Analysis of PERS Cost Allocation, Benefit Modification, and System Financing Concepts

February 14, 2013

Version 1.2

Important Notes Regarding This Report

This report is produced to support the PERS Board in its role as a policy advisor to the Legislative Assembly on potential changes in PERS benefits. The report does not reflect any legal analysis, or specific stakeholder group or interested party viewpoints.

This report analyzes concepts that have been in the public discussion and addresses ways to mitigate or reduce PERS costs. These concepts (or ones similar) have surfaced in different forums over the years, including the Legislature, ballot initiatives, special study committees, and various PERS and other public retirement system analyses.

The intent of this report is to provide high-level information on how these concepts would affect PERS members and employers, and the potential impact on system funding, employer rates, member benefits, and administration.

Impacts are to uncollared system-wide average employer contribution rates based on:

- December 31, 2011 valuation data
- Current methods and assumptions except where noted (e.g., liabilities amortized over 20 years); results under different methods or assumptions could differ significantly

Rate changes resulting from the concepts will vary by employer.

Overall, note that employer rate reductions are generally only realized if a concept decreases benefits to be paid to members or the time over which employer costs are paid is extended.

Similarly, employer rates would be increased if a concept increases the benefits to be paid to members or decreases the proportion of member benefits that are assumed to be funded by investment earnings.

Benefit changes resulting from the concepts will vary by member; for example, the effect may vary based on which benefit calculation method is used to determine that member's highest benefit. Note that, for 2011 retirements, 49% of members had their benefits calculated using the Money Match method, 43% were calculated under Full Formula, and 8% were Formula+Annuity.

PERS uses up to three methods to calculate Tier One and Tier Two retirement benefits: Full Formula, Formula + Annuity (for Tier One members beginning service before August 21, 1981) and Money Match. PERS uses the method (for which a member is eligible) that produces the highest benefit amount. OPSRP pension benefits are based only on a formula method.

CAVEATS

Concepts have not been evaluated for:

- **Impact to collective bargaining discussions**
- **Relationship to workforce management objectives**
- **Compliance with previous court rulings**
- **Prospects for adoption by the 2013 Legislature**

Cost Savings Overview

Concepts have been analyzed on a discrete basis; combining concepts could affect the cost-saving estimates and the impact to member benefits. The cost savings estimates reflect a projected $18.4 billion PERS-covered payroll for the 2013-15 biennium. Estimated employer rate impacts are system-wide averages. The $18.4 billion biennial covered payroll projection is composed of $5.1 billion for state agencies and the university system (about 28%); $6 billion for school districts (about 33%); and $7.3 billion for local governments (about 40%). The 2013-15 biennial cost savings are based on the assumption that the Legislature will direct the PERS Board to revise employer contribution rates effective July 1, 2013, based on the legislative change, as they did when adopting the 2003 PERS Reform legislation.

Potential Legislative Concepts That Would Affect Costs for the 2013-15 Biennium		**2013-15 Cost Savings ($M)**	**Employer Rate Decrease (%)**
Related to the IAP	Eliminate Employer "Pick-up" of the 6% Member IAP Contribution	$129	0.7%
	Allow Partial Employer "Pick-up" of Member IAP Contributions	$74	0.4%
	Eliminate the 6% Member IAP Contribution Requirement	$129	0.7%
	Re-direct the 6% Member Contribution from the IAP to the Pension Programs	$570	3.1%
Related to Cost-of-Living Adjustments (COLAs)	Limit COLA Eligibility to the First $24,000 or First $32,000 of Annual Benefits *	$810 or $570	4.4% or 3.1%
	Do Not Pay COLA for One Biennium	$221	1.2%
	Limit Future COLAs to 1% or Eliminate All Future COLA Increases *	$900 or $1,800	4.9% or 9.7%
	Establish a 10-year Service Time Requirement for COLAs	$55	0.3%
Related to Money Match	Reduce the Money Match Annuity Rate to 4% or 6% *	$221 or $147	1.2% or 0.8%
	Eliminate Money Match Benefit Calculation for All *Future* Tier One/Tier Two Retirements	$497	2.7%
	Eliminate Money Match Benefit Calculation for All *Inactive* Tier One/Tier Two Retirements	$442	2.4%
Miscellaneous	Eliminate Tax Remedy Payments for Current and Future Non-Oregon Resident Retirees	$55	0.3%
	Remove the Adjustment Factors Used to Calculate Final Average Salary	$129	0.7%
	Establish a Defined Contribution Plan for New Hires	$0	0.0%

Potential PERS Board Concepts That Would Affect Costs for the 2015-17 Biennium		**2015-17 Cost Savings or Increase ($M)**	**Employer Rate Decrease or Increase (%)**
Related to System Financing	Reduce Assumed Earnings Rate to 7.5%	$552 increase	3.0% increase
	Reduce Assumed Earnings Rate to 7%	$1,200 increase	6.3% increase
	Increase Unfunded Actuarial Liability Amortization Period to 30 Years	$534 savings	2.9% decrease
	Increase Unfunded Actuarial Liability Amortization Period to 25 Years	$331 savings	1.8% decrease
	Limit Net Biennial Employer Contribution Rate Increases to 3% of Payroll	$350 savings	1.9% decrease

* Milliman has provided additional information/analysis for these concepts.

Glossary

Accrued liability: The net present value of projected future benefits allocated to service already completed in accordance with the actuarial cost method.

Actuarial asset value: The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with a smoothing method.

Actuarial assumptions: Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement, and retirement; rates of investment earnings and other relevant items. Actual experience will vary from assumption, and at times the variance will be substantial.

Actuarial cost method: A technique used by actuaries to allocate the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial liability (UAL). Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Base employer contribution rates: Consists of the normal cost rate plus the UAL rate. This is paid by a combination of employer contributions and side account transfers. Base rates do not reflect the effects of side account rate offsets.

Combined valuation payroll: Projected payroll for the calendar year following the valuation date for Tier One, Tier Two, and OPSRP active members. This payroll is used to calculate UAL rates.

Funded ratio or funded status: The actuarial value of assets expressed as a percentage of the accrued liability.

Individual Account Program (IAP): A defined contribution-like program that contains all member contributions (6% of covered payroll) made on or after January 1, 2004.

Net employer contribution rates: The rate funded by employer contributions, consisting of the base employer contribution rate minus the effect of side account rate offsets.

Normal cost: The annual cost assigned to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

Oregon Public Service Retirement Plan (OPSRP) Pension Program: The program covering members hired on or after August 29, 2003.

Rate collar: A methodology that limits the maximum allowable period-to-period change in employer contribution rates. The width of the rate collar is determined by the current contribution rate and funded status.

Side accounts: Side accounts are established for employers who make supplemental payments (a lump-sum payment in excess of the required employer contribution). For State and Local Government Rate Pool (SLGRP) employers, this supplemental payment is first applied toward the employer's transition liability, if any, with the remainder going into a side account. Side accounts are treated as pre-paid contributions. Employer contribution rates are first determined excluding side accounts (base employer contribution rate). Then, an amortized portion of the side account is used to offset the contribution otherwise required for each individual employer that has a side account (net employer contribution rate). While side accounts are excluded from valuation assets in determining contribution rates for pools and non-pooled employers, side accounts are included in valuation assets for financial reporting purposes such as the reporting of funded status.

Total liability: The net present value of all projected future benefits attributable to all anticipated service (past *and* future) for current active and inactive members.

Tier One: The pension program covering members hired before January 1, 1996.

Tier Two: The pension program covering members hired from January 1, 1996 through August 28, 2003.

Unfunded actuarial liability (UAL): The excess of the actuarial accrued liability over the actuarial value of assets. The UAL is amortized over a fixed period of time to determine the UAL rate component of employer contribution rates.

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* Milliman has provided additional information/analysis for these concepts.

Category: Concepts Related to the IAP

Eliminate Employer "Pick-up" of the 6% Member IAP Contribution

The IAP is a member-funded individual account benefit that is separate from the defined pension benefit. This concept would remove the statutory option for employers to "pick-up" the member's 6% Individual Account Program (IAP) contribution, which will require members to pay the 6% contribution directly.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: \$0.30 billion reduction Total liability impact: \$0.65 billion reduction Enacting this concept would reduce uncollared employer rates by approximately 0.70%, saving approximately \$129 million in the 2013-15 biennium, due to a reduction in the final average salary (FAS) for those Tier One/Tier Two members whose IAP contributions are employer paid or "picked up" and who retire under the Full Formula or Formula+Annuity benefit calculation methods. Preventing employers that currently "pick-up" member IAP contributions from doing so would shift the cost of those contributions to members. Currently, 70% of employers, representing 80% of covered payroll, "pick up" these member contributions. Approximately \$880 million in costs would be shifted from employers to members during the 2013-15 biennium.	Directly deducting the 6% contribution from members (on either a pre-tax or post-tax basis) reduces take-home pay for the approximately 70% of members whose contributions are now "picked up" by their employer. This reduction may also affect the final average salary (FAS) used to calculate Full Formula or Formula+Annuity benefits for Tier One/Tier Two members when determining those members' three highest salary years. Benefit calculations for Tier One/Tier Two members under Money Match would not be affected. Benefit calculations for OPSRP members would also not be affected because the "pick-up" is excluded from the FAS used in OPSRP formula pension benefits.	**PERS** No impact on PERS; employers report whether contributions are "picked-up" for each member. **Employer** Employers who currently pay the "pick-up" will have to change their salary reporting to member-paid status on either a pre-tax or post-tax basis.

Category: Concepts Related to the IAP

Allow Partial Employer "Pick-up" of Member IAP Contribution

The IAP is a member-funded individual account benefit that is separate from the defined pension benefit. This concept would amend statute to allow employers to "pick-up" a negotiated percentage of member Individual Account Program (IAP) contributions. Currently, the law provides that employers can only chose between "picking up" all of the 6% contribution or none of it; this concept would allow employers to negotiate a split of the 6% between "picked up" and member-paid. Savings below are calculated based on a 3%-3% split of the member's IAP contribution.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Based on a 3%-3% split: Accrued liability impact: $0.15 billion reduction Total liability impact: $0.33 billion reduction These liability reductions from a 3%-3% split of the "pick up" would reduce uncollared employer rates by approximately 0.40%, saving approximately $74 million in the 2013-15 biennium, because the split would reduce the FAS for those Tier One/Tier Two members whose contributions are currently fully "picked up" and who retire under the Full Formula or Formula+Annuity benefit calculation method. Allowing employers that currently "pick-up" member IAP contributions to shift a percentage of those contributions to employees would shift approximately $147 million in costs for each percentage point that the "pick up" is reduced during the 2013-15 biennium. Based on a 3% - 3% split, a total of $441 million would be shifted from employers to members in the 2013-15 biennium.	Directly deducting a portion of the 6% contribution from members (on either a pre-tax or post-tax basis) reduces take-home pay for the approximately 70% of members whose contributions are now "picked up" by their employer. This reduction may also affect the final average salary (FAS) used to calculate Full Formula or Formula+Annuity benefits for Tier One/Tier Two members when determining those members' three highest salary years. Benefit calculations for Tier One/Tier Two members under Money Match would not be affected. Benefit calculations for OPSRP members would also not be affected because the "pick-up" is excluded from the FAS used in OPSRP formula benefits.	**PERS** No impact on PERS so long as the current expectation that employers report whether contributions are "picked-up" for each member is maintained. Substantial IT system modifications and tracking would need to be developed were PERS expected to track the history of the varying percentages "picked up" by a member's employer(s) over an entire career. **Employer** Employers will have to modify salary reporting to reflect the split contributions.

Category: Concepts Related to the IAP

Eliminate the 6% Member IAP Contribution Requirement

The IAP is a member-funded individual account benefit that is separate from the defined pension benefit. This concept would amend statute to eliminate the member 6% Individual Account Program (IAP) contribution.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
If the IAP contribution requirement was eliminated: Accrued liability impact: $0.30 billion reduction Total liability impact: $0.65 billion reduction These liability reductions would reduce uncollared employer rates by approximately 0.70%, saving approximately $129 million in the 2013-15 biennium, because eliminating the 6% "picked up" contribution reduces the final average salary (FAS) for those Tier One/Tier Two members who retire under the Full Formula or Formula +Annuity benefit calculation methods. Would also reduce costs for those employers that currently "pick-up" member IAP contributions. Employers pay member IAP contributions for approximately 70% of active members, representing 80% of covered payroll. If the contribution requirement was eliminated, those employers would avoid the "pick-up" and save approximately $880 million in the 2013-15 biennium.	Eliminating the 6% IAP contribution requirement for all members reduces their IAP benefit going forward. The IAP benefit was projected (using an 8% earnings assumption) to replace some 15% to 20% of a member's final salary for a 30-year career employee. This concept may also affect the Final Average Salary used to calculate Full Formula or Formula+Annuity benefits for Tier One/Tier Two members when determining those members' three highest salary years. Benefit calculations under Money Match would not be affected for Tier One/Tier Two members. Benefit calculations for OPSRP members would also not be affected.	**PERS** Substantial IT system modifications would be needed to remove validations and controls on employer reports that currently verify, track, allocate, and invoice for the 6% contribution. **Employer** Employers would need to modify their payroll systems to remove report fields that relate to the IAP contribution.

Category: Concepts Related to the IAP

Re-direct the 6% Member Contribution from the IAP to the Pension Programs

The Individual Account Program (IAP) is a member-funded individual account benefit that is separate from the defined pension benefit. This concept would amend statute to re-direct Tier One/Tier Two and OPSRP member contributions from the IAP to the member's regular account (for Tier One/Tier Two members), or to a similar account to fund the member's pension under the OPSRP Program.

<table>
<tr><th colspan="3">Impact</th></tr>
<tr><th>System Liabilities/Employer Rates/
Other Employer Costs</th><th>Member Benefits and Cost Sharing</th><th>Administrative</th></tr>
<tr><td>Accrued liability impact: $0.1 billion increase
Total liability impact: $1.2 billion increase

Increasing the portion of a member's retirement allowance that is paid through their contributions would decrease uncollared employer contribution rates by about 3.1% of payroll, saving approximately $570 million in the 2013-15 biennium. These savings would be realized because the 6% member contribution currently funding the member's IAP benefit would instead be redirected to contribute towards funding the member's retirement allowance. Not all of this cost-shifting is realized as employer rate savings because the redirection would also increase benefits for those Tier One/Tier Two members who retire under the Money Match calculation method (see the "Member Benefits" column for a further explanation of that dynamic).

This concept would also increase Tier One member regular account balances, which adds risk in poor investment scenarios because those increased balances would also have annual guaranteed crediting at the assumed rate.</td><td>Members who retire under the Money Match method will see increased benefits because their regular accounts will resume growing with contributions, and that growth will be matched by their employers at retirement. The average projected liability increases for longer-serving members (i.e., 30+ years) are 2.5% to 4.0% given the relatively low number of years such members are expected to continue working before retirement. Tier One members with comparatively less service (i.e., 23-25 years) are projected to see higher average increases in their liability, approximately 8%. Some members in this group are currently projected to retire under Full Formula and re-contributing to their account would switch some to Money Match. OPSRP does not have an account balance-based benefit, but some increases are projected to benefits for OPSRP members who make a pre-retirement withdrawal, assuming any account balance in excess of their withdrawal benefit amount is paid to them.</td><td>PERS
Would require substantial IT system modifications to resume posting contributions to Tier One/Tier Two members' regular accounts and to create an account structure that is integrated into the OPSRP system functionality. Preliminary estimates are that IT system changes for this concept could cost over $1.2 million.

Employer
Employer reports would need to be modified to reflect the additional information fields that might be needed to allow administration of this concept.</td></tr>
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Category: Concepts Related to Cost-of-Living Adjustments (COLAs)

Limit COLA Eligibility to the First $24,000 or First $32,000 of Annual Benefits

This concept would amend statute to limit the payment of any future COLA to only the first $24,000 or, alternatively, $32,000 of all current and future benefit recipients' annual benefits.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Limiting COLA to the first $24,000 Accrued liability impact: $4.3 billion reduction Total liability impact: $5.2 billion reduction Uncollared employer contribution rates would decrease by about 4.4% of payroll, saving approximately $810 million in the 2013-15 biennium. **Limiting COLA to the first $32,000** Accrued liability impact: $3.1 billion reduction Total liability impact: $3.9 billion reduction Uncollared employer contribution rates would decrease by about 3.1% of payroll, saving approximately $570 million in the 2013-15 biennium.	Would slow the growth of current and future benefits for affected benefit recipients, causing those benefits to diminish in purchasing power over time due to the impact of inflation. See the charts on pages 11-12 for examples of these concepts' accumulated effect on benefits paid in the future. Approximately 53% of all current retired members receive a benefit of $24,000 a year or less and would not be impacted until their annual benefit after COLAs grew to greater than $24,000 (if that was the limit). Approximately 63% of all current retired members receive a benefit of $32,000 a year or less and would not be impacted until their annual benefit after COLAs grew to greater than $32,000 (if that was the limit).	**PERS** Would require IT system modifications to limit application of COLA to the specified benefit level. Preliminary estimates put that cost at approximately $40,000. **Employer** No identified administrative impact.

COLA Cap Examples (limit on the first $24,000 of an annual benefit)

This chart shows the impact of limiting the COLA to the first $24,000 for a benefit recipient who is receiving a $24,000, $48,000, or $60,000 annual benefit for the first 10 years of payments and the cumulative impact at 10, 20, and 30 years.

Year	$24,000 Annual Benefit			$48,000 Annual Benefit			$60,000 Annual Benefit		
	2% Annual COLA	COLA Cap ($480 annually)	Annual Change	2% Annual COLA	COLA Cap ($480 annually)	Annual Change	2% Annual COLA	COLA Cap ($480 annually)	Annual Change
1	24,480	24,480	-0	48,960	48,480	-480	61,200	60,480	-720
2	24,970	24,960	-10	49,939	48,960	-979	62,424	60,960	-1,464
3	25,469	25,440	-29	50,938	49,440	-1,498	63,672	61,440	-2,232
4	25,978	25,920	-58	51,957	49,920	-2,037	64,946	61,920	-3,026
5	26,498	26,400	-98	52,996	50,400	-2,596	66,245	62,400	-3,845
6	27,028	26,880	-148	54,056	50,880	-3,176	67,570	62,880	-4,690
7	27,568	27,360	-208	55,137	51,360	-3,777	68,921	63,360	-5,561
8	28,120	27,840	-280	56,240	51,840	-4,400	70,300	63,840	-6,460
9	28,682	28,320	-362	57,364	52,320	-5,044	71,706	64,320	-7,386
10	29,256	28,800	-456	58,512	52,800	-5,712	73,140	64,800	-8,340
10-year cumulative benefits	**$268,049**	**$266,400**	**-$1,649**	**$536,098**	**$506,400**	**-$29,698**	**$670,123**	**$626,400**	**-$43,723**
20-year cumulative benefits	**$594,800**	**$580,800**	**-$14,000**	**$1,189,599**	**$1,060,800**	**-$128,799**	**$1,486,999**	**$1,300,800**	**-$186,199**
30-year cumulative benefits	**$993,107**	**$943,200**	**-$49,907**	**$1,986,213**	**$1,663,200**	**-$323,013**	**$2,482,766**	**$2,023,200**	**-$459,566**

COLA Cap Examples (limit on the first $32,000 of an annual benefit)

This chart shows the impact of limiting the COLA to the first $32,000 for a benefit recipient who is receiving a $32,000, $48,000, or $60,000 annual benefit for the first 10 years of payments and the cumulative impact at 10, 20, and 30 years.

Year	$32,000 Annual Benefit			$48,000 Annual Benefit			$60,000 Annual Benefit		
	2% Annual COLA	COLA Cap ($640 annually)	Annual Change	2% Annual COLA	COLA Cap ($640 annually)	Annual Change	2% Annual COLA	COLA Cap ($640 annually)	Annual Change
1	32,640	32,640	-0	48,960	48,640	-320	61,200	60,640	-560
2	33,293	33,280	-13	49,939	49,280	-659	62,424	61,280	-1,144
3	33,959	33,920	-39	50,938	49,920	-1,018	63,672	61,920	-1,752
4	34,638	34,560	-78	51,957	50,560	-1,397	64,946	62,560	-2,386
5	35,331	35,200	-131	52,996	51,200	-1,796	66,245	63,200	-3,045
6	36,037	35,840	-197	54,056	51,840	-2,216	67,570	63,840	-3,730
7	36,758	36,480	-278	55,137	52,480	-2,657	68,921	64,480	-4,441
8	37,493	37,120	-373	56,240	53,120	-3,120	70,300	65,120	-5,180
9	38,243	37,760	-483	57,364	53,760	-3,604	71,706	65,760	-5,946
10	39,008	38,400	-608	58,512	54,400	-4,112	73,140	66,400	-6,740
10-year cumulative benefits	**$357,399**	**$355,200**	**-$2,199**	**$536,098**	**$515,200**	**-$20,898**	**$670,123**	**$635,200**	**-$34,923**
20-year cumulative benefits	**$793,066**	**$774,400**	**-$18,666**	**$1,189,599**	**$1,094,400**	**-$95,199**	**$1,486,999**	**$1,334,400**	**-$152,599**
30-year cumulative benefits	**$1,324,142**	**$1,257,600**	**-$66,542**	**$1,986,213**	**$1,737,600**	**-$248,613**	**$2,482,766**	**$2,097,600**	**-$385,166**

Do Not Pay COLA for One Biennium

This concept would amend statute to direct PERS not to pay the COLA currently provided for July 1, 2013 or July 1, 2014.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $1.4 billion reduction Total liability impact: $1.4 billion reduction Uncollared employer contribution rates would decrease by about 1.2% of payroll. This would save approximately $221 million in the 2013-15 biennium. Note: An additional 1% of payroll rate reduction would occur for each successive biennium in which the COLA is eliminated (e.g. a six-year COLA elimination would reduce employer rates by 3% of payroll).	Benefit levels would remain flat for the biennium. Current and future benefits would diminish in purchasing power over time due to the impact of inflation. Total benefits received over affected benefit recipients' lifetimes would also be reduced as the suspended COLA would not be compounded in future years. The relative size of the reduction would vary depending on the length of the time benefits are paid after the COLA resumes.	**PERS** Would require IT system changes to suspend the COLA and exclude both additional accumulation and application of any banked COLA during the period that the COLA is suspended. **Employer** No identified administrative impact.

Category: Concepts Related to Cost-of-Living Adjustments (COLAs)

Limit Future COLAs to 1% or Eliminate All Future COLA Increases

This concept would amend statute to either limit future COLAs to a maximum of 1% or direct PERS not to pay the COLA in the future.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
If future COLA increases were eliminated: Accrued liability impact: $9.7 billion reduction Total liability impact: $11.0 billion reduction Uncollared employer contribution rates would decrease by about 9.7% of payroll. This would save approximately $1.8 billion in the 2013-15 biennium. **If future COLA increases were limited to 1%:** Accrued liability impact: ~$4.9 billion reduction Total liability impact: ~$5.5 billion reduction Uncollared employer contribution rates would decrease by about 4.9% of payroll. This would save approximately $900 million in the 2013-15 biennium.	If future COLA increases were eliminated or limited to 1%, purchasing power would decrease over time due to the impact of inflation. Total benefits received over the affected person's lifetime would also be less due to the reduction or loss of COLAs. For example, a 2% COLA compounded annually increases a benefit by 50% over 21 years, so reducing the COLA to 1% would limit that benefit increase to approximately 25% over 21 years while eliminating the COLA would eliminate that benefit increase.	**PERS** Would require some IT system changes to eliminate COLA and exclude both additional accumulation and application of any banked COLA during the period that the COLA is eliminated or reduced. **Employer** No identified administrative impact.

Category: Concepts Related to Cost-of-Living Adjustments (COLAs)

Establish a 10-Year Service Requirement for COLAs

This concept would amend statute to impose a requirement of 10 years of creditable service before being eligible for a COLA.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $0.3 billion reduction Total liability impact: $0.3 billion reduction Uncollared employer contribution rates would decrease by about 0.3% of payroll, saving approximately $55 million in the 2013-15 biennium.	Members retiring with less than 10 years of service time would not be eligible for a COLA. Their benefits would remain flat and experience diminished purchasing power over time due to the impact of inflation. Total benefits received over the affected person's lifetime would also be less due to the loss of COLAs. Approximately 12% of PERS members retiring in 2011 had less than 10 years of creditable service.	**PERS** Would require significant IT system changes to add an additional qualifier to determine whether COLA should be applied. **Employer** No identified administrative impact.

Category: Concepts Related to Money Match

Reduce the Money Match Annuity Rate to 4% or 6%

This concept would set the interest rate used to derive the annuity portion when calculating future Money Match retirement benefits at 4% or 6% instead of using the system's assumed earnings rate (currently 8%).

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Reduce the Money Match Annuity Rate to 4% Accrued liability impact: $3.4 billion reduction Total liability impact: $2.7 billion reduction Employer rates would decrease by a net of 1.2% of payroll saving approximately $221 million in the 2013-15 biennium. **Reduce the Money Match Annuity Rate to 6%** Accrued liability impact: $2.0 billion reduction Total liability impact: $1.6 billion reduction Employer rates would decrease by a net of 0.8% of payroll saving approximately $147 million in the 2013-15 biennium. Decreasing the annuitization rate to 4% or 6% would cause some members to be projected to retire under Full Formula rather than Money Match. This would lower the member's total liability and accrued liability, but would increase the member's "normal cost" under the current actuarial cost method. The entire normal cost is funded each year in the employer's contribution rate, while changes in accrued liability are typically amortized over a number of years.	All Tier One/Tier Two members are provided the highest of (up to) three benefit calculation methods, so reducing Money Match benefits could move affected members to Full Formula or Formula+Annuity "floors" that would limit the decrease in their benefit at retirement. Lowering the annuity rate from 8% to 4% would reduce a 55-year old member's Money Match benefit by 34.4%, while a 65-year old member's Money Match benefit would be reduced 28.8%. Lowering the annuity rate to 6% would reduce a 55-year old member's Money Match benefit by 17.7%, while a 65-year old member's Money Match benefit would be reduced 14.7%. Tier One members who began service before August 21, 1981 are eligible for the Formula+Annuity benefit calculation, and the Annuity portion of their benefit would be reduced. Tier Two members are eligible for either Full Formula or Money Match, but most are likely to retire under Full Formula and this reduction would not affect their benefits. OPSRP members only receive a formula-based benefit so this reduction would also not affect their benefits.	**PERS** Would require the implementation of special actuarial factor tables to be used only for Money Match calculations that would derive the actuarial equivalent based on the reduced interest rate. **Employer** No identified administrative impact.

Category: Concepts Related to Money Match

Eliminate the Money Match Benefit Calculation for *Future* Tier One/Tier Two Retirements

This concept would amend statute to eliminate Money Match as a benefit calculation method used to determine benefits for Tier One and Tier Two members.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $6.1 billion reduction Total liability impact: $5.0 billion reduction Employer rates would decrease by a net of 2.7% of payroll saving approximately $497 million in the 2013-15 biennium. Eliminating Money Match as a benefit calculation method would cause affected members to be projected to retire under Full Formula. This would lower the member's total liability, and accrued liability, but would increase the "normal cost" for active members under the current actuarial cost method. The entire normal cost is funded each year in the employer's contribution rate, while changes in accrued liability are typically amortized over a number of years.	Tier One and Tier Two members currently projected to have their benefits calculated under Money Match would have their benefit reduced to the level provided by the Full Formula calculation. The reduction would be most significant for long-service active Tier One general service members, and for members who have been inactive for an extended time. In 2011, retired members whose retirement benefits were calculated under Money Match replaced an average of 70% of salary in retirement. Also in 2011, 30-year career members whose retirement benefits were calculated under Money Match replaced an average of 78% of salary in retirement.	**PERS** Would require substantial IT system modifications to remove Money Match calculations from the benefit determination system. **Employer** No identified administrative impact.

Category: Concepts Related to Money Match

Eliminate the Money Match Benefit Calculation for All *Inactive* Tier One/Tier Two Retirements

This concept would amend statute to eliminate Money Match as a benefit calculation method used to determine benefits for Tier One and Tier Two members who are not active members (i.e., working in a PERS-covered position at retirement).

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $2.9 billion reduction Total liability impact: $2.9 billion reduction Employer rates would decrease by 2.4% of payroll, saving approximately $442 million in the 2013-15 biennium.	Inactive members currently projected to have their benefits calculated under Money Match would have their benefit reduced to the level provided by the Full Formula calculation. The reduction would be greatest for members who have been inactive for an extended period. There were 40,500 members reported as "inactive" in the December 31, 2011 actuarial valuation.	**PERS** Would require substantial IT system modifications to remove Money Match calculations from the benefit determination system. **Employer** No identified administrative impact.

Category: Miscellaneous Concepts

Eliminate Tax Remedy Payments for Current and Future Non-Oregon Resident Retirees This concept would amend statute to eliminate supplemental tax remedy benefits for PERS retirees that do not pay state income taxes in Oregon.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $0.38 billion reduction Total liability impact: $0.39 billion reduction Uncollared employer contribution rates would decrease by about 0.3% of payroll, saving approximately $55 million in the 2013-15 biennium. Estimates shown above assume 15% of benefits are paid to non-Oregon residents.	Would reduce benefits of retired Tier One members who reside out-of-state by approximately 6%, on average (estimated at 15% of current retired members, or about 18,000 people). The reduction would be highest for those affected members with the greatest proportion of their service prior to September 29, 1991. The supplemental tax remedy payments are only paid to members who started service before July 14, 1995. Benefit recipients who are entitled to the tax remedy receive a maximum monthly increase of 9.8% and minimum of 2%.	**PERS** Would require IT system modifications to coordinate withholding tax remedy benefits from those recipients who should no longer receive them. Oregon's Department of Revenue would also need to coordinate eligibility determinations and complications would arise as recipients move in and out of Oregon residency status. **Employer** No identified administrative impact.

Category: Miscellaneous Concepts

Remove the Adjustment Factors Used to Calculate Final Average Salary

This concept would amend statute to eliminate lump sum vacation pay and unused sick leave as factors included in determining a Tier One/Tier Two member's final average salary (FAS) for such members not yet retired.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $0.33 billion reduction Total liability impact: $0.66 billion reduction Uncollared employer contribution rates would decrease by about 0.7% of payroll, saving approximately $129 million in the 2013-15 biennium.	Tier One FAS would be reduced by eliminating both factors (estimated average reduction of about 8%). Tier Two FAS would be reduced by eliminating the unused sick leave factor (lump sum vacation pay is already excluded), for an estimated average reduction of about 6%. Only members who would retire using the Full Formula and Formula+Annuity benefit calculation methods would be affected. Formula+Annuity only applies to Tier One members who started service before August 21, 1981. Benefit calculations for Tier One / Tier Two members under Money Match would not be affected. OPSRP members would also not be affected as both factors are already excluded from FAS calculation for OPSRP benefits.	**PERS** Would require significant IT system changes to revise or remove reporting, validation, verification, and calculation processes that use these factors. **Employer** Change the salary reporting process to eliminate these factors.

Category: Miscellaneous Concepts

Establish a Defined Contribution (DC) Plan for New Hires

Adopt a statutory DC plan for new hires that requires employers to contribute a set percentage of the member's salary to an account, to combine with member contributions and receive market earnings and losses.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: No impact Total liability impact: No Impact No savings unless employer contributions are less than the "normal cost" rate (the cost of benefits accrued for the current year of service). All costs associated with existing plans would still need to be paid, so there would be no reduction in accrued liability or total liability for exiting plan members.	The impact on the value of retirement benefits for new hires will depend on the level of member and employer contributions and investment performance. Prior projections for the IAP component of the current PERS hybrid plan were that a 6% contribution with a compounded 8% annual return provides a benefit equal to 15% to 20% of final average salary for a 30-year member. DC plan contributions would need to be about 18% of pay with a compounded 8% annual return to achieve the same final salary replacement ratio as a 30-year OPSRP pension benefit. A DC plan also shifts all investment and longevity risk to the individual member.	**PERS** Would require a new fund investment and benefit administration system, or contracting with a third party administrator, or outsourcing both investment and plan administration functions. Increases administrative complexity and costs by introducing a different benefit structure. **Employer** Transfers all investment and longevity risk from the employer to the employee; establishes a determinable, consistent benefit plan cost structure for new hires.

Category: Concepts Related to System Financing

Reduce Assumed Earnings Rate to 7.5%

This concept assesses the impact of the PERS Board, based on advice from OIC investment consultant and PERS actuary, reducing the assumed earnings rate from the current 8% per year to 7.5% per year if that changes was made effective with the December 31, 2011 valuation that set 2013-2015 employer contribution rates.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $2.7 billion increase Total liability impact: $4.0 billion increase Lowering the assumed earnings rate assumption by 0.5% would increase uncollared employer Tier One/Tier Two rates by 3% of payroll, increasing employer contributions by $552 million per biennium (based on the 2013-15 PERS covered payroll). This is partially because retirements from 1989 to the present were funded based on an 8% assumed rate and decreasing the assumed rate would require more employer dollars to adequately fund those retirements. In addition, earnings would be projected to fund a smaller portion of benefits for anticipated future retirements, thus requiring increased contributions to fill the gap. A change in the assumed rate from 8% to 7.5% would result in an increase of $4 billion in total actuarial liability due to the lowering of future earnings expectations. That increase reflects the net effect of lowered earnings expectations and a partial offset of those expectations due to the lowering of expected costs for future benefits calculated under the Money Match and Formula+Annuity methods.	Reducing the assumed earnings rate would also result in a reduction in the actuarial equivalency factors used to derive Tier One/Tier Two Money Match and Tier One Formula+Annuity benefits. Money Match benefits would be reduced by approximately 4.5% for a member retiring at age 55 and 3.7% for a member retiring at age 65. Formula +Annuity benefits would be affected by approximately half as much as Money Match benefits. However, both of these reductions may be limited as the member may shift to a Full Formula calculated benefit. OPSRP member benefits are only calculated on a formula basis.	**PERS** Would require the creation of new actuarial factor tables for benefit calculations and to derive the actuarial equivalent for optional benefit forms. **Employer** No identified administrative impact.

Category: Concepts Related to System Financing

Reduce Assumed Earnings Rate to 7%

This concept assesses the impact of the PERS Board, based on advice from the OIC investment consultant and PERS actuary, reducing the assumed earnings rate from the current 8% per year to 7% per year.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $5.7 billion increase Total liability impact: $8.5 billion increase Lowering the assumed earnings rate assumption by 1% would increase uncollared employer Tier One/Tier Two rates by 6.3% of payroll, increasing employer contributions by $1.2 billion per biennium (based on the 2013-15 PERS covered payroll). This is partially because retirements from 1989 to the present were funded based on an 8% assumed rate and decreasing the assumed rate would require more employer dollars to adequately fund those retirements. In addition, earnings would be projected to fund a smaller portion of benefits for anticipated future retirements, thus requiring increased contributions to fill the gap. A change in the assumed rate from 8% to 7% would result in an increase of $8.5 billion in total actuarial liability due to the lowering of future earnings expectations. That increase reflects the net effect of lowered earnings expectations and a partial offset of those expectations due to the lowering of expected costs for future benefits calculated under the Money Match and Formula+Annuity methods.	Reducing the assumed earnings rate would also result in a reduction in the actuarial equivalency factors used to derive Tier One/Tier Two Money Match and Tier One Formula+Annuity benefits. Money Match benefits would be reduced by approximately 9% for a member retiring at age 55 and 7.3% for a member retiring at age 65. Formula+Annuity benefits would be affected by approximately half as much as Money Match benefits. However, both of these reductions may be limited as the member may shift to a Full Formula calculated benefit. OPSRP member benefits are only calculated on a full formula basis.	**PERS** Would require the creation of new actuarial factor tables for benefit calculations and to derive the actuarial equivalent for optional benefit forms. **Employer** No identifiable administrative impact.

Category: Concepts Related to System Financing

Increase Unfunded Actuarial Liability Amortization Period to 30 Years

This concept assesses the impact from the PERS Board, based on advice from the PERS actuary, increasing the amortization period of the current Tier One/Tier Two unfunded actuarial liability (UAL) from a closed 20 years to a closed 30 years. Future UALs or surpluses would be amortized over a new 30-year period. Current side account amortization periods would remain the same.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $0 Total liability impact: $0 (This concept only affects the timing and total cost of recovering the unfunded liability over a longer time) Increasing the amortization period from 20 to 30 years would initially lower uncollared employer rates by approximately 2.9% of payroll system-wide, providing near-term "savings" of approximately $534 million per biennium (based on the 2013-15 PERS covered payroll) by shifting costs to future years. This would cause negative amortization of the UAL on a cumulative basis for approximately the first 20 years, causing the UAL to increase and the system funded status to decline compared to the current amortizations. This increased UAL would need to be financed through future contributions. In addition, the UAL contribution rate would have to be assessed for an additional 10 years should earnings grow only at the assumed rate. Lengthening the amortization period will also result in greater generational inequity as the payoff of UALs attributed to current members and retirees will be deferred, in part, to future member payrolls and future taxpayers.	No direct impact on member benefits.	**PERS** None. **Employer** None.

Category: Concepts Related to System Financing

Increase Unfunded Actuarial Liability Amortization Period to 25 Years

This concept assesses the impact from the PERS Board, based on advice from the PERS actuary, increasing the amortization period of the current Tier One/Tier Two unfunded actuarial liability (UAL) from a closed 20 years to a closed 25 years. Future UALs or surpluses would be amortized over a new 25-year period. Current side account amortization periods would remain the same.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $0 Total liability impact: $0 (This concept only affects the timing and total cost of recovering the unfunded liability over a longer time) Increasing the amortization period from 20 to 25 years would initially lower uncollared employer rates by approximately 1.8% of payroll system-wide, providing near-term "savings" of approximately $331 million per biennium (based on the 2013-15 PERS covered payroll) by shifting costs to future years. This would cause negative amortization of the UAL on a cumulative basis for approximately the first 12 years, causing the UAL to increase and the system funded status to decline compared to the current amortizations. This increased UAL would need to be financed through future contributions. In addition, the UAL contribution rate would have to be assessed for an additional 5 years should earnings grow only at the assumed rate. Lengthening the amortization period will also result in greater generational inequity as the payoff of UALs attributed to current members and retirees will be deferred, in part, to future member payrolls and future taxpayers.	No direct impact on member benefits.	**PERS** None. **Employer** None.

Category: Concepts Related to System Financing

Limit Net Biennial Employer Contribution Rate Increases to 3% of Payroll

This concept assesses the impact from the PERS Board, based on advice from the PERS actuary, adopting a new rate collaring methodology to limit base rate increases to 3% of payroll from one biennium to the next. The rate increase limit would apply to base, pooled rates. This concept does not affect rates offsets for employers with side accounts.

Impact		
System Liabilities/Employer Rates/ Other Employer Costs	**Member Benefits and Cost Sharing**	**Administrative**
Accrued liability impact: $0 Total liability impact: $0 (This concept only affects the timing and total cost of recovering the unfunded liability over a longer time) Limiting the increase in employer rates to 3% of payroll in the 2013-15 biennium would reduce the projected rate increases by 1.9% of payroll system-wide providing near-term "savings" of approximately $350 million per biennium (based on the 2013-15 PERS covered payroll) by shifting costs to future years. System funded status would decline by about 1% of assets per biennium over the next four to five biennia, as employer contributions would be less than the amount needed to adequately fund benefits. Employer contribution rates would ultimately rise to a higher level in the future, even if earnings exceed the assumed rate, because of the deferred collection of contributions. Also, if earnings do not meet projections, funded status deterioration and future rate impact would be more pronounced.	No direct impact on member benefits.	**PERS** Increases overall complexity of setting employer rates, but is manageable within current system design. **Employer** Could result in significantly higher long-term contribution rates for employers. Could create substantial accounting, actuarial, and bond finance reporting concerns. For those employers with side accounts, the net effect could be further complicated if the increase was limited to base contribution rates or to include side account offsets, which may result in those accounts being depleted more rapidly than anticipated.