

**The Economic Value of Retirement Benefits for Archetypical
Current and Future Retirees in Oregon, Washington, and
Idaho – Present Value Analysis**

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First in an occasional series on Oregon Public Employee Retirement System

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The Economic Value of Retirement Benefits for Archetypical Current and Future Retirees in Oregon, Washington, and Idaho – Present Value Analysis

Most of the analytical work done to date about the Oregon Public Employee Retirement System (PERS)– by PERS itself and various interested parties– has focused on current and projected system-wide liabilities and costs, and how various changes to PERS might reduce (or slow the growth of) future employer contribution rates.

Less studied has been how Oregon’s PERS system looks from the opposite end of the analytical telescope: in terms of its tangible, economic value to individual public sector retirees, both now and in the future. To help foster better understanding among policy makers and Oregon citizens (including approximately 350,000 PERS members, about 113,000 of whom are already retired), Portland State University’s Center for Public Service is publishing this brief report: “The Economic Value of Retirement Benefits for Archetypical Current and Future Retirees in Oregon, Washington, and Idaho.”

This study selects three public service occupations-- accountant, K-12 teacher, and state trooper/police officer – commonly found in three Northwest states and their three largest cities (Portland, Seattle, and Boise.) Key assumptions were made to allow “apples-to-apples” comparisons of the retirement benefits of current and future retirees, both within and between each system.

One way to look at the study is to imagine two sets of identical triplets, each choosing a public service career in one of these three fields. The first set (“Current retirees”) would have July 1, 2013 as their common retirement day. The second set (“Future retirees”) would have July 1, 2013 as their common first day of work, with retirement either in 2038 after 25 years (a common “full eligibility” milestone for public safety professionals) or in 2043 after 30 years.

The study assumes that each triplet in his/her respective field would work a “full eligibility” career before retirement, according to the rules of their pension system. In their final year of work, each would earn \$66,000. All would receive, if entitled, the same Social Security benefits beginning at age 65 (current retirees) or 67 (future retirees). Each would collect retirement benefits until their respective deaths, all at 85.

The only material difference in our analytic model: each triplet would spend his/her career within a different public-employee pension system.

All public pension and Social Security benefits -- where applicable -- were calculated using a “Present Value” (PV) methodology to allow valid comparisons of retirement benefits between current and future retirees, as well as among retirees across the five systems. The PV methodology is best understood as a way to answer this question: “What would it cost to purchase an “annuity” sufficient to ensure a future stream of income to each triplet, identical to their projected stream of public pension and Social Security retirement benefits?”¹

¹ A key assumption in all Present Value calculations is the interest rate used, so that it realistically aligns with what an annuity seller would assume. For this calculation, a 4% interest rate was used, which is somewhat between the 5% rate that was common prior to the last recession (CK), but above the current 3.25% rate for 30-year Treasury bonds.

Among our major findings:

Finding #1

For both current and future retirees, Washington and Idaho public employees will personally fund a far greater portion of their retirement than their Oregon counterparts.

With one exception, under existing rules and practices, Washington and Idaho accountants and K-12 teachers (30-year retirees) will personally contribute from **2.0 to 3.5 times more** over their working lives towards their combined public pension/Social Security retirement benefits than their Oregon PERS counterparts.

For Washington and Idaho state troopers/police officers (25-year retirees), the difference is even greater: **3 to 4.5 times more** viz. their Oregon counterparts. To look a bit closer:

- For a total retirement benefit whose PV is approximately \$1 million, most Oregon employees will contribute approximately \$160,000 of that Present Value – *all of it accounted for* by their 6.2% annual employee contributions to Social Security.²
- For 4 of 6 Oregon examples in our study, current and future retirees personally contribute \$0 to their Oregon PERS or Portland FPDR retirement benefits. This is because the large majority of Oregon public employers have chosen, through a practice widely known as the “6% employee pick up,” to also pay for the “member contribution” – 6% of salary PERS requires from (or on behalf of) individual PERS members.
- For a similar \$1 million PV benefit, current and future 30-year retirees of the Washington PERS, Seattle Teachers Retirement System, and Idaho PERSI systems will personally fund between \$370,000 and \$560,000 – approximately \$160,000 in Social Security contributions, and about \$200,000 to \$400,000 to their public pension systems.³
- The only Oregon employees in our study who directly contribute to their public pension system are current and future Portland School District K-12 teachers. Portland Public School teachers have personally paid the 6% PERS employee share since 1996.⁴
- Among 25-year retirees, Oregon state troopers (current and future) will pay about \$100,000 PV of their retirement benefits-- all via Social Security. This contrasts with Boise police (\$343,000 for current and future retirees); Idaho state troopers (\$470,000 current, \$446,000 future); Washington state troopers (\$349,000 current and future) and Seattle police (\$363,000 current and future).

Figures 1-3 that graphically display these findings are included at the end of this document

² City of Portland police officers within the FPDR system and the Current OPSRP System will contribute \$0, total, since they do not belong to the Social Security system.

³ These figures, of course, do not represent cumulative, “out of pocket” expenses by individual members. Rather, they are based on the current financing arrangement for each system, effective July 1, 2013. The proportion deemed paid directly by employees is then multiplied by the PV to produce these figures.

⁴ According to PERS: By The Numbers – September 2012 (p. 13) employers pay the employees’ “Member Contribution” or “Pick up” for approximately 70% of employees. For school districts where the employers pay this 6%, the employee funded share of a \$1.66 million PV retirement benefit using Money Match would be identical to that for an accountant – i.e. \$160,000, exclusively for the employee portion of Social Security.

Finding #2

Under the Oregon PERS "Money Match" system – which can only be used by current Oregon PERS retirees – the Present Value of Retirement benefits is dramatically higher than those found in any other system. To take a closer look:

- For 30-year current retirees in our study (accountants and K-12 teachers) who are eligible for Oregon PERS' Money Match system, the total Present Value (PV) of retirement benefits is \$1.66 million. This PV is 40-80% higher than the PV for comparable current retirees in the Washington and Idaho systems – and 50-60% higher than the PV for future Oregon retirees.⁵
- For 25-year retirees, the PV of the Oregon PERS Money Match system ranges from 8% above the PV for a future Oregon retiree to 38% above a retiree from Idaho's PERSI system, to 46% higher viz a Seattle police officer.⁶

Finding #3

A corollary to Findings #1 and #2 is that public employers in Oregon finance far greater shares of their public pension systems than their Washington and Idaho counterparts –especially for current retirees. To take a closer look – after subtracting employer-paid Social Security contributions, where applicable:

- Oregon PERS employers finance the equivalent of \$1.295 million in PV (PERS only) for current 30-year accountants eligible for Money Match, and \$1.163 million in PV for current Portland K-12 teachers. The highest comparable PV share for 30-year current retirees is found in the Idaho system (\$468,000), and the lowest in Seattle (\$308,000).
- Current Portland police retirees (25 years) have an employer-paid PV under their FPDR system of \$1.2 million, and 25-year Oregon state troopers have an employer-paid PV equivalent of \$874,000. For other current 25-year retirees, the highest is Idaho (about \$475,000) and the lowest is Seattle (about \$360,000).

Assuming that most Oregon employers continue the practice of "picking up" their employees' 6% required PERS contributions, similar variances are projected to occur for future retirees. For example, the employer-paid PV for a 30-year future accountant in the Oregon Public Service Retirement Program (OPSRP) is projected to be about \$800,000. This is nearly triple the employer-paid PV for a future 30-year retiree in the current Washington PERS system (\$308,000), and almost double that for a future 30-year retiree in the Idaho PERSI system (\$467,000).⁷

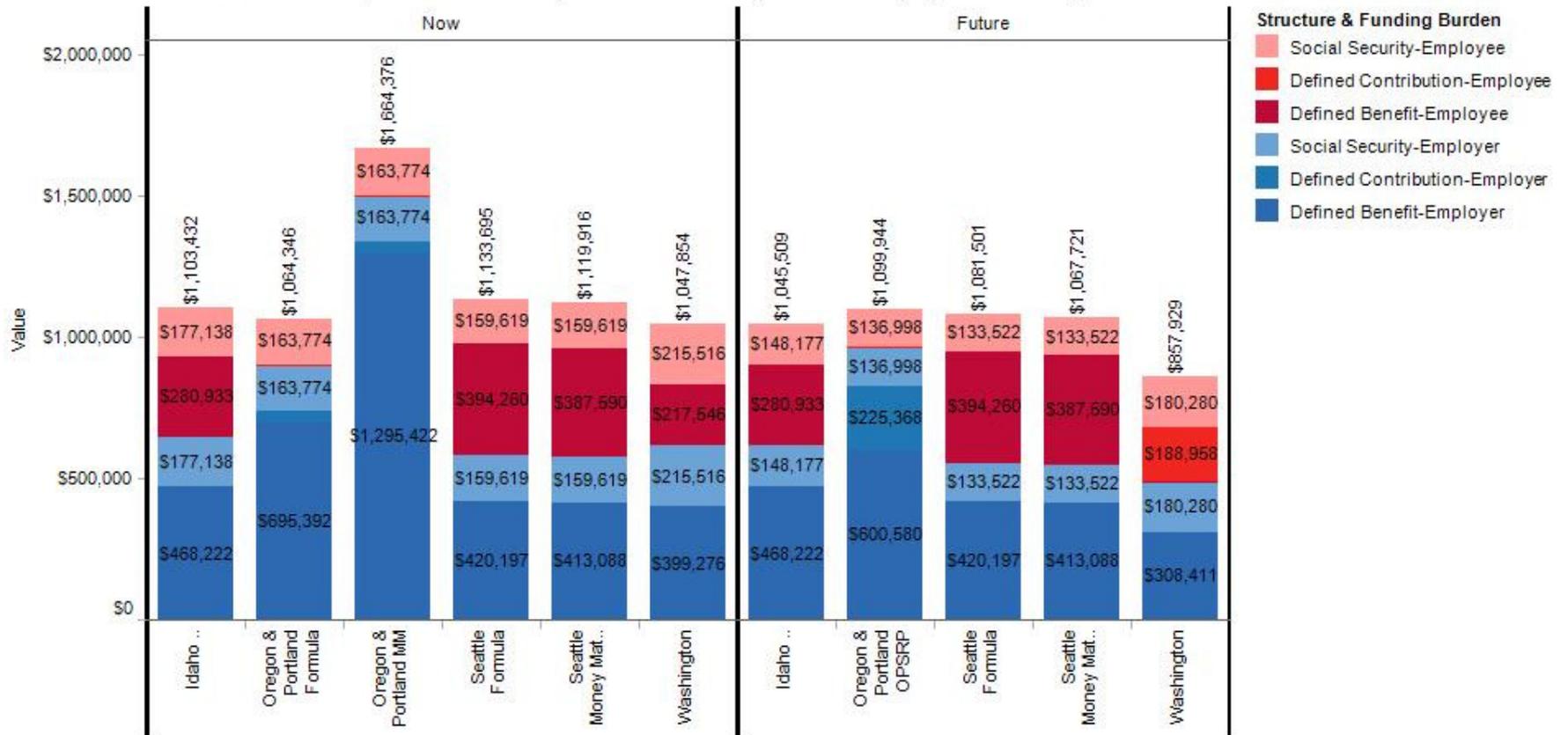
⁵ For current retirees, Oregon PERS pays the higher of amount after calculating benefits under two methods: "Full Formula" and "Money Match." While all 30-year and even 25-year Oregon current retirees would use the Money Match method under the assumptions used in this study, we've also calculated the PV benefits had the "Full Formula" been used.

⁶ If an Oregon state trooper had started 5 years earlier, giving him/her 30 years of salary prior to retirement rather than 25 years, the PV of his/her pension would also be \$1.66 million, vs. a \$1.11 million PV after 25 years.

⁷ The "Oregon Public Service Retirement Plan" (OPSRP) for employees hired after 2003 is a "hybrid system" with both "defined benefit" and "defined contribution" elements. Under current law, the required 6% "employee contribution" – whether paid for by the employer or employee – is put in a separate "individual account," whose returns are subject to market variability. For this analysis, the PV values for future OPSRP retirees assumes a 6% annual return on this fund – roughly midway between PERS' 8% "Assumed Earnings rate" and the actual PERS account returns of about 4% over the last decade. Seattle members for future retirees are allowed to choose either Tier 3 shown, or Tier 2 the same as the "Now" Seattle retirees.

Figure 1 - Working Draft - Subject to Revision
Estimated Present Value of Retirement Benefit for a General Service Employee (Accountant)

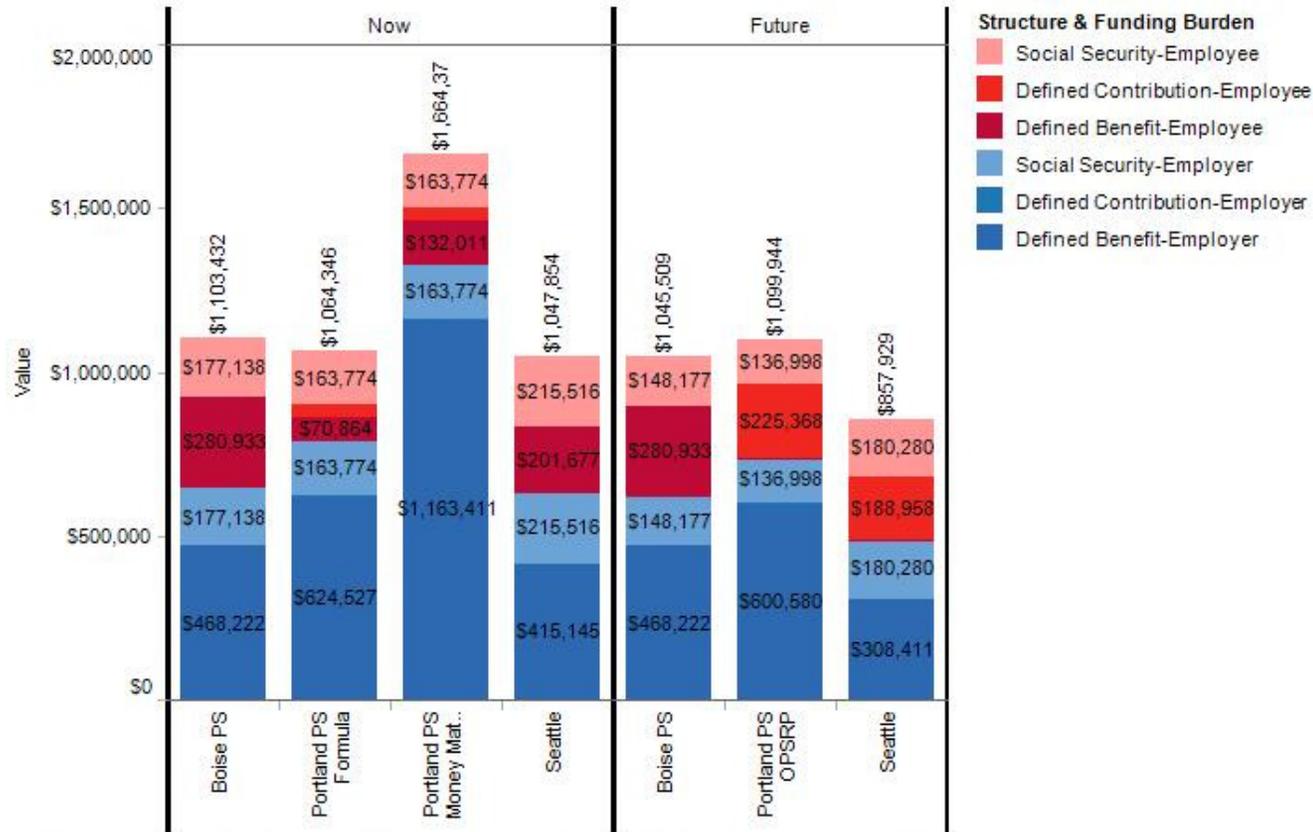
By employer and employee funded portions and type of benefit
 - includes Defined Benefit, Defined Contribution (Individual Account Program - IAP - in Oregon), and Social Security.



Calculated as a standard benefit - onelifetime - from retirement with expected death at 85 and a final average salary based on a final annual wage of \$66,000 deflated at the actuarial assumption for wage inflation for each system (3.75% Washington, Oregon, Idaho and 4% Seattle) for the FAS period for the subject plan (3 years Oregon, 5 Years Idaho, 42 months Washington, 24 months Seattle, and 12 months Portland FPDR). "Now" is for a retiree in 2013, "Future" is for an employee that started working in 2013. Uses 30 years working life for general service employee, 25 years for Police or State Trooper employee with retirement at youngest un-reduced date. "Money Match" annuitized at 8%. Present value calculated with a 4.00% discount rate. For Social Security we assumed a 4% COLA base on the experience since 1975. We also assumed Now retirees received Social Security at 65 and Future retirees received Social Security at 67. Present value of Social Security is impacted by age at retirement and wage inflation.

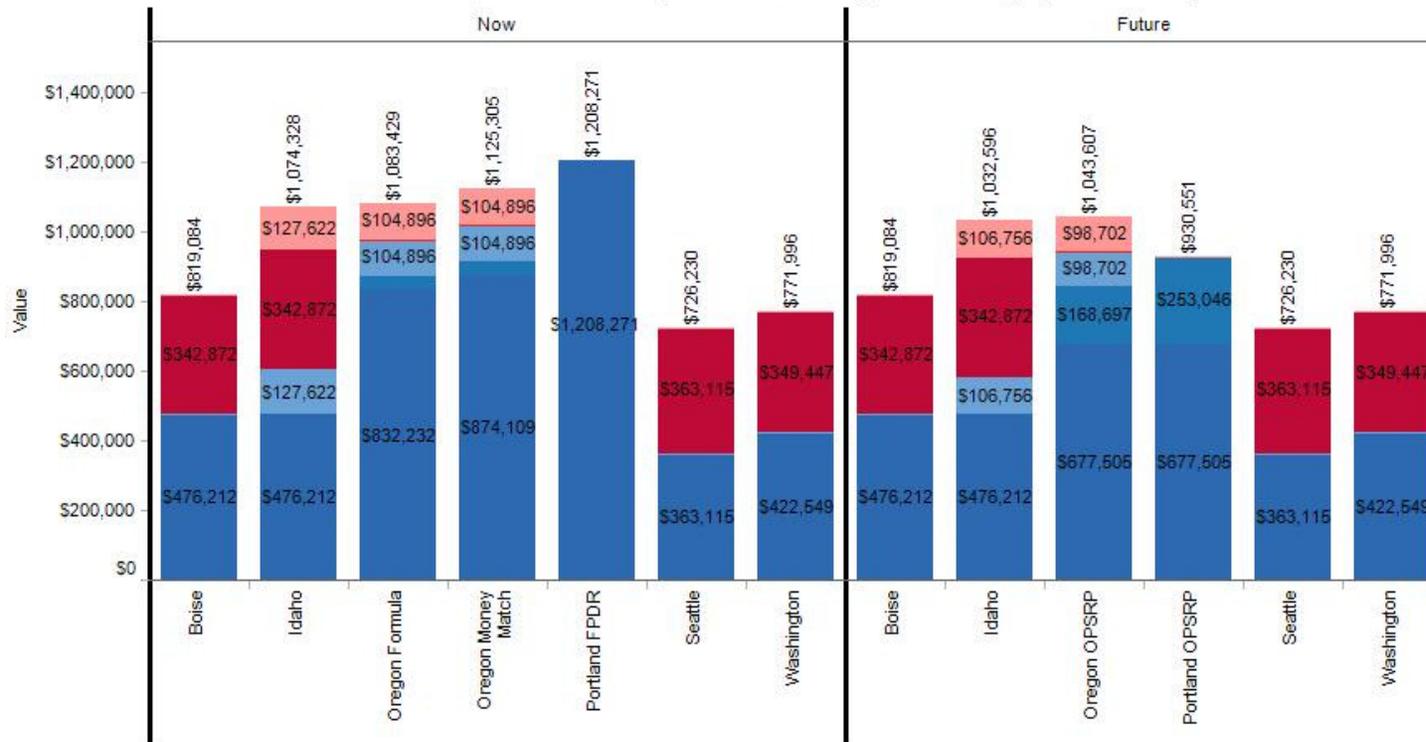
Figure 2 - Working Draft - Subject to Revision
 Estimated Present Value of Retirement Benefit for a K-12 Teacher

By employer and employee funded portions and type of benefit
 - includes Defined Benefit, Defined Contribution (Individual Account Program - IAP - in Oregon), and Social Security.



Calculated as a standard benefit - one lifetime - from retirement with expected death at 85 and a final average salary based on a final annual wage of \$66,000 deflated at the actuarial assumption for wage inflation for each system (3.75% for all systems) for the FAS period for the subject plan (3 years Oregon, 5 Years Idaho, 42 months Washington, 24 months Seattle, and 12 months Portland FPDR). "Now" is for a retiree in 2013, "Future" is for an employee that started working in 2013. Uses 30 years working life for general service employee, 25 years for Police or State Trooper employee with retirement at youngest un-reduced date. "Money Match" annuitized at 8%. Present value calculated with a 4.00% discount rate. For Social Security we assumed a 4% COLA base on the experience since 1975. We also assumed Now retirees received Social Security at 65 and Future retirees received Social Security at 67. Present value of Social Security is impacted by age at retirement and wage inflation.

Figure 3 - Working Draft - Subject to Revision
Estimated Present Value of Retirement Benefit for a Police Officer/State Trooper
 By employer and employee funded portions and type of benefit
 - includes Defined Benefit, Defined Contribution (Individual Account Program - IAP - in Oregon), and Social Security.



Calculated as a standard benefit - one lifetime - from retirement with expected death at 85 and a final average salary based on a final annual wage of \$66,000 deflated at the actuarial assumption for wage inflation for each system (3.75% for all systems) for the FAS period for the subject plan (3 years Oregon, 5 Years Idaho, 42 months Washington, 24 months Seattle, and 12 months Portland FPDR). "Now" is for a retiree in 2013, "Future" is for an employee that started working in 2013. Uses 30 years working life for general service employee, 25 years for Police or State Trooper employee with retirement at youngest un-reduced date. "Money Match" annuitized at 8%. Present value calculated with a 4.00% discount rate. For Social Security we assumed a 4% COLA base on the experience since 1975. We also assumed Now retirees received Social Security at 65 and Future retirees received Social Security at 67. Present value of Social Security is impacted by age at retirement and wage inflation.

- Structure & Funding Burden**
- Social Security-Employee
 - Defined Contribution-Employee
 - Defined Benefit-Employee
 - Social Security-Employer
 - Defined Contribution-Employer
 - Defined Benefit-Employer