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# 2011 Other Post-Employment Benefits Actuarial Valuation Report



*November 2011*

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# Letter of Introduction



## Office of the State Actuary

*"Securing tomorrow's pensions today."*

### Letter of Introduction Other Post-Employment Benefits Actuarial Valuation Report

November 2011

In accordance with the reporting requirements of Statement No. 45 of the Governmental Accounting Standards Board (GASB), this report documents the results of an actuarial valuation of the employer-provided subsidies associated with post-employment medical benefits provided through the Public Employee Benefits Board (PEBB). The PEBB was created within the Washington State Health Care Authority (HCA) to administer medical, dental, and life insurance plans for public employees and retirees.

The primary purpose of this valuation is to determine the PEBB plan liability as of January 1, 2011. This liability belongs to the participating employers of the plan, which include the state, K-12 school districts, and political subdivisions of the state. The valuation determines the total liability for the retiree medical and life insurance benefits and the Annual Required Contribution (ARC) needed to pre-fund them (although this funding policy is not required).

The report is organized into the following sections:

- ◆ Background.
- ◆ Actuarial Exhibits.
- ◆ Sensitivity Analysis.
- ◆ Participant Data.
- ◆ Appendices.

The Background section discusses the nature of the Other Post-Employment Benefits (OPEB) liabilities, who is affected by the GASB requirements, and how the liabilities are calculated. The Actuarial Exhibits section provides the results of this valuation and the necessary exhibits to satisfy the requirements of GASB Statement No. 45. The Sensitivity Analysis section provides further information about the impact of the methods and assumptions used in our calculations. The Participant Data section provides detailed information about the retired members who receive the subsidies and the active members who are potentially eligible for the subsidies. The Appendices provide a summary of the principal actuarial assumptions and methods, a summary of plan provisions, and a glossary of actuarial terms used throughout this report.

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I encourage you to submit any questions you might have concerning this report to our regular e-mail address: [actuary.state@leg.wa.gov](mailto:actuary.state@leg.wa.gov). I invite you to visit our web site ([osa.leg.wa.gov](http://osa.leg.wa.gov)) for more information regarding the actuarial funding of the Washington State retirement systems.

Matthew M. Smith, FCA, EA, MAAA  
State Actuary

# Key Results

This section documents the key GASB Statement No. 45 (GASB 45) valuation and accounting results related to the Public Employee Benefits Board (PEBB) employer-provided subsidies in Washington State. GASB 45 requires the disclosure of the following key measurements.

► **Actuarial Accrued Liability (AAL)** – The amount of subsidies expected to be paid to current retirees and current active members (future retirees) that have already been earned, measured in today’s dollars. Also referred to as the GASB 45 liability. Consistent with GASB 45, we assume continuation of the current plan provisions for purposes of this measurement.

► **Annual Required Contribution (ARC)** – The annual amount required under the actuarial cost method to fully fund the liability. It is made up of the normal

cost (the amount earned in the next year) plus the amortization of the unfunded AAL (unfunded past liability).

- **Annual OPEB Cost** – The ARC plus the amortization of the Net OPEB Obligation (NOO, see next bullet point). The Annual OPEB Cost is the “expense” for financial reporting.
- **Net OPEB Obligation (NOO)** – The cumulative difference between the Annual OPEB Cost and actual employer contributions. The NOO is the “balance sheet liability” for financial reporting.

The table below shows these key measurements for the PEBB

employers by major category. The State category contains all state agency and higher education employers. K-12 employers (school districts) are split from the state because they are legally separate corporate entities. The Political Subdivision category includes local governments who have applied and been accepted to join PEBB. Together, these three groups comprise the PEBB employers.

Please read the rest of the report for a detailed description of what these measures represent, how they are calculated, and how they should be used. Please review the Sensitivity Analysis section for more information on how these numbers change with small changes in our assumptions.

GASB 45 Key Results				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
Actuarial Accrued Liability (AAL)	\$3,491,970	\$3,137,252	\$306,527	\$6,935,748
Annual Required Contribution (ARC)	320,991	287,347	32,553	640,892
Annual OPEB Cost	328,568	294,484	33,577	656,629
Net OPEB Obligation (NOO) (6/30/2011)*	\$1,027,767	\$956,914	\$134,901	\$2,119,582

\*Estimated.

# Comments on 2011 Results

Short-term actuarial gains or losses occur when actual economic and demographic experience differs from what we assume in the valuation. Actuarial gains reduce the GASB 45 liability; actuarial losses increase the GASB 45 liability. Under a reasonable set of actuarial assumptions and methods, actuarial gains and losses offset over long-term experience periods.

Significant changes in plan provisions or actuarial assumptions and methods also impact the GASB 45 liability. Significant factors that impacted the results of this valuation include the following.

- ▶ Actual medical cost inflation experience was mixed compared to the assumed rate of approximately 7.5 percent. The average cost of medical plans providing coverage before Medicare eligibility increased by 12.2 percent; the average cost for Medicare medical plans increased by 1.1 percent.

- ▶ Actual medical premium inflation was higher than expected and higher than the actual medical cost inflation. The average pre-Medicare plan premiums increased by 12.3 percent. The average premiums for Medicare medical plans increased 30.2 percent. The unusually large increase in Medicare premium assumption was due to the adoption of a lower future explicit Medicare subsidy (see final bullet point below).

- ▶ While medical premium inflation for pre-Medicare plans was higher than expected, the state saw no change to its pre-Medicare cost-sharing mix. The state's cost share for Medicare medical plans decreased by 28.7 percent.

- ▶ The PEBB voted to permanently eliminate the subsidy paid for life insurance premiums beginning in

January 2012. This benefit change caused the net liabilities to decrease.

- ▶ Explicit subsidies for retirees enrolled in Medicare Parts A and B will be reduced from \$183 per month to \$150 per month beginning in January 2012. This benefit change caused the net liabilities to decrease.

A more detailed analysis of the gain/loss can be found in the Actuarial Exhibits section.

# Section One - Background

## OPEB

Other post-employment benefits (OPEB) are benefits provided to retired employees beyond those provided by their pension plans. Such benefits include medical, prescription drug, life, dental, vision, disability, and long-term care insurance. PEBB offers retirees access to all of these benefits. However, PEBB employers provide monetary assistance, or subsidies, only for medical, prescription drug, life, and vision insurance.

The OPEB relationship between PEBB employers and their employees and retirees is not formalized in a contract or plan document. Rather, the benefits are provided in accordance with a substantive plan. A substantive plan is one in which the plan terms are understood by the employers and plan members. This understanding is based on communications between the employers and plan members and the historical pattern of practice with regard to the sharing of benefit costs.

## Subsidies

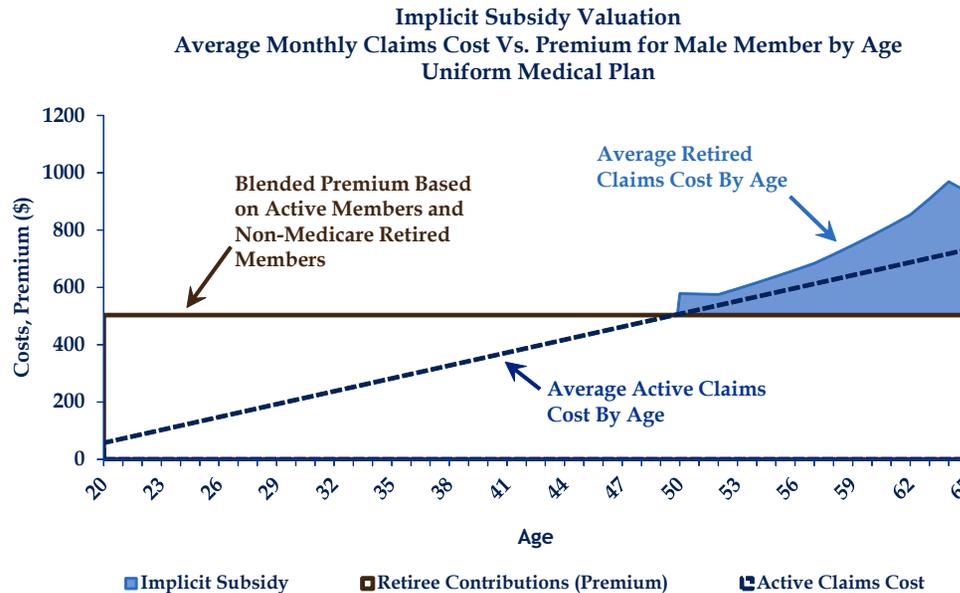
The Washington State Health Care Authority (HCA) administers PEBB plan benefits. For medical insurance coverage, the HCA has two claims pools: one covering employees and non-Medicare eligible retirees, and the other covering retirees enrolled in Medicare Parts A and B. Each participating employer pays a portion of the premiums for active employees. For retirees, participating employers provide two different subsidies: an explicit subsidy and an implicit subsidy.

The **explicit subsidy**, permitted under RCW 41.05.085, is a straightforward, set dollar amount for a specific group of people. The explicit subsidy lowers the monthly premium paid by retired members enrolled in Medicare Parts A and B. PEBB determines the amount of the explicit subsidy annually. The next table shows the amount of the monthly explicit subsidy in recent years. The explicit subsidy is the lesser of 50 percent of the monthly premium and the amount to the right.

Year	Percent	
	Explicit Subsidy Per Month	Increase Over Prior Year
2012	\$150.00	-17.98%
2011	182.89	0.00%
2010	182.89	0.00%
2009	182.89	11.46%
2008	164.08	9.63%
2007	149.67	13.50%
2006	131.87	13.50%
2005	116.19	13.52%
2004	102.35	10.36%
2003	92.74	8.04%
2002	85.84	22.66%
2001	69.98	12.00%
2000	\$62.48	N/A

The implicit subsidy, set up under RCW 41.05.022, is more complex because it is not a direct payment from the employer on behalf of the member. Since claims experience for employees

and non-Medicare eligible retirees are pooled when determining premiums, these retired members pay a premium based on a pool of members that, on average, are younger and healthier. There is an implicit subsidy from the employee group since the premiums paid by the retirees are lower than they would have been if the retirees were insured separately. The subsidies are valued using the difference between the age-based claims costs and the premium paid by the retirees. The graph above shows an example of the average monthly claims costs and the blended premium for the Uniform Medical Plan (UMP).



The horizontal line shows the constant premium for all members participating in the employee and non-Medicare eligible retiree pool. The upward sloping lines show the average monthly claims cost for each age. Whenever the retirees' upward sloping line is above the horizontal line there is an implicit subsidy (the shaded area in the graph). The value of the implicit subsidy is the difference between the higher sloped line and the horizontal line. For example, in the UMP, the average monthly claims cost for 60-year-old retirees is \$781, whereas the average monthly premium for 60-year-old retirees is \$503. There is an average

implicit subsidy of \$278 per month for each 60-year-old PEBB retiree enrolled in UMP.

PEBB has also historically provided subsidized basic life insurance (Plan A) coverage to retirees. This was an explicit life insurance subsidy set up by the PEBB Board and approved as part of the budget process. However, beginning January 1, 2012, the PEBB Board has eliminated the explicit life insurance subsidy on a permanent basis. The table below shows a history of the subsidy.

Year	Explicit Subsidy Per Month
2012	\$0.00
2011	4.84
2010	4.84
2009	4.84
2008	4.77
2007	4.81
2006	4.48
2005	4.14
2004	3.93

## **GASB Statements No. 43 and 45**

Before 2007 these subsidies were not projected and accounted for under an accrual basis. Accrual accounting is meant to match the timing between when something occurs and when it is accounted for. In this case, it is meant to match the expense to the year in which the benefits are earned by the member.

Pay-as-you-go funding occurs when an employer chooses to contribute (pay) for benefits only when they occur or become due (after retirement). Before 2007 this cost was expensed as PEBB plan employers paid the current year's subsidies. However, the unfunded liability, the difference between what members accrue (assuming on-going future payments) and what the PEBB plan employers currently pay, was growing and was not accounted for under the pay-as-you-go method.

According to GASB, Statements No. 43 and 45 were created in an attempt to:

- ▶ Create financial transparency.
- ▶ Create better alignment between public and private sector accounting.

- ▶ Provide clarity among bargaining groups to show the true cost of benefits over time.
- ▶ Provide employers knowledge of the true cost of benefits over time.
- ▶ Provide investors knowledge of the true long-term liabilities.
- ▶ Show the decision makers a cost that they need to recognize.

GASB Statement No. 43 requires disclosure of information related to the entire plan. In the case of the PEBB plan, since it is considered an agent multiple-employer, GASB does not require a calculation of liability at the plan level.

GASB Statement No. 45 requires each employer to calculate their OPEB liability. In addition to the overall liability, GASB requires a calculation of the ARC. The ARC is the annual amount required under the actuarial cost method and funding policy for amortizing the unfunded actuarial accrued liability. GASB does not require that PEBB plan employers actually contribute the ARC each year, just that it is recognized so that all stakeholders can see the difference in the current and long-term cost of benefits.

In addition, the state discloses GASB Statements No. 43 and 45 information in the Treasury Bond Prospectus. Rating agencies, such as Moody's, Fitch, and Standard & Poors, analyze OPEB liabilities. Bond ratings, and the related cost of capital, may be impacted by a government's unfunded OPEB liabilities. However, the resulting analyses will not necessarily have a negative impact on ratings. These agencies will consider whether a plan is in place to manage these liabilities, look at the entity's ability to meet their budget, and analyze the size of the unfunded actuarial accrued liability compared to payroll, budget, and tax base when making their determinations.

## **Actuarial Valuation**

We perform an actuarial valuation to determine the GASB 45 liabilities. An actuary performs an actuarial valuation to determine what benefits will be paid throughout the future lifetimes of current members and discounts those payments back to the present. The result is the present value of future benefits. For example, if you had a dollar amount today, which equaled the present value of future benefits, you could invest that amount, accrue earnings

during the current plan members' lifetimes, and use the original investment plus earnings to pay all future benefits when the members are eligible. The total amount remaining when there are no more benefits being paid would be zero. In this case, the benefit payments are the subsidies provided to PEBB retirees.

Under an actuarial valuation, an actuary needs inputs such as participant data (who is receiving the benefits), benefit provisions (what are the benefits), and assumptions (how do we expect the members and the economy to behave). Participant data includes the members' ages, membership service, plan selection, etc. Benefit provisions include the structure of the benefits that the members receive — in this case, the subsidies supporting retiree medical benefits. Assumptions include the interest rate (investment return), health care inflation rates, general inflation rates, decrement rates, participation rates, Medicare coverage, etc.

An actuary values these inputs using an actuarial cost method. The cost method chosen allocates costs between past and future plan membership service. Distinct actuarial cost methods produce

somewhat different allocations since each method allocates cost differently. An actuary uses this information in valuation software to determine the liability and ARC. Essentially, the valuation software uses the inputs to estimate when a benefit will be paid, how much the benefit will be, and how long it will be paid to each member.

## Funding Policy

In Washington State, the implicit and explicit subsidies have been funded on a pay-as-you-go basis, meaning that PEBB employers have paid these costs as they occurred. This generally means today's taxpayers are paying for benefits that were earned in the past. This funding policy is in conflict with the principle of intergenerational equity, which requires that a member's benefits be funded over the member's working lifetime. Intergenerational equity occurs when the member's benefits are paid by the taxpayers who benefit from that member's service, as opposed to making future taxpayers, who do not benefit from that member's service, pay for the member's benefits.

In the future, employers can continue to fund these liabilities on a pay-

as-you-go basis, or they can be pre-funded. If employers continue pay-as-you-go funding, then a NOO (Net OPEB Obligation) will accrue as the annual contributions fall short of the ARC. The results are lower current contributions in the short-run, a growing liability, and continued conflict with the principle of intergenerational equity. In addition, under pay-as-you-go funding policy, there are no assets to invest; therefore, the interest discount rate must be lower, in the range of 4 to 5 percent. A lower interest discount rate will mean a larger reported overall liability.

If, instead, employers fully pre-fund these liabilities, then annual contributions equal to the ARC are made and placed in an irrevocable trust. If the employers choose to fully pre-fund benefits, then a NOO will not accrue. The results are larger current contributions in the short-run, a lower unfunded liability, and adherence to the principle of intergenerational equity. In addition, under pre-funding there will be assets to invest; the investment return applied to the liabilities will reflect the expected long-term yield of the assets used to finance the payment of the benefits. If these assets are invested similarly to

those in a typical retirement plan, an interest discount rate in the range of 7 to 8 percent can be used. A higher interest discount rate will mean a smaller reported overall liability.

An employer must consider many complicated issues when creating a trust fund under pre-funding policy. Such considerations include:

- ▶ Determining the level of pre-funding.
- ▶ Contractualizing retiree health subsidies (pro or con).
- ▶ Making it difficult for school districts and political subdivisions to join or leave PEBB.
- ▶ Making larger contributions today (lower contributions later).

Employers could also choose a combination of the two funding policies. Partially pre-funding the liabilities will allow for an interest discount rate of 5 to 7 percent. A NOO will accrue, but not as fast as under a pay-as-you-go funding method. Choosing this combination of funding methods allows for decision-makers to keep current contributions manageable, while still pre-funding part of the liability and

being able to earn some investment returns from the assets.

Lastly, partial or full pre-funding could occur under a non-dedicated fund. Under this approach, future benefit payments are partially offset by anticipated investment earnings. A NOO would still accrue, however, since GASB requires funding under an irrevocable and dedicated trust. This approach would not contractualize retiree health subsidies.

## Cost-Sharing Policy

Cost-sharing policy determines the amount that the employee pays versus the employer. It is measured in terms of the percentage of the total amount that each pays. GASB requires that the cost-sharing policy be determined from the substantive plan. The substantive plan reveals the plan terms as understood by the employer(s) and the plan members. However, a comprehensive plan document does not always exist. In this case, GASB requires that the cost-sharing policy be determined from what is communicated between the employer and employees and the historical pattern of practice with regard to the sharing of benefit costs between the employer and plan members. We must assume

continuation of the current cost-sharing policy, since that is the best estimate of what policy will be in place in the future.

In the actuarial valuation, this cost-sharing policy is used to project the retiree contributions and average retiree claims costs into the future using the same medical inflation trend rate for each. Generally, we use the same medical inflation trend rate for future contributions and claims costs, so the percentage of the total cost that the employer pays will remain constant throughout the lives of the current active and inactive members. For this valuation, however, we have altered the inflation assumption for contributions to reflect the reduction in future explicit Medicare subsidies. Projections could also be run to show policy decision makers what changing the cost-sharing policy further will do to the liability. As a frame of reference, reducing cost-sharing policy by half will cut the liability in half since the subsidies would all be half of their current amount.



# Section Two - Actuarial Exhibits



## Office of the State Actuary

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**Actuarial Certification Letter  
Other Post-Employment Benefits  
Actuarial Valuation Report  
November 2011**

This report documents the results of an actuarial valuation of the post-retirement medical subsidies offered to employees by the employers participating in the Public Employee Benefits Board's (PEBB) plan. The primary purpose of this valuation is to determine the liability under GASB accounting requirements, as of January 1, 2011, for the subsidies associated with retiree medical benefits provided by PEBB plan employers. This valuation should not be used for other purposes.

The valuation results summarized in this report involve calculations that require assumptions about future economic and demographic events. We believe that the assumptions and methods used in the underlying valuation are reasonable and appropriate for the primary purposes stated above. The use of another set of assumptions and methods, however, could also be reasonable and could result in materially different results. Please replace the report with a future report when available.

The assumption used in the valuation for investment return is based on the current funding policy. The expected long-term yield on the assets used to finance the payment of benefits determines the investment return. General inflation is the same as that used in the *June 30, 2010, Actuarial Valuation Report (AVR)*, which was prescribed by the Legislature in 2001. We use a general salary inflation assumption of 4.0 percent. We relied upon medical trend, claims costs, and aging factors determined by Robert Schmidt, a healthcare actuary in Milliman's Boise office. Participation percentage, percentage of spouses covered, and Medicare coverage were determined by the Office of the State Actuary. Demographic assumptions are the same as those used in the June 30, 2010, AVR, which were developed from the *2001-2006 Experience Study* performed by the Office of the State Actuary. The Office of Financial Management is responsible for the selection of the actuarial cost method, asset valuation method, and funding policy for amortizing the UAAL.

In our opinion, all methods, assumptions, and calculations are reasonable and are in conformity with generally accepted actuarial principles and standards of practice as of the date of this publication.

The Health Care Authority (HCA) and the Department of Retirement Systems (DRS) provided the member data used in this report. The census data is reported as of June 30, 2010, and was projected forward to match the open enrollment

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medical plan choices as of January 1, 2011. We have checked the data for reasonableness as appropriate based on the purpose of the valuation. There are currently no assets as the liability has not been pre-funded. An audit of the participant data was not performed. We have relied on all the information provided as complete and accurate. In our opinion, these data are adequate and complete for the purposes of this valuation.

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Matthew M. Smith, FCA, EA, MAAA  
State Actuary

Troy A. Dempsey, ASA, EA, MAAA  
Actuary

# Present Value of Future Benefits

The Present Value of Future Benefits (PVFB) is the present value of future medical subsidies paid on behalf of the current employees (actives/future retirees) and current retirees of the employers participating in the PEBB plan. The PVFB is based on all service currently earned and all service projected to be earned in the future. In other words, this is the present value of all subsidies expected to be paid out, whereas the GASB Statement No. 45 (GASB 45) liability is the present value of all subsidies expected to be paid out that have already been earned.

The table to the right shows the PVFB as of January 1, 2011, split among PEBB plan employers by major category, grouped by current active and inactive members, and shows what portions are attributable to the explicit subsidy and implicit subsidy for medical insurance; the table is broken into gross costs (total cost), cost sharing (member contributions), and net subsidy (cost minus member contributions).

Present Value of Future Benefits (PVFB)				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
<b>Gross Costs</b>				
<b>Active Members</b>				
Explicit Medical Subsidy	\$9,396,467	\$8,230,457	\$1,024,888	\$18,651,812
Implicit Medical Subsidy	3,060,245	2,446,056	313,612	5,819,913
<b>Total Active</b>	<b>12,456,712</b>	<b>10,676,513</b>	<b>1,338,500</b>	<b>24,471,725</b>
<b>Inactive Members</b>				
Explicit Medical Subsidy	2,538,791	2,676,573	111,915	5,327,279
Implicit Medical Subsidy	311,245	238,953	21,280	571,478
<b>Total Inactive</b>	<b>2,850,036</b>	<b>2,915,526</b>	<b>133,195</b>	<b>5,898,757</b>
<b>Gross Costs Total</b>	<b>15,306,748</b>	<b>13,592,039</b>	<b>1,471,695</b>	<b>30,370,482</b>
<b>Cost Sharing (Retiree Contributions)</b>				
<b>Active Members</b>				
Explicit Medical Subsidy	5,794,919	5,094,199	638,166	11,527,283
Implicit Medical Subsidy	1,878,910	1,487,470	189,748	3,556,128
<b>Total Active</b>	<b>7,673,829</b>	<b>6,581,669</b>	<b>827,914</b>	<b>15,083,411</b>
<b>Inactive Members</b>				
Explicit Medical Subsidy	1,498,580	1,607,314	68,222	3,174,117
Implicit Medical Subsidy	191,749	143,674	13,120	348,543
<b>Total Inactive</b>	<b>1,690,329</b>	<b>1,750,988</b>	<b>81,342</b>	<b>3,522,660</b>
<b>Cost Sharing Total</b>	<b>9,364,158</b>	<b>8,332,657</b>	<b>909,256</b>	<b>18,606,071</b>
<b>Net Subsidy (Gross Costs - Cost-Sharing)</b>				
<b>Active Members</b>				
Explicit Medical Subsidy	3,601,549	3,136,259	386,722	7,124,529
Implicit Medical Subsidy	1,181,335	958,586	123,864	2,263,785
<b>Total Active</b>	<b>4,782,884</b>	<b>4,094,844</b>	<b>510,586</b>	<b>9,388,314</b>
<b>Inactive Members</b>				
Explicit Medical Subsidy	1,040,210	1,069,259	43,693	2,153,162
Implicit Medical Subsidy	119,497	95,278	8,160	222,935
<b>Total Inactive</b>	<b>1,159,707</b>	<b>1,164,538</b>	<b>51,853</b>	<b>2,376,097</b>
<b>Net PVFB (1/1/2011)</b>	<b>\$5,942,590</b>	<b>\$5,259,382</b>	<b>\$562,439</b>	<b>\$11,764,411</b>

# GASB Statement No. 45 Liability (AAL)

The GASB Statement No. 45 (GASB 45) liabilities are employer's total accrued liability from the medical insurance subsidies offered through the PEBB plan. It is the present value of future subsidies paid on behalf of current employees (actives/future retirees) and current retirees. The GASB 45 liabilities are based on all service currently earned. The GASB 45 liability is also referred to as the actuarial accrued liability or the projected unit credit liability.

The next table shows the GASB 45 liabilities as of January 1, 2011, split among the PEBB plan employees by major category by current active and inactive members and shows what portions are attributable to the explicit subsidy and implicit subsidy for medical insurance; the table is broken into gross costs (total cost), cost sharing (member contributions), and net subsidy (cost minus member contributions).

GASB 45 Actuarial Accrued Liability (AAL)				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
<b>Gross Costs</b>				
<b>Active Members</b>				
Explicit Medical Subsidy	\$4,617,633	\$4,008,203	\$516,102	\$9,141,938
Implicit Medical Subsidy	1,442,246	1,128,812	152,015	2,723,073
<b>Total Active</b>	<b>6,059,879</b>	<b>5,137,015</b>	<b>668,118</b>	<b>11,865,012</b>
<b>Inactive Members</b>				
Explicit Medical Subsidy	2,538,791	2,676,573	111,915	5,327,279
Implicit Medical Subsidy	311,245	238,953	21,280	571,478
<b>Total Inactive</b>	<b>2,850,036</b>	<b>2,915,526</b>	<b>133,195</b>	<b>5,898,757</b>
<b>Gross Costs Total</b>	<b>8,909,915</b>	<b>8,052,541</b>	<b>801,313</b>	<b>17,763,768</b>
<b>Cost Sharing (Retiree Contributions)</b>				
<b>Active Members</b>				
Explicit Medical Subsidy	2,845,386	2,478,985	321,702	5,646,074
Implicit Medical Subsidy	882,230	685,316	91,742	1,659,287
<b>Total Active</b>	<b>3,727,616</b>	<b>3,164,301</b>	<b>413,444</b>	<b>7,305,361</b>
<b>Inactive Members</b>				
Explicit Medical Subsidy	1,498,580	1,607,314	68,222	3,174,117
Implicit Medical Subsidy	191,749	143,674	13,120	348,543
<b>Total Inactive</b>	<b>1,690,329</b>	<b>1,750,988</b>	<b>81,342</b>	<b>3,522,660</b>
<b>Cost Sharing Total</b>	<b>5,417,945</b>	<b>4,915,289</b>	<b>494,786</b>	<b>10,828,020</b>
<b>Net Subsidy (Gross Costs - Cost-Sharing)</b>				
<b>Active Members</b>				
Explicit Medical Subsidy	1,772,247	1,529,218	194,400	3,495,865
Implicit Medical Subsidy	560,016	443,496	60,274	1,063,786
<b>Total Active</b>	<b>2,332,263</b>	<b>1,972,714</b>	<b>254,674</b>	<b>4,559,651</b>
<b>Inactive Members</b>				
Explicit Medical Subsidy	1,040,210	1,069,259	43,693	2,153,162
Implicit Medical Subsidy	119,497	95,278	8,160	222,935
<b>Total Inactive</b>	<b>1,159,707</b>	<b>1,164,538</b>	<b>51,853</b>	<b>2,376,097</b>
<b>Net AAL (1/1/2011)</b>	<b>\$3,491,970</b>	<b>\$3,137,252</b>	<b>\$306,527</b>	<b>\$6,935,748</b>

## ARC, Annual OPEB Cost, and NOO

The Annual Required Contribution (ARC) is the annual amount that would need to be contributed to fully fund the GASB 45 liability under acceptable actuarial methods. The ARC is made up of the normal cost plus the thirty-year amortization as a level percentage of payroll of the actuarial accrued liability that has not been funded. In other words, it is the amount of liability that will be earned in the next year, plus a portion of the unpaid liability that has already been earned. The following table shows the ARC and its components as of January 1, 2011. The components are split among the largest employers and broken down by active and inactive members. The table also shows what portions are attributable to the explicit subsidy and the implicit subsidy.

Annual Required Contribution (ARC)				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
<b>Normal Cost</b>				
<i>Active Members</i>				
Explicit Subsidy	\$143,188	\$129,937	\$15,995	\$289,120
Implicit Subsidy	43,798	37,119	4,750	85,666
<b>Total Normal Cost</b>	<b>186,986</b>	<b>167,056</b>	<b>20,745</b>	<b>374,787</b>
<b>Amortization of UAAL</b>				
<i>Inactive Members</i>				
Explicit Subsidy	102,617	93,563	9,105	205,285
Implicit Subsidy	31,388	26,728	2,704	60,820
<b>Total Amortization*</b>	<b>134,005</b>	<b>120,291</b>	<b>11,809</b>	<b>266,105</b>
<b>ARC</b>	<b>\$320,991</b>	<b>\$287,347</b>	<b>\$32,553</b>	<b>\$640,892</b>

\*See the following sub-section of this report for the Amortization Schedule.

The annual OPEB cost is made up of the ARC, the interest on the Net OPEB Obligation (NOO), and the amortization of the NOO. The NOO is the ongoing balance sheet item that shows the difference between

the annual OPEB cost and what the employers have actually contributed. In other words, it is the liability for "deficient" contributions that has accrued since the ARC was first calculated including interest at the

assumed discount rate. The tables below show the estimated annual OPEB cost and NOO for the PEBB plan employers by major category as of January 1, 2011.

Annual OPEB Cost				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
ARC	\$320,991	\$287,347	\$32,553	\$640,892
Interest on NOO	35,004	33,028	4,710	72,743
Amortization of NOO*	(27,427)	(25,891)	(3,687)	(57,005)
<b>Annual OPEB Cost</b>	<b>\$328,568</b>	<b>\$294,484</b>	<b>\$33,577</b>	<b>\$656,629</b>

\*See the following sub-section of this report for the Amortization Schedule.

Net OPEB Obligation				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
NOO (7/1/2010)	\$777,872	\$733,954	\$104,675	\$1,616,502
Annual OPEB Cost	328,568	294,484	33,577	656,629
(7/1/2010 - 6/30/2011) Contributions*	(78,673)	(71,524)	(3,351)	(153,548)
<b>NOO (6/30/2011)*</b>	<b>\$1,027,767</b>	<b>\$956,914</b>	<b>\$134,901</b>	<b>\$2,119,582</b>

\*Estimated.

# Amortization Schedule

The UAAL and NOO are amortized as a percentage of payroll over a closed 30-year period. The tables below show what makes up this year's amortization of the UAAL and NOO separately for the state, K-12, and political subdivisions.

State Amortization of UAAL						
<i>(Dollars in thousands)</i>	Beginning UAAL	Previous Amortization	Accrued Interest	Current UAAL	Years Remaining	Amortization
	(a)	(b)	(c)	(d) (a - b + c)	(e)	(d / e)
2008	\$3,799,530	\$406,148	\$595,760	\$3,989,141	27	\$147,746
2009	90,703	6,183	7,927	92,447	28	3,302
2010	(263,500)	(8,783)	(11,462)	(266,179)	29	(9,179)
2011	(323,440)	0	0	(323,440)	30	(10,781)
<b>Total</b>						131,088
<b>Interest on Contributions</b>						\$2,917
<b>Total UAAL Amortization</b>						\$134,005

K-12 Amortization of UAAL						
<i>(Dollars in thousands)</i>	Beginning UAAL	Previous Amortization	Accrued Interest	Current UAAL	Years Remaining	Amortization
	(a)	(b)	(c)	(d) (a - b + c)	(e)	(d / e)
2008	\$3,355,826	\$358,719	\$526,188	\$3,523,295	27	\$130,492
2009	76,424	5,210	6,679	77,894	28	2,782
2010	(117,857)	(3,929)	(5,127)	(119,055)	29	(4,105)
2011	(344,881)	0	0	(344,881)	30	(11,496)
<b>Total</b>						117,673
<b>Interest on Contributions</b>						\$2,619
<b>Total UAAL Amortization</b>						\$120,291

Political Subdivision Amortization of UAAL						
<i>(Dollars in thousands)</i>	Beginning UAAL	Previous Amortization	Accrued Interest	Current UAAL	Years Remaining	Amortization
	(a)	(b)	(c)	(d) (a - b + c)	(e)	(d / e)
2008	\$339,972	\$36,341	\$53,307	\$356,938	27	\$13,220
2009	(10,293)	(702)	(900)	(10,491)	28	(375)
2010	31,892	1,063	1,387	32,216	29	1,111
2011	(72,136)	0	0	(72,136)	30	(2,405)
<b>Total</b>						11,552
<b>Interest on Contributions</b>						\$257
<b>Total UAAL Amortization</b>						\$11,809

State Amortization of NOO						
<i>(Dollars in thousands)</i>	Beginning NOO	Previous Amortization	Accrued Interest	Current NOO	Years Remaining	Amortization
	(a)	(b)	(c)	(d) (a - b + c)	(e)	(d / e)
2008	\$0	\$0	\$0	\$0	0	\$0
2009	245,855	17,132	27,434	256,157	28	9,148
2010	239,670	7,989	21,696	253,377	29	8,737
2011	268,338	0	0	268,338	30	8,945
<b>Total</b>						26,830
<b>Interest on Contributions</b>						\$597
<b>Total NOO Amortization</b>						\$27,427

K-12 Amortization of NOO						
<i>(Dollars in thousands)</i>	Beginning NOO	Previous Amortization	Accrued Interest	Current NOO	Years Remaining	Amortization
	(a)	(b)	(c)	(d) (a - b + c)	(e)	(d / e)
2008	\$0	\$0	\$0	\$0	0	\$0
2009	228,570	15,928	25,505	238,148	28	8,505
2010	242,910	8,097	21,989	256,803	29	8,855
2011	239,004	0	0	239,004	30	7,967
<b>Total</b>						25,327
<b>Interest on Contributions</b>						\$564
<b>Total NOO Amortization</b>						\$25,891

Political Subdivision Amortization of NOO						
<i>(Dollars in thousands)</i>	Beginning NOO	Previous Amortization	Accrued Interest	Current NOO	Years Remaining	Amortization
	(a)	(b)	(c)	(d) (a - b + c)	(e)	(d / e)
2008	\$0	\$0	\$0	\$0	0	\$0
2009	31,258	2,178	3,488	32,568	28	1,163
2010	32,949	1,098	2,983	34,833	29	1,201
2011	37,274	0	0	37,274	30	1,242
<b>Total</b>						3,607
<b>Interest on Contributions</b>						\$80
<b>Total NOO Amortization</b>						\$3,687

## Assets

Currently, Washington State does not pre-fund post-retirement medical insurance subsidies. Since the PEBB plan subsidies are paid for on a pay-as-you-go basis the plan has no assets to invest. If the decision was made to switch from a pay-as-you-go funding policy to any level of pre-funding, assets would accumulate in a fund and earn investment returns that would lower future contributions and shift part of the burden from future taxpayers to current taxpayers. This policy would be more in line with the principle of intergenerational equity. Under GASB, the market value of assets is the total monetary value of all assets held in an irrevocable trust. The actuarial value of assets has gains and losses smoothed over time so that some of the volatility associated with investment returns

can be minimized; thus minimizing the volatility of contributions required by PEBB plan employers. However, there is currently no smoothing policy since there are no assets. Under GASB, an irrevocable, dedicated, and protected trust is required in order to accumulate assets for accounting purposes (not required for funding). The table to the left shows the market value of assets and the actuarial value of assets as of the date of valuation, January 1, 2011.

method), also known as the actuarial accrued liability (AAL). A funded ratio of 100 percent indicates that all benefits that have been accrued have been funded as of the valuation date. A ratio of less than 100 percent indicates that all benefits that have been accrued have not been funded as of the valuation date. The next table shows the funded status of PEBB plan employers' OPEB liabilities.

## Funded Ratio

The funded ratio is the ratio of the present value of contributions that have been made for current members (and associated investment return, if applicable) to the present value of the liability that has already been accrued (as defined by the funding

Assets as of January 1, 2011	
<i>(Dollars in thousands)</i>	
Market Value of Assets	\$0
Amortization of Gains / (Losses)	0
Actuarial Value of Assets	\$0

Funded Status as of January 1, 2011				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
Actuarial Accrued Liability	\$3,491,970	\$3,137,252	\$306,527	\$6,935,748
Assets	0	0	0	0
Unfunded Liability (1/1/2011)	\$3,491,970	\$3,137,252	\$306,527	\$6,935,748
Funded Ratio				
1/1/2011	0.00%	0.00%	0.00%	0.00%
1/1/2009	0.00%	0.00%	0.00%	0.00%
1/1/2008	0.00%	0.00%	0.00%	0.00%
1/1/2007	0.00%	0.00%	0.00%	0.00%

## Covered Payroll

The covered payroll is the total payroll of all current members that are eligible to receive subsidies from PEBB plan employers. Contributions made by the employers are considered on a percentage of payroll basis, similar to the pension systems.

The ARC is calculated as a percent of the covered payroll. The estimated current covered payroll can be seen in the table below, and is assumed to grow at 4.0 percent per year. The state's current ARC is \$320,991,000. This represents 5.41 percent of the state's current annual payroll for all eligible members.

Covered Payroll				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
Total Payroll	\$5,937,061	\$5,789,708	\$632,932	\$12,359,700

## Unfunded Liability as a Percentage of Covered Payroll

We will look at the unfunded liability as a percentage of covered payroll as a measure of the relative magnitude of the unfunded liability. The table below shows the state's unfunded liability as a percentage of the state's

total covered annual payroll. In other words, if this percentage of payroll were contributed to fund the subsidies, all accrued subsidies would be fully funded.

Unfunded Liability as a Percentage of Covered Payroll				
<i>(Dollars in thousands)</i>	State	K-12	Political Subdivisions	Total
Unfunded Liability (1/1/2011)	\$3,491,970	\$3,137,252	\$306,527	\$6,935,748
Total Payroll	\$5,937,061	\$5,789,708	\$632,932	\$12,359,700
Unfunded Liability as a % of Covered Payroll	58.82%	54.19%	48.43%	56.12%

# Percentage of ARC Contributed

The following table shows the estimated percentage of the state's ARC contributed during the fiscal year ending June 30, 2011, on a pay-as-you-go basis. A percent below 100

relates to how much of the present value of the benefit being earned in the current year is being shifted to future periods.

Percentage of ARC Contributed				
(Dollars in thousands)	State	K-12	Political Subdivisions	Total
(7/1/2010 - 6/30/2011) Contributions*	\$78,673	\$71,524	\$3,351	\$153,548
ARC	\$320,991	\$287,347	\$32,553	\$640,892
Percentage of ARC Contributed*	24.51%	24.89%	10.29%	23.96%

\*Estimated.

## Gain/Loss Analysis

The results of this report are based heavily on assumptions about future economic and demographic events. It is important to note over time how actual events differed from those assumptions. An event that causes the plan to cost less than was predicted is described as a gain to the plan. An event that causes the plan to cost more than was predicted is described as a loss to the plan. An analysis of the gains and losses

between last year's valuation and this year's valuation shows what events are attributable to the change in expected cost of the plan.

The first table shows the difference between last year's liability and this year's liability by major source. The second table shows the difference between last year's annual cost and this year's annual cost.

2009 - 2011 Gain/Loss - Actuarial Accrued Liability (AAL)				
<i>(Dollars in thousands)</i>	Political			
	State	K-12	Subdivisions	Total
<b>Final 2009 GASB 45 Liability</b>	\$3,786,869	\$3,455,791	\$375,712	\$7,618,372
2011 Membership Data	(192,048)	(235,666)	9,420	(418,294)
2011 Medical Cost/Premium Trends	(375,019)	(382,142)	(33,614)	(790,774)
2011 Annual Medical Plan Costs	272,168	299,268	(44,992)	526,444
Other Changes	0	0	0	0
<b>Final 2011 GASB 45 Liability</b>	\$3,491,970	\$3,137,252	\$306,527	\$6,935,748

2009 - 2011 Gain/Loss - Normal Cost				
<i>(Dollars in thousands)</i>	Political			
	State	K-12	Subdivisions	Total
<b>Final 2009 Normal Cost</b>	\$210,545	\$189,070	\$27,844	\$427,460
2011 Membership Data	(19,096)	(20,099)	(1,161)	(40,355)
2011 Medical Cost/Premium Trends	(17,262)	(15,874)	(1,998)	(35,134)
2011 Annual Medical Plan Costs	12,798	13,959	(3,941)	22,816
Other Changes	0	0	0	0
<b>Final 2011 Normal Cost</b>	\$186,986	\$167,056	\$20,745	\$374,787

The individual categories illustrate how the accrued liability and normal cost change when we incrementally change and isolate these variables. We started by updating the Membership Data from 2009 to 2011, which includes the status (i.e., active, retired, etc.) and plan selection for each member at the current valuation date. In general, we observed an increase in the average age of the population. As a retiree ages we expect them to receive fewer

subsidy payments during their future lifetime. From 2009 to 2011, this aging of the plan population results in a lower accrued liability for the plan. We then updated Medical Cost and Premium Trends. These trends represent the expected growth rates for future medical subsidies (medical costs less retiree premiums), which affect the level of employer/retiree cost-sharing since the prior valuation date. From this change, we observed a gain to the plan from lowering

the expected growth of long-term medical costs and premiums and from the shift in cost-sharing from employers to the retirees. Finally, we updated the expected medical costs the plan will pay at each retiree's age (Annual Medical Plan Costs) from 2009 to 2011, which resulted in a loss to the plan from increased plan costs since two years ago. Otherwise, there were no Other Changes to the model for this valuation.

# Projections

It is important to look at the projections of the contributions and the liability in order to determine if the contributions are manageable and whether the liabilities will be funded in a reasonable amount of time. Projections allow policy decision makers to determine the best funding policy for the state and their constituents while providing investors and stakeholders the knowledge of what lies ahead. Bond rating agencies will look at these projections to determine whether a well formulated plan is in place or is necessary. Please see the OSA website for the results of this analysis.

# Section Three - Sensitivity Analysis

A single point estimate is only the start of understanding the GASB Statement No. 45 (GASB 45) liabilities. This estimate will only be realized if future economic and demographic experience matches our assumptions. It is equally important to understand what will happen if the economic and demographic experience is different than we assumed. In this section we determined how much the state's liability would change due to small changes in the medical trend assumption and changes to the funding policy. We also look at open-group (reflects assumed new entrants) valuations to determine how estimated contributions would look in the future. Please see the OSA website for the results of this analysis.

## Medical Trend Assumption

The medical cost inflation trend assumption varies by medical plan and Medicare coverage, starting at approximately 7 percent in 2011 and decreasing to an ultimate rate of 5.0 percent in 2083. The ultimate rate means the expected rate for 2083 and beyond is 5.0 percent. With the adoption of lower explicit subsidies beginning in 2012, the medical premium inflation assumptions for Medicare plans differ from the cost inflation assumptions for the first two years into the future, then match the cost inflation assumptions each year thereafter. The medical premium inflation assumptions for non-Medicare plans match the medical cost inflation assumptions in all years.

For the detailed medical trend assumptions, refer to the Appendices. Although this is our best estimate, it is reasonable that the medical inflation trend could be higher or lower. We will look at a medical inflation trend 1.0 percent higher or lower in each year to determine how sensitive the results are to medical inflation. The table below shows the results of changing the medical trend assumption by 100 basis points, or 1.0 percent per year for the state, as a PEGB plan employer.

State Medical Trend Sensitivity Analysis			
<i>(Dollars in thousands)</i>	High (+ 1.0%)	Expected*	Low (-1.0%)
PVFB	\$7,670,337	\$5,942,590	\$4,686,343
<b>GASB 45 Liability (AAL)</b>	<b>\$4,267,561</b>	<b>\$3,491,970</b>	<b>\$2,897,510</b>
Normal Cost	244,362	186,986	145,153
Amortization	160,433	134,005	113,749
<b>ARC</b>	<b>\$404,795</b>	<b>\$320,991</b>	<b>\$258,902</b>
Interest on NOO	35,004	35,004	35,004
Amortization of NOO	27,427	27,427	27,427
<b>Annual OPEB Cost</b>	<b>\$412,372</b>	<b>\$328,568</b>	<b>\$266,479</b>
Beginning NOO	777,872	777,872	777,872
Contributions**	(78,673)	(78,673)	(78,673)
<b>Ending NOO**</b>	<b>\$1,111,572</b>	<b>\$1,027,767</b>	<b>\$965,678</b>

\*Cost Inflation begins at approximately 7.0% in 2011 and decreases to an ultimate rate of 5.0% in 2083. Premium inflation starts higher than cost inflation for the first two years.

\*\*Estimated.

It is important to realize that economic assumptions, such as medical inflation, can vary based on random events such as wars, medical breakthroughs, and legislation. Knowing the variability in our best estimate is just as important as knowing the best estimate itself.

## Funding Policy

The funding policy has a large impact on the results. Funding policy can range from no pre-funding (pay-as-you-go) to full pre-funding, or anything in-between. The effect on the actuarial valuation of changing funding policy is to change the assumed interest discount rate based on the level of pre-funding. The amount of the interest discount rate depends on the expected long term yield on assets used to fund the payment of benefits.

No pre-funding requires the use of the employer's short term expected return and allows an interest discount rate of 4.0 to 5.0 percent. Partial pre-funding allows an interest discount rate of 5.0 to 7.0 percent. Full pre-funding with a trust generally allows an interest discount rate of 7.0 to 8.0 percent depending on the asset allocation. Most Washington State pension

systems currently use an interest discount rate of 7.9 percent. Also, we assumed that the current level of subsidization will continue at its current level. In other words, our best estimate is that the current percentage of the member premiums that are subsidized will be the same in the future. For more information about funding policy, please refer to the funding policy subsection in Section 1. The table below shows the impact on the state's GASB 45 results when changing the funding policy prospectively from no pre-funding to partial or full pre-funding.

State Funding Policy Sensitivity Analysis			
	Interest Discount Rate		
	No Pre-Funding	Partial Pre-Funding	Full Pre-Funding
<i>(Dollars in thousands)</i>	4.5%	6.0%	7.5%
<b>PVFB</b>	<b>\$5,942,590</b>	<b>\$4,167,794</b>	<b>\$3,059,639</b>
<b>GASB 45 Liability (AAL)</b>	<b>\$3,491,970</b>	<b>\$2,639,366</b>	<b>\$2,066,060</b>
Normal Cost	186,986	127,933	91,073
Amortization	134,005	126,257	120,003
<b>ARC</b>	<b>\$320,991</b>	<b>\$254,190</b>	<b>\$211,076</b>
Interest on NOO	35,004	46,672	58,340
Amortization of NOO	27,427	33,483	40,205
<b>Annual OPEB Cost</b>	<b>\$328,568</b>	<b>\$267,379</b>	<b>\$229,211</b>
Beginning NOO	777,872	777,872	777,872
Contributions*	(78,673)	(144,874)	(211,076)
<b>Ending NOO*</b>	<b>\$1,027,767</b>	<b>\$900,377</b>	<b>\$796,008</b>

\*Estimated.

Although the reported liability is lower when the funding policy is to pre-fund, pre-funding is not easy due to the large up-front contributions that must be made. Funding policy involves a balancing act that requires sufficient pre-funding so that the liability is lowered while understanding and committing to contributions that can be realistically made. Please refer to the funding policy subsection in Section 1 for additional consideration.

## What if Washington Had Pre-Funded?

On a year-to-year basis it is hard to tell the difference between a pre-funded liability and one that is funded on a pay-as-you-go basis. Since the change is cumulative a comparison over time will illustrate where the state would be if it had chosen each path from the beginning of the implementation of GASB 45.

The table below shows what the accounting results would look like in this report if each funding policy had been chosen from the beginning. It also shows how much would have been contributed over time and compares the contributions to the hypothetical assets that would be on hand. The excess assets would be from investment returns. The hypothetical investment returns are based on investment returns from the Washington

State Investment Board for the pension systems. Actual returns are used through June 2011.

State Cumulative Difference Between Pay-as-you-go and Full Pre-Funding Since 1/1/2007		
	Interest Discount Rate	
	No Pre-Funding	Full Pre-Funding
(Dollars in thousands)	4.5%	7.5%
PVFB	\$5,942,590	\$3,059,639
GASB 45 Liability (AAL)	3,491,970	2,066,060
Ending NOO*	1,027,767	-
Cumulative Contributions (a)	373,664	1,101,011
Cumulative Benefit Payments (b)	373,664	373,664
Cumulative Excess Contributions (c)	-	727,347
Assets (d)	-	858,835
Investment Earnings (d-c)	-	\$131,488

\*Estimated.



# Section Four - Participant Data

## Overview of PEBB Membership

The HCA administers PEBB benefits for eligible active and inactive members. Below is a table that shows the active and inactive member counts by employer type. This is the current count of members enrolled in PEBB (subscribers) and current members either receiving a subsidy, or eligible to receive a subsidy in the future (eligible). Dependents are assumed to not have a subsidy and are excluded. The “% Subscribing” column shows how many members, who are eligible for post-employment subsidies, are currently enrolled in PEBB.

Membership By Employer			
Active Members	Subscribers	Eligible	% Subscribing
State	109,598	114,679	96%
K-12	2,536	118,662	2%
Political Subdivision	11,863	16,382	72%
<b>Total Active Members</b>	<b>123,997</b>	<b>249,723</b>	<b>50%</b>
Inactive Members			
State	31,156	31,156	100%
K-12	22,571	22,571	100%
Political Subdivision	1,684	1,684	100%
<b>Total Inactive Members</b>	<b>55,411</b>	<b>55,411</b>	<b>100%</b>
<b>Total</b>	<b>179,408</b>	<b>305,134</b>	<b>59%</b>

Retirees’ access to PEBB depends on the retirement eligibility of their respective retirement system. PEBB members are covered in the following retirement systems: Public Employees’ Retirement System (PERS), Teachers’ Retirement System (TRS), School Employees’ Retirement System (SERS), Public Safety Employees’ Retirement Systems (PSERS), Washington State Patrol Retirement System (WSPRS), Judicial Retirement System, and Higher Education. The table on the next page shows the active and inactive member counts by retirement system.

Eligible Membership By Retirement System						
	Active		Inactive		Total	
	Subscribers	Eligible	Subscribers	Eligible	Subscribers	Eligible
<b>PERS</b>						
PERS 1	4,610	4,610	19,973	19,973	24,583	24,583
PERS 2	64,718	64,718	5,426	5,426	70,144	70,144
PERS 3	16,674	16,674	347	347	17,021	17,021
<b>Total PERS</b>	<b>86,002</b>	<b>86,002</b>	<b>25,746</b>	<b>25,746</b>	<b>111,748</b>	<b>111,748</b>
<b>TRS</b>						
TRS 1	205	4,591	18,928	18,928	19,133	23,519
TRS 2	167	9,442	928	928	1,095	10,370
TRS 3	885	52,292	942	942	1,827	53,234
<b>Total TRS</b>	<b>1,257</b>	<b>66,325</b>	<b>20,798</b>	<b>20,798</b>	<b>22,055</b>	<b>87,123</b>
<b>SERS</b>						
SERS 2	545	20,358	1,048	1,048	1,593	21,406
SERS 3	734	31,981	725	725	1,459	32,706
<b>Total SERS</b>	<b>1,279</b>	<b>52,339</b>	<b>1,773</b>	<b>1,773</b>	<b>3,052</b>	<b>54,112</b>
<b>PSERS</b>						
PSERS	2,396	4,210	0	0	2,396	4,210
<b>Total PSERS</b>	<b>2,396</b>	<b>4,210</b>	<b>0</b>	<b>0</b>	<b>2,396</b>	<b>4,210</b>
<b>WSPRS</b>						
WSPRS 1	783	783	550	550	1,333	1,333
WSPRS 2	273	273	0	0	273	273
<b>Total WSPRS</b>	<b>1,056</b>	<b>1,056</b>	<b>550</b>	<b>550</b>	<b>1,606</b>	<b>1,606</b>
<b>Judicial</b>						
Judicial	5	5	92	92	97	97
<b>Total Judicial</b>	<b>5</b>	<b>5</b>	<b>92</b>	<b>92</b>	<b>97</b>	<b>97</b>
<b>Higher Education</b>						
Higher Education	25,708	33,492	5,183	5,183	30,891	38,675
<b>Total Higher Education</b>	<b>25,708</b>	<b>33,492</b>	<b>5,183</b>	<b>5,183</b>	<b>30,891</b>	<b>38,675</b>
<b>Other</b>						
Other	6,294	6,294	1,269	1,269	7,563	7,563
<b>Total Other</b>	<b>6,294</b>	<b>6,294</b>	<b>1,269</b>	<b>1,269</b>	<b>7,563</b>	<b>7,563</b>
<b>Total Membership</b>	<b>123,997</b>	<b>249,723</b>	<b>55,411</b>	<b>55,411</b>	<b>179,408</b>	<b>305,134</b>

# Summary of PEBB Plan Participants

The following table shows summary information for the average eligible active and inactive members by major employer category.

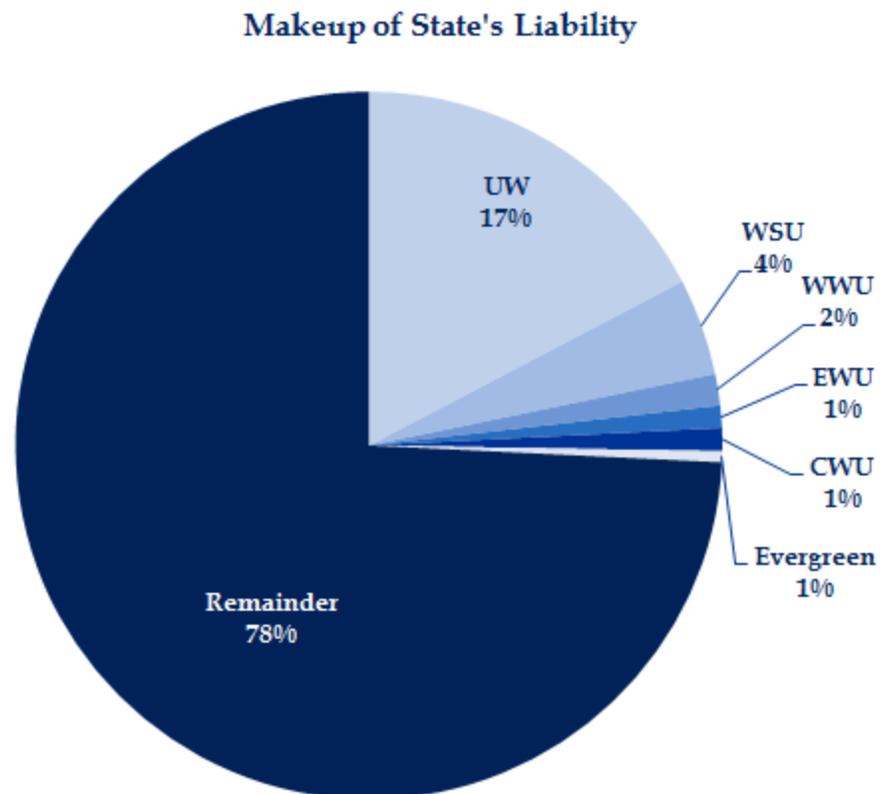
Summary of Plan Participants				
	State	K-12	Political Subdivision	Total
<b>Active Members</b>				
Number	114,679	118,662	16,382	249,723
Total Salary (in thousands, 000)	\$5,937,061	\$5,789,708	\$632,932	\$12,359,700
Average Age	46.9	47.9	47.9	47.4
Average Service	11.8	11.8	11.9	11.8
Average Salary	\$51,771	\$48,792	\$38,636	\$49,494
<b>Inactive Members</b>				
Number	31,156	22,571	1,684	55,411
Average Age	72.3	70.4	67.7	71.4
Average Monthly Subsidy (current year)	\$210	\$264	\$166	\$231



# Section Five - Appendices

## Higher Education

Public employers preparing financial statements in accordance with Generally Accepted Accounting Principles (GAAP) are required to comply with the reporting and disclosure requirements of GASB 45. Washington State's four-year institutions of higher education, while part of the state, issue separate financial reports. The pie chart below shows the portion of the state's liability attributable to the four-year institutions.



The next table shows each of the six four-year college's GASB 45 liability (AAL), ARC, Annual OPEB Cost, and NOO.

We estimated the liabilities for the active members covered under

the higher education institutions' retirement plans (non-PERS eligible) based on the liabilities for the active members in higher education covered under PERS. This estimated liability

is approximately 1.8 percent of each higher education institution's individual liability. It is approximately 0.6 percent of the state's total liability.

Higher Education GASB 45 Measurements						
	University of Washington	Washington State University	Western Washington University	Eastern Washington University	Central Washington University	Evergreen State College
<i>(Dollars in thousands)</i>						
<b>PVFB</b>	<b>\$1,240,336</b>	<b>\$280,853</b>	<b>\$85,799</b>	<b>\$61,480</b>	<b>\$63,477</b>	<b>\$30,555</b>
<b>GASB 45 Liability (AAL)</b>	<b>604,942</b>	<b>154,614</b>	<b>50,317</b>	<b>35,233</b>	<b>36,850</b>	<b>17,656</b>
Normal Cost	43,246	9,693	3,132	2,174	2,271	1,141
Amortization	22,988	5,900	1,925	1,346	1,412	680
<b>ARC</b>	<b>66,235</b>	<b>15,593</b>	<b>5,057</b>	<b>3,520</b>	<b>3,683</b>	<b>1,821</b>
Interest on NOO	7,999	1,857	613	431	441	236
Amortization of NOO	(6,267)	(1,456)	(480)	(338)	(346)	(185)
<b>Annual OPEB Cost</b>	<b>67,967</b>	<b>15,994</b>	<b>5,190</b>	<b>3,613</b>	<b>3,778</b>	<b>1,872</b>
Beginning NOO	177,760	41,271	13,612	9,572	9,801	5,252
Contributions*	(7,399)	(2,672)	(798)	(605)	(639)	(238)
<b>Ending NOO (6/30/2011)*</b>	<b>\$238,328</b>	<b>\$54,593</b>	<b>\$18,004</b>	<b>\$12,581</b>	<b>\$12,940</b>	<b>\$6,885</b>

\*Estimated.

# Department of Labor and Industries

The table below shows the accounting results for the Department of Labor and Industries (L&I). L&I, while part of the state, issues separate financial statements.

L&I GASB 45 Measurements	
<i>(Dollars in Thousands)</i>	
PVFB	\$144,241
<b>GASB 45 Liability</b>	<b>93,660</b>
Normal Cost	4,353
Amortization	3,318
<b>ARC</b>	<b>7,670</b>
Interest on NOO	298
Amortization of NOO	226
<b>Annual OPEB Cost</b>	<b>7,743</b>
Beginning NOO	6,618
Contributions*	(2,121)
<b>Ending NOO (6/30/2011)*</b>	<b>\$12,240</b>
<i>*Estimated.</i>	
Other L&I Information	
Active Members	2,642
Inactive Members	688
<b>Total Members</b>	<b>3,330</b>
<b>Average Implicit Subsidy Per Retiree (Under 65)</b>	<b>\$422</b>
<b>Average Explicit Subsidy Per Retiree (65 and Older)</b>	<b>\$212</b>

## Actuarial Methods

The actuarial funding method chosen will determine the allocation of costs. For example, one method may allocate all costs between now and the time a member is fully eligible to retire, whereas another method may

allocate all costs between now and the time a member is expected to retire (several years after retirement eligibility). One method might allocate costs as a level dollar amount while another might allocate costs as a level percentage of payroll. Using a different method will provide slightly different results. In short, different methods will relatively frontload the costs or backload the costs.

GASB allows the selection of one of six different actuarial methods. The method selected for this report was Projected Unit Credit (PUC). PUC

is known to backload the costs; however, for OPEB liabilities, which are “soft liabilities”<sup>1</sup> in Washington State, this is reasonable to do because it allows for the realization of the assumptions before most payments are made.

<sup>1</sup> *Non-contractual liabilities, highly sensitive to assumption changes.*

Currently, there is no asset valuation method since there are no assets invested in an irrevocable, dedicated, and protected trust.

The unfunded actuarial accrued liability is amortized over a closed thirty-year period as a level percent of payroll. GASB also allows for the selection of the amortization period (not to exceed thirty years). A longer amortization period means that the unfunded liability is being smoothed, and funded, over a longer period of time. This can be compared to a mortgage being paid off over a longer period of time (lower payments, but more interest).

## Economic Assumptions

The economic assumptions are used in the actuarial valuation to determine liabilities and contributions

in the future. For presentation purposes, they are broken into non-medical and medical economic assumptions. The non-medical economic assumptions specify how we expect membership and salaries to grow. We also used the interest discount rate in order to convert future cash flows into today's dollars. Aside from the interest discount rate these are consistent with the assumptions used in the *June 30, 2010, Actuarial Valuation Report (AVR)*.

The interest discount rate is chosen based on the expected long-term yield of assets anticipated to finance the payment of benefits. The subsidies are paid from the state's Concentration Account. The Concentration Account is the state's primary bank account that is invested in short-term products such as repurchase agreements, FNMA instruments, and U.S. Treasury obligations. We have determined that an expected long-term yield of 4.50 percent is reasonable for purposes of this report.

The medical economic assumptions specify how we expect the benefit (subsidies) will behave in the future. We relied on Robert Schmidt, a healthcare actuary in Milliman's Boise office, contracted through the HCA, to determine the medical trend rates.

Non-Medical Economic Assumptions		
	State and Political Subdivisions	K-12 <sup>1</sup>
Annual Growth in Membership <sup>2</sup>	1.25%	0.90%
Return on Investment Earnings <sup>3</sup>	4.50%	4.50%
Inflation <sup>4</sup>	3.50%	3.50%
General Salary Increases (due to inflation) <sup>5</sup>	4.00%	4.00%

<sup>1</sup> Only applies to K-12 members in TRS.

<sup>2</sup> 0.0% for GASB requirements.

<sup>3</sup> Annual rate, compounded annually.

<sup>4</sup> Based on the CPI: Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items.

<sup>5</sup> Excludes longevity, merit, or step increases that usually apply to members in the early part of their careers.

Medical Inflation Trend - Claims Costs					
UMP			Insured Medical		
Calendar Year(s)	Non-Medicare	Medicare	Non-Medicare	Medicare	Medicare Supplement
2011-2014	7.1%	7.0%	7.0%	7.0%	7.0%
2015	7.0%	6.8%	6.9%	6.8%	6.8%
2016	6.7%	6.6%	6.7%	6.6%	6.6%
2017	6.5%	6.4%	6.5%	6.4%	6.4%
2018	6.3%	6.2%	6.3%	6.2%	6.2%
2019-2020	6.3%	6.2%	6.2%	6.1%	6.1%
2021	6.3%	6.1%	6.2%	6.1%	6.1%
2022-2027	6.2%	6.1%	6.2%	6.1%	6.1%
2028-2030	6.2%	6.1%	6.1%	6.1%	6.1%
2031-2032	6.1%	6.1%	6.1%	6.0%	6.0%
2033-2036	6.1%	6.0%	6.1%	6.0%	6.0%
2037	6.0%	6.0%	6.0%	6.0%	6.0%
2038	5.9%	5.9%	5.9%	5.9%	5.9%
2039	5.9%	5.8%	5.9%	5.8%	5.8%
2040	5.9%	5.8%	5.8%	5.8%	5.8%
2041	5.8%	5.8%	5.8%	5.8%	5.8%
2042-2043	5.8%	5.7%	5.8%	5.7%	5.7%
2044	5.8%	5.7%	5.7%	5.7%	5.7%
2045-2047	5.7%	5.7%	5.7%	5.7%	5.7%
2048	5.7%	5.7%	5.7%	5.6%	5.6%
2049-2052	5.7%	5.6%	5.7%	5.6%	5.6%
2053-2055	5.7%	5.6%	5.6%	5.6%	5.6%
2056-2064	5.6%	5.6%	5.6%	5.6%	5.6%
2065	5.6%	5.6%	5.6%	5.5%	5.5%
2066-2067	5.6%	5.5%	5.6%	5.5%	5.5%
2068	5.6%	5.5%	5.5%	5.5%	5.5%
2069-2073	5.5%	5.5%	5.5%	5.5%	5.5%
2074	5.5%	5.4%	5.5%	5.4%	5.4%
2075	5.4%	5.4%	5.4%	5.4%	5.4%
2076	5.4%	5.3%	5.4%	5.3%	5.3%
2077	5.3%	5.3%	5.3%	5.3%	5.3%
2078	5.3%	5.2%	5.3%	5.2%	5.2%
2079-2080	5.2%	5.2%	5.2%	5.2%	5.2%
2081-2082	5.1%	5.1%	5.1%	5.1%	5.1%
2083+	5.0%	5.0%	5.0%	5.0%	5.0%

Medical Inflation Trend - Subscriber Premiums					
Calendar Year(s)	UMP			Insured Medical	
	Non-Medicare	Medicare	Medicare Supplement	Non-Medicare	Medicare Supplement
2011	7.1%	31.3%	7.0%	7.0%	7.0%
2012	7.1%	11.3%	7.0%	7.5%	7.0%
2013-2014	7.1%	7.0%	7.0%	7.0%	7.0%
2015	7.0%	6.8%	6.9%	6.8%	6.8%
2016	6.7%	6.6%	6.7%	6.6%	6.6%
2017	6.5%	6.4%	6.5%	6.4%	6.4%
2018	6.3%	6.2%	6.3%	6.2%	6.2%
2019-2020	6.3%	6.2%	6.2%	6.1%	6.1%
2021	6.3%	6.1%	6.2%	6.1%	6.1%
2022-2027	6.2%	6.1%	6.2%	6.1%	6.1%
2028-2030	6.2%	6.1%	6.1%	6.1%	6.1%
2031-2032	6.1%	6.1%	6.1%	6.0%	6.0%
2033-2036	6.1%	6.0%	6.1%	6.0%	6.0%
2037	6.0%	6.0%	6.0%	6.0%	6.0%
2038	5.9%	5.9%	5.9%	5.9%	5.9%
2039	5.9%	5.8%	5.9%	5.8%	5.8%
2040	5.9%	5.8%	5.8%	5.8%	5.8%
2041	5.8%	5.8%	5.8%	5.8%	5.8%
2042-2043	5.8%	5.7%	5.8%	5.7%	5.7%
2044	5.8%	5.7%	5.7%	5.7%	5.7%
2045-2047	5.7%	5.7%	5.7%	5.7%	5.7%
2048	5.7%	5.7%	5.7%	5.6%	5.6%
2049-2052	5.7%	5.6%	5.7%	5.6%	5.6%
2053-2055	5.7%	5.6%	5.6%	5.6%	5.6%
2056-2064	5.6%	5.6%	5.6%	5.6%	5.6%
2065	5.6%	5.6%	5.6%	5.5%	5.5%
2066-2067	5.6%	5.5%	5.6%	5.5%	5.5%
2068	5.6%	5.5%	5.5%	5.5%	5.5%
2069-2073	5.5%	5.5%	5.5%	5.5%	5.5%
2074	5.5%	5.4%	5.5%	5.4%	5.4%
2075	5.4%	5.4%	5.4%	5.4%	5.4%
2076	5.4%	5.3%	5.4%	5.3%	5.3%
2077	5.3%	5.3%	5.3%	5.3%	5.3%
2078	5.3%	5.2%	5.3%	5.2%	5.2%
2079-2080	5.2%	5.2%	5.2%	5.2%	5.2%
2081-2082	5.1%	5.1%	5.1%	5.1%	5.1%
2083+	5.0%	5.0%	5.0%	5.0%	5.0%

Robert Schmidt, a healthcare actuary in Milliman’s Boise office provided us with the age 65 medical cost and aging factors. The age 65 medical cost is shown in the table below. This represents the average claims cost for a 65-year-old retiree and is

broken down by each plan for non-Medicare and Medicare separately, by gender. On average, younger retirees cost less and older retirees cost more, prior to any Medicare offsets.

We use aging factors to determine the average claims cost at different ages. For example, to determine the average claims cost for a 66-year-old male in UMP (not covered by Medicare), the aging factor of 2.71 percent would be applied to the 65-year-old male UMP cost [ $\$12,390 * (1 + .0271)$ ]. This formula results in a 66-year-old UMP male retiree cost of \$12,726. The aging factors can be seen below.

Age 65 Annual Medical Cost				
Medical Plan	Non-Medicare		Medicare	
	Males	Females	Males	Females
Group Health Classic	\$13,835	\$12,826	\$2,511	\$2,528
Group Health Value	\$10,729	\$9,946	\$2,376	\$2,392
Kaiser Permanente Classic	\$12,834	\$11,898	\$3,371	\$3,395
Secure Horizons Classic	N/A	N/A	\$3,977	\$4,005
UMP	\$12,390	\$11,486	\$3,390	\$3,414
Supplements	Non-Medicare		Medicare	
	Males	Females	Males	Females
Plan F Retired	N/A	N/A	\$1,604	\$1,615
Plan F Disabled	N/A	N/A	\$2,726	\$2,746

Aging Factors		
Age	Males	Females
0-26	5.82%	14.92%
27-31	0.83%	0.50%
32-36	9.49%	3.96%
37-41	3.35%	-1.67%
42-46	-2.51%	-1.15%
47-51	-0.30%	-0.73%
52-56	3.53%	2.04%
57-61	4.52%	3.75%
62-64	6.57%	5.73%
65-71	2.71%	2.36%
72-76	2.14%	1.74%
77-81	1.27%	1.04%
82-88	0.63%	0.38%
89+	0.00%	0.00%

# Demographic Assumptions

Demographic assumptions include rates of decrement (reasons members would exit the plan: retirement, termination, disability, and mortality) as well as participation percentage, percentage of spouses covered, and Medicare coverage. The rates of decrement are the same as those used in the June 30, 2010, AVR; the state and political subdivision members use the PERS decrement rates, whereas K-12 members in TRS use the TRS

decrement rates and K-12 members in SERS use the SERS decrement rates.

We looked at the valuation data to determine the other demographic assumptions including participation percentage, percentage of spouses covered, and Medicare coverage. Participation percentage refers to how many current active members will elect to enroll in PEBB as a retiree. Percentage of spouses covered and Medicare coverage refer to how many current active members will cover their spouse or be Medicare eligible as a retiree. These assumptions can be seen in the table below.

Demographic Assumptions		
	State and Political Subdivisions	K-12
Participation Percentage	65.0%	50.0%
Percentage of Spouses Covered	45.0%	45.0%
Medicare Coverage After Initial Participation	100.0%	100.0%

# Plan Eligibility and Premiums

Retirees' access to PEBB depends on meeting the retirement eligibility of their respective retirement system at the time of retirement. PEBB members are covered in the following retirement systems: PERS, TRS, SERS, PSERS, WSPRS, Judicial, and Higher Education. The following table shows the retirement eligibility for each system and plan. For example, PERS 2 members are eligible for retirement with five years of service at age 65, or with 20 years of service at age 55.

Retirement Eligibility By System		
System	Years of Service	Age
PERS 1	5	60
	25	55
	30	Any
PERS 2/3	5	65
PERS 2	20	55
PERS 3	10	55
TRS 1	5	60
	25	55
	30	Any
TRS 2/3	5	65
TRS 2	20	55
TRS 3	10	55
SERS 2/3	5	65
SERS 2	20	55
SERS 3	10	55
PSERS 2	5 Total	65
	10 PSERS	60
	20 Total	53
WSPRS 1	Any	55
	25	Any
WSPRS 2	Any	55
	25	Any
Judicial	15	60
Higher Education	10	55
	Any	62

HCA administers the medical plans in PEBB. The premium a retiree pays depends on:

1. The plan chosen by the retiree; and,
2. Whether the retiree is enrolled in Parts A and B of Medicare.

Note that a retiree's age does not affect the premium. The explicit subsidy is for all retirees that are enrolled in Parts A and B of Medicare, while the implicit subsidy is for all retirees not enrolled in Parts A and B of Medicare. A more detailed explanation of the subsidies can be found in Section 1. The tables on the following page show the different medical plans administered by PEBB and the monthly premium for each medical plan, broken into non-Medicare and Medicare rates. For each medical plan's complete provisions please visit HCA's website ([hca.wa.gov](http://hca.wa.gov)).

2011 Non-Medicare Retiree Monthly Rates				
Medical Plans	Retiree	Retiree & Spouse or SSDP <sup>1</sup>	Retiree & Children	Full Family
Group Health Classic	\$519.80	\$1,033.36	\$904.97	\$1,418.53
Group Health Value	479.29	952.34	834.08	1,307.13
Kaiser Permanente Classic	554.22	1,102.20	965.21	1,513.19
Uniform Medical Plan	\$509.63	\$1,013.02	\$887.17	\$1,390.56

<sup>1</sup> Same Sex Domestic Partner.

2011 Medicare Retiree Monthly Rates								
Medical Plans	Retiree	Retiree & Spouse or SSDP <sup>1</sup>		Retiree & Children			Full Family	
		Number Eligible for Medicare						
		1	2	1	2	1	2	3
Group Health Classic	\$137.51	\$651.07	\$268.78	\$522.68	\$268.78	\$1,036.24	\$653.95	\$400.05
Group Health Value	131.12	604.17	256.00	485.91	256.00	958.96	610.79	380.88
Kaiser Permanente Classic	183.42	731.40	360.60	594.41	360.60	1,142.39	771.59	537.78
Secure Horizons Classic*	247.28		488.32		488.32			729.36
Uniform Medical Plan	\$194.13	\$697.52	\$382.02	\$571.67	\$382.02	\$1,075.06	\$759.56	\$569.91

\*The retiree and his or her enrolled dependents must be enrolled in Medicare Parts A and B to enroll in Secure Horizons.

<sup>1</sup> Same Sex Domestic Partner.

# Glossary

## *Actives*

Members who are currently employed.

## *Actuarial Accrued Liability (AAL)*

Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the present value of fully projected benefits attributable to service credit that has been earned (or accrued) as of the valuation date.

## *Actuarial Gain or Loss*

Experience, from one year to the next, which differs from that assumed will result in an actuarial gain or loss. For example, an actuarial gain would occur if less members retired than assumed.

## *Actuarial Value of Assets*

The value of pension plan investments and other property used by the actuary for the purpose of an actuarial valuation (sometimes referred to as valuation assets). It is common for actuaries to select an actuarial valuation method that

smoothes the effects of short term volatility in the market value of assets.

## *ARC*

Annual required contribution: refers to a GASB disclosure requirement. The ARC is the annual contribution that will fund the current active and inactive members' subsidies by the end of their working lifetimes. It can be calculated as a level dollar amount or a percent of payroll on a year to year basis.

## *Actuarial Valuation Report (AVR)*

Created biannually to monitor the state's pension plans.

## *Decrement*

The mode in which a member leaves employment. Examples include retirement, termination, disability, or death.

## *Entry Age Normal (EAN) Funding Method*

The EAN funding method is a standard actuarial funding method. The annual cost of benefits under EANC is comprised of two components:

- ▶ Normal cost; plus
- ▶ Amortization of the unfunded liability

The normal cost is determined on an individual basis, from a member's age at plan entry, and is designed to be a level percentage of pay throughout a member's career.

## *Funded Ratio*

The ratio of a plan's assets to its liabilities. There are several acceptable methods of measuring a plan's assets and liabilities. In financial reporting, funded status is reported using consistent measures by all governmental entities. According to GASB, the funded ratio is the actuarial value of assets divided by the actuarial accrued liability calculated under PUC (see below).

## *Governmental Accounting Standards Board (GASB)*

Refers to the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting to the public.

### ***Inactives***

Retired members, beneficiaries, or terminated members entitled to a benefit.

### ***Net OPEB Obligation (NOO)***

Refers to the GASB disclosure requirement on the balance sheet. It is the cumulative difference between the annual OPEB cost and the actual contributions.

### ***Normal Cost***

Computed differently under different funding methods, the normal cost generally represents the portion of the cost of projected benefits allocated to the current plan year.

### ***Other Post-Employment Benefits (OPEB)***

Refers to benefits offered to retirees besides a pension and includes, among other benefits, medical insurance, prescription drug insurance, dental insurance, and long-term care insurance.

### ***Present Value of Fully Projected Benefits (PVFB)***

Computed by projecting the total future benefit cash flows from the plan, using actuarial assumptions (i.e., probability of death, retirement, salary increases, etc.), and discounting the cash flows to the valuation date using the assumed valuation interest rate to determine the present value (today's value).

### ***Projected Unit Credit (PUC) Actuarial Cost Method***

The PUC cost method is a standard actuarial funding method. The annual cost of benefits under PUC is comprised of two components:

- ▶ Normal cost; plus
- ▶ Amortization of the unfunded actuarial accrued liability.

The PUC normal cost is the estimated present value of projected benefits current plan members will earn in the year following the valuation date. It represents today's value of one year of earned benefits.

### ***Unfunded Actuarial Accrued Liability (UAAL)***

The excess, if any, of the actuarial accrued liability over the actuarial value of assets. In other words, the present value of benefits earned to date not covered by plan assets.









## Office of the State Actuary

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