

State of Maine State and Teachers Retiree Healthcare Plan



March 31, 2010 Actuarial Valuation Executive Summary

November 2010

Bartel Associates, LLC 411 Borel Avenue, Suite 101 San Mateo, California 94402 Phone: 650-377-1600 Fax: 650-345-8057 Email: jbartel@bartel-associates.com

O:\Clients\State of Maine\OPEB\2010\Report\BA MaineSt 10-11-19 State and Teachers OPEB 10-03-31 executive summary.doc

GASB 45: The State of Maine provides a Retiree Healthcare Plan for State Employees, Teachers, and Ancillary Groups. The Governmental Accounting Standards Board issued Statement No. 45, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions" in 2004. GASB 45 provides accounting standards for nonpension postemployment benefits, primarily postretirement healthcare benefits. The purpose of GASB 45 is to make OPEB reporting and disclosure consistent with pension accounting, requiring that public agencies recognize the cost of OPEB benefits as employees render service. The State implemented GASB 45 for its 2007/08 fiscal year.

State and Teachers Retiree Healthcare Plan: Active employees must retire directly from the State under MainePERS and former employees must have 25 years of service to be eligible to participate in the State's healthcare plans at retirement. The State provides a cash subsidy of 100% of the retiree-only premium for eligible Legislative, Judicial, and State Employees hired on or before July 1, 1991. State Employees hired after July 1, 1991 with 5 years of participation in the State's active medical program receive a State contribution equal to 50% of the retiree-only premium, grading to 100% after 10 years of participation. The State provides a contribution equal to 45% of the retiree-only cost for eligible Teachers. Retirees pay the remaining portion of the retiree premium and the full additional premium for spouse and family coverage. Eligible surviving spouses and dependents can continue coverage by paying the full premium. Retirees not eligible for a State contribution can participate in the medical plan by paying the full premium for themselves, their spouses, and dependents.

Ancillary Group Retiree Healthcare Plan: The valuation includes results for the Maine Educational Center for the Deaf and Hard of Hearing and the Northern New England Passenger Rail Authority OPEB plans. These ancillary groups receive the same retiree healthcare benefits as State employees.

State Funding Policy: The State began pre-funding the State Employees' retiree healthcare benefits with a \$100 million contribution into an irrevocable trust during 2007/08, in addition to paying benefit payments due for the year outside the trust. The State's current funding policy is to continue pre-funding State OPEB benefits by incrementally phasing into full funding of the Annual Required Contribution (ARC) between 2010/11 and 2018/19. The State currently is not pre-funding the Teachers or Ancillary Group retiree healthcare benefits, paying retiree healthcare benefits for these groups when due on a pay-as-you-go basis.

Implied Subsidy: The medical premiums for active State employees and non-Medicare eligible State retirees are determined on a blended basis. The active employee premium rates therefore subsidize retiree medical costs. GASB 45 requires that this "implied subsidy" be include with retiree costs and obligations. The State Employees and Ancillary Group valuation results include an implied subsidy. The Teachers valuation results do not include an implied subsidy per the State because payments for General Purpose Aid for Public Education do not directly pay for active Teacher premiums.



Funded Status: The Unfunded Actuarial Accrued Liability is equal to the Actuarial Accrued Liability less Plan Assets. When Plan Assets equal the Actuarial Accrued Liability, a plan is considered on track for full funding. (See the end of this summary for definitions of terms.)

The Discount Rate is based on the State's funding policy and the expected long-term return on the sources of funds used to pay benefits. The valuation assumes that the State's OPEB fund earns a long-term rate of 7.5% and that its Cash Pool earns a long-term rate of 4.5%.

- State Employees Because the State is phasing into full ARC funding, the State Employees valuation uses "select and ultimate" discount rates based on the portion of the ARC funded each year, using 7.5% for the portion of the ARC that is funded and 4.5% for the portion of the ARC that is not funded.
- Teachers and Ancillary Groups Since the State is not currently pre-funding the Teachers and Ancillary Group benefits, the valuation uses a discount rate of 4.5% for these benefits, reflecting the pay-as-you-go funding policy.

The March 31, 2010 funded status for State Employees and Teachers is as follows (amounts in millions). Results for the Ancillary Groups are shown later in this summary:

March 31, 2010 Plan Obligations	State Employees	Teachers		
 Actuarial Accrued Liability (AAL) 				
Actives	\$ 618	\$ 642		
Retirees	832	352		
• Total	1,450	994		
Plan Assets	(103)	(0)		
Unfunded AAL (UAAL)	1,347	994		

Annual Required Contribution (ARC): The State's Annual Required Contribution is the sum of the Normal Cost plus an amortization of the Unfunded Actuarial Accrued Liability (UAAL) determined on a level percent of pay basis as of the end of the fiscal year. In other words, the contribution is the value of benefits earned during the year plus an amount to keep the plan on track for funding.

The 2010/11 Annual Required Contribution is as follows (amounts in millions):

2010/11	State	
Annual Required Contribution	Employees	Teachers
Normal Cost	\$ 29	\$ 20
UAAL Amortization	91	<u>41</u>
Annual Required Contribution	120	61
Projected Payroll	549	1,064
ARC as a Percent of Payroll	21.8%	5.7%



Net OPEB Obligation (NOO) and Annual OPEB Cost (AOC): The Net OPEB Obligation is the historical difference from GASB 45 implementation between Annual Required Contributions and actual contributions made. If the State always contributed the Annual Required Contribution, the Net OPEB Obligation would equal zero. Contributions are taken into account under GASB 45 if they represent benefit payments paid when due or pre-funding amounts made to a segregated and restricted trust that cannot legally be used for any purpose other than to pay plan benefits.

The Annual OPEB Cost is the annual expense for the Plan recognized on the State's financial statement. The Annual OPEB Cost equals the Annual Required Contribution when an agency funds the ARC every year. When the agency funds more or less than the ARC, the Annual OPEB Cost will equal the ARC, adjusted for expected interest on the Net OPEB Obligation (Asset), and reduced by an amortization of the Net OPEB Obligation. The purpose of this adjustment is simply to remove amortizations included in the ARC for amounts already expensed but not yet funded. The 2010/11 Estimated Annual OPEB Cost for State Employees and Teachers is as follows (amounts in millions):

2010/11 Annual OPEB Cost	State Employees	Teachers
	1 0	
Annual Required Contribution	\$ 120	\$ 61
Interest on Net OPEB Obligation	0	5
 Amortization of Net OPEB Obligation 	(1)	<u>(8)</u>
Annual OPEB Cost	119	58

The 2010/11 Annual OPEB Cost is shown as an estimate since it depends on the actual June 30, 2010 Net OPEB Obligation to be recorded in the State's 2010 financial report. The Net OPEB Obligation was amortized over the weighted average remaining experience gain or loss amortization period inherent in the 2010/11 ARC.

The estimated June 30, 2011 Net OPEB Obligation for State Employees and Teachers is as follows (amounts in millions):

March 31, 2010 Net OPEB Obligation	State Employees	Teachers
Estimated NOO at June 30, 2010	\$ 8	\$ 107
■ Annual OPEB Cost for 2010/11	119	58
■ Contributions for 2010/11		
Estimated Cash Payments	(47)	(21)
Implied Subsidy Payments	(22)	(0)
Trust Pre-Funding	<u>(10)</u>	(0)
Estimated NOO at June 30, 2011	48	144

The actual June 30, 2011 Net OPEB Obligation for the State Employees and Teachers may differ slightly from the above amount because actual 2010/11 contributions and benefits payments may differ from those estimated.



	State Employees			Teachers			
Year	Cash Subsidy	Implied Subsidy	Total Payments	Cash Subsidy	Implied Subsidy	Total Payments	
2010/11	\$ 47	\$ 22	\$ 69	\$ 21	n/a	\$ 21	
2011/12	52	24	76	25	n/a	25	
2012/13	56	26	82	29	n/a	29	
2013/14	61	28	89	32	n/a	32	
2014/15	65	30	95	36	n/a	36	
2015/16	70	32	102	40	n/a	40	
2016/17	74	34	108	43	n/a	43	
2017/18	77	36	113	46	n/a	46	
2018/19	80	37	117	49	n/a	49	
2019/20	83	39	122	52	n/a	52	

Expected Benefit Payments: The following table shows the expected pay-as-you-go benefit payments for the next 10 years for State Employees and Teachers (amounts in millions):



Cash and Expense Projections: The following tables show the projected contributions, ARC, AOC, NOO, expected benefit payments, and pre-funding for State Employees and Teachers over a 10-year period beginning in 2010/11 assuming the State phases into full ARC funding for State employee benefits by 2018/19 and funds Teachers benefits on a pay-as-you-go basis.

(Amounts in Minions)										
	Begin			C	Contribution		Contrib		ARC as	Contrib
Fiscal	Year			Benefit	Pre	Total	% of		% of	% of
Year	NOO	ARC	AOC	Pmts	Funding	Contrib	ARC	Payroll	Payroll	Payroll
2010/11	\$8	\$120	\$119	\$69	\$10	\$ 79	66%	\$549	21.9%	14.4%
2011/12	48	129	126	76	16	92	71%	567	22.8%	16.2%
2012/13	81	138	132	82	22	104	75%	585	23.6%	17.8%
2013/14	109	147	138	89	29	118	80%	604	24.3%	19.5%
2014/15	129	155	145	95	36	131	85%	624	24.8%	21.0%
2015/16	143	164	151	102	43	145	88%	644	25.5%	22.5%
2016/17	148	172	157	108	51	159	92%	665	25.9%	23.9%
2017/18	146	180	162	113	60	173	96%	687	26.2%	25.2%
2018/19	135	187	167	117	70	187	100%	709	26.4%	26.4%
2019/20	116	179	157	122	57	179	100%	732	24.5%	24.5%

<u>State Employees</u> (Amounts in Millions)

<u>Teachers</u> (Amounts in Millions)

	Begin			C	Contribution		Contrib		ARC as	Contrib
Fiscal	Year			Benefit	Pre	Total	% of		% of	% of
Year	NOO	ARC	AOC	Pmts	Funding	Contrib	ARC	Payroll	Payroll	Payroll
2010/11	\$ 107	\$ 61	\$ 58	\$ 21	\$ -	\$ 21	34%	\$1,064	5.7%	2.0%
2011/12	144	67	62	25	-	25	37%	1,098	6.1%	2.3%
2012/13	181	72	66	29	-	29	40%	1,134	6.3%	2.6%
2013/14	219	78	70	32	-	32	41%	1,171	6.7%	2.7%
2014/15	257	84	74	36	-	36	43%	1,209	6.9%	3.0%
2015/16	294	90	78	40	-	40	44%	1,248	7.2%	3.2%
2016/17	332	97	82	43	-	43	44%	1,289	7.5%	3.3%
2017/18	371	104	86	46	-	46	44%	1,331	7.8%	3.5%
2018/19	411	112	91	49	-	49	44%	1,374	8.2%	3.6%
2019/20	452	120	95	52	-	52	43%	1,418	8.5%	3.7%



Ancillary Group Results: The State requested that valuation results be included for two ancillary groups: Maine Educational Center for the Deaf and Hard of Hearing and Northern New England Passenger Rail Authority. Following is a summary of the March 31, 2010 valuation results for these two groups (amounts in thousands):

March 31, 2010 Valuation Results	Maine Educational Center For the Deaf	Northern New England Passenger Rail Authority
Present Value of Benefits	\$ 7,255	\$ 299
 Actuarial Accrued Liability (AAL) 	5,508	146
Plan Assets	(0)	<u>(0)</u>
 Unfunded Actuarial Accrued Liability 	5,508	146
■ 2010/11 Annual Required Contribution		
Normal Cost	210	15
Unfunded AAL Amortization	<u>295</u>	8
• 2010/11 Annual Required Contribution	505	23
Projected 2010/11 Payroll	2,624	290
■ 2010/11 ARC as % of Payroll	19.2%	7.9%
■ 2010/11 AOC	476	21
■ Estimated NOO on June 30, 2011	1,302	81
■ 2010/11 Expected Benefit Payments:		
Cash Subsidy	87	3
Implied Subsidy	37	<u>0</u>
• Total	124	3



			Maine Educational	Northern New England
	State		Center	Passenger
Participant Group	Employees	Teachers	for the Deaf	Rail Authority
 Actives Employees 				
• Number	12,720	27,159	62	5
• Average Age	47.7	48.2	49.5	43.1
Average Service	14.3	16.8	11.2	4.6
• Average Pay	\$42,805	\$38,853	\$41,978	\$57,602
• Total Payroll (000's)	544,480	1,055,209	2,603	288
Retirees				
• Number	8,920	9,381	10	1
• Average Age	70.3	70.3	60.6	69.0

Participants¹ March 31, 2010

Premiums

Medical Plan	Year	Single	2-Party	Family	Participant & Children				
State Employees									
HMO Choice	2010/11	\$727.54	\$1,521.78	\$1,810.70	\$1,196.90				
Anthem SmartValue PFFS	2010 269.28 533.06		n/a	n/a					
Teachers									
HMO Choice	2010/11	\$538.97	\$1,214.73	\$1,478.50	\$953.86				
Blue Choice	2010/11	582.02	1,311.91	1,596.78	1,030.16				
Group Companion	2010/11	321.36	674.55	n/a	n/a				



¹ Missing employee information was assumed equal to State and Teacher averages.

Active Employee Plan & Coverage Elections

March 31, 2010									
Medical Plan	Single	2-Party	Family	EE+ Child	EE+ Children	FLES	Total		
State Employees									
HMO Choice	6,313	1,769	2,256	929	851	602	12,720		
Teachers									
HMO Choice	9,673	3,485	5,177	1,412	1,774	n/a	21,521		
Blue Choice	2,855	<u>1,213</u>	<u>1,002</u>	275	<u> 293 </u>	n/a	5,638		
Total	12,528	4,698	6,179	1,687	2,067	n/a	27,159		

March 31, 2010

Retiree Plan & Coverage Elections

Medical Plan	Single	2-Party	Family	EE+ Child	EE+ Children	FLES	Total
State Employees							
HMO Choice	3,243	285	28	97	31	15	3,699
Anthem PFFS	n/a	n/a	n/a	n/a	n/a	n/a	5,221
Teachers							
HMO Choice	1,406	241	19	11	8	n/a	1,685
Blue Choice	1,834	191	12	16	3	n/a	2,056
Group Companion	<u>4,536</u>	<u>1,104</u>		<u> </u>		<u>n/a</u>	<u>5,640</u>
Total	7,776	1,536	31	27	11	n/a	9,381

March 31, 2010



■ Eligibility	 Earlier of: Age 62 with 10 years of service Age 60 with 10 years of service on 7/1/93 25 years of service if earlier MainePERS disability retirement Part-time employees are eligible for full benefits Former employees with 25 years of service are eligible at normal retirement age 					
 Medical Benefit State Employees Ancillary Groups 	 Judicial & Legislative - 100% of retire premium Other State Employees: > 100% of retiree premium if hired on or before 7/1/1991 > Vesting schedule if hired after 7/1/1991 					
	Years of Active Medical Plan ParticipationVested Percent < 5 0%550%660%770%880%990% ≥ 10 100%					
Medical Benefit Teachers	 45% of retiree premium Retiree premium based on: > Single rate for single and employee + children coverage > 50% of 2-party rate for 2-party and family coverage 					
Retiree Contribution	Retirees pay the portion of the premium not paid by the State Retirees not eligible for a State contribution can participate by paying the full premium for themselves, spouses, and dependents Surviving spouses and surviving dependents can participate by paying the full premium					
Dental, Vision, Life Benefits	• None					



Actuarial Method: The actuarial cost method used for the valuation is the Entry Age Normal (EAN) method. Under the EAN method, the Normal Cost for each participant is determined as a level percent of payroll throughout the participant's working career. The Normal Cost is the benefit cost allocated to the current fiscal year. The intent, therefore, is to have an ongoing plan cost that is a constant percentage of pay over an employee's working career, similar to how the State might budget other active employee compensation costs. The Actuarial Accrued Liability (AAL) is the cumulative value, on the valuation date, of prior Normal Costs. It therefore represents the value of benefits accrued or earned to date. For retirees, the AAL is the present value of benefits in pay status.

The valuation is a "closed group" valuation, that is, it is based on the participant group on the valuation date with no assumption for future hires. The Plan is assumed to be an ongoing plan at the current benefit level for GASB 45 purposes. This does not imply that benefits are vested or that an obligation to continue the Plan exists.

Amortization Method: For State Employees and Teachers, the June 30, 2008 Unfunded AAL (UAAL) was amortized as a level percent of payroll over a fixed 30-year period starting in 2008/09, with 28 years remaining on June 30, 2010. Subsequent gains and losses and actuarial assumption changes for State Employees are amortized as a level percent of payroll over fixed 10-year periods, as required by Statute (Title 5 MRSA §286-B). For Teachers, subsequent gains and losses are amortized over fixed 15-year periods and actuarial assumption changes are amortized over fixed 20-year periods. For the two Ancillary Groups included in the valuation, the June 30, 2007 UAAL was amortized as a level percent of payroll over a fixed 30-year period starting in 2007/08, with 27 years remaining on June 30, 2010. Subsequent gains and losses are amortized over fixed 15-year periods and actuarial assumption changes are amortized over fixed 20-year periods. GASB 45 requires that the UAAL amortization payment calculated using the separate amortization bases not be less than a 30-year amortization of the UAAL.

Implied Subsidy: Because medical costs generally increase with age, allowing retirees to participate in a healthcare plan with blended active and retiree premium rates results in the premiums charged to younger employees (primarily active employees) subsidizing the premiums charged to older employees (primarily retirees). GASB 45 requires that this "implied subsidy" be included in the Actuarial Accrued Liability and the Annual Required Contribution. An implied subsidy was valued for the Retiree Healthcare Plan for the State Employees and the Ancillary Groups, but not for the Teachers per the State because payments of General Purpose Aid for Public Education do not directly pay for active Teachers premiums.



Actuarial Assumptions: Following are the primary actuarial assumptions used for the valuation. The complete actuarial assumptions can be found in the actuarial valuation report.

Actuarial Assumptions

Discount Rate

• State Employees – Select & ultimate rates reflecting the State's ARC phase-in funding policy:

Fiscal Year	Rate	Fiscal Year	Rate
2010/11	5.80%	2014/15	6.90%
2011/12	6.05%	2015/16	7.20%
2012/13	6.35%	2016/17	7.45%
2013/14	6.65%	2017/18	7.75%

• Teachers, Maine Educational Center for the Deaf and Hard of Hearing, and Northern New England Passenger Rail Authority – 4.5%, reflecting the pay-as-yougo funding policy

General Inflation and Payroll Increases

• 3.75% per year inflation

Medical Cost Increases

- 3.25% per year aggregate payroll increases, used to amortize Unfunded AAL
- Merit and longevity pay increases MainePERS 6/30/09 valuation assumption

State Employees				Teachers			
	HMO		Anthem		HMO	Blue	Group
Year	Choice	Year	PFFS	Year	Choice	Choice	Companion
2011/12	8.0%	2012	9.5%	2011/12	10.0%	10.0%	10.5%
2012/13	9.1%	2013	8.5%	2012/13	9.1%	9.1%	9.5%
2013/14	8.2%	2014	7.5%	2013/14	8.2%	8.2%	8.5%
2014/15	7.3%	2015	6.5%	2014/15	7.3%	7.3%	7.5%
2015/16	6.3%	2016	5.5%	2015/16	6.3%	6.3%	6.5%
2016/17	5.4%	2017	4.5%	2016/17	5.4%	5.4%	5.5%
2017/18+	4.5%	2018	4.5%	2017/18+	4.5%	4.5%	4.5%

Future Retiree Plan Participation

- State Employees 95% for retirees and 20% for surviving spouses
- Teachers -75% for retirees, not applicable to surviving spouses as they pay the full premium cost and the valuation does not include an implied subsidy for Teachers

Mortality, Termination, Disability, and Retirement

• MainePERS 6/30/09 valuation assumptions



The **Present Value of Projected Benefits (PVPB)** is a measure of the total obligation for expected retiree healthcare benefits due to both past and future service for all current employees and retirees. Benefits for future hires are not included.

The Actuarial Accrued Liability (AAL) is a measure of the obligation for benefits earned or allocated to prior service.

The **Normal Cost (NC)** is the value of the State-provided benefits expected to be earned during or allocated to the current fiscal year.

The **Entry Age Normal** funding method produces a Normal Cost for each employee that is a level percent of payroll over the employee's working career.

The **Discount Rate** is used to determine the current or "present value" of healthcare benefits to be provided to retirees and their beneficiaries at future dates. GASB 45 requires that the Discount Rate be based on the expected earnings of the source of funds used to pay benefits. For example, the Discount Rate is the expected long-term rate of return on the State's Cash Pool for benefits that are not funded and the expected long-term rate of return on Plan Assets for benefits that are funded at a level at least equal to the GASB 45 Annual Required Contribution.

Plan Assets include funds that have been segregated and restricted in a trust so that they can only be used to pay Plan benefits.

The **Unfunded Actuarial Accrued Liability (UAAL)** is the excess of the Actuarial Accrued Liability over the Plan Assets. If the Plan Assets exceed the Actuarial Accrued Liability, the Plan has **Surplus Assets**.

The **Annual Required Contribution** (**ARC**) is the amount of the Plan cost allocated to the current fiscal year under GASB 45. It consists of the Normal Cost plus an amortization of the Unfunded Actuarial Accrued Liability or less an amortization of any Surplus Assets.

The **Net OPEB Obligation** (**NOO**) is the accumulation of the difference between the Annual Required Contribution and amounts funded since GASB 45 implementation.

The **Annual OPEB Cost (AOC)** is the Annual Required Contribution plus interest on the Net OPEB Obligation less an amortization of the Net OPEB Obligation.

An **Implied Subsidy** must be included in GASB 45 retiree costs and liabilities for noncommunity-rated healthcare plans. Implied subsidies arise when retiree premiums do not represent the expected costs of the retiree group, for example, when the same premium rates are charged for active employees and non-Medicare eligible retirees.

