# REPORT ON THE ACTUARIAL VALUATION OF POST RETIREMENT BENEFITS OF THE VERMONT STATE TEACHERS' <br> RETIREMENT SYSTEM <br> PREPARED AS OF JUNE 30, 2009 

November 2009
SECTION I OVERVIEW ..... 2
SECTION II REQUIRED INFORMATION ..... 3
SECTION III MEMBERSHIP DATA AND MEDICAL PREMIUMS ..... 5
SECTION IV REQUIRED SUPPLEMENTARY INFORMATION ..... 7
SECTION V NET OPEB OBLIGATION ..... 8
SECTION VI FORECASTS ..... 9
SECTION VII ACTUARIAL ASSUMPTIONS AND METHODS ..... 12
SECTION VIII GLOSSARY OF TERMS ..... 16

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## INTRODUCTION

The Board of Trustees of the Vermont State Teachers' Retirement System has engaged Buck to prepare an actuarial valuation of their post-retirement benefits program as of June 30, 2009. The State Treasurer's Office provided the employee data and premium information used in the completion of this study.

The purposes of the valuation are to measure the current liabilities of the System for its post-retirement benefits program, to determine the level of contributions necessary to assure sound funding of such benefits and to provide reporting and disclosure information for financial statements, governmental agencies and other interested parties. This valuation report contains information that is required for compliance with the Governmental Accounting Standards Board's Statement 45, which relates to accounting and financial reporting for post-employment benefits other than pensions.

We performed the calculations presented in this study on two bases. Under one, it is assumed the System's post-retirement benefits other than pensions will be funded in a manner similar to that used for pensions, starting with the fiscal year beginning July 1, 2009. Under the second, it is assumed that there will be no pre-funding of such benefits. Section II provides a summary of the principal valuation results. Section VI provides a projection of expense and funding amounts.

The demographic actuarial assumptions were the same as those used in the 2008 valuation. In addition, there were no changes to the discount rate or the healthcare trend rates.

We are an Associate and a Fellow, respectively, of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards of the Academy to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions concerning it.

Respectfully Submitted,
BUCK CONSULTANTS, LLC


November 6, 2009
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November 6, 2009
Date

## SECTION I - OVERVIEW

The System experienced a net increase in its accrued liability for post-retirement benefits over the past year less than expected, primarily due to no increase in the healthcare costs. The increase in liability is primarily due a net increase in the participant population from 15,194 to 15,576.

The economic assumptions used in this valuation are the same as those used last year. All demographic assumptions are the same as those used in the 2009 pension actuarial valuation. The OPEB-specific assumptions are the same as those used last year. The results do not reflect any announced cost rates for 2010.

GASB Staff Technical Bulletin No. 2006-1, Accounting and Financial Reporting by Employers for Payments from the Federal Government Pursuant to the Retiree Drug Subsidy Provisions of Medicare Part D, provides that GASB OPEB calculations cannot reflect offsets for future Medicare Part D payments. Instead, such payments are to be reflected when the drug subsidy is actually earned (i.e., when the drug benefit costs for which the subsidy is due have been incurred by the participants). Thus, our calculations do not reflect the value of future Retiree Drug Subsidy amounts.

## SECTION II - REQUIRED INFORMATION

a) Assumed investment return
$\frac{\text { Pre-Funding Basis }}{8.25 \%} \quad \frac{\text { Pay-as-you-go Basis }}{4.00 \%}$
b) Actuarial value of assets
c) Actuarial accrued liability Active Participants
\$ $0 \quad \$$
0

Retired Participants
\$ 192,870,008 \$ 480,458,989
Total
d) Unfunded actuarial liability (c. - b.)
$\$ \quad \frac{239,017,971}{431,887,979} \quad \$ \quad \frac{391,777,332}{872,236,321}$
\$ 431,887,979 \$ 872,236,321
e) Funded ratio (c. / b.)
f) Annual covered payroll
\$ 561,588,013 \$ 561,588,013
g) Unfunded actuarial liability as percentage of covered payroll
76.9\%
155.3\%
h) Normal cost for the 2010 fiscal year
\$ 10,559,025 \$ 33,745,199
i) Amortization of unfunded actuarial liability for the 2010 fiscal year (30-year)
\$ $\underline{21,637,014} \quad \$ \quad \underline{25,221,028}$
j) Annual Required Contribution (ARC) for the 2010 fiscal year* (h. + i.) \$ 32,196,039 \$ 58,966,227
k) Expected value of premium payments $\quad \$ \quad 17,960,564 \quad \$ \quad 17,960,564$
l) Increase in annual cost to fund the Plan (j. - k.) $\$ 14,235,475 \quad$ N/A

* Payment is assumed to be made at the beginning of the fiscal year.


## SECTION II - REQUIRED INFORMATION

## Actuarial Accrued Liability in \$millions



## SECTION III - MEMBERSHIP DATA AND MEDICAL PREMIUM

Number of participants included in valuation

|  | $\underline{2009}$ | $\underline{2008}$ |
| :--- | ---: | ---: |
| Actives | 10,799 | 10,685 |
| Inactives | $\underline{4,777^{*}}$ | $\underline{4,509^{*}}$ |
| Total | 15,576 | 15,194 |

* Includes 732 and 705 deferred vesteds individuals in 2009 and 2008 respectively.


## Participants



TABLE 1
THE NUMBER OF
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE
AS OF JUNE 30, 2009

|  | 0 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 \& up | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Under 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 20 to 24 | 129 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 129 |
| 25 to 29 | 583 | 129 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 712 |
| 30 to 34 | 524 | 463 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 1,088 |
| 35 to 39 | 378 | 453 | 399 | 57 | 0 | 0 | 0 | 0 | 0 | 1,287 |
| 40 to 44 | 338 | 285 | 295 | 227 | 64 | 0 | 0 | 0 | 0 | 1,209 |
| 45 to 49 | 263 | 276 | 270 | 225 | 267 | 61 | 0 | 0 | 0 | 1,362 |
| 50 to 54 | 232 | 296 | 271 | 241 | 300 | 292 | 83 | 0 | 0 | 1,715 |
| 55 to 59 | 174 | 242 | 315 | 318 | 325 | 342 | 312 | 86 | 0 | 2,114 |
| 60 to 64 | 83 | 93 | 111 | 143 | 209 | 135 | 116 | 129 | 9 | 1,028 |
| 65 to 69 | 14 | 25 | 13 | 14 | 18 | 14 | 12 | 17 | 6 | 133 |
| 70 \& up | 4 | 6 | 3 | 1 | 1 | 1 | 0 | 4 | 1 | 21 |
| TOTAL | 2,723 | 2,268 | 1,778 | 1,226 | 1,184 | 845 | 523 | 236 | 16 | 10,799 |

Monthly State Costs (including expenses) for 2009

| Plan | State Share | Increase from 2008 | $\underline{\text { Participants }}$ |
| :---: | :---: | :---: | :---: |
| JY $\quad$ (tas |  |  |  |
| Retiree under 65 | \$423.06 | 0.0\% | 232 |
| Retiree over 65 | \$324.47 | 0.0\% | 960 |
|  |  |  | 1192 |
| \$250 Comprehensive Plan |  |  |  |
| Retiree under 65 | \$423.06 | 0.0\% | 1056 |
| Retiree over 65 | \$324.47 | 0.0\% | 1498 |
|  |  |  | 2554 |
| Vermont Health |  |  |  |
| Partnership |  |  |  |
| Retiree under 65 | \$423.06 | 0.0\% | 24 |
| MediComp C Plan |  |  |  |
| Medicare Eligible, over 65 | \$189.45 | 3.6\% | 298 |

[^1]
## SECTION IV - REQUIRED SUPPLEMENTARY INFORMATION

The Schedule of Funding Progress is required to be included in the State’s Financial Statements.

## SCHEDULE OF FUNDING PROGRESS

BASED ON A POLICY OF PRE-FUNDING STARTING JULY 1, 2009
(dollar amounts in thousands)

| Actuarial <br> Valuation <br> Date | Actuarial <br> Value of <br> Assets <br> (a) | Actuarial <br> Accrued <br> Liability (AAL) <br> (b) | Unfunded <br> AAL <br> (UAAL) <br> (b)-(a) | Funded <br> Ratio | Covered <br> Payroll | UAAL as a <br> Percentage of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30, 2009 | $\$ 0$ | $\$ 431,888$ | $\$ 431,888$ | $0 \%$ | (c) | (bovered Payroll <br> [(b)-(a)]/(c) |
| June 30, 2008 | $\$ 0$ | $\$ 863,555$ | $\$ 863,555$ | $0 \%$ | $\$ 535,808$ | $76.9 \%$ |
| June 30, 2007 | $\$ 0$ | $\$ 820,212$ | $\$ 820,212$ | $0 \%$ | $161.2 \%$ |  |
| June 30, 2006 | $\$ 0$ | $\$ 952,526$ | $\$ 952,526$ | $0 \%$ | $\$ 499,573$ | $159.1 \%$ |
| June 30, 2005 | $\$ 0$ | $\$ 890,412$ | $\$ 890,412$ | $0 \%$ | $\$ 486,857$ | $180.9 \%$ |

Liabilities above were based on an assumed discount rate of $3.75 \%$ prior to $2008,4.00 \%$ in 2008, and 8.25\% in 2009.

## SCHEDULE OF FUNDING PROGRESS

## BASED ON CURRENT POLICY OF PAY-AS-YOU-GO FUNDING

(dollar amounts in thousands)

| Actuarial <br> Valuation <br> Date | Actuarial <br> Value of <br> Assets <br> (a) | Actuarial <br> Accrued <br> Liability (AAL) <br> (b) | Unfunded <br> AAL <br> (UAAL) <br> (b)-(a) | Funded <br> Ratio | Covered <br> Payroll | UAAL as a <br> Percentage of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30, 2009 | $\$ 0$ | $\$ 872,236$ | $\$ 872,236$ | $0 \%$ | $\underline{(c)}$ | (bovered Payroll <br> [(b)-(a)]/(c) |
| June 30, 2008 | $\$ 0$ | $\$ 863,555$ | $\$ 863,555$ | $0 \%$ | $\$ 535,807$ | $155.3 \%$ |
| June 30, 2007 | $\$ 0$ | $\$ 820,212$ | $\$ 820,212$ | $0 \%$ | $\$ 515,573$ | $161.2 \%$ |
| June 30, 2006 | $\$ 0$ | $\$ 952,526$ | $\$ 952,526$ | $0 \%$ | $\$ 499,044$ | $190.1 \%$ |
| June 30, 2005 | $\$ 0$ | $\$ 890,412$ | $\$ 890,412$ | $0 \%$ | $\$ 486,587$ | $182.9 \%$ |

Liabilities above were based on assumed discount rates of $3.75 \%$ prior to 2008 and $4.00 \%$ after 2007.

## SECTION V - NET OPEB OBLIGATION

GASB Statement No. 45 requires the development of Annual OPEB Cost and Net OPEB Obligation (NOO). This development is shown in the following table.

DEVELOPMENT OF OPEB COST AND NET OPEB OBLIGATION (NOO)

| Year <br> Ending <br> June 30 | Annual <br> Required Contribution | Interest on NOO | Amortization of NOO | OPEB Cost $(1)+(2)-(3)$ | Actual Contribution | $\begin{aligned} & \text { Change in } \\ & \text { NOO } \\ & \text { (4)-(5) } \end{aligned}$ | NOO Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2008 | 60,220,989 | 0 | 0 | 60,220,989 | 0 | 60,220,989 | 60,220,989 |
| 2009 | 59,124,164 | 2,408,840 | 1,741,312 | 59,791,692 | 0 | 59,791,692 | 120,012,681 |
| 2010 | 58,966,227 | 4,800,507 | 3,470,210 | 60,296,524 |  |  |  |

## SECTION VI - FORECASTS

The Government Accounting Standards Board's Statement 45 on Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions outlines various requirements of a funding schedule that will amortize the unfunded actuarial liability and cover normal costs. Amortization of the unfunded actuarial liability is to be based on a schedule that extends no longer than 30 years. The contribution towards the amortization of the unfunded actuarial liability may be made in level payments or in payments increasing at the same rate as assumed salary increases.

In the amortization schedule shown on the following page, the amortization of the unfunded accrued liability is made in installments that increase annually by $5 \%$. The normal cost is expected to increase at a rate that reflects both the assumed ultimate health care trend rate and a modest amount of growth in the active population for the next few years. The contributions were computed assuming that the contribution is paid on July 1 (i.e., at the beginning of the fiscal year). Below is a comparison of the forecasted Annual Required Contributions, computed under discount rates of $8.25 \%$ and $4.00 \%$.

Also included is a forecast of the pay-as-you-go amount. If the State chooses to not fund the obligation, the difference between the pay-as-you-go amount and the actuarially determined contribution will be recorded as a liability on the financial statements. The liability will grow with interest and net new differences in successive years. The amount shown for the $4 \%$ scenario reflects the difference between pay-as-you-go and the ARC as additional liability which is reflected in the amortization of the Unfunded Actuarial Liability.

## SECTION VI - FORECASTS

FORECAST OF FUNDING AND GASB ARC UNDER A DISCOUNT RATE OF 8.25\%

| Fiscal Year Ending in | Normal Cost | Amortization of the Unfunded Actuarial Liability | Total <br> State <br> ARC | Pay-as-you-go | Difference |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | 10,559,025 | 21,637,014 | 32,196,039 | 17,960,564 | 14,235,475 |
| 2011 | 11,086,976 | 22,718,865 | 33,805,841 | 19,909,578 | 13,896,263 |
| 2012 | 11,641,325 | 23,854,808 | 35,496,133 | 21,911,328 | 13,584,805 |
| 2013 | 12,223,391 | 25,047,548 | 37,270,939 | 23,734,393 | 13,536,546 |
| 2014 | 12,834,561 | 26,299,926 | 39,134,487 | 25,618,354 | 13,516,133 |
| 2015 | 13,476,289 | 27,614,922 | 41,091,211 | 27,470,533 | 13,620,678 |
| 2016 | 14,150,103 | 28,995,668 | 43,145,771 | 29,539,463 | 13,606,308 |
| 2017 | 14,857,608 | 30,445,451 | 45,303,059 | 31,615,818 | 13,687,241 |
| 2018 | 15,600,488 | 31,967,724 | 47,568,212 | 33,729,373 | 13,838,839 |
| 2019 | 16,380,512 | 33,566,110 | 49,946,622 | 36,043,631 | 13,902,991 |
| 2020 | 17,199,538 | 35,244,416 | 52,443,954 | 38,339,180 | 14,104,774 |
| 2021 | 18,059,515 | 37,006,637 | 55,066,152 | 40,818,212 | 14,247,940 |
| 2022 | 18,962,491 | 38,856,968 | 57,819,459 | 43,226,924 | 14,592,535 |
| 2023 | 19,910,616 | 40,799,817 | 60,710,433 | 45,765,545 | 14,944,888 |
| 2024 | 20,906,147 | 42,839,808 | 63,745,955 | 48,194,715 | 15,551,240 |
| 2025 | 21,951,454 | 44,981,798 | 66,933,252 | 50,717,835 | 16,215,417 |
| 2026 | 23,049,027 | 47,230,888 | 70,279,915 | 53,261,514 | 17,018,401 |
| 2027 | 24,201,478 | 49,592,432 | 73,793,910 | 55,769,513 | 18,024,397 |
| 2028 | 25,411,552 | 52,072,054 | 77,483,606 | 58,236,054 | 19,247,552 |
| 2029 | 26,682,130 | 54,675,657 | 81,357,787 | 60,593,963 | 20,763,824 |
| 2030 | 28,016,237 | 57,409,439 | 85,425,676 | 63,119,143 | 22,306,533 |
| 2031 | 29,417,049 | 60,279,911 | 89,696,960 | 65,423,170 | 24,273,790 |
| 2032 | 30,887,901 | 63,293,907 | 94,181,808 | 67,646,318 | 26,535,490 |
| 2033 | 32,432,296 | 66,458,602 | 98,890,898 | 69,761,082 | 29,129,816 |
| 2034 | 34,053,911 | 69,781,532 | 103,835,443 | 71,675,221 | 32,160,222 |
| 2035 | 35,756,607 | 73,270,609 | 109,027,216 | 73,392,103 | 35,635,113 |
| 2036 | 37,544,437 | 76,934,140 | 114,478,577 | 74,720,114 | 39,758,463 |
| 2037 | 39,421,659 | 80,780,846 | 120,202,505 | 75,830,696 | 44,371,809 |
| 2038 | 41,392,742 | 84,819,889 | 126,212,631 | 76,724,375 | 49,488,256 |
| 2039 | 43,462,379 | 89,060,883 | 132,523,262 | 77,353,374 | 55,169,888 |
| 2040 | 45,635,498 | 0 | 45,635,498 | 77,409,329 | -31,773,831 |

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Page 11

## SECTION VI - FORECASTS

FORECAST OF FUNDING AND GASB ARC UNDER A DISCOUNT RATE OF 4.00\%

| Fiscal Year Ending in | Normal <br> Cost | Amortization of the Unfunded Actuarial Liability | Total State ARC | Pay-as-you-go | Difference |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | 33,745,199 | 25,221,028 | 58,966,227 | 17,960,564 | 41,005,663 |
| 2011 | 35,432,459 | 26,714,931 | 62,147,390 | 19,909,578 | 42,237,812 |
| 2012 | 37,204,082 | 28,261,846 | 65,465,928 | 21,911,328 | 43,554,600 |
| 2013 | 39,064,286 | 29,864,875 | 68,929,161 | 23,734,393 | 45,194,768 |
| 2014 | 41,017,500 | 31,534,196 | 72,551,696 | 25,618,354 | 46,933,342 |
| 2015 | 43,068,375 | 33,273,462 | 76,341,837 | 27,470,533 | 48,871,304 |
| 2016 | 45,221,794 | 35,089,345 | 80,311,139 | 29,539,463 | 50,771,676 |
| 2017 | 47,482,884 | 36,981,600 | 84,464,484 | 31,615,818 | 52,848,666 |
| 2018 | 49,857,028 | 38,956,302 | 88,813,330 | 33,729,373 | 55,083,957 |
| 2019 | 52,349,879 | 41,019,050 | 93,368,929 | 36,043,631 | 57,325,298 |
| 2020 | 54,967,373 | 43,171,017 | 98,138,390 | 38,339,180 | 59,799,210 |
| 2021 | 57,715,742 | 45,420,073 | 103,135,815 | 40,818,212 | 62,317,603 |
| 2022 | 60,601,529 | 47,768,623 | 108,370,152 | 43,226,924 | 65,143,228 |
| 2023 | 63,631,605 | 50,226,855 | 113,858,460 | 45,765,545 | 68,092,915 |
| 2024 | 66,813,185 | 52,799,664 | 119,612,849 | 48,194,715 | 71,418,134 |
| 2025 | 70,153,844 | 55,499,416 | 125,653,260 | 50,717,835 | 74,935,425 |
| 2026 | 73,661,536 | 58,333,202 | 131,994,738 | 53,261,514 | 78,733,224 |
| 2027 | 77,344,613 | 61,310,800 | 138,655,413 | 55,769,513 | 82,885,900 |
| 2028 | 81,211,844 | 64,444,290 | 145,656,134 | 58,236,054 | 87,420,080 |
| 2029 | 85,272,436 | 67,746,668 | 153,019,104 | 60,593,963 | 92,425,141 |
| 2030 | 89,536,058 | 71,233,707 | 160,769,765 | 63,119,143 | 97,650,622 |
| 2031 | 94,012,861 | 74,913,966 | 168,926,827 | 65,423,170 | 103,503,657 |
| 2032 | 98,713,504 | 78,808,108 | 177,521,612 | 67,646,318 | 109,875,294 |
| 2033 | 103,649,179 | 82,933,804 | 186,582,983 | 69,761,082 | 116,821,901 |
| 2034 | 108,831,638 | 87,310,582 | 196,142,220 | 71,675,221 | 124,466,999 |
| 2035 | 114,273,220 | 91,961,822 | 206,235,042 | 73,392,103 | 132,842,939 |
| 2036 | 119,986,881 | 96,912,114 | 216,898,995 | 74,720,114 | 142,178,881 |
| 2037 | 125,986,225 | 102,193,071 | 228,179,296 | 75,830,696 | 152,348,600 |
| 2038 | 132,285,536 | 107,832,923 | 240,118,459 | 76,724,375 | 163,394,084 |
| 2039 | 138,899,813 | 113,861,444 | 252,761,257 | 77,353,374 | 175,407,883 |
| 2040 | 145,844,804 | 120,311,459 | 266,156,263 | 77,409,329 | 188,746,934 |

## SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS

## VERMONT STATE TEACHERS


#### Abstract

Interest 4.00\% per year, the assumed rate of return on general assets of the employer, for a pay-as-you-go plan. Alternatively, $8.25 \%$ per year, net of investment expenses for a fully pre-funded plan.


Actuarial Cost Method:
Projected Unit Credit with benefits attributed from date of hire until eligible for Retirement.

## Medical Care and State Share Inflation:

| Fiscal Year <br> Ending | Inflation Rate |
| :---: | :---: |
|  |  |
| 2010 | 8.0 |
| 2011 | 7.0 |
| 2012 | 6.0 |
| 2013 \& After | 5.0 |

## Amortization period:

Retirement Eligibility:

Closed basis for prefunding; open basis for pay-as-you-go. Thirty year amortization starting in FYE10 with payments increasing 5\% annually.

Age 55 for Group A. Earlier of (a) age 55 with 5 years of service and (b) 30 years of service for Group C. Participants terminating prior to age 55 with at least 5 years of service, may elect medical coverage beginning at age 55 .

Spouses of retirees are ineligible for employer subsidized plan benefits. Dependents pay the full additional cost of their coverage, thus are not included in the valuation.

Marital status:

## SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS

Separations before Normal Retirement:
Representative values of the assumed annual rates of withdrawal, vested retirement, early retirement, disability and death are as follows:

| Age | Withdrawal and Vested Retirement |  | Disability |  | Death |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females | Males | Females |
| 25 | 20.00\% | 20.00\% | .010\% | .015\% | .02\% | .02\% |
| 30 | 12.00 | 14.00 | . 015 | . 015 | . 02 | . 02 |
| 35 | 8.00 | 11.30 | . 020 | . 015 | . 02 | . 02 |
| 40 | 6.50 | 8.60 | . 030 | . 020 | . 05 | . 02 |
| 45 | 5.80 | 6.00 | . 053 | . 045 | . 05 | . 04 |
| 50 | 5.40 | 5.00 | . 180 | . 180 | . 07 | . 06 |
| 55 | 5.40 | 4.84 | . 440 | . 390 | . 07 | . 10 |
| 59 | 5.40 | 4.84 | 1.170 | . 710 | . 09 | . 14 |
| 60 | 5.40 | 4.84 | 1.470 | . 840 | . 09 | . 15 |
| 61 | 5.40 | 4.84 | 1.830 | 1.010 | . 297 | . 17 |


| Age | Reduced Early Retirement |  | Full Early Retirement |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females |
|  |  |  |  |  |
| 50 | - | - | $40.00 \%$ | $40.00 \%$ |
| 55 | $8.75 \%$ | $8.75 \%$ | 20.00 | 20.00 |
| 56 | 6.25 | 6.25 | 10.00 | 10.00 |
| 57 | 6.25 | 6.25 | 10.00 | 10.00 |
| 58 | 6.25 | 6.25 | 10.00 | 10.00 |
| 59 | 6.25 | 6.25 | 10.00 | 10.00 |
| 60 | 12.50 | 12.50 | 30.00 | 30.00 |
| 61 | 12.50 | 12.50 | 17.00 | 17.00 |

## SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS

Service Retirements:

## Deaths after Retirement:

Health Plans:

Pre-Age 65 Retirees:

Occur between ages 62 (60 for Group A) and 70. The assumed rates of service retirement are as follows:

| Age | Annual Rate of Retirement |  |
| :---: | :---: | :---: |
|  | Male | Female |
|  |  |  |
| 62 | $25.0 \%$ | $25.0 \%$ |
| 63 | 20.0 | 20.0 |
| 64 | 20.0 | 20.0 |
| 65 | 30.0 | 30.0 |
| 66 | 30.0 | 30.0 |
| 67 | 30.0 | 30.0 |
| 68 | 20.0 | 20.0 |
| 69 | 30.0 | 30.0 |
| 70 | 100.0 | 100.0 |

The 1995 Buck Mortality Tables, set back one year, are used for the period after service retirement, while the RP-2000 Tables for Disabled Retirees are used for the period following disability retirement.

Retirees without Medicare may select from three plans: JY Plan, \$250 Comprehensive, and Vermont Health Partnership. Retirees with Medicare may select from three plans: JY Carve-Out, \$250 Comprehensive Carve-Out, and Medi-Comp C.

Current retirees who are under age 65 are assumed to remain in their current medical plan until age 65, at which time they enter the average plan provided to current post-65 retirees.

Current active employees who are assumed to retire prior to age 65 are valued with a weighted-average premium. This weightedaverage premium is based on the medical plan coverage of current retirees under age 65. The weighted average premium includes an adjustment based on age to account for the implicit subsidy of older employees' true benefit cost.

At age 65, all participants are assumed to participate in post-65 plans in the same proportions as current retirees over age 65.

## SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS

Retirees remain in their current medical plan until death. Therefore, if the retiree predeceases the beneficiary, the beneficiary will continue to have coverage until his or her death.

Post-Age 65 Retirees:

Coverage:

## Medical Plan Costs:

Current retirees over age 65 remain in their current medical plan until death. Beneficiaries remain in their current medical plan until death. Therefore, if the retiree predeceases the beneficiary, the beneficiary will continue to have coverage until his or her death.

It is assumed that $60 \%$ of current active employees with 10 years of service will elect retiree medical coverage. It is assumed that $30 \%$ of terminated vested participants will elect medical coverage.

Estimated net per capita incurred claim costs for 2009-10 at age 64 and 65 was $\$ 5,642$ and $\$ 2,975$, respectively. It is assumed that future retirees are Medicare eligible. Per capita costs were developed from the State-provided monthly premiums. Claims information was not available. The plans are experienced rated.

Future employee cost sharing is assumed to be a constant percentage of total costs.

## SECTION VIII - GLOSSARY OF TERMS

## Actuarial accrued liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of OPEB benefits and expenses which is not provided for by future Normal Costs and therefore is the value of benefits already earned.

## Actuarial assumptions

Assumptions as to the occurrence of future events affecting OPEB costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided OPEB benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

## Actuarial cost method

A procedure for determining the Actuarial Present Value of OPEB benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

## Actuarial experience gain or loss

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

## Amortization (of unfunded actuarial accrued liability)

That portion of the OPEB plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability.

## Annual OPEB cost

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

## Annual required contributions of the employer (ARC)

The employer's periodic expense to a defined benefit OPEB plan, calculated in accordance with the parameters. It is the value of the cash contributions for a funded plan and the starting point in the calculation of the expense entry in the profit and loss section of the financial statements.

## Closed amortization period (closed basis)

A specific number of years that is counted from one date and, therefore, declines to zero with the passage of time. For example, if the amortization period initially is thirty years on a closed basis, twenty-nine years remain after the first year, twenty-eight years after the second year, and so forth. In contrast, an open amortization period (open basis) is one that begins again or is recalculated at each actuarial valuation date. Within a maximum number of years specified by law or policy (for example, thirty years), the period may increase, decrease, or remain stable.

## SECTION VIII - GLOSSARY OF TERMS

## Covered payroll

Annual compensation paid to active employees covered by an OPEB plan. If employees also are covered by a pension plan, the covered payroll should include all elements included in compensation on which contributions to the pension plan are based. For example, if pension contributions are calculated on base pay including overtime, covered payroll includes overtime compensation.

## Defined benefit OPEB plan

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

## Funded ratio

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

## Funding policy

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

## Healthcare cost trend rate

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

## Investment return assumption (discount rate)

The rate used to adjust a series of future payments to reflect the time value of money.

## Level dollar amortization method

The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

## Level percentage of projected payroll amortization method

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

## SECTION VIII - GLOSSARY OF TERMS

## Net OPEB obligation (NOO)

The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEBrelated debt. It will be included as a balance sheet entry on the financial statements.

## Normal cost

That portion of the Actuarial Present Value of OPEB benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. It is the value of benefits to be accrued in the valuation year by active employees.

## OPEB-related debt

All long-term liabilities of an employer to an OPEB plan, the payment of which is not included in the annual required contributions of a sole or agent employer (ARC) or the actuarially determined required contributions of a cost-sharing employer. Payments generally are made in accordance with installment contracts that usually include interest. Examples include contractually deferred contributions and amounts assessed to an employer upon joining a multiple-employer plan.

## Other postemployment benefits

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

## Pay-as-you-go

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

## Required supplementary information (RSI)

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


[^0]:    Vermont State Teachers
    Post Retirement Medical Plan Analysis
    June 30, 2009

[^1]:    Vermont State Teachers
    Post Retirement Medical Plan Analysis June 30, 2009

