Report on the Actuarial Valuation of Post Retirement Benefits of the Vermont State Teachers' Retirement System

Prepared as of June 30, 2014

October 2014

buckconsultants

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Introduction

The Board of Trustees of the Vermont State Teachers' Retirement System ("VSTRS" or the "System")has engaged Buck Consultants, LLC ("Buck") to prepare an actuarial valuation of their OPEB (Other Post-employment Benefits, or, postretirement benefits other than pension) program as of June 30, 2014. 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 and to provide reporting and disclosure information for financial statements, governmental agencies and other interested parties. In addition, the valuation provides information that may be used to determine the level of contributions recommended to assure sound funding of such benefits. This valuation report contains information that is required for compliance with the Governmental Accounting Standards Board's Statement 45 ("GASB 45"), which relates to accounting and financial reporting for postemployment benefits other than pensions.

Use of this report for any other purpose or by anyone other than the plan, the plan sponsor, or their auditors may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. This report should not be provided except in its entirety. No one other than the plan, plan sponsor or their auditors may make any representations or warranties based on any statements or conclusions contained in this report without the written consent of Buck.

This valuation continues to reflect the change being implemented to the way prescription drug benefits for Medicare-eligible retirees are structured. As of January 1, 2014, VEHI[1] is providing these benefits under a Medicare Part D Employer Group Waiver Plan (EGWP) arrangement in coordination with Blue Cross Blue Shield of Vermont. The EGWP arrangement was first reflected in our June 30, 2013 valuation. Prior to the change to the EGWP arrangement, VSTRS was participating in the Retiree Drug Subsidy (RDS) program, in which the plan sponsor applies for a subsidy equal to 28% of gross Rx claims within certain parameters, typically representing subsidies equal to about 20% of gross Rx cost. Under the EGWP arrangement, the benefits available to participants do not materially change, but are provided through a plan which is directly contracted with Medicare and which receives several sources of subsidies. The three material subsidies are the Direct Subsidy to EGWP, Coverage Gap Discounts on brand drugs, and Federal Reinsurance. The total of these subsidies is expected to be of greater value than the RDS subsidies, typically as much as 30% to 40% of gross Rx cost.

In addition to the different financial arrangement, the EGWP arrangement is treated differently than the RDS for accounting purposes. GASB Technical Bulletin No. 2006-1 disallowed reflecting future RDS payments as an offset to GASB 45 liabilities, and so we did not reflect RDS payments in our prior valuations. On the other hand, since the EGWP arrangement flows directly into reduced premiums, as opposed to the intra-governmental transfer of RDS, the subsidies received under the EGWP arrangement are directly reflected in the GASB 45 calculations, and thus the expected reduction in costs that started January 1, 2014 were reflected starting with the June 30, 2013 valuation.

The change from EGWP to RDS is expected to represent a material reduction in the net cost to VEHI to provide these benefits, and we have reflected the savings in this valuation by assuming a reduction in the fully-insured rates charged by VEHI in 2015. Although VEHI begun providing benefits under the EGWP arrangement on January 1, 2014, the 2014 premium rates do not reflect any EGWP savings. The Vermont State Treasury Office confirmed that the EGWP savings will be reflected in the January 1, 2015 premium rates.

We estimated the total reduction in the cost to provide benefits using Buck's proprietary EGWP financial model fitted for VSTRS's prescription drug plan design. We assume that net Rx costs for Medicare eligible participants reduce gross spending (e.g. spending before recognizing RDS) by about 30% in 2015, resulting in a reduction in the AAL measured as of June 30, 2014, of $169.8 million. This contrasts with an estimated reduction of $203.6 million as of June 30, 2013, which had been based on an assumed reduction in net Rx costs for Medicare eligible participants of about 40%. The reduction in assumed savings has been based on our experience with various EGWP arrangements, including information about the 2015 level of federal direct subsidy.

[1] The Vermont Education Health Initiative (VEHI) is a large, non-profit purchaser of health care plans for Vermont's school employees. This self-funded, fully-insured purchasing trust is managed jointly by the Vermont School Boards Insurance Trust (VSBIT) and the Vermont-National Education Association (Vermont-NEA).

Assumptions related to decrement rates were updated for the June 30, 2011 valuation to reflect the Experience Study of the State Teacher's Retirement System of Vermont, presented to and adopted by the Board on March 23, 2011. The evaluation of the suitability of these assumptions for this GASB 45 valuation is beyond the scope of this assignment. The decremental assumptions are supplemented by demographic assumptions specifically related to retiree medical measurement such as participation.

While the actuarial assumptions developed for this analysis are considered reasonable for financial reporting purposes, it should be understood that there is a range of assumptions that could be deemed reasonable that would yield different results. Moreover, while the assumption set is considered reasonable based on prior plan experience, it should be understood that future plan experience may differ considerably from what has been assumed due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. The measurement of the sensitivity of these results to changes in assumptions is beyond the scope of this assignment.

For this year's valuation, 511 active employees terminated on July 1, 2014 were assumed to cash out their retirement benefits within a year of termination and therefore not receive retiree medical benefits. In addition, members who terminated with five years of service within six years of the valuation date but have not cashed out their retirement benefits were assumed to cash out in the next year and not receive retiree medical benefits. At the direction of the System, these groups were not included in the valuation. We have not evaluated the reasonability of the assumption that all of these individuals will cash out.

Census data was provided by System personnel. Our analysis relies on the accuracy of the data. The data was not reviewed for consistency or completeness beyond that necessary to develop the analysis. Such a detailed review of the data and its sources is beyond the scope of this analysis. To the extent that the data is incomplete or incorrect, the results of the analysis are also incomplete or incorrect.

Please see the table in Section 1 for details on actuarial gains and losses experienced over the year.

The valuation reflects the fact that there is currently no formal pre-funding policy, although pre-funding remains under consideration. Therefore, results are calculated using a 4.00% discount rate to reflect the assumption that benefits are expected to be financed from the state's general fund. A second scenario is provided which assumes the System's liabilities will be funded in a manner similar to that used for pensions, starting with the fiscal year beginning July 1, 2014. Results under this scenario reflect a discount rate of 7.90%, the single-equivalent rate which is consistent with the rate of return assumptions used for the pension valuation. Section II provides a summary of the principal valuation results in the form of the information required under GASB 45.

Hope Manion is a Fellow of the Society of Actuaries and Kevin Penderghest is an Associate of the Society of Actuaries. Both Ms. Manion and Mr. Penderghest are both Members of the American Academy of Actuaries and meet the Qualification Standards of the Academy in the health practice area to render the actuarial opinions contained herein. Both undersigned actuaries have reviewed the overall reasonableness and consistency of these results. David Driscoll is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Mr. Driscoll meets the Qualification Standards of the American Academy of Actuaries in the retirement practice area. Mr. Driscoll as actuary for the retirement benefits provided by VSTRS has evaluated the reasonableness of the assumptions set for VSTRS that are also used in this analysis. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and Ms. Manion and Mr. Penderghest are available to answer questions concerning it.

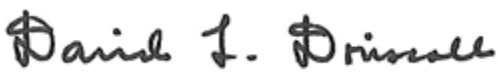
Respectfully Submitted,

Buck Consultants, LLC

10/30/2014

Hope C. Manion, FSA, MAAA
Principal, Consulting Actuary

Date



10/30/2014

David L. Driscoll, FSA, MAAA, EA
Principal, Consulting Actuary

Date

10/30/2014

Kevin J. Penderghest, ASA, MAAA
Senior Consultant, Actuary

Date

Section I – Overview

The System experienced a net increase in its accrued liability for post-retirement benefits over the past year. The increase in liability is due to the following factors:

- Expected increases due to the passage of time;
- Impact of recent year's demographic experience;
- A reduction in the expected savings to Medicare prescription drug costs resulting from the 2014 implementation of the EGWP.

The reduction in savings due to the EGWP was caused by a number of factors, including:

- A reduction in the expected risk score of the covered population. In general, risk scores assigned to similar populations covered under EGWP arrangements have been decreasing in recent years. Information on the risk score for the VSTRS population provided to us by Blue Cross Blue Shield of Vermont indicates a preliminary risk score even lower than we are currently assuming. However, it is our understanding that the preliminary score provided by CMS included roughly 10% of the covered population who had not yet been assigned a risk score, and were incorrectly valued with a score of zero. We understand that CMS is working to assign a risk score to these unassigned participants, and we would expect the final risk score to come in around the level of our current assumption.
- Sequestration causing a reduction in direct federal subsidies;
- Updated guidance from CMS on the adjudication of straddle claims.

There were no changes to the discount rate used for the pay-as-you go basis or to the healthcare trend rates. The discount rate assumed for the pre-funded basis alternative scenario reflects a single rate equivalent of the select and ultimate discount rates recommended by the Experience Study of the State Teacher's Retirement System of Vermont, presented to and adopted by the Board on March 23, 2011. This single rate equivalent remains the same as was used in the previous valuation. Per capita costs were updated to reflect the most recent plan premiums in effect. No other assumption changes have been made since the last valuation. A summary of valuation assumptions is shown in Section VI.

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 Retiree Drug Subsidy 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 as of June 30, 2013 did not reflect the value of future Retiree Drug Subsidy amounts for the period that the subsidy affects the plan, e.g. through December 31, 2013. Subsidy payments under the EGWP arrangement effective January 1, 2014 are reflected for fiscal year 2014 onwards in the calculation.

We have made explicit adjustments to the values developed in this report for the future effects of the "Cadillac tax" to become effective in 2018 under the federal healthcare reform legislation, the Patient Protection and Affordable Care Act. We have not made adjustments for other potential effects of health care reform legislation on VSTRS liabilities. Please see Section VII for details.

Shown below is a reconciliation of the Unfunded Actuarial Accrued Liability from last year to this year under the 4% discount rate assumption.

6/30/2013 Unfunded Actuarial Accrued Liability		$ 712,666,108
End of year normal cost	$ 19,376,772	
Interest cost	27,973,449	
Expected Benefit Payments	(26,923,743)	
6/30/2014 Expected Unfunded Actuarial Accrued Liability		$ 733,092,586
Impact of recent year Demographic Experience and other refinements	$ (13,271,637)	
New per capita costs	(314,556)	
Refined EGWP Projection	47,269,085	
6/30/2014 Unfunded Actuarial Accrued Liability		$ 766,775,478

The fiscal 2015 Annual Required Contribution calculated on the pay-as-you-go basis at a discount rate of 4.00% is $40,988,368; we project the Annual Required Contribution calculated at 4.00% for the subsequent year (fiscal year ending June 30, 2016) to be $42,641,136.

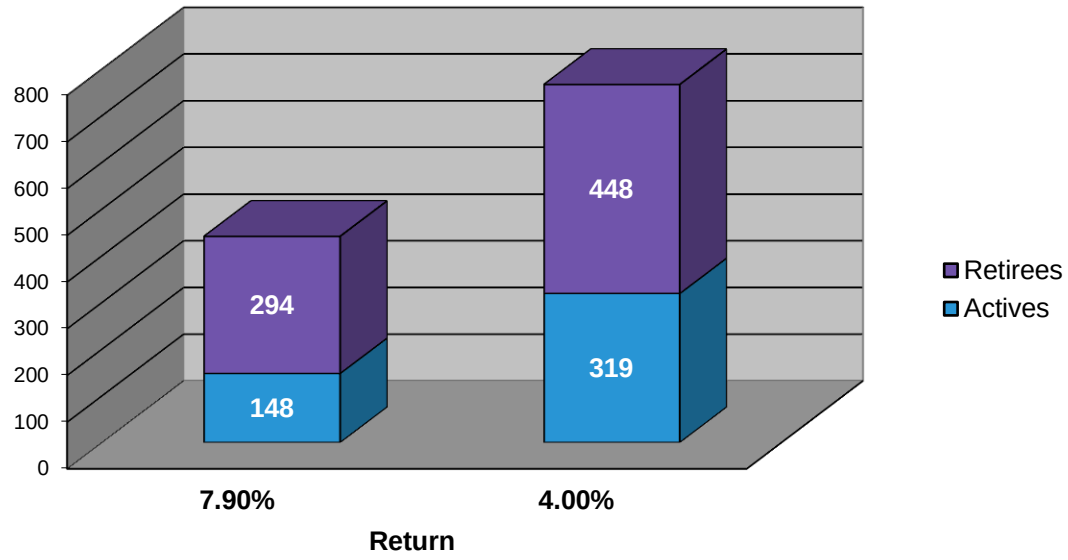
Section II – Required Information

		Pre-Funding Basis	Pay-as-you-go Basis
a)	Assumed discount rate	7.90%	4.00%
b)	Actuarial value of assets	$0	$0
c)	Actuarial accrued liability		
	Active Participants	$147,861,187	$319,008,121
	Retired Participants	$293,664,691	$447,767,357
	Total	$441,525,878	$766,775,478
d)	Unfunded actuarial liability (c. - b.)	$441,525,878	$766,775,478
e)	Funded ratio	0.0%	0.0%
f)	Annual covered payroll	$565,658,407	$565,658,407
g)	Unfunded actuarial liability as a percentage of covered payroll	78.1%	135.6%
h)	Normal cost for the 2015 fiscal year	$7,971,140	$19,381,093
i)	Amortization of unfunded actuarial liability for the 2015 fiscal year (30-year)	$21,251,642	$22,171,590
j)	Interest on expected net retiree claims	($1,104,166)	($564,315)
k)	Annual Required Contribution (ARC) for the 2015 fiscal year* (h. + i. + j.)	$28,118,616	$40,988,368
l)	Expected net retiree claims	$28,495,158	$28,495,158
m)	Normal cost for the 2016 fiscal year	$8,369,697	$20,350,148
n)	Amortization of unfunded actuarial liability for the 2016 fiscal year (30-year)	$21,919,818	$22,801,016
o)	Interest on expected net retiree claims	($997,946)	($510,028)
p)	Annual Required Contribution (ARC) for the 2016 fiscal year* (m. + n. + o.)	$29,291,569	$42,641,136

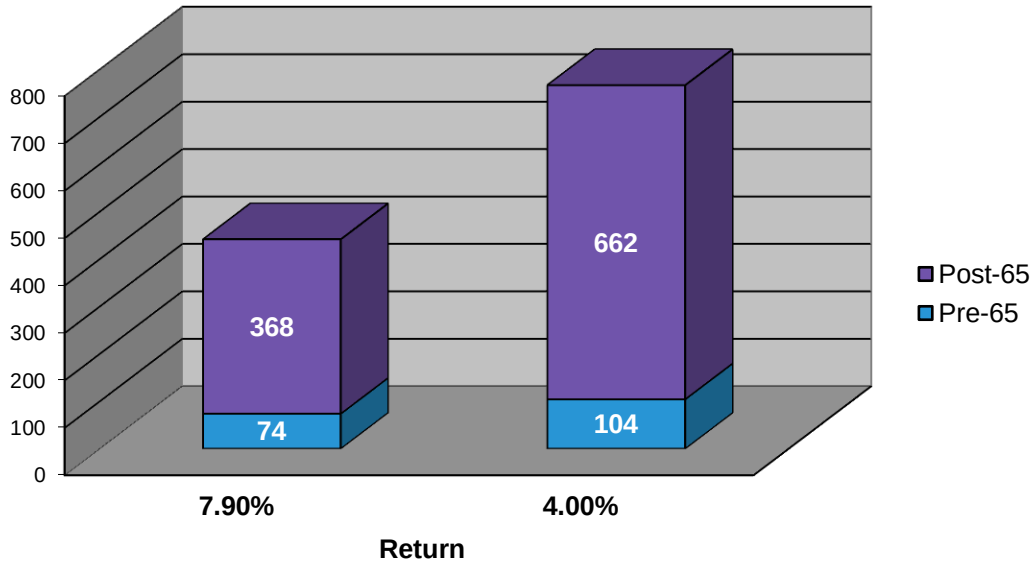
* Payment is assumed to be made at the beginning of the fiscal year.

** ARC calculation has been modified to reflect interest on expected net retiree claims during the fiscal year.

Actuarial Accrued Liability in $millions – Actives versus Retirees



Actuarial Accrued Liability in $millions – Pre-65 versus Post-65

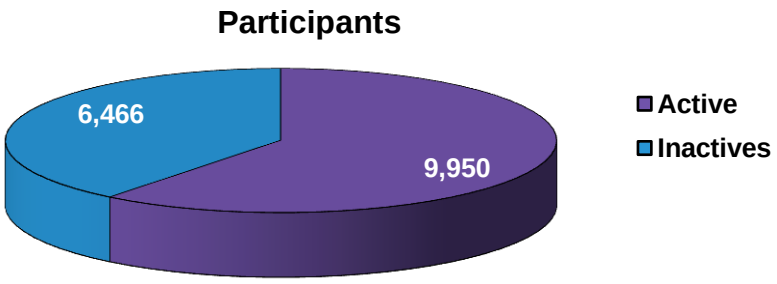


Section III – Membership Data and Medical Premium

Number of Participants Included In Valuation

	2014	2013
Actives	9,950	10,100
Inactives	6,466*	6,200*
Total	16,416	16,300

* Includes 740 and 750 terminated vested individuals in 2014 and 2013 respectively. In addition, the 2014 count includes 150 retirees who retired on July 1, 2014, and the 2013 count includes 157 retirees who retired on July 1, 2013.



The Number of Active Members Distributed By Age and Service
as of June 30, 2014

	Service									
	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	0	0	0	0	0	0	0	0	0	0
20 to 24	143	0	0	0	0	0	0	0	0	143
25 to 29	589	131	0	0	0	0	0	0	0	720
30 to 34	475	494	108	0	0	0	0	0	0	1,077
35 to 39	293	439	385	89	0	0	0	0	0	1,206
40 to 44	229	317	407	362	55	0	0	0	0	1,370
45 to 49	178	276	244	282	213	61	0	0	0	1,254
50 to 54	137	223	239	239	204	245	51	0	0	1,338
55 to 59	108	162	252	233	190	252	195	54	0	1,446
60 to 64	55	107	154	198	177	154	143	129	28	1,145
65 to 69	18	25	30	27	25	28	22	21	26	222
70 & up	6	1	7	1	3	1	1	2	7	29
TOTAL	2,231	2,175	1,826	1,431	867	741	412	206	61	9,950

10 of the 9,950 active participants are Group A, the remainder are Group C.

Monthly State Costs (including expenses) for 2014

Plan	State Share	Change from 2013	Participants
JY			
Retiree under 65	$533.99	4.5%	98
Retiree over 65	$397.62	4.5%	780
			878
$300 Comprehensive Plan			
Retiree under 65	$533.99	4.5%	590
Retiree over 65	$397.62	4.5%	3,010
			3,600
Vermont Health Partnership			
Retiree under 65	$533.99	4.5%	671
Vermont Blue 65 Plan C			
Medicare Eligible, over 65	$183.68	4.5%	577

*Amounts shown above for over 65 do not reflect reduction in costs for the EGWP arrangement effective January 1, 2014.

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 Current Policy of Pay-As-You-Go Funding
(dollar amounts in thousands)

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)
June 30, 2014	$0	$766,775	$766,775	0%	$565,658	135.6%
June 30, 2013	$0	$712,666	$712,666	0%	$563,534	126.5%
June 30, 2012	$0	$827,180	$827,180	0%	$561,026	147.4%
June 30, 2011	$0	$780,032	$780,032	0%	$547,748	142.4%
June 30, 2010	$0	$703,751	$703,751	0%	$560,763	125.5%
June 30, 2009	$0	$872,236	$872,236	0%	$561,588	155.3%
June 30, 2008	$0	$863,555	$863,555	0%	$535,807	161.2%
June 30, 2007	$0	$820,212	$820,212	0%	$515,573	159.1%
June 30, 2006	$0	$952,526	$952,526	0%	$499,044	190.9%

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

Schedule of Funding Progress Based on a Policy of Pre-funding Starting July 1, 2014

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)
June 30, 2014	$0	$441,526	$441,526	0%	$565,658	78.1%
June 30, 2013	$0	$712,666	$712,666	0%	$563,534	126.5%
June 30, 2012	$0	$827,180	$827,180	0%	$561,026	147.4%
June 30, 2011	$0	$780,032	$780,032	0%	$547,748	142.4%
June 30, 2010	$0	$703,751	$703,751	0%	$560,763	125.5%
June 30, 2009	$0	$872,236	$872,236	0%	$561,588	155.3%
June 30, 2008	$0	$863,555	$863,555	0%	$535,807	161.2%
June 30, 2007	$0	$820,212	$820,212	0%	$515,573	159.1%
June 30, 2006	$0	$952,526	$952,526	0%	$499,044	190.9%

Liabilities above were based on assumed discount rates of 3.75% prior to 2008, 4.00% for 2008 through 2013, and 7.90% for 2014.

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 Ending June 30	Annual Required Contribution	Interest on NOO	Amortization of NOO	Annual OPEB Cost (1)+(2)-(3)	Actual Contribution	Change in NOO (4)-(5)	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	0	60,296,524	180,309,206
2011	41,509,429	7,212,368	5,213,706	43,508,091	0	43,508,091	223,817,296
2012	43,410,732	8,952,692	6,471,758	45,891,666	0	45,891,666	269,708,962
2013	45,458,358	10,788,358	7,798,732	48,447,984	0	48,447,984	318,156,946
2014	39,238,510	12,726,278	9,199,623	42,765,165	0	42,765,165	360,922,111
2015	40,988,368	14,436,884	10,436,193	44,989,059	TBD	TBD	TBD

Benefit payments for fiscal years prior to 2015 were made from the pension assets and recorded as an asset loss as part of the pension plan accounting. Therefore, pay-as-you-go costs are not included in the calculation of the NOO for these years. It is our understanding benefit payments will no longer be paid from a sub-trust of the pension fund beginning with fiscal year 2015; therefore, pay-as-you-go costs will be included in the calculation of the NOO for fiscal year 2015 and all years following.

Section VI – Actuarial Assumptions and Methods

Vermont State Teachers

Interest

4.00% per year, the assumed rate of return on general assets of the employer, for a pay-as-you-go plan. Alternatively, 7.90% per year, net of investment expenses for a fully pre-funded plan. Note that the fully funded discount rate is consistent with the single-equivalent rate used for the pension valuations.

Actuarial Cost Method:

Projected Unit Credit with benefits attributed from date of hire until expected retirement date.

Medical Care and State Share Inflation:

5.00%

The assumption reflects the anticipated impact of the use of the surplus of Vermont Education Health Initiative to moderate the increase in rates over the short term.

Amortization period:

Thirty year open amortization basis with payments increasing 5% annually as is consistent with statutory guidelines regarding amortization of pension liabilities.

Grandfathering:

Participants who had attained 10 years of service as of June 30, 2010 are considered Grandfathered.

Separations before Normal Retirement:

Representative values of the assumed annual rates of withdrawal, vested retirement, early retirement, disability and death are as follows.

	Withdrawal and Vested Retirement		Disability		Death	
Age	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	.052	.045	.05	.04
50	5.40	5.00	.067	.070	.07	.06
55	5.40	4.80	.088	.095	.07	.10
59	5.40	4.80	.234	.142	.09	.14
60	5.40	4.80	.294	.168	.09	.15
61	5.40	4.80	.366	.202	.30	.17

Participants are considered Grandfathered under the pension plan if they were within 5 years of the former Normal Retirement criteria (age 62, or completion of 30 years of service at any age) as of July 1, 2010. Retirement rates are then applicable as follows:

Age	Reduced Early Retirement		Full Early Retirement	
	Grandfathered (55 & 5)	Non-Grandfathered (55 & 5)	Grandfathered (62 or 30 YOS)	Non-Grandfathered (65 & 5 or Rule of 90)
50	-	-	40.00%	25.00%
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	17.00
61	12.50	12.50	17.00	17.00

Service Retirements:

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

Age	Annual Rate of Retirement	
	Grandfathered	Non-Grandfathered
62	25.0%	20.0%
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

Prior to age 65, 25% of Non-Grandfathered participants are assumed to retire the first year they satisfy the Rule of 90 eligibility criteria.

Deaths after Retirement:

For Group C service retirements: The 1995 Buck Mortality Tables, set back three years for males and one year for females.

For Group A service retirements: The 1995 Buck Mortality Tables, set back one year for both males and females.

For the period following disability retirement: the RP-2000 Disabled Life Mortality Tables are used with mortality improvements projected to 2016 with Scale AA.

The tables used were selected to allow for a margin to reflect mortality improvement after the valuation date.

All mortality tables used in this valuation are consistent with the pension valuation per Title 16, Chapter 55, Section 1944 of the Vermont Statutes.

Per Capita Costs:

Current and future retirees are valued with a weighted-average premium. Premiums are assumed to include the cost of administering the medical benefits. The weighted-average premium is based on the medical plan coverage of current retirees. No age morbidity is assumed as the benefits are fully insured and the System is not liable for any hidden subsidies arising from blending active and retiree experience.

Estimated gross per capita costs for 2014-15 for pre- and post-Medicare coverage were $8,010 and $5,540 respectively, before reflecting percentage

of state premium subsidy. 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 fully insured via the Vermont Education Health Initiative purchasing trust.

Effective January 1, 2015, the post Medicare coverage costs are assumed to be reduced to reflect anticipated reduction in premiums due to EGWP federal subsidy payments to VEHI. The estimated gross per capita cost is assumed to be reduced to $4,643 at the fiscal year 2015-2016 level, before reflecting percentage of state premium subsidy.

Future employee cost sharing is assumed to be a percentage of total costs based on plan provisions.

Coverage: It is assumed that 60% of those eligible at retirement will elect medical coverage. It is assumed that 30% of terminated vested participants will elect medical coverage. Individuals are assumed to elect options in the same proportion as current retirees. All those currently retired from terminated vested status and electing retiree medical benefits are assumed to be eligible to receive the maximum 80% subsidy.

Premium Reduction Option: It is assumed that 50% of retirees covering spouses who are eligible for the 80% subsidy will elect the Premium Reduction Option at retirement. The Option is currently valued using a reduction factor of 92.5% of the single-life subsidy for which the retiree and spouse are eligible. Any surviving spouses currently listed in the census with a date of retirement before January 1, 2007 are assumed to pay the full medical premium.

Marital Status: It is assumed the 85% of males and 70% of females will cover a spouse who is eligible for subsidized coverage at retirement. Actual spouse date of birth is used for current retirees; for future retirees and current retirees for whom this information was not provided, it is assumed that husbands are 3 years older than wives. Spouses are assumed to make coverage elections in the same proportions as retirees.

Section VII – Consideration of Health Care Reform and Subsequent Events

Summary of Effects of Selected Provisions of Health Care Reform

Removal of Lifetime Maximum – Effective 1/1/2011: As the plans offered by VSTRS do not have Lifetime Maximums, there is no effect on the liabilities.

Medicare Advantage Plans - Effective 1/1/2011: The law provides for reductions to the amounts that would be provided to Medicare Advantage plans starting in 2011. As VSTRS does not provide these plans to retirees, there is no impact.

Expansion of Child Coverage to Age 26 - Effective 1/1/2011: The plan does not subsidize the cost of children, and so there is no direct impact. We have assumed any impact on the VEHI rates charged to the plan have already been reflected in the state share rates.

Medicare Part D Subsidy - Shrinking Medicare Prescription Drug "Donut Hole"- Starting 1/1/2011: It is our understanding that Medicare prescription drug benefits will be offered through an Employer Group Waiver Plan (EGWP) effective January 1, 2014. Therefore, VSTRS will no longer seek reimbursement for the Retiree Drug Subsidy. The impact of the shrinking Medicare prescription drug benefit donut hole coverage gap on EGWP financing was considered in setting the trend assumption for this valuation. Because the improved coverage gap benefit results in lower reinsurance in the catastrophic layer of federal payments, no long term trend impact was assumed.

Excise Tax on High-Cost Employer Health Plans (aka Cadillac Tax) - Effective 1/1/2018: There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax measurement testing purposes. We prepared a projection of the calculation based on a reasonable interpretation of the applicable legislation. The projection separately valued single and family premium costs for participants over age 65 from the premium costs for pre-65 participants, projecting these amounts by the medical cost increase factors in this valuation. The initial 2018 limits for calculating the tax were projected using the same cost increase factors as used for the valuation. The limits after 2018 were calculated using an assumed CPI of 3.0%. We adjusted healthcare cost trend to reflect the Tax. This increased overall results by about 0.3%, a lower estimated impact as a percentage than was used in last year's valuation (0.5%).

Other: We have not identified any other specific provision of national health care reform that would be expected to have a significant impact on the measured obligation. As additional guidance on both the federal and Vermont legislation is issued, we will continue to monitor any potential impacts.

Subsequent Events

Green Mountain Care: The single payer system called Green Mountain Care (GMC) to be established in Vermont has the potential of significant impact on the valuation. At this point, plans for implementation are just beginning. Buck has performed preliminary analysis on the effects of GMC on VSTRS GASB liabilities. This analysis has been included as an addendum to this report.

Revisions to Actuarial Standard of Practice: In May 2014, the Actuarial Standards Board issued a Revised Edition of Actuarial Standard of Practice No. 6, Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions, ("ASOP 6"). The revisions to ASOP 6 will be effective for measurement dates on or after March 31, 2015. The revision includes additional guidance concerning retiree group benefit programs that participate in pooled health plans, including

community-rated plans. This guidance could have a significant impact on how costs are measured for the System. The Actuary has not yet evaluated this guidance as it relates to the benefits included in this valuation.

Estimates of EGWP Subsidies: We were provided information regarding the level of subsidies that BCBS of Vermont are projecting under the EGWP for 2015. However, we understand that these estimates were based on a risk score estimate provided by CMS that reflected a risk score of zero for 300 participants; we anticipate that these bogus scores will be eventually be updated by CMS and the overall risk score for the population will be revised to something more reasonable. Thus, our valuation relies on our own EGWP financial analyses of the System's historical claims data and plan design, as well as general parameters seen among other EGWP programs, for example, average population risk scores, etc. We note that the actual 2015 premium rates will likely be available at the time the July 1, 2015 valuation is being processed, and will incorporate them to the extent possible at that time.

Section VIII – Postretirement Benefit Plan Provisions

Retiree Medical Benefits

If eligible for a pension, retirees and dependents are eligible for the following subsides:

ELIGIBILITY AND PREMIUM SUBSIDY

- **Retiree Coverage and Subsidy Level**

Years of Service at June 30, 2010

·10 or more:	80% Subsidy	
·Less than 10:	Less than 15 years:	0% Subsidy
	15-19.99 years:	60% Subsidy
	20-24.99 years:	70% Subsidy
	25 years or more:	80% Subsidy

- **Spouse Coverage with 80% Subsidy**

Years of Service at June 30, 2010	*Required Years of Service at Retirement*
·Less than 15:	25 years of service at retirement
·Between 15 and 24.99:	10 additional years from June 30, 2010
·Between 25 and 29.99:	35 years of service at retirement
·30 or more:	5 additional years from June 30, 2010

Premium Reduction Option

For retirements on or after January 1, 2007, members entitled to a VSTRS premium subsidy have a one-time option to reduce the percentage of VSTRS subsidy during the retiree's life, with the provision that a surviving spouse will continue to receive the same VSTRS subsidy for his or her lifetime. The reduction in VSTRS subsidy is intended to result in an actuarially equivalent benefit.

Terminated Vested Benefits ·

Members who terminate with 5 or more years of service but who are not yet 55 years old may elect to receive medical coverage at the time their retirement benefits would commence. If terminated prior to June 30, 2010 with at least 10 years of service, 80% premium subsidy is provided for members at the time their retirement benefits would commence.

State of Vermont Teachers Medical Plans

	JY Plan*	$300 Comprehensive Plan	Vermont Health Partnership
Primary Care Physician	N/A	N/A	Select upon enrollment
Co-pay	$20	N/A	$15 for PCP, $25 for Specialist
Deductible	N/A	$300	N/A
Coinsurance (Plan Pays)	100% of Allowed	80%	100% of Allowed
Out-of-Pocket	N/A	$600/$1,200	N/A
Lifetime Maximum	None	None	None
Prescription Drugs	Generic - $5 Preferred Brand - $20 Non-Preferred - $45 Out of Pocket Maximum - $600/$1,200		

Plans fully insured via VEHI purchasing partnership.

*For those eligible, benefits are coordinated with Medicare. Vermont Blue65 Plan C Medigap plan is also available. The Medigap plan does not include prescription drug coverage.

Section IX – 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.

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.

Net OPEB obligation (NOO)
The cumulative difference, since the effective date of GASB 45, between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt. 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 an 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.

Addendum – Green Mountain Care Discussion

The following summarizes our updated analysis of the impact of implementing Green Mountain Care (GMC) on the Other Post-Employment Benefits (OPEB) GASB Liability for the Vermont State Teachers' Retirement System (VSTRS). This analysis is a continuation of the directional/illustrative analysis provided in November 2013, updated in March 2014 at the State's request for refined factors provided by Wakely Consulting Group, with findings applied pro rata to preliminary July 1, 2014 valuation results. This is a high-level study that relies on many simplifying assumptions in the absence of definitive guidance to date. The purpose of this study was to provide a starting point for discussing possible methods of coordination between GMC and the Systems, and the accounting implications of various methods. We have only considered one of many possible coordination methods in this study. We recommend revisiting this study and revising as necessary as more definitive guidance emerges and as the discussion of various coordination considerations progresses.

ASSUMPTIONS AND METHODS

This analysis assumes that GMC will be implemented in the fiscal year beginning in 2017. As of this date, GMC would become the primary payer of postretirement healthcare benefits for all residents of the state of Vermont. In the event that a plan design option offered under VSERS or VSTRS provides richer coverage than GMC, this plan would pay for any benefits covered that would not be paid by GMC so that retirees receive the same benefit value as if GMC were not a factor. Conversely, if a VSERS or VSTRS design option is less rich than GMC, it is assumed that the GMC standard design prevails. Therefore, the cost to provide coverage when GMC is less rich than a retiree's current plan would be the only liability for Vermont retiree residents for which VSERS and VSTRS would be responsible.

To measure this liability, Buck relied on relative value factors provided by the Wakely Consulting Group. Buck Consultants provided Wakely with plan design information for plans currently offered by VSERS and VSTRS, as well as the per capita cost and healthcare cost trend assumptions used in the July 1, 2013 valuation reports. This information was used along with information from the GMC forecast to estimate a blended 2017 annual allowed claims cost amount for retirees. The plan design information was applied to this cost for GMC and the VSERS and VSTRS plans to develop an Actuarial Value (AV) factor for each plan. Because the GMC plan design has not been finalized, actuarial values for 2 design options were provided: one with an 80% AV for a commercial population, and one with an 87% AV for a commercial population. Since retirees have higher costs than active employees, the actuarial values for the same plan design are typically higher for a retiree population than an active population. Therefore, the AV indicated for the 80% GMC is higher than 80%, and the AV indicated for the 87% GMC is higher than 87%. Similarly, the pre-Medicare AV is lower than the post-Medicare AV for the same plan to reflect that retiree costs are expected to increase with age. These AV factors measured the percentage of the allowed cost covered by each plan. These factors are shown below:

Plan	Pre-Medicare Actuarial Value (AV)	Increase over GMC 80 Plan	Increase over GMC 87% Plan	Post-Medicare Actuarial Value (AV)	Increase over GMC 80% Plan	Increase over GMC 87% Plan
Green Mountain Care 80% Plan	83.2%	N/A	N/A	84.5%	N/A	N/A
Green Mountain Care 87% Plan	90.5%	N/A	N/A	91.9%	N/A	N/A
VSERS						
SelectCare POS	94.0%	10.8%	3.5%	94.5%	10.0%	2.6%
HealthGuard PPO	89.5%	6.3%	N/A	90.9%	6.4%	N/A
TotalChoice	94.1%	10.9%	3.6%	95.0%	10.5%	3.1%
SafetyNet	78.8%	N/A	N/A	N/A	N/A	N/A
VSTRS						
$300 Comprehensive	96.4%	13.2%	5.9%	97.1%	12.6%	5.2%
JY Plan	96.5%	13.3%	6.0%	96.9%	12.4%	5.0%
Vermont Health Partnership	93.7%	10.5%	3.2%	N/A	N/A	N/A
Vermont Blue 65 Plan C (medical only)	N/A	N/A	N/A	100.0%	15.5%	8.1%

The factors above were applied to projected per capita costs beginning in 2017, separately for pre-Medicare and post-Medicare, weighted based on enrollment by plan in the July 1, 2013 census. To illustrate their application, consider the JY Plan: under the current payment structure for a pre-Medicare retiree, this plan covers 96.5% percent of allowed claims. Once the GMC 87% Plan is implemented, the JY Plan will only cover 6.0% of allowed claims. So we would expect a [(1 – 6.0%/96.5%) = 93.8%] reduction in claims paid by the JY Plan in 2017. It is also assumed that the premiums on which retiree contributions are based would be similarly decreased for in-state retirees.

For a post-Medicare retiree, we assume that Medicare first pays for 75% of allowed claims. Under the current payment structure, the JY Plan will cover (96.9% - 75% = 21.9%) of allowed claims. Once the GMC 87% Plan is implemented, the GMC Plan will cover (91.9% - 75% = 16.9%) of allowed claims, and the JY Plan will only cover 5.0% of allowed claims. So we would expect a [(1 – 5.0%/21.9%) = 77.2%] reduction in claims paid by the JY Plan in 2017. The calculations for post-Medicare are based on our assumptions for the percentage of claims covered by Medicare as well as how the GMC and other plans will coordinate with Medicare as described above. Changes in these assumptions could materially impact the results presented herein.

For those retirees covered under one of the VSERS or VSTRS plans who do not reside in the State of Vermont, GMC will not cover any of their medical benefits. Therefore, it is assumed that the liability for these individuals will not change from that measured for the July 1, 2013 valuations. To identify these people, the State provided zip codes for all retirees currently covered under the retiree medical plan. For term vested participants who may elect coverage in the future, Buck gathered residence information from the census data provided for the annual pension valuations if available. We then used these sources to develop a percentage of those expected to reside in Vermont upon retirement to apply to current active employees. This percentage was also applied to any inactive participants whose current residence was unavailable. These percentages were:

- VSERS: 82.8%
- VSTRS: 76.0%

All other data, assumptions, and methods are consistent with those described in the July 1, 2013 valuation reports. The actuarial value factors used in our analysis were provided by Wakely Consulting Group, and were not reviewed by Buck Consultants. The numbers below apply the findings of the analysis described above pro-rata to total preliminary July 1, 2014 actuarial accrued liabilities. Data, assumptions, and methods used to develop the total liabilities below are summarized in the 2014 valuation report.

VSTRS						
Discount rate	**7/1/2014 Valuation No GMC**		**7/1/2014 Valuation With GMC 80% Plan**		**7/1/2014 Valuation With GMC 87% Plan**	
	In-State	**Out-of-State**	**In-State**	**Out-of-State**	**In-State**	**Out-of-State**
4.00%	$590.5	$176.3	$346.4	$176.3	$191.9	$176.3
7.90%	$341.6	$99.9	$211.2	$99.9	$131.9	$99.9

Our calculations used the data, methods and assumptions referenced above and we believe they are reasonable and consistent in accordance with applicable Actuarial Standards of Practice. We certify that we are Members of the American Academy of Actuaries and meet its Qualification Standards for rendering this Statement of Actuarial Opinion.