

State of Maine

Retiree Healthcare Plan Actuarial Valuation June 30, 2006

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Actuarial and accounting terminology used in this report

- AAL Actuarial Accrued Liability
- AOC Annual OPEB Cost
- ARC Annual Required Contribution
- EAN Entry Age Normal Cost Method
- GASB 45 Governmental Accounting Standards Board Statement No. 45
- NOO Net OPEB Obligation
- OPEB Other (than pensions) Post Employment Benefits
- PVPB Present Value of Projected Benefits
- UAAL Unfunded Actuarial Accrued Liability

On June 21, 2004, the Governmental Accounting Standards Board approved Statement No. 45 (GASB 45), Accounting Standards for Other (than Pensions) Post Employment Benefits (OPEB). The information presented in this report is based on the financial reporting standards established under GASB 45.

GASB 45 is phased in similar to GASB 34. For Phase 1 governments, GASB 45 is effective for fiscal years beginning after December 15, 2006. GASB 45 is therefore first effective for the State of Maine ("State") for the fiscal year beginning on July 1, 2007.

The State of Maine maintains a Retiree Healthcare Plan for State employees and Teachers. The State contributes a portion of the retiree medical premium for eligible employees. Legislative, Judicial, and State employees hired on or before 7/1/1991 receive 100% of the retiree-only premium. State employees hired after 7/1/1991 with 5 years service receive 50% of the retiree-only premium, grading to 100% after 10 years of service. Teachers directly receive 45% of the retiree-only premium.

Retirees pay the remaining portion of the retiree-only premium and the full additional premium for spouse and family coverage. Eligible surviving spouses and dependents pay the full premium. Some participating State Ancillary Groups contribute the same portion of the premium for their retirees as the State.

Highlights and conclusions of this actuarial valuation are:

- The State currently funds retiree healthcare benefits on a pay-as-you-go basis. Benefit payments in 2006/07 are expected to be 6.7% of payroll. With an aging population, stable work force, and medical inflation, cash outflows are expected to significantly increase in future years. For example, benefit payments are expected to be 6.7% of payroll for 2006/07 and are expected to grow to 11.2% of payroll in 2015/16.
- The State had an Unfunded Actuarial Accrued Liability (for State and Teachers) of \$4,756 million for healthcare benefits assuming a 4.5% expected long-term rate of return on the State's Cash Pool. That is, if the State set aside \$4,756 million on June 30, 2006 in a 4.5% interest bearing account, the principal plus interest is projected to pay for the promised healthcare benefits for current retirees plus the portion of benefits earned by active employees.
- Total Present Value of all expected Projected Benefits (PVPB) is a measure of the total liability or obligation for benefits due to past and future service for current employees and retirees. The June 30, 2006 Present Value of Projected Benefits for current employees is \$5,932 million.
- If the State established and fully funded an irrevocable trust for healthcare benefits and invested the funds similarly to State pension plan assets (expecting to earn 7.5% annually), the Unfunded Actuarial Accrued Liability would be \$3,234 million as of June 30, 2006 (as compared to the \$4,756 million using a discount rate of 4.5%).
- Without an effective pre-funding plan, cash outflows for retiree healthcare benefits will rise rapidly and become a potential financial burden for the State, as well as an intergenerational transfer payment. We have presented funding alternatives in Section 4 to initiate a discussion at the State to develop a long-term funding plan. Each of the alternatives requires the State to significantly increase funding in the coming years. Funding in excess of immediate benefit

SECTION 1 EXECUTIVE SUMMARY

payments can be placed in an irrevocable trust earning long-term rates of return similar to the pension program. Investment returns higher than the Cash Pool returns will reduce future State funding as more of the promised benefits are paid from increased investment income rather than State funding. It will also lower the Unfunded Actuarial Accrued Liability and may help the State lessen borrowing costs.

In the course of our valuation we became aware the State may have an unintended and indirect subsidy to retired teachers. The State pays 45% of each school district's budget. This means the State pays 45% of current school district active employee's healthcare costs. School district retirees and actives pay the same (blended) healthcare premiums. Typically actives cost less than retirees. This means the school district active employees' healthcare cost includes an implicit subsidy of the retiree cost. The State is currently paying 45% of this implied subsidy. The subsidy is \$14 million in 2006/07 and will increase to \$41 million in 2015/16. However, for this valuation we are showing the full (100%) Teachers' implied subsidy.

The June 30, 2006 benefit obligations and the 2006/07 Plan cost from the June 30, 2006 actuarial valuation are as follows (millions of dollars):

| _ | State | Teachers | Total |
|--|---------|----------|---------|
| Present Value of Projected Benefits (PVPB) | \$2,940 | \$2,992 | \$5,932 |
| Total present value of all expected future benefits calculated using selected actuarial assumptions. The PVPB is a measure of the total liability or obligation for benefits due to past and future service for current employees and retirees. | | | |
| Actuarial Accrued Liability (AAL) | 2,297 | 2,459 | 4,756 |
| Liability or obligation for benefits earned or allocated to past service at the valuation date. | | | |
| Plan Assets | 0 | 0 | 0 |
| Assets that have been segregated and restricted in a trust so that they can only be used to pay Plan benefits. | | | |
| Unfunded Actuarial Accrued Liability (UAAL) | 2,297 | 2,459 | 4,756 |
| The excess of the AAL over the Plan Assets. This represents the amount of the liability earned at the valuation date that must still be funded. If Plan Assets exceed the AAL, there will be a Plan Surplus. | | | |
| ■ Normal Cost (NC) | 62 | 56 | 118 |
| The value of employer promised benefits expected to be earned or allocated to the current fiscal year. | | | |
| Annual Required Contribution (ARC) | 177 | 179 | 356 |
| NC plus a 20-year level percent of pay amortization of the UAAL (or less an amortization of excess assets). A 30-year amortization of the UAAL reduces the State ARC to \$138 million and the Teachers' ARC to \$137 million. | | | |

SECTION 1 EXECUTIVE SUMMARY

| | State | Teachers | Total |
|--|-------|----------|-------|
| Annual OPEB Cost (AOC) | 177 | 179 | 356 |
| The first year that the State complies with GASB 45, the AOC will equal the ARC. In subsequent years, the AOC will equal the ARC, adjusted for prior differences between the ARC and actual contributions. | | | |
| Net OPEB Obligation (NOO) | 0 | 0 | 0 |
| The NOO is the historical difference between the ARC and actual Plan contributions. | | | |
| Expected Benefit Payments | 67 | 49 | 116 |
| Cash flow expected for the current year for State promised retiree healthcare benefits. It includes payments for current retirees and active employees expected to retire during the year. | | | |

State of Maine Retiree Healthcare Plan June 30, 2006 Actuarial Valuation The GASB 45 accounting standard is effective for the State for the 2007/08 fiscal year. The 2006/07 ARC, AOC, and the June 30, 2006 NOO are as follows, determined as if the State adopts the GASB 45 accounting standard for the 2006/07 fiscal year.

Annual Required Contribution (ARC)

GASB 45 does not require an agency to make up any shortfall (unfunded liability) immediately nor does it allow an immediate credit for any excess assets. Instead, the difference is amortized over time. Simply put, the ARC is the value of benefits earned during the year plus an amount to put the Plan on track for funding. For the State's valuation, we calculated the ARC as the Normal Cost (NC) plus a 20-year amortization (as a level percent of pay) of the UAAL payable in the middle of the fiscal year (millions of dollars):

| | <u>State</u> | Teachers | <u>Total</u> |
|-----------------------|--------------|-----------------|--------------|
| Normal Cost | \$ 62 | \$ 56 | \$118 |
| UAAL Amortization | <u>115</u> | 123 | 238 |
| Total ARC | 177 | 179 | 356 |
| ■ ARC as % of Payroll | 29.1% | 15.8% | 20.5% |

The following table shows the ARC as the Normal Cost (NC) plus a 30-year amortization (as a level percent of pay) of the UAAL payable in the middle of the fiscal year (millions of dollars):

| | <u>State</u> | Teachers | <u>Total</u> |
|-----------------------|--------------|-----------------|--------------|
| Normal Cost | \$ 62 | \$ 56 | \$118 |
| UAAL Amortization | 76 | 81 | 157 |
| Total ARC | 138 | 137 | 275 |
| ■ ARC as % of Payroll | 22.6% | 12.1% | 15.8% |

The State ARC is higher than the Teacher's ARC as a percent of payroll because benefits paid for State retirees by the State are higher than paid for Teacher's by the State.

Annual OPEB Cost (AOC)

The AOC is equal to the ARC, except when the State has a NOO at the beginning of the year. When that happens, the AOC will equal the ARC adjusted for expected interest on the NOO and reduced by an amortization of the NOO. The AOC is determined as follows as of the middle of the fiscal year with, for illustrative purposes, a 20-year UAAL amortization (millions of dollars):

| | <u>State</u> | Teachers | <u>Total</u> |
|-----------------------|--------------|-----------------|--------------|
| ■ ARC | \$177 | \$179 | \$356 |
| ■ Interest on NOO | 0 | 0 | 0 |
| ■ Amortization of NOO | 0 | 0 | 0 |
| Total AOC | 177 | 179 | 356 |
| ■ AOC as % of Payroll | 29.1% | 15.8% | 20.5% |

Net OPEB Obligation (NOO)

The NOO is the historical difference between the ARC and actual contributions. If the State always contributes the ARC, then the NOO will equal zero. Benefit payments are considered contributions. Contributions in excess of benefit payments must be segregated in a trust for the sole purpose of paying Plan benefits in order to be considered Plan Assets for purposes of GASB 45.

Based on the AOC developed above, the projected June 30, 2007 NOO is (millions of dollars):

| | State | Teachers | Total |
|--|-------|-----------------|-------|
| June 30, 2006 NOO^1 | \$ 0 | \$ 0 | \$ 0 |
| • AOC (End of Year) ² | 181 | 183 | 364 |
| ■ Expected Contributions (Benefit Payments) ³ | (67) | (49) | (116) |
| ■ Expected June 30, 2007 NOO | 114 | 134 | 248 |

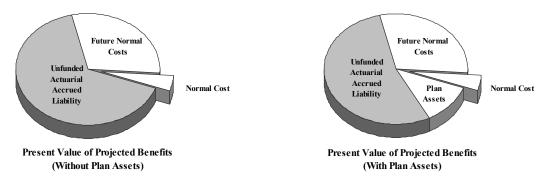
¹ Assumes the June 30, 2006 Net OPEB Obligation is zero.

² Includes interest to the end of the fiscal year.

³ The actual NOO development will use the actual rather than expected 2006/07 benefit payments.

Actuarial Obligations

The valuation develops the Actuarial Accrued Liability and the Normal Cost using the Entry Age Normal actuarial cost method. This method is designed to produce a Normal Cost which, if all assumptions are met, will be a level percent of payroll. The following chart illustrates the Present Value of Projected Benefits, with the shaded area representing the Unfunded Actuarial Accrued Liability.



- The Present Value of Projected Benefits (PVPB) is the value of all expected future benefits for current employees and retirees as of the valuation date calculated using the selected actuarial assumptions.
- The Actuarial Accrued Liability (AAL) is the liability for benefits earned through the valuation date calculated using the selected actuarial methods and assumptions.
- Plan Assets must be segregated in a trust for the sole purpose of paying Plan benefits in order to be considered Plan Assets for GASB 45.
- The Unfunded Actuarial Accrued Liability (UAAL) is the difference between the AAL and the Plan Assets.
- The **Normal Cost** is the value of benefits expected to be earned during or allocated to the current fiscal year.
- Expected Benefit Payments is the cash flow expected for the current year for State promised retiree healthcare benefits. It includes payments for current retirees and active employees expected to retire during the year.
- The Annual Required Contribution is the employer NC plus the amortized UAAL (or less the amortized excess assets.) For the State's valuation, the UAAL is amortized over 20 and 30 years as a level percent of pay.
- GASB45 requires that the Implied Subsidy for retirees be included in the AAL and the ARC for plans that are not community rated. An Implied Subsidy exists when the premium for a group of employees is determined by aggregating the experience of the group. For example, assume the premium for actives and non-Medicare eligible retirees is \$600 per month. The underlying medical cost varies by age and gender and might actually be \$300 per month for a 40 year-old active employee and \$900 per month for a 60 year-old retiree. In this case, the younger employee is subsidizing \$300 of the older employee's cost

Actuarial Obligations

4.5% Discount Rate

(millions of dollars)

| | <u>State</u> | Teachers | <u>Total</u> |
|---|--------------|-----------------|--------------|
| Present Value of Projected Benefits | | | |
| • Actives | \$1,860 | \$2,305 | \$4,165 |
| • Retirees | <u>1,080</u> | 687 | <u>1,767</u> |
| • Total | 2,940 | 2,992 | 5,932 |
| Actuarial Accrued Liability | | | |
| • Actives | 1,217 | 1,772 | 2,989 |
| • Retirees | <u>1,080</u> | 687 | <u>1,767</u> |
| • Total | 2,297 | 2,459 | 4,756 |
| Plan Assets | 0 | 0 | 0 |
| Unfunded AAL | 2,297 | 2,459 | 4,756 |
| Expected Benefit Payments | 67 | 49 | 116 |

| Ancillary Groups⁴ (thousands of dollars) | PVPB | AAL |
|--|---------|---------|
| Governor Baxter School for the Deaf | \$5,988 | \$3,524 |
| Maine Community College System | 66,293 | 46,832 |
| Maine Maritime Academy | 12,634 | 8,023 |
| Maine State Retirement System | 8,482 | 4,406 |
| Maine Turnpike Authority | 33,858 | 23,126 |
| MSEA | 2,055 | 1,404 |
| Northern New England Passenger Rail Authority | 276 | 143 |
| Total | 129,586 | 87,458 |

⁴ 7 Ancillary Groups provide retiree healthcare contributions.

Cash Subsidy & Implied Subsidy

4.5% Discount Rate (millions of dollars)

| Present Value of Projected Benefits | <u>State⁵</u> | <u>Teachers⁶</u> | <u>Total</u> |
|--|--------------------------|-----------------------------|-----------------------|
| ■ Cash Subsidy | | | |
| • Actives | \$1,156 | \$1,014 | \$2,170 |
| • Retirees | <u>737</u> | 341 | <u>1,078</u> |
| • Total | 1,893 | 1,355 | 3,248 |
| Implied Subsidy | | | |
| • Actives | 704 | 1,291 | 1,995 |
| • Retirees | <u>343</u> | <u>346</u> | <u>689</u> |
| • Total | 1,047 | 1,637 | 2,684 |
| ■ Total | | | |
| • Actives | 1,860 | 2,305 | 4,165 |
| • Retirees | <u>1,080</u> | 687 | <u>1,767</u> |
| • Total | 2,940 | 2,992 | 5,932 |
| Actuarial Accrued Liability | <u>State</u> | Teachers | <u>Total</u> |
| ■ Cash Subsidy | | | |
| • Actives | \$736 | \$754 | \$1,490 |
| • Retirees | <u>737</u> | 341 | <u>1,078</u> |
| • Total | 1,473 | 1,095 | 2,568 |
| Implied Subsidy | | | |
| • Actives | 481 | 1,018 | 1,499 |
| • Retirees | <u>343</u> | <u>346</u> | <u>689</u> |
| • Total | 824 | 1,364 | 2,188 |
| ■ Total | | | |
| | | | |
| • Actives | 1,217 | 1,772 | 2,989 |
| ActivesRetirees | 1,217 <u>1,080</u> | 1,772 <u>687</u> | 2,989 <u>1,767</u> |

⁵ Implied subsidy for 13 participating Ancillary Groups included with State implied subsidy.

⁶ This valuation report includes 100% of the Teachers implied subsidy.

SECTION 3 ACTUARIAL VALUATION RESULTS

Annual Required Contribution (ARC)

| 4.5% Discount Rate (millions of dollars) | | | | | |
|---|--------------|-----------------|--------------|--|--|
| | <u>State</u> | Teachers | <u>Total</u> | | |
| Annual Required Contribution - \$ | | | | | |
| Normal Cost | \$ 62 | \$ 56 | \$118 | | |
| • UAAL Amortization ⁷ | <u>115</u> | <u>123</u> | <u>238</u> | | |
| • Total (Middle of Year) | 177 | 179 | 356 | | |
| ■ ARC - % of Payroll | | | | | |
| Normal Cost | 10.2% | 4.9% | 6.8% | | |
| • UAAL Amortization ⁸ | <u>18.9%</u> | <u>10.9%</u> | 13.7% | | |
| • Total (Middle of Year) | 29.1% | 15.8% | 20.5% | | |
| Total Payroll 609 | | 1,127 | 1,736 | | |
| Ancillary Groups ⁹ | | | | | |
| (thousands of dollars) | | ARC \$ | ARC % | | |
| Governor Baxter School for the Deaf | | \$419 | 13.2% | | |
| Maine Community College System | | 4,358 | 14.1% | | |
| Maine Maritime Academy | | 866 | 10.7% | | |
| Maine State Retirement System | | 562 | 11.6% | | |
| Maine Turnpike Authority | | 2,340 | 14.1% | | |
| MSEA | | 139 | 10.8% | | |
| Northern New England Passenger Rail Au | thority | 21 | 8.0% | | |
| Total | 8,705 | 13.3% | | | |

⁷ UAAL amortized as a level percentage of payroll over 20 years. If a 30-year amortization period is used the ARC decreases to \$138 million for the State, \$137 for teachers and \$275 million in total.

⁸ UAAL amortized as a level percentage of payroll over 20 years. If a 30-year amortization period is used the ARC decreases to 22.6% of payroll for the State, 12.1% for teachers and 15.8% in total.

⁹ 7 Ancillary Groups provide retiree healthcare contributions.

<u>Cash Flow Projection</u> (millions of dollars)

The following table shows the projected "pay-as-you-go" benefit payments for the next 10 years. The projection assumes the number of State employees and Teachers remains constant.

| | State | | | Teachers ¹⁰ | | | |
|---------|-----------------|--------------------|------------------|------------------------|--------------------|------------------|----------------|
| Year | Cash Subsidy | Implied Subsidy | Total Payment | Cash Subsidy | Implied Subsidy | Total Payment | Grand Total |
| 2006/07 | \$ 43 | \$ 24 | \$ 67 | \$17 | \$ 32 | \$ 49 | \$116 |
| 2007/08 | 48 | 27 | 75 | 21 | 38 | 59 | 134 |
| 2008/09 | 53 | 31 | 84 | 24 | 46 | 70 | 154 |
| 2009/10 | 58 | 36 | 94 | 29 | 53 | 82 | 176 |
| 2010/11 | 64 | 41 | 105 | 33 | 61 | 94 | 199 |
| 2011/12 | 70 | 45 | 115 | 38 | 68 | 106 | 221 |
| 2012/13 | 75 | 49 | 124 | 42 | 75 | 117 | 241 |
| 2013/14 | 81 | 53 | 134 | 47 | 80 | 127 | 261 |
| 2014/15 | 87 | 56 | 143 | 51 | 86 | 137 | 280 |
| 2015/16 | 92 | 59 | 151 | 55 | 90 | 145 | 296 |

The implied subsidy benefit payment is the estimated portion of the retiree payment that is subsidized by active employee premiums.

¹⁰ Results for Teachers includes 100% of the implied subsidy.

Sensitivity Analysis (millions of dollars)

Results in this report are based on a 4.5% discount rate. This rate was selected based on the expected long-term rate of return on State funds. If the State prefunds the Plan in a segregated trust, the expected long-term rate of return will be based on the trust's target asset allocation and may be greater than 4.5%. For example, the following compares the results using a 4.5% and 7.5% discount rate under both a 20-year and a 30-year amortization period.

| Discount Rate | 4. | 5% | 7. | .5% |
|---|----------------|-----------------|----------------|-----------------|
| Amortization Period | <u>20-Year</u> | <u> 30-Year</u> | <u>20-Year</u> | <u> 30-Year</u> |
| Present Value of Projected Benefits | \$5,932 | \$5,932 | \$3,673 | \$3,673 |
| ■ Funded Status | | | | |
| Actuarial Accrued Liability | 4,756 | 4,756 | 3,234 | 3,234 |
| • Assets | 0 | 0 | 0 | 0 |
| • Unfunded AAL | 4,756 | 4,756 | 3,234 | 3,234 |
| ■ ARC (Middle of Year) | | | | |
| Normal Cost | 118 | 118 | 55 | 55 |
| UAAL Amortization | <u>238</u> | <u>157</u> | <u>212</u> | <u>159</u> |
| • Total | 356 | 275 | 267 | 214 |
| • ARC as % of Payroll | 20.5% | 15.8% | 15.4% | 12.3% |

Several funding alternatives were developed from the June 30, 2006 actuarial valuation for prefunding discussions at the State. The following tables show the projected cash contributions and Annual OPEB Cost assuming a constant number of employees over the projection period.

No Pre-Funding – **State and Teachers** - Benefits are paid from the State's Participating Fund which is assumed to earn a 4.5% long-term rate of return. Contributions equal benefit payments.

| | No Funding – State & Teachers 4.5% Discount Rate (millions of dollars) | | | | | | | | | | |
|---------|--|---------------------|---------|--------|----------|-----------------|--|--|--|--|--|
| Year | NOO (BOY) | Benefit Payments | Contrib | AOC | Payroll | Contrib %Pay | | | | | |
| 2006/07 | \$ 0 | \$116 | \$116 | \$ 364 | \$ 1,736 | 6.7% | | | | | |
| 2007/08 | 248 | 134 | 134 | 381 | 1,818 | 7.4% | | | | | |
| 2008/09 | 495 | 154 | 154 | 399 | 1,904 | 8.1% | | | | | |
| 2009/10 | 740 | 176 | 176 | 418 | 1,995 | 8.8% | | | | | |
| 2010/11 | 981 | 199 | 199 | 438 | 2,090 | 9.5% | | | | | |
| 2011/12 | 1,221 | 221 | 221 | 458 | 2,189 | 10.1% | | | | | |
| 2012/13 | 1,458 | 241 | 241 | 480 | 2,293 | 10.5% | | | | | |
| 2013/14 | 1,697 | 261 | 261 | 503 | 2,402 | 10.9% | | | | | |
| 2014/15 | 1,939 | 280 | 280 | 527 | 2,516 | 11.1% | | | | | |
| 2015/16 | 2,186 | 296 | 296 | 552 | 2,635 | 11.2% | | | | | |

Full Pre-funding – **State and Teachers** - Contributions are made to a diversified trust assumed to earn a 7.5% long-term rate of return. Contributions equal the Annual Required Contribution.

| | Diversified Funding – State & Teachers 7.5% Discount Rate (millions of dollars) | | | | | | | | | | |
|---------|---|---------------------|------------------|-------|---------|-----------------|--|--|--|--|--|
| Year | NOO (BOY) | Benefit Payments | Contrib (EOY) | AOC | Payroll | Contrib %Pay | | | | | |
| 2006/07 | \$0 | \$116 | \$277 | \$277 | \$1,736 | 15.9% | | | | | |
| 2007/08 | 0 | 134 | 290 | 290 | 1,818 | 15.9% | | | | | |
| 2008/09 | 0 | 154 | 304 | 304 | 1,904 | 15.9% | | | | | |
| 2009/10 | 0 | 176 | 318 | 318 | 1,995 | 15.9% | | | | | |
| 2010/11 | 0 | 199 | 333 | 333 | 2,090 | 15.9% | | | | | |
| 2011/12 | 0 | 221 | 349 | 349 | 2,189 | 15.9% | | | | | |
| 2012/13 | 0 | 241 | 366 | 366 | 2,293 | 15.9% | | | | | |
| 2013/14 | 0 | 261 | 383 | 383 | 2,402 | 15.9% | | | | | |
| 2014/15 | 0 | 280 | 401 | 401 | 2,516 | 15.9% | | | | | |
| 2015/16 | 0 | 296 | 420 | 420 | 2,635 | 15.9% | | | | | |

Pre-Funding Phase-In Alternative 1 - State Only (excluding Teachers) – One Time \$73 Million Contribution - The 2006/07 contribution is \$73 million plus benefit payments. The contribution then phases into the Annual Required Contribution over 10 years. For example, the 2008/09 contribution is the expected benefit payments plus 20% of the excess of the ARC over the expected benefit payments $[84 + 20\% \times (153 - 84) = 98]$.

| | STATE ALTERNATIVE 1 Phase Into ARC Funding Over 10 Years - State First Year Contribution = \$73 million + Benefit Payments 7.5% Discount Rate (millions of dollars) | | | | | | | | |
|---------|---|---------------------|-------|------------------|-------|---------|-----------------|--|--|
| Year | NOO (BOY) | Benefit Payments | ARC | Contrib (EOY) | AOC | Payroll | Contrib %Pay | | |
| 2006/07 | \$0 | \$67 | \$140 | \$140 | \$140 | \$609 | 23.0% | | |
| 2007/08 | 0 | 75 | 147 | 83 | 147 | 638 | 13.0% | | |
| 2008/09 | 64 | 84 | 153 | 98 | 154 | 668 | 14.7% | | |
| 2009/10 | 120 | 94 | 160 | 114 | 161 | 700 | 16.3% | | |
| 2010/11 | 167 | 105 | 167 | 130 | 169 | 733 | 17.7% | | |
| 2011/12 | 206 | 115 | 175 | 145 | 177 | 768 | 18.9% | | |
| 2012/13 | 237 | 124 | 183 | 160 | 185 | 805 | 19.9% | | |
| 2013/14 | 262 | 134 | 192 | 175 | 194 | 843 | 20.8% | | |
| 2014/15 | 282 | 143 | 201 | 189 | 203 | 883 | 21.4% | | |
| 2015/16 | 295 | 151 | 210 | 205 | 213 | 925 | 22.2% | | |
| 2016/17 | 303 | 158 | 220 | 220 | 223 | 969 | 22.7% | | |

Pre-Funding Phase In Alternative 2 - State Only (excluding Teachers) – The 2006/07 contribution is equal to the benefit payments. The contribution then phases into the Annual Required Contribution over 10 years. For example, the 2008/09 contribution is the expected benefit payments plus 20% of the excess of the ARC over the expected benefit payments. [$84 + 20\% \times (153 - 84) = 98$].

| STATE ALTERNATIVE 2 Phase Into ARC Funding Over 10 Years - State First Year Contribution = Benefit Payments 7.5% Discount Rate (millions of dollars) | | | | | | | | | |
|--|--------------|---------------------|-------|------------------|-------|---------|-----------------|--|--|
| Year | NOO (BOY) | Benefit Payments | ARC | Contrib (EOY) | AOC | Payroll | Contrib %Pay | | |
| 2006/07 | \$0 | \$67 | \$140 | \$67 | \$140 | \$609 | 11.0% | | |
| 2007/08 | 73 | 75 | 146 | 82 | 147 | 638 | 12.9% | | |
| 2008/09 | 137 | 84 | 153 | 98 | 154 | 668 | 14.7% | | |
| 2009/10 | 193 | 94 | 160 | 114 | 161 | 700 | 16.3% | | |
| 2010/11 | 240 | 105 | 167 | 129 | 169 | 733 | 17.6% | | |
| 2011/12 | 279 | 115 | 175 | 145 | 177 | 768 | 18.9% | | |
| 2012/13 | 311 | 124 | 183 | 159 | 185 | 805 | 19.8% | | |
| 2013/14 | 337 | 134 | 191 | 174 | 194 | 843 | 20.6% | | |
| 2014/15 | 356 | 143 | 200 | 189 | 203 | 883 | 21.4% | | |
| 2015/16 | 370 | 151 | 210 | 204 | 213 | 925 | 22.1% | | |
| 2016/17 | 379 | 158 | 220 | 220 | 223 | 969 | 22.7% | | |

Pre-Funding Phase-In Alternative 1 - Teachers - Additional Annual \$15 Million Contribution – The 2006/07 contribution is \$15 million plus benefit payments. The contribution then phases into the Annual Required Contribution over 10 years. For example, the 2008/09 contribution is the expected benefit payments plus \$15 million plus 20% of the excess of the ARC over expected benefit payments plus \$15 million [70 + 15 + 20% x (149 - 70 - 15) = 98].

| TEACHERS ALTERNATIVE 1 Phase Into ARC Funding Over 10 Years - Teachers First Year Contribution = \$15 million + Benefit Payments 7.5% Discount Rate (millions of dollars) | | | | | | | | | |
|---|--------------|---------------------|-------|------------------|-------|---------|-----------------|--|--|
| Year | NOO (BOY) | Benefit Payments | ARC | Contrib (EOY) | AOC | Payroll | Contrib %Pay | | |
| 2006/07 | \$0 | \$49 | \$137 | \$64 | \$137 | \$1,126 | 5.7% | | |
| 2007/08 | 73 | 59 | 143 | 80 | 143 | 1,180 | 6.8% | | |
| 2008/09 | 136 | 70 | 149 | 98 | 150 | 1,236 | 7.9% | | |
| 2009/10 | 188 | 82 | 156 | 114 | 157 | 1,295 | 8.8% | | |
| 2010/11 | 231 | 94 | 163 | 131 | 165 | 1,356 | 9.7% | | |
| 2011/12 | 265 | 106 | 171 | 146 | 172 | 1,421 | 10.3% | | |
| 2012/13 | 291 | 117 | 179 | 160 | 181 | 1,488 | 10.8% | | |
| 2013/14 | 312 | 127 | 187 | 174 | 189 | 1,559 | 11.2% | | |
| 2014/15 | 328 | 137 | 196 | 187 | 198 | 1,633 | 11.5% | | |
| 2015/16 | 339 | 145 | 205 | 201 | 208 | 1,710 | 11.8% | | |
| 2016/17 | 346 | 153 | 215 | 215 | 218 | 1,792 | 12.0% | | |

SECTION 4 Funding Alternatives

Pre-Funding Phase-In Alternative 2 - Teachers – The 2006/07 contribution is equal to benefit payments. The contribution then phases into the Annual Required Contribution over 10 years. For example, the 2008/09 contribution is the expected benefit payments plus 20% of the excess of the ARC over the expected benefit payments $[70 + 20\% \times (149 - 70) = 86]$.

| | TEACHERS ALTERNATIVE 2 Phase Into ARC Funding Over 10 Years - Teachers First Year Contribution = Benefit Payments 7.5% Discount Rate (millions of dollars) | | | | | | | | | |
|---------|--|---------------------|-------|------------------|-------|---------|-----------------|--|--|--|
| Year | NOO (BOY) | Benefit Payments | ARC | Contrib (EOY) | AOC | Payroll | Contrib %Pay | | | |
| 2006/07 | \$0 | \$49 | \$137 | \$49 | \$137 | \$1,126 | 4.4% | | | |
| 2007/08 | 88 | 59 | 143 | 67 | 143 | 1,180 | 5.7% | | | |
| 2008/09 | 164 | 70 | 149 | 86 | 150 | 1,236 | 7.0% | | | |
| 2009/10 | 229 | 82 | 156 | 104 | 157 | 1,295 | 8.0% | | | |
| 2010/11 | 282 | 94 | 163 | 121 | 165 | 1,356 | 8.9% | | | |
| 2011/12 | 325 | 106 | 170 | 138 | 172 | 1,421 | 9.7% | | | |
| 2012/13 | 359 | 117 | 178 | 154 | 181 | 1,488 | 10.3% | | | |
| 2013/14 | 386 | 127 | 187 | 169 | 189 | 1,559 | 10.8% | | | |
| 2014/15 | 407 | 137 | 195 | 184 | 198 | 1,633 | 11.3% | | | |
| 2015/16 | 422 | 145 | 205 | 199 | 208 | 1,710 | 11.6% | | | |
| 2016/17 | 430 | 153 | 215 | 215 | 218 | 1,792 | 12.0% | | | |

Participant Statistics

| Actives | <u>State</u> | Teachers | <u>Total</u> |
|---------------------------------|--------------|-----------------|--------------|
| • Count | 16,095 | 27,491 | 43,586 |
| • Average Age | 46.5 | 47.4 | 47.1 |
| • Average Service ¹¹ | 13.0 | 16.4 | 15.1 |
| • Average Pay ¹² | \$37,842 | \$40,976 | \$39,819 |
| • Total Payroll (000's)12 | 609,066 | 1,126,482 | 1,735,548 |
| ■ Retirees | | | |
| • Count | 9,101 | 8,311 | 17,412 |
| • Average Age | 70.1 | 70.2 | 70.2 |

¹¹ Average service by age group assumed for 217 State employees and 7,597 Teachers with missing hire dates.

¹² Average pay by age/service group assumed for 453 State employees and 7,602 Teachers with missing pay.

| | | | | | EE + | EE + | | |
|----------|--------------------------|--------|---------|--------|-------|----------|--------------------|--------|
| Group | Medical Plan | Single | 2-Party | Family | Child | Children | FLES ¹³ | Total |
| State | HMO Choice ¹⁴ | 8,524 | 2,309 | 2,785 | 1,056 | 802 | 619 | 16,095 |
| | | | | | | | | |
| Teachers | HMO Choice | 8,793 | 3,226 | 5,078 | 1,258 | 1,616 | n/a | 19,971 |
| | Blue Choice | 3,641 | 1,481 | 1,616 | 379 | 403 | n/a | 7,520 |
| | Total Teachers | 12,434 | 4,707 | 6,694 | 1,637 | 2,019 | n/a | 27,491 |

Retiree Coverage

| Group | Medical Plan | Single | 2-Party | Family | EE + Child | EE + Children | FLES ¹³ | Total |
|----------|-------------------------------|--------|---------|--------|---------------|------------------|--------------------|-------|
| State | HMO Choice | 3,076 | 432 | 63 | 77 | 22 | 21 | 3,691 |
| | Group Companion | 4,306 | 1,103 | 0 | 1 | 0 | 0 | 5,410 |
| | Total State | 7,382 | 1,535 | 63 | 78 | 22 | 21 | 9,101 |
| | | | | | | | | |
| Teachers | HMO Choice | 991 | 241 | 19 | 15 | 12 | n/a | 1,278 |
| | Blue Choice | 1,892 | 317 | 31 | 21 | 1 | n/a | 2,262 |
| | Group Companion ¹⁵ | 3,705 | 1,066 | 0 | 0 | 0 | n/a | 4,771 |
| | Total Teachers | 6,588 | 1,624 | 50 | 36 | 13 | n/a | 8,311 |



¹³ State employees or retirees married to other State employees or retirees – both valued as single coverage.

¹⁴ 4 State actives and 148 State retirees in "Comp Care" plan were included with HMO Choice.

¹⁵ 22 Teacher retirees in "Medigap B" plan were included with Group Companion plan.

| A m | | | | | S | ervice | | | |
|------------|-------------|---------|--------|--------|--------|--------|--------|----------|--------|
| Age | | Under 1 | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25& Over | Total |
| Under 25 | Count | 112 | 187 | 21 | - | - | - | - | 320 |
| Under 23 | Average Pay | 25,351 | 25,924 | 26,955 | - | - | - | - | 25,791 |
| 25-29 | Count | 120 | 537 | 207 | 6 | - | - | - | 870 |
| 23-29 | Average Pay | 29,425 | 30,739 | 32,893 | 32,524 | - | - | - | 31,083 |
| 30-34 | Count | 99 | 411 | 473 | 104 | 10 | - | - | 1,097 |
| 30-34 | Average Pay | 32,461 | 32,424 | 36,857 | 40,593 | 35,376 | - | - | 35,140 |
| 35-39 | Count | 590 | 410 | 500 | 262 | 281 | 28 | - | 2,071 |
| 33-39 | Average Pay | 21,573 | 33,222 | 36,964 | 42,892 | 40,200 | 38,270 | - | 33,045 |
| 40-44 | Count | 102 | 789 | 627 | 257 | 466 | 304 | 25 | 2,570 |
| 40-44 | Average Pay | 30,635 | 25,161 | 32,841 | 43,383 | 41,582 | 41,929 | 37,987 | 34,160 |
| 45-49 | Count | 100 | 408 | 445 | 299 | 533 | 453 | 478 | 2,716 |
| 43-47 | Average Pay | 34,193 | 35,112 | 37,877 | 39,356 | 40,838 | 42,785 | 41,556 | 39,536 |
| 50-54 | Count | 73 | 341 | 427 | 229 | 466 | 424 | 845 | 2,805 |
| 30-34 | Average Pay | 36,383 | 35,861 | 40,275 | 42,867 | 44,687 | 44,329 | 44,071 | 42,338 |
| 55-59 | Count | 55 | 292 | 297 | 234 | 402 | 314 | 811 | 2,405 |
| 33-39 | Average Pay | 32,651 | 35,270 | 40,173 | 44,414 | 42,247 | 44,818 | 46,316 | 42,843 |
| 60-64 | Count | 18 | 121 | 145 | 96 | 198 | 127 | 237 | 942 |
| 00-04 | Average Pay | 35,957 | 30,782 | 40,380 | 39,203 | 42,023 | 44,907 | 47,020 | 41,569 |
| 65 & Over | Count | 3 | 35 | 40 | 33 | 64 | 40 | 84 | 299 |
| US & Over | Average Pay | 29,957 | 19,454 | 34,084 | 41,643 | 36,990 | 34,888 | 40,367 | 35,659 |
| Total | Count | 1,272 | 3,531 | 3,182 | 1,520 | 2,420 | 1,690 | 2,480 | 16,095 |
| Totai | Average Pay | 26,765 | 30,986 | 36,796 | 42,052 | 41,855 | 43,294 | 44,415 | 37,842 |

Active Employees - State Age/Service/Pay Distribution¹⁶

¹⁶ Average pay and/or service assumed for those with missing pay or hire date.

| | | | Service | | | | | | |
|-----------|-------------|---------|---------|--------|--------|--------|--------|----------|--------|
| Age | | Under 1 | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25& Over | Total |
| Under 25 | Count | 101 | 410 | 37 | - | - | - | - | 548 |
| Under 25 | Average Pay | 17,570 | 21,934 | 24,634 | - | - | - | - | 21,312 |
| 25-29 | Count | 116 | 1,082 | 708 | 24 | - | - | - | 1,930 |
| 23-29 | Average Pay | 18,610 | 26,849 | 29,871 | 33,019 | - | - | - | 27,539 |
| 30-34 | Count | 78 | 414 | 1,017 | 571 | - | - | - | 2,080 |
| 50-54 | Average Pay | 23,573 | 29,654 | 33,336 | 36,359 | - | - | - | 33,067 |
| 35-39 | Count | 73 | 375 | 454 | 1,460 | 288 | 5 | - | 2,655 |
| 33-37 | Average Pay | 25,650 | 31,616 | 35,098 | 40,080 | 42,466 | 46,623 | - | 37,907 |
| 40-44 | Count | 64 | 310 | 441 | 1,284 | 566 | 423 | 7 | 3,095 |
| 40-44 | Average Pay | 23,822 | 28,760 | 33,437 | 40,095 | 45,297 | 46,246 | 47,273 | 39,483 |
| 45-49 | Count | 53 | 272 | 483 | 488 | 1,717 | 722 | 442 | 4,177 |
| 43-47 | Average Pay | 20,334 | 29,227 | 32,073 | 38,076 | 45,015 | 48,576 | 49,366 | 42,443 |
| 50-54 | Count | 42 | 238 | 382 | 556 | 575 | 1,893 | 1,549 | 5,235 |
| 50-54 | Average Pay | 29,774 | 32,626 | 33,318 | 37,729 | 44,205 | 48,007 | 51,894 | 45,731 |
| 55-59 | Count | 32 | 183 | 257 | 351 | 571 | 1,881 | 1,769 | 5,044 |
| 33-37 | Average Pay | 29,287 | 34,934 | 36,162 | 39,443 | 44,620 | 46,934 | 52,009 | 46,835 |
| 60-64 | Count | 4 | 53 | 91 | 82 | 162 | 1,169 | 458 | 2,019 |
| 00-04 | Average Pay | 29,338 | 31,050 | 34,442 | 39,241 | 43,702 | 44,057 | 50,410 | 44,470 |
| 65 & Over | Count | 2 | 8 | 26 | 22 | 34 | 518 | 98 | 708 |
| | Average Pay | 28,859 | 18,951 | 36,172 | 31,449 | 42,264 | 38,005 | 44,546 | 38,603 |
| Total | Count | 565 | 3,345 | 3,896 | 4,838 | 3,913 | 6,611 | 4,323 | 27,491 |
| Total | Average Pay | 22,318 | 28,400 | 32,913 | 39,038 | 44,613 | 46,168 | 51,352 | 40,976 |

Active Employees – Teachers Age/Service/Pay Distribution¹⁷

¹⁷ Average pay and/or service assumed for those with missing pay or hire date.

| A mo | | | | | S | ervice | | | |
|-------------|-------------|---------|--------|--------|--------|--------|--------|----------|--------|
| Age | | Under 1 | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25& Over | Total |
| Under 25 | Count | 213 | 597 | 58 | - | - | - | - | 868 |
| Under 25 | Average Pay | 21,661 | 23,184 | 25,474 | - | - | - | - | 22,963 |
| 25-29 | Count | 236 | 1,619 | 915 | 30 | - | - | - | 2,800 |
| 23-29 | Average Pay | 24,109 | 28,139 | 30,554 | 32,920 | - | - | - | 28,640 |
| 30-34 | Count | 177 | 825 | 1,490 | 675 | 10 | - | - | 3,177 |
| 50-54 | Average Pay | 28,544 | 31,034 | 34,454 | 37,011 | 35,376 | - | - | 33,783 |
| 35-39 | Count | 663 | 785 | 954 | 1,722 | 569 | 33 | - | 4,726 |
| 33-39 | Average Pay | 22,022 | 32,454 | 36,076 | 40,508 | 41,347 | 39,535 | - | 35,776 |
| 40-44 | Count | 166 | 1,099 | 1,068 | 1,541 | 1,032 | 727 | 32 | 5,665 |
| 40-44 | Average Pay | 28,008 | 26,177 | 33,087 | 40,643 | 43,619 | 44,441 | 40,018 | 37,068 |
| 45-49 | Count | 153 | 680 | 928 | 787 | 2,250 | 1,175 | 920 | 6,893 |
| 43-47 | Average Pay | 29,393 | 32,758 | 34,856 | 38,563 | 44,026 | 46,343 | 45,308 | 41,297 |
| 50-54 | Count | 115 | 579 | 809 | 785 | 1,041 | 2,317 | 2,394 | 8,040 |
| 50-54 | Average Pay | 33,969 | 34,531 | 36,990 | 39,228 | 44,421 | 47,334 | 49,133 | 44,547 |
| 55-59 | Count | 87 | 475 | 554 | 585 | 973 | 2,195 | 2,580 | 7,449 |
| 33-39 | Average Pay | 31,414 | 35,140 | 38,312 | 41,431 | 43,640 | 46,631 | 50,220 | 45,546 |
| 60-64 | Count | 22 | 174 | 236 | 178 | 360 | 1,296 | 695 | 2,961 |
| 00-04 | Average Pay | 34,754 | 30,864 | 38,091 | 39,220 | 42,779 | 44,140 | 49,254 | 43,547 |
| 65 & Over | Count | 5 | 43 | 66 | 55 | 98 | 558 | 182 | 1,007 |
| US & Over | Average Pay | 29,518 | 19,361 | 34,906 | 37,565 | 38,819 | 37,782 | 42,617 | 37,729 |
| Total | Count | 1,837 | 6,876 | 7,078 | 6,358 | 6,333 | 8,301 | 6,803 | 43,586 |
| Total | Average Pay | 25,397 | 29,728 | 34,659 | 39,758 | 43,559 | 45,583 | 48,823 | 39,819 |

Active Employees – Total Age/Service/Pay Distribution¹⁸

¹⁸ Average pay and/or service assumed for those with missing pay or hire date.

SECTION 6 PLAN PROVISIONS

Benefit Summary

| ■ Eligibility | Earlier of: Age 62 with 10 years of service (Tier 2) Age 60 if 10 years of service on 7/1/93 (Tier 1) 25 years of service, if earlier than above Disability (collect LTD) Former Employees: 25 years of service & normal retirement age | | | | |
|---|--|--|--|--|--|
| State Paid Benefit State Employees | Retiree-Only PremiumImage: Judicial lookLegislative lookOther StateOther StateDOH < 7/1/91: Years of | | | | |
| State Paid Benefit Teachers | 45% of retiree-only premium (effective 1/1/06) Based on: Single rate for single and employee+children coverage 50% of 2-party rate for 2-party and family coverage | | | | |
| Part-Time Employees | Eligible for prorated benefits: 50% full-time gets 100% benefit | | | | |
| Surviving Spouse & Dependent Benefits | Surviving spouses and dependents pay 100% of the premium | | | | |
| Dental, Vision, Life | ■ None | | | | |
| Participation Benefit | Retirees not eligible for a state contribution are allowed to participate and pay retiree premium | | | | |

State Ancillary Groups

The following Ancillary Groups participate in the State Retiree Healthcare Plan:

| Ancillary Group | Ancillary Group Contribution |
|---|------------------------------|
| Governor Baxter School for the Deaf | Yes |
| Maine Community College System | Yes |
| Maine Dairy & Nutrition Council | No |
| Maine Developmental Disabilities Council | No |
| Maine Maritime Academy | Yes |
| Maine Potato Board | No |
| Maine Sardine Council | No |
| Maine State Retirement System | Yes |
| Maine Turnpike Authority | Yes |
| MSEA | Yes |
| Northern New England Passenger Rail Authority | Yes |
| Participating Local Districts (PLD) | No |
| Wild Blueberry Commission | No |

Seven of the 13 participating Ancillary Groups provide a retiree contribution. The Ancillary Groups are responsible for the retiree contribution.

State Employees Health Plans 2006/07 Monthly Premiums

| | Actives and Non Medicare Eligible Retirees | | | | | |
|--------------|--|------------|------------|----------|--|--|
| Medical Plan | Single 2-Party Family Participan w/Child(re | | | | | |
| HMO Choice | \$596.80 | \$1,247.20 | \$1,483.78 | \$981.16 | | |

| | Medicare Eligible Retirees | | | | | |
|-----------------|----------------------------|----------|----------|-----------------------------|--|--|
| Medical Plan | Single | 2-Party | Family | Participant w/Child(ren) | | |
| Group Companion | \$294.98 | \$584.46 | \$909.68 | \$620.20 | | |

Teachers Health Plans 2006/07 Monthly Premiums

| | Actives and Non Medicare Eligible Retirees | | | | |
|---------------------------------|--|------------|------------|-----------------------------|--|
| Medical Plan | Single | 2-Party | Family | Participant w/Child(ren) | |
| HMO Choice (MEA Choice Plus) | \$467.59 | \$1,053.85 | \$1,282.68 | \$827.53 | |
| Blue Choice (MEA Standard Plan) | 504.93 | 1,138.16 | 1,385.29 | 893.72 | |

| | Medicare Eligible Retirees | | | | |
|-----------------|----------------------------|----------|--------|-----------------------------|--|
| Medical Plan | Single | 2-Party | Family | Participant w/Child(ren) | |
| Group Companion | \$310.21 | \$651.15 | n/a | n/a | |

State Employees <u>3-Year Average Monthly Claims</u>

| | Non Medicare Eligible Retirees | | |
|--------------|--------------------------------|---------|--|
| Medical Plan | Single | 2-Party | |
| HMO Choice | \$971 | \$2,085 | |

| | Medicare Eligible Retirees | | |
|-----------------|----------------------------|---------|--|
| Medical Plan | Single | 2-Party | |
| Group Companion | \$329 | \$656 | |

Teachers <u>3-Year Average Monthly Claims</u>

| | Non Medicare Eligible Retire | |
|---------------------------------|------------------------------|---------|
| Medical Plan | Single | 2-Party |
| HMO Choice (MEA Choice Plus) | \$1,006 | \$2,123 |
| Blue Choice (MEA Standard Plan) | 1,078 | 2,280 |

| | Medicare Eligible Retirees | | |
|-----------------|----------------------------|---------|--|
| Medical Plan | Single | 2-Party | |
| Group Companion | \$318 | \$614 | |

Actuarial Methods

The actuarial cost method used for this valuation is the Entry Age Normal (EAN) cost method. Under the EAN cost method, the Normal Cost for each participant is determined as a level percent of payroll throughout the participant's working lifetime.

The Actuarial Accrued Liability (AAL) is the cumulative value, on the valuation date, of prior Normal Costs. For retirees, the AAL is the present value of all projected benefits. The unfunded AAL is amortized over 20 years as a level percent of payroll.

An "Implied Subsidy" was valued for the Retiree Healthcare Plan. This valuation report includes 100% of both the State and Teacher implied subsidy. Because underlying medical costs generally increase with age, allowing retirees to participate in the active healthcare plan results in the premiums charged to younger employees (actives) subsidizing the premiums charged to older employees (retirees). GASB 45 requires that the implied subsidy for retirees be included in the Actuarial Accrued Liability and the Annual Required Contribution for healthcare plans that are not community rated.

The Plan is assumed to be ongoing for cost purposes. This does not imply that an obligation to continue the Plan exists.

Actuarial Assumptions

| te |
|----|
| |

- 4.5%, representing the expected long-term rate of return on the State's Cash Pool.
- GASB 45 requires the discount rate to represent the underlying expected return for the source of funds used to pay benefits. Unless the State sets up a segregated Plan trust, that source is State funds.

Inflation Rate

- 3.75% per annum. (Same as MSRS 6/30/06 valuation assumption)
- Aggregate Payroll Increases
 - 4.75% per annum. (Same as MSRS 6/30/06 valuation across-the-board increase assumption)

Salary Merit and Longevity Increases

• Same as MSRS 6/30/06 valuation assumption.

| Service | Increase |
|---------|-----------|
| 0 | 5.25% |
| 5 | 2.75% |
| 10 | 1.32% |
| 15 | 0.53% |
| 20 | 0.15% |
| 25+ | 0.00% |
| 0/forIa | aialativa |

• 0% for Legislative

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SECTION 7 ACTUARIAL METHODS AND ASSUMPTIONS

• No Judicial actives in data

Demographic Assumptions (Mortality, Withdrawal, Disability)

• Same as MSRS 6/30/06 valuation assumptions.

■ Retirement Age

- Same as MSRS 6/30/06 valuation assumptions.
- Average expected retirement ages:

| | Hire | Expected |
|------------------|------|----------------|
| Retirement Group | Age | Retirement Age |
| State Tier 1 | 24 | 57.1 |
| State Tier 2 | 36 | 63.8 |
| Teachers Tier 1 | 30 | 59.9 |
| Teachers Tier 2 | 32 | 62.0 |

Healthcare Cost Increases

| | | | Teachers Health Plans | | | |
|---------------|---------------|------------------|-----------------------|----------|----------|----------|
| | State Heal | th Plans | НМО | | PP | 0 |
| | Before | After | Before | After | Before | After |
| | Medicare | Medicare | Medicare | Medicare | Medicare | Medicare |
| Year | Eligible | Eligible | Eligible | Eligible | Eligible | Eligible |
| 2007 | 10.0% | 10.5% | 12.0% | 12.5% | 12.5% | 13.0% |
| 2008 | 9.5% | 9.9% | 11.3% | 11.8% | 11.8% | 12.2% |
| 2009 | 8.9% | 9.3% | 10.6% | 11.0% | 11.0% | 11.4% |
| 2010 | 8.4% | 8.7% | 9.9% | 10.3% | 10.3% | 10.6% |
| 2011 | 7.8% | 8.1% | 9.2% | 9.5% | 9.5% | 9.8% |
| 2012 | 7.3% | 7.5% | 8.5% | 8.8% | 8.8% | 9.0% |
| 2013 | 6.7% | 6.9% | 7.8% | 8.0% | 8.0% | 8.2% |
| 2014 | 6.2% | 6.3% | 7.1% | 7.3% | 7.3% | 7.4% |
| 2015 | 5.6% | 5.7% | 6.4% | 6.5% | 6.5% | 6.6% |
| 2016 | 5.1% | 5.1% | 5.7% | 5.8% | 5.8% | 5.8% |
| 2017+ | 4.5% | 4.5% | 5.0% | 5.0% | 5.0% | 5.0% |
| Participation | on at Retirem | ent | | | | |
| Yrs of Mee | dical | | | | | |
| Participat | ion State | <u>e Teacher</u> | | | | |
| < 5 | 25% | | | | | |
| 6 | 75% | <u>5</u> 25% | | | | |
| 7 | 80% | <u>5</u> 25% | | | | |
| 8 | 85% | <u>5</u> 25% | | | | |
| 9 | 90% | <u>5</u> 25% | | | | |
| 10+ | 95% | ő 75% | | | | |
| | | | | | | |

SECTION 7 ACTUARIAL METHODS AND ASSUMPTIONS

| State Contribution | |
|--|--|
| No future increases. | |
| Spouses | |
| Current marital status (based on coverage | election) |
| Spouse Age | |
| Males 3 years older than females. | |
| Medical Plan at Retirement | |
| • Future retirees not eligible for Medicare: | Same as current active coverage. |
| • Future retirees eligible for Medicare: Gro | oup Companion. |
| Medicare Eligible | |
| • Future retirees: | |
| ➢ Hired before 4/1/1986 − 75% | |
| ➢ Hired on or after 4/1/1986 − 100% | |
| • Current retirees under age 65 – 87.5% | |
| • Current retirees age 65 and over – 75% (| based on actual data) |
| State Part-Time Employees | |
| • Hired before 3/1/2006 and not participati | ng assumed part-time. |
| • 25% of part-time employees assumed eli | gible for 100% State contribution at retirement. |
| Ineligible Teachers | |
| • 33 ¹ / ₃ % of ineligible Teachers assumed to | receive State contribution at retirement. |
| • Ineligible Teachers assumed equal to 109 | % of all Teachers. |
| Future New Participants | |
| | |

• Closed Group – no future new participants assumed.

SECTION 7 ACTUARIAL METHODS AND ASSUMPTIONS

Data Assumptions

• Data from Anthem:

State:

- > 217 missing hire dates average service by age group
- ➤ 453 missing pay average pay by age/service group
- Ineligible elected officials assume none in data

Teachers:

- ➤ 7,597 missing hire dates average service by age group
- ➢ 7,602 missing pays − average pay by age/service group
- > All Teachers with 25 years of service have retired
- Data from State:

State:

- > 316 missing hire dates with \$0 pay assume terminated
- > 824 hired before 3/1/2006 assume part-time and 25% will be eligible at retirement

> 417 hired on or after 3/1/2006 – assume new hires with average age, plan, service Teachers:

> 10,856 did not match with Anthem file – not included in valuation

SECTION 8 GASB 45 SUMMARY

On June 21, 2004, the Governmental Accounting Standards Board approved Statement No. 45 (GASB 45), accounting standards for *other* (than pensions) *postemployment benefits* (OPEB). Accounting for these benefits – primarily postretirement medical – can have significant impact on state and local government financial statements. This section summarizes GASB 45.

Background

Historically, most public sector entities have accounted for OPEB using a "pay-as-you-go" approach; very few have prefunded or even accrued for these benefits. This means OPEB costs are ignored while an employee renders service and recognized only after an employee retires. GASB argues this delayed recognition shifts "costs" from one taxpaying generation to another. The GASB position is that OPEB, like pension benefits, are a form of deferred compensation. Accordingly, GASB 45 requires recognizing OPEB (in the financial statement) *as employees render service* (and consequently earn the benefit), rather than when paid.

Effective Dates

GASB 45 effective dates are phased in similar to GASB Statement No. 34:

- Fiscal years beginning after December 15, 2006 for GASB 34 phase 1 governments (total annual revenue of \$100 million or more)
- Fiscal years beginning after December 15, 2007 for GASB 34 phase 2 governments (total annual revenue of \$10 million)
- Fiscal years beginning after December 15, 2008 for GASB 34 phase 3 governments (total annual revenue less than \$10 million).

What Benefits are OPEB?

OPEB includes most postemployment benefits, other than pensions, that employees are entitled to after leaving employment:

- Retiree medical
- Dental
- Prescription drug
- Vision
- Life insurance
- Outside group legal
- Long-term care
- Disability benefits outside a pension plan

OPEB does not include vacation, sick leave, COBRA, or ad hoc early retirement incentives, which fall under other GASB accounting statements.

Accounting Standards

Under GASB 45, pay-as-you-go accounting is replaced with accrual accounting. This is virtually identical to GASB's approach under Statement No. 27, with the key financial statement components being an Annual Required Contribution, an Annual OPEB Cost, and a Net OPEB Obligation.

- Annual Required Contribution (ARC): GASB 45 doesn't require an agency to make up any shortfall (unfunded Actuarial Liability) immediately, nor does it allow an immediate credit for any excess Plan Assets. Instead, the difference is amortized over time. An agency's ARC is nothing more than the employer current Normal Cost (value of benefits being "earned" during a year), plus the amortized unfunded Actuarial Liability (or less the amortized excess Plan Assets). Simply put, ARC is the value of benefits earned during the year plus (or minus) something to move the plan toward being on track for funding. GASB 45 allows actuaries to amortize the unfunded Actuarial Liability (or excess Plan Assets) on a level dollar or level percent of payroll basis. We believe most agencies will want to use a level percent of payroll amortization because it's more consistent with the budget process and how pension contributions are usually calculated. ARC must be based on the underlying OPEB promise (as understood by the plan sponsor and employees).
- Annual OPEB Cost (AOC): The first year an agency complies with the new standards, the AOC equals the ARC. In subsequent years, the AOC will equal the ARC, adjusted for prior differences between the ARC and AOC.
- Net OPEB Obligation (NOO): An agency's NOO is the historical difference between actual contributions made and the ARC. If an agency has always contributed the ARC, the NOO equals zero. However, an agency has not "made" the contribution unless it has been set aside *and* cannot legally be used for any other purpose.

Implementation Process

The implementation process will be relatively straightforward: An agency will hire an actuary to calculate the ARC. The first time an agency does this, their AOC equals their ARC. The agency then decides whether to contribute all, none, or part of the ARC into a Trust that cannot legally be used for any purpose other than paying OPEB.

If an agency always contributes the ARC, then each subsequent year's AOC equals their ARC – and the NOO is zero. The first year an agency does *not* contribute the ARC, they must establish an NOO equal to the difference between their actual contribution and the ARC. The subsequent year's AOC equals the ARC, adjusted for interest and amortization of the NOO.

Disclosure Requirements

This may be the most important aspect of GASB 45. When disclosed, some agencies will show large OPEB unfunded liabilities, while others will show small or no unfunded liabilities. These differences *may* require an adjustment in an agency's bond rating. Plan sponsors must disclose in their financial statement footnotes:

SECTION 8 GASB 45 SUMMARY

- Basic plan information
 - > Plan type
 - Benefits provided
 - > Authority under which benefits were established
- Plan funding/contribution policy information:
 - Required contribution rates for active members and employers shown in dollars or as a percent of payroll
- Plan Funded Status information:
 - > AOC and the dollar contributions actually made
 - > If the employer has a NOO, also
 - Components of the AOC
 - NOO increase or decrease during the year
 - End of year NOO
 - ➢ 3-year history of
 - AOC
 - Percent of AOC contributed during the year
 - End of year NOO
 - Most recent year's plan Funded Status
 - > Actuarial methods and assumptions used to determine the ARC, AOC, and Funded Status.

In addition, plan sponsors must provide 3 years of historical required supplementary information:

- Valuation dates
- Actuarial asset values
- Actuarial Liability
- Unfunded Actuarial Liability (excess Plan Assets)
- Plan funded ratio
- Annual covered payroll
- Ratio of unfunded Actuarial Liability (excess Plan Assets) to annual covered payroll
- Factors that significantly affect comparing the above information across the years.

Defining the Plan

GASB 45 refers to the *substantive plan* as the basis for accounting. It 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 to a plan's cost sharing provisions, or
- Past practice of cost increases in monetary benefits.

The substantive plan is the basis for allowing recognition of potential future plan changes. This approach requires entities to acknowledge the underlying promise, not just the written plan.

What if retirees participate in the active healthcare plan, but are charged a rate based on composite active and retiree experience? (This was a contentious issue during the statement drafting, with one of the seven board members dissenting from Board adoption of the final statement.) In general, GASB 45 requires recognition of the implied subsidy. However, if benefits are provided through a community rated plan (premium rates based on experience of multiple employers rather than a single employer), and the same premium is charged for active and retired participants, it is appropriate to value unadjusted premiums.

Actuarial Assumptions and Discount Rate Requirements

Under GASB 45, the actuary must follow current actuarial standards of practice, which generally call for explicit assumptions – meaning each individual assumption represents the actuary's best estimate.

GASB 45 also requires basing the discount rate 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. Since the source of funds for unfunded plans is usually an agency's general fund, unfunded plans will need to use a low (for example, 4% to 5%) discount rate. If an agency sets up a Trust and diversifies Trust Plan Assets, however, the discount rate might be much higher (such as 7%) depending on the Trust fund's expected long-term investment return.

Transition Issues

Typically, new accounting standards allow transition from old to new requirements. Because historical ARC calculations will rarely be available, GASB 45 takes a prospective transition approach: there is no requirement for an initial transition obligation. But if AOCs, before transition, were calculated consistently with the standard, a NOO at transition can be established at an agency's discretion.

Valuation Frequency Requirements and Small Plans

GASB 45 requires an actuarial valuation at least every two years for plans with more than 200 (active, inactive, and retired) members. Plans with fewer than 200 members will need a valuation every 3 years. In a significant departure from prior standards, though, GASB 45 allows plans with fewer than 100 members to elect a simplified measurement method not requiring an actuarial certification.

This report presents the June 30, 2006 actuarial valuation for the State of Maine Retiree Healthcare Plan ("Plan"). The purpose of this valuation is to:

- determine the Plan benefit obligations as of June 30, 2006 pursuant to Governmental Accounting Standards Board Statement No. 45 (GASB 45),
- calculate the State's 2006/07 fiscal year Annual Required Contribution for the Plan assuming GASB 45 is adopted for the 2006/07 fiscal year, and
- review several funding options for the Plan.

This report includes the following sections:

- Section 1 presents an executive summary of the GASB 45 valuation results.
- Section 2 provides financial accounting information, including the Annual Required Contribution and the June 30, 2006 benefit obligation.
- Section 3 provides the results of the actuarial valuation.
- Section 4 presents several funding options.
- Sections 5, 6, and 7 summarize the census data, Plan provisions, funding method, and actuarial assumptions that form the basis for this valuation.
- Section 8 includes a summary of GASB 45.

This report presents our best estimate of the State of Maine Retiree Healthcare Plan liabilities and costs in accordance with accepted actuarial principles and our understanding of GASB 45.

The undersigned is a member of the American Academy of Actuaries and meets the Academy Qualification Standards to render the actuarial results and opinions in this report. The healthcare claims analysis for this valuation was performed by a collaborating qualified healthcare actuary.

Respectfully submitted,

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January 10, 2007