STATE OF HAWAII
EMPLOYER-UNION TRUST FUND

POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

Actuarial Valuation Study

Valuation Date: **July 1, 2009**

Date of Report: **May 10, 2011**

May 10, 2011

Ms. Barbara Coriell
EUTF Administrator
P.O. Box 2121
Honolulu, Hawaii 96805-2121

Re: GASB 43 / 45 Actuarial Valuation Report

This report contains the results of the July 1, 2009 actuarial valuation of the Hawaii Employee-Union Trust Fund's (EUTF) Other Postemployment Benefits (OPEB).

The results are prepared in accordance with GASB 43 and 45, which address accounting and financial reporting requirements for OPEB plans and employers. The purpose of the report is to:

- Determine the actuarial obligations for EUTF benefits under GASB 43.
- Develop the Annual Required Contribution (ARC) and Annual OPEB Cost (AOC) for employers under GASB 45 for the fiscal year ending June 30, 2011.
- Provide information needed by auditors for financial statement entries and footnote disclosures in conformity with the disclosure requirements under GASB Statements No. 43 and 45.
- Present the financial condition of the plan as measured for accounting purposes.

This report is prepared for the sole use of the EUTF and the participating employers and supplies information consistent with the stated purposes of the report. It may not be appropriate to use this report for other business applications. Accordingly, additional discussion may be helpful in understanding the assumptions, methodologies, and limitations applied in the report.

Aon Hewitt is pleased to present this report and we look forward to discussing it with you.

Respectfully submitted,

Bradley J. Au, MAAA
Senior Vice President

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Exhibits | **Page**

1. Executive Summary

For reference, a glossary of terms is provided in Exhibit 11.

Background

The State of Hawaii and its subdivisions (i.e., counties) provide healthcare benefits to public employees, retirees, and their dependents through the Hawaii Employer-Union Health Benefits Trust Fund (EUTF). As an agency of the State, the EUTF contracts with providers of medical, dental, vision, and life insurance plans.

The provisions for coverage and eligibility of benefits are set forth in Hawaii Revised Statutes (HRS) Chapter 87A. Generally, retirees and their dependents may receive health care coverage if they are eligible for their employer's public pension system. Employers make contributions to EUTF based on an employee's hire date and years of service. Retirees pay the portion of the premium not paid by the employer. These retiree healthcare benefits constitute the other postemployment benefits (OPEB) discussed in this report.

The EUTF provides coverage for all public employees in the State with the exception of the members of certain employee associations who provide coverage through a separate VEBA trust, as allowed in HRS Chapter 87D. The State's liability for contributions made to such VEBAs on behalf of retirees is not considered in this valuation. A separate actuarial valuation report will address the GASB 45 liabilities for such benefits.

GASB 43 and 45

Governmental Accounting Standards Board (GASB) Statements 43 and 45 address accounting and financial reporting for Postemployment Benefits Other Than Pensions. GASB 43 addresses financial reporting for OPEB plans and was initially effective for EUTF for the 2006-2007 fiscal year. GASB 45 addresses financial reporting for employers of OPEB plans and was initially effective for the State and other employers for the 2007-2008 fiscal year. The plan's liabilities and employer costs for the retiree benefits are calculated in this actuarial valuation in accordance with GASB 43 and 45.

It is important to note that only current active, deferred inactive and retired participants are valued in this actuarial study. To better understand GASB 45's long term effect, the State and other employers may want to further study the impact of future new entrants or any projected growth in employee population.

Health Care Reform

The liabilities and costs presented in this report do not account for the long term impact of the Patient Protection and Affordable Care Act (PPACA), also known as Health Care Reform (HCR). Considering the valuation date, the need to produce information for the June 30, 2010 financial statements, and the relative uncertainty of the long term application of HCR, Aon Hewitt believes it is premature to include the impact of HCR in this valuation, as it is an essential unknown at this time due to the lack of complete regulations related to the HCR legislation. The employer should discuss HCR with their auditors to confirm the appropriate accounting treatment.

ARC Development

GASB requires the development of an Annual Required Contribution (ARC) each year based on a plan's assets and liabilities. The ARC is the basis for determining the Annual OPEB Cost (AOC), which is the amount employers recognize as annual expense.

Although GASB does not actually require pre-funding, the portion of the ARC that is not funded each year accumulates as a liability on an employer's financial statements.

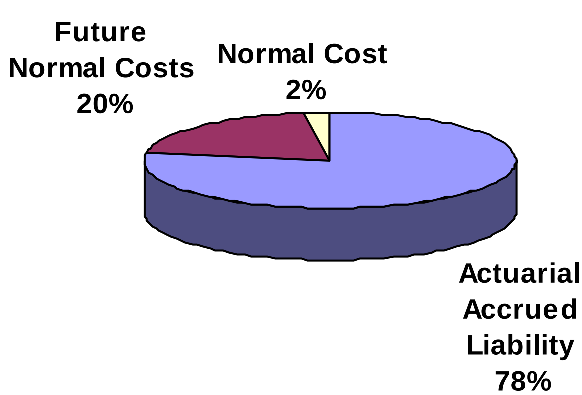
The ARC in this report is developed under the Entry Age Normal method.

Summary of Results

Liabilities

There are a few terms to understand related to the Plan's liabilities. The Present Value of Benefits (PVB) represents the actuarial present value of all future benefits expected to be paid to current active, deferred inactive and retired employees. The Actuarial Accrued Liability (AAL) is the portion of the PVB attributable to past service. The Normal Cost is the portion of the PVB that is allocated to the current fiscal year for active employees. The chart below shows the plan's approximate allocation of these items, which varies based on assumptions.

Present Value of Benefits



1. Executive Summary (cont.)

Each liability is a present value calculated by using a selected discount rate. As requested by the EUTF and the State, results in this report are developed based on both a 5.0% and 7.0% discount rate to show costs assuming the scenarios where obligations are not prefunded or fully prefunded, respectively. The table below summarizes the liability results based on these two discount rates as of July 1, 2009:

($ Millions)	**No Prefunding (5.0%)**	**Prefunding (7.0%)**
Present Value of Benefits (PVB)	$18,146.1	$12,330.9
Actuarial Accrued Liability (AAL)	$14,107.4	$10,435.7
Normal Cost	$407.3	$223.1

Note: The AAL and normal cost shown above were calculated under the Entry Age Normal cost method by spreading costs as a level percentage of pay.

Discount Rate Selection

As illustrated above, the discount rate can have a considerable impact on the magnitude of the liabilities, with lower discount rates resulting in higher liabilities. As guidance in selecting an appropriate discount rate, GASB states that the discount rate should be based on the long-term yield of investments used to finance the benefits.

The no prefunding results assume employer long term general asset returns of 5%. The prefunding results are based on a 7% return, which is the EUTF's targeted return on plan investments.

If the employers want to better understand the long term advantages and disadvantages to pre-funding in a trust, a study which projects cash flow, accrual amounts, and balance sheet obligations based on current and future participants should be performed.

Annual Required Contributions (ARC)

The ARC equals the normal cost plus amortization of the unfunded AAL over the 30 year closed period ending June 30, 2037. The following table shows the ARC for the fiscal year ending June 30, 2011 under the scenarios where obligations are not prefunded (5.0%) and fully prefunded (7.0%):

($ Millions)	**No Prefunding (5.0%)**	**Prefunding (7.0%)**
ARC for FYE June 30, 2011	$1,126.5	$887.1

The ARC can be compared to the estimated pay-as-you-go funding amount of $390.2 million.

1. Executive Summary (cont.)

Comparison to Prior Valuation Results

EUTF is considered an agent multiple employer plan under GASB rules and each employer's AOC and ARC are dependent on the respective employer's anticipated funding level.

The following tables compare total plan results to the prior valuation results:

Assuming No Prefunding of Obligations

($ Millions)	**July 1, 2009 (5%)**	**July 1, 2007 (5%)**
Liabilities		
Present Value of Benefits (PVB)	$18,146.1	$13,321.6
Actuarial Accrued Liability (AAL)	$14,107.4	$10,349.5
Normal Cost	$407.3	$294.7
ARC	$1,126.5	$846.5
Fiscal Year Ending	June 30, 2011	June 30, 2010

Assuming Prefunding of Obligations

($ Millions)	**July 1, 2009 (7%)**	**July 1, 2009 (8%)**	**July 1, 2007 (8%)**
Liabilities			
Present Value of Benefits (PVB)	$12,330.9	$10,433.4	$7,682.6
Actuarial Accrued Liability (AAL)	$10,435.7	$9,106.9	$6,716.6
Normal Cost	$223.1	$167.5	$120.2
ARC	$887.1	$809.4	$618.9
Fiscal Year Ending	June 30, 2011	June 30, 2011	June 30, 2010

1. Executive Summary (cont.)

The plan liabilities increased from the prior year. The primary factors impacting results include:

- Overall healthcare costs increased more than assumed, resulting in liability increases.
- Future healthcare trend was revised for updated expectations, resulting in liability increases.
- The AAL grows as active participants earn additional benefits under the plan each year. Also, liabilities increase due to a decrease in the discount period for benefit payments as participants become closer to receiving benefits.

It should also be noted that the prefunding results have increased due to the change in discount rate from 8.0% to 7.0%. This change reflects the long term expected return on funds prefunded with EUTF.

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The remainder of the report shows greater details of the above results.

Appendix A, Section III shows the final results based on each employer's specific discount rate, which is determined based on the employer's funding intentions. Although the 5% discount rate is shown in this report, it was not used by any employer. A 4% discount rate was used for the State of Hawaii.

2. Actuarial Valuation Certificate

This report presents the results of the actuarial valuation, as of July 1, 2009, for the State of Hawaii Employer-Union Trust Fund (EUTF) under Governmental Accounting Standards Board (GASB) Statements 43 and for Employers under GASB 45.

This report was prepared using generally accepted actuarial practices and methods. The actuarial assumptions used in the calculations are individually reasonable and reasonable in aggregate.

Aon Hewitt did not audit the employee data and financial information used in this valuation. On the basis of our review of this data, we believe that the information is sufficiently complete and reliable, and that it is appropriate for the purposes intended.

Actuarial computations under GASB 43 and 45 are for purposes of fulfilling EUTF and Employer accounting requirements, respectively. The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations for purposes other than meeting EUTF and Employer financial accounting requirements may be different from these results. As required by GASB 43 and 45, this valuation assumes this will be an ongoing plan. However, this assumption does not imply any obligation by the EUTF or the Employers to continue the plan.

This report is intended for the sole use of the EUTF, the State of Hawaii, and the Employers. It is intended only to supply information to comply with the stated purpose of the report and may not be appropriate for other business purposes. Reliance on information contained in this report by anyone for other than the intended purposes, puts the relying entity at risk of being misled because of confusion or failure to understand applicable assumptions, methodologies, or limitations of the report's conclusions. Accordingly, no person or entity, including the EUTF, the State of Hawaii, or the Employers should base any representations or warranties in any business agreement on any statements or conclusions contained in this report without the written consent of Aon Hewitt.

The actuaries whose signatures appear below are Members of either the Society of Actuaries or the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The actuaries are available to answer any questions with regard to the matters enumerated in this report.

2. Actuarial Valuation Certificate (cont.)

Aon Hewitt's relationship with the Plan and the Plan Sponsor is strictly professional. There are no aspects of the relationship that may impair or appear to impair the objectivity of our work.

Respectfully submitted,

Aon Hewitt

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May 10, 2011

3. Plan Liabilities

The liabilities shown in this exhibit were calculated as of the July 1, 2009 valuation date. These liabilities are utilized in the development of the Annual Required Contribution (ARC) under various alternatives shown in this report.

The **Present Value of Benefits (PVB)** represents the actuarial present value of all benefits ever to be paid to current employees and retirees.

The **Actuarial Accrued Liability (AAL)** is a portion of the PVB attributable to past service. For retirees and fully eligible active employees, the AAL is equal to the PVB. For other active employees, the AAL is the portion of the PVB deemed to be accrued to date. The **Normal Cost** is the portion of the PVB that is allocated to the current plan year for active employees.

The AAL in this report is based on the Entry Age Normal cost method and has been developed by spreading costs as a level percentage of payroll.

The following tables show results by retired, deferred vested, and active employee groups:

I. Assuming No Prefunding of Obligations

($ Millions)	**Medical / Dental / Vision / Life**	**Medicare Part B**	**Total**
Present Value of Benefits (PVB)			
Retirees	$5,640.0	$979.7	$6,619.7
Deferred Inactives	$871.9	$180.2	$1,052.1
Actives	$8,463.2	$2,011.1	$10,474.3
Total PVB	$14,975.1	$3,171.0	$18,146.1
Actuarial Accrued Liability (AAL)			
Retirees	$5,640.0	$979.7	$6,619.7
Deferred Inactives	$871.9	$180.2	$1,052.1
Actives	$5,324.8	$1,110.8	$6,435.6
Total AAL	$11,836.7	$2,270.7	$14,107.4
Normal Cost	$314.8	$92.5	$407.3

3. Plan Liabilities (cont.)

II. Assuming Prefunding of Obligations

($ Millions)	**Medical / Dental / Vision / Life**	**Medicare Part B**	**Total**
Present Value of Benefits (PVB)			
Retirees	$4,505.5	$780.9	$5,286.4
Deferred Inactives	$564.1	$111.1	$675.2
Actives	$5,203.3	$1,166.0	$6,369.3
Total PVB	$10,272.9	$2,058.0	$12,330.9
Actuarial Accrued Liability (AAL)			
Retirees	$4,505.5	$780.9	$5,286.4
Deferred Inactives	$564.1	$111.1	$675.2
Actives	$3,727.4	$746.7	$4,474.1
Total AAL	$8,797.0	$1,638.7	$10,435.7
Normal Cost	$172.1	$51.0	$223.1

4. Plan Assets

For purposes of determining the ARC, Plan assets are based on pre-funding contributions, if any, and are equal to the market value of assets, including accrued contributions, at the valuation date. The following table shows the reconciliation of Plan assets used in ARC determination.

($ Millions)	**FYE 6/30/09**	**FYE 6/30/08**
Plan assets, beginning of period	$37.1	$0
Employer contributions		
Pay-as-you-go	$264.5	$261.9
Pre-funding (including accrued)	$78.3	$37.1
Total employer contributions	$342.8	$299.1
Benefit payments (pay-as-you-go)	($264.5)	($261.9)
Interest	$0.6	$0
Plan assets, end of period	$116.0	$37.1

Note: The amounts shown above and in this report do not reflect County of Kauai Department of Water's subsequent recategorization of their pre-funding contributions for Fiscal Years Ending 6/30/2008, 6/30/2009 and 6/30/2010. Results for FYE 6/30/2008 pre-funding contributions were updated to $36.9 million, and plan assets as of 6/30/2008 were updated to $36.9 million; FYE 6/30/2009 pre-funding contributions were updated to $78.0 million, and plan assets as of 6/30/2009 were updated to $115.5 million.

5. Projected Benefit Payments

The following table shows the estimated projected net employer benefit payments based on the current plan provisions, current plan participants, and the valuation assumptions used in this report. The payments would be similar to funding the liabilities on a pay-as-you-go basis.

	Projected Payments *($ Millions)*		
Year Ending June 30	**Medical / Dental / Vision / Life**	**Medicare Part B**	**Total**
2010	$301.8	$49.7	$351.5
2011	$337.9	$52.3	$390.2
2012	$375.8	$58.0	$433.8
2013	$414.3	$64.1	$478.4
2014	$454.3	$70.1	$524.4
2015	$494.5	$76.5	$571.0
2016	$533.5	$83.3	$616.8
2017	$570.1	$90.6	$660.7
2018	$605.7	$98.2	$703.9
2019	$639.6	$106.2	$745.8
2020	$672.0	$114.5	$786.5
2021	$704.4	$123.1	$827.5
2022	$737.2	$131.9	$869.1
2023	$771.2	$140.9	$912.1
2024	$805.4	$150.2	$955.6

6. Sensitivity Analysis

Impact of 1% Change to Healthcare Trend Rates

This report shows the sensitivity to discount rates by comparing results assuming no prefunding (5.0% discount rate) to results assuming prefunding (7.0% discount rate). Results are also sensitive to the healthcare trend assumptions. The following table shows the impact of a 1.0% increase or decrease in the healthcare trend rate assumption, shown for both a 5.0% and 8.0% discount rate.

I. Assuming No Prefunding of Obligations

($ Millions)	5.0% Discount Rate - Baseline Results	Impact of 1.0% Increase in the Health Trend Rate	Impact of 1.0% Decrease in the Health Trend Rate
Present Value of Benefits	$18,146.1	$22,427.9	$14,929.9
Funded Status			
Actuarial Accrued Liability	$14,107.4	$16,919.0	$11,923.5
Assets	$116.0	$116.0	$116.0
Unfunded AAL	$13,991.4	$16,803.0	$11,807.5
Annual Required Contribution (ARC) for FYE 6/30/2011			
Normal Cost plus interest	$442.7	$582.7	$341.8
Amortization of Unfunded AAL	$683.8	$827.8	$572.4
Total ARC	$1,126.5	$1,410.5	$914.2

II. Assuming Prefunding of Obligations

($ Millions)	7.0% Discount Rate - Baseline Results	Impact of 1.0% Increase in the Health Trend Rate	Impact of 1.0% Decrease in the Health Trend Rate
Present Value of Benefits	$12,330.9	$14,712.2	$10,479.8
Funded Status			
Actuarial Accrued Liability	$10,435.7	$12,200.2	$9,029.3
Assets	$116.0	$116.0	$116.0
Unfunded AAL	$10,319.7	$12,084.2	$8,913.3
Annual Required Contribution (ARC) for FYE 6/30/2011			
Normal Cost plus interest	$247.1	$317.5	$195.3
Amortization of Unfunded AAL	$640.0	$755.5	$548.1
Total ARC	$887.1	$1,073.0	$743.4

7. Participant Information

These exhibit summaries contain participant demographic information.

Active Employee Age/Service Distribution

	Years of Service								
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
<25	718	7	0	0	0	0	0	0	725
25-29	2,520	442	5	0	0	0	0	0	2,967
30-34	2,610	1,587	252	9	0	0	0	0	4,458
35-39	2,332	1,984	1,305	553	7	0	0	0	6,181
40-44	1,988	1,526	1,197	1,830	566	9	0	0	7,116
45-49	1,879	1,476	1,025	1,884	1,630	492	7	0	8,393
50-54	1,567	1,327	983	1,741	1,547	1,417	460	13	9,055
55-59	1,238	1,144	852	1,432	1,235	1,043	975	298	8,217
60-64	643	682	474	877	676	450	400	545	4,747
65-69	172	244	186	228	191	123	116	246	1,506
70-74	32	67	44	75	45	26	24	69	382
75-79	11	15	13	26	7	6	6	24	108
80+	2	4	3	4	4	1	2	8	28
Total	15,712	10,505	6,339	8,659	5,908	3,567	1,990	1,203	53,883

Inactive Age Distribution

Age	Deferred Inactives	Retirees	Total
< 35	81	35	116
35-39	275	16	291
40-44	621	42	663
45-49	841	190	1,031
50-54	1,080	531	1,611
55-59	871	2,246	3,117
60-64	550	5,695	6,245
65-69	96	7,546	7,642
70-74	33	6,324	6,357
75-79	15	5,990	6,005
80-84	2	4,975	4,977
85-89	3	3,156	3,159
90-94	0	1,269	1,269
95+	0	365	365
Total	4,468	38,380	42,848

7. Participant Information (cont.)

Participant Statistics

Retirees	
Number of retirees (including surviving spouses) valued	38,380
Average age of retirees	72.9
Deferred Vested	
Number of deferred vested valued	4,468
Average age of deferred vested	51.7
Actives	
Number of actives valued	53,883
Average age of actives	47.5
Average past service	12.7

Participant Distribution Among Health Plans

Retirees

	Single	Two-Party	Family	Total
HMSA	17,153	11,148	1,452	29,753
Kaiser	4,078	2,258	326	6,662
HMA	29	20	3	52
Total Medical				36,467
Dental	21,158	13,257	1,656	36,071
Vision	21,133	13,517	1,789	36,439
Life				32,405

Actives

	Single	Two-Party	Family	Waived	Total
HMSA	17,464	5,939	10,183	n/a	33,586
Kaiser	4,618	1,566	2,364	n/a	8,548
HMA	358	149	169	n/a	676
Other	89	99	234	n/a	422
Waived	n/a	n/a	n/a	10,651	10,651
Total Medical					53,883
Dental	21,005	9,620	15,550	7,708	53,883
Vision	20,989	8,652	14,127	10,115	53,883

8. Summary of Principal Plan Provisions

The following plan provisions are the basis for the calculations in this actuarial valuation.

1. Benefit Eligibility

The following are eligible to enroll as EUTF retirees: a) a retired member of the employees' retirement system, a county pension system, or a police, firefighters, and bandsmen pension system of the State or a county; b) the surviving spouse of a retired or deceased member; and c) the surviving child of such a retired member if the child is unmarried and under age nineteen.

2. Benefits Plans Provided

Medical – PPO through HMSA or HMA, or HMO through Kaiser
Prescription Drug – PPO through InformedRx or HMO through Kaiser
Dental – Hawaii Dental Service
Vision – Vision Services Plan
Life Insurance – Standard Insurance Company
Medicare Part B premium reimbursement

3. Monthly Base Contribution (Employer Caps)

Effective July 1, 2004, a revised monthly base contribution was established to determine the amount the employers pay to the EUTF on behalf of retirees (excluding Medicare Part B premium reimbursement). This amount is adjusted annually by the percentage change in the Medicare Part B premium.

4. Employer Contributions

Employers pay a percentage of the monthly base contribution that depends on a participant's hire date and years of service, as shown in the following table:

Hire Date	Years of Service	% of Base Contribution
Pre-7/1/96	< 10 ≥ 10	50% 100%
Post-7/1/96 (Post-7/1/01 applied to self premium only)	< 10 10-14 15-24 ≥ 25	0% 50% 75% 100%

5. Retiree Contributions

Retirees are required to pay the portion of the premium rate not paid by the employer.

6. Dependent and Survivor Coverage

Eligible dependents and survivors may elect coverage under the plans if they pay the portion of the premium rate not paid by the employer.

8. Summary of Principal Plan Provisions (cont.)

7. Benefit Plan Design

	HMSA/HMA PPO		Kaiser	
			Non-Medicare Early Retirees	Medicare Retirees[1]
Plan Provisions	Participating	Non Participating		
Deductible Single Family	None	\$100 \$300	None	None
Office visit copay/coinsurance	10% of eligible	30% of eligible	\$15	\$15
Routine physical exams	Not Covered	Not Covered	\$15	\$15
Inpatient admission copay/coinsurance	10% of eligible	30% of eligible	No Charge	No Charge
Emergency room copay/coinsurance	10% of eligible	10% of eligible	\$50 + other applicable plan charges	\$50 + other applicable plan charges
Ambulance copay/coinsurance	20% of eligible	30% of eligible	20% of applicable charges	20% of applicable charges
Outpatient surgery copay/coinsurance	10% of eligible	30% of eligible	\$15	\$15
Out-of-pocket limit Single/Family	\$2,500/\$7,500	\$2,500/\$7,500	\$2,000/\$6,000	\$2,000
Prescriptions (30-day supply) non-mail order	InformedRx		Kaiser	
Generic	\$5	\$5 + charges in excess of 80% of eligible charges	\$15	\$15
Preferred brand	\$15	\$15 + charges in excess of 80% of eligible charges	\$15	\$15
Other Brand Name	\$30	\$30 + charges in excess of 80% of eligible charges	\$15	\$15
Injectibles and Specialty Drug	Medicare Retirees: 20%	Medicare Retirees: \$30 + charges in excess of 80% of eligible charges	\$15	\$15
	Non-Medicare Retirees: 20% Up to \$250 copay maximum, \$2,000 out-of-pocket maximum per plan year	Non-Medicare Retirees: Not a benefit	\$15	\$15
Prescriptions (90-day supply) mail order				
Generic	\$10	No benefit	\$30	\$30
Preferred brand	\$35	No benefit	\$30	\$30
Non-preferred brand	\$60	No benefit	\$30	\$30

[1] Kaiser Medicare Retirees must enroll in Kaiser's Senior Advantage plan.

9. Actuarial Methods and Assumptions

Where applicable, the Hawaii Employee Retirement System (ERS) July 1, 2009 actuarial valuation assumptions were used.

1. Actuarial Valuation Date

July 1, 2009

2. Actuarial Cost Method

The costs shown in the report were developed using the Entry Age Normal (EAN) cost method. The EAN cost method spreads plan costs for each participant from entry date (assuming the plan existed on the employee's hire date) to the expected retirement date. Under the EAN cost method, the plan's normal cost is developed as a level percentage of payroll spread over the participants' working lifetime. The AAL is the cumulative value, on the valuation date, of prior service costs. For retirees, the AAL is the present value of all projected benefits.

The ARC in this report equals the normal cost plus the amortization of the unfunded AAL based on the following (except for Appendix A, Section III):

- 30-year amortization.
- Level percentage of future payroll amounts.

As reflected in Appendix A, Section III, different employers used different amortization methods to develop the ARC.

The Plan costs are derived by making certain specific assumptions as to the rates of interest, mortality, turnover, and the like, which are assumed to hold for many years into the future. Actual experience may differ somewhat from the assumptions and the effect of such differences is spread over all periods. Due to these differences, the costs determined by the valuation must be regarded as estimates of the true Plan costs.

3. Discount Rate

5.0% - No Prefunding - This rate is based on the assumption that benefits will be paid from general employer assets. As shown in Appendix A, Section III, instead of the 5% discount rate, a 4% discount rate is used for the State of Hawaii.

7.0% - Prefunding - This rate is based on the assumption that employers pre-fund contributions.

4. Payroll Increases

3.5% - This is the annual rate at which total payroll is expected to increase and is used in the cost method to calculate the ARC as a level percent of payroll. For purposes of reporting current costs as a percent of pay, employer payroll is estimated at $2,758 million for the 2010/11 fiscal year.

5. Mortality

Pre-retirement non-duty mortality: ERS mortality rates were used. Below are sample rates:

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
25	0.02%	0.01%	0.01%	0.01%	0.01%	0.00%
30	0.02%	0.01%	0.02%	0.01%	0.01%	0.00%
35	0.03%	0.02%	0.03%	0.02%	0.01%	0.01%
40	0.04%	0.03%	0.04%	0.02%	0.02%	0.01%
45	0.06%	0.05%	0.05%	0.04%	0.02%	0.02%
50	0.09%	0.07%	0.07%	0.06%	0.03%	0.03%
55	0.12%	0.10%	0.11%	0.09%	0.05%	0.04%
60	0.20%	0.16%	0.17%	0.14%	0.07%	0.06%
65	0.30%	0.23%	0.27%	0.20%	0.11%	0.09%

Pre-retirement duty mortality: ERS mortality rates were used. Below are sample rates:

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
25	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%
30	0.00%	0.00%	0.00%	0.00%	0.02%	0.01%
35	0.01%	0.00%	0.00%	0.00%	0.03%	0.02%
40	0.01%	0.01%	0.01%	0.00%	0.04%	0.02%
45	0.02%	0.01%	0.01%	0.01%	0.05%	0.04%
50	0.02%	0.02%	0.01%	0.01%	0.07%	0.06%
55	0.03%	0.03%	0.02%	0.01%	0.11%	0.09%
60	0.05%	0.04%	0.02%	0.02%	0.17%	0.14%
65	0.08%	0.06%	0.04%	0.03%	0.27%	0.20%

Post-retirement healthy mortality: ERS mortality rates were used. Below are sample rates:

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50	0.33%	0.18%	0.21%	0.10%	0.22%	0.12%
55	1.03%	0.47%	0.36%	0.24%	0.38%	0.20%
60	1.32%	0.83%	0.34%	0.31%	0.68%	0.38%
65	1.51%	0.84%	0.43%	0.28%	1.24%	0.73%
70	1.93%	0.86%	1.12%	0.58%	2.02%	1.17%
75	2.96%	1.39%	1.87%	0.92%	3.16%	1.93%
80	4.43%	2.40%	3.70%	2.06%	5.27%	3.35%
85	7.58%	4.58%	7.34%	4.81%	8.27%	5.76%
90	12.68%	10.26%	12.85%	9.01%	13.00%	9.88%

Post-retirement disabled mortality: ERS mortality rates were used. Below are sample rates:

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50	0.80%	0.51%	0.40%	0.26%	0.44%	0.23%
55	1.45%	0.97%	0.71%	0.51%	0.80%	0.44%
60	2.37%	1.50%	1.29%	0.97%	1.45%	0.86%
65	3.72%	2.53%	2.17%	1.50%	2.37%	1.37%
70	6.20%	4.40%	3.41%	2.53%	3.72%	2.27%
75	9.72%	7.53%	5.59%	4.40%	6.20%	3.94%
80	15.29%	12.88%	8.96%	7.53%	9.72%	6.77%
85	23.36%	20.25%	13.95%	12.88%	15.29%	11.63%
90	31.72%	29.66%	21.57%	20.25%	23.36%	18.62%

6. Termination

ERS termination rates were used in the valuation.

The following rates apply for employees with less than 6 years of service, regardless of age:

	General Employees		Teachers		Police & Fire	
Years	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
0	15.50%	18.50%	32.00%	28.00%	11.00%	11.00%
1	12.50%	16.50%	22.00%	22.00%	7.50%	7.50%
2	10.50%	12.50%	14.00%	15.00%	4.00%	4.00%
3	9.00%	10.00%	12.00%	14.00%	4.00%	4.00%
4	7.00%	8.00%	10.00%	11.00%	4.00%	4.00%
5	6.50%	7.00%	9.00%	8.00%	4.00%	4.00%

The following rates apply for employees with 6 or more years of service:

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
25	6.50%	7.83%	4.98%	6.72%	1.91%	1.91%
30	5.46%	5.84%	4.12%	6.15%	2.53%	2.53%
35	4.40%	4.04%	3.95%	4.99%	2.75%	2.75%
40	3.60%	3.30%	3.60%	3.70%	2.01%	2.01%
45	3.02%	2.65%	2.88%	2.88%	1.18%	1.18%
50	2.54%	2.42%	2.34%	2.36%	0.79%	0.79%
55	3.16%	3.36%	3.62%	4.04%	0.24%	0.24%
60	4.33%	4.61%	5.86%	5.38%	0.00%	0.00%
65	1.53%	1.62%	2.18%	1.73%	0.00%	0.00%

9. Actuarial Methods and Assumptions (cont.)

7. Disability

Non-Duty Disability: ERS disability rates were used in the valuation. Sample rates are as follows:

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
25	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
35	0.01%	0.01%	0.00%	0.00%	0.01%	0.01%
40	0.04%	0.02%	0.01%	0.01%	0.02%	0.02%
45	0.10%	0.06%	0.03%	0.03%	0.04%	0.04%
50	0.22%	0.14%	0.06%	0.06%	0.10%	0.10%
55	0.30%	0.19%	0.08%	0.08%	0.14%	0.14%
60	0.32%	0.20%	0.08%	0.08%	0.15%	0.15%
65	0.57%	0.36%	0.15%	0.15%	0.27%	0.27%

Duty Disability: ERS disability rates were used in the valuation. Sample rates are as follows:

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
25	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
35	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
40	0.01%	0.00%	0.00%	0.00%	0.01%	0.01%
45	0.01%	0.00%	0.00%	0.00%	0.02%	0.02%
50	0.03%	0.01%	0.01%	0.01%	0.05%	0.05%
55	0.04%	0.01%	0.01%	0.01%	0.07%	0.07%
60	0.04%	0.01%	0.01%	0.01%	0.07%	0.07%
65	0.08%	0.02%	0.02%	0.02%	0.13%	0.13%

8. Retirement Age

ERS retirement rates were used in the valuation. Sample rates are as follows:

For active participants in a contributory pension plan

	General Employees		Teachers		Police & Fire	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
45	1.00%	0.00%	0.00%	0.00%	18.00%	18.00%
50	2.00%	1.00%	1.00%	0.00%	18.00%	18.00%
55	20.00%	20.00%	20.00%	22.00%	25.00%	25.00%
60	15.00%	12.00%	14.00%	18.00%	30.00%	30.00%
65	35.00%	45.00%	25.00%	25.00%	100.00%	100.00%
70	25.00%	25.00%	25.00%	25.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

For active participants in a non-contributory pension plan

	General Employees		Teachers	
Age	**Male**	**Female**	**Male**	**Female**
45	0.00%	0.00%	0.00%	0.00%
50	0.00%	0.00%	0.00%	0.00%
55	10.00%	10.00%	10.00%	13.00%
60	10.00%	15.00%	10.00%	18.00%
65	40.00%	30.00%	24.00%	30.00%
70	20.00%	25.00%	15.00%	25.00%
75	100.00%	100.00%	100.00%	100.00%

9. Annual Healthcare Inflation ("Trend")

Annual healthcare costs were assumed to increase as follows:

Year	Medical & Rx Pre-65	Medical & Rx Post-65	Dental	Vision	Medicare Part B
2009	10.50%	10.25%	6.00%	4.00%	actual*
2010	10.00	9.75	5.50	3.50	6.00
2011	9.50	9.25	5.00	3.00	5.50
2012	8.75	8.50	4.50	3.00	5.00
2013	8.00	7.75	4.00	3.00	5.00
2014	7.25	7.00	4.00	3.00	5.00
2015	6.50	6.25	4.00	3.00	5.00
2016	6.00	5.75	4.00	3.00	5.00
2017	5.50	5.25	4.00	3.00	5.00
2018+	5.00	5.00	4.00	3.00	5.00

* The trend is 0.00% for current retirees and 14.63% for future retirees. For the purpose of determining Base Contribution (Employer Caps), the trend is 14.63% for all.

10. Healthcare Premiums

Effective January 1, 2010, the total monthly premium rates for retirees follow:

	Premium	Administrative Fee	Total Payment Required
HMSA Non-Medicare			
Single	$396.42	$2.14	$398.56
Two-Party	772.08	4.50	776.58
Family	1,144.72	6.56	1,151.28
HMSA Medicare			
Single	183.90	2.14	186.04
Two-Party	358.10	4.50	362.60
Family	530.94	6.56	537.50
Prescription Drug Non-Medicare			
Single	171.08	0.62	171.70
Two-Party	333.22	1.28	334.50
Family	494.04	1.88	495.92
Prescription Drug Medicare			
Single	203.42	0.62	204.04
Two-Party	396.10	1.28	397.38
Family	587.30	1.88	589.18
Kaiser Non-Medicare (Including Drug)			
Single	506.88	2.76	509.64
Two-Party	988.40	5.78	994.18
Family	1,464.84	8.44	1,473.28
Kaiser Medicare (Including Drug)			
Single	275.40	2.76	278.16
Two-Party	537.04	5.78	542.82
Family	795.92	8.44	804.36
HDS (Dental)			
Single	30.96	0.30	31.26
Two-Party	60.42	0.66	61.08
Family	73.86	0.94	74.80
VSP (Vision)			
Single	4.86	0.06	4.92
Two-Party	9.71	0.13	9.84
Family	13.03	0.17	13.20

The Medicare Part B monthly premium for 2009 is $96.40. For 2010, it remains $96.40 for most current retirees, and $110.50 for certain other retirees.

All amounts are assumed to increase at the same rate as the applicable healthcare trend.

11. Monthly Base Contribution (Employer Caps)

The monthly base contribution for the fiscal year beginning July 1, 2009 follows:

	Single	Two-Party	Family
Non-Medicare	$644.84	$1,299.76	$1,902.36
Medicare	459.36	920.68	1,340.96

This base contribution is assumed to increase at the same rate as Medicare Part B trend.

12. Base Year Claims

The following table shows sample expected monthly per member claim costs for the fiscal year beginning July 1, 2009:

Age	HMSA/HMA Medical & Rx	Kaiser Medical & Rx
42	$319	$266
47	367	310
52	431	371
57	504	439
62	601	530
67	338	227
72	384	260
77	426	292
82	458	316
87	475	329

Dental and vision costs are not assumed to vary by age. The monthly expected claims are $30.00 for dental and $4.58 for vision.

The Medicare Part B reimbursement is $96.40 per month.

13. Life Insurance

The life insurance benefit amount effective on the valuation date is $2,372.

14. Retiree Contributions

Retirees are required to pay the portion of the premium rate not paid by their employer. Future premium rates are assumed to increase by healthcare trend.

9. Actuarial Methods and Assumptions (cont.)

15. Plan Participation

The rates at which future eligible retirees are assumed to elect coverage vary based on the employer contribution percentage, as follows:

Employer Contribution	Medical & Rx	Dental/Vision	Life	Medicare Part B
0%	50%	70%	100%	99%
50%	50%	70%	100%	99%
75%	75%	85%	100%	99%
100%	99%	99%	100%	99%

An adjustment factor of 0.997 is used for HMSA and Prescription Drug participation to reflect that not all participants elect the prescription drug coverage along with HMSA.

16. Plan Election

All active and retired participants are assumed to continue coverage in the plan in which they are currently enrolled. Current actives waiving coverage and deferred inactives are assumed to elect medical coverage at the rate of 82% HMSA / 18% Kaiser, which is approximately the same proportion as current retired participants.

17. Plan Coverage

For current retirees, actual plan coverage (e.g., single, two-party and family) is used. Future retirees are assumed to elect plan coverage in the same proportion as current retirees – currently 51% single / 44% two-party / 5% family.

All participants are assumed to be eligible for Medicare upon attainment of age 65.

18. Dependent Age

Actual spouses' dates of birth are used for current retirees, if available. Otherwise, males are assumed to be 4 years older than their female spouses. Certain dependents under age 24 who are valued are assumed to be 25, 27, or 30 years younger than the retiree.

19. Participants Valued

Only current retired, deferred inactives, and active participants are valued. No future entrants are considered in this valuation.

20. Health Care Reform

The liabilities and costs presented in this report do not account for the long term impact of the Patient Protection and Affordable Care Act (PPACA), also known as Health Care Reform (HCR). Considering the valuation date, the need to produce information for the June 30, 2010 financial statements, and the relative uncertainty of the long term application of HCR, Aon Hewitt believes it is premature to include the impact of HCR in this valuation, as it is an essential unknown at this time due to the lack of complete regulations related to the HCR legislation. The employer should discuss HCR with their auditors to confirm the appropriate accounting treatment.

21. Changes in Valuation Assumptions

The following assumptions were changed from the prior valuation:

Healthcare Trend

	Medical & Rx Pre-65		Medical & Rx Post-65		Dental		Vision		Medicare Part B	
Year	**2009**	**2007**	**2009**	**2007**	**2009**	**2007**	**2009**	**2007**	**2009**	**2007**
2007		9.50%		10.00%		7.00%		5.00%		3.10%
2008		8.50		9.00		6.50		4.50		7.00
2009	10.50%	7.50	10.25%	8.00	6.00%	6.00	4.00%	4.00	actual*	6.50
2010	10.00	6.50	9.75	7.00	5.50	5.50	3.50	3.50	6.00	6.00
2011	9.50	6.00	9.25	6.00	5.00	5.00	3.00	3.00	5.50	5.50
2012	8.75	5.50	8.50	5.50	4.50	4.50	3.00	3.00	5.00	5.00
2013	8.00	5.00	7.75	5.00	4.00	4.00	3.00	3.00	5.00	5.00
2014	7.25	5.00	7.00	5.00	4.00	4.00	3.00	3.00	5.00	5.00
2015	6.50	5.00	6.25	5.00	4.00	4.00	3.00	3.00	5.00	5.00
2016	6.00	5.00	5.75	5.00	4.00	4.00	3.00	3.00	5.00	5.00
2017	5.50	5.00	5.25	5.00	4.00	4.00	3.00	3.00	5.00	5.00
2018+	5.00	5.00	5.00	5.00	4.00	4.00	3.00	3.00	5.00	5.00

* The trend is 0.00% for current retirees and 14.63% for future retirees. For the purpose of determining Base Contribution (Employer Caps), the trend is 14.63% for all.

Discount Rate – Prefunding

2009 – 7.0%
2007 – 8.0%

This change was made based on EUTF's anticipated asset investment return.

10. GASB OPEB Summary

The Government Accounting Standards Board (GASB) has issued Statements No. 43 and 45 for the recognition and disclosure for public entities sponsoring other (than pensions) post-retirement benefit plans.

This Exhibit summarizes pertinent issues from the above statements and includes comments about GASB's OPEB standard.

Why Pay-As-You-Go Accounting Will Be Unacceptable

The GASB believes, like the FASB, that other post-retirement benefits, like pensions, are a form of deferred compensation. Accordingly, GASB is saying these benefits should be recognized (in an organization's financial statement) when earned by employees, rather than when paid out. Under SFAS 106, pay-as-you-go accounting is replaced with accrual accounting for these benefits. *This approach is similar to (although more restrictive than) GASB's approach under Statements No. 43 and 45*.

Allocating Costs (Attribution)

The FASB defines attribution as the process of assigning other post-retirement benefit cost to periods of employee service. SFAS 106 specifies how (the attribution method) and over what accounting periods (the attribution period) the postretirement benefits promise must be allocated.

The attribution (actuarial cost) method specified by SFAS 106 is the "projected unit credit actuarial cost method". This method attributes an equal amount of the total postretirement benefit to each year of service during the "attribution period".

The attribution period is the period over which the total postretirement benefit is earned. Unless the plan states that post-retirement benefits are not earned until a later date, the attribution period is from the employee's hire date until the employee is first eligible for the benefit. *The GASB Statements do not restrict entities to a single attribution method, but instead allows sponsors (and actuaries) to choose from several acceptable methods (similar to GASB 27).* GASB allows six funding methods and also allows attribution to the expected retirement age rather than the earliest eligibility age.

Defining the Plan

SFAS 106 refers to the substantive plan as the basis for accounting. The substantive plan may differ from the written plan in that it reflects the employer's cost sharing policy based on past practice or communication of intended changes, or a past practice of cost increases in monetary benefits. Under SFAS 106, the substantive plan is the basis for allowing recognition of potential future changes to the plan. *GASB follows FASB's lead on this issue, requiring entities to recognize the underlying promise, not just the written plan.*

10. GASB OPEB Summary (cont.)

One GASB requirement relates to the implied subsidy when retirees participate in the active healthcare plan, but are charged a rate based on composite active and retiree experience. Under the GASB standard, even if an organization does not otherwise subsidize the benefit, then the organization will have to recognize an OPEB obligation for the implied subsidy.

Actuarial Assumptions

SFAS 106 says actuarial assumptions should be explicit. This means each individual assumption should represent the actuary's best estimate. GASB also, generally, requires explicit assumptions.

GASB requires the discount rate be based on the source of funds used to pay the benefits. This means the underlying expected long-term rate of return on plan assets for funded plans. However, since the source of funds for unfunded plans is usually the organization's general fund, and organizations are usually restricted by State law as to what investments they can have in their general fund, unfunded plans will need to use a relatively low discount rate.

Transition Issues

Because historical annual required contribution information will rarely be available, *GASB is taking a prospective approach on transition issues.* This means there will be no requirement for any initial transition obligation.

Effective Dates

The new standards have staggered effective dates, similar to GASB Statement No. 34, as follows:

		Effective for Fiscal Years Beginning After	
	Annual Revenue	**GASB 43**	**GASB 45**
Phase I	≥ $100 million	December 15, 2005	December 15, 2006
Phase II	≥ $10 million, but < $100 million	December 15, 2006	December 15, 2007
Phase III	< $10 million	December 15, 2007	December 15, 2008

11. Glossary

Actuarial Accrued Liability (AAL)

As determined by a particular Actuarial Cost Method, the portion of the Actuarial Present Value of plan benefits and expenses which is attributable to past service, and thus not provided for by future Normal Costs.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting benefit costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and employer provided benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items. The Actuarial Assumptions are used in connection with the Actuarial Cost Method to allocate plan costs over the working lifetime of plan participants.

Actuarial Cost Method

A procedure for determining the Actuarial Present Value of plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods (e.g., past service, future service), usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarial Experience Gain or Loss

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation Dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Present Value

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.).
b. multiplied by the probability of the occurrence of an event (such as survival, death disability, termination of employment, etc.) on which the payment is conditioned, and
c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.

11. Glossary (cont.)

Actuarial Present Value of Total Projected Benefits or Present Value of Benefits (PVB)

Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.

Actuarial Valuation

The determination, as of a Valuation Date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a benefit plan.

Actuarial Valuation Date

The date as of which an actuarial valuation is performed.

Actuarial Value of Assets

The value of cash, investments, and other property belonging to a benefit plan, as used by the actuary for the purpose of an Actuarial Valuation.

Agent Multiple-Employer Plan

An aggregation of single-employer plans, with pooled administrative and investment functions. Separate accounts are maintained for each employer so that the employer's contributions provide benefits only for the employees of that employer. A separate actuarial valuation is performed for each individual employer's plan to determine the employer's periodic contribution rate and other information for the individual plan, based on the benefit formula selected by the employer and the individual plan's proportionate share of the pooled assets. The results of the individual valuations are aggregated at the administrative level.

Aggregate Actuarial Cost Method

A method under which the excess of the Actuarial Present Value of Projected Benefits of the group included in an Actuarial Valuation over the Actuarial Value of Assets is allocated on a level basis over the earnings or service of the group between the valuation date and assumed exit. This allocation is performed for the group as a whole, not as a sum of individual allocations. That portion of the Actuarial Present Value allocated to a valuation year is called the Normal Cost. The Actuarial Accrued Liability is equal to the Actuarial Value of Assets.

11. Glossary (cont.)

Amortization (of Unfunded Actuarial Accrued Liability)

The portion of benefit plan costs or contributions which is designed to pay off principal and interest on the Unfunded Actuarial Accrued Liability.

Annual OPEB Cost (AOC)

An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan.

Annual Required Contributions of the Employer (ARC)

The employer's periodic required contributions to a Defined Benefit OPEB Plan, which is the basis for determining an employer's Annual OPEB Cost. For a Cost Sharing Multiple-Employer Plan, the Contractually Required Contributions should be used to determine an employer's Annual OPEB Cost.

Contractually Required Contributions (CRC)

The contributions assessed by a Cost Sharing Multiple-Employer Plan to the participating employer for a period, without regard for the method used to determine the amounts.

Cost Sharing Multiple-Employer Plan

A single plan with pooling (cost-sharing) arrangements for the participating employers. All risks, rewards, and costs, including benefit costs, are shared and are not attributed individually to the employers. A single actuarial valuation covers all plan members, and the same contribution rate(s) applies for each employer.

Covered Group

Plan members included in an actuarial valuation.

Deferred Inactives

Former employees, not yet receiving retirement benefits, who are eligible for plan benefits in the future.

Defined Benefit OPEB Plan

An OPEB plan having terms that specify the benefits to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

11. Glossary (cont.)

Discount Rate (Investment Return Assumption)

The rate used to adjust a series of future payments to determine the present value by reflecting the time value of money.

Employer Contributions

Contributions made in relation to the annual required contributions of the employer (ARC). An employer has made a contribution in relation to the ARC if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) of plan administrator. Employer contributions generally do not necessarily equate to benefits paid.

Entry Age Normal Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

Funded Ratio

The actuarial value of assets expressed as a percentage of the Actuarial Accrued Liability.

Funding Excess

The excess of the Actuarial Value of Assets over the Actuarial Accrued Liability.

Funding Policy

The program for the amounts and timing of contributions to be made by plan members, employer(s), and other contributing entities to provide the benefits specified by an OPEB plan.

Healthcare Cost Trend Rate

The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

Implicit Rate Subsidy

The differential between utilizing a blend of active and non-Medicare retiree experience for cost of benefits, and utilizing solely the expected retiree experience. Blending a lower cost active cohort with retirees results in an implicit rate subsidy for the retirees of the entire group.

11. Glossary (cont.)

Inactives

Certain former employees with a minimum amount of years of creditable service who have benefits payable from the retirement system.

Level Percentage of Projected Payroll Amortization Method

Amortization payments are calculated so that they are a constant percentage of the projected payroll of active plan members over a given number of years. The dollar amount of the payments generally will increase over time as payroll increases (e.g., due to inflation); in dollars adjusted for inflation, the payments can be expected to remain level.

Market-Related Value of Plan Assets

A term used with reference to the actuarial value of assets. A market related value may be fair value, market value (or estimated market value), or a calculated value that recognizes changes in fair or market value over a period of, for example, three to five years.

Net OPEB Obligation (NOO)

The cumulative difference since the effective date of this Statement between Annual OPEB Cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

Normal Cost

The portion of the Actuarial Present Value of plan benefits and expenses that is allocated to a valuation year by the Actuarial Cost Method.

OPEB Assets

The amount recognized by an employer for contributions to an OPEB plan greater than OPEB expense.

OPEB Expenditures

The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the modified accrual basis of accounting.

OPEB Expense

The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the accrual basis of accounting.

OPEB Liabilities

The amount recognized by an employer for contributions to an OPEB plan less than OPEB expense/expenditures.

Other Postemployment Benefits (OPEB)

Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Pay-As-You-Go

A method of financing a plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

Plan Assets

Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, (c) assets are legally protected from creditors of the employers or plan administrator, for the payment of benefits in accordance with the terms of the plan.

Plan Members

The individuals covered by the terms of an OPEB plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

Postemployment

The period between termination of employment and retirement as well as the period after retirement.

Postemployment Healthcare Benefits

Medical, dental, vision, and other health-related benefits provided to terminated or retired employees and their dependents and beneficiaries.

11. Glossary (cont.)

Postretirement Benefit Increase

An increase in the benefits of retirees or beneficiaries granted to compensate for the effects of inflation (cost-of-living adjustment) or for other reasons. Ad hoc increases may be granted periodically by a decision of the board of trustees, legislature, or other authoritative body; both the decision to grant an increase and the amount of the increase are discretionary. Automatic increases are periodic increases specified in the terms of the plan; they are nondiscretionary except to the extent that the plan terms can be changed.

Projected Benefits

Those plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. That portion of an individual's Projected Benefit allocated to service to date, determined in accordance with the terms of a plan and based on future compensation as projected to retirement, is called the Credited Projected Benefit.

Projected Unit Credit Actuarial Cost Method

A method under which the benefits (projected or unprojected) of each individual included in an Actuarial Valuation are allocated by a consistent formula to valuation years. The Actuarial Present Value of benefits allocated to a valuation year is called the Normal Cost. The Actuarial Present Value of benefits allocated to all periods prior to a valuation year is called the Actuarial Accrued Liability.

Under this method, the Actuarial Gains (or Losses), as they occur, generally reduce (or increase) the Unfunded Actuarial Accrued Liability.

Under this method, benefits are projected to all future points in time under the terms of the Plan and actuarial assumptions (for example, health trends). Retirees are considered to be fully attributed in their benefits. For actives, attribution is to expected retirement age; thus, benefits at each future point in time are allocated to past service based on a proration of service-to-date over total projected service.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Single-Employer Plan

A plan that covers the current and former employees, including beneficiaries, of only one employer.

11. Glossary (cont.)

Sponsor

The entity that established the plan. The sponsor generally is the employer or one of the employers that participate in the plan to provide benefits for their employees and employees of other employers.

Substantive Plan

The terms of an OPEB plan as understood by the employer(s) and plan members.

Transition Year

The fiscal year in which this Statement is first implemented.

Unfunded Actuarial Accrued Liability (Unfunded Actuarial Liability)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

Appendix A – Results by Employer

This exhibit shows results by employer under the Entry Age Normal cost method using 30 year closed period (ending June 30, 2037) amortization of the Unfunded AAL as a level percent of payroll.

I. Assuming No Prefunding of Obligations (5%)

($ Millions)	State of Hawaii	City & County of Honolulu	County of Hawaii	County of Maui	County of Kauai	Board of Water Supply - Honolulu	Hawaii Department of Water Supply	Total
Present Value of Benefits (PVB)								
Retirees	$4,624.6	$1,250.0	$295.8	$213.9	$129.1	$92.3	$14.0	$6,619.7
Deferred Inactives	$803.1	$150.4	$30.8	$36.8	$20.6	$10.4	$0.0	$1,052.1
Actives	$7,060.8	$2,015.1	$489.1	$487.6	$254.0	$130.0	$37.7	$10,474.3
Total PVB	$12,488.5	$3,415.5	$815.7	$738.2	$403.7	$232.8	$51.7	$18,146.1
Actuarial Accrued Liability (AAL)								
Retirees	$4,624.6	$1,250.0	$295.8	$213.9	$129.1	$92.3	$14.0	$6,619.7
Deferred Inactives	$803.1	$150.4	$30.8	$36.8	$20.6	$10.4	$0.0	$1,052.1
Actives	$4,370.1	$1,236.3	$279.0	$283.5	$153.8	$89.0	$24.0	$6,435.6
Total AAL	$9,797.8	$2,636.7	$605.6	$534.2	$303.4	$191.8	$38.0	$14,107.4
Normal Cost	$278.3	$74.5	$19.6	$19.3	$9.8	$4.4	$1.4	$407.3
Assets	$0.0	$40.1	$28.8	$25.1	$14.9	$5.2	$1.9	$116.0
Unfunded AAL as of 7/1/2009	$9,797.8	$2,596.6	$576.8	$509.1	$288.5	$186.5	$36.1	$13,991.4
Interest on Unfunded AAL	$489.9	$129.8	$28.8	$25.5	$14.4	$9.3	$1.8	$699.6
Normal Cost plus interest	$292.3	$78.2	$20.5	$20.3	$10.3	$4.6	$1.5	$427.7
Contribution with interest	$260.7	$113.1	$25.0	$21.8	$12.6	$7.8	$1.6	$442.7
Unfunded AAL as of 7/1/2010	$10,319.3	$2,691.4	$601.1	$533.0	$300.6	$192.7	$37.8	$14,676.0
Annual Required Contribution for FYE 6/30/2011								
Normal Cost plus interest	$302.5	$80.9	$21.3	$21.0	$10.7	$4.8	$1.5	$442.7
Amortization of Unfunded AAL	$480.8	$125.4	$28.0	$24.8	$14.0	$9.0	$1.8	$683.8
Total ARC	$783.3	$206.3	$49.3	$45.8	$24.7	$13.8	$3.3	$1,126.5
% of Pay	42.9%	38.1%	38.7%	33.0%	33.4%	34.0%	35.1%	40.9%

Appendix A   Results by Employer (cont.)

II.   Assuming Prefunding of Obligations (7%)

($ Millions)	State of Hawaii	City & County of Honolulu	County of Hawaii	County of Maui	County of Kauai	Board of Water Supply - Honolulu	Hawaii Department of Water Supply	Total
Present Value of Benefits (PVB)								
Retirees	$3,721.0	$982.1	$229.2	$167.1	$101.5	$74.3	$11.3	$5,286.4
Deferred Inactives	$521.4	$92.3	$19.7	$22.6	$12.8	$6.4	$0.0	$675.2
Actives	$4,327.6	$1,208.4	$288.3	$287.8	$153.0	$81.2	$23.1	$6,369.3
Total PVB	$8,569.9	$2,282.8	$537.1	$477.5	$267.3	$161.9	$34.4	$12,330.9
Actuarial Accrued Liability (AAL)								
Retirees	$3,721.0	$982.1	$229.2	$167.1	$101.5	$74.3	$11.3	$5,286.4
Deferred Inactives	$521.4	$92.3	$19.7	$22.6	$12.8	$6.4	$0.0	$675.2
Actives	$3,054.6	$850.4	$190.4	$193.2	$106.3	$62.6	$16.6	$4,474.1
Total AAL	$7,296.9	$1,924.9	$439.2	$382.8	$220.6	$143.3	$27.9	$10,435.7
Normal Cost	$153.8	$39.7	$10.7	$10.5	$5.3	$2.3	$0.8	$223.1
Assets	$0.0	$40.1	$28.8	$25.1	$14.9	$5.2	$1.9	$116.0
Unfunded AAL as of 7/1/2009	$7,296.9	$1,884.7	$410.4	$357.7	$205.6	$138.1	$26.1	$10,319.6
Interest on Unfunded AAL	$510.8	$131.9	$28.7	$25.0	$14.4	$9.7	$1.8	$722.4
Normal Cost plus interest	$164.6	$42.5	$11.4	$11.2	$5.7	$2.5	$0.8	$238.7
Contribution with interest	$263.1	$113.1	$25.0	$21.8	$12.6	$7.8	$1.6	$445.2
Unfunded AAL as of 7/1/2010	$7,709.1	$1,946.1	$425.5	$372.2	$213.1	$142.4	$27.1	$10,835.5
Annual Required Contribution for FYE 6/30/2011								
Normal Cost plus interest	$170.3	$44.0	$11.8	$11.6	$5.9	$2.5	$0.9	$247.1
Amortization of Unfunded AAL	$455.3	$114.9	$25.1	$22.0	$12.6	$8.4	$1.6	$640.0
Total ARC	$625.6	$158.9	$36.9	$33.6	$18.5	$11.0	$2.5	$887.1
% of Pay	34.3%	29.3%	29.0%	24.2%	25.0%	27.1%	26.1%	32.2%

Appendix A Results by Employer (cont.)

III. Actual Final Results Based on Employers' Funding Intentions

The following exhibit shows the results based on each employer's specific discount rate, which is determined based on the employer's funding intentions. This exhibit also reflects different amortization methods of the Unfunded AAL to develop the ARC. The results were provided in separate employer reports and in some cases figures are slightly different than in earlier sections of this report due to rounding.

($ Millions)	State of Hawaii	City & County of Honolulu	County of Hawaii	County of Maui	County of Kauai	Kauai - Department of Water	Board of Water Supply - Honolulu	Hawaii Department of Water Supply	Total
Employer Specific Discount Rate	**4%**	**7%**	**7%**	**7%**	**7%**	**7%**	**7%**	**7%**	
Present Value of Benefits (PVB)									
Retirees	$5,221.0	$982.1	$229.2	$167.1	$97.0	$4.5	$74.3	$11.3	$6,786.5
Deferred Inactives	$1,019.6	$92.3	$19.7	$22.6	$12.3	$0.5	$6.4	$0.0	$1,173.3
Actives	$9,283.4	$1,208.4	$288.3	$287.8	$141.6	$11.3	$81.2	$23.1	$11,325.1
Total PVB	$15,524.0	$2,282.8	$537.1	$477.5	$250.9	$16.3	$161.9	$34.4	$19,284.9
Actuarial Accrued Liability (AAL)									
Retirees	$5,221.0	$982.1	$229.2	$167.1	$97.0	$4.5	$74.3	$11.3	$6,786.5
Deferred Inactives	$1,019.6	$92.3	$19.7	$22.6	$12.3	$0.5	$6.4	$0.0	$1,173.3
Actives	$5,282.7	$850.4	$190.4	$193.2	$97.8	$8.5	$62.6	$16.6	$6,702.2
Total AAL	$11,523.3	$1,924.9	$439.2	$382.8	$207.0	$13.5	$143.3	$27.9	$14,662.1
Normal Cost	$379.8	$39.7	$10.7	$10.5	$5.0	$0.3	$2.3	$0.8	$449.1
Assets	$0.0	$40.1	$28.8	$25.1	$13.5	$0.9	$5.2	$1.9	$115.5
Unfunded AAL as of 7/1/2009	$11,523.3	$1,884.7	$410.4	$357.7	$193.5	$12.6	$138.1	$26.1	$14,546.5
Annual Required Contribution for FYE 6/30/2011									
Normal Cost plus interest	$400.8	$42.5	$11.4	$11.2	$5.4	$0.3	$2.5	$0.8	$475.0
Amortization of Unfunded AAL	$441.4	$108.2	$23.5	$20.5	$11.1	$0.7	$7.9	$1.5	$614.9
Total ARC	$842.3	$150.7	$35.0	$31.8	$16.5	$1.1	$10.4	$2.3	$1,090.0
% of Pay	46.1%	27.8%	27.5%	22.9%	24.1%	19.9%	25.6%	24.6%	39.5%