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November 28, 2012

**VIA E-MAIL**

Paul Cleary  
 Executive Director  
 Oregon PERS

**Re: Request Number: 2012-008  
 Benefit Design Cost Analysis – Remove Final Average Salary Factors**

Dear Paul:

Per your request, this letter provides an estimate of the system-wide average effect of removing payments for unused sick leave and unused vacation time from the calculation of Final Average Salary (FAS) for PERS members currently eligible to include these amounts. The analysis estimates the impact if this change had become effective on December 31, 2011, and affected future retirements for members active as of December 31, 2011. A change at that time would have affected both the December 31, 2011 actuarial liability and 2013-2015 employer contribution rate calculations. While any change to the statutory provisions regarding inclusion of these factors in FAS would occur at a later date, estimating the impact as of a December 31, 2011 snapshot date allows for direct comparison to liability and employer contribution rate calculations from the most recently completed actuarial valuation.

The table below has a summary of the valuation results and the estimated effect of the change. “Accrued Liability” refers to the net present value of projected future benefits allocated to service already completed as of the valuation date in accordance with the current actuarial cost allocation method, while “Total Liability” includes the value attributable to anticipated future service for current active members. As shown in the table below, the change is estimated to lower system Total Liability by approximately \$660 million, lower Accrued Liability by approximately \$330 million, and to lower the system-wide average employer contribution rate by 0.7% of payroll. The contribution rate shown is a blended rate reflecting the weighted averages of Tier 1, Tier 2 & OPSRP payroll as of the valuation date. The contribution rate is shown on an “uncollared” basis. If this concept was adopted, the actual impact on collared employer rates would depend on Board policy and/or legislative direction on how to implement such a change.

|  | 12/31/2011<br>Total Liability<br>(\$B) | 12/31/2011<br>Accrued<br>Liability (\$B) | 2013-2015<br>Uncollared Base<br>Employer Contribution Rate<br>(% of payroll) |
|--|--|--|--|
| 12/31/2011 Valuation Results                               | \$69.19                                | \$61.20                                  | 23.7%  |
| Remove Unused Sick Leave and Vacation<br>Payments from FAS | (0.66)                                 | (0.33)                                   | (0.7%)   |

## BACKGROUND AND OUR UNDERSTANDING

Currently, certain Tier 1 and Tier 2 members are eligible to receive an increase in their Final Average Salary calculated at retirement on account of two separate provisions. First, employees of employers participating in the unused sick leave program can have the value of one half of their accumulated unused sick leave added to the gross salary used to determine their FAS. This benefit is available to both Tier 1 and Tier 2 members whose employers elect to participate. Second, Tier 1 members are eligible to include the value of any lump sum payment for accrued vacation that occurs in their final 36 months of employment as part of the salary that will be used to calculate their FAS. The effect of both provisions is to increase FAS and, ultimately, benefits paid from the system.

OPSRP members are not eligible for either increase to their FAS.

The FAS amount calculated for a member affects the benefits determined under both the Full Formula and Formula Plus Annuity benefit formulas, but does not affect the Money Match calculation. Because of this, the effect of removing unused sick leave and vacation amounts from the salary considered would have a varying effect between members, depending on which formula produces the greatest benefit.

In the biennial review of assumptions and methods, we evaluate an appropriate assumed increase attributable to each of these final salary increase factors to use in the actuarial valuation. The assumed increases to FAS for active members used in the December 31, 2011 actuarial valuation are shown below. The vacation increase in the table is applied to all Tier 1 members, while the unused sick leave increase in the table is applied only to Tier 1/Tier 2 members who work for an employer that elects to participate in the unused sick leave program.

| Assumed Increase to Active Final Average Salary (FAS) |       |
|---|-------|
| <b>Unused Sick Leave</b>                              |       |
| State General Service Male                            | 6.25% |
| State General Service Female                          | 3.75% |
| School District Male                                  | 8.25% |
| School District Female                                | 6.50% |
| Local General Service Male                            | 4.25% |
| Local General Service Female                          | 3.00% |
| State Police & Fire                                   | 5.50% |
| Local Police & Fire                                   | 7.50% |
| <b>Vacation Pay</b>                                   |       |
| Tier 1 Non-School District/Judges                     | 1.00% |
| Tier 1 School District                                | 0.25% |

## **DATA, METHODS, ASSUMPTIONS AND PROVISIONS**

Other than the exceptions and additions noted below, the data, methods, assumptions, and plan provisions used to calculate employer contribution rates are the same as those used in the December 31, 2011 system-wide actuarial valuation report. That information, including a discussion of the inherent limitations of use of actuarial valuation results, is herein incorporated to this letter by reference.

To estimate the effect of removing these payouts from the FAS calculation, we compared the results of our valuation to what would have been attained if we had assumed no pay increases attributable to these sources for all post-2011 retirements. Please note the results would differ if such a change were phased in over time or if some members were "grandfathered" and exempted from the change. Please note that, consistent with valuation assumptions, payments for unused sick leave and vacation are not assumed to increase benefits payable for disability retirements.

Also note that our analysis does not include any assumed change in member behavior as a result of the change in the Final Average Salary calculation. Such potential impacts merit consideration, but are beyond the scope of the analysis requested.

In calculating the illustrative changes in uncollared employer base contribution rates shown above, we assumed all changes in Accrued Liability were amortized over a 20-year period as a level percent of payroll using current valuation assumptions. This is the method currently used in the valuation when establishing new Tier 1/Tier 2 amortization bases. If a different amortization method were used, the overall impact on employer rates could be significantly different than shown in this letter.

## **ACTUARIAL BASIS AND QUALIFICATIONS**

In preparing this letter and the valuation report on which it is based, we relied, without audit, on information (some oral and some in writing) supplied by Oregon PERS. 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 updated estimates 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 a reasonable estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this estimate 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 or actuarial methods; increases or decreases expected as part of the natural

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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 this estimate, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the valuation assumptions and adopted the assumptions used in the December 31, 2011 valuation in July 2011.

Actuarial computations presented in this estimate are for purposes of providing a high-level analysis of the requested concepts for changes to the System. As such, they cannot be relied upon for financial reporting or other purposes, and calculations for purposes other than this use may be significantly different from the estimates contained in this letter. Accordingly, additional determinations may be needed for other purposes.

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The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to the change concepts discussed in this letter. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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

If you have any questions about our response or need any additional information, please let us know.

Sincerely,



Matt Larrabee, FSA, EA  
Consulting Actuary

MRL:sdp  
encl.

cc: Steve Rodeman  
Debra Hembree  
Scott Preppernau

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