

State of New Hampshire

*Actuarial Valuation and Review of Other Postemployment
Benefits (OPEB) as of June 30, 2008
In accordance with GASB Statements Number 43 and 45*

FINAL VERSION

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December 21, 2009

*Monica A. Cioffi
Administrator of Risk and Benefits
Department of Administrative Services
25 Capitol Street
Concord, NH 03301*

Dear Monica:

We are pleased to submit this report on our actuarial valuation of postemployment welfare benefits as June 30, 2008 under GASB Statements Number 43 and 45. It establishes the liabilities of the postemployment welfare benefit plan in accordance with GASB Statements Number 43 and 45 for the current year and summarizes the actuarial data. This final report reflects projected savings for plan design changes effective July 1, 2009, including the impact of the retiree health insurance premium contribution for retirees under age 65.

This report is based on information received from the State. The actuarial projections were based on the assumptions and methods described in Exhibit II and on the plan of benefits as summarized in Exhibit III.

We look forward to discussing this material with you at your convenience.

Sincerely,

THE SEGAL COMPANY

By: 

*Andrew D. Sherman
Senior Vice President*

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*Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary*

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SECTION 1: Introduction for State of New Hampshire June 30, 2008 Measurement under GASB

PURPOSE

This report presents the results of our actuarial valuation of State of New Hampshire (the “Employer”) postemployment welfare benefit plan as of June 30, 2008. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants’ active working lifetimes. The accounting standard supplements cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The State of New Hampshire initially complied with GASB 45 for the fiscal year ending June 30, 2008 based on the actuarial valuation completed as of December 31, 2006.

The valuation as of June 30, 2008 reflects the plan design changes effective July 1, 2009, including the change for the retiree contribution.

HIGHLIGHTS OF THE VALUATION

During the fiscal year ending June 30, 2009, we project the State will pay claims and expenses (net of the New Hampshire Retirement System subsidy and retiree contributions) on behalf of retired employees of about \$54,422,000. Under prior accounting rules, this is the State’s “cost” of those benefit programs for retirees. Under new accounting rules, the annual “cost” will increase to \$195,442,000.

The GASB statements provide the method for selecting the investment return assumption (discount rate). If the benefits are pre-funded, the discount rate should be based on the estimated long-term investment yield on the investments expected to be used to finance the payment of benefits. If

financing continues to be pay-as-you-go, the discount rate should be based on the expected yield on the assets of the employer. For the purpose of this valuation, we have used 8.5% and 4.5%, respectively, for pre-funded and pay-as-you-go.

To determine the amortization payment on the unfunded actuarial accrued liability (UAAL), an amortization period and amortization method must be selected. We have used a 30-year amortization of the UAAL (the maximum permitted by the GASB statements), with payments increasing at 4.5% year. The GASB statements allow for either an open or closed amortization period. In open amortization, the period is reset to the initial value every year and the UAAL is reamortized, while under a closed amortization, the remaining period decreases and the UAAL is eventually “paid off.”

For purposes of accounting disclosures, we have used an open amortization period of 30 years for the UAAL. As the State is not yet prefunding the OPEB obligations, we do not recommend using a closed amortization period. For your information, if a closed amortization period were used (with 29 years remaining as of July 1, 2008), the ARC would increase from \$193,729,000 to \$196,632,000. On page 13, we show a 30-year projection of the ARC under pay-as-you-go assumptions (including an open amortization period).

To be considered a prefunded plan, the “contribution in relation to the ARC” must equal the ARC. For example, if the ARC is \$118,623,000, and the employer pays, claims and expenses to retirees of \$54,422,000, then an additional contribution of the difference, or approximately \$64,201,000 will need to be added to an OPEB trust fund during the fiscal year ending June 30, 2009.

SECTION 1: Introduction for State of New Hampshire June 30, 2008 Measurement under GASB

On page 13, we show a funding schedule using the pre-funded discount rate and a closed amortization beginning July 1, 2008. If the State were to start pre-funding OPEB benefits, the “Additional Funding” amounts shown in this chart are the expected amounts the State would have to contribute to an OPEB trust in future years (beyond the projected net retiree claims and expenses) to fully fund the OPEB obligation in 30 years.

Assets set aside to fund OPEB liabilities must be held in a trust or equivalent arrangement, through which assets are accumulated and benefits are paid as they come due. Employer contributions to the plan are irrevocable, plan assets are dedicated to providing benefits to retirees and their spouses in accordance with the terms of the plan, and plan assets are legally protected from creditors of the employer.

GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsidies that the Employer may be eligible to receive for plan years beginning in 2006.

Employer decisions regarding plan design, cost sharing between the Employer and its retirees, actuarial cost method, amortization techniques, and integration with Medicare are just some of the decisions that affect the magnitude of OPEB obligations. We are available to assist you with any investigation of such options you may wish to undertake.

- The **unfunded actuarial accrued liability (UAAL)** as of June 30, 2008 is \$1,311,570,000 (pre-funded) and \$2,470,485,000 (pay-as-you-go). Going forward, net unfunded plan obligations will be expected to change due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total actuarial accrued liability, less expected benefit payments and contributions. Future valuations will analyze the difference between actual and expected unfunded actuarial accrued liabilities.
 - As of June 30, 2008, the ratio of assets to the AAL (the funded ratio) is 0%.
- The **Annual Required Contribution (ARC)** is \$118,623,000 (pre-funded) and \$193,729,000 (pay-as-you-go) this year. The ARC is expected to remain relatively level as a percentage of payroll, as long as the ARC is fully funded each year. If the ARC is not fully funded, it may be expected to increase as a percentage of payroll over time.
- As noted above, **projected benefit payments** for the year ended June 30, 2009 were \$54,422,000. Actual benefit payments for the year were approximately \$59,090,000, as reported by the State’s auditors. The audited number does not include an offset of approximately \$2.7 million for prescription drug rebates, and includes \$600,000 in program administrative expenses not included in our administrative expense assumption. We also note that benefit payments are projected on an incurred basis, while actual benefits are shown on a paid basis. The GASB 45 disclosure charts in Section 3 reflect the actual benefit payments as the “contribution in relation to the ARC.”

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Plan obligations had been expected to increase due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total obligation, less expected benefit payments. The smaller than expected increase was the net result of the following:

- An **actuarial experience loss** increased obligations. This was the net result of gains and losses due to demographic changes and the New Hampshire Retirement System subsidy not increasing as expected.
- **Valuation assumptions** decreased obligations. This was the net result of a *decrease* in obligations due to valuation-year per capita health costs that did not increase as much as expected, partially offset by an *increase* in obligations due to changing the percent married assumption for future retirees and an *increase* in obligations due to a change in the future trend on per capita health care costs, based on our projections of what is likely to occur in the marketplace. The complete set of assumptions is shown in Exhibit II.
- **Plan changes** decreased obligations. This was the net result of a *decrease* in obligations due to changes in the New Hampshire Retirement System medical subsidy effective January 1, 2008, a *decrease* in obligations due to plan design changes effective July 1, 2009, and a *decrease* in obligations due to establishing of a retiree health insurance premium contribution of \$65 per month per retiree or spouse under the age of 65. Effective July 1, 2009, this contribution has been assumed not to increase over time and has been applied to all current and future retirees and their spouses under age 65. The current plan of benefits is shown in Exhibit III.

A reconciliation of changes in obligations on both the pre-funded and pay-as-you-go basis is shown on the following page.

SECTION 1: Introduction for State of New Hampshire June 30, 2008 Measurement under GASB

RECONCILIATION OF CHANGES IN OPEB UAAL

| | Pre- funded (8.5% interest rate) | Pay-as-you-go (4.5% interest rate) |
|--|---|---|
| Unfunded actuarial accrued liability as of December 31, 2006 | \$1,333,304,000 | \$2,559,477,000 |
| Change in UAAL attributable to: | | |
| Benefits earned net of benefits paid, NHRS subsidy and retiree contributions | \$166,283,000 | \$272,276,000 |
| Actuarial experience gain/loss | 18,840,000 | 24,644,000 |
| Changes in actuarial assumptions: | | |
| Changes in health per capita costs | \$(180,893,000) | \$(345,803,000) |
| Assumption changes to percent married and trend | <u>96,707,000</u> | <u>191,924,000</u> |
| Subtotal | \$(84,186,000) | \$(153,879,000) |
| Plan amendments: | | |
| Changes to NHRS subsidy | \$(74,790,000) | \$(152,119,000) |
| Plan design changes effective July 1, 2009 | (25,335,000) | (48,805,000) |
| Impact of under 65 retiree contribution | <u>(22,546,000)</u> | <u>(31,109,000)</u> |
| Subtotal | <u>(122,671,000)</u> | <u>(232,033,000)</u> |
| Total decrease in unfunded actuarial accrued liability | \$(21,734,000) | \$(88,992,000) |
| Unfunded actuarial accrued liability as of June 30, 2008 | \$1,311,570,000 | \$2,470,485,000 |

SECTION 1: Introduction for State of New Hampshire June 30, 2008 Measurement under GASB

ACCOUNTING REQUIREMENTS

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under these statements, all state and local governmental entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements.

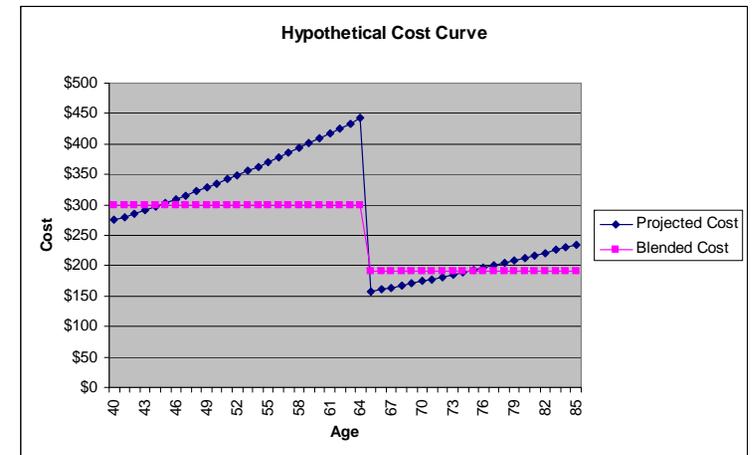
The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. These benefits, referred to as OPEB, are typically financed on a pay-as-you-go basis. The new standard introduces an accrual-basis accounting requirement; thereby recognizing the employer cost of postemployment benefits over an employee’s career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the net OPEB obligation (NOO). In addition, required supplementary information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan.

The benefits valued in this report are limited to those described in Exhibit III of Section 4.

The following graph illustrates why a significant accounting obligation may exist even though the retiree contributes most or all of the blended premium cost of the plan. The average cost for retirees is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.

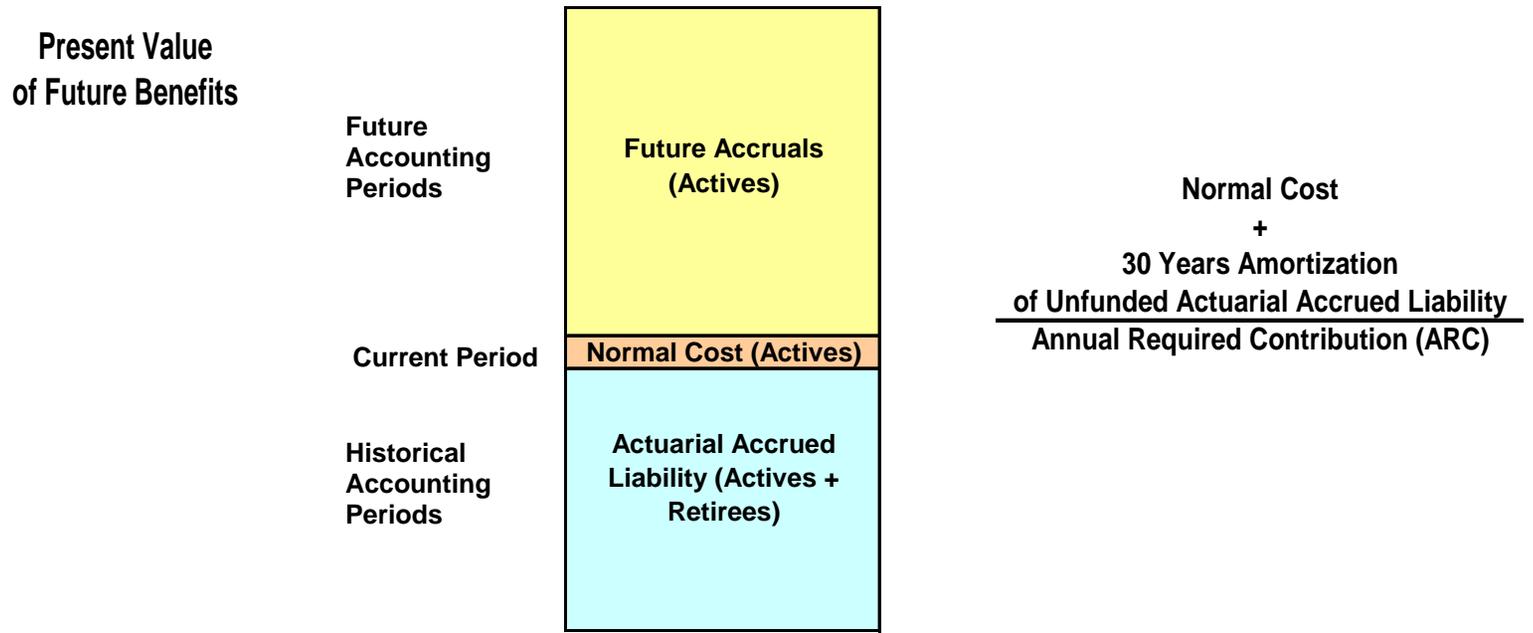


SECTION 1: Introduction for State of New Hampshire June 30, 2008 Measurement under GASB

This graph shows how the actuarial present value of the total projected benefits (APB) is broken down and allocated to various accounting periods.

The exact breakdown depends on the actuarial cost method and amortization methods selected by the employer.

GASB 43/45 Measurement



$$\text{Net OPEB Obligation} = \text{ARC}_1 + \text{ARC}_2 + \text{ARC}_3 + \dots - \text{Contribution}_1 - \text{Contribution}_2 - \text{Contribution}_3 - \dots$$

SECTION 1: Introduction for State of New Hampshire June 30, 2008 Measurement under GASB

Actuarial computations under GASB statements are for purposes of fulfilling certain welfare plan accounting requirements. The calculations shown in this report have been made on a basis consistent with our understanding of GASB. Determinations for purposes other than meeting the financial accounting requirements of GASB may differ significantly from the results reported here.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits does not incorporate the potential effect of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

SECTION 2: Valuation Results for the State of New Hampshire June 30, 2008 Measurement under GASB

SUMMARY OF VALUATION RESULTS

The key results and significant assumptions for the current year are shown on a pre-funded basis and a pay-as-you-go basis.

| | Pre-funded (8.5% interest rate) | Pay-as-you-go (4.5% interest rate) |
|---|--|---|
| Actuarial Accrued Liability – Gross | | |
| 1. Current retirees, beneficiaries and dependents | \$764,124,757 | \$1,154,755,065 |
| 2. Current active employees | <u>748,145,164</u> | <u>1,626,420,364</u> |
| 3. Total as of July 1, 2008: (1) + (2) | \$1,512,269,921 | \$2,781,175,429 |
| NHRS Subsidy | | |
| 4. Current retirees, beneficiaries and dependents | \$138,312,546 | \$200,539,495 |
| 5. Current active employees | <u>35,226,458</u> | <u>71,643,398</u> |
| 6. Total as of July 1, 2008: (4) + (5) | \$173,539,004 | \$272,182,893 |
| Retiree Contributions | | |
| 7. Current retirees, beneficiaries and dependents | \$12,594,841 | \$15,853,991 |
| 8. Current active employees | <u>14,566,183</u> | <u>22,653,855</u> |
| 9. Total as of July 1, 2008: (7) + (8) | \$27,161,024 | \$38,507,846 |
| Actuarial Accrued Liability – Net | | |
| 10. Current retirees, beneficiaries and dependents | \$613,217,370 | \$938,361,579 |
| 11. Current active employees | <u>698,352,523</u> | <u>1,532,123,111</u> |
| 12. Total as of July 1, 2008: (10) + (11) | \$1,311,569,893 | \$2,470,484,690 |
| Annual Required Contribution for Fiscal Year Ending June 30, 2009 | | |
| 13. Normal cost as of July 1, 2008 | \$42,350,150 | \$107,162,485 |
| 14. Adjustment for timing | <u>1,763,178</u> | <u>2,384,624</u> |
| 15. Normal cost including adjustment for timing: (13) + (14) | \$44,113,328 | \$109,547,109 |
| 16. Amortization of the unfunded actuarial liability (30 years, increasing 4.5% per year) | \$71,531,891 | \$82,349,490 |
| 17. Adjustment for timing | <u>2,978,111</u> | <u>1,832,474</u> |
| 18. Amortization payment including adjustment for timing: (16) + (17) | \$74,510,002 | \$84,181,964 |
| 19. Total Annual Required Contribution (ARC): (15) + (18) | \$118,623,330 | \$193,729,073 |
| 20. Projected net benefit payments for fiscal year ending June 30, 2009 | \$54,421,647 | \$54,421,647 |

Note: Adjustment for timing assumes payment in the middle of the fiscal year.

SECTION 2: Valuation Results for the State of New Hampshire June 30, 2008 Measurement under GASB

GROUP RESULTS – PRE-FUNDED (8.5%)

| Actuarial Accrued Liability (AAL) and Annual Required Contribution | | | | | | |
|---|---------------------------|--------------------------|---------------------------|----------------------------|------------------------|----------------------|
| | Group I | | | | | |
| | Community Colleges | Liquor Commission | Lottery Commission | Turnpike Commission | Other Employees | Total Group I |
| Actuarial Accrued Liability – Gross | | | | | | |
| 1. Current retirees, beneficiaries and dependents | \$23,240,637 | \$18,568,701 | \$4,060,971 | \$12,217,431 | \$539,612,694 | \$597,700,434 |
| 2. Current active employees | <u>42,733,332</u> | <u>15,529,209</u> | <u>2,636,575</u> | <u>15,138,639</u> | <u>509,232,794</u> | <u>585,270,549</u> |
| 3. Total as of July 1, 2008: (1) + (2) | \$65,973,969 | \$34,097,910 | \$6,697,546 | \$27,356,070 | \$1,048,845,488 | \$1,182,970,983 |
| NHRS Subsidy and Retiree Contributions | | | | | | |
| 4. Current retirees, beneficiaries and dependents | \$4,342,179 | \$3,981,529 | \$455,168 | \$2,560,919 | \$97,122,273 | \$108,462,068 |
| 5. Current active employees | <u>523,907</u> | <u>228,407</u> | <u>36,281</u> | <u>175,527</u> | <u>9,437,427</u> | <u>10,401,549</u> |
| 6. Total as of July 1, 2008: (4) + (5) | \$4,866,086 | \$4,209,936 | \$491,449 | \$2,736,446 | \$106,559,700 | \$118,863,617 |
| Actuarial Accrued Liability – Net | | | | | | |
| 7. Current retirees, beneficiaries and dependents | \$18,898,458 | \$14,587,172 | \$3,605,803 | \$9,656,512 | \$442,490,421 | \$489,238,366 |
| 8. Current active employees | <u>42,209,425</u> | <u>15,300,802</u> | <u>2,600,294</u> | <u>14,963,112</u> | <u>499,795,367</u> | <u>574,869,000</u> |
| 9. Total as of July 1, 2008: (7) + (8) | \$61,107,883 | \$29,887,974 | \$6,206,097 | \$24,619,624 | \$942,285,788 | \$1,064,107,366 |
| Annual Required Contribution for Fiscal Year Ending June 30, 2009 | | | | | | |
| 10. Normal cost as of July 1, 2008 | \$2,666,759 | \$983,190 | \$97,007 | \$972,201 | \$28,765,547 | \$33,484,704 |
| 11. Adjustment for timing | <u>111,026</u> | <u>40,933</u> | <u>4,039</u> | <u>40,476</u> | <u>1,197,606</u> | <u>1,394,080</u> |
| 12. Normal cost including adjustment for timing: (10) + (11) | \$2,777,785 | \$1,024,123 | \$101,046 | \$1,012,677 | \$29,963,153 | \$34,878,784 |
| 13. Amortization of the unfunded actuarial liability (30 years, increasing 4.5% per year) | \$3,332,771 | \$1,630,064 | \$338,475 | \$1,342,733 | \$51,391,455 | \$58,035,498 |
| 14. Adjustment for timing | <u>138,754</u> | <u>67,865</u> | <u>14,092</u> | <u>55,902</u> | <u>2,139,598</u> | <u>2,416,211</u> |
| 15. Amortization payment including adjustment for timing: (13) + (14) | \$3,471,525 | \$1,697,929 | \$352,567 | \$1,398,635 | \$53,531,053 | \$60,451,709 |
| 16. Total Annual Required Contribution (ARC): (12) + (15) | \$6,249,310 | \$2,722,052 | \$453,613 | \$2,411,312 | \$83,494,206 | \$95,330,493 |
| 17. Projected net benefit payments for fiscal year ending June 30, 2009 | \$1,979,334 | \$1,277,840 | \$337,781 | \$963,711 | \$40,707,966 | \$45,266,632 |

Note: Adjustment for timing assumes payment in the middle of the year.

SECTION 2: Valuation Results for the State of New Hampshire June 30, 2008 Measurement under GASB

GROUP RESULTS – PRE-FUNDED (8.5%) CONTINUED

| Actuarial Accrued Liability (AAL) and Annual Required Contribution | Group II | | Grand Total |
|---|---------------------|------------------------|--------------------|
| | Firefighters | Police Officers | |
| Actuarial Accrued Liability – Gross | | | |
| 1. Current retirees, beneficiaries and dependents | \$2,025,265 | \$164,399,058 | \$764,124,757 |
| 2. Current active employees | <u>10,545,439</u> | <u>152,329,176</u> | <u>748,145,164</u> |
| 3. Total as of July 1, 2008: (1) + (2) | \$12,570,704 | \$316,728,234 | \$1,512,269,921 |
| NHRS Subsidy and Retiree Contributions | | | |
| 4. Current retirees, beneficiaries and dependents | \$477,926 | \$41,967,393 | \$150,907,387 |
| 5. Current active employees | <u>3,363,484</u> | <u>36,027,608</u> | <u>49,792,641</u> |
| 6. Total as of July 1, 2008: (4) + (5) | \$3,841,410 | \$77,995,001 | \$200,700,028 |
| Actuarial Accrued Liability – Net | | | |
| 7. Current retirees, beneficiaries and dependents | \$1,547,339 | \$122,431,665 | \$613,217,370 |
| 8. Current active employees | <u>7,181,955</u> | <u>116,301,568</u> | <u>698,352,523</u> |
| 9. Total as of July 1, 2008: (7) + (8) | \$8,729,294 | \$238,733,233 | \$1,311,569,893 |
| Annual Required Contribution for Fiscal Year Ending June 30, 2009 | | | |
| 10. Normal cost as of July 1, 2008 | \$587,495 | \$8,277,951 | \$42,350,150 |
| 11. Adjustment for timing | <u>24,459</u> | <u>344,639</u> | <u>1,763,178</u> |
| 12. Normal cost including adjustment for timing: (10) + (11) | \$611,954 | \$8,622,590 | \$44,113,328 |
| 13. Amortization of the unfunded actuarial liability (30 years, increasing 4.5% per year) | \$476,088 | \$13,020,305 | \$71,531,891 |
| 14. Adjustment for timing | <u>19,821</u> | <u>542,079</u> | <u>2,978,111</u> |
| 15. Amortization payment including adjustment for timing: (13) + (14) | \$495,909 | \$13,562,384 | \$74,510,002 |
| 16. Total Annual Required Contribution (ARC): (12) + (15) | \$1,107,863 | \$22,184,974 | \$118,623,330 |
| 17. Projected net benefit payments for fiscal year ending June 30, 2009 | \$140,845 | \$9,014,170 | \$54,421,647 |

Note: Adjustment for timing assumes payment in the middle of the year.

SECTION 2: Valuation Results for the State of New Hampshire June 30, 2008 Measurement under GASB

GROUP RESULTS – PAY-AS-YOU-GO (4.5%)

Actuarial Accrued Liability (AAL) and Annual Required Contribution

| | Group I | | | | | Total Group I |
|---|--------------------|-------------------|--------------------|---------------------|----------------------|----------------------|
| | Community Colleges | Liquor Commission | Lottery Commission | Turnpike Commission | Other Employees | |
| Actuarial Accrued Liability – Gross | | | | | | |
| 1. Current retirees, beneficiaries and dependents | \$34,665,616 | \$28,352,012 | \$5,941,236 | \$18,011,937 | \$803,018,101 | \$889,988,902 |
| 2. Current active employees | <u>86,407,109</u> | <u>33,875,577</u> | <u>5,984,832</u> | <u>30,583,672</u> | <u>1,096,813,646</u> | <u>1,253,664,836</u> |
| 3. Total as of July 1, 2008: (1) + (2) | \$121,072,725 | \$62,227,589 | \$11,926,068 | \$48,595,609 | \$1,899,831,747 | \$2,143,653,738 |
| NHRS Subsidy and Retiree Contributions | | | | | | |
| 4. Current retirees, beneficiaries and dependents | \$6,104,941 | \$5,711,532 | \$630,059 | \$3,652,081 | \$136,774,848 | \$152,873,461 |
| 5. Current active employees | <u>722,050</u> | <u>337,224</u> | <u>54,653</u> | <u>253,708</u> | <u>14,560,330</u> | <u>15,927,965</u> |
| 6. Total as of July 1, 2008: (4) + (5) | \$6,826,991 | \$6,048,756 | \$684,712 | \$3,905,789 | \$151,335,178 | \$168,801,426 |
| Actuarial Accrued Liability – Net | | | | | | |
| 7. Current retirees, beneficiaries and dependents | \$28,560,675 | \$22,640,480 | \$5,311,177 | \$14,359,856 | \$666,243,253 | \$737,115,441 |
| 8. Current active employees | <u>85,685,059</u> | <u>33,538,353</u> | <u>5,930,179</u> | <u>30,329,964</u> | <u>1,082,253,316</u> | <u>1,237,736,871</u> |
| 9. Total as of July 1, 2008: (7) + (8) | \$114,245,734 | \$56,178,833 | \$11,241,356 | \$44,689,820 | \$1,748,496,569 | \$1,974,852,312 |
| Annual Required Contribution for Fiscal Year Ending June 30, 2009 | | | | | | |
| 10. Normal cost as of July 1, 2008 | \$6,344,556 | \$2,418,351 | \$267,898 | \$2,270,701 | \$71,657,747 | \$82,959,253 |
| 11. Adjustment for timing | <u>141,182</u> | <u>53,814</u> | <u>5,961</u> | <u>50,529</u> | <u>1,594,558</u> | <u>1,846,044</u> |
| 12. Normal cost including adjustment for timing: (10) + (11) | \$6,485,738 | \$2,472,165 | \$273,859 | \$2,321,230 | \$73,252,305 | \$84,805,297 |
| 13. Amortization of the unfunded actuarial liability (30 years, increasing 4.5% per year) | \$3,808,191 | \$1,872,628 | \$374,712 | \$1,489,661 | \$58,283,219 | \$65,828,411 |
| 14. Adjustment for timing | <u>84,741</u> | <u>41,670</u> | <u>8,338</u> | <u>33,149</u> | <u>1,296,942</u> | <u>1,464,840</u> |
| 15. Amortization payment including adjustment for timing: (13) + (14) | \$3,892,932 | \$1,914,298 | \$383,050 | \$1,522,810 | \$59,580,161 | \$67,293,251 |
| 16. Total Annual Required Contribution (ARC): (12) + (15) | \$10,378,670 | \$4,386,463 | \$656,909 | \$3,844,040 | \$132,832,466 | \$152,098,548 |
| 17. Projected net benefit payments for fiscal year ending June 30, 2009 | \$1,79,334 | \$1,277,840 | \$337,781 | \$963,711 | \$40,707,966 | \$45,266,632 |

Note: Adjustment for timing assumes payment in the middle of the year.

SECTION 2: Valuation Results for the State of New Hampshire June 30, 2008 Measurement under GASB

GROUP RESULTS – PAY-AS-YOU-GO (4.5%) CONTINUED

| | Group II | | Grand Total |
|---|-------------------|--------------------|----------------------|
| | Firefighters | Police Officers | |
| Actuarial Accrued Liability (AAL) and Annual Required Contribution | | | |
| Actuarial Accrued Liability – Gross | | | |
| 1. Current retirees, beneficiaries and dependents | \$3,243,293 | \$261,522,870 | \$1,154,755,065 |
| 2. Current active employees | <u>22,537,086</u> | <u>350,218,442</u> | <u>1,626,420,364</u> |
| 3. Total as of July 1, 2008: (1) + (2) | \$25,780,379 | \$611,741,312 | \$2,781,175,429 |
| NHRS Subsidy and Retiree Contributions | | | |
| 4. Current retirees, beneficiaries and dependents | \$695,976 | \$62,824,049 | \$216,393,486 |
| 5. Current active employees | <u>6,512,039</u> | <u>71,857,249</u> | <u>94,297,253</u> |
| 6. Total as of July 1, 2008: (4) + (5) | \$7,208,015 | \$134,681,298 | \$310,690,739 |
| Actuarial Accrued Liability – Net | | | |
| 7. Current retirees, beneficiaries and dependents | \$2,547,317 | \$198,698,821 | \$938,361,579 |
| 8. Current active employees | <u>16,025,047</u> | <u>278,361,193</u> | <u>1,532,123,111</u> |
| 9. Total as of July 1, 2008: (7) + (8) | \$18,572,364 | \$477,060,014 | \$2,470,484,690 |
| Annual Required Contribution for Fiscal Year Ending June 30, 2009 | | | |
| 10. Normal cost as of July 1, 2008 | \$1,523,038 | \$22,680,194 | \$107,162,485 |
| 11. Adjustment for timing | <u>33,891</u> | <u>504,689</u> | <u>2,384,624</u> |
| 12. Normal cost including adjustment for timing: (10) + (11) | \$1,556,929 | \$23,184,883 | \$109,547,109 |
| 13. Amortization of the unfunded actuarial liability (30 years, increasing 4.5% per year) | \$619,079 | \$15,902,000 | \$82,349,490 |
| 14. Adjustment for timing | <u>13,776</u> | <u>353,858</u> | <u>1,832,474</u> |
| 15. Amortization payment including adjustment for timing: (13) + (14) | \$632,855 | \$16,255,858 | \$84,181,964 |
| 16. Total Annual Required Contribution (ARC): (12) + (15) | \$2,189,784 | \$39,440,741 | \$193,729,073 |
| 17. Projected net benefit payments for fiscal year ending June 30, 2009 | \$140,845 | \$9,014,170 | \$54,421,647 |

Note: Adjustment for timing assumes payment in the middle of the year.

SECTION 2: Valuation Results for the State of New Hampshire June 30, 2008 Measurement under GASB

FUNDING SCHEDULE

30 Years Closed (8.5% interest rate, payments increasing at 4.5%)

| Fiscal Year Ended June 30 | (1) Gross Benefit Payments | (2) NHRS Subsidy/ Retiree Contributions | (3) Projected Benefit Payments | (4) Normal Cost with Interest | (5) Amortization of UAAL | (6) Total Funding Requirement (4) + (5) | (7) Additional Funding (6) – (3) | (8) Assets at End of Year | (9) AAL at End of Year | (10) UAAL at End of Year (9) – (8) |
|----------------------------------|-----------------------------------|--|---------------------------------------|--------------------------------------|---------------------------------|--|---|----------------------------------|-------------------------------|---|
| 2009 | \$69,264,123 | \$14,842,476 | \$54,421,647 | \$44,113,328 | \$74,510,002 | \$118,623,330 | \$64,201,683 | \$66,874,613 | \$1,412,315,845 | \$1,345,441,232 |
| 2010 | 75,460,185 | 18,439,370 | 57,020,815 | 46,318,994 | 77,862,952 | 124,181,946 | 67,161,131 | 142,516,228 | 1,521,215,319 | 1,378,699,091 |
| 2011 | 83,189,142 | 18,226,235 | 64,962,907 | 48,634,944 | 81,366,785 | 130,001,729 | 65,038,822 | 222,376,713 | 1,633,510,871 | 1,411,134,158 |
| 2012 | 90,938,732 | 17,962,402 | 72,976,330 | 51,066,691 | 85,028,290 | 136,094,982 | 63,118,652 | 307,025,225 | 1,749,537,485 | 1,442,512,260 |
| 2013 | 98,139,453 | 17,621,739 | 80,517,714 | 53,620,026 | 88,854,563 | 142,474,589 | 61,956,875 | 397,658,715 | 1,870,230,642 | 1,472,571,927 |
| 2014 | 106,094,263 | 17,924,317 | 88,169,946 | 56,301,027 | 92,853,019 | 149,154,046 | 60,984,100 | 494,982,777 | 1,996,004,519 | 1,501,021,742 |
| 2015 | 114,242,727 | 18,334,502 | 95,908,225 | 59,116,079 | 97,031,405 | 156,147,483 | 60,239,258 | 599,803,532 | 2,127,340,977 | 1,527,537,445 |
| 2016 | 122,466,260 | 18,664,325 | 103,801,935 | 62,071,882 | 101,397,818 | 163,469,700 | 59,667,765 | 712,938,766 | 2,264,697,546 | 1,551,758,781 |
| 2017 | 131,191,132 | 18,936,457 | 112,254,675 | 65,175,477 | 105,960,720 | 171,136,196 | 58,881,521 | 834,871,516 | 2,408,157,575 | 1,573,286,059 |
| 2018 | 139,955,133 | 19,169,510 | 120,785,623 | 68,434,250 | 110,728,952 | 179,163,202 | 58,377,579 | 966,643,627 | 2,558,320,035 | 1,591,676,407 |
| 2019 | 149,622,194 | 19,518,838 | 130,103,356 | 71,855,963 | 115,711,755 | 187,567,718 | 57,464,362 | 1,108,665,130 | 2,715,104,811 | 1,606,439,681 |
| 2020 | 157,103,304 | 19,904,108 | 137,199,196 | 75,448,761 | 120,918,784 | 196,367,545 | 59,168,349 | 1,264,533,391 | 2,881,567,409 | 1,617,034,018 |
| 2021 | 164,958,469 | 20,261,864 | 144,696,605 | 79,221,199 | 126,360,129 | 205,581,328 | 60,884,723 | 1,435,438,286 | 3,058,299,274 | 1,622,860,988 |
| 2022 | 173,206,392 | 20,497,055 | 152,709,337 | 83,182,259 | 132,046,335 | 215,228,594 | 62,519,257 | 1,622,572,682 | 3,245,832,990 | 1,623,260,308 |
| 2023 | 181,866,712 | 20,630,597 | 161,236,115 | 87,341,372 | 137,988,420 | 225,329,792 | 64,093,677 | 1,827,253,470 | 3,444,757,567 | 1,617,504,097 |
| 2024 | 190,960,048 | 20,603,905 | 170,356,143 | 91,708,441 | 144,197,899 | 235,906,339 | 65,550,196 | 2,050,849,285 | 3,655,639,892 | 1,604,790,607 |
| 2025 | 200,508,050 | 20,420,977 | 180,087,073 | 96,293,863 | 150,686,804 | 246,980,667 | 66,893,594 | 2,294,850,071 | 3,879,087,482 | 1,584,237,411 |
| 2026 | 210,533,453 | 20,252,260 | 190,281,193 | 101,108,556 | 157,467,710 | 258,576,266 | 68,295,073 | 2,561,050,752 | 4,115,924,726 | 1,554,873,975 |
| 2027 | 221,060,126 | 19,996,512 | 201,063,614 | 106,163,984 | 164,553,757 | 270,717,741 | 69,654,127 | 2,851,294,126 | 4,366,927,710 | 1,515,633,584 |
| 2028 | 232,113,132 | 19,615,247 | 212,497,885 | 111,472,183 | 171,958,676 | 283,430,859 | 70,932,974 | 3,167,540,277 | 4,632,884,826 | 1,465,344,549 |
| 2029 | 243,718,789 | 19,276,032 | 224,442,757 | 117,045,792 | 179,696,817 | 296,742,609 | 72,299,852 | 3,512,091,136 | 4,914,811,778 | 1,402,720,642 |
| 2030 | 255,904,728 | 18,894,674 | 237,010,054 | 122,898,082 | 187,783,174 | 310,681,255 | 73,671,201 | 3,887,357,262 | 5,213,707,945 | 1,326,350,683 |
| 2031 | 268,699,964 | 18,460,540 | 250,239,424 | 129,042,986 | 196,233,416 | 325,276,402 | 75,036,978 | 4,295,943,646 | 5,530,630,870 | 1,234,687,224 |
| 2032 | 282,134,962 | 18,016,024 | 264,118,938 | 135,495,135 | 205,063,920 | 340,559,055 | 76,440,117 | 4,740,721,430 | 5,866,755,653 | 1,126,034,223 |
| 2033 | 296,241,710 | 17,530,291 | 278,711,419 | 142,269,892 | 214,291,797 | 356,561,688 | 77,850,269 | 5,224,774,187 | 6,223,307,841 | 998,533,654 |
| 2034 | 311,053,796 | 17,070,569 | 293,983,227 | 149,383,386 | 223,934,927 | 373,318,314 | 79,335,087 | 5,751,518,063 | 6,601,668,993 | 850,150,930 |
| 2035 | 326,606,486 | 16,552,317 | 310,054,169 | 156,852,556 | 234,011,999 | 390,864,555 | 80,810,386 | 6,324,571,890 | 7,003,230,951 | 678,659,060 |
| 2036 | 342,936,810 | 16,047,891 | 326,888,919 | 164,695,183 | 244,542,539 | 409,237,722 | 82,348,803 | 6,947,937,759 | 7,429,559,180 | 481,621,421 |
| 2037 | 360,083,651 | 15,570,917 | 344,512,734 | 172,929,942 | 255,546,953 | 428,476,896 | 83,964,162 | 7,625,972,339 | 7,882,345,355 | 256,373,017 |
| 2038 | 378,087,834 | 15,103,749 | 362,984,085 | 181,576,440 | 267,046,566 | 448,623,006 | 85,638,921 | 8,363,384,342 | 8,363,384,342 | - |

Notes: The 2009 fiscal year NHRS subsidy is the actual subsidy received from the NHRS and was adjusted to reflect the actual State employer contribution to the System on a monthly basis. 2009 Projected Retirement System subsidy payments were based on the NHRS 2007 valuation report. Adjustment for timing assumes payment in the middle of the year.

SECTION 2: Valuation Results for the State of New Hampshire June 30, 2008 Measurement under GASB

PROJECTION OF THE ANNUAL REQUIRED CONTRIBUTION

30 Years Open (4.5% interest rate, payments increasing at 4.5%)

| Fiscal Year Ended June 30 | (1) Gross Benefit Payments | (2) NHRS Subsidy/ Retiree Contributions | (3) Projected Benefit Payments | (4) Normal Cost with Interest | (5) Amortization of UAAL | (6) ARC (4) + (5) | (7) Assets at End of Year | (8) AAL at End of Year | (9) UAAL at End of Year (8) – (7) |
|----------------------------------|---------------------------------------|--|---|--|-------------------------------------|------------------------------|--------------------------------------|-----------------------------------|--|
| 2009 | \$69,264,123 | \$14,842,476 | \$54,421,647 | \$109,547,109 | \$84,181,964 | \$193,729,073 | \$0 | \$2,638,984,538 | \$2,638,984,538 |
| 2010 | 75,460,185 | 18,439,370 | 57,020,815 | 115,024,464 | 89,923,611 | 204,948,075 | - | 2,817,033,213 | 2,817,033,213 |
| 2011 | 83,189,142 | 18,226,235 | 64,962,907 | 120,775,688 | 95,990,634 | 216,766,322 | - | 3,000,854,457 | 3,000,854,457 |
| 2012 | 90,938,732 | 17,962,402 | 72,976,330 | 126,814,472 | 102,254,357 | 229,068,829 | - | 3,190,929,079 | 3,190,929,079 |
| 2013 | 98,139,453 | 17,621,739 | 80,517,714 | 133,155,196 | 108,731,165 | 241,886,361 | - | 3,388,329,680 | 3,388,329,680 |
| 2014 | 106,094,263 | 17,924,317 | 88,169,946 | 139,812,955 | 115,457,607 | 255,270,562 | - | 3,593,596,707 | 3,593,596,707 |
| 2015 | 114,242,727 | 18,334,502 | 95,908,225 | 146,803,603 | 122,452,097 | 269,255,700 | - | 3,807,336,482 | 3,807,336,482 |
| 2016 | 122,466,260 | 18,664,325 | 103,801,935 | 154,143,783 | 129,735,297 | 283,879,080 | - | 4,030,128,700 | 4,030,128,700 |
| 2017 | 131,191,132 | 18,936,457 | 112,254,675 | 161,850,973 | 137,326,960 | 299,177,933 | - | 4,262,184,426 | 4,262,184,426 |
| 2018 | 139,955,133 | 19,169,510 | 120,785,623 | 169,943,521 | 145,234,277 | 315,177,798 | - | 4,504,234,505 | 4,504,234,505 |
| 2019 | 149,622,194 | 19,518,838 | 130,103,356 | 178,440,697 | 153,482,153 | 331,922,850 | - | 4,756,338,022 | 4,756,338,022 |
| 2020 | 157,103,304 | 19,904,108 | 137,199,196 | 187,362,732 | 162,072,601 | 349,435,333 | - | 5,021,653,029 | 5,021,653,029 |
| 2021 | 164,958,469 | 20,261,864 | 144,696,605 | 196,730,869 | 171,113,231 | 367,844,100 | - | 5,300,819,567 | 5,300,819,567 |
| 2022 | 173,206,392 | 20,497,055 | 152,709,337 | 206,567,412 | 180,625,853 | 387,193,265 | - | 5,594,412,995 | 5,594,412,995 |
| 2023 | 181,866,712 | 20,630,597 | 161,236,115 | 216,895,783 | 190,630,073 | 407,525,856 | - | 5,903,059,809 | 5,903,059,809 |
| 2024 | 190,960,048 | 20,603,905 | 170,356,143 | 227,740,572 | 201,147,238 | 428,887,810 | - | 6,227,358,872 | 6,227,358,872 |
| 2025 | 200,508,050 | 20,420,977 | 180,087,073 | 239,127,600 | 212,197,755 | 451,325,355 | - | 6,567,944,343 | 6,567,944,343 |
| 2026 | 210,533,453 | 20,252,260 | 190,281,193 | 251,083,980 | 223,803,232 | 474,887,212 | - | 6,925,657,635 | 6,925,657,635 |
| 2027 | 221,060,126 | 19,996,512 | 201,063,614 | 263,638,180 | 235,992,341 | 499,630,521 | - | 7,301,279,229 | 7,301,279,229 |
| 2028 | 232,113,132 | 19,615,247 | 212,497,885 | 276,820,088 | 248,791,677 | 525,611,765 | - | 7,695,590,322 | 7,695,590,322 |
| 2029 | 243,718,789 | 19,276,032 | 224,442,757 | 290,661,093 | 262,227,860 | 552,888,953 | - | 8,109,583,740 | 8,109,583,740 |
| 2030 | 255,904,728 | 18,894,674 | 237,010,054 | 305,194,148 | 276,334,719 | 581,528,867 | - | 8,544,216,363 | 8,544,216,363 |
| 2031 | 268,699,964 | 18,460,540 | 250,239,424 | 320,453,855 | 291,144,860 | 611,598,715 | - | 9,000,482,971 | 9,000,482,971 |
| 2032 | 282,134,962 | 18,016,024 | 264,118,938 | 336,476,548 | 306,692,182 | 643,168,730 | - | 9,479,472,446 | 9,479,472,446 |
| 2033 | 296,241,710 | 17,530,291 | 278,711,419 | 353,300,375 | 323,013,787 | 676,314,162 | - | 9,982,297,446 | 9,982,297,446 |
| 2034 | 311,053,796 | 17,070,569 | 293,983,227 | 370,965,394 | 340,147,589 | 711,112,983 | - | 10,510,196,037 | 10,510,196,037 |
| 2035 | 326,606,486 | 16,552,317 | 310,054,169 | 389,513,664 | 358,135,776 | 747,649,440 | - | 11,064,382,519 | 11,064,382,519 |
| 2036 | 342,936,810 | 16,047,891 | 326,888,919 | 408,989,347 | 377,019,725 | 786,009,072 | - | 11,646,207,093 | 11,646,207,093 |
| 2037 | 360,083,651 | 15,570,917 | 344,512,734 | 429,438,814 | 396,845,444 | 826,284,258 | - | 12,257,102,303 | 12,257,102,303 |
| 2038 | 378,087,834 | 15,103,749 | 362,984,085 | 450,910,755 | 417,661,748 | 868,572,503 | - | 12,898,555,157 | 12,898,555,157 |

Notes: The 2009 fiscal year NHRS subsidy is the actual subsidy received from the NHRS and was adjusted to reflect the actual State employer contribution to the System on a monthly basis. Projected Retirement System subsidy payments were based on the NHRS 2007 valuation report. Adjustment for timing assumes payment in the middle of the year.

December 21, 2009

ACTUARIAL CERTIFICATION

This is to certify that The Segal Company has conducted an actuarial valuation of certain benefit obligations of the State of New Hampshire other postemployment benefit programs as of June 30, 2008, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Number 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the State and on participant, claims and expense data provided by the State or from vendors employed by the State.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination or adequacy of funding an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements Number 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein.



Kathleen A. Riley, FSA, MAAA
Senior Vice President and Actuary



Howard Atkinson, Jr., ASA, MAAA, FCA
Health Actuary

SECTION 3: Valuation Details for the State of New Hampshire June 30, 2008 Measurement under GASB

CHART 1

Required Supplementary Information – Schedule of Employer Contributions

| Plan Year Ended June 30, | Annual OPEB Cost | Actual Contributions | Percentage Contributed |
|-------------------------------------|-----------------------------|---------------------------------|-----------------------------------|
| 2008 | \$207,142,322 | \$50,332,000 | 24.30% |
| 2009 | 195,442,213 | 59,090,000 | 30.23% |
| 2010 | 208,150,852 | - - | - - |

Fiscal 2009 contributions of \$59,090,000 provided by the State of New Hampshire's auditor include certain administrative expenses not included in the valuation, and do not reflect prescription drug rebates which are reflected in the valuation per capita health costs.

SECTION 3: Valuation Details for the State of New Hampshire June 30, 2008 Measurement under GASB

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 2

Required Supplementary Information – Schedule of Funding Progress

| Actuarial Valuation Date | Actuarial Value of Assets* (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (UAAL) (b) - (a) | Funded Ratio (a) / (b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)] |
|---------------------------------|---------------------------------------|--|--------------------------------------|-------------------------------|----------------------------|--|
| 12/31/2006 | \$0 | \$2,559,477,420 | \$2,559,477,420 | 0% | \$558,400,000 | 458.36% |
| 6/30/2008 | 0 | 2,470,484,690 | 2,470,484,690 | 0% | 586,900,000 | 420.94% |

SECTION 3: Valuation Details for the State of New Hampshire June 30, 2008 Measurement under GASB

CHART 3

Required Supplementary Information – Net OPEB Obligation (NOO)

| Plan Year Ended June 30, | Annual Required Contribution (a) | Interest on Existing NOO (b) | ARC Adjustment (c) | Annual OPEB Cost (a) + (b) + (c) (d) | Actual Contribution Amount (e) | Net Increase in NOO (d) - (e) (f) | NOO as of Following Date (g) |
|---------------------------------|---|-------------------------------------|---------------------------|---|---------------------------------------|--|-------------------------------------|
| 2008 | \$207,142,322 | \$0 | \$0 | \$207,142,322 | \$50,332,000 | \$156,810,322 | 156,810,322 |
| 2009 | 193,729,073 | 7,056,464 | (5,343,324) | 195,442,213 | 59,090,000 | 136,352,213 | 293,162,535 |
| 2010 | 204,948,075 | 13,192,314 | (9,989,537) | 208,150,852 | -- | -- | -- |

Fiscal 2009 contributions of \$59,090,000 provided by the State of New Hampshire's auditor include certain administrative expenses not included in the valuation, and do not reflect prescription drug rebates which are reflected in the valuation per capita health costs.

SECTION 3: Valuation Details for the State of New Hampshire June 30, 2008 Measurement under GASB

CHART 4

Required Supplementary Information

| | |
|--------------------------------------|----------------------------|
| Valuation date | June 30, 2008 |
| Actuarial cost method | Projected Unit Credit |
| Amortization method | Level percent of pay, open |
| Remaining amortization period | 30 years |
| Asset valuation method | Market value |

Actuarial assumptions:

| | |
|-----------------------------------|--|
| Investment rate of return | 4.5%, pay-as-you-go scenario |
| Inflation rate | 4.5% |
| Projected salary increases | 4.5% |
| Medical cost trend rate | 9.00%, decreasing at 0.75% for 5 years and by 0.25% for 1 year to an ultimate level of 5.00% |
| Prescription drug cost trend rate | 9.00%, decreasing at 0.75% for 5 years and by 0.25% for 1 year to an ultimate level of 5.00% |

Plan membership:

| | |
|---|---------------|
| Current retirees, beneficiaries, and dependents | 10,302 |
| Current active members | <u>11,878</u> |
| Total | 22,180 |

SECTION 4: Supporting Information for the State of New Hampshire June 30, 2008 Measurement under GASB

EXHIBIT I

Summary of Participant Data as of July 1, 2008

| | Community Colleges | Liquor Commission | Lottery Commission | Turnpike Commission | Other Employees | Total Group 1 | Firefighters | Police Officers | Total |
|--|-------------------------------|------------------------------|-------------------------------|--------------------------------|----------------------------|----------------------|---------------------|----------------------------|--------------|
| Active Employees | | | | | | | | | |
| Number | | | | | | | | | |
| Male | 264 | 133 | 9 | 129 | 3,579 | 4,114 | 84 | 1,285 | 5,483 |
| Female | <u>434</u> | <u>137</u> | <u>36</u> | <u>111</u> | <u>4,958</u> | <u>5,676</u> | <u>30</u> | <u>689</u> | <u>6,395</u> |
| Total | 698 | 270 | 45 | 240 | 8,537 | 9,790 | 114 | 1,974 | 11,878 |
| Average age | 50.4 | 47.0 | 44.6 | 51.2 | 47.5 | 47.8 | 45.2 | 42.4 | 46.8 |
| Average years of service | 9.7 | 11.1 | 12.7 | 9.3 | 10.9 | 10.8 | 9.8 | 9.5 | 10.5 |
| Average age at hire | 40.7 | 35.9 | 31.9 | 41.9 | 36.6 | 37.0 | 35.4 | 32.9 | 36.3 |
| Retirees, Beneficiaries, and Dependents | | | | | | | | | |
| Number of individuals | 325 | 248 | 60 | 179 | 7,860 | 8,672 | 19 | 1,611 | 10,302 |
| Average age | 69.9 | 69.9 | 71.7 | 71.2 | 70.4 | 70.4 | 60.6 | 64.5 | 69.5 |

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Data: Detailed census data, claims information, and summary plan descriptions for postemployment welfare benefits were provided by the State.

Actuarial Cost Method: Projected Unit Credit

Per Capita Cost Development:

Medical

Per capita claims costs were based on actual retiree paid claim experience furnished by CIGNA and Anthem for the period November 1, 2006, through October 31, 2008. Claims were separated by year and plan (under-65 vs. 65-and-over), and then total claims were divided by the number of adult members to yield a per capita claims cost.

Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the valuation year. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.

Pre-Medicare CIGNA claims were adjusted to reflect the estimated savings resulting from the January 1, 2008 network change to Anthem.

Prescription Drug

Per capita costs were based on actual retiree paid claim experience furnished by LGC/Medco and LGC/Caremark for the period November 1, 2006, through October 31, 2008. Claims were separated by year and plan (under-65 vs. 65-and-over), then adjusted as described above to yield a combined weighted average per capita claims cost.

LGC/Medco claims were adjusted to reflect the estimated savings resulting from the July 1, 2007 switch from LGC/Medco to LGC/Caremark.

Administrative Expenses

Administrative expenses were based on vendor contractual rates and fees.

SECTION 4: Supporting Information for the State of New Hampshire June 30, 2008 Measurement under GASB

| | |
|--|--|
| Measurement Date: | June 30, 2008 |
| Discount Rate: | 8.5% prefunding and 4.5% pay-as-you-go |
| Postretirement Mortality Rates: | |
| <i>Healthy (Group 1 and Police Officers)</i> | 1995 Buck Mortality Table set forward 1 year for males and females. |
| <i>Healthy (Firefighters)</i> | 1989 Buck Mortality Table set back 3 years. |
| <i>Disabled</i> | 1979 PBGC Mortality Table for Disabled Lives Receiving Social Security Benefits for males and females. |

| Termination Rates before Retirement: | Group 1 - Rate (%) | | | | | | |
|--------------------------------------|--------------------|------------|--------|--------------|--------|---------------|--------|
| | Age | Mortality* | | Disability** | | Withdrawal*** | |
| | | Male | Female | Male | Female | Male | Female |
| | 20 | 0.06 | 0.02 | 0.03 | 0.02 | 8.00 | 10.00 |
| | 25 | 0.06 | 0.02 | 0.04 | 0.02 | 7.00 | 8.00 |
| | 30 | 0.06 | 0.03 | 0.05 | 0.02 | 6.50 | 7.00 |
| | 35 | 0.06 | 0.04 | 0.10 | 0.05 | 5.50 | 6.00 |
| | 40 | 0.06 | 0.07 | 0.18 | 0.08 | 4.50 | 5.00 |
| | 45 | 0.10 | 0.10 | 0.22 | 0.12 | 4.00 | 4.00 |
| | 50 | 0.15 | 0.14 | 0.27 | 0.18 | 3.50 | 3.50 |
| | 55 | 0.20 | 0.18 | 0.29 | 0.22 | 3.00 | 3.00 |
| | 60 | 0.30 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 65 | 0.30 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 |

* 98% are assumed to be ordinary death and 2% are assumed to be accidental death.

** 50% are assumed to be ordinary disability and 50% are assumed to be accidental disability.

*** Withdrawal rates for first two years of employment are multiplied by 2.0. 80% of deferred vested terminations are assumed to elect a return of member contributions in lieu of a retirement benefit and retiree medical benefit.

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Group 2 Police Officers – Rate (%)

| Age | Mortality | | Disability | | Withdrawal |
|-----|-----------|------------|------------|------------|------------|
| | Ordinary | Accidental | Ordinary | Accidental | |
| 20 | 0.04 | 0.01 | 0.01 | 0.01 | 7.00 |
| 25 | 0.05 | 0.01 | 0.01 | 0.01 | 5.50 |
| 30 | 0.06 | 0.01 | 0.02 | 0.01 | 4.50 |
| 35 | 0.07 | 0.01 | 0.02 | 0.15 | 3.50 |
| 40 | 0.10 | 0.01 | 0.06 | 0.20 | 3.00 |
| 45 | 0.14 | 0.01 | 0.14 | 0.25 | 3.00 |
| 50 | 0.16 | 0.01 | 0.20 | 0.30 | 3.00 |
| 55 | 0.24 | 0.01 | 0.36 | 0.35 | 2.00 |
| 60 | 0.30 | 0.01 | 0.00 | 0.00 | 0.00 |
| 65 | 0.40 | 0.01 | 0.00 | 0.00 | 0.00 |

Group 2 Firefighters – Rate (%)

| Age | Mortality | | Disability | | Withdrawal |
|-----|-----------|------------|------------|------------|------------|
| | Ordinary | Accidental | Ordinary | Accidental | |
| 20 | 0.03 | 0.02 | 0.02 | 0.05 | 1.00 |
| 25 | 0.04 | 0.02 | 0.02 | 0.05 | 1.00 |
| 30 | 0.04 | 0.02 | 0.02 | 0.07 | 1.00 |
| 35 | 0.05 | 0.02 | 0.02 | 0.09 | 1.00 |
| 40 | 0.07 | 0.02 | 0.02 | 0.20 | 1.00 |
| 45 | 0.10 | 0.02 | 0.02 | 0.25 | 1.00 |
| 50 | 0.11 | 0.02 | 0.02 | 0.30 | 1.00 |
| 55 | 0.17 | 0.02 | 0.02 | 0.35 | 1.00 |
| 60 | 0.21 | 0.02 | 0.02 | 0.40 | 0.00 |
| 65 | 0.28 | 0.02 | 0.00 | 0.00 | 0.00 |

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Retirement Rates:

| Age | Rate (%) | | | |
|-----|----------|---------|-----------------|--------------|
| | Group I | | Group II | |
| | Males | Females | Police Officers | Firefighters |
| 45 | 0.00 | 0.00 | 27.00 | 15.00 |
| 46 | 0.00 | 0.00 | 27.60 | 15.00 |
| 47 | 0.00 | 0.00 | 28.20 | 15.00 |
| 48 | 0.00 | 0.00 | 28.80 | 15.00 |
| 49 | 0.00 | 0.00 | 29.40 | 15.00 |
| 50 | 3.01 | 3.00 | 30.00 | 15.00 |
| 51 | 3.11 | 3.00 | 30.60 | 15.00 |
| 52 | 3.21 | 3.00 | 31.20 | 15.00 |
| 53 | 3.31 | 3.00 | 31.80 | 15.00 |
| 54 | 3.40 | 3.00 | 32.40 | 15.00 |
| 55 | 3.50 | 3.00 | 33.00 | 25.00 |
| 56 | 4.40 | 4.00 | 30.00 | 26.00 |
| 57 | 5.50 | 5.00 | 28.75 | 27.00 |
| 58 | 7.70 | 7.00 | 28.00 | 28.00 |
| 59 | 10.00 | 10.50 | 27.50 | 29.00 |
| 60 | 12.50 | 13.00 | 27.00 | 30.00 |
| 61 | 15.00 | 15.00 | 26.67 | 29.00 |
| 62 | 17.00 | 17.00 | 27.08 | 28.00 |
| 63 | 19.00 | 18.00 | 27.50 | 27.00 |
| 64 | 21.00 | 18.50 | 27.92 | 26.00 |
| 65 | 24.00 | 19.00 | 28.33 | 25.00 |
| 66 | 26.00 | 19.50 | 28.75 | 25.00 |
| 67 | 24.00 | 19.00 | 29.17 | 25.00 |
| 68 | 22.00 | 18.00 | 29.58 | 25.00 |
| 69 | 20.00 | 17.00 | 30.00 | 25.00 |
| 70 | 100.00 | 100.00 | 100.00 | 100.00 |

Dependents:

Demographic data was available for spouses of current retirees. For current future retirees, husbands were assumed to be three years older than their wives. For future retirees who elect to continue their health coverage at retirement, 75% were assumed to have an eligible spouse (previously, 80% of Group I employees and 50% of Group II employees were assumed to have an eligible spouse). In both groups, 100% of eligible spouses are assumed to receive postretirement medical benefits.

Per Capita Health Costs:

2008-2009 medical and prescription drug claims costs are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

| Age | Medical | | | | Prescription Drug | | | |
|-----|---------|---------|---------|---------|-------------------|---------|--------|---------|
| | Retiree | | Spouse | | Retiree | | Spouse | |
| | Male | Female | Male | Female | Male | Female | Male | Female |
| 45 | \$4,565 | \$5,727 | \$2,832 | \$4,275 | \$1,412 | \$1,771 | \$876 | \$1,322 |
| 50 | 5,418 | 6,172 | 3,785 | 4,955 | 1,676 | 1,909 | 1,171 | 1,533 |
| 55 | 6,435 | 6,644 | 5,064 | 5,736 | 1,990 | 2,055 | 1,566 | 1,774 |
| 60 | 7,642 | 7,161 | 6,780 | 6,653 | 2,363 | 2,215 | 2,097 | 2,058 |
| 65 | 1,779 | 1,512 | 1,779 | 1,512 | 2,719 | 2,311 | 2,719 | 2,311 |
| 70 | 2,062 | 1,630 | 2,062 | 1,630 | 3,151 | 2,491 | 3,151 | 2,491 |
| 75 | 2,222 | 1,754 | 2,222 | 1,754 | 3,396 | 2,681 | 3,396 | 2,681 |
| 80 | 2,393 | 1,891 | 2,393 | 1,891 | 3,657 | 2,890 | 3,657 | 2,890 |

Costs for 2009 – 2010 were adjusted to reflect the plan changes effective July 1, 2009 (as described in Exhibit III). The savings estimates used for the medical and prescription drug plan design changes were provided by the State’s vendors (Anthem and LGC/Caremark, respectively). We reviewed the vendors’ estimates and believe they are reasonable. The savings factors as of July 1, 2009, used in these calculations are as follows:

- Under-65 retiree medical – 1.4% of medical costs
- Under-65 prescription drug – 0.7% of prescription drug costs
- Over-65 medical – no change
- Over-65 prescription drug – 3.3% of prescription drug costs

These factors were applied before the trend rates shown on the following page.

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Health Care Cost Trend Rates: Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that must be applied to that year’s cost to yield the next year’s projected cost.

| Year Ending June 30, | Medical | Prescription Drug |
|-------------------------|---------|-------------------|
| 2009 | 9.00% | 9.00% |
| 2010 | 8.25% | 8.25% |
| 2011 | 7.50% | 7.50% |
| 2012 | 6.75% | 6.75% |
| 2013 | 6.00% | 6.00% |
| 2014 | 5.25% | 5.25% |
| 2015 & later | 5.00% | 5.00% |

NHRS Retiree Medical Subsidy: Based on information received from the New Hampshire Retirement System, the postretirement subsidy is assumed to continue indefinitely.

Retiree Contribution Increase Rate: The \$65 per month contribution per retiree or spouse under the age of 65 is not assumed to increase.

Participation and Coverage Election: 100% of active employees with coverage are assumed to elect retiree coverage.

Plan Design: Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.

Administrative Expenses: An administrative expense load of \$185 per non-Medicare-eligible retiree and \$186 per Medicare-eligible retiree increasing at 4.0% per year was added to projected incurred claim costs in developing the benefit obligations.

Annual Maximum Benefits: No increase in the annual maximum benefit levels was assumed.

Lifetime Maximum Benefits: No information was available regarding accumulations toward lifetime maximum benefits and no such accumulations were assumed.

Missing Participant Data: A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.

Assumption Changes

Since Prior Valuation:

Per capita health costs, administrative expenses, and expected subsidies were recalculated based on more recent data.

The medical, drug and subsidy trends were updated to better reflect experience and future expectations.

For future retirees, the percentage of eligible spouses was lowered from 80% to 75% for Group I employees and raised from 50% to 75% for Group II employees, based on current utilization.

EXHIBIT III

Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility:

The following groups of retirees receiving a pension from the New Hampshire Retirement System are eligible for postretirement medical benefits:

Group I:

- Retirees whose service began prior to July 1, 2003, with at least 10 years of State creditable service, are eligible at age 60;
- Retirees whose service began after July 1, 2003, with at least 20 years of State creditable service, are eligible at age 60;
- Retirees with at least 30 years of State creditable service are eligible at any age; or
- Vested Deferred Retirees and Early Service Retirees who satisfy the above criteria and collect their pensions before age 60, are eligible at age 60.

Group II:

- Retirees with at least 20 years of State creditable service are eligible at age 45;
- Retirees are eligible at age 60 with no minimum service required; or
- Vested Deferred Retirees whose service began prior to July 1, 2003, with at least 10 years of State creditable service, are eligible when 20 years of service would have been completed and they are at least age 45.

Disability: Retirees on Ordinary (non-job-related) or Accidental (job-related) Disability Retirement are eligible at any age.

Ordinary Death: Surviving spouse is eligible if the employee met the eligibility criteria for State-paid medical coverage.

Accidental Death: Surviving spouse and minor children are eligible.

Post-Retirement Death: Surviving spouse is eligible.

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Benefit Types: Medical coverage is self-funded and was administered by CIGNA HealthCare prior to January 1, 2008 and by Anthem after January 1, 2008. Retirees not yet eligible for Medicare participate in a Network Open Access Point of Service (POS) or a Preferred Provider Organization (PPO) plan depending on their geographic location. Retirees eligible for Medicare participate in an indemnity plan that coordinates with Medicare.

Prescription drug coverage is self-funded and administered by LGC/Caremark (effective July 1, 2007).

The monthly working rates for retiree medical coverage, effective January 1, 2008, are as follows:

| | <u>Individual</u> | <u>2-person</u> | <u>Family</u> |
|--------------------------|-------------------|-----------------|---------------|
| Retiree Under Age 65 | \$819.89 | \$1,642.48 | \$2,218.92 |
| Retiree Age 65 and Older | \$421.00 | N/A | N/A |

Duration of Coverage: Lifetime.

Dependent Benefits: Medical and Prescription Drugs.

Dependent Coverage: Benefits are payable to a spouse for their lifetime, regardless of when the retiree dies.

Retiree Contributions: Effective July 1, 2009, a retiree health insurance premium contribution of \$65 per month per retiree or spouse under the age of 65 is required for postretirement medical coverage.

NHRS Subsidy: The State receives a postretirement medical subsidy from the New Hampshire Retirement System for retirees that meet the following criteria (in addition to the eligibility requirements described earlier in this section):

Group I: Employees who retired on or before July 1, 2004.

Group II: Employees who were active or retired as of June 30, 2000, or active as of June 30, 2005, and subsequently retired on Accidental Disability Retirement.

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Beginning July 2012, the subsidy amounts increase 4% each year, per NHRS statutory provisions. The current monthly subsidy amounts, effective July 1, 2008, are as follows:

| | <u>One person</u> | <u>Two person</u> |
|--------------------------|-------------------|-------------------|
| Retiree Under Age 65 | \$375.56 | \$751.12 |
| Retiree Age 65 and Older | \$236.84 | \$473.68 |

In addition, there is a group of 84 retirees whose subsidy amount is equal to 100% of the premium.

Benefit Descriptions:

| Medical for Retirees Under Age 65 (prior to July 1, 2009) | In-Network | Out-Of-Network |
|--|-------------------|-----------------------------------|
| <i>Annual Deductible</i> | None | \$150 individual/\$450 family |
| <i>Coinsurance</i> | 100% | 80% |
| <i>Physicians Office Visit</i> | \$10 copay | Coinsurance & deductible |
| <i>Emergency Room</i> | \$10 copay | \$10 copay |
| <i>Hospital</i> | No charge | Coinsurance & deductible |
| <i>Maximum Out-Of-Pocket Expense</i> | None | \$900 individual / \$2,700 family |

| Medical for Retirees Under Age 65 (effective July 1, 2009) | In-Network | Out-Of-Network |
|---|-----------------------------------|-------------------------------------|
| <i>Annual Deductible</i> | None | \$150 individual/\$450 family |
| <i>Coinsurance</i> | 100% | 80% |
| <i>Physicians Office Visit</i> | \$10 copay (\$20 for specialists) | Coinsurance & deductible |
| <i>Emergency Room</i> | \$50 copay | \$50 copay |
| <i>Hospital</i> | No charge | Coinsurance & deductible |
| <i>Maximum Out-Of-Pocket Expense</i> | \$500 individual / \$1,000 family | \$1,500 individual / \$3,000 family |

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| Medical for Retirees Age 65 and Older | |
|--|-----------|
| <i>Annual Deductible</i> | None |
| <i>Coinsurance</i> | 100% |
| <i>Physicians Office Visit</i> | No charge |
| <i>Emergency Room</i> | No charge |
| <i>Hospital</i> | No charge |
| <i>Maximum Out-Of-Pocket Expense</i> | None |

| Prescription Drug (prior to July 1, 2009) | Under Age 65 | Age 65 and Older |
|--|---------------------|-------------------------|
| Retail | | |
| <i>Annual Deductible</i> | \$50 | \$100 |
| <i>Retiree Coinsurance</i> | 20% | 20% |
| <i>Annual Coinsurance Maximum</i> | \$500 | \$80 |
| <i>Annual Maximum Benefit</i> | \$2,000 | None |
| Mail Order | | |
| <i>Copay for 90-day Supply</i> | \$4 | \$4 |

| Prescription Drug (effective July 1, 2009) | |
|---|---|
| Retail | \$5 generic / \$10 preferred brand/ \$15 non-preferred brand |
| Mail Order | \$10 generic / \$20 preferred brand/ \$30 non-preferred brand |
| <i>Maximum Out-Of-Pocket Expense</i> | \$500 |

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