntary contribution election date is the first day of the month.

(b) “Voluntary contribution election date” is the date PERS receives a member’s voluntary contribution election request.

(c) “Voluntary contribution stop date” is the:

(A) First day of the month following one full calendar month after PERS receives a request to discontinue an election if such request is received on or after the second day of the month.

(B) First day of the following month if PERS receives the request on the first day of the month.

(2) Members may elect to make voluntary contributions to the employee account under the Individual Account Program (IAP) in the same amount credited to the member’s Employee Pension Stability Account (EPSA). Voluntary contributions are after-tax contributions and cannot be funded by the employer under ORS 238A.335.

(a) An election to make voluntary contributions must be submitted using PERS Online Member Services or forms provided by PERS.

(b) The election applies to all PERS salary paid to the member.

(c) Voluntary contributions will be withheld from the member's pay as of the voluntary contribution effective date and, except as provided in subsection (d) of this section, will be prospective only.

(d) A member may elect to make retroactive voluntary contributions for the period July 1, 2020 to October 1, 2020, only if:

(A) The election is received by PERS before November 1, 2020; and

(B) The election is made using PERS Online Member Services.

(3) A member may discontinue an election to make voluntary contributions by submitting the request through PERS Online Member Services or forms provided by PERS. If a member discontinues an election, the discontinuance becomes effective on the voluntary contribution stop date.

(4) When a member elects to make voluntary contributions, the participating employer(s) with which the member is employed in a qualifying position shall assume the member meets the voluntary contribution requirements and begin withholding those contributions from the member's salary paid as of the voluntary contribution effective date. In the event a member does not meet the eligibility requirement in any month, any voluntary contributions withheld from the member's salary will be refunded by the employer to the member.

(5) When a member elects to make voluntary contributions, or to discontinue an election, PERS will timely notify all employers with which the member is employed in a qualifying position of the member's election or request.

(6) PERS will invoice employers in arrears after it determines a member meets the salary threshold under ORS 238A.330 triggering contributions being credited to EPSA accounts.

(7) Voluntary contributions will be deposited into the member's IAP employee account and invested as described in OAR 459-080-0015.

(8) Refunds. If a member's account is adjusted and a refund of voluntary contributions is owed to the member, the employer will receive a credit on their account and the employer will be responsible for refunding the contributions to the member.

Stat. Auth.: ORS 238A.450

Stats. Implemented: ORS 238A.330

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July 31, 2020

TO: Members of the PERS Board

FROM: Heather Case, Senior Policy Director

SUBJECT: Legislative Update

FIRST SPECIAL SESSION OF 2020

The legislature held the first of what will likely be two special sessions during the interim period. This special session began Wednesday, June 24, 2020 and was adjourned on Friday, June 26, 2020. A total of 22 bills were passed during the special session, including bills relating to police accountability, and codifying protections for Oregonians during the COVID-19 pandemic.

While there were no bills specific to PERS, there were a few sections within an omnibus COVID-19 bill (HB 4212) that will effect PERS agency operations.

The first is section one within this bill- Public Meetings and Operations. Specifically, this section allows PERS (and all other "governing bodies") to hold all meetings by telephone or video conferencing technology. When a governing body does this, they do not have to provide a physical meeting space that is accessible to the public, but they do have to have a "way by which the public can listen to or observe the meeting." If it is available with the technology, the public body "shall record the meeting and make the recording available to the public." Also, if a public body does hold a physical meeting, all attendees must maintain social distancing. This section will only be in effect until 30 days after the date on which there is no longer a state of emergency as declared by the Governor.

The second is section 20 within this bill- Notarial Acts. This section allows for remote notarization of documents using "simultaneous sight and sound technology." The notarial seal is required to declare that the particular notarization took place remotely. Currently, PERS has many staff members who are notary publics, and our statutes require notarization of some documents. There are specific steps notaries must take before beginning remote notarization, which are outlined in the bill. The agency is currently discussing an implementation plan for this section of the bill. The agency anticipates both receiving remotely notarized documents, as well as having remote notarization requested of our employees. As with all sections of HB 4212, this section is effective upon passage. However, the remote notarization section sunsets on June 30, 2021, unless it is extended.

SUBSEQUENT SPECIAL SESSIONS/LEGISLATIVE MEETINGS

The Oregon Legislature has an emergency board meeting scheduled for July 14, 2020. During this meeting, the joint emergency board plans to complete work related to urgent budgetary needs regarding the COVID-19 pandemic, the Oregon Cares Fund for Black Relief and Resiliency, and election security.

The Oregon Legislature anticipates coming together again for another special session this summer. As of the time of this writing, that session is not scheduled, however, the Governor's Office reports that it will take place either the week of July 27 or the week of August 3, or both if needed. The upcoming special session will focus on Oregon's budgetary shortfalls for the remainder of the 2019-2021 biennium.

LEGISLATIVE CONCEPTS

The legislative concepts approved by the PERS Board at the March 30, 2020 board meeting are currently being drafted by the Office of Legislative Counsel into bills. PERS will receive those bill drafts and have the opportunity to make suggested edits sometime in late July or August.

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July 31, 2020

TO: Members of the PERS Board

FROM: Yvette Elledge-Rhodes, Deputy Director

SUBJECT: SB 1049 Implementation Update

Senate Bill 1049 was signed into law by the Governor on June 11, 2019. PERS staff continue to focus on completing work in an efficient and effective manner.

PROGRAM/PROJECT IMPLEMENTATION

The SB 1049 Implementation Program is being managed as one comprehensive program, with the following five individual projects. All projects are going through the Enterprise Information Services (EIS) stage gate process.

Project	Effective Date	Project Health and Status
SB 1049 Program		Program health: Red • Five project schedules are baselined: Employer Programs, Salary Limit, WAR, Member Redirect (short and long term), and Member Choice. Member Redirect long term will extend beyond this current bienniu. • Program team has been focusing efforts on iQMS and Deloitte activities, and the 2021-2023 budget request. • Cross project planning in process.
Employer Programs Project	Effective 7/1/2019	Project health: Red • Received the Employer Rate Projection Tool from CalPERS. • Technical and business analysis started; schedule will need to be re-assessed due to delay in receipt of tool. • UAL Resolution Program development started.
Salary Limit Project	Effective 1/1/2020	Project health: Green • Continued construction of Work Package (WP) 3; on track for the 10/22/20 deployment. • Business Requirements Document for Work Package 4 drafted.
Work After Retirement Project	Effective 1/1/2020	Project health: Yellow • Continued development and unit testing of WP2: New Wage Codes with General Ledger (G/L) functionality.

		• Concern that project will not be ready to begin Business Functional Testing (BFT) on 8/17/20 due to inadequate G/L documentation and lack of institutional knowledge.
Member Redirect Project	Effective 7/1/2020	Project health: Red • Successful 6/18/20 deployment of short-term release. • Catching up on training activities. • BFT for Voluntary Contributions Release 1 and construction for Release 2 are both are on track. • Pre and Post-release assessments completed by Deloitte. • Change Request for Self-Service user interface approved. • Long-Term Work Packages have now been estimated and schedule is showing work will extend beyond this current biennium and funding is not yet approved beyond this biennium.
Member Choice Project	Effective 1/1/2021	Project health: Green • BFT in process for WP1. • Pre- and Post-release assessments will be completed by Deloitte.

Highlighted activities completed or in progress since May 2020:

- Program and project activities
  - iQMS activities
    - Checklists for Requirements Traceability Matrix and Program Management Plan finalized
    - Periodic Quality Status Report finalized
    - Quarterly QA Status and Improvement Report received July 15, 2020
  - Deloitte activities:
    - Phase 2 has sixteen deliverables
    - Pre- and Post-release Assessments for Member Redirect completed
    - Member Choice Test Execution Plans and Dashboard in process
    - Organizational Change Management (OCM) Strategy and Change Readiness and Risk Analysis Assessment completed
    - Project Management Plan guidance in process
  - Monthly project team meeting held July 13, 2020
- Resources
  - Staff recruitments; 43 total positions
    - Eight positions critical to project – Webmaster position in recruitment
    - 35 operational positions (2 on hold)
      - Active Recruitments – 5
      - Hired - 28

- EIS Stage Gate process requirements
    - Member Redirect project received conditional Stage Gate 3 approval
    - Member Choice project received State Gate 2 approval
- Budget structure and reporting
    - Continuing monthly meetings with the Chief Financial Office, Legislative Fiscal Office (LFO), and the Governor's office
        - Enhancing budget reporting in response to feedback
    - Submitted the 2021-2023 budget request Business Case to Enterprise Information Services
- Communications
    - Internal communication activities have focused on keeping staff informed
    - External Communications activities include:
        - Employer Programs
            - Updating website
        - Work After Retirement
            - Finalized Service Retirement Application instructions
            - Finalized a new insert to include with "Notice of Entitlement"
        - Member Redirect
            - GovDelivery emails sent out June 23 with links to IAP Redirect pages and animated videos
            - DAS sent an all-state employees email on June 25 (40,000 state employees)
            - Additional FAQs on voluntary contributions being added to the IAP Redirect webpages and the Employer SB1049 webpage
        - Member Choice
            - Collaborating with Oregon State Treasury about risk disclosure language
        - Collaborating on messaging and strategy with PERS Coalition representative
        - Monthly Employer Newsletters
        - Employer Advisory Group meeting held July 17, 2020
        - Rulemaking for Member Redirect projects
- Organizational Change Management
    - Deloitte resources fully immersed in change management activities
    - Developing four work streams: Communications, Leadership, Change Impact and Readiness, and Training
        - Identified gaps and increasing PERS resources where necessary

PROGRAM/PROJECT BUDGET

The budget information is contained within Page 2 of the attachment to agenda item A.2.c. PERS staff will continue to update the board as project implementation continues throughout the year.

C.2. Attachment 1 – *Monthly Project Status Report and Roadmap*

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Program information:

Program start: July 1, 2019 **| Program end:** April 30, 2024

Program statement:

SB 1049 is comprehensive legislation intended to address the increasing cost of funding Oregon's Public Employees Retirement System (PERS), reduce system Unfunded Actuarial Liability (UAL) obligations, and provide relief to escalating contribution rate increases for public employers. Implementation will occur across five subprojects.

Subprojects:

Project 1: Employer Programs
- Project start: July 1, 2019 | Project end September 4, 2020
- Project status: Red

Project 2: Work After Retirement (WAR)
- Project start: July 1, 2019 | Project end: June 11, 2021
- Project status: Yellow

Project 3: Salary Limit
- Project start: July 1, 2019 | Project end: April 15, 2021
- Project status: Green

Project 4: Member Redirect
- Project start: July 1, 2019 | Project end: April 30, 2024
- Project status: Red

Project 5: Member Choice
- Project start: October 23, 2019 | Project end: August 4, 2021
- Project status: Green

For details regarding individual project status, please refer to the respective project section(s) below.

Overall program status: Red

The program has been turned red this month. Member Redirect and Member Choice will not be complete in the 2019-2021 biennium, and funding is not yet approved beyond this biennium. This status report has been updated to better reflect what portion of the existing budget is expected to be used in 2019-2021, and what is needed for 2021-2023. The SB 1049 Implementation Road Map has also been updated to provide greater detail on all long-term work packages.

Deloitte has continued Phase 2 of their engagement with PERS, and is working with PERS to validate project estimates and resources for remaining work, schedule, and budget.

Deloitte has also focused efforts on Organizational Change Management (OCM) activities and has provided an OCM plan, including activities needed in 30/60 day timeframes.

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Red

Budget health has been turn red: Activities planned beyond 2019-21 biennium, but 2021-2023 budget has not been approved.

29560- SB 1049 Implementation Program by Project							
Other Funds Lmt	19-21 Budget	Actual to Date	Projections	19-21 Total	Variance	21-23 Policy Package	Program Cost
Salary Limit Project	$ 1,247,174	$ 272,269	$ 886,500	$ 1,158,769	$ 88,405	$ -	$ 1,158,769
Work After Retirement Project	$ 1,707,114	$ 686,978	$ 1,008,500	$ 1,695,478	$ 11,636	$ -	$ 1,695,478
Member Redirect Project	$ 31,731,719	$ 7,031,075	$ 12,409,903	$ 19,440,978	$ 12,290,741	$ 22,254,973	$ 41,695,951
Employer Programs Project	$ 2,052,375	$ 189,653	$ 548,000	$ 737,653	$ 1,314,722	$ -	$ 737,653
Member Choice Project	$ 2,321,332	$ 458,941	$ 1,020,750	$ 1,479,691	$ 841,641	$ -	$ 1,479,691
Total	$ 39,059,714	$ 8,638,916	$ 15,873,653	$ 24,512,569	$ 14,547,146	$ 22,254,973	$ 46,767,542

AFN
$ 7,707,828

Schedule health: Red

Member Redirect and Member Choice have activities scheduled beyond the 2019-21 biennium which has not been budgeted yet, turning the schedule health red.
Employer Programs is delayed due to COVID-19 impacts. New completion date has not been determined yet.

Scope health: Green

The program and project scope is understood and has been incorporated into program-level plans and schedules.

Quality Assurance activities:

- iQMS Deliverable 3.1.1 Quality Control - Requirements Traceability Matrix completed 6/22/2020.
- iQMS Deliverable 3.1.2 Quality Control – Program Management Plan completed 6/22/2020.
- iQMS Deliverable 3.3.1 Periodic Quality Status Report completed 6/24/20/2020.
- iQMS Deliverable 3.3.2 Periodic Quality Status Report started on 6/30/2020, due 9/3/2020.
- iQMS Deliverable 4.1.2 Quarterly QA Status and Improvement Report started on 6/9/2020, due 8/3/2020.

Emerging concerns/needs/impacts:

- Member Redirect and Member Choice have activities scheduled beyond the 2019-21 biennium which has not been budgeted yet. The Budget Health and Program Schedule sections of this report have been updated to more clearly communicate program activities planned by biennium.
- Resource constraints – resources working on multiple SB 1049 projects is constraining availability for individual projects.

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Program Risks and Mitigation

Listed below are the most critical risks for this project.
For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: SB 1049 Program Weekly Status Report

#	Risk Description	Mitigation and/or Contingency Plan	Notes
38	**Schedule impact due to competing resources:** Critical resources are involved in multiple concurrent SB 1049 projects, limiting availability for individual projects	Coordinated schedule planning and priorities within the Program and all projects; reassign other staff to help cover absences or help offset extreme workload periods	Contracted with Deloitte to estimate remaining work and resource assignments to develop an effort-based resource-loaded plan to validate resource assignments and proactively prevent over-allocation of resources

Program Issues and Action Plans

Listed below are the most critical issues for this project.
For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: SB 1049 Program Weekly Status Report

No	Issue	Resolution / Notes	Estimated Resolution Date
9	**Realized Risk #9: Project Budget Not Sufficient:** The approved project budget is not sufficient to cover all required expenses.	Work is needed beyond the 2019-2021 biennium to complete long-term Member Redirect and Member Choice activities, but budget has not been approved for the 2021-2023 biennium. PERS has submitted a budget business case for the required funding. Deloitte engaged to validate budget estimates for remaining work.	3/1/2021
5	**Realized risk #44: All Project Schedules have not been Baselined:** Project schedules have not been baselined prior to requirements and development work	Member Choice schedule was baselined 7/07/2020. Member Redirect Long-Term schedule is in final review, due 7/20/2020. Once the final review is complete the schedule will be baselined and this issue closed.	7/20/2020
8	**Realized Risk #64: Technical Infrastructure:** PERS infrastructure upgrades delayed: Infrastructure has not been upgraded as planned due to a Legislative memo requirement to move the PERS datacenter to the State Data Center in Salem.	Additional SAN needed to support SB 1049 environment requirements. A change request was submitted and approved to purchase additional SAN, and a purchase order has been issued.	8/15/2020

SB 1049 Implementation Program

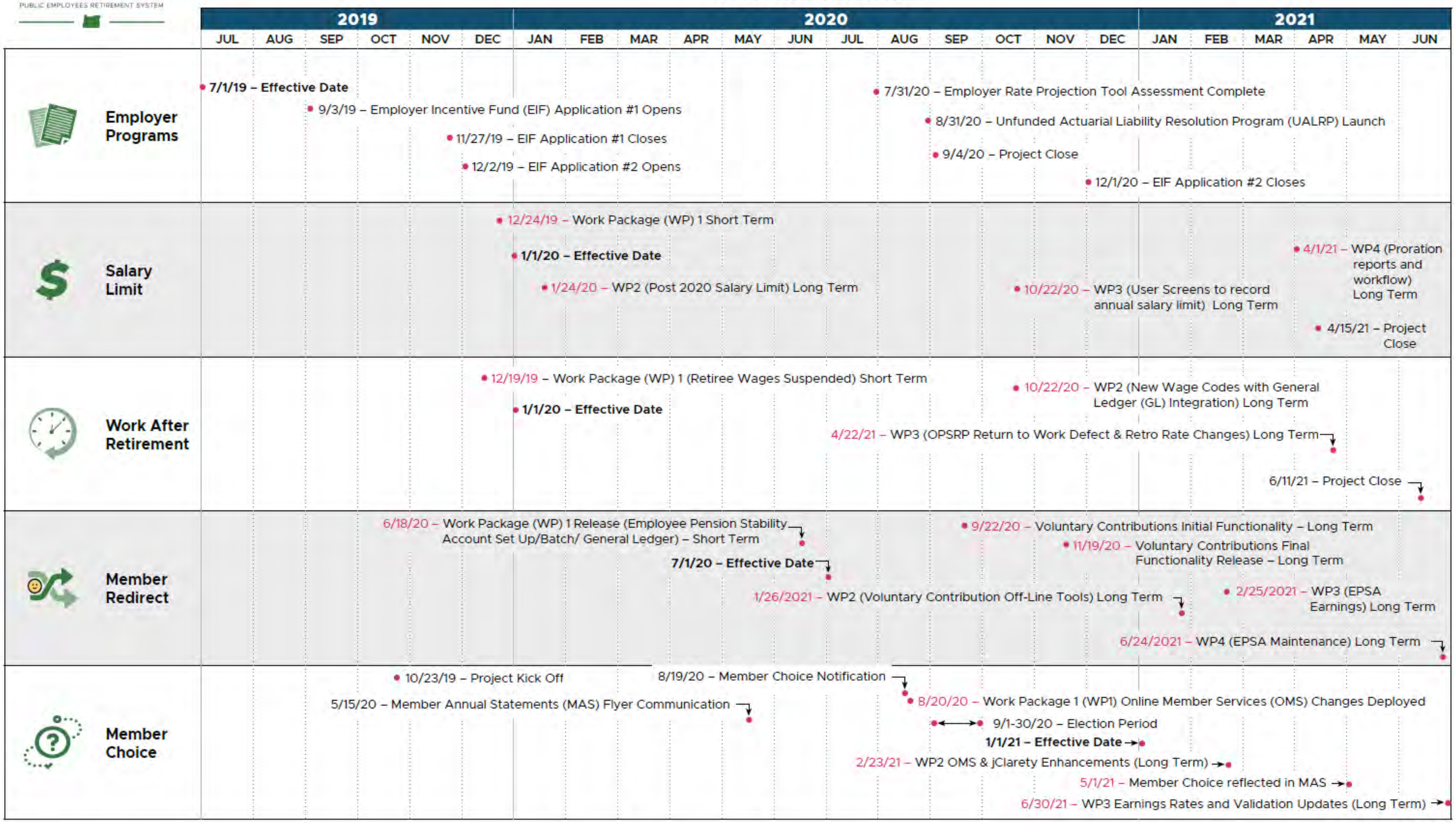
Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Program Schedule – The following Road Map has been updated to display anticipated work by biennium

Senate Bill (SB) 1049 Implementation Road Map

2019-2021 Biennium



Revised: July 17, 2020

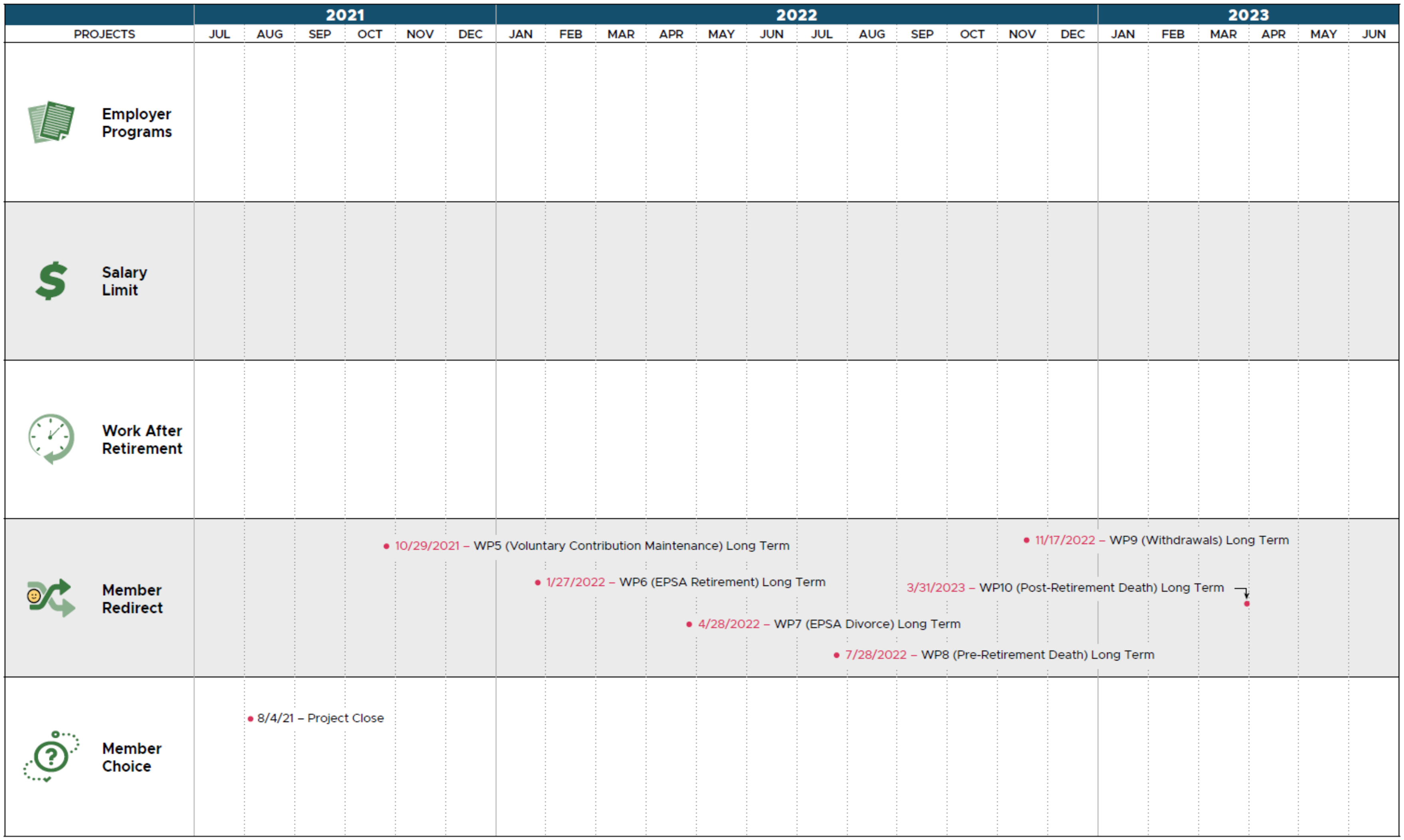
OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

2021-2023 Biennium



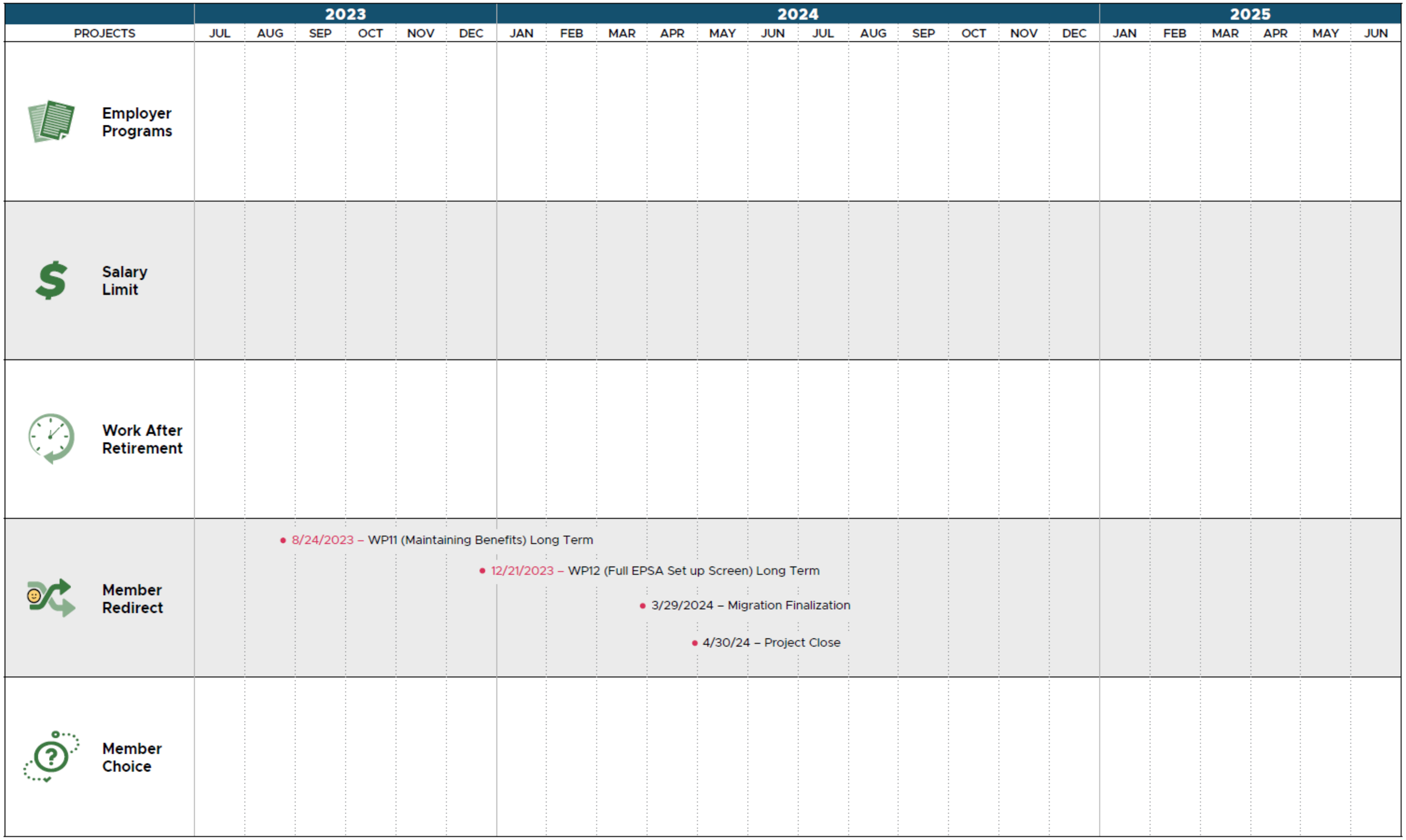
Revised: July 17, 2020

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

2023-2025 Biennium



Revised: July 16, 2020

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project information: Employer Programs

Project start: July 1, 2019 **|** **Project end:** September 4, 2020
Project Manager: Joli Whitney

Project objective:

The Employer Programs section of SB 1049 expands the requirements for the Employer Incentive Fund (EIF); and appropriates $100 million from the General Fund to the Employer Incentive Fund; directs net proceeds from Oregon Lottery Sports betting to the Employer Incentive Fund; allows participating public employers who make larger than $10 million deposits to side accounts to determine when they wish to have these funds included in their employer rate assessment; and requires all public employers to participate in the Unfunded Actuarial Liability Resolution Program (UALRP).

Overall project status: Red

Project Narrative: The project continues to be impacted by several challenges as a result of COVID-19. Travel restrictions severely delayed the Employer Rate Projection Tool (ERPT) efforts. The tool was received on July 1 and teams have begun detailed technical and operational analysis to evaluate the resource needs to integrate the tool and ensure that the tool meets business needs. This analysis will be complete on July 31. A project change request (CR) will be submitted to rebaseline the project schedule once the needs for ERPT implementation are better understood.

An employer with a large EIF match (Metro, $5.1m) has rescinded their application making more funds available for three other employers previously on the waitlist.

EIF:

EIF Application Window #1
(Employers with UAL greater than 200% of payroll only)

- Opened 9/3/2019
- 61 applications were approved
- Closed 11/27/2019

EIF Application Window #2:
(All Employers eligible to apply)

- Opened 12/2/2019
- 56 applications have been approved to date
- Application period will now close **12/1/2020**

Waitlist

- 40 employers are currently on the waitlist

Changes since COVID-19 Shut Down

- 10 Employers have rescinded their EIF application
- 3 Employers have reduced their payments
- 8 Employers have requested extensions
- 1 Employers have moved their payment date earlier than originally planned due to concerns about possible EIF cuts

SB 1049 Implementation Program

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Green

Employer Programs is currently within the budget allocated by the Legislature.

29560 SB1049 - Employer Programs Project										
Expenses	**Budget**		**Actual to Date**		**Projections**		**Total**		**Variance**	
***Personal Services - PERS**	$	463,000	$	367,736	$	90,000	$	457,736	$	5,264
General Overhead Allocation	$	245,138	$	107,052	$	135,000	$	242,052	$	3,086
Personal Services - SB1049	$	521,485	$	61,137	$	260,000	$	321,137	$	200,348
Office Expenses	$	5,000	$	77	$	4,000	$	4,077	$	923
IT Professional Services	$	1,100,000	$	15,504	$	145,000	$	160,504	$	939,496
Professional Services	$	170,752	$	-	$	-	$	-	$	170,752
IT Expendable Prop	$	10,000	$	5,883	$	4,000	$	9,883	$	117
							$	-		
SB1049 Expenses	$	2,052,375	$	270,264	$	467,389	$	737,653	$	1,314,722
Project Total	**$**	**2,515,375**	**$**	**557,389**	**$**	**638,000**	**$**	**1,195,389**	**$**	**1,319,986**
Average Monthly Spend (Burn Rate)			$	22,522	$	233,694				
*Not included in SB1049 Expenses										

Schedule Health: Red

Two key project deliverables are projected beyond the currently scheduled project end date. A project change request (CR) to re-baseline the schedule will be processed once the ERPT technical analysis is complete. The resources and schedule for the work needed to deploy the ERPT will not be fully understood until this technical analysis is complete.

Scope health: Yellow

The full scope of requirements for deploying the ERPT into PERS environment is not fully understood and the current project estimates may not accurately reflect all resources needed for implementation.

Quality Assurance activities:

- None at this time. Quality assurance activities will be built into the schedule when it is re-baselined.

Emerging concerns/needs/impacts:

- The economic impacts of the COVID-19 pandemic will have significant impact on whether employers are financially capable of making a side account deposit. This, coupled with the significant losses experienced in Oregon Public Employees Retirement Fund (OPERF) investment accounts will likely negate any reductions in UAL experienced so far.

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.
For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: Employer Programs Weekly Status Report

#	Risk Description	Mitigation and/or Contingency Plan	Notes
24	**EIF Funding Uncertainty-** unclear funding schedule and shifting legislative priorities, leave employers unwilling or unable to participate in EIF and UALRP	Upfront communication regarding funding status and any new opportunities as quickly as they become available	The proposed 8.5% cuts to general fund accounts would remove $8.5m of available matching funds to distribute to employers. This risk is still unresolved as these budget cuts have not been determined. Employers have continued to express concerns that funding will not be available by the time they are able to make their deposit.
31	**ERPT Analysis Delays**- The ERPT analysis is unable to be completed by July 31, 2020	Mitigation plan is under development. This is an emerging risk.	The team is currently developing a mitigation plan to address this emerging risk. The July 31 deadline to complete the analysis is in jeopardy.

Project Issues and Action Plans

Listed below are the most critical issues for this project.
For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: Employer Programs Weekly Status Report

No	Issue	Resolution / Notes	Estimated Resolution Date
5	**Schedule Delay or Re-Baseline Planning-** The project schedule does not have capacity for all scope needed and is delayed or requires a re-baseline.	**7/20 Update**- The estimated resolution date has been extended to include the requirements from the tool analysis in the schedule rebaseline. The decision to extend the EIF deadline from September to December has pushed this deliverable beyond the project's scheduled end date. A rebaseline is required.	8/31/2020

OREGON PERS

PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	**Percent Complete**	**Baseline Finish Date**	**Actual / Forecast Finish Date***	**Status/ Notes**
Baseline Project Schedule	100%	1/9/2020	1/10/2020	
Finalize Project Business Case	100%	1/29/2020	2/28/2020	
Evaluate Employer Rate Projection Tool (ERPT)	0%	5/6/2020	7/31/2020	This delay is the outcome of the impact of the COVID-19 restriction on travel and the need to develop alternatives to receive the tool.
Receive EIS Endorsement Memo	0%	1/31/2020	8/10/2020	This delay is related to the delay in receiving and evaluating the CalPERS tool. This may impact the critical path.
Employer Rate Projection Tool (ERPT) Complete	0%	6/30/2020	12/30/2020	COVID-19 restrictions have impacted milestone. The evaluation date has slipped beyond this finish date. New forecast finish date TBD.
Launch UALRP	0%	8/31/2020	8/31/2020	This date is in jeopardy due to COVID-19 related group restrictions and will likely impact the critical path. New forecast finish date TBD.
EIF Application Closes (Window #2)	0%	9/3/2020	12/1/2020	The PERS Board adopted a temporary OAR change on 5/29/2020 to extend the EIF application closure to 12/1/2020. This will impact the critical path.

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project information: Work After Retirement (WAR)

Project start: July 1, 2019 **|** **Project end:** June 11, 2021
Project Manager: Susan K. Mundell

Project objective:

Effective January 1, 2020, the Work After Retirement (WAR) sections of SB 1049 allow most service retirees to work unlimited hours for PERS participating employers in calendar years 2020-2024 while retaining their retirement benefit. It also requires employers to pay employer contributions on retirees' salary during that period.

Overall project status: Yellow

Project Narrative: Development continues to focus on Business Requirements Document (BRD) 2.2 which is the General Ledger (G/L) portion of Work Package 2: New Wage Codes with G/L Integration. Progression on the G/L development is iterative and is moving more slowly than expected and, as such, has moved this project to a yellow status. The complexity of the G/L structure in jClarety, the technical debt issue of inadequate G/L documentation and a lack of institutional knowledge for jClarety G/L have culminated into a concern that the project may not be ready to start Business Functional Testing on 8/17/20. The non-Technical project team continues to focus on member and employer communications to ensure that new communications are developed and previous communications are updated, as appropriate, with the SB 1049 WAR information. These communications are planned to be delivered before the October deployment. PERS Employer Service Center (ESC) is continuing preparations for the release of the new wage codes and transition of the suspended DTL2-07 records to the DTL2-17 new wage code that will invoice employers on retiree WAR wages. This preparation includes developing new processes, procedures and training plan for the work ahead.

Work Packages:

Work Package 1: Suspend DTL2-07 Retiree Wage Codes – Short-term

- Production Deployment Date: 12/19/2019 (Complete)

Work Package 2: New Wage Codes with G/L Integration – Long-term

- Production Deployment Date: 10/22/20
- Development and Unit Testing are underway and scheduled for completion by 8/14/2020
- Business Functional Testing scheduled to start 8/17/2020

Work Package 3: OPSRP Return to Work Issue and Retro Rate Change – Long-term

- Production Deployment Date: 4/22/2021
- Oregon Public Service Retirement Plan (OPSRP) Return to Work Technical Debt Defect: DTL2-07 posting adds an active status to a retiree segment that has to be manually removed.
- Retro Rate Change: Modification of SD610 Batch Job requires significant testing
- Development is scheduled to begin 10/28/2020

SB 1049 Implementation Program

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Green

29560 SB1049 - Work After Retirement (WAR) Project					
Expenses	Budget	Actual to Date	Projections	Total	Variance
*Personal Services - PERS	$ 1,214,174	$ 577,602	$ 605,000	$ 1,182,602	$ 31,572
General Overhead Allocation	$ 490,275	$ 214,104	$ 175,000	$ 389,104	$ 101,171
Personal Services - SB1049	$ 133,253	$ 123,101	$ 110,000	$ 233,101	$ (99,848)
Office Expenses	$ 2,194	$ 97	$ 500	$ 597	$ 1,597
Professional Services	$ 140,000	$ -	$ 140,000	$ 140,000	$ -
IT Professional Services	$ 931,392	$ 344,141	$ 580,000	$ 924,141	$ 7,251
IT Expendable Property	$ 10,000	$ 5,536	$ 3,000	$ 8,536	$ 1,464
SB 1049 Total Expenses	$ 1,707,114	$ 686,978	$ 1,008,500	$ 1,695,478	$ 11,636
Project Total	**$ 2,921,288**	**$ 1,264,580**	**$ 1,613,500**	**$ 2,878,080**	**$ 43,208**
Average Monthly Spend (Burn Rate)		$ 57,248	$ 84,042		
*Not included in SB1049 expenses					

Schedule Health: Yellow

The schedule was baselined on 2/25/2020. Work Package 2 activities are behind schedule and are at risk of missing the 8/17/20 Business Functional Test (BFT) start date.

Scope health: Green

The Scope for Work Package 3: OPSRP Return to Work Issue and Retro Rate Change has been finalized. This is the final work package for WAR.

Quality Assurance activities:

- Punch List Reviews & Quality Check Point (QCP) reviews that have been completed in this last month for contractual deliverables: D1.0.10 Contractor Support Log and D2.3.1 Final System Design.
- The following QA Activities are planned for next month: D1.0.11 Contractor Support Log, D3.1.1 Work Package Development Documentation, D2.4.1 Final Functional Design 2.0, & 8/17/20 start of Business Functional Testing for Work Package 2: New Wage Codes with G/L Integration.

Emerging concerns/needs/impacts:

- The WAR project has been turned yellow due to a growing concern that the project will not be ready to begin Business Functional Testing (BFT) on 8/17/20. In order to address this issue, business and technical representatives have been meeting daily, the project team has been looking at options and repercussions of extending the development cycle, and additional Subject Matter Experts (SME) have been requested from the Financial Services Division (FSD).

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.
For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: WAR Weekly Status Report

#	Risk Description	Mitigation and/or Contingency Plan	Notes
8	**Schedule Delay or Re-Baseline Planning:** The project schedule does not have capacity for all scope needed and is delayed or requires a re-baseline.	➢ Close partnership with Release Manager ➢ Additional planning and regular forward looking schedule review. ➢ Determine how each project fits within the program as a whole and how each release will affect available staff, code line and other projects.	7/17/2020: Development activities are taking longer than anticipated. Closely monitoring these activities and working with team to determine options for maintaining the deployment schedule.
79	**Poor Quality due to Rushed Processes:** The elaboration, BRD development and/or technical development are rushed to meet a deadline leading to a poor quality work product.	➢ Ensure sufficient time is allowed to complete activities to ensure a quality work product. ➢ Move out due dates as needed to promote the development of quality work products.	7/10/2020: The Technical Debt issue regarding the inadequate G/L documentation precipitated a lack of adequate details in the BRD 2.2: G/L.

Project Issues and Action Plans

Listed below are the most critical issues for this project.
For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: WAR Weekly Status Report

#	Risk Description	Mitigation and/or Contingency Plan	Notes
2	**Complexity of Effort-** The forecasted amount of work, timing, available documentation and complexity is inaccurate or assumptions made that are off base.	➢ Set additional Elaboration Meetings to outline G/L business requirements ➢ Use iterative development to reverse engineer the G/L code ➢ Ensure effective inter-team project communication	7/9/2020: G/L complexity and Iterative development for BRD 2.2 is taking longer than anticipated possibly delaying the 8/17/20 start of BFT.
54	**Technical Debt Impact to Timelines:** Technical Debt Limits Ability to Provide SB 1049 Functionality within the mandated or planned timeframes.	➢ Research alternate path for deploying the WAR Wage Codes. ➢ Update test scripts to include accounts with known technical debt related issues. ➢ Review technical debt in light of new coding to ensure that coding is not reliant on a technical debt issue. ➢ Work iteratively to develop G/L	7/9/2020: G/L documentation for jClarety is inadequate. This technical debt issue is requiring WAR developers and business teams to iteratively work on reverse engineering the G/L coding for the WAR wage codes.

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	**Percent Complete**	**Baseline Finish Date**	**Actual / Forecast Finish Date***	**Status/ Notes**
WP1 – Phase Closure Complete	100%	2/13/2020	2/13/2020	
Baselined Project Schedule	100%	2/25/2020	2/25/2020	
WP2 – Requirements Complete	100%	3/2/2020	3/2/2020	
WP2 – Development Complete	0%	8/14/2020	8/14/2020	
WP2 – Business Functional Testing (BFT) Complete	0%	9/4/2020	9/4/2020	
WP2 – Ready for User Acceptance Testing (UAT) Quality Gate	0%	09/15/2020	09/15/2020	
WP2 - User Acceptance Testing (UAT) Complete	0%	10/13/2020	10/13/2020	
WP2 – Quality Assurance Testing Complete	0%	10/21/2020	10/21/2020	
WP2 – Move to Production Quality Gate Complete	0%	10/21/2020	10/21/2020	
WP2 – Deployment Complete	0%	10/22/2020	10/22/2020	
WP3 - Requirements Complete	0%	10/27/2020	10/27/2020	
WP3 – Development Complete	0%	2/3/2021	1/27/2021	
WP3 – Business Functional Testing (BFT) Complete	0%	3/11/2021	2/26/2021	
WP3 – Ready for User Acceptance Testing (UAT) Quality Gate	0%	4/1/2021	3/19/2021	
WP3 – User Acceptance Testing Complete	0%	4/1/2021	3/29/2021	
WP3 – Quality Assurance Testing Complete	0%	4/1/2021	4/7/2021	
WP3 – Move to Production Quality Gate Complete	0%	4/16/2021	4/7/2021	
WP3 – Deployment Complete	0%	4/22/2021	4/22/2021	
WP3 – Phase Closure Complete	0%	6/4/2021	4/29/2021	
WAR Project Complete	0%	8/6/2021	6/11/2021	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

SB 1049 Implementation Program

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project information: Salary Limit

Project start: 7/01/ 2019 **|** Project end: 4/15/2021
Project Manager: Bruce Rosenblatt

Project objective:

The Salary Limit Project is necessary because SB 1049 redefined "salary," which changes the calculation method for Final Average Salary, and contributions for members with subject salary greater than $195,000. This limit is on salary for plan purposes, and is not a salary cap. The Salary Limit will be indexed annually to the Consumer Price Index, beginning on or after 1/01/2021. The redefinition impacts the data and business processes used by diverse teams at PERS, including Benefit Calculations, Member Estimates, Data Verifications, Employer Data Reporting, and Account Data Reviews and Reporting.

Overall project status: Green

Project Narrative: The 2020 Salary Limit Project is comprised of four Work Packages. Work Package 1 delivered a short-term solution in 2019, delivering new reports so PERS can manually report on impacted members and their employers for Tier 1/Tier 2, and Oregon Public Service Retirement Plan (OPSRP). Work Package 2 implemented a Data Change Request (DCR) on 1/23/2020 to post the 2020 limit. Work Package 3 provides entry screens and approval roles to record annual salary limit changes and effective dates for all plans. Work Package 4 addresses the proration processes for full and partial year activities. Work Package 4 uses the new Wages Codes that will be introduced by the Work After Retirement (WAR) project.

Work Packages:

Work Package 3: User screens to record annual salary limit, adding Tier1 to messages for Salary Limit, similar to Tier2 and Oregon Public Service Retirement Plan (OPSRP) – Long-term

- Production Deployment Date: 10/22/2020
- Continued development of entry screens and work process for recording salary limit for all plans so that Employer Service Center team can post annual salary limit, effective date, and annual Consumer Price Index (CPI) adjustments
- Created additional test scenarios, scripts, and test data to validate test batches and queries, in preparation for Business Functional Testing (BFT)

Work Package 4 – Addresses Proration work processes – Long-term

- Production Deployment Date: 4/01/2021
- Engaged Communications team for collaboration on external communications to members and employers
- Continued to resolve outstanding policy questions and began to develop process maps for business teams, which will facilitate handling of requests where members and employers are impacted by the salary limit legislation

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget Health: Green

Salary Limit Project budget projections are currently 28% lower than the budget allocated by the Legislature.

29560 SB1049 - Salary Limit					
Expenses	Budget	Actual to Date	Projections	Total	Variance
*Personal Services - PERS	$ 515,000	$ 467,251	$ 45,000	$ 512,251	$ 2,749
General Overhead Allocation	$ 245,138	$ 107,052	$ 135,000	$ 242,052	$ 3,086
Personal Services - SB1049	$ 130,947	$ 61,137	$ 69,000	$ 130,137	$ 810
Services and Supplies	$ 1,089	$ 240	$ 500	$ 740	$ 349
IT Professional Services	$ 860,000	$ 98,304	$ 678,000	$ 776,304	$ 83,696
IT Expendable Prop	$ 10,000	$ 5,536	$ 4,000	$ 9,536	$ 464
SB1049 Total Expenses	$ 1,247,174	$ 272,269	$ 886,500	$ 1,158,769	$ 88,405
Project Total	**$ 1,762,174**	**$ 739,521**	**$ 931,500**	**$ 1,671,021**	**$ 91,153**
Average Monthly Spend (Burn Rate)		$ 22,689	$ 88,650		
*Not included in SB1049 Expenses					

Schedule Health: Green

Project team developers and business analysts continue construction for Work Package 3, on schedule to complete on 8/18/2020
The Business Requirements Document (BRD) was posted on 7/13/2020 for Work Package 4, for review by technical developers and analysts

Scope health: Green

Work Package 3: The Business Requirements Document (BRD) is approved
Work Package 4: Product Owners and business subject matter experts completed the BRD and will begin Technical Review of scope this month

Quality Assurance activities:

- The Quality Check Point (QCP) was approved on 6/23/2020 for the Functional Design Specification (FDS)

Emerging concerns/needs/impacts:

- WAR Work Package 2 (WP2) is at risk to deploy on 10/22/2020, so Salary Limit may need to release independently of WAR WP2. This will require separating the code lines for a production release of Salary Limit Work Package 3, which would create a small number of additional tasks.

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.
For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: Salary Limit Weekly Status Report

#	Risk Description	Mitigation and/or Contingency Plan	Notes
71	Possible resource constraint for developer tasks when transitioning from Work Package 3 (WP3) to Work Package 4 (WP4)	Product Owners are working with Information Services Division (ISD) developers to plan the transition from construction activities (WP3) to design activities (WP4)	Technical development activities for WP4 can begin after 8/17/2020 following the start of WP3 Business Function Testing (BFT). Contingency plan includes leveraging existing reports to research exceptional cases due to salary limit proration and other low volume exceptions. This reduces the work effort of changes to the system without compromising quality service to the members and employers,
75	Salary Limit WP3 deploys to production without WAR WP2	Development teams for both projects are working in parallel, so the contingency allows for one project to delay implementation, while the other continues with production deployment	The next milestone is 8/14/2020 for Salary Limit, where a decision is required whether to merge or separate the code lines of the two projects

Project Issues and Action Plans

Listed below are the most critical issues for this project.
For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: Salary Limit Weekly Status Report

No	Issue	Resolution / Notes	Estimated Resolution Date
	No current issues		

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	**Percent Complete**	**Baseline Finish Date**	**Actual / Forecast Finish Date***	**Status/ Notes**
WP2 – Post New Salary Limit - Release to Production	100%	1/23/2020	1/23/2020	
WP3 – Requirements Complete	100%	3/13/2020	3/13/2020	
Change Request Approval (SL_01)	100%	5/15/2020	5/15/2020	
Baseline the project schedule	100%	6/17/2020	6/17/2020	
WP4 – Requirements Complete	100%	7/14/2020	7/14/2020	
WP3 – Development Complete	0%	8/14/2020	8/14/2020	
WP4 - Signoff User Stories & Acceptance Criteria Complete	0%	8/18/2020	8/18/2020	
WP3 – Business Function Testing (BFT) Complete	0%	9/04/2020	9/04/2020	
WP3 – User Acceptance Testing (UAT) Complete	0%	10/13/2020	10/13/2020	
WP3 – Deployment Complete	0%	10/22/2020	10/22/2020	
WP4 – Development Complete	0%	1/19/2021	1/19/2021	
WP4 - Business Function Testing (BFT) Complete	0%	2/09/2021	2/09/2021	
WP4 – User Acceptance Testing (UAT) Complete	0%	3/23/2021	3/23/2021	
WP4 – Deployment Complete	0%	4/01/2021	4/01/2021	
Project Complete	0%	4/15/2021	4/15/2021	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project information: Member Redirect

Project start: July 1, 2019 **| Project end:** 04/30/2024
Project Manager: Chris Yu

Project objective:

Effective July 1, 2020 this section of the bill redirects a portion of member contributions to a new Employee Pension Stability Account (EPSA) when the funded status of the plan is below 90% and the member's monthly salary is more than $2,500.

Overall project status: Red

Project Narrative: The project status is red because the current schedule goes beyond the current 2019-2021 biennium, but we do not yet have budget approved beyond the current biennium. This means that long-term work packages 5 through 12 are at risk. There is also a delay in baselining the long-term project schedule, which is currently in Quality Control Review and the Project Manager will address feedback with the project team on 7/20/2020 and have a scheduled approval for 7/21/2020. In addition, there was also a change request that was approved on 7/13/2020 to upgrade the self-service user interface, which will have its first elaboration on 7/20/2020 to determine the requirements.

Work Packages:

Work Package VC1: Voluntary Contributions Initial Functionality – Long-term

- Production Deployment Date: 9/22/2020
- Document updates are currently in progress is on track
- The Business Functional Testing (BFT) is in progressing in the BFT9 environment
- User Acceptance Testing (UAT) will begin on 8/8/2020

Work Package 2.1: Voluntary Contributions Off-line Tools SSIS – Long-term

- Production Deployment Date: 1/23/2021
- The Business Requirements Document Review is in process
- The Backlog refinement will begin on 8/3/2020

Work Package VC1: Voluntary Contributions Final Functionality - Long-Term

- Production Deployment Date: 11/19/2020
- Construction is currently in progress
- BFT will begin on 8/31/2020
- UAT will begin on 10/5/2020

Work Package 2.2 Voluntary Contribution Off-line Tools Forecaster Tool Long-Term

- Production Deployment Date: 1/23/2021
- The elaborations and collecting requirements are in progress
- The user story development will begin on 8/6/2020

Additional long-term work packages exist. See the Milestones Schedule for a complete list of work packages

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Red

Budget health has been turn red: Activities are planned beyond 2019-21 biennium, but 2021-2023 budget has not been approved.

29560 SB1049 - Member Redirect Project					
Expenses	**Budget**	**Actual to Date**	**Projections**	**Total**	**Variance**
*Personal Services - PERS	$ 670,000	$ 607,882	$ 60,000	$ 667,882	$ 2,118
General Overhead Allocation	$ 3,677,063	$ 1,605,777	$ 2,000,000	$ 3,605,777	$ 71,286
Personal Services - SB1049	$ 5,127,767	$ 918,196	$ 2,000,000	$ 2,918,196	$ 2,209,571
Office Expense	$ 426,890	$ 1,254	$ 133,958	$ 135,212	$ 291,678
IT Professional Services	$ 22,100,000	$ 4,417,275	$ 8,165,945	$ 12,583,220	$ 9,516,780
IT Expendable Property	$ 400,000	$ 88,573	$ 110,000	$ 198,573	$ 201,427
SB1049 Total Expenses	$ 31,731,720	$ 7,031,075	$ 12,409,903	$ 19,440,978	$ 12,290,742
Project Total	**$ 32,401,720**	**$ 7,638,957**	**$ 12,469,903**	**$ 20,108,860**	**$ 12,292,860**
Average Monthly Spend (Burn Rate)		$ 585,923	$ 1,034,159		
*Not included in SB1049 Expenses					

Schedule Health: Red

The Baselined Long-Term Project Schedule is past due; however, it is currently with the stakeholder for final approval. The Project Manager and Stakeholder (Business Owner) met on 7/14/20 to review team feedback and all known issues were resolved.

Scope health: Green

The project scope is understood for the next release, which is voluntary contributions. The first Business Requirements Document (BRD) for work package 2.1 (Voluntary Contributions Off-Line Tools SSIS) was completed on 7/13/2020 and the other BRD for work package 2.2 (Disbursement Forecaster Tool) is also on track and will be due on 8/24/2020

Quality Assurance activities:

- The long-term project schedule is in final Quality Check Point (QCP) review, due 7/20/2020
- Quality Assurance Prep & Validation for Work Package 2.1 (Voluntary Contributions Off-Line Tools) will begin on 8/10/2020

Emerging concerns/needs/impacts:

- Member Redirect long-term work extends beyond the current 2019-2021 biennium, but we do not yet have budget approved beyond the current biennium. Activities are underway with Deloitte to perform a detailed assessment to validate the effort estimates, schedule and resources for the long-term schedule.

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.
For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: Member Redirect Weekly Status Report

#	Risk Description	Mitigation and/or Contingency Plan	Notes
15	**External Technology Risk:** The project solution with Voya and employers is out of PERS' control, which means the user experience will not have PERS standard testing.	Collaborate with external stakeholders, communicate with external stakeholders as early as possible, modify PERS processes if required	Voya will be adding voluntary contributions after the tax source by October 2020. Code Freeze and review September 1 to September 10, 2020
37	**Complexity of Effort:** The forecasted amount of work, timing, and complexity is inaccurate or assumptions made that are off base.	Define Iterative and Incremental Solution necessary to achieve the legislative mandate. The long-term schedule is currently in Quality Control Gate.	Once the long-term schedule is baselined, the next steps will be to obtain Stage Gate 3 approval and continue with long-term planning activities

Project Issues and Action Plans

Listed below are the most critical issues for this project.
For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: Member Redirect Weekly Status Report

No	Issue	Resolution / Notes	Estimated Resolution Date
3	**Lack of Budget for 2021-2023 Biennium:** There is currently no approved budget beyond the 2019-2021 biennium	There was a meeting to discuss this issue on 7/15/2020 and analysis will be provided to leadership.	The project manager and Deloitte resources will collaborate to identify the requirements for the next biennium after the long-term schedule is baselined.
5	**Long-term project schedule:** This was not baselined on 6/29/2020 and the work packages won't be finished by the end of 2023.	The project schedule is currently with the Business Owner for Final approval	The Project Manager will review all call outs by reviewers on 7/20/2020 and will have a tentative approval date of 7/21/2020

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	**Percent Complete**	**Baseline Finish Date**	**Actual / Forecast Finish Date***	**Status/ Notes**
WPVC – Release 1 – (Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) – Construction Complete	0%	6/30/2020	6/30/2020	
WPVC – Release 1- (Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) – BFT Complete	0%	8/7/2020	8/7/2020	
WPVC – Release 1 - Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) – UAT Complete	0%	9/11/2020	9/11/2020	
WPVC – Release 1 –(Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) – Deployment complete	0%	9/22/2020	9/22/2020	
WPVC – Release 2 (Full Functionality)	0%	11/19/2020	11/19/2020	
WP2 – Voluntary Contribution Off-Line Tools	0%	1/23/2021	1/23/2021	
WP3 – EPSA Earnings	0%	2/25/2021	2/25/2021	
WP4 - ESPA Maintenance	0%	6/24/2021	6/24/2021	
WP5 - Voluntary Contribution maintenance	0%	10/29/2021	10/29/2021	
WP6 – EPSA Retirement	0%	1/27/2022	1/27/2022	
WP7 – EPSA Divorce	0%	4/28/2022	4/28/2022	
WP8 - Pre-Retirement Death	0%	7/28/2022	7/28/2022	
WP9 - Withdrawals	0%	11/17/2022	11/17/2022	
WP10 – Post-Retirement Death	0%	3/31/2023	3/31/2023	

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Milestones Schedule				
Milestone	**Percent Complete**	**Baseline Finish Date**	**Actual / Forecast Finish Date***	**Status/ Notes**
WP11 - Maintaining Benefits	0%	8/24/2023	8/24/2023	
WP12 - Full EPSA Set up screen	0%	12/21/2023	12/21/2023	
Migration Finalization	0%	3/29/2024	3/29/2024	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project information: Member Choice

Project start: October 23, 2019 **| Project end:** August 4, 2021
Project Manager: Joli Whitney

Project objective:

The Member Choice sections of SB 1049 give members a say in how their Individual Account Program (IAP) accounts will be invested. Members' regular IAP accounts are currently allocated to Target-Date Funds (TDF) based on their year of birth. Beginning with calendar year 2021, members will be able to elect a TDF other than the default TDF.

Overall project status: Green

Project Narrative: Work Package 1.1 (WP1.1) is progressing on schedule for an August 20 production release. WP1.1 will deliver functionality to provide members with the ability to log in to Online Member Services (OMS) on September 1 to make their optional TDF election. Business functional testing (BFT) is progressing on schedule and user acceptance testing (UAT) is expected to begin on July 28.

The entire project schedule was baselined on July 7.

Treasury has provided a draft copy of the "Understanding IAP Target-Date Funds and Member Choice" document which provides substantial information regarding investment risk for members. This document will be made available on the Treasury website in time for PERS communication with members regarding the September 1 opportunity to make their target date fund investment choice in OMS.

Short-term Solutions (to meet 1/1/21 Member Choice effective date)
WP1: Member Election – Short-term
WP1.1 Online Election
- Production Deployment Date: 8/20/2020
- OMS Election Ability
- jClarety User Interface

Other Elements of WP1
- Voya's updates to website and nightly sweep program
- PERS paper form election process including workflow
- Development of new reports (to Voya and internal)

WP2- Refining TDF Processes – Long-term
- Production Deployment Date: 2/23/2021
- WP1.1 Backlog
- TDF Daily File Validator Tool

WP3- Earnings Rates and Validations Updates in jClarety – Long-term
- Production Deployment Date: 6/30/21
- Add IAP Earnings Rate table to jClarety
- DOB validation updates for jClarety employer reporting

SB 1049 Implementation Program

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Green

Member Choice Project is currently within the budget allocated by the Legislature.

29560 SB1049 - Member Choice Project Budget					
Expenses	**Budget**	**Actual to Date**	**Projections**	**Total**	**Variance**
*Personal Services - PERS	$ 410,000	$ 372,725	$ 35,000	$ 407,725	$ 2,275
General Overhead Allocation	$ 245,138	$ 107,052	$ 135,000	$ 242,052	$ 3,086
Personal Services - SB1049	$ 569,354	$ 61,137	$ 480,000	$ 541,137	$ 28,217
Office Expenses	$ 500	$ 114	$ 250	$ 364	$ 136
IT Professional Services	$ 1,500,000	$ 285,101	$ 405,000	$ 690,101	$ 809,899
IT Expendable Prop	$ 6,340	$ 5,536	$ 500	$ 6,036	$ 304
SB1049 Total Expenses	$ 2,321,332	$ 458,940	$ 1,020,750	$ 1,479,690	$ 841,642
Project Total	**$ 2,731,332**	**$ 831,665**	**$ 1,055,750**	**$ 1,887,415**	**$ 843,917**
Average Monthly Spend (Burn Rate)		$ 38,245	$ 85,063		
*Not included in SB1049 Expenses					

Schedule Health: Green

The schedule was baselined on 7/7/2020 and tasks are proceeding as planned. Activities are underway with Deloitte to perform a detailed assessment to validate the estimates and resources for the schedule.

Scope health: Green

The project scope is well understood

Quality Assurance activities:

- Quality Check Point (QCP) of the project schedule was approved on 7/2/2020
- A QCP of the Draft QAT Plan D3.1.1 was approved on 7/13/2020
- A QCP of Functional Design Specification (FDS) D2.4.1 is scheduled to begin on 7/15/2020
- A QCP of the Final QAT Test Plan D3.2.1 is scheduled to begin on 7/15/220

Emerging concerns/needs/impacts:

- No emerging concerns

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.
For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: Member Choice Weekly Status Report

#	Risk Description	Mitigation and/or Contingency Plan	Notes
17	**Competing SB 1049 Resources**: Critical resources are involved in multiple concurrent SB 1049 projects, limiting availability for individual projects	Careful coordinated schedule planning with Program Manager and Member Redirect Project Manager; affected staff are setting priorities and working overtime if needed. Business Owner or Program Business Owner may reassign other staff to help cover absences or help offset extreme workload periods. Deloitte is working with PERS to build an effort-based resource-loaded schedule to validate project assignments across all projects in the program	Shared resources across the SB 1049 Program continue to be a challenge. Schedule assessment from Deloitte should help identify resource contention and proactive planning of activities
37	**Code Merge During UAT in WP1-** A code merge will take place during planned UAT which may require additional regression testing and possibly impact production deployment	The mitigation for this risk is currently under evaluation with the release manager to explore other schedule options to minimize impact to the WP1 production release	Possible solutions discussed are doing an early code merge in the UAT environment; requesting overtime for the team to test on the weekend following merge; extending the UAT period or deploying the following week

Project Issues and Action Plans

Listed below are the most critical issues for this project.
For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: Member Choice Weekly Status Report

No	Issue	Resolution / Notes	Estimated Resolution Date
	No current issues		

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

SB 1049 Implementation Program

Status Report for July 17, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	**Percent Complete**	**Baseline Finish Date**	**Actual / Forecast Finish Date***	**Status/ Notes**
Baseline Project Schedule	100%	7/7/2020	7/7/2020	
WP1.1 Development Complete	100%	6/26/2020	6/26/2020	
WP1.1 Business Functional Testing Complete	50%	7/17/2020	7/17/2020	
WP1.1 User Acceptance Testing Complete	0%	8/14/2020	8/14/2020	
WP1.1 Deployment Complete	0%	8/20/2020	8/20/2020	
Member Choice Election Period Opens	0%	9/1/2020	9/1/2020	
Member Choice TDFs Effective (Legislative deadline)	0%	1/1/2021	1/1/2021	
WP2.1 Requirements Complete	0%	7/24/2020	7/24/2020	
WP2.1 Development Complete	0%	1/5/2021	1/5/2021	
WP2.1 Business Functional Testing Complete	0%	1/26/2021	1/26/2021	
WP2.1 User Acceptance Testing Complete	0%	2/4/2021	2/4/2021	
WP2.1 Deployment Complete	0%	2/23/21	2/23/21	
WP3 Requirements Complete	0%	1/21/2021	1/21/2021	
WP3 Development Complete	0%	5/4/2021	5/4/2021	
WP3 Business Functional Testing Complete	0%	5/24/2021	5/24/2021	
WP3 User Acceptance Testing Complete	0%	6/23/2021	6/23/2021	
WP3 Deployment Complete	0%	6/30/21	6/30/21	
Project Close	0%	8/4/21	8/4/21	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Senate Bill (SB) 1049 Implementation Road Map

2019-2021 Biennium

2019						2020												2021					
JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

Employer Programs

- **7/1/19 – Effective Date**
- 9/3/19 – Employer Incentive Fund (EIF) Application #1 Opens
- 11/27/19 – EIF Application #1 Closes
- 12/2/19 – EIF Application #2 Opens
- 7/31/20 – Employer Rate Projection Tool Assessment Complete
- 8/31/20 – Unfunded Actuarial Liability Resolution Program (UALRP) Launch
- 9/4/20 – Project Close
- 12/1/20 – EIF Application #2 Closes

Salary Limit

- 12/24/19 – Work Package (WP) 1 Short Term
- **1/1/20 – Effective Date**
- 1/24/20 – WP2 (Post 2020 Salary Limit) Long Term
- 10/22/20 – WP3 (User Screens to record annual salary limit) Long Term
- 4/1/21 – WP4 (Proration reports and workflow) Long Term
- 4/15/21 – Project Close

Work After Retirement

- 12/19/19 – Work Package (WP) 1 (Retiree Wages Suspended) Short Term
- **1/1/20 – Effective Date**
- 10/22/20 – WP2 (New Wage Codes with General Ledger (GL) Integration) Long Term
- 4/22/21 – WP3 (OPSRP Return to Work Defect & Retro Rate Changes) Long Term
- 6/11/21 – Project Close

7/17/20

Member Redirect

- 6/18/20 – Work Package (WP) 1 Release (Employee Pension Stability Account Set Up/Batch/ General Ledger) – Short Term
- **7/1/20 – Effective Date**
- 9/22/20 – Voluntary Contributions Initial Functionality – Long Term
- 11/19/20 – Voluntary Contributions Final Functionality Release – Long Term
- 1/26/2021 – WP2 (Voluntary Contribution Off-Line Tools) Long Term
- 2/25/2021 – WP3 (EPSA Earnings) Long Term
- 6/24/2021 – WP4 (EPSA Maintenance) Long Term

Member Choice

- 10/23/19 – Project Kick Off
- 5/15/20 – Member Annual Statements (MAS) Flyer Communication
- 8/19/20 – Member Choice Notification
- 8/20/20 – Work Package 1 (WP1) Online Member Services (OMS) Changes Deployed
- 9/1-30/20 – Election Period
- **1/1/21 – Effective Date**
- 2/23/21 – WP2 OMS & jClarety Enhancements (Long Term)
- 5/1/21 – Member Choice reflected in MAS
- 6/30/21 – WP3 Earnings Rates and Validation Updates (Long Term)

Revised: July 17, 2020

2021-2023 Biennium

PROJECTS	2021 (JUL–DEC) / 2022 (JAN–DEC) / 2023 (JAN–JUN)
Employer Programs	
Salary Limit	
Work After Retirement	
Member Redirect	10/29/2021 – WP5 (Voluntary Contribution Maintenance) Long Term 1/27/2022 – WP6 (EPSA Retirement) Long Term 4/28/2022 – WP7 (EPSA Divorce) Long Term 7/28/2022 – WP8 (Pre-Retirement Death) Long Term 11/17/2022 – WP9 (Withdrawals) Long Term 3/31/2023 – WP10 (Post-Retirement Death) Long Term
Member Choice	8/4/21 – Project Close

Revised: July 17, 2020

2023-2025 Biennium

	2023						2024												2025					
PROJECTS	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Employer Programs																								
Salary Limit																								
Work After Retirement																								
Member Redirect		8/24/2023 – WP11 (Maintaining Benefits) Long Term				12/21/2023 – WP12 (Full EPSA Set up Screen) Long Term			3/29/2024 – Migration Finalization	4/30/24 – Project Close														
Member Choice																								

Revised: July 17, 2020

Oregon

Kate Brown, Governor

Public Employees Retirement System
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July 31, 2020

TO: Members of the PERS Board

FROM: Richard Horsford, Chief Financial Officer
Gregory R. Gabriel, Budget Officer

SUBJECT: 2021-23 Agency Request Budget (ARB) Policy Packages

OVERVIEW

- Action: Approve PERS' 2021-23 Policy Package Requests
- Reason: Review and approval needed by the Department of Administrative Services/Chief Financial Office and the Legislative Fiscal Office.

The 2021-23 State Agency Budget development continues to progress, within the context of the uncertain times ahead. The state revenue forecasts will certainly provide more direction on 2021-23 budgets, with anticipated reductions state-wide. Agencies continue to receive updated guidance regarding budget preparation as the effects of the COVID-19 pandemic unfold for the state.

BUDGET DEVELOPMENT ACTIVITIES

The Agency Request Budget (ARB), one of three phases of budget development for the 2021-23 biennium, will be in process until July 31. During this first phase, the agency carefully evaluates its operations and puts forth policy package requests in an effort to improve efficiency and increase value to its members. The agency is submitting the following policy package requests for approval for the 21-23 budget cycle:

Division	Perm Staff	Limited Staff	Position Re/class	Personnel Costs	Supplies/ Capital	Total
Central Admin	1			147,024	831,288	978,312
FSD		1		174,319	6,500	180,819
ISD	1		1	286,464	9,811,500	10,097,964
OD	4	3		923,064	92,500	1,015,564
CARD	1			198,025	1,656,500	1,854,525
SB 1049		1		110,163	11,501	121,164
Agency Request Total	**7**	**5**	**1**	**$1,839,059**	**$12,409,789**	**$14,248,848**
Proposed SB 1049		*34*		*5,856,673*	*16,398,300*	*22,254,973*
Total	**7**	**39**	**1**	**$7,695,732**	**28,808,089**	**36,503,821**

Summary information on each policy package is below:

Policy Package 101 - Senate Bill 1049: 35 Positions | $22,376,637

This business case supports the request for funding necessary to continue development of the Member Redirect component of the SB 1049 legislation. In addition, PERS is requesting contingency funds in the event of unanticipated delays to any remaining components of the SB 1049 program. Failure to complete the Member Redirect project or any other SB 1049 related project will result in substantial manual processes both within the PERS system and between the agency and the state employers. ******The timing of the ARB audit and the business case information did not allow for the full proposal to be included in the Agency Request Budget. $121,164 is for one position related to procurement activities.*

Policy Package 102 - Modernization: 0 Positions | $9,800,000

This business case is a proposal to initiate and conduct envisioning, architecture, and planning activities for ORION Modernization.

Policy Package 103 - Information Security and Continuity Program: 1 Position | $1,274,931

PERS was granted $638,291 in Other Funds expenditure limitation during the 2019-2021 legislative session as initial funding for operating its information security and continuity management programs. The agency was directed to return during the 2021-2023 legislative session to request permanent funding for its two programs. A position is being requested to decrease contractor spending, and have the current disaster recovery (DR) solution supported, maintained, and matured. The primary responsibilities will be maintaining the backup data center, disaster recovery plan, backups, and be the primary contact for DR related administration.

Policy Package 104 – Senior Systems Administration: 1 Position | $17,033

Upward reclassification of one Information Systems Specialist (ISS) 5 position to an ISS 8 classification to meet the growing workload and complexity within the IT systems administration.

Policy Package 105 - Enterprise Risk Management Program: 1 Position | $860,525

This proposal is intended to enhance the capabilities of the agency by implementing an Enterprise Risk Management program, which ties together strategy and business plans using risk management methodologies as one of the key decision-making criteria.

Policy Package 106 – Specialty Qualifications Staffing: 2 Positions | $278,924

This request will more effectively address the complex workload created by an increasing number of deaths and benefits payable from multiple plans.

Policy Package 107 - Qualifying/Non-Qualifying Data Backlog: 3 Positions | $436,606

This is a request for limited duration staff and budgetary support within the Data Services Section to secure assistance with addressing the growing agency backlog of member data issues known as the Qualifying/Non-Qualifying (Q/NQ) population.

Policy Package 108 - Communications Enterprise Support: 1 Position | $275,324

This improvement package would allow the Communications Section to improve its support of agency operations and needs, making the section personnel more skilled and processes more efficient, while enabling the teams to produce a higher caliber of deliverables.

Policy Package 109 - Strunk and Eugene Recovery: 1 Position | $180,819

This request is for the continuation of a limited duration position, which will continue to manage a long-term overpayment collection program related to the Strunk & Eugene court cases.

Policy Package 110 - Education Team Enhancement: 2 Positions | $300,034

The purpose of this request is to increase the service offerings of Member Services' Education Team and increase customer satisfaction ratings.

Policy Package 112- SB1067 Deferred Maintenance: 0 Positions | $702,988

In keeping with Senate Bill 1067 (2017) to optimize the service-life of state-owned facilities, and in support of the Governor's fulfillment of the requirement in Section 9 of the Bill, this proposal addresses deferred maintenance and repair needs, to ensure that the PERS building continues to provide an appropriate environment for PERS staff, members, and retirees.

2021-23 AGENCY REQUEST BUDGET (ARB)

	2021-23 Current Service Level	POP 101 SB1049	POP 102 Modernization	POP 103 Info Security	POP 104 SSA Re/class	POP 105 ERM
Personal Services	**86,404,352**	110,163	0	269,431	17,033	198,025
Serv/Supplies	**36,757,803**	11,501	9,800,000	1,005,500	0	662,500
Capital Outlay	**668,908**	0	0	0	0	0
Total	**123,831,063**	121,664	9,800,000	1,274,931	17,033	860,525
Positions	**379**	1	0	1	0	1
FTE	**379.00**	.88	0.00	.88	0	.88

2021-23 AGENCY REQUEST BUDGET (ARB) Continued

	POP 106 SQ	POP 107 Q/NQ	POP 108 Comm.	POP 109 S/E	POP 110 Ed. Team	POP 112 Def. Maint.	**2021-23 Agency Request Budget**
Personal Services	255,924	402,106	147,024	174,319	265,034	0	**88,243,411**
Serv/Supplies	23,000	34,500	73,300	6,500	35,000	702,998	**49,112,592**
Capital Outlay	0	0	55,000	0	0	0	**723,908**
Total	278,924	436,606	275,324	180,819	300,034	702,998	**138,079,911**
Positions	2	3	1	1	2	0	**391**
FTE	1.76	2.64	.88	1.00	1.76	0	**389.68**

PERS BUDGET METRICS AND COMPARISONS

One way to view the "cost" of PERS administration is to compare the agency's annual operating budget to the net asset value of the PERS Fund. The following table shows the biennial budget as an annualized percentage of the Fund's value at the end of each biennium. Note that our annual operating budget has generally ranged from 6 to 9 basis points using that industry standard measurement approach.

Biennium	Legislatively Approved Limited Budget	Fiscal Year Ended June 30th	Limited Budget	PERF Balance		% Operating
2013-2015	$88,153,980	2014	44,076,990	73,728,185,070		0.0598%
		2015	44,076,990	73,865,147,024		0.0597%
2015-2017	$108,240,199	2016	54,120,100	71,331,639,411		0.0759%
		2017	54,120,100	77,044,798,841		0.0702%
2017-2019	$101,657,012	2018	50,828,506	81,098,072,149		0.0627%
		2019	50,828,506	81,451,520,000		0.0624%
2019-2021	$163,256,648	2020	81,628,324	76,883,000,000	E	0.1061%
		2021	81,628,324	82,074,000,000	E	0.0994%
	ARB					
2021-2023	$138,079,911	2022	69,039,955	86,177,000,000	E	0.0801%
		2023	69,039,955	86,177,000,000	E	0.0801%

BOARD OPTIONS

PERS is required to submit the 2021-23 Agency Request Budget to the Department of Administrative Services/ Chief Financial Office. This submission will form the basis for the Governor's Recommended Budget to be developed prior to the 2021 Legislative Session.

The Board may:

1. Pass a motion to "approve the 2021-23 Agency Request Budget as presented for submission to the Department of Administrative Services/ Chief Financial Office."

2. Direct staff to further refine the budget request in specific areas before submission to DAS.

STAFF RECOMMENDATION

Staff recommends the Board choose Option #1.

UPDATE ON RATE COLLARING POLICY

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Presented by:

Matt Larrabee, FSA, EA
Scott Preppernau, FSA, EA

JULY 31, 2020

Introduction

- Rate collaring was among methods and assumptions Board adopted in October 2019 to be used in calculating 2021-2023 contribution rates
  - The collar affects the timing of when OPERF asset gains and losses, along with the effect of assumption changes, are reflected in employer contribution rates
  - Given recent market turbulence it is important to continue to assess how the rate collar design operates
- At the March 2020 meeting, we presented an overview of current rate collaring policy
- At the May 2020 meeting, we summarized the pros and cons of input smoothing and output smoothing approaches to contribution rate calculations
- Today, we seek Board feedback on policies we intend to analyze in the annual financial modeling exercise scheduled for the December meeting

Our Understanding - Focus of Upcoming Analysis

- Our analysis will focus on output smoothing approaches
  - The current rate collar structure is one example of an output smoothing approach
  - While input smoothing approaches are used by many other systems, they are less robust and less transparent than output smoothing approaches
  - Our impression of Board feedback in May was a preference for considering refinements to the output smoothing approach, rather than continuing to compare input and output smoothing
- Many changes have occurred since the rate collar was originally developed in 2005, and the analysis should be contemplative of those changes
- Possible output smoothing approaches we may analyze for comparison to the current structure include:
  - Elimination or modification of the “double collar” component
  - Determining the collar level as a different percentage of current rate
  - Having the collar defined as a fixed percent of payroll, rather than as a percentage of the current rate, at least for the large experience-sharing pools

Our Understanding - Focus of Upcoming Analysis

- Analysis will be presented as part of the annual financial modeling work, scheduled for the December Board meeting
  - Most analysis will use the stochastic variable return model, which can assess the trade-offs between differing policy approaches
  - The December work will inform the Board ahead of the review and adoption of methods in 2021 that will set 2023-2025 contribution rates

MERCER

Human Resource Consulting

May 20, 2005

Oregon PERS

First Steps in Managing Employer Rates: Actuarial Methods

Bill Hallmark, Marcia Chapman

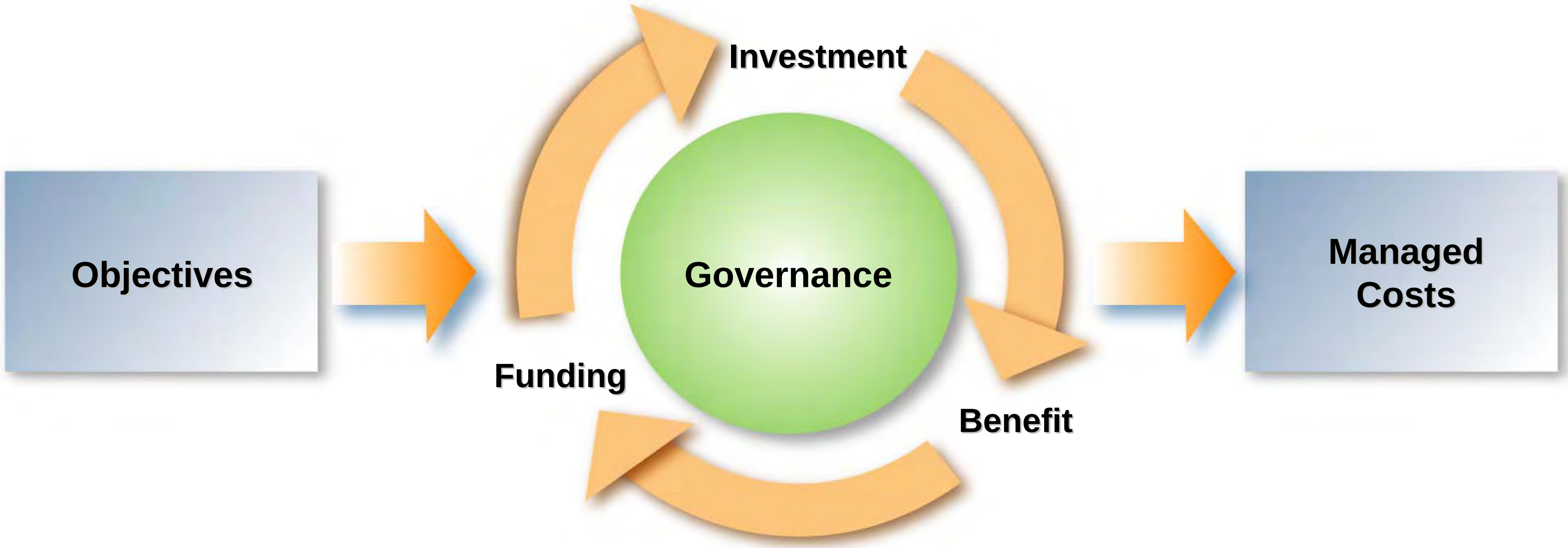
Portland, Oregon

MMC Marsh & McLennan Companies

Agenda

- Background
  - Current environment
  - Current methods
- Proposed methods for consideration
- What other systems are doing
- Next Steps

Retirement Plan Financial Management Framework



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Background
Current Environment

Benefit

- OPSRP and IAP established for members hired after August 29, 2003
- Member contributions diverted from Tier One/Two to the IAP starting in 2004
- Reform curtailed growth in Money Match benefits
- Strunk Ruling provides 8% per year earnings guarantee to Tier 1 member accounts
- Employers can incur additional cost due to pick up of member contributions
- Actuarial methods do not impact benefits paid

Funding

- Actual savings due to reform lower than expected due to investment experience and the Strunk Ruling
- Post-reform normal cost higher due to redirection of member contributions
- Employer contribution rates high
- Concerns around volatility of rates
- 7/1/05 employer rates phased in to mitigate higher than expected increases
- Board would like to evaluate options to mitigate volatility in employer contribution rates

Investment

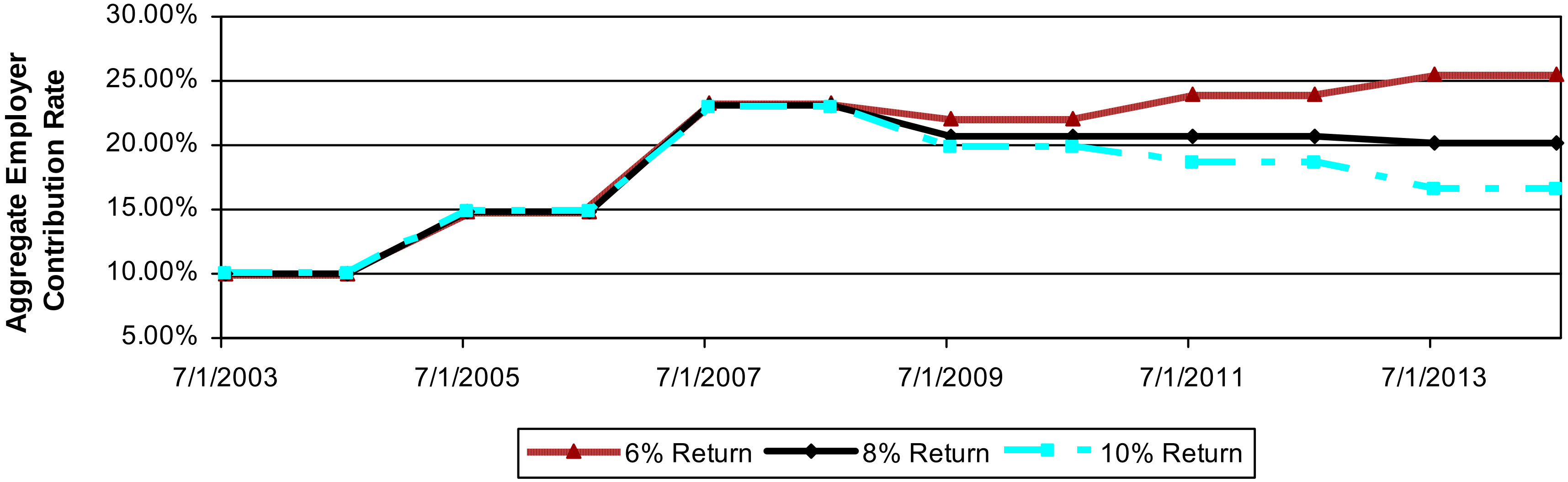
- Investment earnings affect assets available to pay benefits
- Lack of clarity around how earnings impact employer contribution rates
- Investment earnings impact Tier Two Money Match benefits through interest crediting
- In the near-term, higher investment returns do not significantly reduce employer rates
- In the long-term, investment returns significantly impact employer rates

Context
High Earnings Won't Significantly Reduce Rates Immediately

		2005 Earnings		
		0%	8%	16%
Payroll Increase	**0%**	27.2%	26.3%	25.6%
	4%	26.6%	25.8%	25.1%

- The rates shown above do not include the 6% IAP contribution or the effect of employer side funds.
- Using reserves reduces these rates by about 2.1%.
- The actual contribution rates effective July 1, 2007 will depend on a number of factors, including changes in methods and assumptions Mercer recommends.
- Two critical factors are investment earnings during 2005 and the total payroll increase of the employer. The investment earnings affect the assets available to pay benefits, and the change in payroll determines how the amortization of the unfunded is spread as a percentage of employee salaries and also influences the liability for active members.
- Asset smoothing and amortization methods spread the impact of changes in payroll and investment earnings over a long period.

Context
Earnings Make a Significant Difference Long-Term
(Using Non-Valuation Reserves)



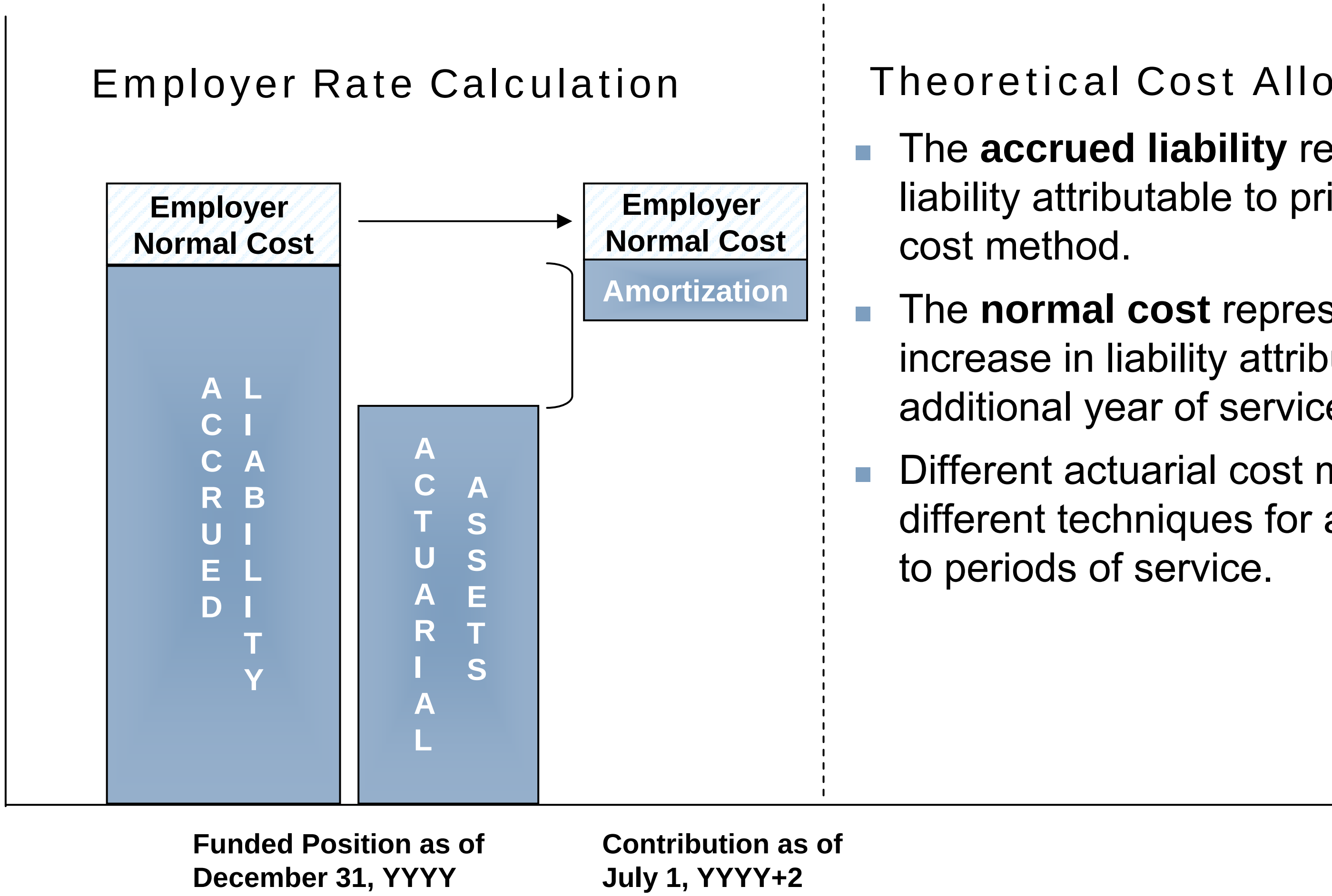
- The rates shown above do not include the 6% IAP contribution or the effect of employer side funds.
- As part of the 2003 earnings crediting decision, the Board set aside approximately $1.2 billion in the contingency and capital preservation reserves. Staff has recommended the Board set aside an additional $600 million in these reserves out of 2004 earnings. This chart shows the expected contribution rates in the future, using $1.8 billion of non-valuation reserves as of December 31, 2004.
- The funded status of the System is expected to decline from 86% (without side accounts) on December 31, 2003 to about 79% on December 31, 2005. The funded status of the System is expected to decline from 96% (with side accounts) on December 31, 2003 to about 91% on December 31, 2005.
- Over the long run, investment earnings will make a significant difference in contribution rates.

Background
Overview of Measures to Control Contribution Volatility

- Short-Term Measures
  - Use of the Contingency and Capital Preservation Reserves
  - Formal policy on interest crediting
- Intermediate-Term Measures
  - Review use of Entry Age Normal funding method
  - Review alternative methods to smooth contribution rates
  - Review other actuarial methods and assumptions
- Long-Term Measures
  - Financial modeling of reserving policies
  - Asset-liability study to assess the risk-return benefits of different asset allocations

Background
Basic Theory of Employer Contributions

Employer Rate Calculation



Theoretical Cost Allocation

- The **accrued liability** represents the liability attributable to prior service by the cost method.
- The **normal cost** represents the increase in liability attributable to an additional year of service.
- Different actuarial cost methods use different techniques for allocating costs to periods of service.

Background
Current Actuarial Methods

	Liability	Assets
Method	▪ Entry Age Normal (EAN) ▪ Spreads cost of annual benefits as a level percentage of pay over the working life of each individual member ▪ Effective for final average formula benefits like Full Formula ▪ Present value of current and future benefits (PVB) = Accrued liability (AL) + Present value of future normal costs (PVNC)	▪ Smoothing method adopted in 2000 to control the volatility of employer rates ▪ Smoothes investment gains and losses over four years ▪ Smoothed value within 10% of fair value ▪ Most public entities use some type of asset smoothing method
Issues	▪ Allocates normal cost for Money Match benefit even after redirection to IAP ▪ Higher NC implies lower AL as PVB stays the same ▪ For the Money Match benefit, the accrued liability is lower than the present value of benefits accrued to date (PVAB)	▪ Current funded status is less transparent due to smoothing ▪ Does not smooth impact of earnings on liabilities ▪ Mismatch between assets and liabilities for Tier One and Tier Two (post-Strunk impact minimal)

Methods for Consideration
Objectives for Actuarial Methods

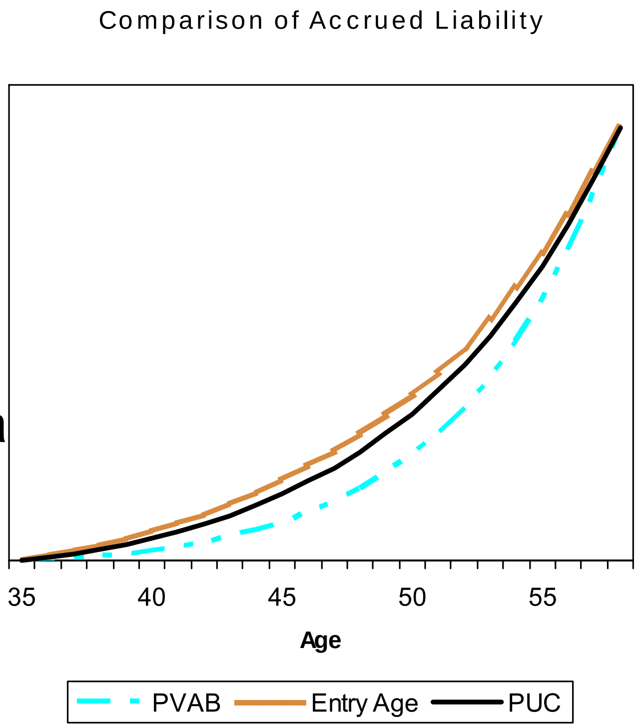
- Transparent
- Predictable and stable
- Actuarially sound
- Equitable across generations
- GASB compliant

Methods for Consideration
Actuarial Liability Methods

	Entry Age Normal (EAN)	Projected Unit Credit (PUC)
Normal Cost	▪ Spreads cost of annual benefits as a level percentage of pay over the working life of each individual member	▪ Calculated for each individual member as cost of additional year of service based on projected pay
Accrued Liability	▪ Accumulated value of prior normal costs	▪ Based on all prior service and projected pay
Impact	▪ Higher normal cost and lower AL	▪ Lower normal cost and higher AL
Pros	▪ Most common method used by public entities ▪ Stable normal cost as a percentage of payroll ▪ GASB compliant	▪ Accrued liability does not lag behind the value of benefits accrued to date ▪ Normal cost accurately reflects the value of benefits earned for additional service ▪ GASB compliant
Cons	▪ May overstate normal cost when Money Match benefit is more valuable ▪ When member terminates, there is an increase in liability.	▪ Relatively uncommon for public entities ▪ Normal cost for the closed group of Tier One and Tier Two employees will increase as the group gets older ▪ 22-year amortization of higher UAL shifts Tier One costs to future generations

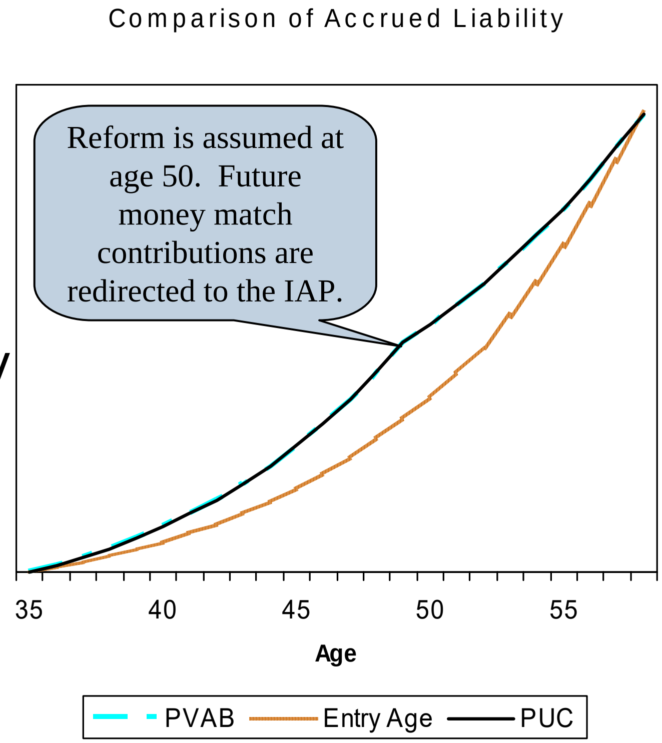
Methods for Consideration
Full Formula and Money Match Benefit Liabilities

Full Formula



- Present value of accrued benefits to date—PVAB—(based on current service and pay) increases rapidly as member approaches retirement
- Actuarial methods allocate these costs evenly across an employee's career

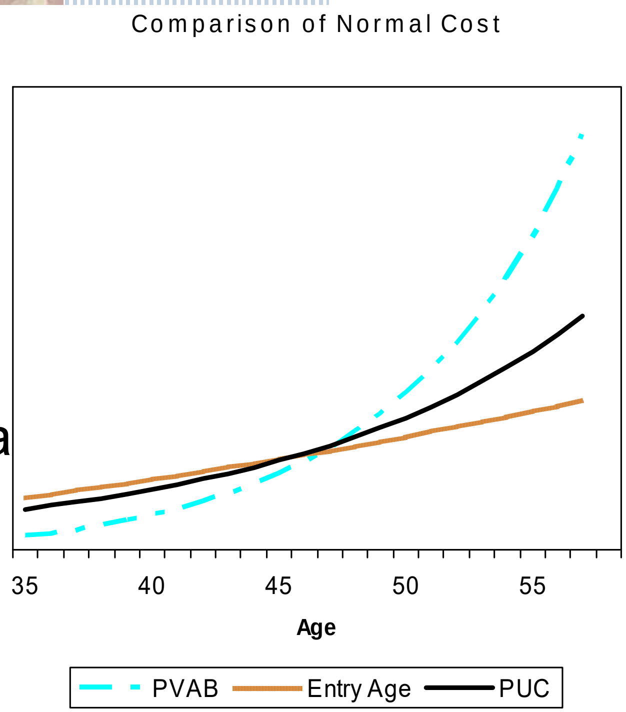
Money Match



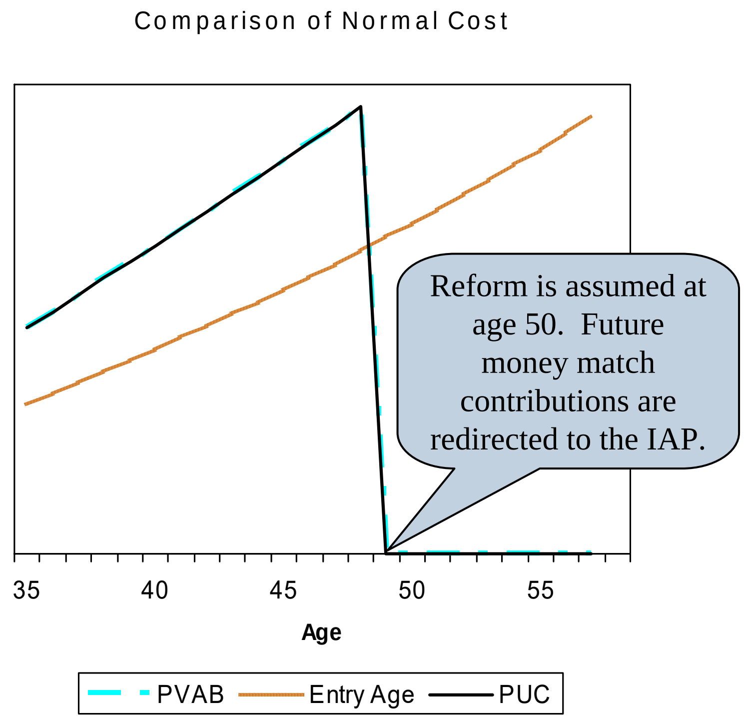
- For Money Match benefit, entry age accrued liability is less than the PVAB
- In this case, projected unit credit (PUC) follows the pattern of benefit accruals exactly, so the PUC accrued liability always equals the value of the accrued benefit

Methods for Consideration
Full Formula and Money Match Benefit Normal Cost

Full Formula



Money Match



- PVAB normal cost shows the pattern in which benefits are actually earned
- Both Entry Age and PUC allocate normal cost more evenly through career than the PVAB cost by reflecting future pay; Entry Age more so than PUC
- Entry Age normal cost is below the rate at which actual benefits accrue until contributions are re-directed to the IAP; after: significantly higher than the benefit accrual rate
- In this case, projected unit credit follows the pattern of benefit accruals exactly

Methods for Consideration
Effect on 12/31/2003 Values

	PVAB	Normal Cost EAN	Normal Cost PUC	Accrued Liability EAN	Accrued Liability PUC
Actives Tier One					
General Services	$16.1	$0.39	$0.07	$14.9	$16.1
Police & Fire	$ 2.0	$0.07	$0.03	$ 1.7	$ 2.1
Actives Tier Two					
General Services	$ 1.1	$0.25	$0.12	$ 1.0	$ 1.2
Police & Fire	$ 0.2	$0.05	$0.03	$ 0.2	$ 0.3
Judges	$ 0.1	$0.01	$0.01	$ 0.1	$ 0.1
Retirees & Inactives	$28.3	$0.00	$0.00	$28.3	$28.3
Total	**$47.8**	**$0.77**	**$0.26**	**$46.2**	**$48.1**

Calculations as of December 31, 2003 in billions

Methods for Consideration
Effect on 12/31/2003 Values

- Changing to the PUC method results in a lower normal cost and a larger UAL.
- The net effect is a reduction in contribution rate because the UAL amortization extends further into the future than the normal cost for members expected to retire under money match.
- With the increase in the UAL, the funded status of the system declines from 86% to 79% as of December 31, 2003 (without side accounts).
- By amortizing the difference in the UAL due to implementation of the PUC method over seven years the 7/1/05 contribution rate would be 17.6%

	EAN	PUC	PUC over 7 yrs
NC Rate	12.6%	4.2%	4.2%
UAL Rate	7.1%	10.6%	13.4%
Contribution Rate (7/1/2005)	19.7%	14.8%	17.6%
IAP 6% Contribution	6.0%	6.0%	6.0%
Funded Status (without side accounts)	86%	80%	80%
Funded Status (with side accounts)	96%	89%	89%

Methods for Consideration
Smoothing Methods

	Smoothed Assets	Collar on Contributions	Average Contributions
Method	▪ Investment earnings smoothed over four years ▪ Smoothing limited to within 10% of fair asset value	▪ Uses market value of assets ▪ Smooth contribution rates ▪ Limit annual change in contributions within a specified "collar"	▪ Uses market value of assets ▪ Smooth contribution rates ▪ Average contribution rates over a period of years
Pros	▪ Smoothing assets is the most common approach to smoothing contribution rates ▪ Can be enhanced by increasing smoothing period or removing 10% bracket	▪ Funded status of the system more transparent to stakeholders ▪ Contributions are smoothed rather than assets and liabilities ▪ Helps effectively budget for future contributions	▪ Funded status of the system more transparent to stakeholders ▪ Contributions are smoothed rather than assets and liabilities
Cons	▪ Less transparent ▪ Does not smooth impact of earnings on liabilities	▪ Not prevalent though has been used by some public entities ▪ Slow to adjust to significant changes; funding may lag if extended losses occur ▪ Additional GASB reporting may be required	▪ Not prevalent ▪ Additional GASB reporting may be required

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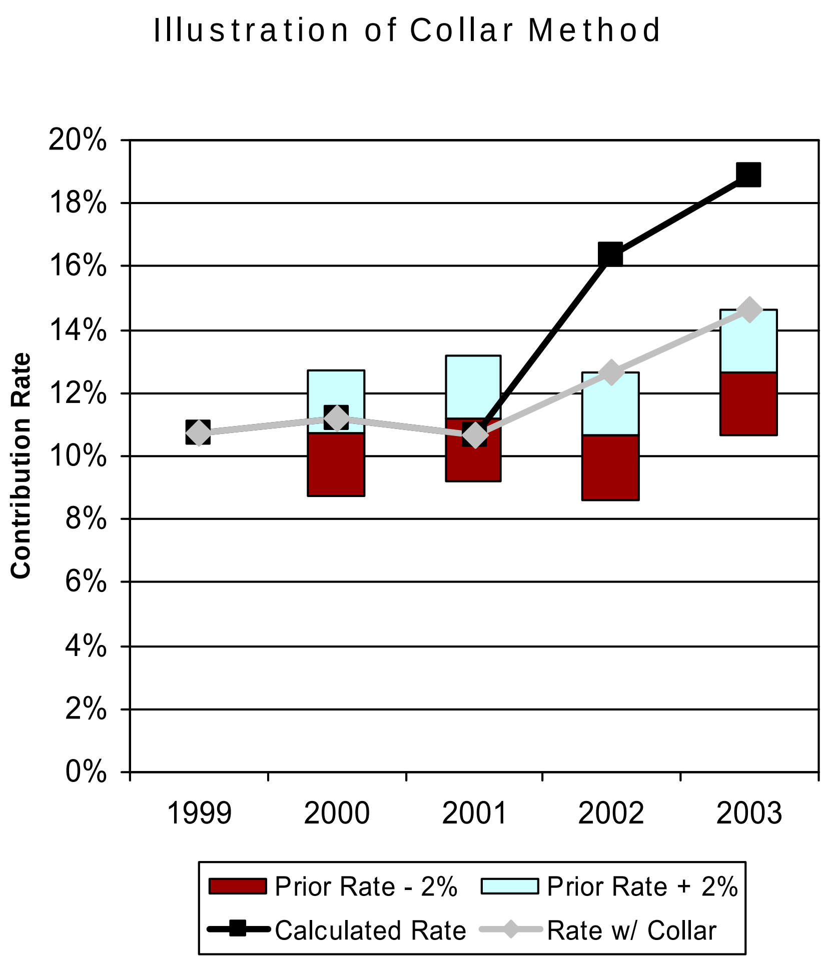
Methods for Consideration
Collar on Contributions Method



- The Board could establish a collar such that the contribution rate cannot increase or decrease by more than a specified percentage of payroll in any year. The example uses 2% of payroll.
- Provides a firm number for budgeting early in the process. For example, when the December 31, 2004 interim valuation is complete, employers would know the maximum and minimum rates effective July 1, 2007.
- This method can be slow to adjust to significant changes, so an exception may need to be made if the funding level drops below or exceeds a certain level.

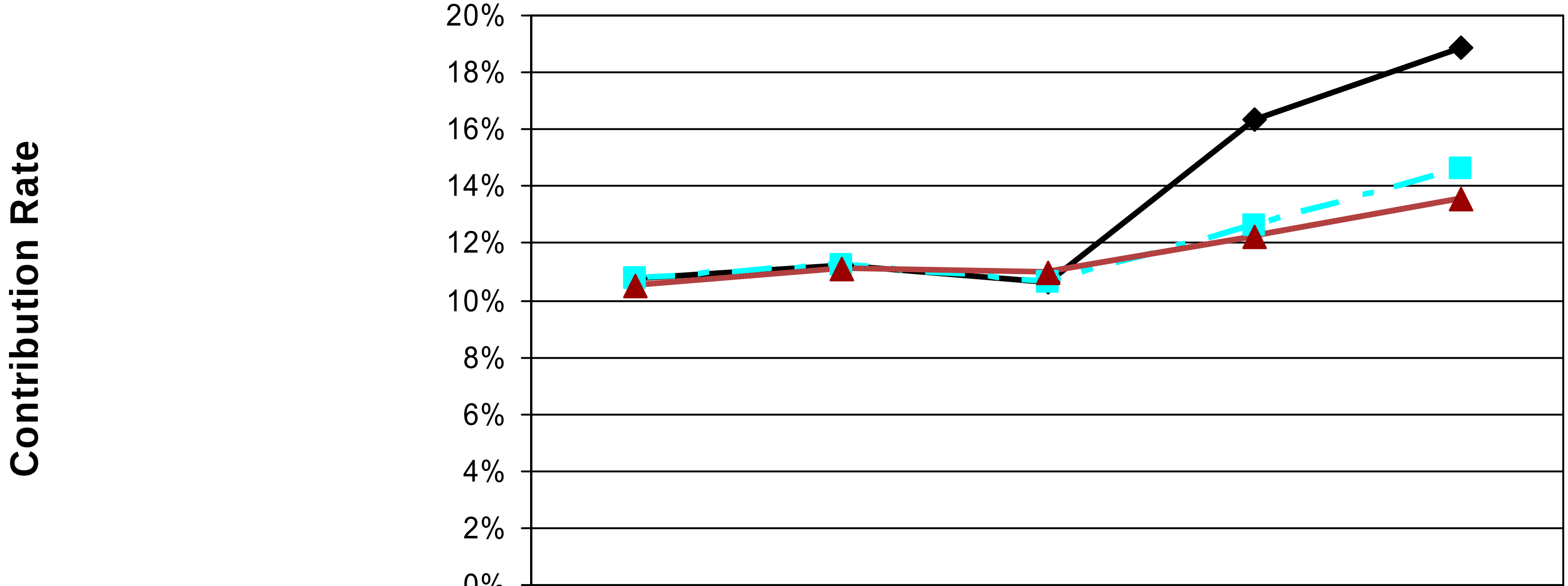
Methods for Consideration
"Average Contributions" Method

- The Board could set rates based on the average calculated rate over the last 5 years. The calculated rate is based on the current value of assets and the current actuarial cost method.
- This method smoothes contribution rates, but is more sensitive than the collar method to sudden changes in assets or liabilities.
- This method does not set an absolute minimum and maximum for budgeting purposes, but narrows the range since the last valuation will only provide one-fifth of the rate.

Illustration of Averaging Method	
Calculated Rates*	
12/31/1999	10.74%
12/31/2000	11.20%
12/31/2001	10.64%
12/31/2002	16.35%
12/31/2003	18.89%
Average Rate	**13.56%**

*The rates shown were calculated using a smoothed value of assets instead of a market value of assets.

Methods for Consideration
Smooth Contribution Rates—Historical Illustration



	1999	2000	2001	2002	2003
Historical Contribution Rate	10.74%	11.20%	10.64%	16.35%	18.89%
Rate With 2% Collar	10.74%	11.20%	10.64%	12.64%	14.64%
Rate with 5-Year Averaging	10.52%	11.11%	11.00%	12.23%	13.56%

Year

What Other Systems Are Doing

Cost Method

- Most public sector systems use the Entry Age Normal cost method.
- Projected Unit Credit cost method is common in the private sector because this method is required for accounting disclosures.

Asset Smoothing

- Most public sector systems smooth assets.
- Most private sector plans also smooth assets.

Prevalence of Cost Method*	
Entry Age Normal	72%
Projected Unit Credit	13%
Aggregate	12%
Frozen Entry Age	3%

Prevalence of Asset Smoothing*	
Smoothed Value	93%
Market Value	7%

** 2004 Wilshire Report on State Retirement Systems: Funding Levels and Asset Allocation*

What Other Systems Are Doing

Smooth Contribution Rates

- Most systems do not smooth contribution rates directly.
- Some contribution rates are set by statute, and are only changed by changing the statute.
- Some statutes set a collar around changes in contribution rates. Some of these plans have struggled with funding if the collar is too tight because if the rate gets too far behind it is difficult to catch up.
- Some contribution rates are tied to specific revenue sources.

Recent System Actions

- Arizona
  - Removed requirement that actuarial assets be within 20% of market value
  - Extended smoothing period from 5 to 10 years
- CalPERS
  - Adopted a 15-year asset smoothing method
  - Changed UAL amortization to a 30-year rolling average
  - Established a minimum contribution rate
- Many Systems
  - Pension obligation bonds

Next Steps

- **Seek stakeholder input** – These suggestions alter the pattern of contributions, but not the total cost of the system. Some alternatives may require additional accounting. It may be worthwhile to get some input from stakeholders regarding the various tradeoffs between transparency and stability.
- **Financial modeling** – Different alternatives may have different impacts on funded status and contribution rates. The Board may wish to explore these alternatives using the financial model before making a final decision.

MERCER
Human Resource Consulting

October 21, 2005

Oregon PERS

Policy Alternatives for Financial Modeling

Bill Hallmark
Portland, Oregon

MMC Marsh & McLennan Companies

Contents

Introduction
Background

- Meeting with Legislative Advisory Committee on September 13, 2005
- Written input following meeting
- Common Goals:
  - Transparency
  - Stable rates
  - Equity across generations
  - Protect funded status
- Concerns
  - Not supportive of methods that reduce rates in the short-term, but result in higher rates later on
- Board has been evaluating policies to achieve these goals

Introduction
Agenda

- To direct Mercer to analyze three specific alternatives under the financial modeling provisions of the contract.
  - The Board is not being asked to make policy decisions at this point in time.
  - The policy variations proposed for analysis are intended as parameters to enable the Board to make informed decisions.
- With direction from the Board, we will:
  - Model the policy variations
  - Analyze the outcomes
  - Present results at the December Board meeting
- The analysis will provide the Board and stakeholders with an understanding of the long-term implications of decisions made now.

Introduction
Overview of Financial Modeling Services

- Annual stochastic projections for system as a whole following the actuarial valuation, beginning with the December 31, 2003 valuation
- Baseline projection representing all current methods, assumptions and policies
- Alternative policies requested by the Board
- Presentation of results at Board meeting

Policies for Analysis
Initial Alternatives Considered

- Projected Unit Credit versus Entry Age Normal cost method
  - Transparency -- Normal cost and funded status
- Asset smoothing versus contribution rate smoothing
  - Stable rates – Managing volatility
- Reserve policy for contingency and capital preservation reserves
  - Stable rates – Managing surprises

The other objectives and concerns enter into the evaluation of these alternatives, but are not the primary motivation behind the proposed alternatives.

Policies for Analysis
Comments Received

- Specific comments from employers*
  - Confine modeling to current methods and assumptions rather than looking at PUC and alternative smoothing methods.
  - Break out projections to show impacts on various groups of employers separately and on P&F versus general service members
  - Vary assumptions/experience for mortality, retirement rates, and assumed rate of return
  - Reserving policy

* League of Oregon Cities, Association of Oregon Counties, Special Districts Association of Oregon, Oregon School Boards Association, and Oregon Community Colleges Association

Policies for Analysis
Comments Received

- Priorities for modeling from City of Portland
  - Reserving policy
  - Asset smoothing versus collar smoothing
  - Asset smoothing versus contribution rate averaging

Policies for Analysis
Considerations

- The number of policy changes should be limited to manage information intake and effective decision making.
- The short-term impact on rates of a change to the Projected Unit Credit method should be managed through the amortization of the change in UAL. The modeling will illustrate these dynamics.
- The affect of these policy variations will be similar across any significant grouping of employers. Individual non-pooled employers may exhibit different effects depending on their demographics.
- Financial modeling doesn’t effectively illustrate the impact of variations in demographic experience.

Policies for Analysis
Future Considerations

- Policy variations that are affected by these primary variations should be considered for future analysis.
  - Assumed rate of return
  - Side funds – (Dynamics are specific to individual employer)
    - Interaction with pension obligation bond structure
    - Size of side fund compared to employer payroll

Recommendations
Policy Alternatives

- **Baseline Projection**
  - Entry Age Normal
  - 4-Year Asset Smoothing
  - Maximize Reserves

- **Alternative Policy #1**
  - Entry Age Normal
  - 4-Year Asset Smoothing
  - Minimize Reserves

- **Alternative Policy #2**
  - Projected Unit Credit
  - Amortize change in UAL separately
  - 4-Year Asset Smoothing
  - Maximize Reserves

- **Alternative Policy #3**
  - Projected Unit Credit
  - Amortize change in UAL separately
  - Collar contribution rates
  - Maximize reserves

Recommendations
Policy Comparisons

Baseline Projection – Entry Age Normal – 4-Year Asset Smoothing – **Maximize Reserves**	**Alternative Policy #1** – Entry Age Normal – 4-Year Asset Smoothing – **Minimize Reserves**

- Illustrates impact of maximizing reserves versus minimizing reserves
- While neither of these reserve policies is expected to be the Board’s actual policy, this information will be valuable in putting parameters around the effect of Board reserving decisions.

Recommendations
Policy Comparisons

Baseline Projection	**Alternative Policy #2**
– **Entry Age Normal** – 4-Year Asset Smoothing – Maximize Reserves	– **Projected Unit Credit** – **Amortize change in UAL separately** – 4-Year Asset Smoothing – Maximize Reserves

- Illustrates impact of projected unit credit versus entry age normal
- Specific amortization method will be designed for a smooth cost transition as Tier One members retire
- Please note that our primary reason for recommending a change to projected unit credit is transparency. The modeling will illustrate if there are any positive or negative financial effects associated with this change

Recommendations
Policy Comparisons

- **Alternative Policy #2**
  - Projected Unit Credit
  - Amortize change in UAL separately
  - **4-Year Asset Smoothing**
  - Maximize Reserves

- **Alternative Policy #3**
  - Projected Unit Credit
  - Amortize change in UAL separately
  - **Collar contribution rates**
  - Maximize reserves

- Illustrates impact of asset smoothing versus collaring contribution rates on stabilizing employer rates
- Evaluation of concerns of effect on funded status
- In addition, the modeling may also help us to define better parameters for the collar method to mitigate any negative effects

Appendix
Reserve Policy Definitions

- Maximizing Reserves
  - Contingency and Capital Preservation Reserve – 7.5% of earnings in excess of 8.0%. These reserves are used to the extent necessary to maintain an 80% funded ratio
  - Rate Guarantee Reserve – All Tier One member regular account earnings in excess of 8.0%. This reserve is used to the extent necessary to credit 8.0% earnings to Tier One member accounts
- Minimizing Reserves
  - Contingency Reserve – 0.75% of earnings in excess of 8.0%. This reserve is used to the extent necessary to maintain an 80% funded ratio.
  - Capital Preservation Reserve – not used
  - Rate Guarantee Reserve – All Tier One member regular account earnings in excess of 8.0%. This reserve is used to the extent necessary to credit 8.0% earnings to Tier One member accounts.

Appendix
UAL Amortization for Change to PUC Method

- With a change to the PUC method, the normal cost will be lower and the UAL will be higher. Depending on how the change in the UAL is amortized, the concern raised by employers may be valid.
- As a part of the modeling we will look at the expected pattern of Tier One retirements and amortize the change in UAL in a way intended to keep the combination of normal cost and UAL amortization either level or declining over time.
- The amortization method will likely be as a level dollar amount over a period of 5 to 10 years.

Appendix
Definition of Collar Method

- Contribution rates will be confined to a collar based on the current contribution rate.
- The next contribution rate will not increase or decrease from the prior contribution rate by more than the greater of 3 percentage points or 20 percent of the current rate.
  - If current rate is 15%, the new rate cannot be more than 18% nor less than 12%.
  - If current rate is 20%, the new rate cannot be more than 24% nor less than 16%.
- If funded percentage drops below 80% or increases above 120%, the size of the collar doubles.
  - If current rate is 15% and funded status is below 80%, the new rate can be as high as 21%.
  - If current rate is 20% and funded percentage is below 80%, the new rate can be as high as 28%.
- All calculations will use the market value of assets

MERCER
Human Resource Consulting

December 16, 2005

Oregon PERS

Financial Modeling Results

Bill Hallmark and Greg Smith
Portland, Oregon

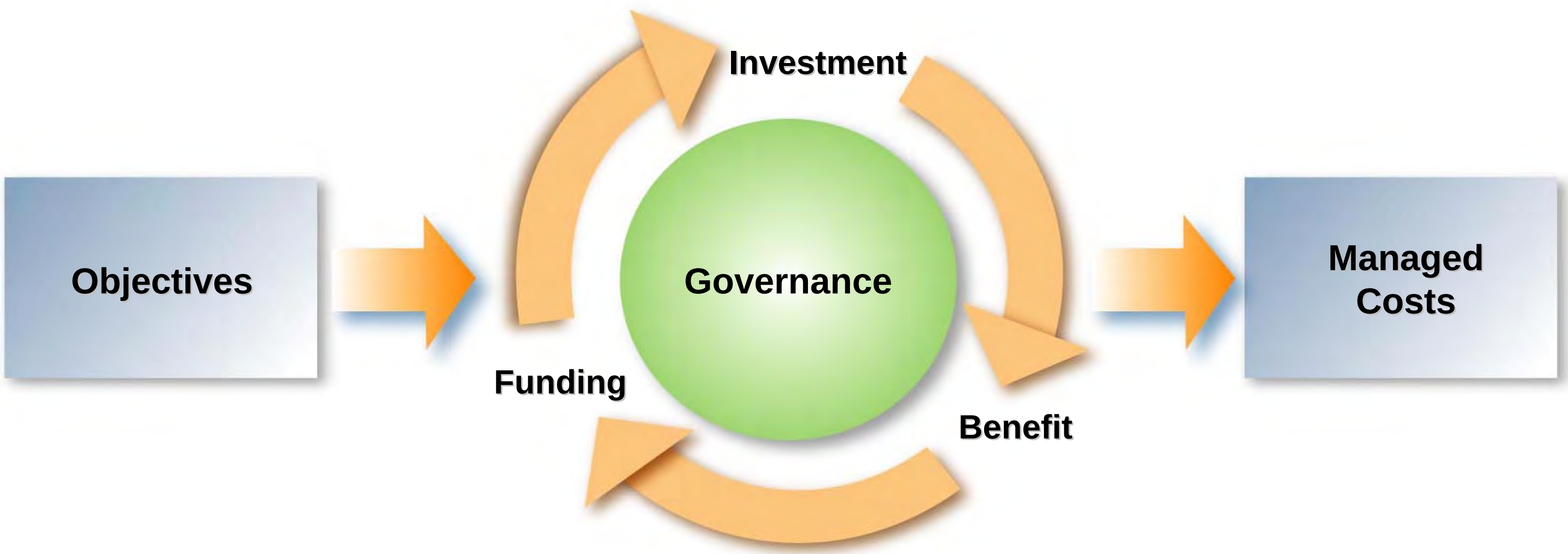
MMC Marsh & McLennan Companies

Contents

Background
Goals and Objectives

- **Objectives of Financial Modeling Project**
  - To better understand potential outcomes under current policies (baseline projection)
  - To analyze the impact of potential policy decisions today in managing the costs of the System over the next 10 years
    - Reserving policy
    - Actuarial cost method
    - Contribution rate smoothing method
- **Goals**
  - Transparency
  - Stable rates
  - Equity across generations
  - Protect funded status

Background
Retirement Plan Financial Management Framework



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Background
Policy Alternatives Analyzed

- **Baseline Projection**
  - Entry Age Normal
  - 4-Year Asset Smoothing
  - Maximize Reserves

- **Alternative Policy #1**
  - Entry Age Normal
  - 4-Year Asset Smoothing
  - Minimize Reserves

- **Alternative Policy #2**
  - Projected Unit Credit
  - Amortize change in UAL separately
  - 4-Year Asset Smoothing
  - Maximize Reserves

- **Alternative Policy #3**
  - Projected Unit Credit
  - Amortize change in UAL separately
  - Collar contribution rates
  - Maximize reserves

Background

- The analysis shown in this presentation is based on the December 31, 2003 actuarial valuation of PERS. It does not include any adjustments for:
  - Side Funds
  - Bond Payments
  - Immediate use of contingency and capital preservation reserves
  - IAP contributions
  - OPSRP contributions
- All projections are illustrative and only to be used to compare baseline and alternative policy trends.

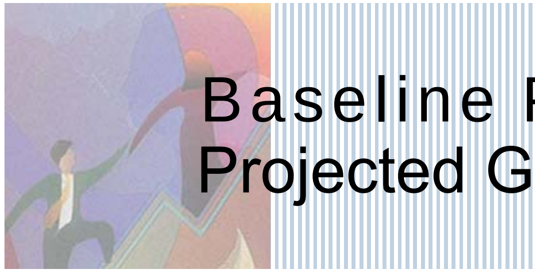
Key Findings

- **Baseline Projection**
  - Contribution rates and funded status are fairly volatile due to the volatility of investment returns.
- **Reserving Policy**
  - Reserves can play an important role managing surprises, but the interactions are complex and more analysis is needed to develop an appropriate reserve policy.
- **Actuarial Cost Method**
  - Projected Unit Credit provides important transparency benefits. The overall level of costs can be managed through the amortization method.
- **Contribution Rate Smoothing**
  - Collaring contribution rates provides important transparency benefits while also controlling the volatility of contribution rates.

Baseline Projections

Baseline Projections
Highlights of Results

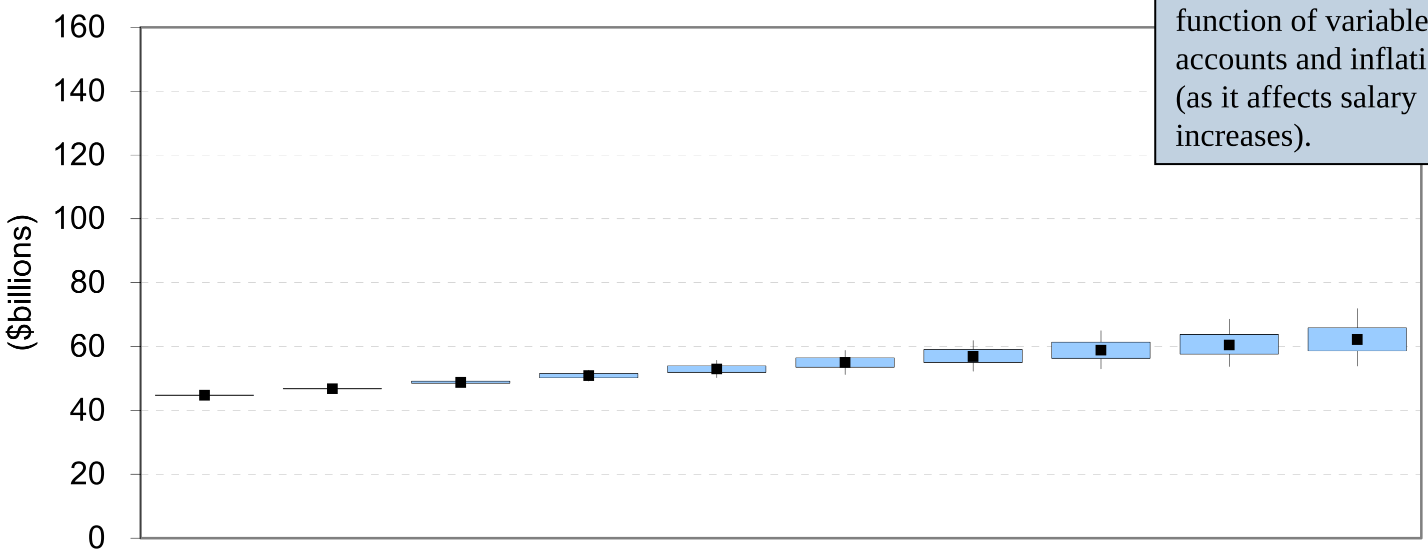
- **Liabilities are stable**
  - The growth in liabilities is very stable since the effect of investment returns on liabilities has largely been eliminated by the 2003 reforms.
- **Investment returns vary significantly**
  - Median investment return is expected to be near 8.0%, but the range of potential returns varies significantly around the median.
- **Contribution rates vary significantly**
  - Contribution rates are expected to be near 20% as of July 1, 2007, but in very bad scenarios, contribution rates could exceed 30% of pay. In very good scenarios, contribution rates could fall to 0% of pay.
  - Year-to-year changes in contribution rates are expected to remain within +/- 3%, but can vary as high as +/-10%.
- **Funded status varies significantly**
  - Funded status is expected to improve slightly, but could improve or deteriorate significantly depending on investment performance.



Baseline Projections
Projected Growth in Accrued Liability

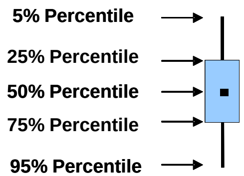
With no new contributions to member accounts and limiting Tier 1 members to 8% interest credits, the liability doesn't depend on investment returns.

Actuarial Accrued Liability at Valuation Date 12/31



The potential range of liability is primarily a function of variable accounts and inflation (as it affects salary increases).

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5th V. Bad	44.77	47.03	49.74	52.59	55.66	58.73	61.84	65.01	68.59	71.87
25th Bad	44.77	46.86	49.17	51.57	54.00	56.50	59.05	61.40	63.79	65.92
50th Median	44.77	46.76	48.80	50.87	52.96	54.98	56.92	58.86	60.51	62.17
75th Good	44.77	46.65	48.45	50.17	51.83	53.46	54.92	56.29	57.57	58.53
95th V. Good	44.77	46.48	47.94	49.20	50.27	51.31	52.27	53.01	53.81	53.85



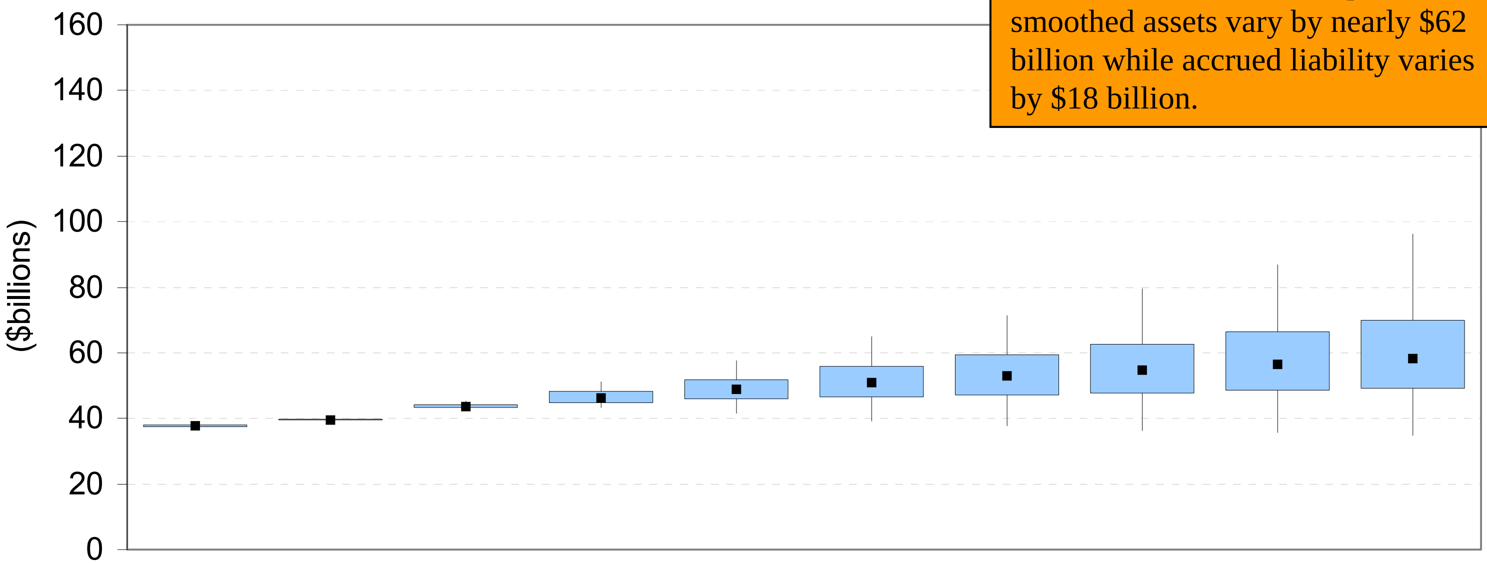
Baseline Projections

In 2013, smoothed assets vary by $20 billion between the 25th and 75th percentiles. Accrued liability only varies by $7 billion.

Between the 5th and 95th percentiles, smoothed assets vary by nearly $62 billion while accrued liability varies by $18 billion.

Even with short-term asset smoothing, there is significant variability in long-term asset levels.

AVA at valuation date 12/31



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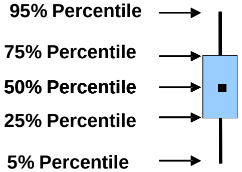
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
95th V. Good	37.6	39.8	45.5	51.3	57.6	64.9	71.5	79.4	86.9	96.3
75th Good	37.6	39.7	44.2	48.2	51.9	56.0	59.5	62.7	66.3	69.8
50th Median	37.6	39.6	43.6	46.3	48.9	50.9	52.9	54.7	56.3	58.1
25th Bad	37.6	39.5	43.2	44.8	45.9	46.6	47.1	47.6	48.5	49.1
5th V. Bad	37.6	39.4	42.5	43.2	41.5	39.1	37.8	36.4	35.6	34.8

AVA = Actuarial Value of Assets

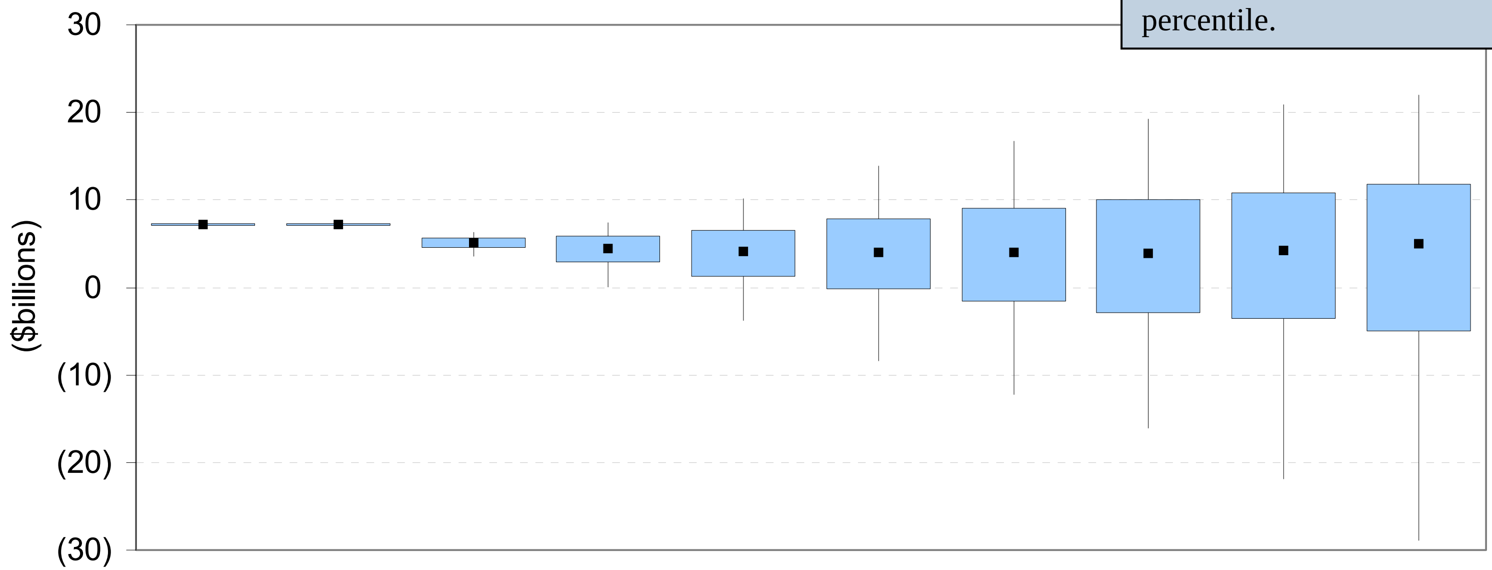


Baseline Projections

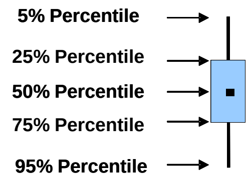
On a market value basis, the funded status of the system starts around 90%, but by 2013 varies from 58% to 158% between the 5th and 95th percentile.

The volatility in assets results in volatility in the unfunded actuarial liability (UAL). The UAL is amortized as a level percentage of payroll and becomes part of the contribution rate.

Unfunded Actuarial Liability at Valuation Date 12/31



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5th V. Bad	7.18	7.44	6.36	7.44	10.13	13.86	16.67	19.24	20.87	22.01
25th Bad	7.18	7.26	5.65	5.83	6.50	7.87	9.00	9.99	10.86	11.79
50th Median	7.18	7.15	5.12	4.47	4.16	4.03	4.02	3.92	4.18	4.99
75th Good	7.18	7.03	4.53	2.91	1.21	(0.20)	(1.57)	(2.90)	(3.58)	(5.03)
95th V. Good	7.18	6.86	3.58	0.10	(3.83)	(8.40)	(12.25)	(16.09)	(21.93)	(28.87)

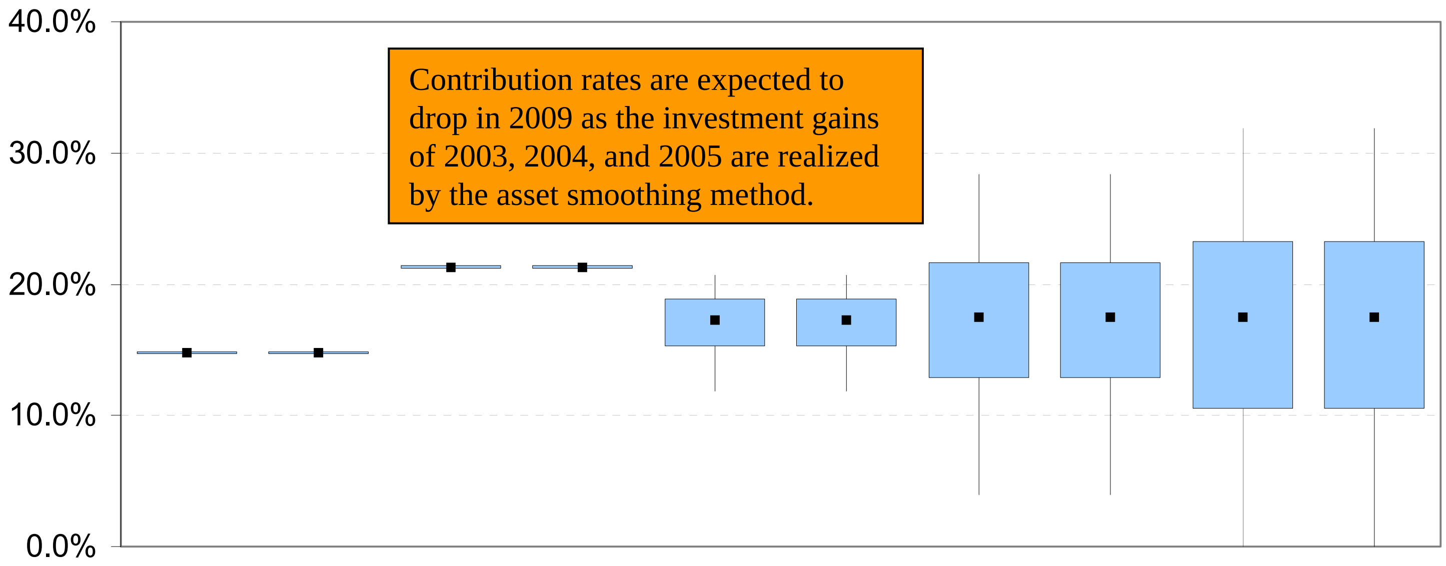


Baseline Projections

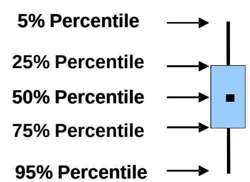
Volatility in investment returns results in a wide range of potential contribution rates.

Given recent investment experience and the phasing in of prior investment losses, contribution rates are expected to increase significantly to 21% of payroll effective 7/1/2007.

Contribution Rate effective from 7/1



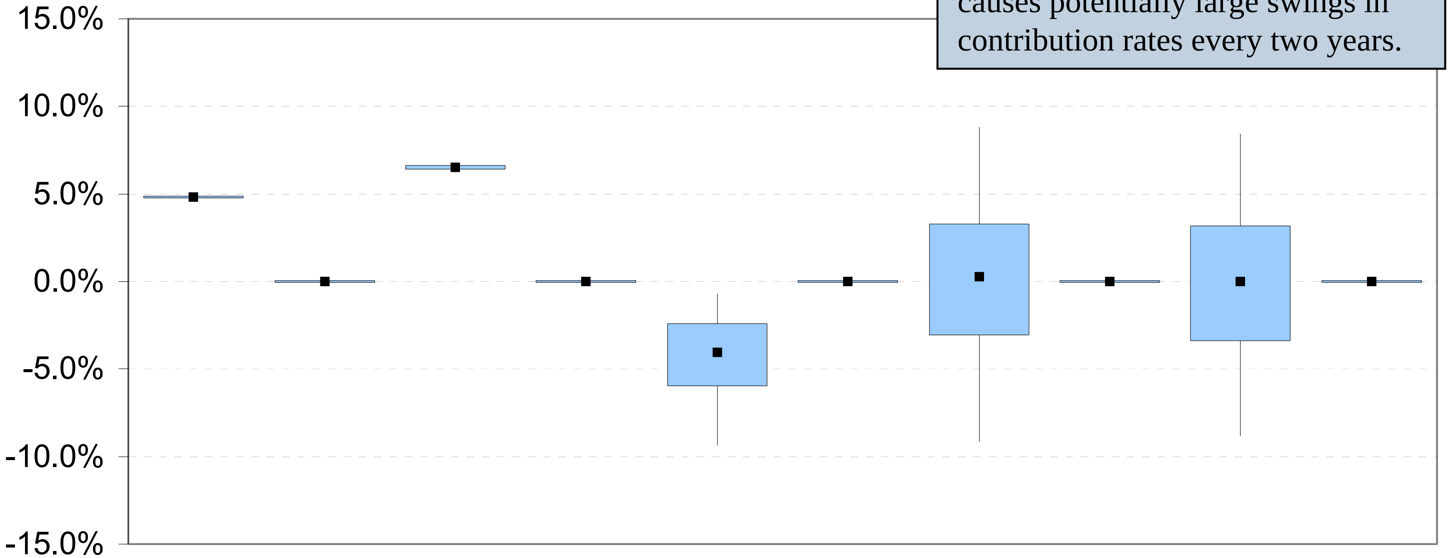
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
5th V. Bad	14.8%	14.8%	21.6%	21.6%	20.7%	20.7%	28.4%	28.4%	31.9%	31.9%
25th Bad	14.8%	14.8%	21.4%	21.4%	18.9%	18.9%	21.7%	21.7%	23.3%	23.3%
50th Median	14.8%	14.8%	21.3%	21.3%	17.2%	17.2%	17.5%	17.5%	17.5%	17.5%
75th Good	14.8%	14.8%	21.2%	21.2%	15.3%	15.3%	12.9%	12.9%	10.5%	10.5%
95th V. Good	14.8%	14.8%	21.1%	21.1%	11.9%	11.9%	4.0%	4.0%	0.0%	0.0%



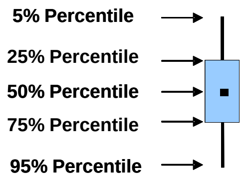
Baseline Projections

As a result of the asset smoothing, contribution rates effective 7/1/2009 are expected to go down, perhaps significantly.

Volatility in investment returns causes potentially large swings in contribution rates every two years.



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
5th V. Bad	4.8%	0.0%	6.8%	0.0%	-0.7%	0.0%	8.8%	0.0%	8.5%	0.0%
25th Bad	4.8%	0.0%	6.6%	0.0%	-2.4%	0.0%	3.3%	0.0%	3.2%	0.0%
50th Median	4.8%	0.0%	6.5%	0.0%	-4.1%	0.0%	0.3%	0.0%	0.0%	0.0%
75th Good	4.8%	0.0%	6.4%	0.0%	-6.0%	0.0%	-3.1%	0.0%	-3.4%	0.0%
95th V. Good	4.8%	0.0%	6.3%	0.0%	-9.4%	0.0%	-9.1%	0.0%	-8.8%	0.0%



Baseline Projections
Observations

- Investment returns and the volatility of those investment returns will drive contribution levels, volatility of contribution levels, and the funded status of the System.
- The potential outcomes vary significantly depending on the actual investment return achieved.
- Board policies and actuarial smoothing techniques can mitigate some of the volatility, but with assets equal to approximately 7 times payroll, volatile investment returns will have a significant impact on contribution rates in spite of efforts to smooth the impact.

Analysis of Reserving Policy
Minimum vs. Maximum Reserves

Analysis of Reserving Policy
Reserve Policy Definitions

Baseline Projection	Alternative Policy #1
– Entry Age Normal	– Entry Age Normal
– 4-Year Asset Smoothing	– 4-Year Asset Smoothing
– **Maximize Reserves**	– **Minimize Reserves**

Reserving Policy:

- Provides for manual smoothing of employer contribution rates to help manage large year-to-year changes in employer contribution rates and promote system stability.
- The alternatives considered illustrate the impact of maximizing reserves versus minimizing contingency and capital preservation reserves.

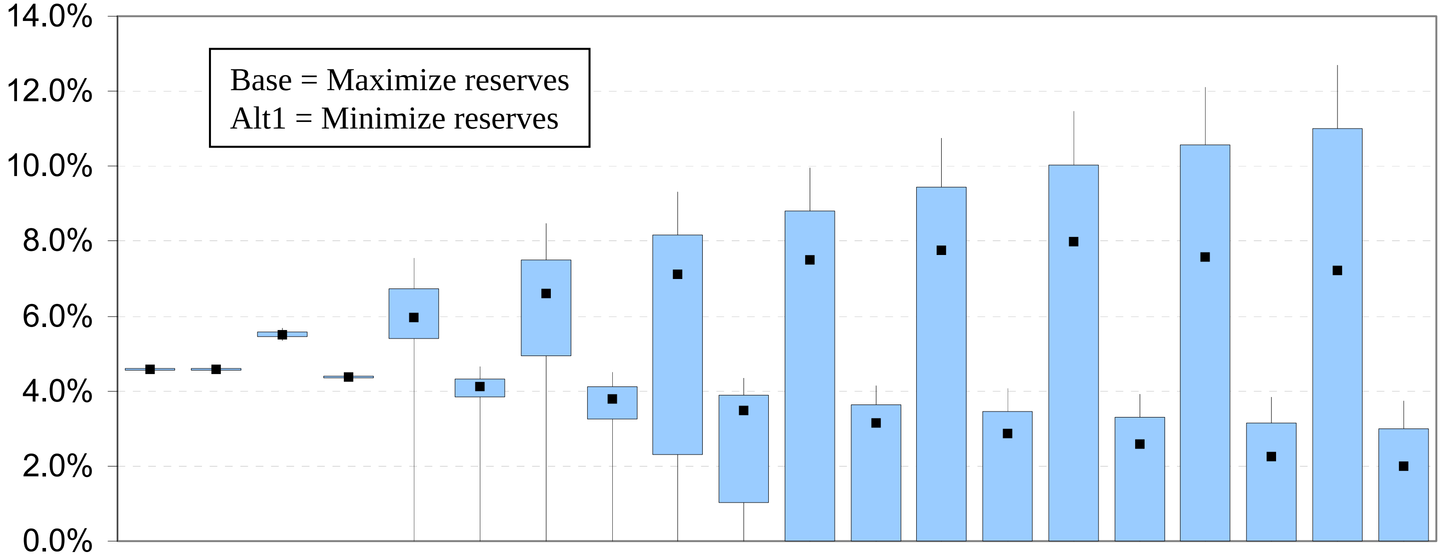
Analysis of Reserving Policy
Highlights of Results

- **To be effective, reserves have to be built**
  - Using reserves to support an 80% funded ratio requires a reserve to be built up before the system drops below 80%. In these projections, scenarios that built significant reserves were unlikely to then fall below the 80% threshold.
- **Reserves act as a manual smoothing method**
  - The Contingency and Capital Preservation Reserves can act as a manual smoothing method to support system and rate stability.
- **Interactions are complex**
  - Exposing the reserves to the same investment risk as the rest of the fund creates some complex dynamics.
  - Determining appropriate time to use reserves is a critical decision.
- **More analysis needed**

Analysis of Reserving Policy
Maximum vs. Minimum Reserves

(Contin. Reserve plus Capital Pres. Reserve) as a % of (MVA + CR + CPR) (Base vs. Alt#1)

In median and better scenarios, a sizeable reserve develops under the maximum reserve policy. In poor scenarios, however, the reserve is used up quickly under either reserving policy.



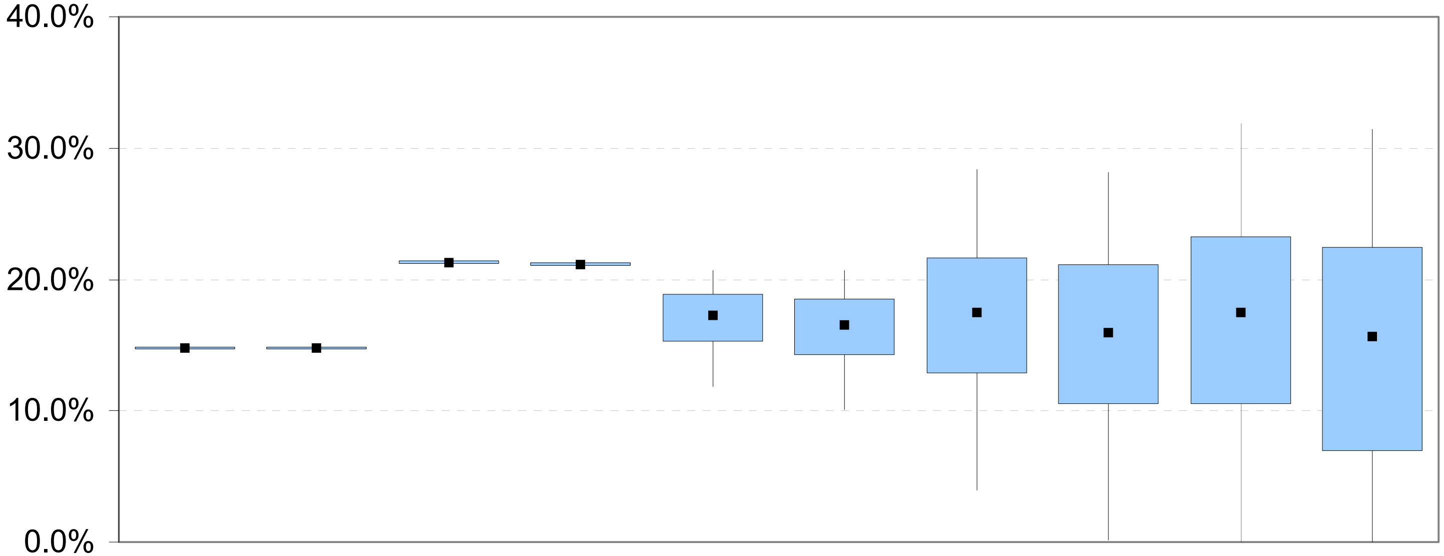
Base	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
95th V. Good	4.6%	5.7%	7.6%	8.5%	9.3%	10.0%	10.8%	11.5%	12.1%	12.7%
75th Good	4.6%	5.6%	6.7%	7.5%	8.2%	8.8%	9.5%	10.0%	10.6%	11.0%
50th Median	4.6%	5.5%	6.0%	6.6%	7.1%	7.5%	7.8%	8.0%	7.6%	7.2%
25th Bad	4.6%	5.4%	5.4%	4.9%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
5th V. Bad	4.6%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Alt #1	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
95th V. Good	4.6%	4.4%	4.7%	4.5%	4.4%	4.2%	4.1%	3.9%	3.8%	3.7%
75th Good	4.6%	4.4%	4.3%	4.1%	3.9%	3.6%	3.5%	3.3%	3.2%	3.0%
50th Median	4.6%	4.4%	4.1%	3.8%	3.5%	3.2%	2.9%	2.6%	2.3%	2.0%
25th Bad	4.6%	4.4%	3.8%	3.2%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5th V. Bad	4.6%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Analysis of Reserving Policy
Maximum vs. Minimum Reserves

Contribution Rate effective from 7/1 (Base vs. Alt#1)

Maximizing reserves results in a slight increase in contribution rates in most scenarios.



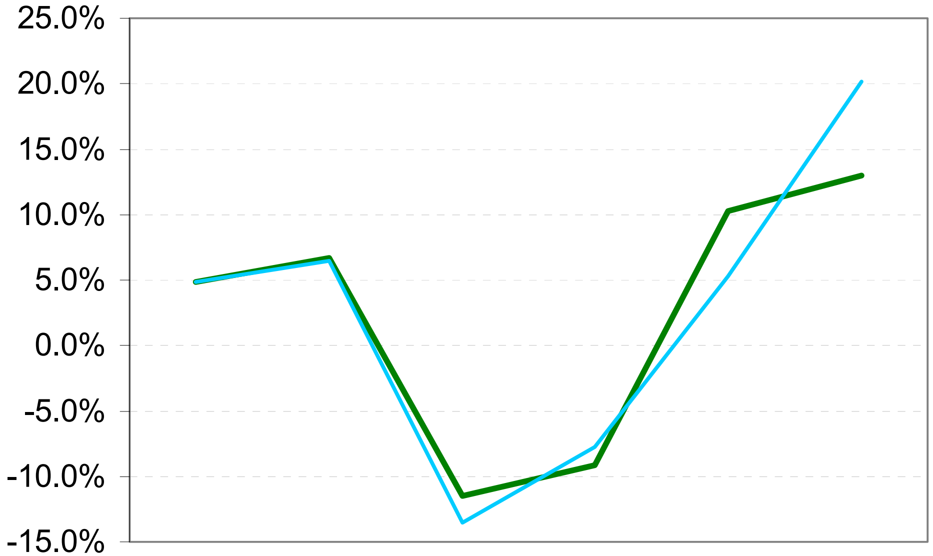
	Base 2005	Alt1 2005	Base 2007	Alt1 2007	Base 2009	Alt1 2009	Base 2011	Alt1 2011	Base 2013	Alt1 2013
5th V. Bad	14.8%	14.8%	21.6%	21.5%	20.7%	20.7%	28.4%	28.2%	31.9%	31.4%
25th Bad	14.8%	14.8%	21.4%	21.3%	18.9%	18.5%	21.7%	21.1%	23.3%	22.4%
50th Median	14.8%	14.8%	21.3%	21.2%	17.2%	16.6%	17.5%	15.9%	17.5%	15.7%
75th Good	14.8%	14.8%	21.2%	21.1%	15.3%	14.3%	12.9%	10.5%	10.5%	7.0%
95th V. Good	14.8%	14.8%	21.1%	20.9%	11.9%	10.1%	4.0%	0.1%	0.0%	0.0%

Base = Maximize reserves
Alt1 = Minimize reserves

Analysis of Reserving Policy
Maximum vs. Minimum Reserves

This graph shows one trial from our stochastic projections. In this trial, there are good investment returns for 5 years followed by poor investment returns. In the last year of the projection, the reserves are finally deployed, reducing the change in contribution rate from 20% to 13%.

Contribution Rate change at 7/1 (Base vs. Alt#1)



	2005	2007	2009	2011	2013	2015
Base	4.8%	6.7%	-11.5%	-9.1%	10.3%	13.0%
Alt#1	4.8%	6.5%	-13.5%	-7.7%	5.3%	20.2%

Analysis of Reserving Policy
Observations

- Reserves can play an important role in managing large changes in contribution rates.
- With the current interest crediting regimen, the higher the reserves, the more valuation assets are leveraged, particularly for negative investment experience.
- The value of the reserves may not be seen until there is a significant reserve established. It may take more than 10 years to establish a significant reserve.
- It appears that reserving decisions may be an important part of managing the long-term costs of the System. Additional analysis is warranted both in terms of the amount to put into reserves and when to use reserves.

Actuarial Cost Method

Entry Age Normal vs. Projected Unit Credit

Actuarial Cost Method
Entry Age Normal vs. Projected Unit Credit

Baseline Projection – **Entry Age Normal** – 4-Year Asset Smoothing – Maximize Reserves	**Alternative Policy #2** – **Projected Unit Credit** – **Amortize change in UAL separately** – 4-Year Asset Smoothing – Maximize Reserves

Projected Unit Credit Cost Method:

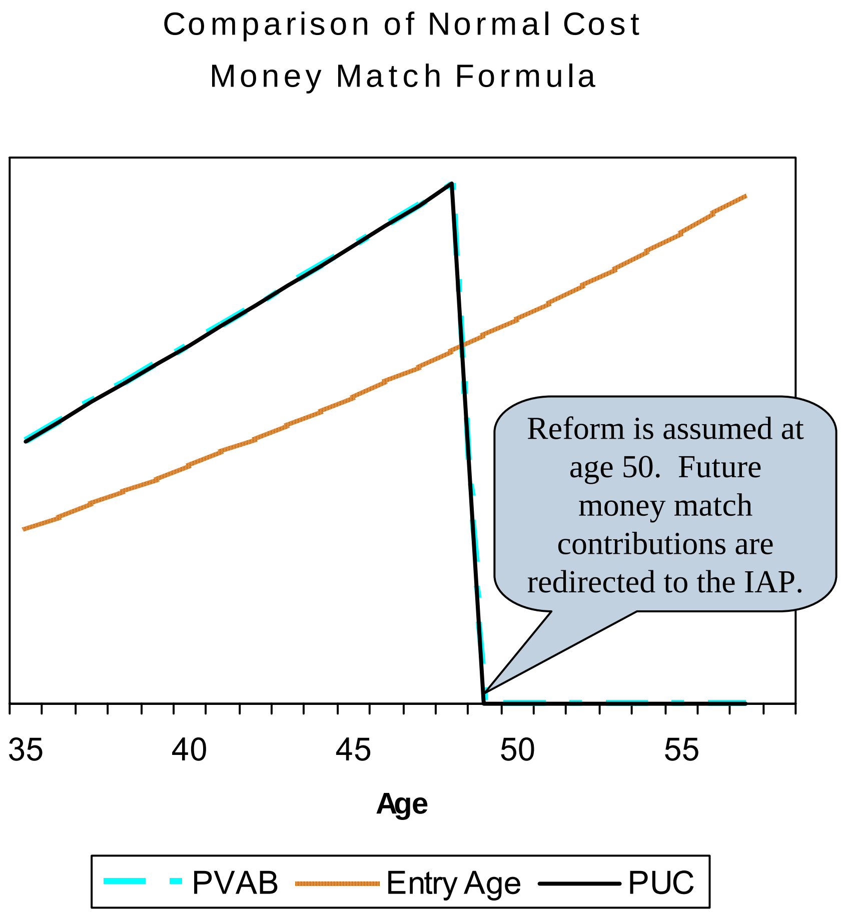
- The cost of benefits earned is funded each year and the liability represents the value of benefits earned to date. Projected unit credit provides stakeholders and users of the actuarial valuation report a real measure of the cost and liability of the system that is easily understood.

Actuarial Cost Method
Highlights of Results

- **Improved transparency**
  - The projected unit credit cost method more accurately reflects the reality of how benefits are earned.
- **Contribution rates appear to remain as stable as under entry age normal**
  - There does not appear to be any change to the stability of contribution rates in the stochastic projections.
  - However, there are concerns beyond 10 years that the projected unit credit cost method would continue to experience increases in the normal cost rate.
- **Contribution rates are lower**
  - Projected unit credit results in lower contribution rates

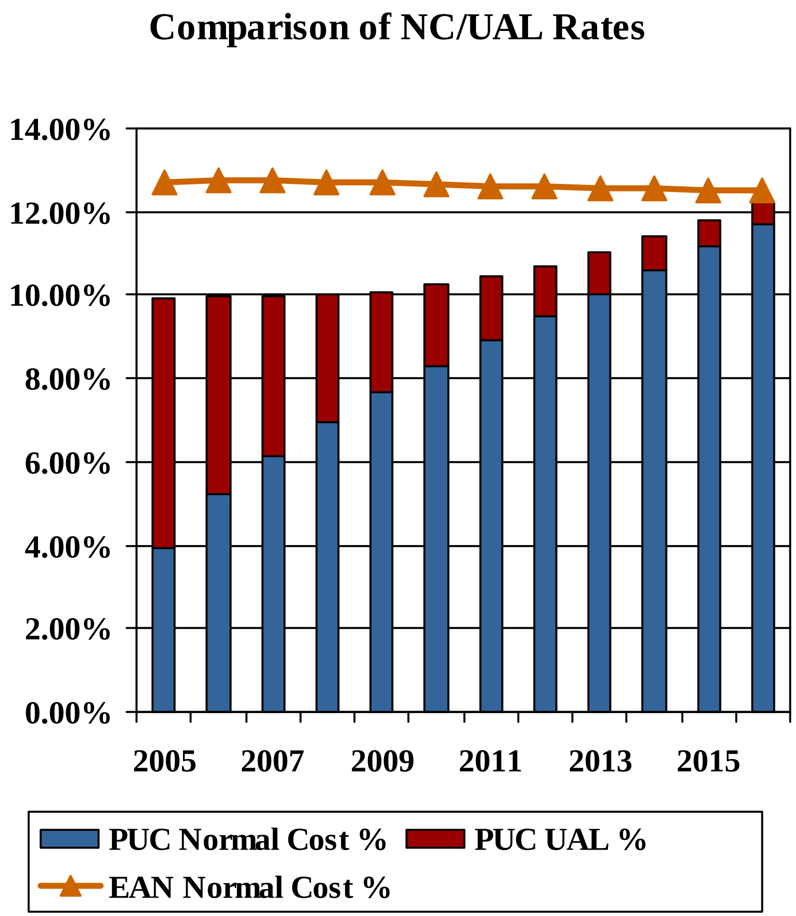
Actuarial Cost Method
Money Match Benefit Normal Cost

- After reform, member benefits under the Money Match formula will not increase for additional service.
- Entry age normal continues to assign a normal cost for these benefits even though they do not increase.
- Projected unit credit, on the other hand, follows the pattern of benefit accruals exactly.
- Therefore, the normal cost portion of the contribution rate directly reflects the cost of benefits earned.



Actuarial Cost Method
Normal Cost and UAL Change Rates

- The PUC Normal Cost Rate starts around 4%, but increases over the next 10 years to almost 12%.
- Using the 5-year rolling level dollar amortization for the change in UAL, the initial payment is about 6% decreasing to 0.5% over 10 years.
- The UAL payment is made over total combined payroll while the normal cost payment is made on the declining Tier 1/2 payroll.
- At some point in the future, the Board will want to fix the rolling amortization, to pay it off, but the rolling method helps match the expected change in normal cost as Money Match members retire.



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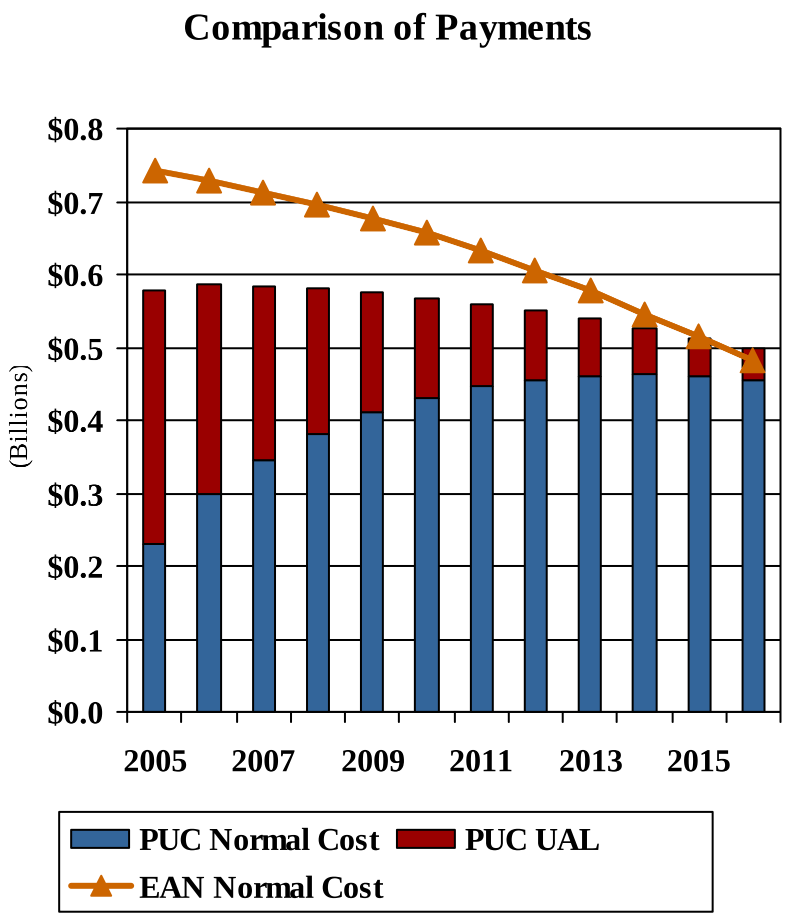
Actuarial Cost Method
Normal Cost and UAL Change Payments

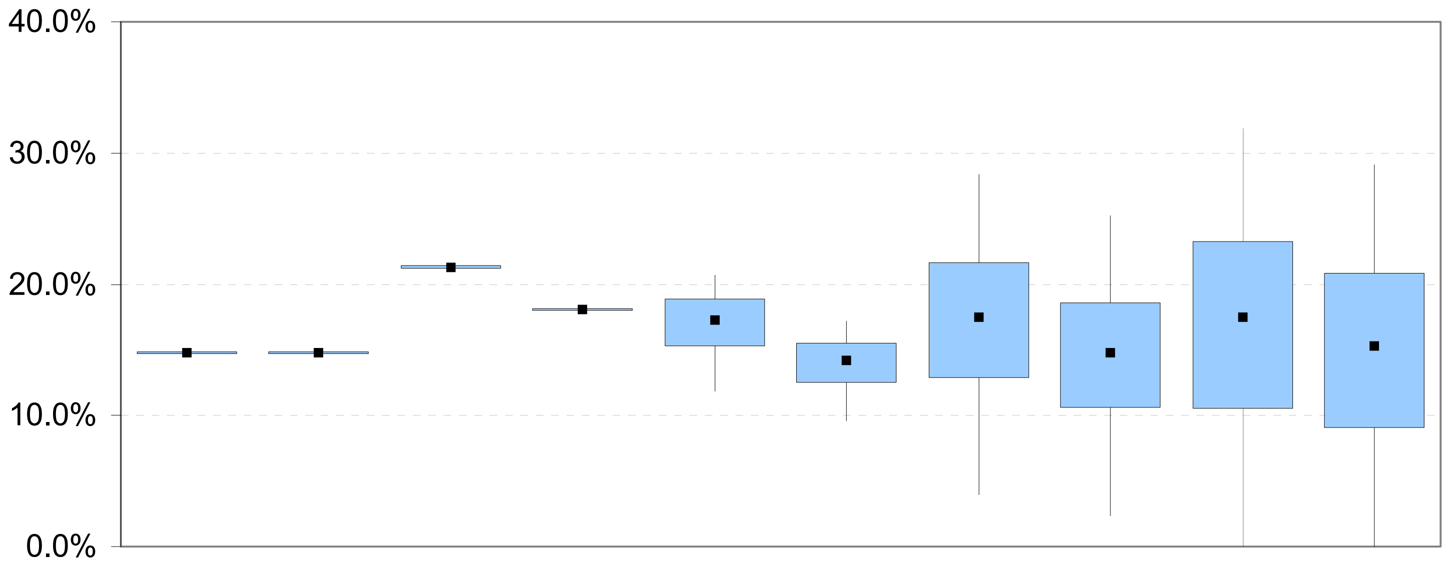


- Under Entry Age Normal, the normal cost payments decline as Tier 1/2 members retire more than they increase as pay increases.
- Under PUC, the normal cost payments increase as the Full Formula population ages more than they decrease as Tier 1/2 members retire. Near the end of the projection period, this trend reverses.
- The rolling 5-year level dollar amortization method for the change in UAL levels out the contribution amounts so they are non-increasing.

Actuarial Cost Method
Entry Age Normal vs. Projected Unit Credit

Contribution Rate effective from 7/1 (Base vs. Alt#2)

PUC contribution rates are approximately 200 basis points less than the EAN contribution rates.



	Base 2005	Alt2 2005	Base 2007	Alt2 2007	Base 2009	Alt2 2009	Base 2011	Alt2 2011	Base 2013	Alt2 2013
5th V. Bad	14.8%	14.8%	21.6%	18.3%	20.7%	17.2%	28.4%	25.2%	31.9%	29.1%
25th Bad	14.8%	14.8%	21.4%	18.2%	18.9%	15.5%	21.7%	18.6%	23.3%	20.8%
50th Median	14.8%	14.8%	21.3%	18.1%	17.2%	14.2%	17.5%	14.8%	17.5%	15.3%
75th Good	14.8%	14.8%	21.2%	18.0%	15.3%	12.5%	12.9%	10.6%	10.5%	9.1%
95th V. Good	14.8%	14.8%	21.1%	17.9%	11.9%	9.6%	4.0%	2.3%	0.0%	0.0%

Base = Entry Age Normal
Alt2 = Projected Unit Credit

Actuarial Cost Method
Observations

- The primary advantage of the PUC method is the increased transparency provided by a more realistic allocation of costs between the past (accrued liability) and the future (normal cost).
- There are two other effects of switching to PUC:
  - The average normal cost rate will tend to rise as Money Match members retire and they represent a smaller proportion of the population.
  - The average normal cost rate will tend to rise as the closed Tier 1/2 population ages.
- Both of these effects are somewhat mitigated by the declining payroll to which they apply.
- The PUC method also produces lower contribution rates. The amount of reduction is less than it appears as the UAL is amortized over combined payroll while the normal cost rate is only charged to the closed Tier 1/2 payroll.

Contribution Rate Smoothing

Asset Smoothing vs. Contribution Rate Collaring

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Contribution Rate Smoothing
Asset Smoothing vs. Contribution Rate Collaring

Alternative Policy #2	**Alternative Policy #3**
– Projected Unit Credit	– Projected Unit Credit
– Amortize change in UAL separately	– Amortize change in UAL separately
– **4-Year Asset Smoothing**	– **Collar contribution rates**
– Maximize Reserves	– Maximize reserves

Contribution rate collaring:

- Smoothes contribution rates instead of assets. The true market value of assets is reflected in the measurement of the funded status of the system and the determination of contribution rates. Stakeholders and users of the actuarial valuation report will better understand the financial position of the system in order to make timely management, benefit, investment and funding decisions.
- The collar provides limits to changes in contribution rates that are useful for budgeting purposes.

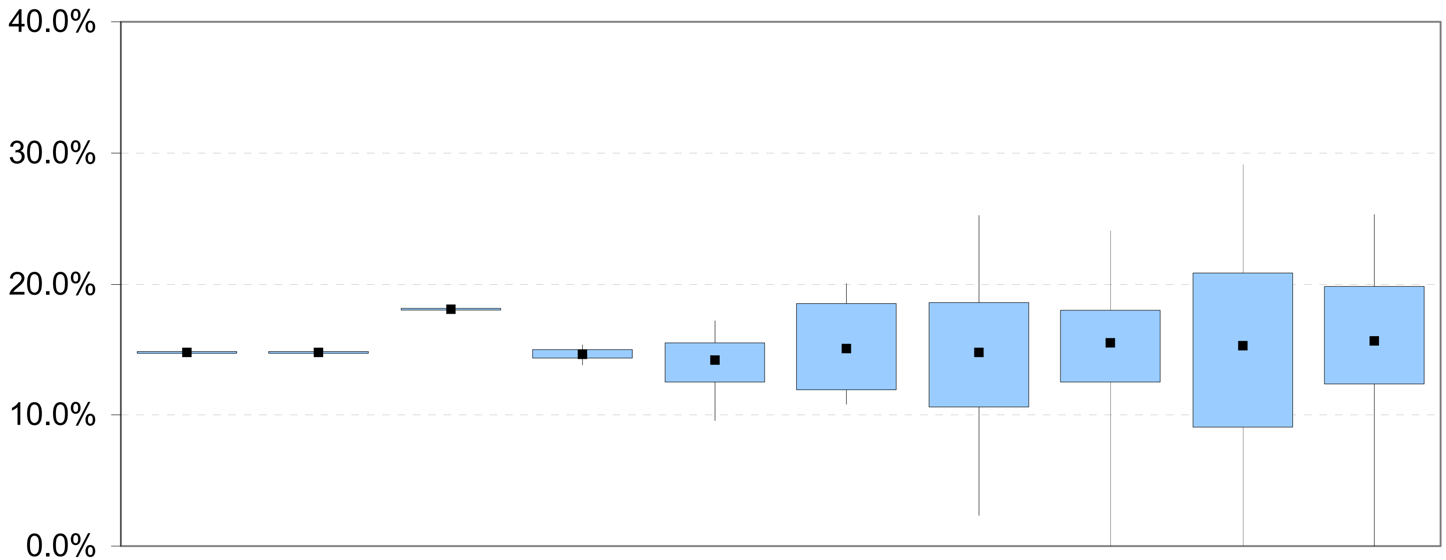
Contribution Rate Smoothing
Highlights of Results

- **Contribution rates are more stable**
  - Extreme changes in contribution rates are significantly reduced by the collar approach.
  - Range of contribution rate levels is narrowed by the collar approach.
- **Funded status appears similar**
  - The collar approach still results in a wide range of funded status, but the range of outcomes appears virtually identical to the asset smoothing approach.
- **Transparency slightly improved**
  - Calculations on a market value basis more accurately illustrate the current status of the system.
- **Lower contribution rates in 2007**
  - The collar approach switches to market value of assets, allowing for the immediate recognition of the investment gains from 2003, 2004 and 2005.

Contribution Rate Smoothing
Asset Smoothing vs. Contribution Rate Collaring

Contribution Rate effective from 7/1 (Alt#2 vs. Alt#3)

The rate collar reduces contribution rates as of 7/1/2007 because it immediately recognizes the asset gains of 2003, 2004, and 2005. The range of future contribution rates has also narrowed considerably, particularly between the 25th and 75th percentiles.



	Alt2 2005	Alt3 2005	Alt2 2007	Alt3 2007	Alt2 2009	Alt3 2009	Alt2 2011	Alt3 2011	Alt2 2013	Alt3 2013
5th V. Bad	14.8%	14.8%	18.3%	15.4%	17.2%	20.0%	25.2%	24.1%	29.1%	25.3%
25th Bad	14.8%	14.8%	18.2%	15.0%	15.5%	18.5%	18.6%	18.0%	20.8%	19.8%
50th Median	14.8%	14.8%	18.1%	14.7%	14.2%	15.0%	14.8%	15.5%	15.3%	15.7%
75th Good	14.8%	14.8%	18.0%	14.3%	12.5%	11.9%	10.6%	12.5%	9.1%	12.4%
95th V. Good	14.8%	14.8%	17.9%	13.8%	9.6%	10.9%	2.3%	0.0%	0.0%	0.0%

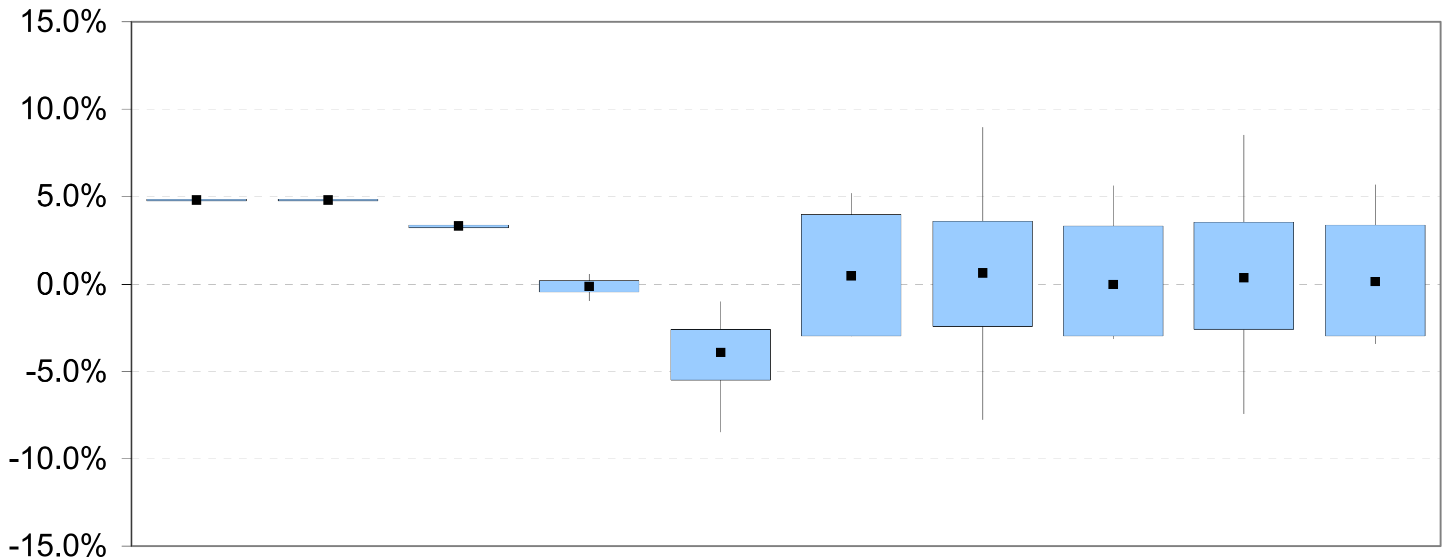
Alt2 = Asset Smoothing

Alt3 = Rate Collaring

Contribution Rate Smoothing
Asset Smoothing vs. Contribution Rate Collaring

The rate collar reduces the volatility of contribution rates by eliminating most changes outside of the standard collar. Inside the collar, however, rate changes may be more volatile as the rate is based on the market value of assets.

Change in contribution rate effective from 7/1 (Alt#2 vs. Alt#3)



	Alt2	Alt3	Alt2	Alt3	Alt2	Alt3	Alt2	Alt3	Alt2	Alt3
	2005	2005	2007	2007	2009	2009	2011	2011	2013	2013
5th V. Bad	4.8%	4.8%	3.5%	0.6%	-1.0%	5.2%	9.0%	5.6%	8.5%	5.7%
25th Bad	4.8%	4.8%	3.4%	0.2%	-2.6%	4.0%	3.6%	3.3%	3.6%	3.4%
50th Median	4.8%	4.8%	3.3%	-0.1%	-3.9%	0.4%	0.6%	0.0%	0.4%	0.1%
75th Good	4.8%	4.8%	3.2%	-0.5%	-5.5%	-3.0%	-2.5%	-3.0%	-2.6%	-3.0%
95th V. Good	4.8%	4.8%	3.1%	-1.0%	-8.5%	-3.0%	-7.8%	-3.1%	-7.5%	-3.4%

Alt2 = Asset Smoothing

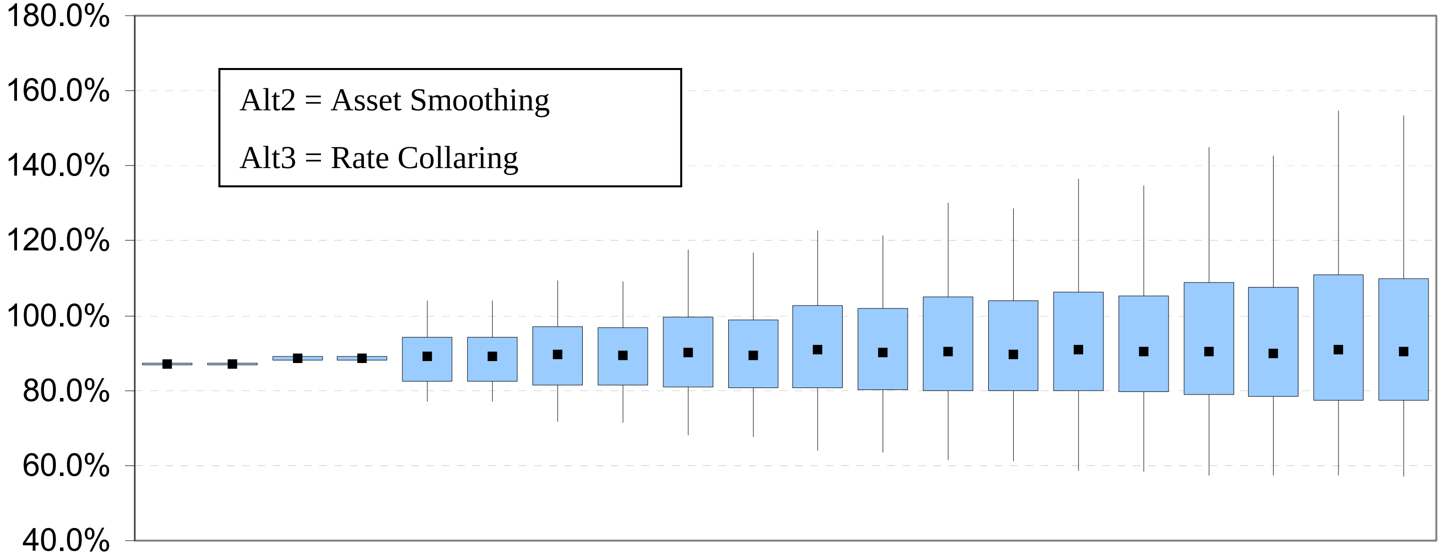
Alt3 = Rate Collaring

Contribution Rate Smoothing

Asset Smoothing vs. Contribution Rate Collaring

Funded Status (using MVA) at valuation date 12/31 (Alt#2 vs. Alt#3)

The concern that the rate collar may increase the probability of severe under funding or over funding does not appear to be warranted.



Alt #2	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
95th V. Good	87.0%	90.0%	104.0%	109.4%	117.5%	122.6%	130.2%	136.5%	144.9%	154.6%
75th Good	87.0%	89.1%	94.3%	97.1%	99.7%	102.8%	104.9%	106.4%	108.8%	111.0%
50th Median	87.0%	88.5%	89.0%	89.7%	90.1%	90.8%	90.3%	91.0%	90.5%	91.0%
25th Bad	87.0%	88.0%	82.6%	81.5%	81.0%	80.6%	80.0%	80.0%	78.9%	77.3%
5th V. Bad	87.0%	87.3%	77.2%	71.7%	68.2%	64.1%	61.5%	58.7%	57.4%	57.4%

Alt #3	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
95th V. Good	87.0%	90.0%	104.0%	109.2%	116.8%	121.4%	128.5%	134.6%	142.7%	153.4%
75th Good	87.0%	89.1%	94.3%	96.9%	99.0%	101.8%	104.1%	105.2%	107.6%	109.9%
50th Median	87.0%	88.5%	89.0%	89.5%	89.5%	90.1%	89.8%	90.3%	89.9%	90.5%
25th Bad	87.0%	88.0%	82.6%	81.4%	80.6%	80.1%	80.0%	79.8%	78.5%	77.4%
5th V. Bad	87.0%	87.3%	77.2%	71.5%	67.6%	63.6%	61.4%	58.3%	57.4%	57.1%

Contribution Rate Smoothing
Observations

- The proposed collar method appears to provide very desirable results
  - Reduced contribution rate volatility
  - Reduced contribution rates
  - No impairment of funded status
- Investment return volatility still produces a wide range of potential outcomes.

Recommendations

Recommendations
Reserve Policy

- In the 10-year period of the projection, additional reserves appeared to help in a minor way with the most extreme situations.
- More study is needed to develop an appropriate reserving policy
  - How large does the reserve need to be to be useful or are reserves not useful for managing surprises?
  - Should reserves be released when contribution rates increase above a threshold instead of or in addition to when funded status dips below a threshold?
  - Should reserves be invested differently and retain their own earnings?

Recommendations
Actuarial Cost Method

- Projected Unit Credit provides greater transparency of benefit accrual patterns, but these accrual patterns will likely increase for the closed group of actives who retire under full formula.
- The projection should be extended beyond 10 years on a deterministic basis to assess the increasing rate for a declining population both as a percentage of the declining payroll and as a dollar amount.

Recommendations
Contribution Rate Smoothing

- The collar method appears to stabilize contribution rates (at least within the range of the collar) without any negative impact on funded status.
- Calculations using market value of assets improve the transparency of the funded status of the system and improve the intuitiveness of results. That is, good investment returns will lead to a reduction in the calculated rate (before the collar is applied).
- PERS may want to pursue a change to this collar method on time for the 12/31/2005 actuarial valuation.
- If a collaring method is adopted, additional GASB disclosures will be required if the contribution rate is limited by the collar.

Appendix

Appendix
Reserve Policy Definitions

- Maximizing Reserves
  - Contingency and Capital Preservation Reserve – 7.5% of earnings in excess of 8.0%. These reserves are used to the extent necessary to maintain an 80% funded ratio, and statutory restrictions on when the Capital Preservation Reserve can be used have been ignored for this analysis.
  - Rate Guarantee Reserve – All Tier One member regular account earnings in excess of 8.0%. This reserve is used to the extent necessary to credit 8.0% earnings to Tier One member accounts.
- Minimizing Reserves
  - Contingency Reserve – 0.75% of earnings in excess of 8.0%. This reserve is used to the extent necessary to maintain an 80% funded ratio.
  - Capital Preservation Reserve – not used
  - Rate Guarantee Reserve – All Tier One member regular account earnings in excess of 8.0%. This reserve is used to the extent necessary to credit 8.0% earnings to Tier One member accounts.

Appendix
Definition of Collar Method

- Contribution rates will be confined to a collar based on the current contribution rate.
- The next contribution rate will not increase or decrease from the prior contribution rate by more than the greater of 3 percentage points or 20 percent of the current rate.
  - If current rate is 15%, the new rate cannot be more than 18% nor less than 12%.
  - If current rate is 20%, the new rate cannot be more than 24% nor less than 16%.
- If funded percentage drops below 80% or increases above 120%, the size of the collar doubles.
  - If current rate is 15% and funded status is below 80%, the new rate can be as high as 21%.
  - If current rate is 20% and funded percentage is below 80%, the new rate can be as high as 28%.
- All calculations will use the market value of assets

MERCER
Human Resource Consulting

March 31, 2006

Oregon PERS

December 31, 2004 Actuarial Valuation Results
Projected Unit Credit Method with Rate Collaring

Bill Hallmark and Annette Strand

MMC Marsh & McLennan Companies

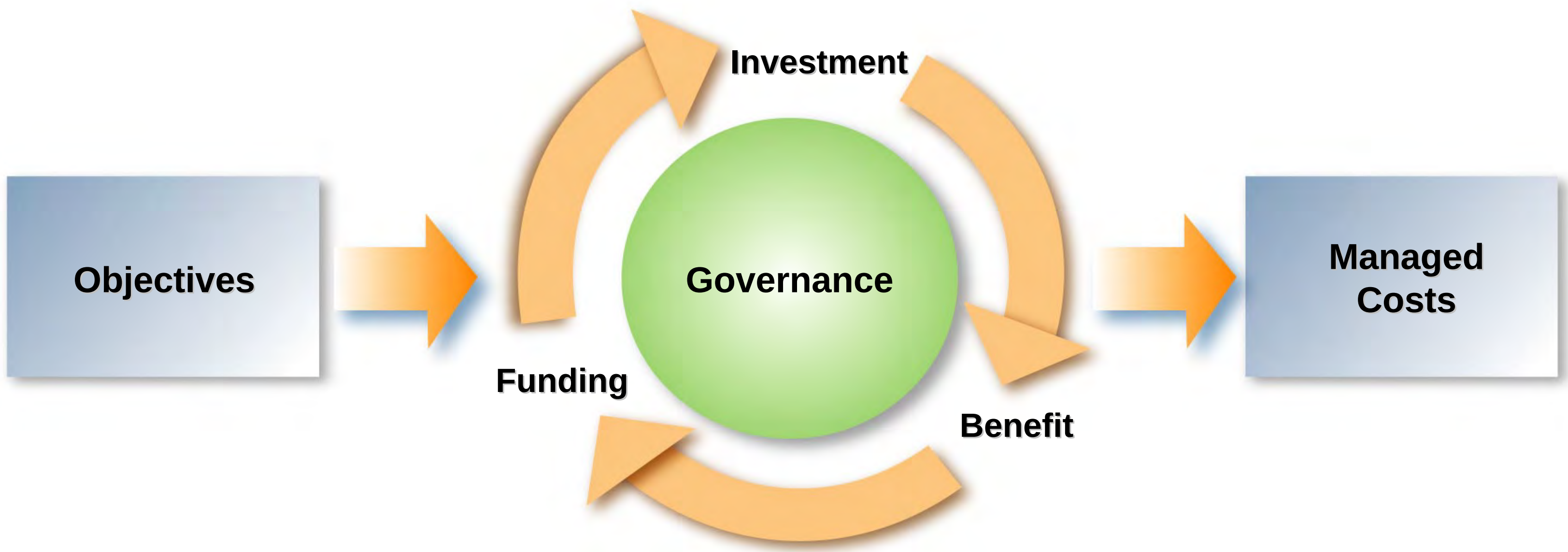
Contents

Background
Development of Proposed Method

- May 20, 2005 Board Meeting
  - Initially proposed alternative methods for consideration to manage contribution rates
- September 13, 2005 LAC Meeting
  - Feedback from employer and member representatives on proposed alternative methods
- December 16, 2005 Board Meeting
  - Financial modeling results of alternative methods
- March 31, 2006 Board Meeting
  - Compare December 31, 2004 valuation results between current and proposed methods

Background
Retirement Plan Financial Management Framework

Total Contributions = Benefits Paid - Investment Earnings



Actuarial methods primarily affect the timing of contributions

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Background
Objectives for Actuarial Methods

- Transparent
- Predictable and stable rates
- Protect funded status
- Equitable across generations
- Actuarially sound
- GASB compliant

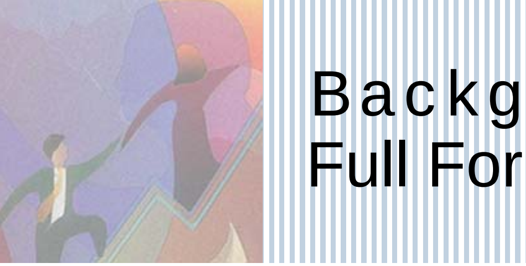
Background
Overview of Proposed Changes

Projected Unit Credit Cost Method:

- The cost of benefits earned is funded each year and the liability represents the value of benefits earned to date. Projected unit credit provides stakeholders and users of the actuarial valuation report a real measure of the cost and liability of the system that is easily understood.

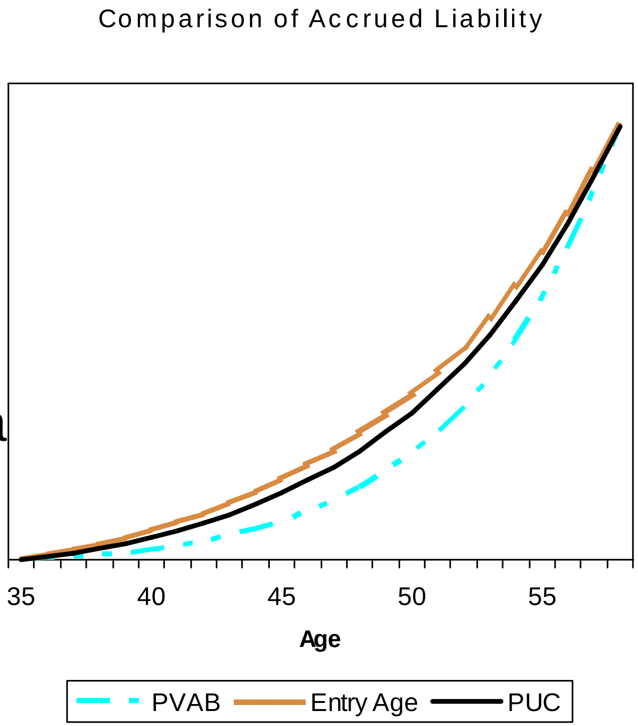
Contribution rate collaring:

- Smoothes contribution rates instead of assets. The true market value of assets is reflected in the measurement of the funded status of the system and the determination of contribution rates. Stakeholders and users of the actuarial valuation report will better understand the financial position of the system in order to make timely management, benefit, investment and funding decisions.
- The collar provides limits to changes in contribution rates that are useful for budgeting purposes.

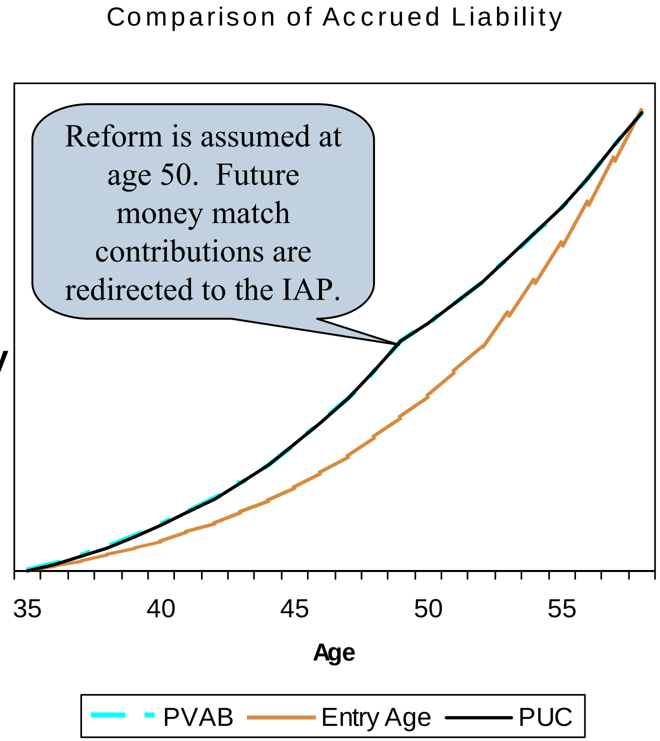


Background
Full Formula and Money Match Benefit Liabilities

Full Formula



Money Match



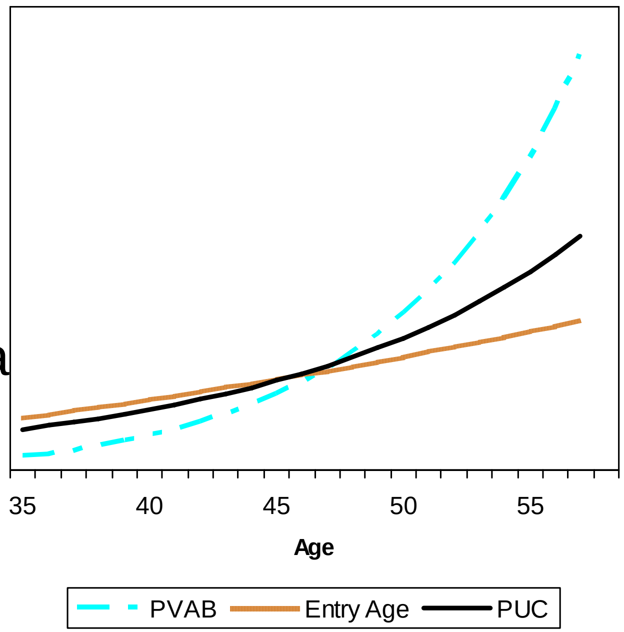
- Present value of accrued benefits to date—PVAB—(based on current service and pay) increases rapidly as member approaches retirement
- Actuarial methods allocate these costs evenly across an employee’s career

- For Money Match benefit, entry age accrued liability is less than the PVAB
- In this case, projected unit credit (PUC) follows the pattern of benefit accruals exactly, so the PUC accrued liability always equals the value of the accrued benefit

Background
Full Formula and Money Match Benefit Normal Cost

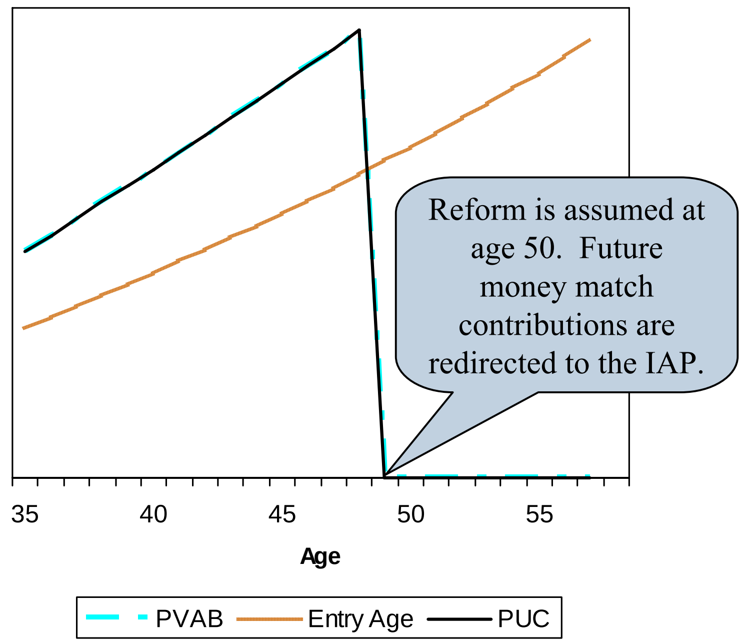
Full Formula

Comparison of Normal Cost



Money Match

Comparison of Normal Cost



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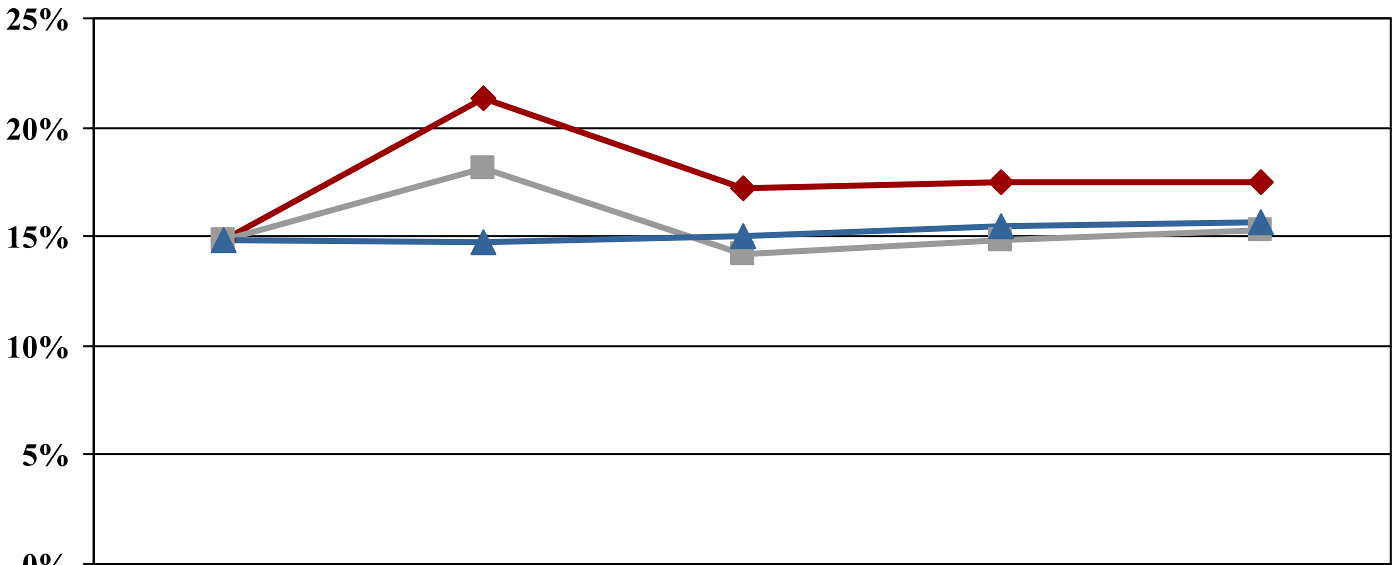
- PVAB normal cost shows the pattern in which benefits are actually earned
- Both Entry Age and PUC allocate normal cost more evenly through career than the PVAB cost by reflecting future pay; Entry Age more so than PUC

- Entry Age normal cost is below the rate at which actual benefits accrue until contributions are re-directed to the IAP; after: significantly higher than the benefit accrual rate
- In this case, projected unit credit follows the pattern of benefit accruals exactly

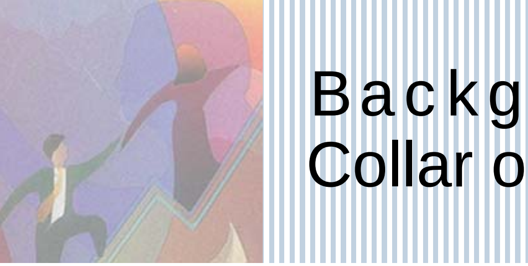
Background
Financial Modeling Results

The financial modeling projections showed that the current asset smoothing method creates an expected spike in contribution rates as of 7/1/2007.

Median Pension Contribution Rate

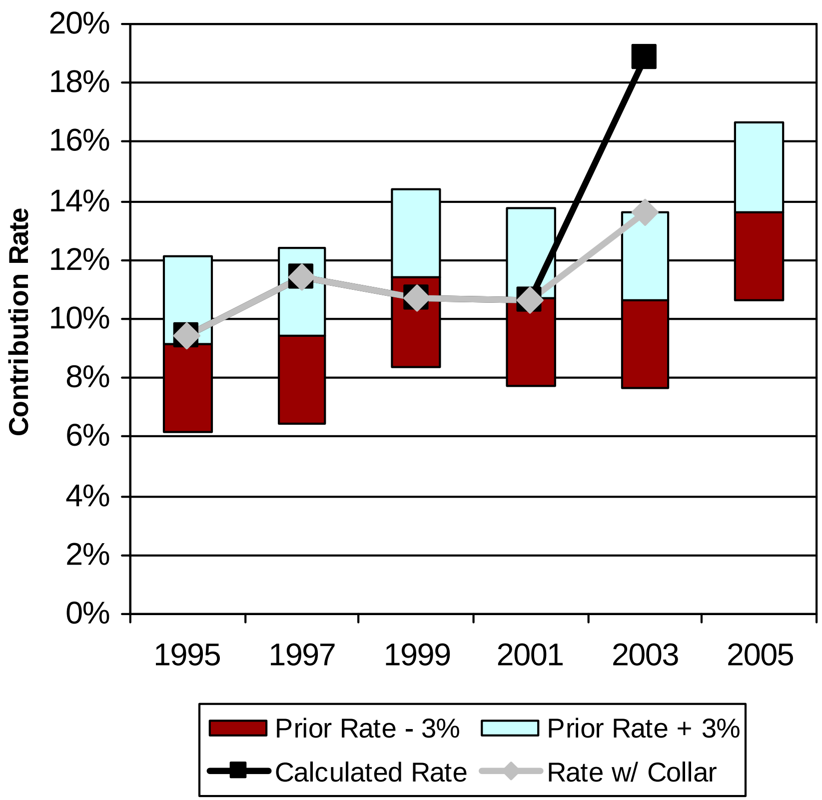


	2005	2007	2009	2011	2013
EAN/Asset Smoothing	14.8%	21.3%	17.2%	17.5%	17.5%
PUC/Asset Smoothing	14.8%	18.1%	14.2%	14.8%	15.3%
PUC/Rate Collaring	14.8%	14.7%	15.0%	15.5%	15.7%



Background
Collar on Contributions Method

Illustration of Collar Method
(Assumes Collar Always Used)



- Contribution rates are confined to a collar based on the current contribution rate.
- The next contribution rate will not increase or decrease from the prior contribution rate by more than the greater of 3 percentage points or 20 percent of the current rate.
  - If current rate is 15%, the new rate cannot be more than 18% nor less than 12%.
  - If current rate is 20%, the new rate cannot be more than 24% nor less than 16%.
- If funded percentage drops below 80% or increases above 120%, the size of the collar doubles.
  - If current rate is 15% and funded status is below 80%, the new rate can be as high as 21%.
  - If current rate is 20% and funded percentage is below 80%, the new rate can be as high as 28%.
- All calculations use the market value of assets

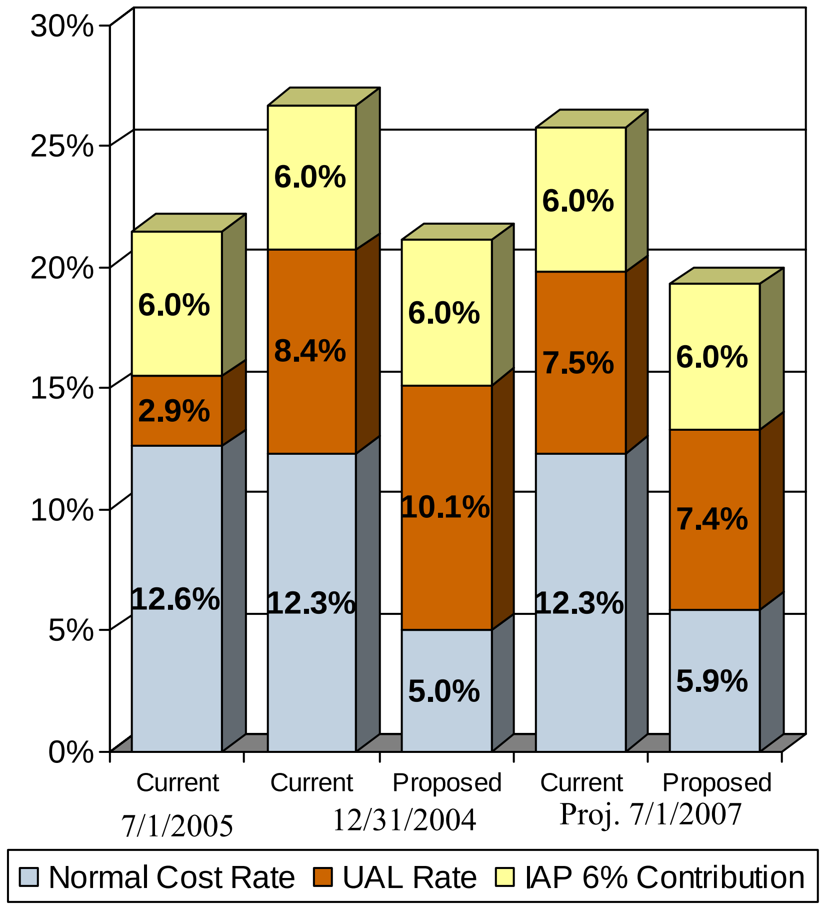
Key Findings
Overview

	As of 12/31/2004		
	Current	Proposed	Change
Normal Cost	$775	$316	($459)
Accrued Liability	$46,769	$47,984	$1,215
Assets	$38,003	$40,306	$2,303
UAL	$8,766	$7,678	($1,088)
UAL Payment	$569	$686	$117
NC Rate	12.3%	5.0%	-7.3%
UAL Rate	8.4%	10.1%	1.7%
Total	**20.7%**	**15.1%**	**-5.6%**

- Projected unit credit results in a significantly lower normal cost rate that more accurately reflects the expected accrual of benefits.
- The accrued liability under projected unit credit is higher than under entry age, more accurately reflecting the value of benefits that have already been earned.
- The market value of assets more accurately reflects the current funded status of the System
- The normal cost rate is applied to PERS T1/T2 payroll, but the UAL rate is applied to PERS and OPSRP payroll
- Note that employers are currently paying an average rate of 15.5%

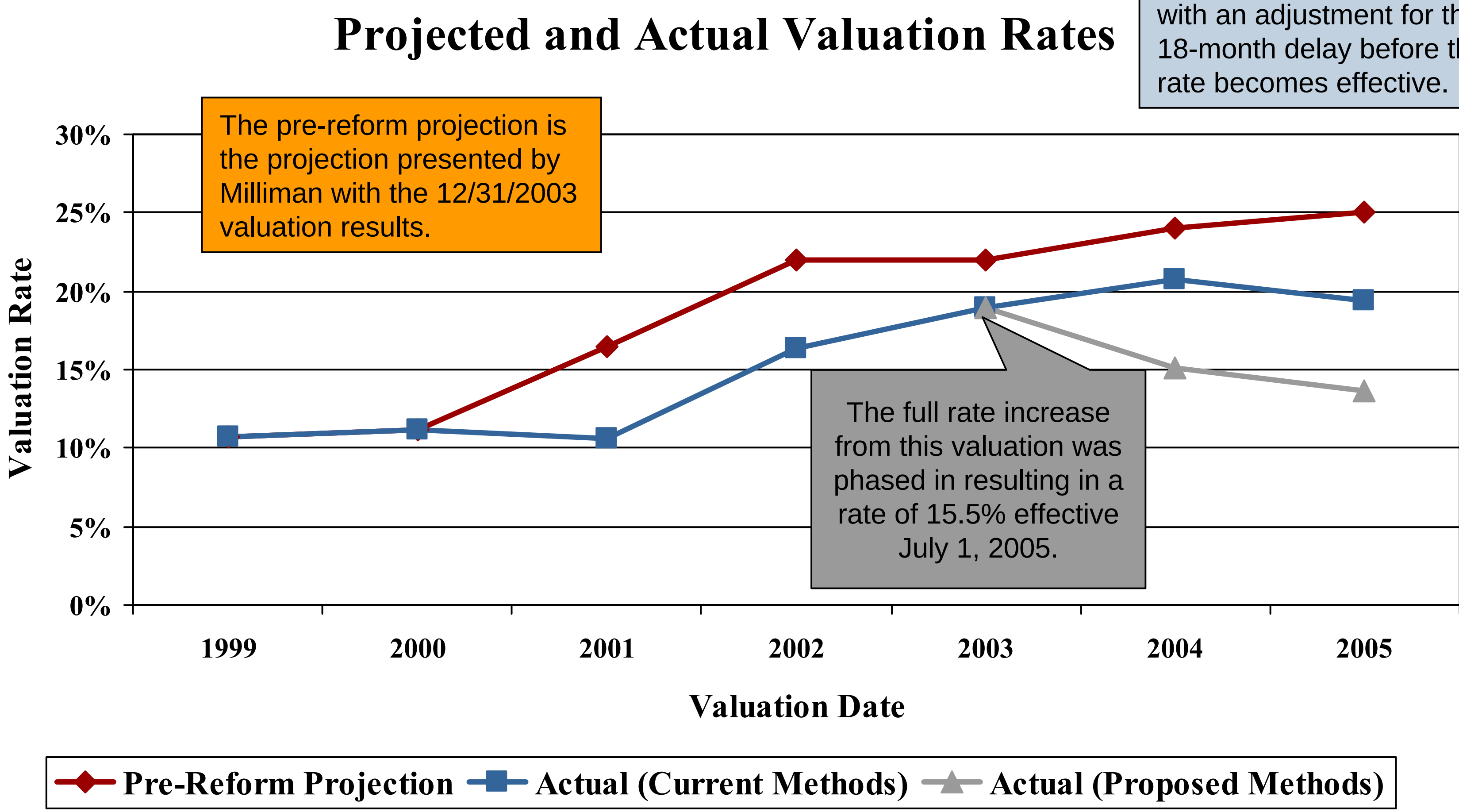
Key Findings
Employer and Member Contribution Rates

- The reduction in projected contribution rates is even more significant as of 7/1/2007
  - Reflects full market performance during 2005 instead of only recognizing 25% of gains
  - Reflects projected increase in PUC normal cost rate
- Projected 7/1/2007 rates also reflect the deployment of reserves
- Actual rates effective 7/1/2007 will be based on the December 31, 2005 valuation reflecting all assumption changes from the 2005 experience study



Key Findings
Comparison to Pre-Reform Projections

Rates shown in this graph are as of the valuation date and do not represent the rate actually paid. Actual rates are based on odd year valuation results with an adjustment for the 18-month delay before the rate becomes effective.



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Key Findings
Breakdown of Reduction in Rates

- The deployment of reserves reduces projected rates by approximately 1.2%
- Adopting projected unit credit reduces the normal cost by 6.4%, but increases the amortization payment by 3.2%
- Fully recognizing the better than expected investment performance of the last three years reduces projected rates by approximately 3.3%

Change from 12/31/2004 Valuation Results

Prior Projected 7/1/07 Contribution Rate	21.0%
Deploy Reserves	-1.2%
Adopt Projected Unit Credit Method	-3.2%
Adopt Market Value with Collar	-3.3%
New Projected 7/1/07 Contribution Rate	13.3%

Key Findings
Breakdown of Reduction in Rates

- The deployment of reserves reduces projected rates by approximately 1.2%
- Financial modeling assumed earnings for 2005 were approximately 9%. However, when the alternative investments were valued as of 12/31/2005 earnings were close to 14%. These additional earnings reduced rates by approximately 0.8%
- The financial modeling results did not include retiree medical benefits.

Change from Financial Modeling Results

Median 7/1/07 Pension Contribution Rate	14.7%
Deploy Reserves	-1.2%
Additional 2005 Earnings	-0.8%
Retiree Medical	0.6%
New Projected 7/1/07 Contribution Rate	13.3%

Key Findings
Employer Contribution Rates

Both sets of projected rates below reflect the deployment of reserves.

	SLGRP	Independ-ents	School Districts	Judiciary (Includes Member Contribution)	System-Wide
Current Projected 7/1/2007 Rate	19.7%	12.9%	22.7%	26.0%	19.8%
Proposed Projected 7/1/2007 Rate	13.3%	7.2%	15.9%	20.1%	13.3%

- Projected contribution rates are significantly lower for all employer groups under the proposed methods.
- Side accounts may further reduce the rates paid by employers.

* Assumes election of phase-in rate

Normal Cost

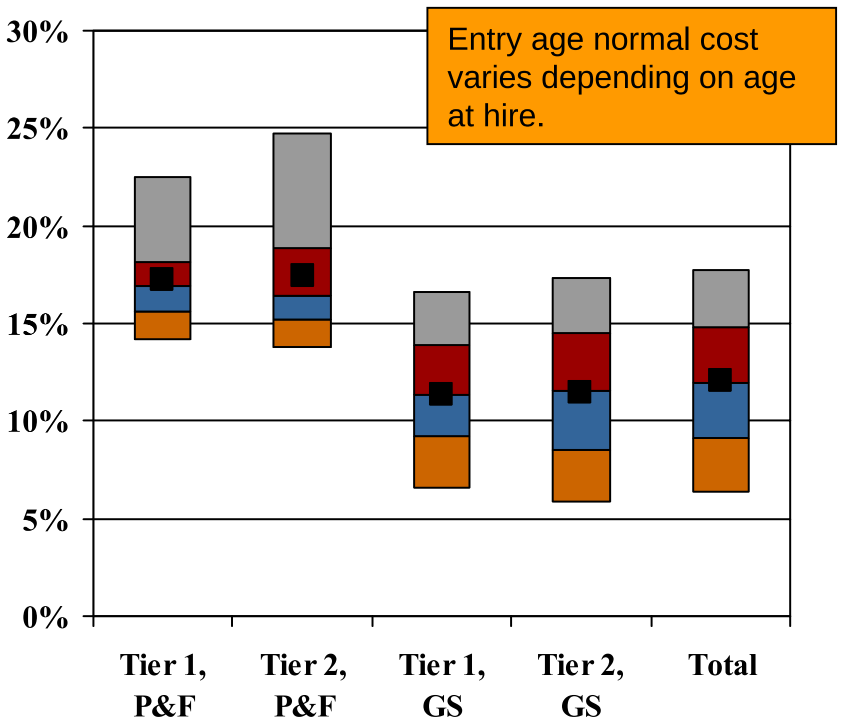
The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. Under the projected unit credit method, the normal cost reflects the benefits earned in the next year.

	SLGRP	Independents	School Districts	Judiciary (includes Member Contributions)	System-Wide
T-1, General	2.43%	2.41%	2.99%	30.76%	2.80%
T-1, P&F	8.25%	9.20%			8.52%
T-1, Average	**3.39%**	**4.02%**	**2.99%**	**30.76%**	**3.45%**
T-2, General	6.16%	5.69%	6.75%		6.29%
T-2, P&F	11.40%	10.78%			11.24%
T-2, Average	**7.08%**	**6.65%**	**6.75%**		**6.91%**
Retiree Healthcare	0.22%	0.18%	0.18%	0.26%	0.20%
System Average	**5.12%**	**5.34%**	**4.49%**	**31.02%**	**5.00%**

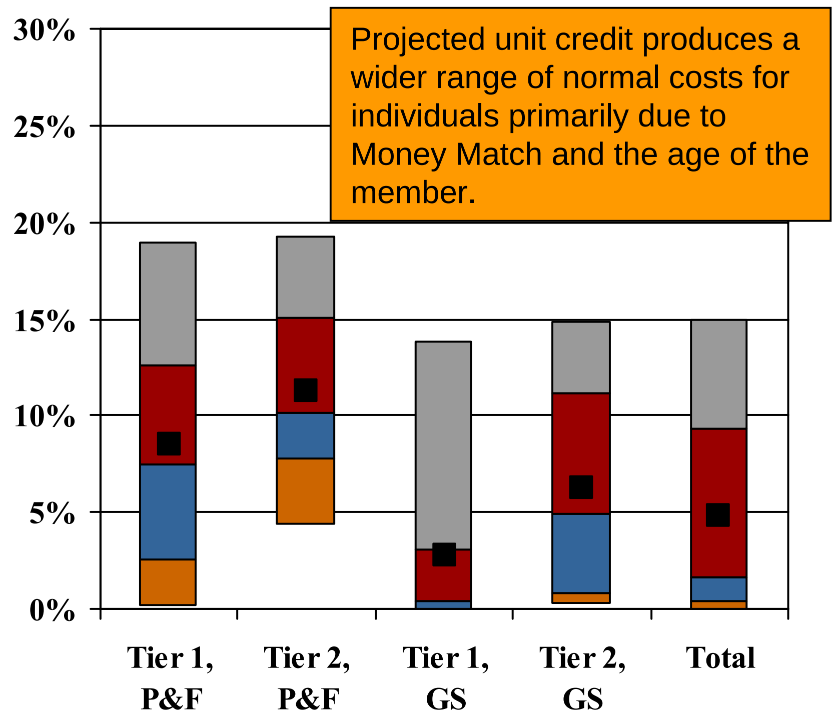
- The normal cost rate for Judiciary is higher under projected unit credit than under entry age normal
- The lower normal cost rate reflects the impact of the frozen Money Match formula. Almost 25 percent of Tier 1, general service members have no normal cost under projected unit credit.

Normal Cost
Distribution of Individual Normal Cost Rates

Entry Age Normal Cost



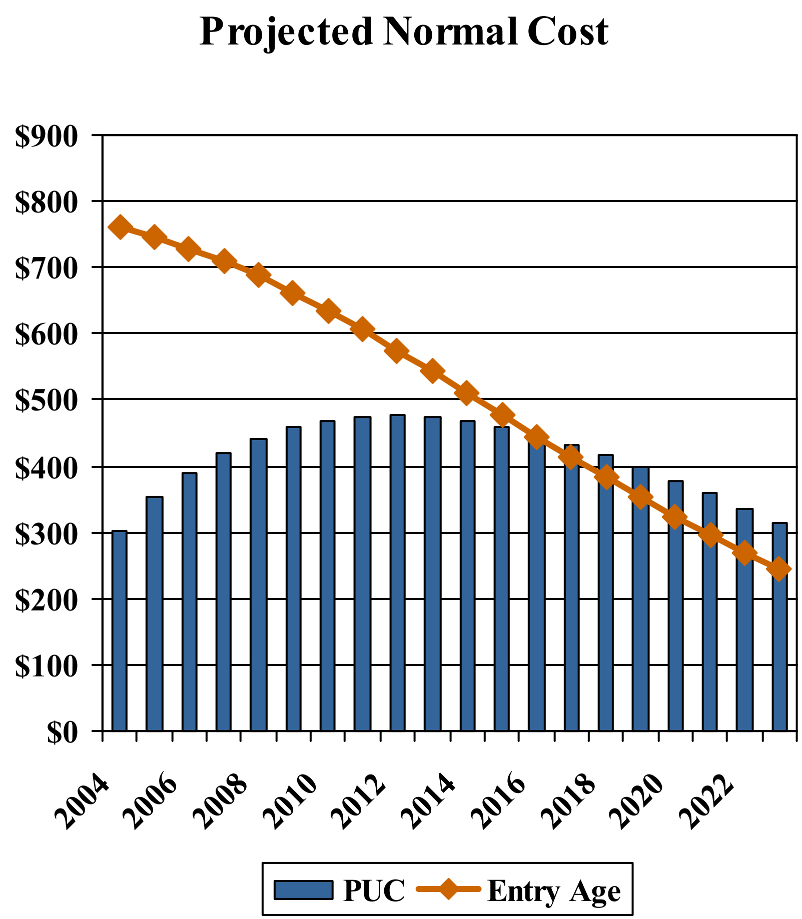
Projected Unit Credit Normal Cost



Percentile Distribution of Rates — 5th to 25th | 25th to 50th | 50th to 75th | 75th to 95th | Average Rate

Normal Cost

- Under Entry Age Normal, the normal cost payments decline relatively rapidly as members retire.
- Under PUC, the normal cost payments initially increase.
  - Members move from Money Match to Full Formula
  - Members age
- After about 10 years, this trend reverses and normal cost decreases.



Actuarial Accrued Liabilities

Actives

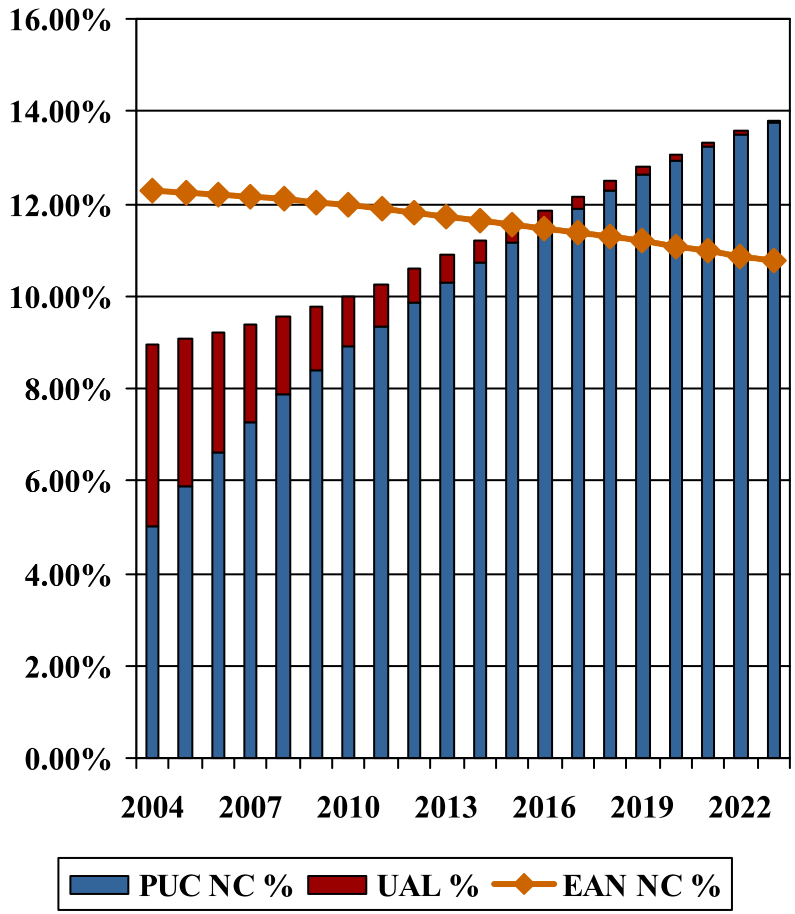
The actuarial accrued liability represents the value of benefits assigned to past service by the actuarial cost method.

	SLGRP	Independents	School Districts	Judiciary	System-Wide
T-1, General	$7,323	$1,271	$6,589	$61	$15,244
T-1, P&F	$1,214	$533	$3		$1,752
T-1, Total	**$8,537**	**$1,804**	**$6,592**	**$61**	**$16,996**
T-2, General	$695	$204	$486		$1,385
T-2, P&F	$198	$61	$1		$260
T-2, Total	**$893**	**$265**	**$487**		**$1,645**
Retiree Healthcare					$162
PUC Total	**$9,430**	**$2,069**	**$7,080**	**$61**	**$18,804**
EAN Total	**$8,852**	**$1,921**	**$6,569**	**$68**	**$17,587**

The difference between the PUC accrued liability and the EAN accrued liability will be amortized over 5 years.

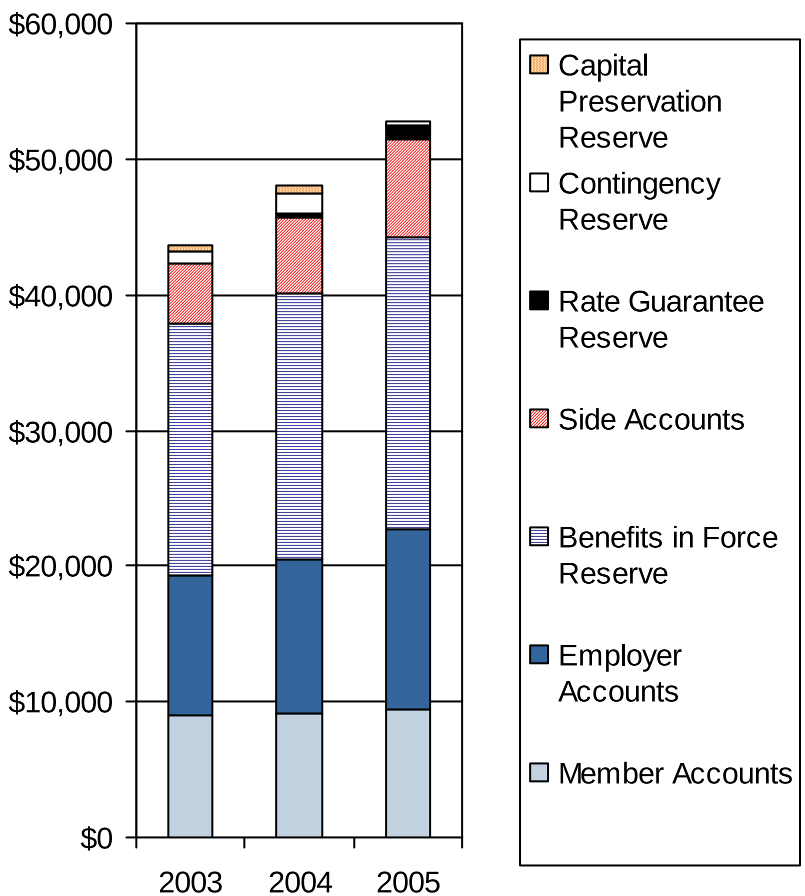
System-wide results include Multnomah Fire District #10

Actuarial Accrued Liabilities
Amortization of Change Combined with Normal Cost



- The entry age normal cost rate is expected to decline over time, but the projected unit credit rate is expected to increase.
- The rate will be applied to a smaller and smaller group as time goes on, so the dollar amount contributed will decline under both methods
- The change in accrued liability is amortized over a rolling 5-year period that helps to somewhat level the increase in PUC normal cost rate. This rate, however, is charged to combined PERS and OPSRP payroll.

Assets
Total Pension Assets



- Valuation assets are growing faster than expected
  - Deployment of reserves
  - Higher rate of earnings than expected
  - Building the rate guarantee reserve
- Continued high rate of earnings will drive contribution rates down regardless of which method is used.
- Side funds continue to grow with new deposits and high rates of earnings

Unfunded Accrued Liabilities
Pension Only

Liability for pension obligation bonds is about equal to side accounts, implying that the total obligation for PERS on a market value basis is about $7.2 billion. However, with the deployment of reserves and 2005 earnings, the obligation is expected to drop to about $4.6 billion as of 12/31/2005.

	SLGRP	Independents	School Districts	Judiciary	System -Wide
Accrued Liability	23,407	4,315	19,483	129	47,399
Market Value of Assets	19,861	4,190	16,020	145	40,153
Unfunded Accrued Liability	3,546	125	3,463	(16)	7,246
Side Funds	2,869	35	2,652	0	5,556
UAL – Side Funds	677	90	811	(16)	1,690
POBs	3,175	176	2,165	0	5,516
Total Unfunded Obligations	3,852	266	2,976	(16)	7,206

System-wide results include Multnomah Fire District #10

Unfunded Accrued Liabilities
Pension Only

The unfunded represents a significant portion of payroll, causing contribution rates to be relatively high.

	SLGRP	Independents	School Districts	Judiciary	System-Wide
Payroll (T1/T2 + OPSRP)	3,389	1,034	2,333	16	6,772
UAL	3,546	125	3,463	(16)	7,246
UAL as % of Payroll	105%	12%	148%	-100%	107%
UAL – Side Funds	677	90	811	(16)	1,690
Net UAL as % of Payroll	20%	9%	35%	-100%	25%
UAL – Side Funds + POBs	3,852	266	2,976	(16)	7,206
Net Obligation as % of Payroll	114%	26%	128%	-100%	106%

Funded Status
System-Wide Funded Status

Estimates as of 12/31/2005 include the deployment of reserves.

Valuation	12/31/2003		12/31/2004		12/31/2005 (est.)	
	Excluding Side Funds	Including Side Funds	Excluding Side Funds	Including Side Funds	Excluding Side Funds	Including Side Funds
Current	86%	96%	81%	93%	85%	99%
Proposed	N/A	N/A	85%	96%	90%	104%

- The current methods disclose funded status based on smoothed assets and the entry age accrued liability
- The proposed methods disclose funded status based on the market value of assets and projected unit credit accrued liability providing a better indicator of the funded status of the system
- After three years of good investment performance, it is expected that funded status will improve and contribution rates will decrease

Conclusions

- The proposed methods offer better indicators of the status of the system
  - Normal cost better represents the cost of benefits for additional years of service
  - Accrued liability better represents value of benefits earned to date
  - Market value of assets better represents funded status
  - Contribution rates move in intuitive directions
- The proposed methods also offer a significant reduction in employer contribution rates, and the financial modeling showed a more level contribution rate

Next Steps

- March Board Meeting -- 12/31/2004 system-wide valuation results
  - Projected unit credit method
  - Market value of assets
  - Contribution rate collar
- April Board Meeting – Decision on actuarial methods
- June Board Meeting – Experience study
- September Board Meeting – 12/31/2005 system-wide valuation results
  - OPSRP
  - PERS T1/T2

Appendix

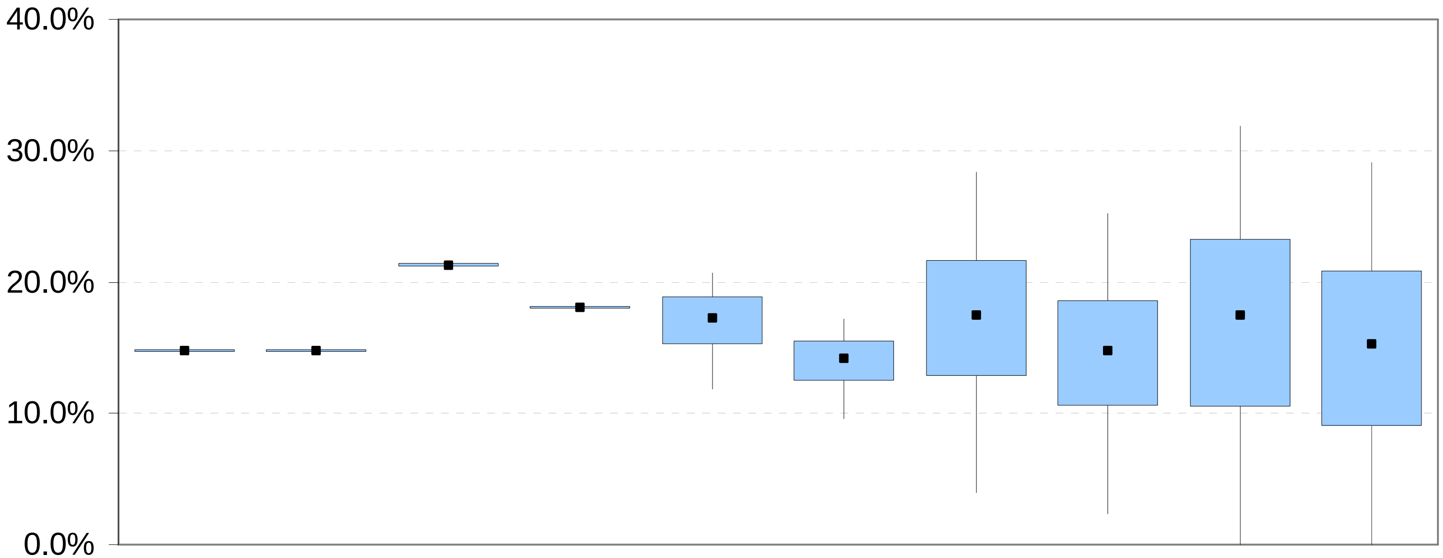
Actuarial Cost Method
Observations

- The primary advantage of the PUC method is the increased transparency provided by a more realistic allocation of costs between the past (accrued liability) and the future (normal cost).
- There are two other effects of switching to PUC:
  - The average normal cost rate will tend to rise as Money Match members retire and they represent a smaller proportion of the population.
  - The average normal cost rate will tend to rise as the closed Tier 1/2 population ages.
- Both of these effects are somewhat mitigated by the declining payroll to which they apply.
- The PUC method also produces lower contribution rates. The amount of reduction is less than it appears as the UAL is amortized over combined payroll while the normal cost rate is only charged to the closed Tier 1/2 payroll.

Actuarial Cost Method
Entry Age Normal vs. Projected Unit Credit

PUC contribution rates are approximately 200 basis points less than the EAN contribution rates.

Contribution Rate effective from 7/1 (Base vs. Alt#2)

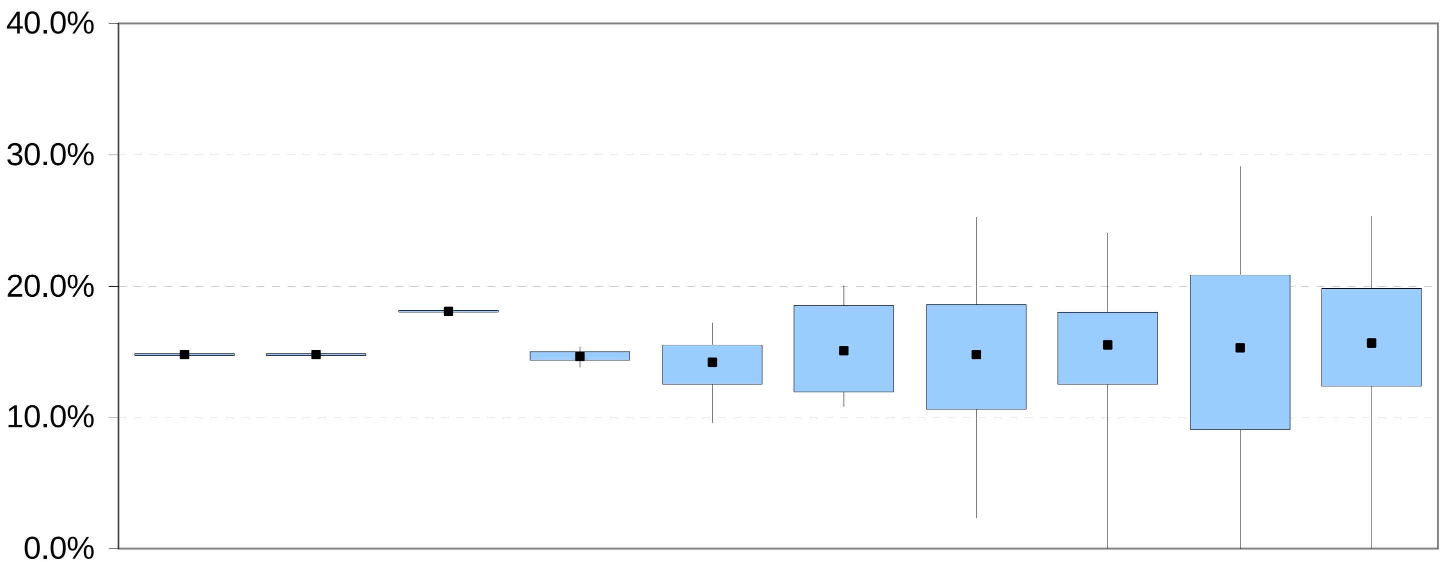


	Base 2005	Alt2 2005	Base 2007	Alt2 2007	Base 2009	Alt2 2009	Base 2011	Alt2 2011	Base 2013	Alt2 2013
5th V. Bad	14.8%	14.8%	21.6%	18.3%	20.7%	17.2%	28.4%	25.2%	31.9%	29.1%
25th Bad	14.8%	14.8%	21.4%	18.2%	18.9%	15.5%	21.7%	18.6%	23.3%	20.8%
50th Median	14.8%	14.8%	21.3%	18.1%	17.2%	14.2%	17.5%	14.8%	17.5%	15.3%
75th Good	14.8%	14.8%	21.2%	18.0%	15.3%	12.5%	12.9%	10.6%	10.5%	9.1%
95th V. Good	14.8%	14.8%	21.1%	17.9%	11.9%	9.6%	4.0%	2.3%	0.0%	0.0%

Contribution Rate Smoothing
Asset Smoothing vs. Contribution Rate Collaring

Contribution Rate effective from 7/1 (Alt#2 vs. Alt#3)

The rate collar reduces contribution rates as of 7/1/2007 because it immediately recognizes the asset gains of 2003, 2004, and 2005. The range of future contribution rates has also narrowed considerably, particularly between the 25th and 75th percentiles.



	Alt2 2005	Alt3 2005	Alt2 2007	Alt3 2007	Alt2 2009	Alt3 2009	Alt2 2011	Alt3 2011	Alt2 2013	Alt3 2013
5th V. Bad	14.8%	14.8%	18.3%	15.4%	17.2%	20.0%	25.2%	24.1%	29.1%	25.3%
25th Bad	14.8%	14.8%	18.2%	15.0%	15.5%	18.5%	18.6%	18.0%	20.8%	19.8%
50th Median	14.8%	14.8%	18.1%	14.7%	14.2%	15.0%	14.8%	15.5%	15.3%	15.7%
75th Good	14.8%	14.8%	18.0%	14.3%	12.5%	11.9%	10.6%	12.5%	9.1%	12.4%
95th V. Good	14.8%	14.8%	17.9%	13.8%	9.6%	10.9%	2.3%	0.0%	0.0%	0.0%

Alt2 = Asset Smoothing

Alt3 = Rate Collaring

MERCER
Human Resource Consulting

April 27, 2006

Oregon PERS

December 31, 2004 Actuarial Valuation Results

Bill Hallmark and Annette Strand

MMC Marsh & McLennan Companies

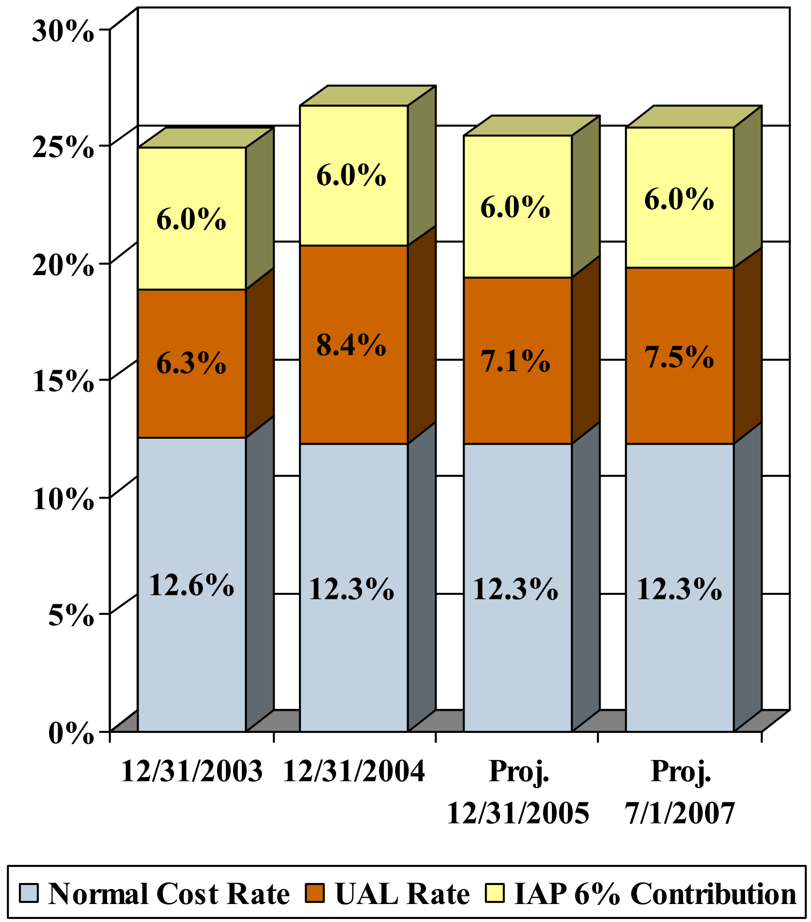
Contents

Review of 12/31/2004 Valuation Results
Overview

- December 31, 2004 actuarial valuation results
  - Are advisory — no effect on contribution rates
  - Reflect estimated effect of Strunk/Eugene decisions
  - Use same methods and assumptions as prior valuation
    - Some exceptions due to transition (see Appendix), Strunk/Eugene (see Appendix), and a change to the SLGRP pooling method
  - Excludes OPSRP and IAP (assets, benefits, earnings, etc.)

Review of 12/31/2004 Valuation Results
Employer and Member Contribution Rates

- The average normal cost rate declined slightly since the prior valuation.
- The average UAL rate increased since the last valuation reflecting:
  - Strunk and Eugene decisions
  - Recognition of more of the prior investment losses, and
  - the 18-month delay in contribution rate changes
- The average UAL rate is expected to decrease slightly by 12/31/2005 reflecting 2004 and 2005 investment performance and the deployment of reserves, offset by the phase-in of contribution rates.



Review of 12/31/2004 Valuation Results
Change in Employer Contribution Rate

7/1/05 Employer Rate	**15.4%**
Planned Phase-in	5.0%
Asset Smoothing	1.8%
Strunk/Eugene	0.9%
2004/05 Earnings/ Reserves	(1.4%)
Other Gains/Losses	(0.7%)
Deploy Reserves	(1.2%)
7/1/07 Expected Employer Rate	**19.8%**
IAP 6% Contribution	**6.0%**

- In April, 2005, we projected employer rates to increase to 25.8% by 7/1/2007.
- With the Eugene decision, favorable investment experience, and the deployment of the Contingency and Capital Preservation Reserves, we now project 7/1/2007 employer contribution rates, using current methods and assumptions, to average 19.8%.

Review of 12/31/2004 Valuation Results
Employer and Member Contribution Rates

Projected 7/1/2007 rates below reflect the deployment of reserves.

	SLGRP	Independ-ents	School Districts	Judiciary (Includes Member Contribution)	System-Wide
Actual 7/1/2005 Employer Contribution Rates	14.9%	11.5%*	17.0%	29.4%	15.4%
Projected 7/1/2007 Employer Contribution Rates	19.7%	12.9%	22.7%	26.0%	19.8%
IAP 6% Contribution	6.0%	6.0%	6.0%	N/A	6.0%

- While system-wide rates are projected to average 19.8%, rates vary significantly by pool and employer.
- Side accounts may further reduce the rates paid by employers.

* Assumes election of phase-in rate

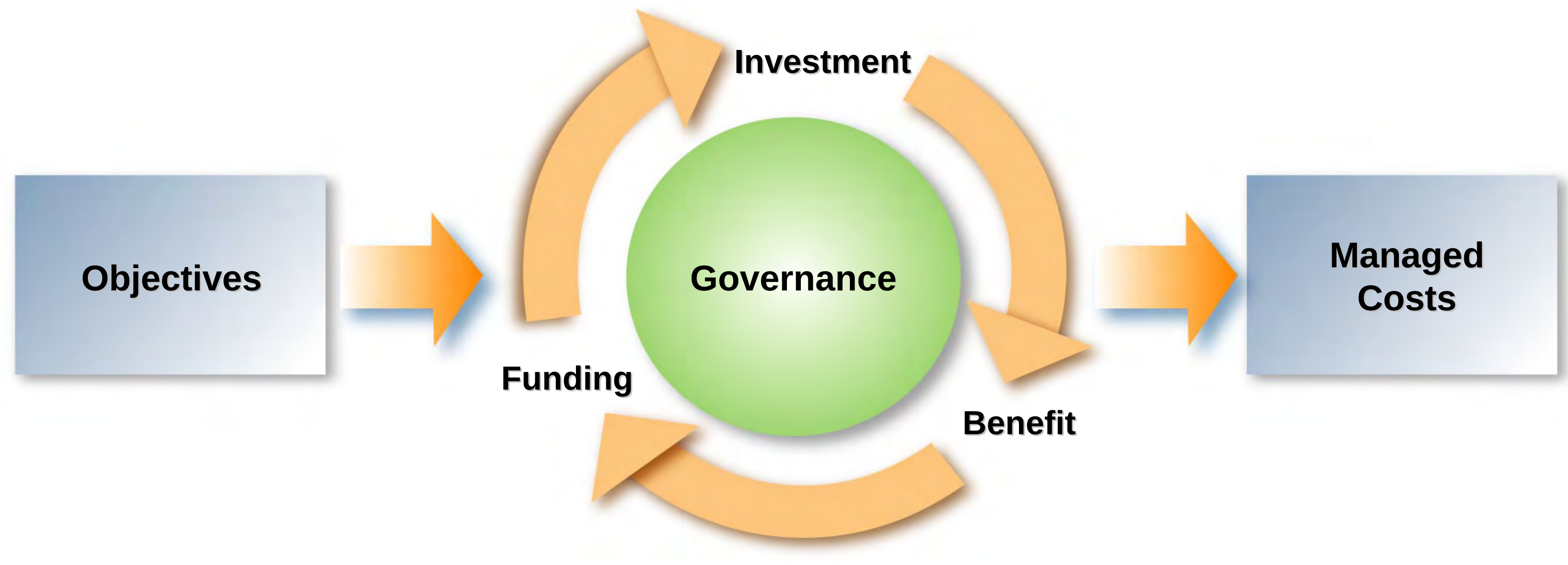
Review of 12/31/2004 Valuation Results
Impact of Side Accounts

	SLGRP	Independ-ents	School Districts	Judiciary (Includes Member Contribution)	System-Wide
Total Number of Employers	286	287	232	1	806
Number of Employers with a Side Account	23	3	77	0	103
12/31/2004 Side Account Balance	$2,869.0	$35.0	$2,652.1	$0.0	$5,556.2
Average Reduction in Employer Contribution Rate due to Side Account	8.1%	3.8%	12.3%	0.0%	9.6%

- Average reduction in employer contribution rates is a weighted average for the employers with a side account.

Consideration of Method Changes
Retirement Plan Financial Management Framework

Total Contributions = Benefits Paid - Investment Earnings



Actuarial methods primarily affect the timing of contributions

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Consideration of Method Changes
Development of Proposed Method

- May 20, 2005 Board Meeting
  - Initially proposed alternative methods for consideration to manage contribution rates
- September 13, 2005 LAC Meeting
  - Feedback from employer and member representatives on proposed alternative methods
- December 16, 2005 Board Meeting
  - Financial modeling results of alternative methods
- March 31, 2006 Board Meeting
  - Compare December 31, 2004 valuation results between current and proposed methods
- April 11, 2005 LAC Meeting
  - Feedback from employer and member representatives on proposed alternative methods

Consideration of Method Changes
Board Objectives for Actuarial Methods

- Transparent
- Predictable and stable rates
- Protect funded status
- Equitable across generations
- Actuarially sound
- GASB compliant

Consideration of Proposed Changes
Entry Age Normal vs. Projected Unit Credit

Entry Age Normal Cost Method:

- The cost of projected benefits is funded as a level percentage of pay over an employee's career. For Full Formula benefits, the result is an accrued liability greater than the value of the accrued benefit, but for Money Match benefits, the accrued liability is less than the value of accrued benefits. The normal cost does not reflect the pattern in which benefits accrue. Although the method funds the benefits adequately, stakeholders may be misled about the cost and liability of the system.

Projected Unit Credit Cost Method:

- The cost of benefits earned is funded each year and the liability represents the value of benefits earned to date. Projected unit credit provides stakeholders and users of the actuarial valuation report a real measure of the cost and liability of the system that is easily understood.

Consideration of Proposed Changes
Entry Age Normal vs. Projected Unit Credit

As of 12/31/2004			
	EAN	PUC	Change
Normal Cost	$775	$316	($459)
Accrued Liability	$46,769	$47,984	$1,215
Assets	$38,003	$38,003	$0
UAL	$8,766	$9,981	$1,215

Amounts in millions

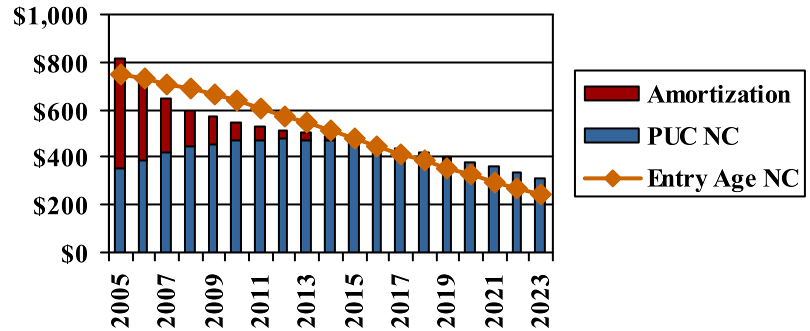
Change in Normal Cost and UAL

- Projected unit credit results in a significantly lower normal cost that more accurately reflects the expected accrual of benefits.
- The accrued liability under projected unit credit is higher than under entry age, more accurately reflecting the value of benefits that have already been earned.
- The $1.2 billion increase in accrued liability can be amortized over a shorter period than the rest of the UAL

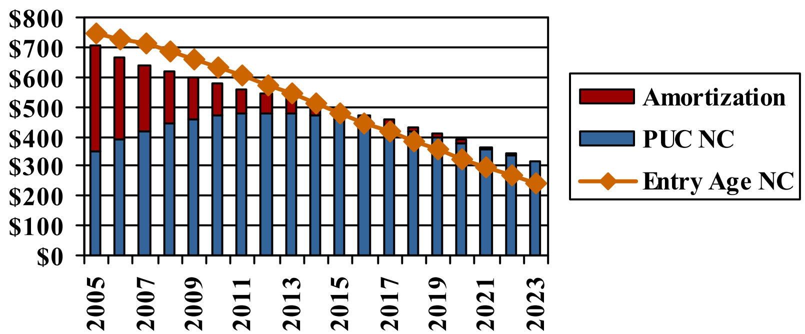
Consideration of Proposed Changes
Entry Age Normal vs. Projected Unit Credit

- The change in accrued liability due to the change to PUC could be amortized over rolling 3-, 4-, or 5-year periods to approximate the pattern of costs under entry age normal.
- At some point the Board will likely want to fix the amortization period instead of rolling it with each valuation.

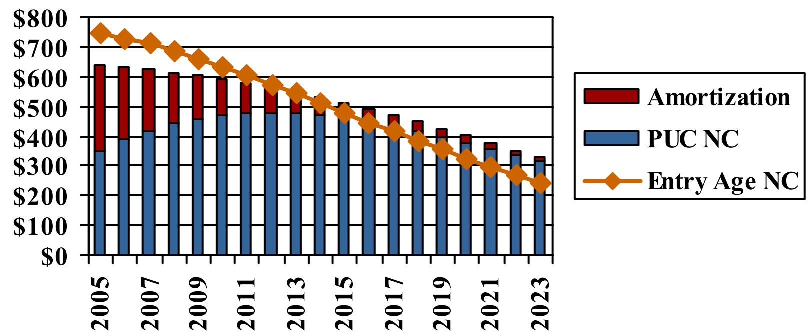
Rolling 3-Year Amortization



Rolling 4-Year Amortization



Rolling 5-Year Amortization

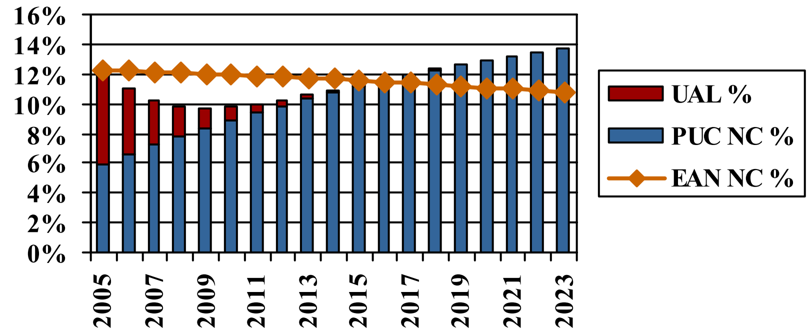


Amounts in millions

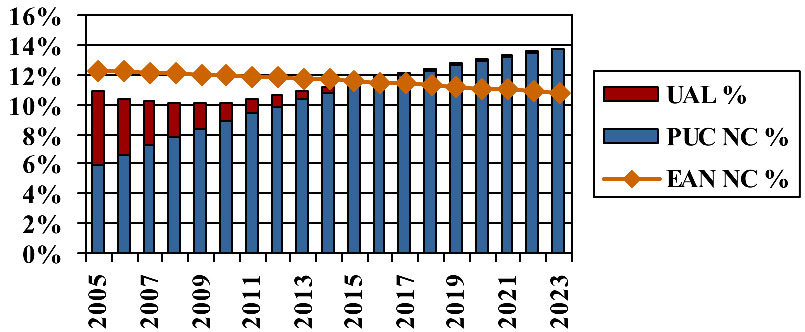
Consideration of Proposed Changes
Entry Age Normal vs. Projected Unit Credit

- Note that normal cost is paid on PERS T1/T2 payroll only while the UAL contribution rate is paid on combined PERS and OPSRP payroll.
- The PUC normal cost rate starts lower than the EAN normal cost rate, but they cross after about 10 years. However, the PERS T1/T2 payroll is much smaller at that point.

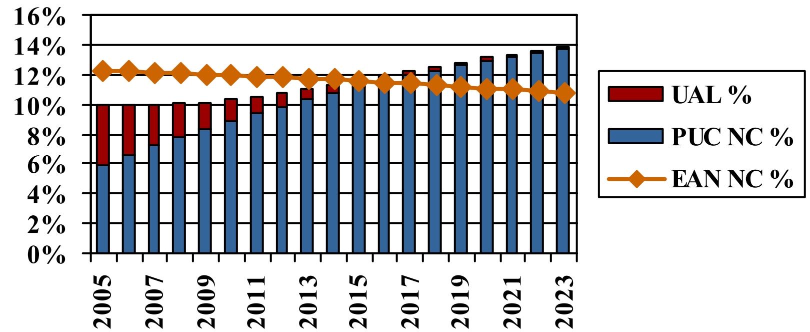
Rolling 3-Year Amortization



Rolling 4-Year Amortization



Rolling 5-Year Amortization



Amounts in millions

Consideration of Proposed Changes
Entry Age Normal vs. Projected Unit Credit

Expected contributions as of 12/31/2004		Projected Unit Credit		
	Entry Age Normal	3-Year Amortization	4-Year Amortization	5-Year Amortization
Normal Cost	$775	$316	$316	$316
UAL Change*		$428	$327	$266
Regular UAL	$569	$569	$569	$569
Total	**$1,344**	**$1,313**	**$1,212**	**$1,151**

Amounts in millions

- Amortizing the change over a rolling 3 years results in a slight reduction in expected contributions
- Amortizing the change over a rolling 5 years results in approximately a 14% reduction in expected contributions

*UAL change amounts are for illustration only. The actual amortization of the change will commence with the 12/31/2005 valuation.

Consideration of Proposed Changes
Entry Age Normal vs. Projected Unit Credit

			Projected 7/1/07 Rates		
			Projected Unit Credit		
	Current Rates	Entry Age Normal	3-Year Amortization	4-Year Amortization	5-Year Amortization
Normal Cost	12.6%	12.3%	5.9%	5.9%	5.9%
UAL Change			6.6%	5.0%	4.1%
Regular UAL	2.9%	7.1%	7.0%	6.9%	6.7%
Total	**15.5%**	**19.8%**	**19.5%**	**17.8%**	**16.7%**

Side accounts may further reduce the rates paid by employers.

- Amortizing the change over a rolling 3 years results in a 0.3% reduction in expected contribution rates
- Amortizing the change over a rolling 5 years results in approximately a 3.1% reduction in expected contribution rates

Consideration of Proposed Changes
Asset Smoothing vs. Market Value with Rate Collar

Four-year asset smoothing:

- Investment returns greater than or less than expected are not recognized immediately, but are smoothed in over a four-year period. The intent is to smooth out fluctuations in contribution rates. However, it also creates confusion among stakeholders as the actuarial value of assets may be higher or lower than the market value and contribution rates may go up after a year of good investment returns.

Contribution rate collaring:

- Smoothes contribution rates instead of assets. The true market value of assets is reflected in the measurement of the funded status of the system and the determination of contribution rates. Stakeholders and users of the actuarial valuation report will better understand the financial position of the system in order to make timely management, benefit, investment and funding decisions.
- The collar provides limits to changes in contribution rates that are useful for budgeting purposes.

Consideration of Proposed Changes
Asset Smoothing vs. Market Value with Rate Collar

As of 12/31/2004	Asset Smoothing	Market Value	Change
Accrued Liability	$46,769	$46,769	$0
Assets	$38,003	$40,306	$2,303
UAL	$8,766	$6,463	($2,303)
UAL Payment	$569	$420	($149)
UAL Rate	**8.4%**	**6.2%**	**(2.2%)**

Amounts in millions

- The market value of assets more accurately reflects the current funded status of the System.
- Recognizing the gains from 2003 and 2004 asset performance immediately reduces contribution rates by 2.2% or $149 million.
- The reduction is expected to be greater as of 12/31/2005 after reflecting the greater than expected investment performance of 2005.

Consideration of Proposed Changes
Asset Smoothing vs. Market Value with Rate Collar

			Projected 7/1/07 Rates		
			Projected Unit Credit		
	Current Rate	Entry Age Normal	3-Year Amortization	4-Year Amortization	5-Year Amortization
Smoothed Assets	15.5%	19.8%	19.5%	17.8%	16.7%
Market Value Assets		16.4%	16.1%	14.4%	13.3%
Net Change		(3.4%)	(3.4%)	(3.4%)	(3.4%)

Side accounts may further reduce the rates paid by employers.

- All projected rates are within the rate collar if you start from the current system-wide rate of 15.5%
- Immediately recognizing the gains from 2003, 2004 and 2005 reduces rates approximately 3.4%

Consideration of Proposed Changes
Additional Amortization Options

Amortization Periods	3.5% Payroll Growth	4.0% Payroll Growth
22 / 5	13.6%	13.3%
22 / 4	14.6%	14.4%
22 / 3	16.3%	16.1%
20 / 5	13.8%	13.6%
20 / 4	14.9%	14.6%
20 / 3	16.6%	16.4%

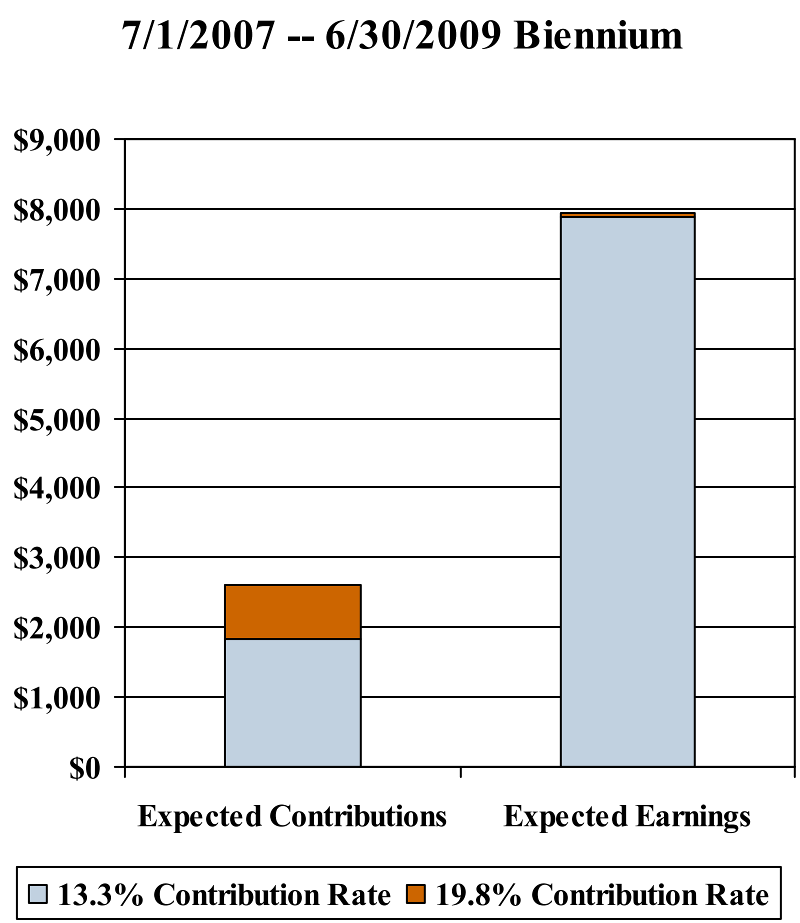
- The current amortization period is 22 years as of 12/31/2005, but is scheduled to drop to 20 years as of 12/31/2007 and then new gains and losses will continue to be amortized over 20 years. The Board could choose to accelerate this schedule to be at 20 years as of 12/31/2005
- With the experience study, we will review the payroll growth assumption. To illustrate the impact this assumption has on contribution rates, we have shown rates assuming the current 4.0% assumption and a 3.5% assumption

Side accounts may further reduce the rates paid by employers.

All rates shown are based on Projected Unit Credit and the market value of assets.

Consideration of Proposed Changes
Expected Contributions vs. Expected Earnings

- Reducing the contribution rate from 19.8% to 13.3% reduces expected employer contributions during the next biennium by approximately $775 million.
- By comparison, expected earnings for the biennium are approximately $8 billion with a minor difference in expectation depending on the contribution rate
- Expected earnings are about four times as large as expected contributions



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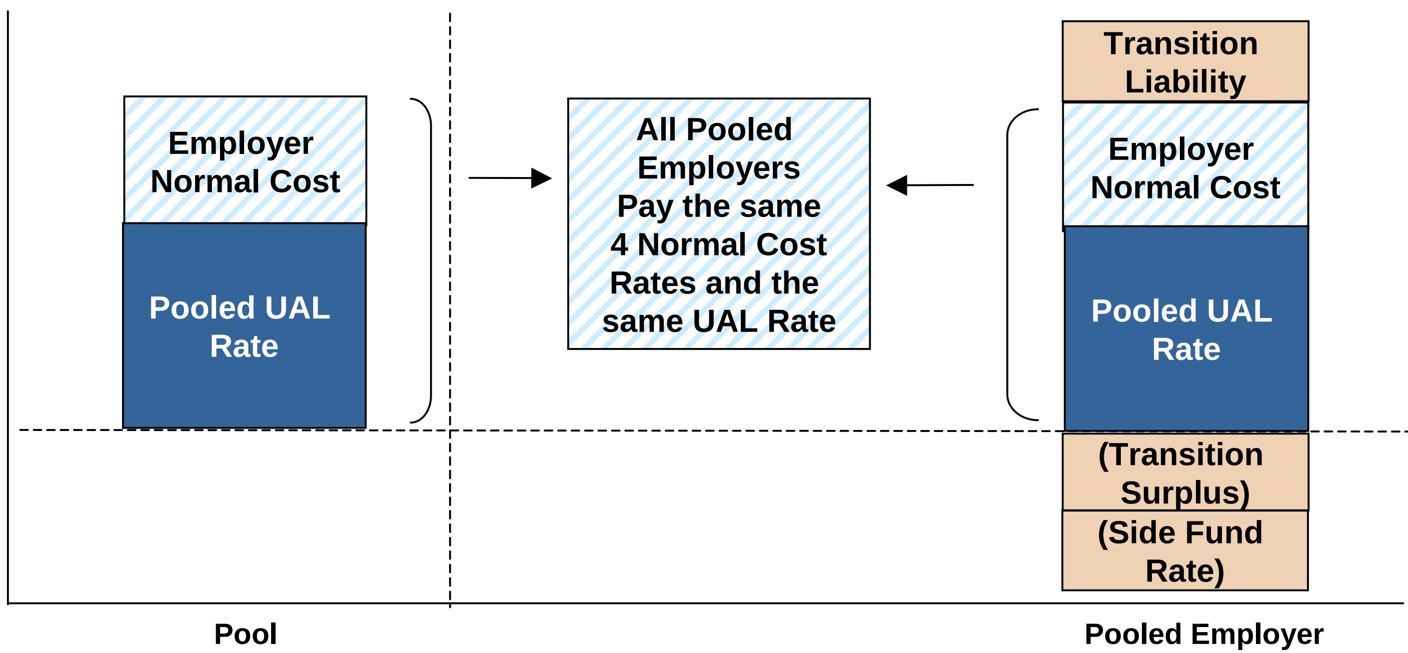
SLGRP Pooling Methodology
Overview

- Milliman's approach created a separate pool for each year and assigned a portion of the UAL attributable to that year to each employer who participated in the pool that year.
- UAL payments were allocated to each year in proportion to the absolute value of the UAL allocated for that year.
- Result was a complex web of contribution rates that were difficult for employers to follow and produced unexpected increases or decreases in transition liabilities due to the use of absolute values.
- Alternative approach assigns one UAL rate to every employer in the SLGRP regardless of when they join. The balance of an employer's UAL (fair value basis) is the employer's transition liability or surplus (or pre-SLGRP pooled liability for the state, community colleges, and LGRP members).
- Contributions are allocated to normal cost, UAL, and transition liability based on actual payroll and the contribution rates in effect.

SLGRP Pooling Methodology
Development of Pooled Rates

- Employer rates are made up of a few components:
  - Normal Cost Rate (Weighted Average of 4 Pooled Normal Cost Rates)
  - Pooled UAL Rate
  - Transition Liability/(Surplus) Rate
  - Side Fund Rate



SLGRP Pooling Methodology
Fresh Start Methodology

- Establish initial SLGRP UAL Rate on 1/1/2004
  - Initial SLGRP UAL rate set based on current SLGRP assets, liabilities and transition liabilities.
  - Side funds are not considered part of the SLGRP assets.
- All pooled employers are treated as joining the pool on 1/1/2004 with their prior pooled assets and liabilities as reported in the 12/31/2003 actuarial valuation
  - The SLGRP's fair value UAL is allocated to each employer based on their payroll from the 12/31/2003 valuation.
  - A new transition liability is established equal to the employer's fair value UAL from the 12/31/2003 valuation less the portion of the SLGRP's fair value UAL allocated to the employer.

SLGRP Pooling Methodology
Conclusions

- In addition to simplicity, the result is a greater pooling of liabilities than under the prior method. That is, for the vast majority, transition liabilities have been reduced.
- The LAC has been very supportive of this change, however, one issue has arisen that affects a small number of employers.
  - Employers who issued bonds in 2004 or 2005 with the intent of paying off their transition liability may instead have a side account established
  - Instead of a fixed reduction in borrowing costs between the interest rate of the bonds and the interest rate of the transition liability, they now have an investment in the PERS portfolio with an underlying borrowing expense.

Treatment of Rate Guarantee Reserve

- Inclusion of rate guarantee / deficit reserve in actuarial asset value
  - Fails to treat rate guarantee reserve as a true reserve with a single purpose
  - Creates mismatch between plan liabilities and actuarial asset value, by assuming reserve will provide benefit increases which are not included in plan liabilities
  - Increases contribution volatility
- Therefore, the rate guarantee / deficit reserve should be excluded from assets when determining actuarial asset value

Summary
Next Steps

- April Board Meeting – Decision on actuarial methods
- June Board Meeting – Experience study
- September Board Meeting – 12/31/2005 system-wide valuation results
  - OPSRP
  - PERS T1/T2

Summary
Decisions to be Made

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<tr><td>Amortization Period for Change in Cost Method</td><td colspan="2">Rolling 3 Years</td><td colspan="2">Rolling 4 Years</td><td colspan="2">Rolling 5 Years</td></tr>
<tr><td>Contribution Rate Stabilization Method</td><td colspan="3">Market Value of Assets with Collar on Contribution Rate Changes</td><td colspan="3">4-Year Asset Smoothing</td></tr>
<tr><td>Amortization Period at 12/31/2005</td><td colspan="3">20 Years</td><td colspan="3">22 Years</td></tr>
<tr><td>SLGRP Pooling Method</td><td colspan="6">New Method with Fresh Start 1/1/2004</td></tr>
<tr><td>Rate Guarantee Reserve</td><td colspan="6">Exclude from Valuation Assets</td></tr>
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</table>

Appendix

Appendix
Method and Assumption Changes

- Strunk/Eugene
  - Tier 1 member accounts earn 8.0% for all years
  - COLA applied for all retirees (i.e., no freeze)
  - Assets and benefits adjusted to reflect:
    - 1999 earnings of 11.33% instead of 20.00%
    - 2003 Tier 1 member account earnings of 8.0% instead of 0.0%
    - 2004 Tier 1 member account earnings of 8.0%
    - Retiree benefits adjusted for missed COLAs

Appendix
Method and Assumption Changes

- Transition Changes
  - Assume beginning of year decrements instead of mid-year decrements
  - Entry age defined as valuation date minus credited service
  - Valuation pay is defined as prior year pay increased for a year of salary scale instead of half a year increase
  - Amortization factor based on monthly interest instead of continuous interest
  - UAL is amortized over combined OPSRP and PERS payroll for members who are under the maximum assumed retirement age instead of all payroll
  - BIF assets are allocated to pools/employers in proportion to their BIF liability instead of in proportion to Member Accounts + Employer Accounts + BIF liability
  - Assets in the Rate Guarantee Reserve are excluded from valuation assets
  - In applying the smoothing method, actual earnings are reduced by any transfers to the Contingency, Capital Preservation, or Rate Guarantee reserves
  - The 10% corridor for the smoothing method is applied based on the valuation assets instead of total assets (including reserves)
  - Transfers from side accounts are calculated equal to actual payroll times the rate relief increased for interest at the rate credited to employer accounts

Appendix
Method and Assumption Changes

- SLGRP Pooling Methodology
  - One UAL rate is charged to all employers in the pool instead of a different UAL rate for each year of the pool
  - Employer contributions are allocated to normal cost, UAL and transition liability based on actual payroll and the contribution rates in effect instead of based on a proportion of the absolute value of the amount outstanding
  - Transition liability or surplus is calculated such that employers joining the pool pay the same pooled UAL rate and a transition rate to make up for the difference between the employer's and pool's market value funded status
  - The transition to the new pooling methodology was accomplished through a fresh start calculation of the pool as of 1/1/2004 reflecting the assets and liabilities allocated to each employer under the prior pooling methodology as of 12/31/2003
  - The new pooling methodology and fresh start transition approach were presented to and discussed with the LAC on 11/4/2005 and 1/5/2006

PERS Board Meeting

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

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Presented by:

Matt Larrabee, FSA, EA
Scott Preppernau, FSA, EA

July 31, 2020

Introduction

- Today we will review summary valuation results for:
  - Tier 1/Tier 2 & OPSRP retirement programs
  - Retiree Health Insurance Account (RHIA), and
  - Retiree Health Insurance Premium Account (RHIPA)
- Also, we will ask the Board to adopt methodology to reflect the offset for member redirect contributions in the 2021-2023 rate calculations
- Formal, detailed results will be presented in our forthcoming December 31, 2019 System-Wide Actuarial Valuation Report
  - All work is based on asset levels and member demographics at year-end 2019
- This valuation will be the basis for 2021-2023 employer contribution rates presented for adoption at the October 2, 2020 board meeting
  - Employers' rates will be in the October meeting's materials
- Shortly after that meeting, we will provide PERS staff with detailed reports for each employer, and PERS will deliver those reports to employers

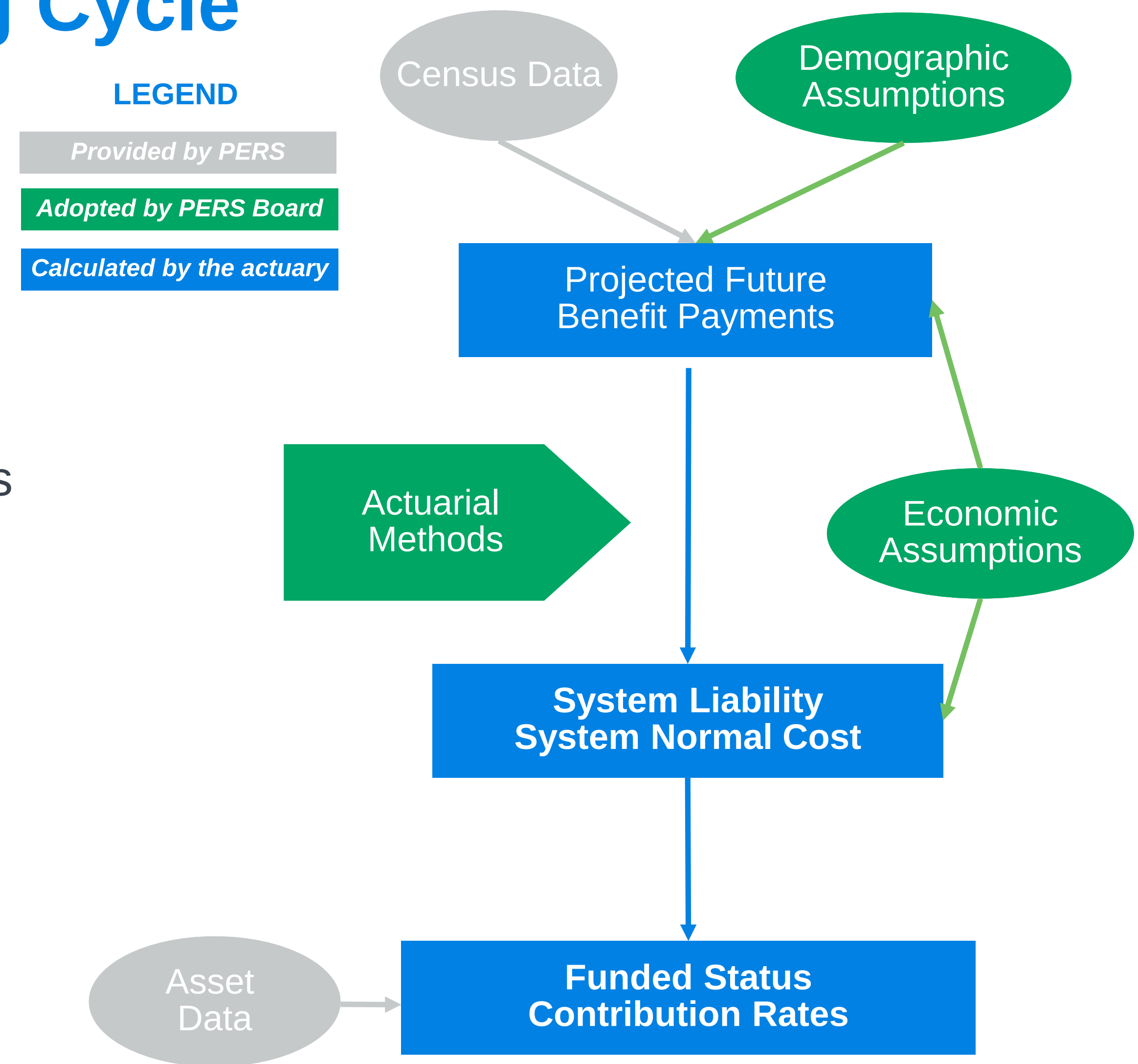
Valuation Process and Timeline

- Actuarial valuations are conducted annually
  - Alternate between “rate-setting” and “advisory” valuations
  - This valuation as of 12/31/2019 is rate-setting
- Board adopts contribution rates developed in rate-setting valuations, and those rates go into effect 18 months after the valuation date

Valuation Date	Employer Contribution Rates
12/31/2017 →	July 2019 – June 2021
12/31/2019 →	July 2021 – June 2023
12/31/2021 →	July 2023 – June 2025

Two-Year Rate-Setting Cycle

- July 2019: Assumptions & methods adopted by Board in consultation with the actuary
- October 2019: System-wide 12/31/18 actuarial valuation results
- December 2019: Advisory 2021-2023 employer-specific contribution rates
- **July 2020: System-wide 12/31/19 actuarial valuation results**
- October 2020: Disclosure & adoption of employer-specific **2021-2023 contribution rates**



Board Objectives - Methods & Assumptions

- Transparent
- Predictable and stable rates
- Protect funded status
- Equitable across generations
- Actuarially sound
- GASB compliant

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

Changes Since the Last Rate-Setting Valuation

- The 12/31/2017 rate-setting actuarial valuation developed 2019-2021 contribution rates
- Since the 12/31/2017 rate-setting valuation:
  - The PERS Board adopted new assumptions and methods from the 2018 Experience Study
  - Cumulative 2018 and 2019 asset returns were less than assumed, generating approximately a $0.4 billion actuarial investment loss over the biennium
  - System payroll increased 14% from 12/31/2017 to 12/31/2019
  - Senate Bill 1049 was signed into law in June 2019
    - Made a number of changes, many centered on funding/financing of the System's benefits

Changes Since the Last Advisory Valuation

- The 12/31/2019 rate-setting valuation will develop final 2021-2023 rates and reflects the following changes since the 12/31/2018 advisory valuation:
  - 2019 OPERF regular account return of +13.56%, which produced a single-year actuarial investment gain of $3.5 billion
  - System payroll increase of 6% from 12/31/2018 to 12/31/2019
- The 12/31/2018 advisory actuarial valuation already reflected:
  - Updated assumptions and methods from the 2018 Experience Study
  - Single-year actuarial investment loss of $3.9 billion for experience during 2018

Senate Bill 1049

- SB 1049 provisions relevant to valuation and funding:
  - Redirects portion of member contribution to fund DB benefits starting in July 2020
  - Employer contributions paid for rehired retirees effective January 2020
  - One-time re-amortization of Tier 1/Tier 2 UAL over 22 years
  - Salary for benefits limited to $195,000 (indexed) starting in 2020
    - Only change affecting projected DB benefits; effect is small at system level
- Of these, Tier 1/Tier 2 UAL re-amortization has biggest impact on 2021-23 contribution rates
- Member redirect contributions are expected to serve as an offset to employer rates effective with 2021-2023 rates
  - In this presentation, "**total rates**" are rates prior to this offset; "**employer rates**" are after reflecting the offset

Member redirect offset - Introduction

- Treatment of member redirect contributions in rate-setting process was discussed with PERS Board and staff last year
  - Discussions occurred after experience study published, so was not formally included in Board adoption of actuarial methods and assumptions
  - However, treatment was reflected in December 31, 2018 advisory valuation
- Today, we request adoption of methodology for treating member redirect contributions in developing 2021-2023 contribution rates
- Background:
  - SB 1049 redirected portion of member contributions to Employee Pension Stability Accounts (EPSA)
    - Redirected amount: 2.50% of salary for Tier 1/Tier 2 and 0.75% for OPSRP
    - Both only apply to members with salary greater than $2,500 in a month (indexed in future years)

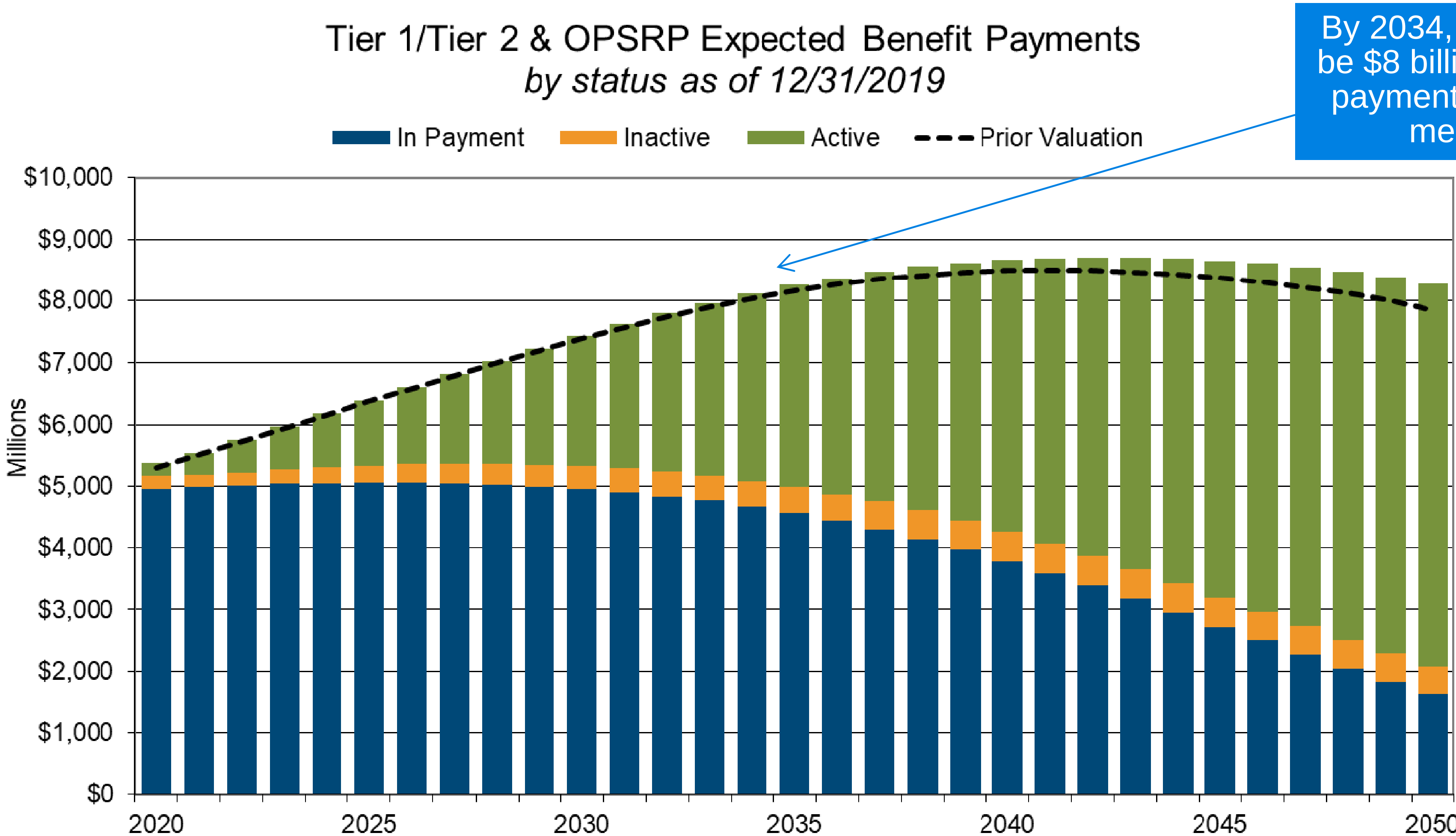
Member redirect offset – Methodology part 1

- Statutory redirected contribution levels vary by member
  - 2.50% of payroll for Tier 1/Tier 2 members above the monthly pay threshold
  - 0.75% of payroll for OPRSP members above the monthly pay threshold
  - No redirection for members below the monthly pay threshold
- At a system average level, the pay threshold will reduce the amount of redirected contributions by about **0.05%** of payroll
- Part 1 of the requested methodology for adoption:
  - Adopted employer contribution rates reflect system-average member redirect offset rates of:
    - **2.45**% of Tier 1/Tier 2 payroll
    - **0.70%** of OPSRP payroll
- This approach fits with existing framework for collecting employer contributions

Member redirect offset – Methodology part 2

- During the biennium the member redirect contribution could be eliminated via either judicial or legislative action
- This possibility can be addressed by Board use of a “total contribution rate” structure
  - The Board adopts the total contribution rate; the employer contribution rate is found by subtracting the member redirect offset rate (2.45% or 0.70%, per the prior slide)
- If member redirect was eliminated, under this structure
  - The member redirect offset rate would decrease to zero
  - The employer rate would increase to the total contribution rate
- Part 2 of the methodology requested for adoption:
  - Adopted rates reflect a total contribution rate and a member redirect offset rate, which are used to determine the employer rate

Projected Benefit Payments



By 2034, projected to be $8 billion in benefit payments to current members

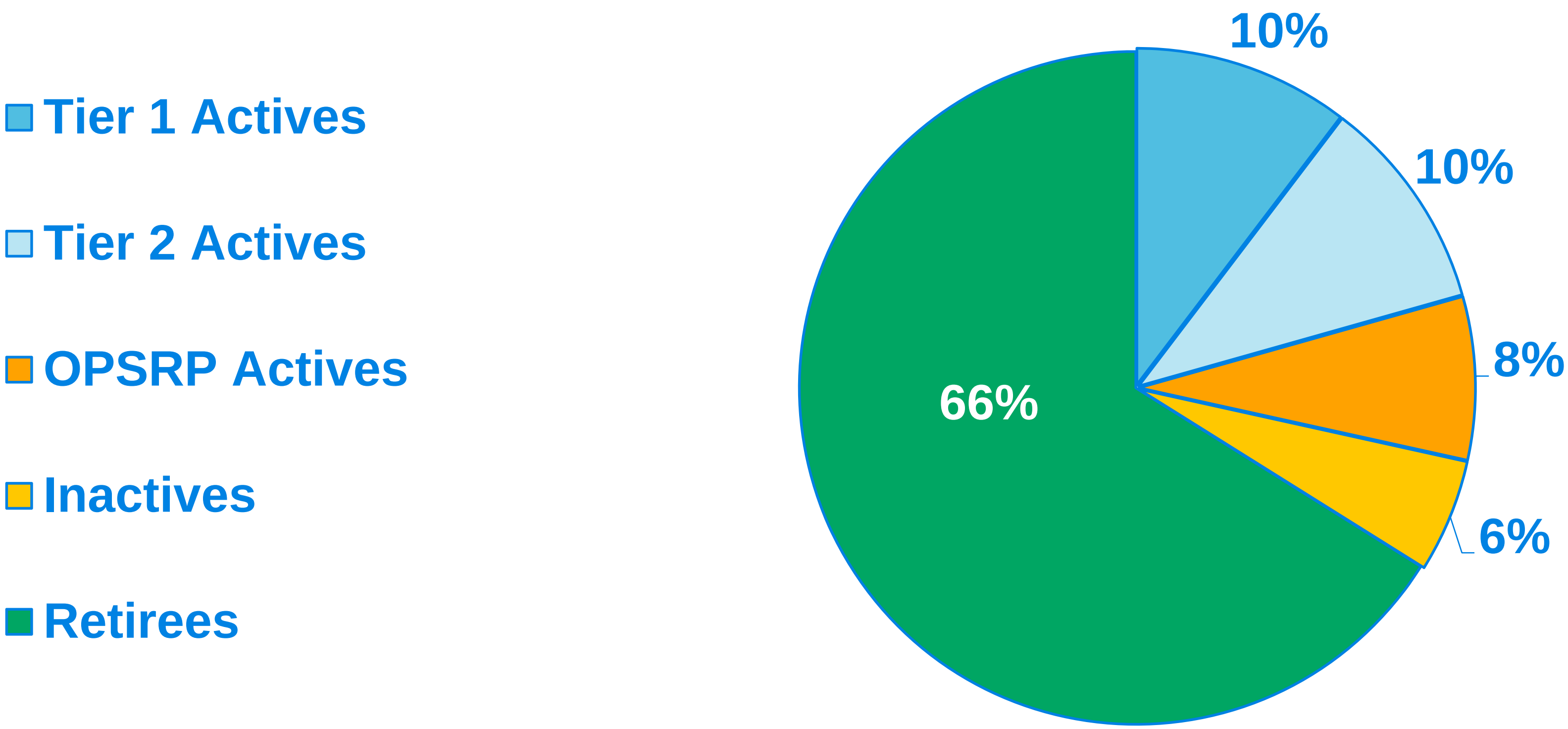
As illustrated by the dotted line, projected benefit payments did not change significantly between the prior and current actuarial valuation

Funded Status & Unfunded Actuarial Liability (UAL)

System-total Pension Funded Status ($ billions)			
Valuation date:	12/31/2017	12/31/2018	12/31/2019
Assumed return:	7.20%	7.20%	7.20%
Actuarial liability	$ 84.1	$ 86.6	$ 89.4
Assets (excluding side accounts)	61.8	59.6	64.8
UAL (excluding side accounts)	**$ 22.3**	**$ 27.0**	**$ 24.6**
Funded status (excluding side accounts)	**73%**	**69%**	**72%**
Side account assets	$ 5.6	$ 5.2	$ 5.5
UAL (including side accounts)	**$ 16.7**	**$ 21.8**	**$ 19.1**
Funded status (including side accounts)	**80%**	**75%**	**79%**

Division of Actuarial Accrued Liability by Category

12/31/2019 Tier 1/Tier 2 and OPSRP Actuarial Liability



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Accrued Actuarial Liability represents the present value of projected future benefits allocated to service performed through December 31, 2019

Sources of 2019 UAL (Excl. Side Account) Change

($ billions)	UAL Increase
Expected UAL increase/(decrease) during 2019	$ 0.6
2019 actual investment performance	(3.5)
Actual demographic experience different than assumed	0.5
Actual UAL increase/(decrease) during 2019	($ 2.4)

- The ***expected UAL increase/(decrease)*** is the change, based on 12/31/2018 valuation results, projected to occur during 2019 if actual 2019 experience followed that valuation's assumptions; this is primarily due to the effects of the rate collar, the level of employer rates, and the timing and magnitude of employer rate increases
- The 2019 investment gain is about 6.4% of assets, reflecting actual 2019 OPERF returns of approximately +13.6% compared to the assumed 7.20% return
- The increase from actual demographic experience different than assumed was largely the result of individual member salary increase experience versus assumption

Tier 1/Tier 2 Rate Pool Funded Status and UAL

Amounts Shown as of December 31, 2019

($ billions) *totals may not add due to rounding*	SLGRP	School Districts
Actuarial liability	$ 44.1	$ 30.3
Assets (excluding side accounts)	31.4	22.4
UAL (excluding side accounts)	**$ 12.7**	**$ 7.9**
Funded status (excluding side accounts)	**71%**	**74%**
Projected 2020 payroll	$ 6.8	$ 3.7
Assets to payroll ratio (excl. side accounts)	4.6x	6.0x
UAL to payroll ratio (excl. side accounts)	1.9x	2.1x
Side account assets	$ 2.7	$ 2.7
UAL (including side accounts)	**$ 10.1**	**$ 5.2**
Funded status (including side accounts)	**77%**	**83%**

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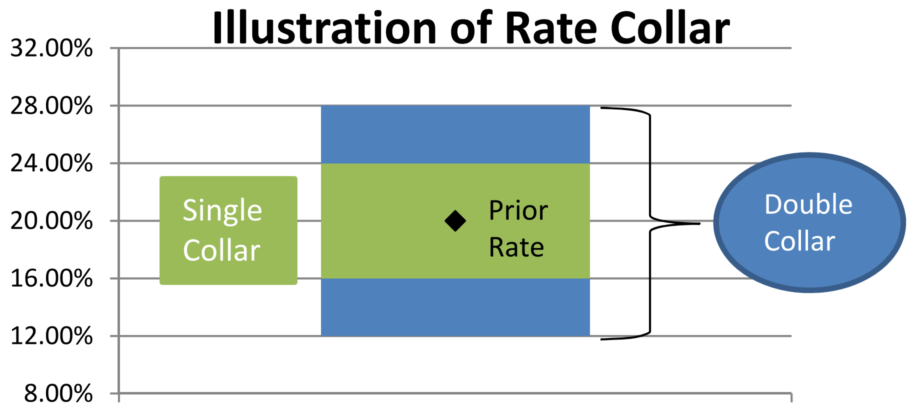
Overview of Rate Calculation Structure

- The ***uncollared total rate*** is the theoretical contribution rate to reach 100% funded status over a specified amortization period if:
  - Contributions at that rate started on the actuarial valuation date, and
  - Actual future experience mirrors the actuarial valuation's assumptions, and
  - The normal cost rate does not change in subsequent years
- The rate collar sets a biennium's ***collared total base rate***, limiting the base rate change for a single biennium when there is a large change in the uncollared rate
- ***Member redirect offset*** reflects estimated portion of collared total base rate paid by redirected member contributions
- Employers pay the ***collared net employer rate***, which reflects the member redirect offset and any rate offset adjustments from:
  - Side account rate offsets for employers with side accounts
  - SLGRP charges/offsets (e.g., Transition Liability/Surplus)

Current Rate Collar Design

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



- Collars limit the biennium to biennium increase in the UAL Rate for each individual employer (or experience-sharing pool, if applicable)

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Comments on 2021 – 2023 Rates

- No single employer pays the system-wide average rate
  - Individual employer rates reflect either rate pool or independent employer-specific results, not the system-wide average
  - Relative proportion of Tier 1/Tier 2 vs. OPSRP payroll also varies by employer
- Employers in a rate pool do not pay the pool average rate
  - Actual rates reflect employer-specific side account rate offsets and/or any remaining SLGRP charges/offsets
  - SLGRP normal cost rates are specific to an employer's workforce mix of member tier and job classification
- Rates shown do not include the effects of:
  - Individual Account Plan (IAP) contributions
  - Rates for the RHIA & RHIPA retiree healthcare programs
  - Debt service payments on pension obligation bonds

School District Weighted Total* Pension-Only Rates

2009-2011 rates set **prior to economic downturn**

2011-2013 rates first to reflect **-27%** return in 2008

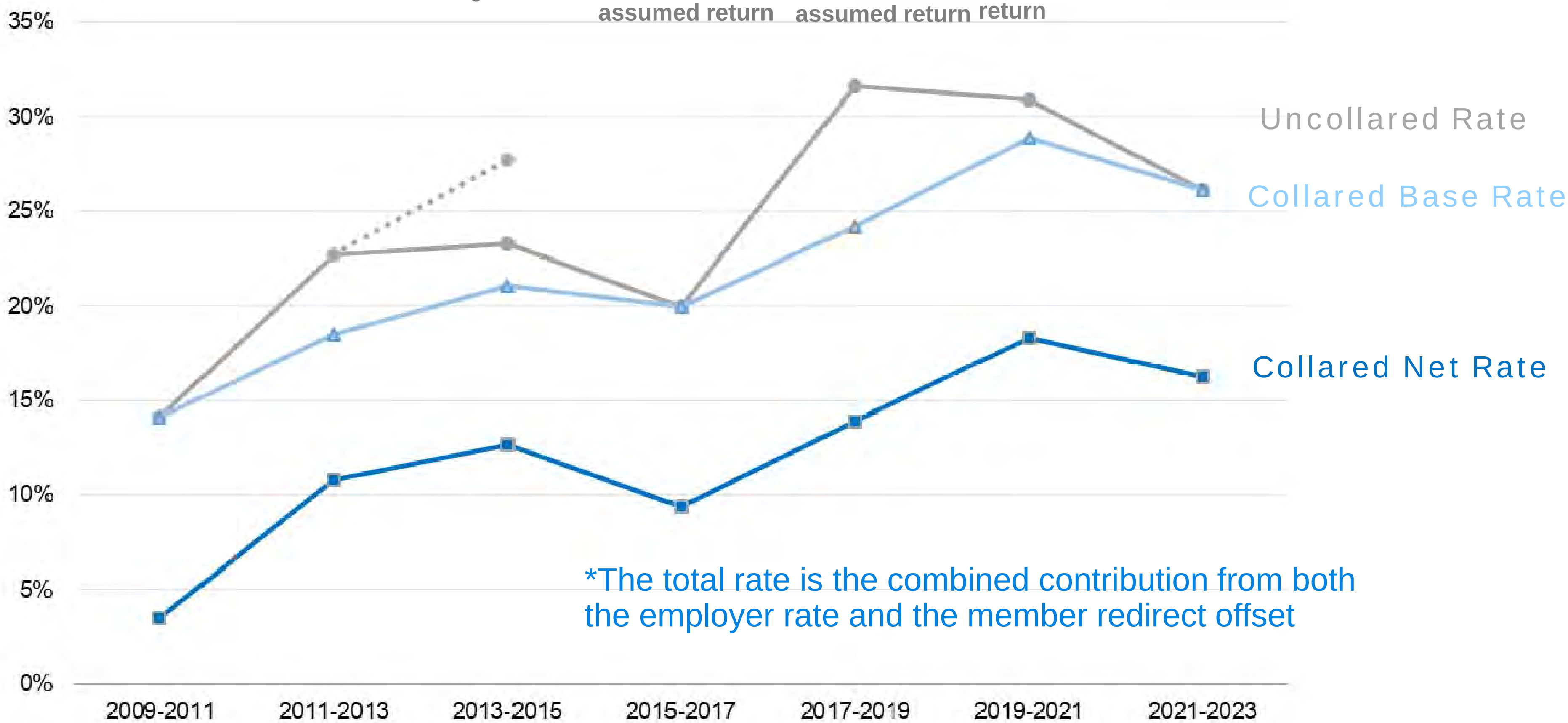
2013-2015 shown before (dotted line) and after (solid line) **legislated changes**

2015-2017 set **pre-*Moro*** reflecting 2012 (**+14.3%**) & 2013 (**+15.6%**) returns, first **decrease in assumed return**

2017-2019 set **post-*Moro***, reflecting 2015 return (**+2.1%**) and second **decrease in assumed return**

2019-2021 reflects 2017 return (**+15.4%**) and third **decrease in assumed return**

2021-2023 reflects legislatively-mandated Tier 1/Tier 2 **UAL reamortization**; rates shown are **total rates** before reduction for effect of **SB 1049 member redirect offset** contributions.



Assumed Return:	8.00%	8.00%	8.00%	7.75%	7.50%	7.20%	7.20%

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Uncollared Total Pension Rates – School Districts
Excludes Retiree Health Care, IAP Contributions, Rate Collar, Side Accounts

	12/31/2017 Valuation 2019 – 2021 Final Rates			12/31/2019 Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[1]	Tier 1 / Tier 2	OPSRP	Weighted Average[1]
Total Normal Cost	13.79%	8.40%	10.75%	13.45%	8.64%	10.35%
Tier 1/Tier 2 UAL	18.66%	18.66%	18.66%	14.09%	14.09%	14.09%
OPSRP UAL	1.45%	1.45%	1.45%	1.69%	1.69%	1.69%
Uncollared Total Rate	**33.90%**	**28.51%**	**30.86%**	**29.23%**	**24.42%**	**26.13%**
Increase/(Decrease)				**(4.67%)**	**(4.09%)**	**(4.73%)**

The pool-average collared base and net rates for 2021-2023 are shown on subsequent slides

Rates shown on this slide are "total" rates, and do not incorporate treatment of redirected member contributions as an offset

[1] *Weighting based on pool payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date*

Collared Total Pension Base Rates – School Districts

Excludes Retiree Health Care & IAP Contributions, Side Account Offsets

	12/31/2017 Valuation 2019 – 2021 Final Rates			12/31/2019 Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[1]	Tier 1 / Tier 2	OPSRP	Weighted Average[1]
Uncollared Total Rate	**33.90%**	**28.51%**	**30.86%**	**29.23%**	**24.42%**	**26.13%**
Collar Limitation	(1.93%)	(1.93%)	(1.93%)	0.00%	0.00%	0.00%
Collared Total Base Rate	**31.97%**	**26.58%**	**28.93%**	**29.23%**	**24.42%**	**26.13%**
Increase/(Decrease)				**(2.74%)**	**(2.16%)**	**(2.80%)**

The 2021 – 2023 total base rates decreased – rather than increased as shown in the 12/31/2018 advisory valuation – due to the actuarial investment gain from returns during 2019

Rates shown on this slide are “total” rates, and do not incorporate treatment of redirected member contributions as an offset

[1] *Weighting based on pool payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date*

Collared Employer Pension Rates – School Districts

Excludes Retiree Health Care & IAP Contributions

	12/31/2017[1] Valuation 2019 – 2021 Final Rates			12/31/2019[1] Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[2]	Tier 1 / Tier 2	OPSRP	Weighted Average[2]
Collared Total Base Rate	**31.97%**	**26.58%**	**28.93%**	**29.23%**	**24.42%**	**26.13%**
Member redirect offset	0.00%	0.00%	0.00%	(2.45%)	(0.70%)	(1.25%)
Collared Base Employer Rate	**31.97%**	**26.58%**	**28.93%**	**26.78%**	**23.72%**	**24.88%**
Side Account (Offset)	(10.66%)	(10.66%)	(10.66%)	(9.93%)	(9.93%)	(9.93%)
Collared Net Employer Rate	**21.31%**	**15.92%**	**18.27%**	**16.85%**	**13.79%**	**14.95%**
Increase/(Decrease)				**(4.46%)**	**(2.13%)**	**(3.32%)**

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Rates vary by employer, as only some employers have side accounts

Weighted-average net employer rates decreased more than total base rates, due to the introduction of the member redirect offset

1 *For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate*
2 *Weighting based on pool payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date*

School Districts Rate Summary

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

	Final 2019 - 2021	Final 2021 - 2023	Increase/ (Decrease)
Uncollared Total Base Rate	30.86%	26.13%	(4.73%)
Collared Total Base Rate	28.93%	26.13%	(2.80%)
Collared Base Employer Rate	28.93%	24.88%	(4.05%)
Collared Net Employer Rate	18.27%	14.95%	(3.32%)

- The collared total base rate for School Districts is equal to the uncollared total base rate
- The uncollared total base rate decrease was primarily due to the re-amortization of Tier 1/Tier 2 UAL per SB 1049
- The collared base employer rate decrease was larger than the decrease in the collared total base rate due to the offset to employer rates for member redirect contributions

SLGRP Rate Summary

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

	Final 2019 - 2021	Final 2021 - 2023	Change
Uncollared Total Base Rate	28.30%	25.54%	(2.77%)
Collared Total Base Rate	23.62%	25.54%	1.91%
Collared Base Employer Rate	23.62%	24.29%	0.66%
Collared Net Employer Rate	17.94%	18.61%	0.66%

- The collared total base rate for the SLGRP is equal to the uncollared total base rate
- The uncollared base rate decrease was primarily due to the re-amortization of Tier 1/Tier 2 UAL per SB 1049
- The collared total base rate increase was driven by the existence of a “collared off” rate increase in the prior biennium, an outcome of the scheduled systematic rate modifications to amortize the UAL over time if future experience follows assumptions

System-Wide Rate Summary

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

	Final 2019 - 2021	Final 2021- 2023	Change
Uncollared Total Base Rate	29.22%	25.91%	(3.31%)
Collared Total Base Rate	25.23%	25.82%	0.59%
Collared Base Employer Rate	25.23%	24.57%	(0.66%)
Collared Net Employer Rate	18.32%	17.93%	(0.39%)

- System-wide rates are the payroll-weighted average of rates for School Districts, the SLGRP, and independent employers that do not pool their Tier 1/Tier 2 liability experience
- At a system-wide level the uncollared total base rate is 0.09% higher than the collared total base rate, reflecting that some independent employers have their 2021-2023 rate increases limited by the rate collar
- The collared total base rate increase was driven by the existence of a “collared off” rate increase in the prior biennium, an outcome of the scheduled systematic rate modifications to amortize the UAL over time if future experience follows assumptions

Projected 2021-2023 Total Contributions

($ millions)	Projected 2019-21 Payroll*	(A) Projected 2019-21 Contribution	Projected 2021-23 Payroll*	(B) Projected 2021-23 Total Contribution	(B - A) Projected Total Contribution Increase / (Decrease)
State Agencies	$ 6,910	**$ 1,185**	$ 7,400	**$ 1,480**	**$ 295**
School Districts	7,485	**1,335**	8,015	**1,275**	**(60)**
All Others	8,680	**1,585**	9,300	**1,910**	**325**
Total	$23,075	**$ 4,105**	$24,715	**$ 4,665**	**$ 560**

- Collared net rates are used to project 2021-2023 contributions
- The advisory valuation projected a total contribution increase of $1,160 million between the 2019-21 and 2021-23 biennia, compared to a projected $560 million increase in this valuation
- Projected 2019-21 contributions increased by $100 million compared to prior estimate (based on 12/31/2018 valuation) as a result of a larger-than-expected increase in system payroll

** Assumes total payroll grows at 3.50% annually based on 12/31/2019 active member census. The collared net rate applied to this payroll reflects the projected change over time in payroll composition as new OPSRP members are hired to replace retiring Tier 1/Tier 2 members*

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Factors Driving the Projected Contribution Increase

- The projected $0.6 billion 2021 - 2023 total contribution increase consists of:
  - $0.3 billion - system-wide average increase in contributions of 0.86% of payroll, consisting of a 0.39% of payroll decrease in the collared net employer rate and the addition of a 1.25% of payroll contribution from member redirect
    - Includes impact on average contribution rate of projected change over time in payroll distribution between Tier 1/Tier 2 and OPSRP
  - $0.3 billion - projected system payroll growth between 2019-2021 and 2021-2023
    - Assumed system payroll growth of 3.5% per year / 7.1% per biennium means the collared net rate increase is applied to a larger payroll base
    - Assumes no change in payroll distribution between Tier 1/Tier 2 and OPSRP
- Redirected member contributions will serve to offset employer contribution rates in the 2021-2023 biennium
  - This can either partially or fully mitigate an employer’s effective increase
  - An estimate of this effect is shown on the next slide

Milliman

Projected Split of 2021-2023 Total Contributions

($ millions)	(A) Projected 2019-21 Contribution	(B) Projected 2021-23 Total Contribution	(C) Estimated Member Redirected Contributions*	(B - C) Projected 2021-23 Employer Contribution	(B – C – A) Projected Employer Contribution Increase / (Decrease)
State Agencies	$ 1,185	$ 1,480	$ 85	$ 1,395	**$ 210**
School Districts	1,335	1,275	100	1,175	**(160)**
All Others	1,585	1,910	110	1,800	**215**
Total	$ 4,105	$ 4,665	$ 295	$ 4,370	**$ 265**

** Reflects member redirect offset of 2.45% of payroll for Tier 1 and Tier 2, and 0.70% for OPSRP; the statutory 2.50% and 0.75% redirection levels were adjusted downward by 0.05% to estimate the anticipated effect of members below the statutory pay threshold who will not have contributions redirected*

12/31/2019 Retiree Health Care Valuations

- Retiree health liabilities combined are less than 1% of the pension liability
- Two separate health care benefit subsidies are valued:
  - RHIA provides a $60 per month subsidy toward healthcare premiums for Medicare-eligible Tier 1/Tier 2 retirees
  - RHIPA provides Tier 1/Tier 2 state employees who retire prior to age 65 with an alternative to PEBB coverage until they reach Medicare eligibility
- OPSRP retirees are not eligible for either subsidy
- The combination of a 10-year UAL amortization period and recent experience has improved RHIA funded status to over 100%
  - The RHIA UAL rate is limited to zero (rather than negative), consistent with Board decision with 12/31/2017 rate-setting valuation
- RHIPA funded status has improved significantly in recent years due to both increased contributions and lower participation levels

12/31/2019 Retiree Health Care Valuations
UAL and 2021-23 Contribution Rates

	RHIA		RHIPA*	
	12/31/2018	12/31/2019	12/31/2018	12/31/2019
Actuarial Liability	$ 412	$ 404	$ 63	$ 59
Assets	571	644	39	52
UAL	$ (159)	$ (240)	$ 24	$ 7
Funded Status	139%	159%	61%	87%
Normal Cost Rate	0.05%	0.05%	0.11%	0.11%
UAL Rate	0.00%	0.00%	0.22%	0.17%
Total Rate	0.05%	0.05%	0.33%	0.28%

* *State Agencies, OUS, and State Judiciary are the only employers who pay RHIPA rates*

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Wrap Up / Valuation Next Steps

- Board adoption of methodology for treatment of member redirect in 2021-2023 contribution rate calculations
  - Part 1 – to reflect the anticipated 0.05% of payroll effect of the statutory pay threshold, adopted employer contribution rates reflect system-average member redirect offset rates of **2.45**% of Tier 1/Tier 2 payroll and **0.70%** of OPSRP payroll
  - Part 2 – Adopted rates reflect a total contribution rate and a member redirect offset rate, which are used to determine the employer rate
- Valuation next steps
  - Provide employer-specific rates for adoption at October 2, 2020 meeting
  - Issue system-wide December 31, 2019 actuarial valuation report
  - Prepare employer-specific rate-setting valuation reports
    - PERS to distribute to employers

Appendix

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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, 2019, for the Plan Year ending December 31, 2019. 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, 2019 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. Our annual financial modeling presentation to the PERS Board should be referenced for additional analysis of the potential variation in future measurements. Our forthcoming December 31, 2019 Actuarial Valuation Report will provide additional discussion of the System's risks. The PERS Board has the final decision regarding the appropriateness of the assumptions.

Actuarial computations presented in this report are for purposes of presenting advisory contribution rates consistent with the adopted funding policy the System. The computations prepared for other purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in the appendix of this report. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Certification

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

(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 actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The actuaries are independent of the plan sponsors. We are not aware of any relationship that would impair the objectivity of our work.

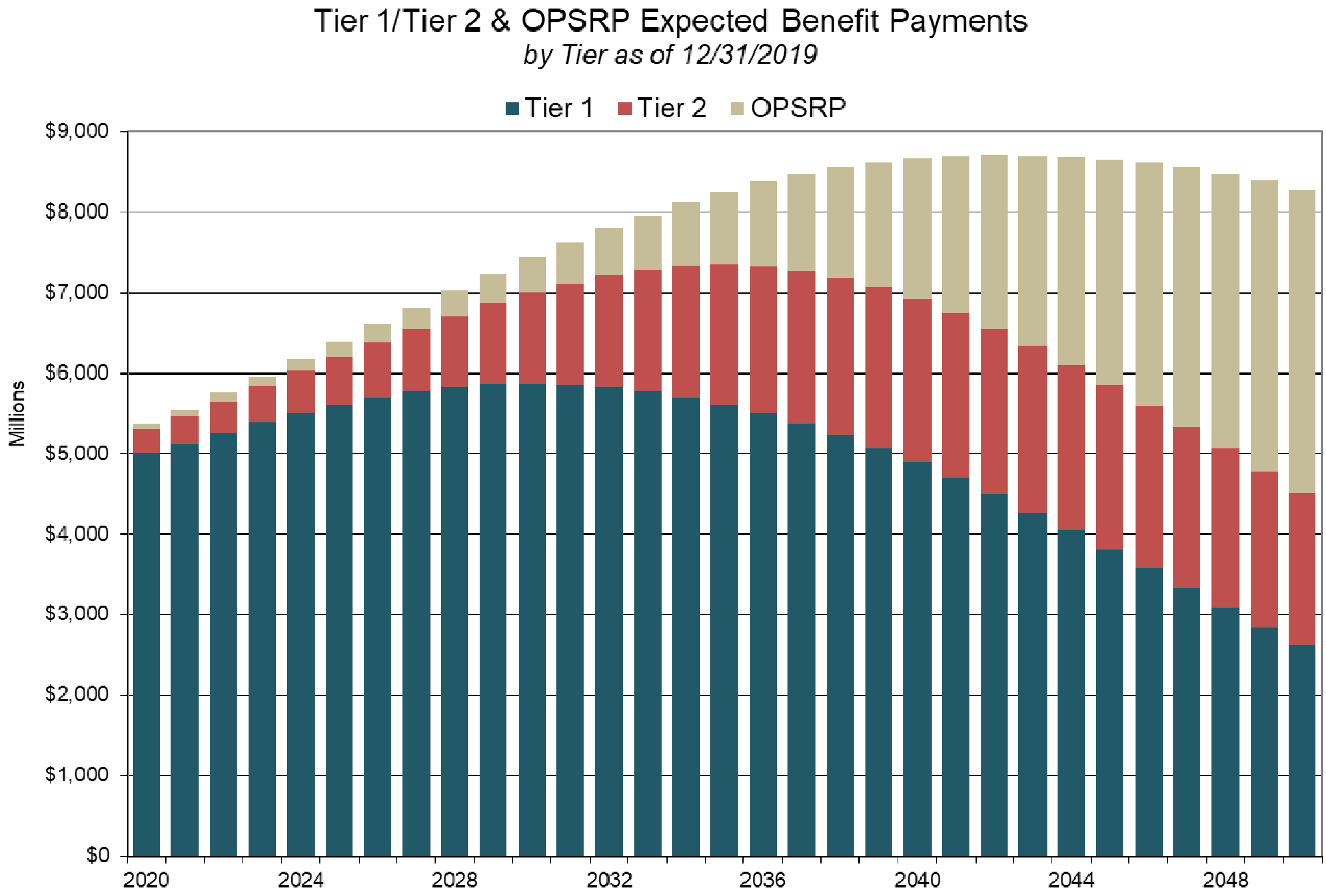
On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries. 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 claims costs and healthcare trend (cost inflation) rates for the retiree healthcare program discussed in this report were determined by Milliman actuaries qualified in such matters.

Data Exhibits

	December 31, 2019				December 31, 2018
	Tier 1	**Tier 2**	**OPSRP**	**Total**	**Total**
Active Members					
Count	17,317	32,191	131,249	180,757	176,763
Average age	56.9	52.2	43.0	46.0	46.1
Average total service	26.5	18.8	6.7	10.7	10.9
Average prior year covered salary	$84,259	$76,946	$55,279	$61,914	$59,632
Inactive Members[1]					
Count	11,237	14,189	21,366	46,792	45,945
Average age	60.8	54.7	47.8	53.0	53.1
Average monthly deferred benefit	$2,192	$833	$439	$980	$983
Retired Members and Beneficiaries[1]					
Count	129,711	16,718	6,549	152,978	148,893
Average age	73.0	68.2	67.6	72.2	72.0
Average monthly benefit	$2,995	$1,138	$550	$2,687	$2,634
Total Members	**158,265**	**63,098**	**159,164**	**380,527**	**371,601**

[1] *Inactive 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. This contrasts with the method used to count inactive participants in some of the later exhibits of this report.*

Projected Benefit Payments by Tier



System-average Weighted <u>Total</u>* Pension-Only rates

2009-2011 rates set **prior to economic downturn**

2011-2013 rates first to reflect **-27%** return in 2008

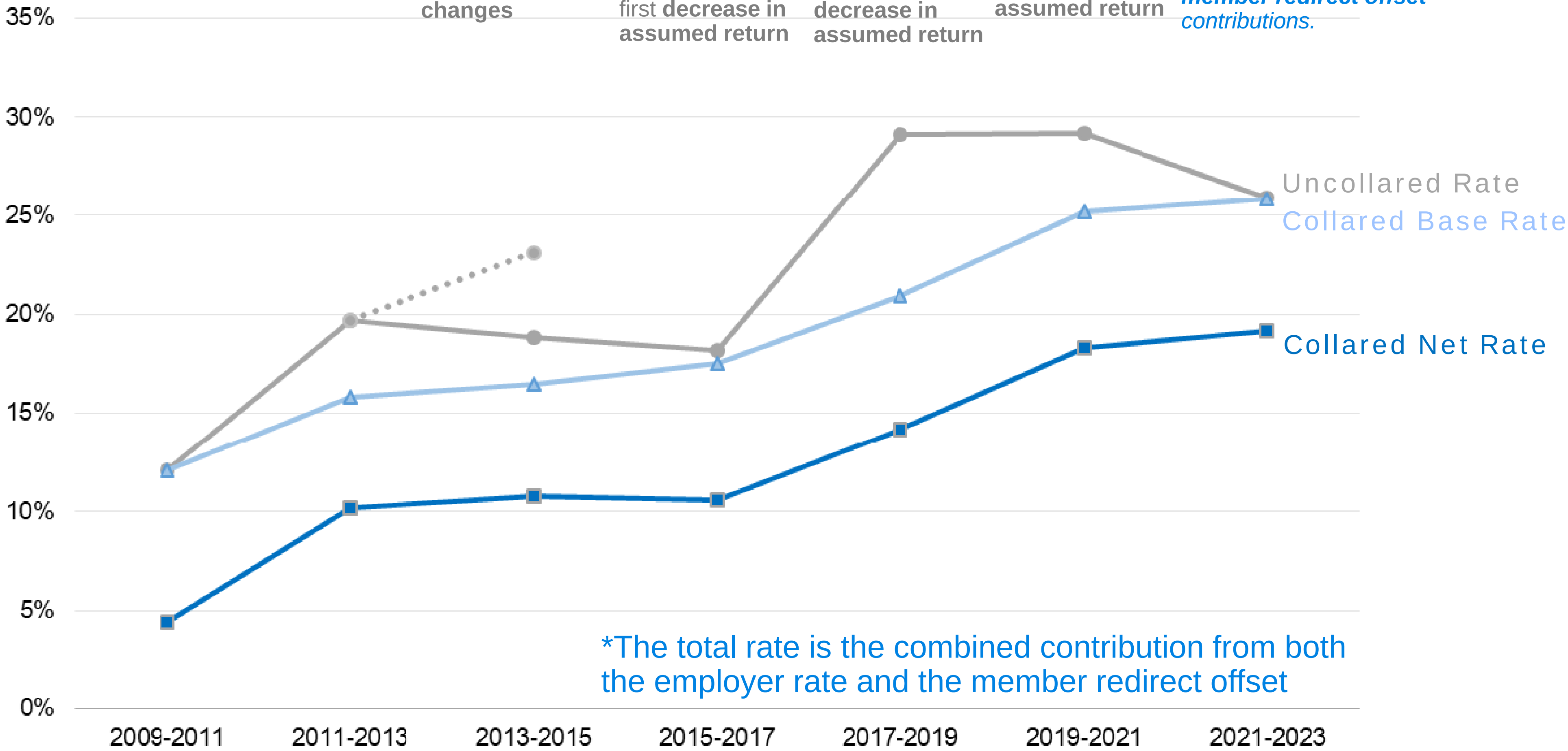
2013-2015 shown before (dotted line) and after (solid line) **legislated changes**

2015-2017 set **pre-*Moro*** reflecting 2012 (**+14.3%**) & 2013 (**+15.6%**) returns, first **decrease in assumed return**

2017-2019 set **post-*Moro***, reflecting 2015 return (**+2.1%**) and second **decrease in assumed return**

2019-2021 reflects **+15.4%** return in 2017 and third **decrease in assumed return**

2021-2023 reflects **+0.48%** return in 2018 and **+13.6%** return in 2019; *rates shown are before reduction for effect of **SB 1049 member redirect offset** contributions.*



Assumed return:	**8.00%**	**8.00%**	**8.00%**	**7.75%**	**7.50%**	**7.20%**	**7.20%**

Milliman

Funded Status and UAL by Program

Pension Funded Status ($ billions) at 12/31/2019 *totals may not add due to rounding*			
	Tier 1/Tier 2	OPSRP	Combined
Actuarial liability	$81.4	$8.1	$89.4
Assets (excluding side accounts)	$58.7	$6.2	$64.8
UAL (excluding side accounts)	$22.7	$1.9	$24.6
Funded status (excluding side accounts)	72%	77%	72%
Side account assets			$5.5
UAL (including side accounts)			$19.1
Funded status (including side accounts)			79%

328/337

Uncollared Total Pension Rates – SLGRP Average

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

	12/31/2017 Valuation 2019 – 2021 Final Rates			12/31/2019 Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[1]	Tier 1 / Tier 2	OPSRP	Weighted Average[1]
Normal Cost	15.83%	8.92%	11.74%	15.41%	9.16%	11.18%
Tier 1/Tier 2 UAL	15.11%	15.11%	15.11%	12.67%	12.67%	12.67%
OPSRP UAL	1.45%	1.45%	1.45%	1.69%	1.69%	1.69%
Uncollared Total Rate	**32.39%**	**25.48%**	**28.30%**	**29.77%**	**23.52%**	**25.54%**
Increase				**(2.62%)**	**(1.96%)**	**(2.77%)**

The pool-average advisory collared net rates which employers would be charged are shown on subsequent slides

Rates shown on this slide are "total" rates, and do not incorporate any treatment of redirected member contributions as an offset

Rates vary, sometimes widely, for employers in the SLGRP

1 *Weighting based on pool payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date.*

Collared Total Pension Base Rates – SLGRP Average

Excludes Retiree Health Care & IAP Contributions, Side Account Offsets

	12/31/2017[1] Valuation 2019 – 2021 Final Rates			12/31/2019[1] Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[2]	Tier 1 / Tier 2	OPSRP	Weighted Average[2]
Uncollared Total Rate	**32.39%**	**25.48%**	**28.30%**	**29.77%**	**23.52%**	**25.54%**
Collar Limitation	(4.68%)	(4.68%)	(4.68%)	0.00%	0.00%	0.00%
Collared Total Base Rate	**27.71%**	**20.80%**	**23.62%**	**29.77%**	**23.52%**	**25.54%**
Increase				**2.06%**	**2.72%**	**1.91%**

The actual increase in total base rates is smaller than shown in the 12/31/2018 advisory valuation due to investment gains during 2019

Rates shown on this slide are "total" rates, and do not incorporate treatment of redirected member contributions as an offset

1 *For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate.*
2 *Weighting based on pool payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date*

Collared Employer Pension Rates – SLGRP Average

Excludes Retiree Health Care & IAP Contributions

	12/31/2017[1] Valuation 2019 – 2021 Final Rates			12/31/2019[1] Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[2]	Tier 1 / Tier 2	OPSRP	Weighted Average[2]
Collared Total Base Rate	**27.71%**	**20.80%**	**23.62%**	**29.77%**	**23.52%**	**25.54%**
Member redirect offset	0.00%	0.00%	0.00%	(2.45%)	(0.70%)	(1.25%)
Collared Base Employer Rate	**27.71%**	**20.80%**	**23.62%**	**27.32%**	**22.82%**	**24.29%**
Side Account (Offset)	(4.99%)	(4.99%)	(4.99%)	(4.99%)	(4.99%)	(4.99%)
SLGRP Charge/(Offset)	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)
Collared Net Rate	**22.03%**	**15.12%**	**17.94%**	**21.64%**	**17.14%**	**18.61%**
Increase				**(0.39%)**	**2.02%**	**0.66%**

Rates vary by employer, sometimes significantly, as only some employers have side accounts and the SLGRP charge/(offset) varies by employer

1 *For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate.*
2 *Weighting based on pool payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date*

Uncollared Total Pension Rates – System-Wide

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

	12/31/2017 Valuation 2019 – 2021 Final Rates			12/31/2019 Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[1]	Tier 1 / Tier 2	OPSRP	Weighted Average[1]
Normal Cost	15.27%	8.92%	11.59%	14.92%	9.16%	11.09%
Tier 1/Tier 2 UAL	16.18%	16.18%	16.18%	13.13%	13.13%	13.13%
OPSRP UAL	1.45%	1.45%	1.45%	1.69%	1.69%	1.69%
Uncollared Total Rate	**32.90%**	**26.55%**	**29.22%**	**29.74%**	**23.98%**	**25.91%**
Increase				**(3.16%)**	**(2.57%)**	**(3.31%)**

Rates shown on this slide are "total" rates, and do not incorporate any treatment of redirected member contributions as an offset

[1] *Weighting based on system-wide payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date.*

Collared Total Pension Base Rates – System-Wide

Excludes Retiree Health Care & IAP Contributions, Side Account Offsets

	12/31/2017 Valuation 2019 – 2021 Final Rates			12/31/2019 Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[1]	Tier 1 / Tier 2	OPSRP	Weighted Average[1]
Uncollared Total Rate	**32.90%**	**26.55%**	**29.22%**	**29.74%**	**23.98%**	**25.91%**
Collar Limitation	(3.99%)	(3.99%)	(3.99%)	(0.09%)	(0.09%)	(0.09%)
Collared Total Base Rate	**28.91%**	**22.56%**	**25.23%**	**29.65%**	**23.89%**	**25.82%**
Increase				**0.74%**	**1.33%**	**0.59%**

Increases that will be effective July 2021 are limited by the collar for some employers

[1] *Weighting based on system-wide payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date.*

Collared Employer Pension Rates – System-Wide

Excludes Retiree Health Care & IAP Contributions

	12/31/2017[1] Valuation 2019 – 2021 Final Rates			12/31/2019[1] Valuation 2021 – 2023 Final Rates		
	Payroll			Payroll		
	Tier 1 / Tier 2	OPSRP	Weighted Average[2]	Tier 1 / Tier 2	OPSRP	Weighted Average[2]
Collared Base Rate	**28.91%**	**22.56%**	**25.23%**	**29.65%**	**23.89%**	**25.82%**
Member redirect offset	0.00%	0.00%	0.00%	(2.45%)	(0.70%)	(1.25%)
Collared Base Employer Rate	**28.91%**	**22.56%**	**25.23%**	**27.20%**	**23.19%**	**24.57%**
Side Account (Offset)	(6.51%)	(6.51%)	(6.51%)	(6.24%)	(6.24%)	(6.24%)
SLGRP Charge/(Offset)	(0.40%)	(0.40%)	(0.40%)	(0.40%)	(0.40%)	(0.40%)
Collared Net Rate	**22.00%**	**15.65%**	**18.32%**	**20.56%**	**16.55%**	**17.93%**
Increase				**(1.44%)**	**0.90%**	**(0.39%)**

Rates vary by employer, as only some employers have side accounts

Changes in side account offsets are not collared

1 *For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate.*
2 *Weighting based on system-wide payroll levels (Tier 1/Tier 2, OPSRP) as of the valuation date*

Retirement System Risks

- Oregon PERS, like all defined benefit plans, is subject to various risks that will affect future plan liabilities and contribution requirements, including:
  - **Investment risk**: the potential that investment returns will be different than expected
  - **Demographic risks**: the potential that mortality experience, retirement behavior, or other demographic experience for the plan population will be different than expected
  - **Contribution risk**: the potential that actual future contributions will be materially different than expected, for example if there are material changes in the System's covered payroll
- The results of an actuarial valuation are based on one set of reasonable assumptions, but it is almost certain that future experience will not exactly match the assumptions.
- Further discussion of plan risks and historical information regarding plan experience are shown in our annual actuarial valuations. In addition, our annual financial modeling presentation to the PERS Board illustrates future outcomes under a wide range of future scenarios reflecting variation in key risk factors.

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, 2019, were based on values provided by Oregon PERS reflecting the Board's earnings crediting decisions for 2019.

Methods / Policies

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

UAL Amortization: The UAL for OPSRP, and Retiree Health Care as of December 31, 2007 are amortized as a level percentage of combined valuation payroll over a closed 16 year period for OPSRP and a closed 10 year period for Retiree Health Care. For the Tier 1/Tier 2 UAL, the amortization period was reset at 20 years as of December 31, 2013. Senate Bill 1049 was signed into law in June 2019 and requires a one-time re-amortization of Tier 1/Tier 2 UAL over a closed 22 year period at the December 31, 2019 rate-setting valuation which will set actuarially determined contribution rates for the 2021-2023 biennium. 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 1/Tier 2, 16 years for OPSRP, 10 years for Retiree Health Care) from the odd-year valuation in which they are first recognized.

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: Tier 1/Tier 2 administration expenses are assumed to be equal to $32.5M, while OPSRP administration expenses are assumed to be equal to $8.0M. The assumed expenses are added to the respective normal costs.

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

Assumptions

Assumptions for valuation calculations are as described in the 2018 Experience Study for Oregon PERS and presented to the PERS Board in July 2019.

Provisions

Provisions valued are as detailed in the forthcoming 2019 Valuation Report.