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

Prepared as of June 30, 2014

October 2014

buckconsultants

xerox

Table of Contents

Introduction

The Board of Trustees of the Vermont State Employees' Retirement System ("VSERS" 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 valuation.

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 43, ***Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*** ("GASB 43") and Statement 45, Accounting and ***Financial Reporting by Employers for Postemployment Benefits Other than Pensions*** ("GASB 45").

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 reflects a change to the way prescription drug benefits for Medicare-eligible retirees are financed. As of January 1, 2015, these benefits will be provided under a Medicare Part D Employer Group Waiver Plan (EGWP) arrangement. Prior to this change, VSERS 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 different sources of subsidies. The three material subsidies are the Direct Subsidy to EGWP, Coverage Gap Discounts on brand drugs, and Federal Reinsurance. Buck did not perform a robust financial analysis of the reasonability of BCBS Vermont's findings, nor on the effects of this change on medical premiums which are the basis of the valuation's per capita cost assumption; rather, we relied on the 2014 premium information provided as well as information regarding how these premiums are expected to change over the near term provided by System personnel.

In previous years, we performed the calculations assuming that the System would continue its practice of paying for benefits on a pay-as-you-go basis, and contributing Medicare Part D refunds into a dedicated and irrevocable trust fund. This approach qualified as partial prefunding under Governmental Accounting Standards, and it was determined that a 4.25% discount rate is reasonable for this purpose. Under guidance from the System, we have prepared accounting schedules using results at a discount rate of 4.00% which assumes no prefunding will occur once the EGWP arrangement becomes effective January 1, 2015. As requested, we have also provided results under alternative scenarios that assumes a level of prefunding that is consistent with what was done in prior years, as well as one assuming that the System's post-retirement medical benefits other than pensions are funded in a manner similar to that used for pensions. Section II provides a summary of the principal valuation results in the form of the information required under GASB 45. .

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 the reflection of future RDS payments (e.g. those not yet accrued) as an offset to GASB 45 liabilities, and so we have not reflected RDS payments in 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 can be directly reflected in the GASB 45 calculations.

There were no other plan changes reflected in this valuation. Provisions of the Patient Protection and Affordable Care Act taking effect after June 30, 2010, were reflected in the valuation made as of that date.

Assumptions related to decrement rates were updated in the 2011 valuation to reflect the Experience Study of the Vermont State Employees' Retirement System, which was presented to and accepted by the Board on May 11, 2011. The evaluation of the suitability of these assumptions for this GASB 45 valuation is beyond the scope of this assignment. In addition, the fully-funded alternative scenario is being provided using a discount rate of 8.10% as is consistent with the single-rate equivalent recommended for the pension plan. 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.

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 I for summary of change to the Unfunded Actuarial Accrued Liability experienced over the year.

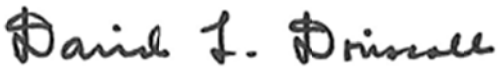
Hope Manion is a Fellow of the Society of Actuaries and Kevin Penderghest is an Associate of the Society of Actuaries. Both Ms. Manion and Mr. Penderghest are both Members of the American Academy of Actuaries and meet the Qualification Standards of the Academy in the health practice area to render the 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

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

10/30/2014
Date



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

10/30/2014
Date

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

10/30/2014
Date

Section I – Overview

The System experienced an increase in its Actuarial Accrued Liability for post-retirement benefits over the past year due to the following factors:

- Expected increases due to the passage of time;
- Demographic experience different than expected;
- Higher than expected increases to per capita cost assumptions
- Implementation of EGWP in 2015
- Updated healthcare cost trend assumption
- A decrease in the discount rate from 4.25% to 4.00%
- Other valuation refinements.

In addition, the Unfunded Actuarial Accrued Liability was affected by return on assets slightly higher than expected.

No demographic assumptions have been updated since the prior valuation. The healthcare cost trend assumption has been updated to reflect expected increases to medical costs based on available surveys of other employers' healthcare cost trend assumptions. Per unit per capita healthcare costs were updated based on recent plan premium equivalents and enrollment, as well as adjustment reflecting the level of actual health benefit costs over the last three as compared to premium equivalent amounts. In addition, in developing the assumptions used in this report, it was our understanding that pre-Medicare premiums were expected to increase at January 1, 2015 with healthcare cost trend, while Medicare premiums are expected to remain flat in order to reflect the savings anticipated for the EGWP arrangement. Our cost assumptions reflect that understanding. Since the assumptions were developed, the preliminary 2015 premium equivalent rates have become available. Pre-Medicare premiums have increased more than expected based on our healthcare cost trend assumptions, while Post-Medicare premiums have roughly remained flat as expected. Our cost assumptions do not explicitly reflect these preliminary 2015 rates. In addition, it is our understanding that the HealthGuard PPO Plan will not be offered beginning in 2015. Our cost assumptions do not reflect this; however, given the low enrollment in this plan in 2014, we do not expect this information would have materially changed our cost assumptions. The discount rate has been lowered from 4.25% to 4.00%, which reflects that the System will no longer be contributing Medicare Part D refunds into a dedicated and irrevocable trust fund once the EGWP becomes effective in 2015. All other assumptions were the same as those used in 2013. A summary of valuation assumptions is shown in Section VI.

All plan provisions were the same as those reflected in the 2013 valuation, except that the SafetyNet plan has been eliminated as a retiree option. Since so few retirees participated in that option, this has no significant impact on the valuation.

The actual asset return over the year was approximately 8.79%, which was higher than the fully funded expected rate of 8.10%.

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 subsidy payments. Instead, the 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 directly reflect the value of future Retiree Drug Subsidy amounts expected to be incurred prior to January 1, 2015 (when VSERS will cease participating in the Retiree Drug Subsidy program. The commitment to contribute the future Retiree Drug

Subsidy amounts represents a commitment to partial funding that has been reflected in prior valuations in the assumed discount rate. For this valuation, we have assumed the System will be contributing no additional funds to its dedicated trust fund, and have lowered the discount rate accordingly.

We have updated our analysis surrounding the implementation of the High Cost Premium Excise Tax ("Cadillac Tax"). Based on our current understanding of how the tax will be assessed, we currently estimate the tax to increase total liabilities by 1.2%.

We have not made adjustments for other potential effects of any future health care reform legislation changes on VSERS liabilities. Please see Section VII for details.

Shown below is a reconciliation of the funded status from last year to this year under the 4.00% discount rate assumption.

6/30/2013 Unfunded Accrued Liability		$932,200,993
End of year service cost	37,704,393	
Interest cost	39,552,181	
Expected Benefit Payments	(34,810,647)	
Expected increase in assets	(3,112,304)	
6/30/2014 Expected Unfunded Accrued Liability		$971,534,616
Demographic experience different than expected and other refinements	15,477,779	
Updated per capita costs*	162,388,132	
Implementation of EGWP*	(116,245,461)	
Assumption changes	601,354	
Asset gain	(129,061)	
Change in discount rate assumption	40,196,730	
6/30/2014 Unfunded Accrued Liability		$1,073,824,089

The expected increase in assets reflects expected RDS payments of $1.8 million and expected return on assets of $1.3 million. The asset experience gain is comprised of $0.3 million in net benefits contribution higher than benefits paid and investment income of $0.1 million higher than expected, while being offset by $0.3 million in RDS payments lower than expected.

The fiscal 2015 Annual Required Contribution calculated on the pay-as-you-go basis at a discount rate of 4.00% is $71,495,862; we estimate the Annual Required Contribution calculated at 4.00% for the subsequent year (fiscal year ending June 30, 2016) to be $74,674,203.

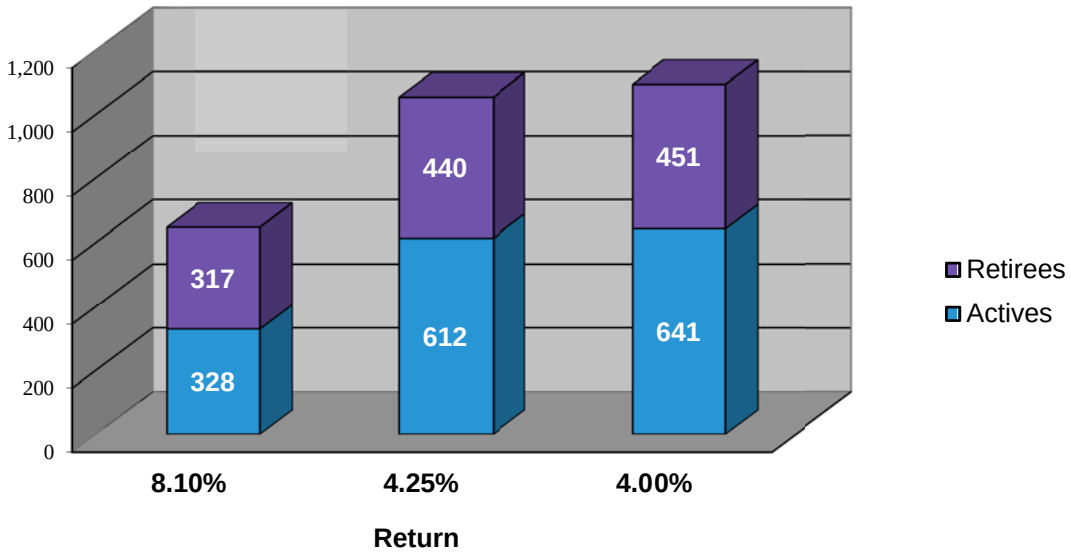
*The impact of the updated per capita costs and the implementation of the EGWP were estimated using information about the actual Medicare premium increases anticipated for 2015, before and after reflecting the EGWP subsidies, as provided by the State.

Section II – Required Information

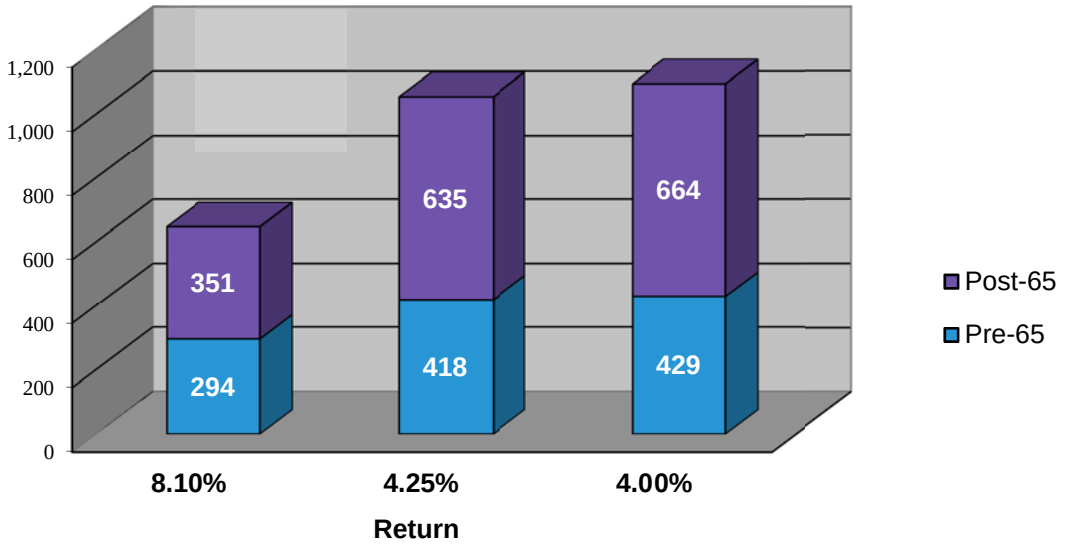
		Pre-Funding Basis	Partial-Funding Basis	Pay-as-you-go Basis
a)	Assumed discount rate	8.10%	4.25%	4.00%
b)	Actuarial value of assets	$18,904,148	$18,904,148	$18,904,148
c)	Actuarial accrued liability			
	Active Participants	$328,321,072	$612,076,215	$641,246,523
	Retired Participants	$317,265,272	$440,455,292	$451,481,714
	Total	$645,586,344	$1,052,531,507	$1,092,728,237
d)	Unfunded actuarial liability (c. - b.)	$626,682,196	$1,033,627,359	$1,073,824,089
e)	Funded ratio	2.9%	1.8%	1.7%
f)	Annual covered payroll	$464,517,262	$464,517,262	$464,517,262
g)	Unfunded actuarial liability as a percentage of covered payroll	134.9%	222.5%	231.2%
h)	Normal cost for the 2015 fiscal year	$17,012,205	$38,761,029	$41,186,839
i)	Amortization of unfunded actuarial liability for the 2015 fiscal year (30-year)	$30,865,115	$30,993,112	$31,050,012
j)	Interest on expected net retiree claims	($1,485,858)	($786,824)	($740,989)
k)	Annual Required Contribution (ARC) for the 2015 fiscal year* (h. + i. + j.)	$46,391,462	$68,967,317	$71,495,862
l)	Expected net retiree claims	$37,416,308	$37,416,308	$37,416,308
m)	Normal cost for the 2016 fiscal year	$17,777,754	$40,505,275	$43,040,246
n)	Amortization of unfunded actuarial liability for the 2016 fiscal year (30-year)	$32,354,941	$32,376,443	$32,427,250
o)	Interest on expected benefit payments	($1,590,739)	($842,362)	($793,293)
p)	Annual Required Contribution (ARC) for the 2016 fiscal year* (m. + n. + o.)	$48,541,956	$72,039,356	$74,674,203

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

Actuarial Accrued Liability in $ millions – retirees versus actives



Actuarial Accrued Liability in $ millions – pre-65 versus post-65

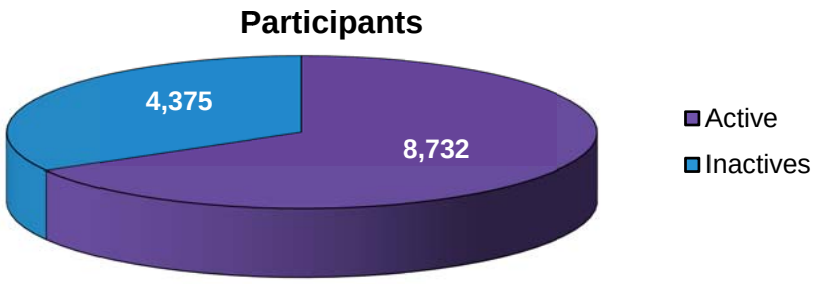


Section III – Membership Data and Medical Premium

Number of Participants Included In Valuation

	Total
Active	
Group A	6
Group C	459
Group D	51
Group F	7,804
Defined Contribution	412
Total	8,732
Retired[1]	4,375
Total	13,107

[1] Includes 19 July 1, 2014 retirements.



Monthly Gross Plan Premiums Effective January 1, 2014

	Gross Premium	Retirees	Dependent Spouses
Total Choice			
Retiree under 65	$795.43	112	0
Retiree over 65	$330.44	1,352	0
2 Person under 65	$1,590.86	74	74
2 Person over 65	$660.90	759	759
2 Person, 1 under 65 and 1 over 65	$1,125.88	142	142
Family, under 65	$2,187.43	16	16
Family, 2 under 65 and 1 over 65	$1,480.81	18	18
Family, 1 under 65 and 2 over 65	$970.16	8	8
Select Care			
Retiree under 65	$665.72	381	0
Retiree over 65	$276.54	462	0
2 Person under 65	$1,331.42	334	334
2 Person over 65	$553.07	313	313
2 Person, 1 under 65 and 1 over 65	$942.26	223	223
Family, under 65	$1,830.71	119	119
Family, 2 under 65 and 1 over 65	$1,239.31	28	28
Family, 1 under 65 and 2 over 65	$812.19	5	5
Health Guard			
Retiree under 65	$713.46	2	0
Retiree over 65	$312.23	11	0
2 Person under 65	$1,426.91	0	0
2 Person over 65	$624.46	12	12
2 Person, 1 under 65 and 1 over 65	$1,025.69	4	4
Family, under 65	$1,962.03	0	0
Family, 2 under 65 and 1 over 65	$1,340.76	0	0
Family, 1 under 65 and 2 over 65	$913.65	0	0
Total		4,375	2,055

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	7	0	0	0	0	0	0	0	0	7
20 to 24	200	2	0	0	0	0	0	0	0	202
25 to 29	597	86	1	0	0	0	0	0	0	684
30 to 34	485	273	64	1	0	0	0	0	0	823
35 to 39	365	267	230	45	0	0	0	0	0	907
40 to 44	357	230	252	175	77	8	0	0	0	1,099
45 to 49	308	214	208	172	172	141	5	0	0	1,220
50 to 54	307	194	228	149	128	187	91	11	0	1,295
55 to 59	252	193	230	137	123	161	113	57	7	1,273
60 to 64	162	111	147	94	81	114	77	76	30	892
65 to 69	45	43	45	36	19	20	25	22	21	276
70 & up	13	2	8	9	5	5	2	2	8	54
TOTAL	3,098	1,615	1,413	818	605	636	313	168	66	8,732

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 with Assumptions Based on Current Policy on 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	$18,904	$1,092,728	$1,073,824	1.7%	$464,517	231.2%
June 30, 2013	$15,663	$947,864	$932,201	1.7%	$436,949	213.3%
June 30, 2012	$13,379	$1,011,783	$998,404	1.3%	$406,929	245.4%
June 30, 2011	$11,216	$1,009,792	$998,576	1.1%	$420,321	237.6%
June 30, 2010	$7,897	$925,183	$917,286	0.9%	$414,936	221.1%
June 30, 2009	$5,749	$780,748	$774,999	0.7%	$426,827	181.6%
June 30, 2008	$3,664	$754,690	$751,027	0.5%	$404,937	185.5%
June 30, 2007	$2,211	$606,499	$604,288	0.4%	$386,917	156.2%
June 30, 2006	$0	$552,152	$552,152	0.0%	$369,310	149.5%

These results are based on a discount rate of 3.75% for 2006 – 2007, 4.00% for 2007 – 2008, 4.25% for 2009 – 2013, and 4.00% for 2014.

If the State were to change its funding policy to pre-fund the entire calculated Annual Required Contribution, prospectively, the Schedule of Funding Progress would look as follows:

Schedule of Funding Progress with Assumptions Based on Policy of Pre-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	$18,904	$645,586	$626,682	2.9%	$464,517	134.9%
June 30, 2013	$15,663	$947,864	$932,201	1.7%	$436,949	213.3%
June 30, 2012	$13,379	$1,011,783	$998,404	1.3%	$406,929	245.4%
June 30, 2011	$11,216	$1,009,792	$998,576	1.1%	$420,321	237.6%
June 30, 2010	$7,897	$925,183	$917,286	0.9%	$414,936	221.1%
June 30, 2009	$5,749	$780,748	$774,999	0.7%	$426,827	181.6%
June 30, 2008	$3,664	$754,690	$751,027	0.5%	$404,937	185.5%
June 30, 2007	$2,211	$606,499	$604,288	0.4%	$386,917	156.2%
June 30, 2006	$0	$552,152	$552,152	0.0%	$369,310	149.5%

These results are based on a discount rate of 3.75% for 2006 – 2007, 4.00% for 2007 – 2008, 4.25% for 2009 – 2013, and 8.10% 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	47,284,903	0	0	47,284,903	17,776,355	29,508,548	29,508,548
2009	58,666,959	1,180,342	853,250	58,994,051	19,893,129	39,100,922	68,609,470
2010	57,998,078	2,915,902	2,057,241	58,856,739	22,528,768	36,327,971	104,937,441
2011	67,030,307	4,459,841	3,146,528	68,343,620	27,394,474	40,949,146	145,886,587
2012	69,880,277	6,200,180	4,374,380	71,706,077	27,652,189	44,053,888	189,940,475
2013	67,977,179	8,072,470	5,695,328	70,354,321	25,557,683	44,796,638	234,737,113
2014	64,119,145	9,976,327	7,038,546	67,056,926	24,272,144	42,784,782	277,521,895
2015	71,495,862	11,100,876	8,024,646	74,572,092	TBD	TBD	TBD

The FYE June 30, 2014 actual contribution amount includes the Medicare Part D Retiree Drug Subsidy received by the State. This amount was treated as a contribution amount. However, we note that the Medicare Modernization Act which authorized the Retiree Drug Subsidy provided that the subsidy would be provided to the employer.

Section VI – Actuarial Assumptions and Methods

Vermont State Employees – All Groups

Assumed Investment Return:

4.00% per year, the assumed rate of return on general assets of the employer. This rate is based on guidance from the System that no additional funding will occur once the EGWP arrangement is implemented in 2015. In addition, two alternative scenarios are presented. For a pre-funded plan, using 8.10%, the assumed rate of return on assets accumulated in the System's trust for benefit payments; and 4.25% for a partially funded plan, based on a level of funding consistent with the System's funding levels in prior years. Note that the fully funded discount rate is consistent with the single-equivalent rate used for the pension valuations; last year, fully funded results were also provided using a discount rate of 8.10%. Currently the assets of the Postemployment Benefit Trust are not invested in the same manner as the System, but it is assumed that the long term asset allocation will be the same as the System's overall asset allocation strategy.

***Actuarial cost method*:**

Projected Unit Credit with benefits attributed from date of hire to eligibility for retirement. This is a change from the prior valuation, which used attribution from date of hire to age 55 with 10 years of service.

Medical care and state share inflation:

Fiscal Year Ending	Pre-Medicare Inflation Rate	Post-Medicare Inflation Rate
2015	9.00%	3.20%*
2016	8.50	6.25
2017	8.00	6.00
2018	7.50	5.75
2019	7.00	5.50
2020	6.75	5.25
2021	6.50	5.00
2022	6.25	4.75
2023	6.00	4.50
2024	5.75	4.50
2025	5.50	4.50
2026	5.25	4.50
2027	5.00	4.50
2028	4.75	4.50
2029 +	4.50	4.50

* The 2015 Post-Medicare inflation rate reflects that Post-Medicare premiums for 2015 are expected to be set equal to 2014 premiums based on information received from State personnel. This change is intended to reflect the cost savings due to the EGWP arrangement. While the actual 2015 premiums are available at the time of the release of this report, they were not available when the assumptions were initially set, and thus are not directly reflected in this analysis.

Amortization period:	Open basis, thirty-year amortization with payments increasing by 5% annually, as is consistent with statutory guidelines regarding amortization of pension liabilities.
***Coverage*:**	It is assumed that 80% of current active employees will elect retiree medical coverage. It is assumed that 70% of terminated vested participants will elect medical coverage when they start receiving pension benefits. It is assumed that deferred pension benefits will commence at age 50 for Group C and age 55 for Group F and Defined Contribution Plan participants.
Administrative expenses:	No provision made beyond healthcare administration; expenses of the System are paid by the State.
Medical plan costs:	Estimated gross per capita incurred claim costs for 2014-15 at age 64 and 65 were $15,047 and $3,595, respectively. Per capita claims costs at other ages reflect estimated underlying costs based on Morbidity. It is assumed that future retirees are Medicare eligible at age 65. Per capita costs were developed from the monthly premium equivalents calculated by the State and are assumed to include administrative costs. The valuation relies on the accuracy of the premium equivalents which are assumed to be suitable for this purpose. The plans are self-insured. Per capita costs for pre-65 coverage include an implicit subsidy for covered children. The portion of costs allocated to prescription drug benefits was assumed to be 55% based on recent claims experience provided by State personnel. A 5% experience load was added to our cost assumptions based on a comparison of the last 3 years of expected benefit payments to actual payments made.
Retiree Contribution Basis:	Retiree contributions are valued with a weighted-average premium. This weighted-average premium is based on the medical plan coverage of current retirees, and varies for pre-65 and Medicare-eligible coverage. Contributions for children are included in the weighted average pre-65 rates.
Premium Reduction Option:	It is assumed that 50% of retirees covering spouses 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.
Age-Based Morbidity:	Per capita costs are adjusted to reflect expected cost increases related to age. Age-based morbidity factors were applied to pre-65 medical and prescription drug costs, and Medicare-eligible medical costs. Prescription drug costs are not assumed to increase with age above age 65. The increase in the net incurred claims was assumed to be:

Age	Annual Increase Medical Costs	Annual Increase Prescription Costs
49 and below	2.6%	2.6%
50-54	3.2%	3.2%
55-59	3.4%	3.4%
60-64	3.7%	3.7%
65-69	3.2%	0.0%
70-74	2.4%	0.0%
75-79	1.8%	0.0%
80-84	1.3%	0.0%
85 and over	0.0%	0.0%

Groups A, D, F, and Defined Contribution

Separations from service:

Representative values of the assumed annual rates of withdrawal, vested retirement, disability and death are as follows. The active mortality is based on the RP-2000 Tables with mortality improvements projected to 2016 with Scale AA. All disabilities are assumed to be ordinary.

Age	Withdrawal and Vested Retirement[1]	Disability	Death	
			Men	Women
25	4.09%	.03%	.03%	.02%
30	3.27	.04	.04	.02
35	2.74	.05	.07	.04
40	2.53	.08	.10	.06
45	2.24	.13	.12	.09
50	1.87	.21	.16	.13
55	1.53	.35	.22	.22
59	3.26	.52	.34	.33
60	3.25	.57	.38	.36
61	3.24	.62	.42	.40

[1] Increased during first 10 years of service.

Retirement – Group F[2]					
Age	Rate (M/F, 30 Years)	Age	Rate (All)	Age	Rate (All)
49	0%/6%	55	5.0%	63	17.5%
50	20%/6%	56	4.2	64	17.5
51	20%/8%	57	5.6	65	25.0
52	10%/9%	58	6.3	66	15.0
53	10%/9%	59	7.0	67	17.5
54	10%/10%	60	7.0	68	17.5
		61	14.0	69	20.0
		62	28.0	70	100.0

[2] All Group A and D members are assumed to retire when first eligible.

Deaths after retirement:

Service Retirees and Beneficiaries: The RP-2000 Mortality Tables for Healthy Annuitants for retirees and beneficiaries with mortality improvements projected to 2010 with Scale AA.

Disabled retirees: The RP-2000 Mortality Tables for Healthy Annuitants for retirees and beneficiaries with a three-year set-forward.

The tables used were selected to allow for a margin to reflect mortality improvement through 2016. No further mortality improvement was assumed.

Spouse's age:

For current retirees, actual spouse dates of birth are used when available. Husbands are assumed to be 3 years older than their wives for future retirees and any current spouses for whom this information was not available.

Covered spouses:	75.4% (71.4% for Group F and Defined Contribution) of male members and 64.0% (63.1% for Group F and Defined Contribution) of female members are assumed to be covering spouses.

Group C

Separations before retirement: Representative values of the assumed annual rates of withdrawal, vested retirement, disability and death are as follows. The active mortality is based on the RP-2000 Tables with mortality improvements projected to 2016 with Scale AA.

	Withdrawal and Vested Retirement[1]			Death	
Age	Men	Women	Disability	Men	Women
25	3.60%	7.20%	.15%	.03%	.02%
30	3.60	7.20	.20	.04	.02
35	3.60	7.20	.27	.07	.04
40			.40	.10	.06
45			.65	.12	.09
50			1.09	.16	.13
55			1.82	.22	.22
60			2.93	.38	.36

[1] Increased during first 5 years of service.

Early and normal retirement rates: All members are assumed to retire when first eligible.

Deaths after retirement: **Service Retirees and Beneficiaries:** The RP-2000 Mortality Tables for Healthy Annuitants for retirees and beneficiaries with mortality improvements projected to 2010 with Scale AA.

Disabled retirees: The RP-2000 Mortality Tables for Healthy Annuitants for retirees and beneficiaries with a three-year set-forward.

The tables used were selected to allow for a margin to reflect mortality improvement through 2016. No further mortality improvement was assumed.

Spouse's age: Husbands are assumed to be 3 years older than their wives.

Covered spouses: 75.4% of male members and 64.0% of female members are assumed to be covering spouses.

Section VII – Consideration of Health Care Reform and Subsequent Events

Summary of Effects of Selected Provisions

Removal of Lifetime Maximum – We expected that the elimination of the lifetime maximums as of January 1, 2011 would have a negligible impact on the retiree health plan obligations since the plans had relatively high lifetime maximums of $2 million. We assume that any impact is now reflected in the 2014 plan premium equivalents developed by the State.

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 the State does not provide these plans to retirees, there is no impact.

Expansion of Child Coverage to Age 26: We assume that the effect of this provision was reflected in the 2012 plan premium equivalents developed by the State; therefore, any impact is already being recognized in the assumed per capita costs.

Medicare Part D Subsidy - Shrinking Medicare Prescription Drug "Donut Hole"- Starting 1/1/2011– Medicare Part D Retiree Drug Subsidy ("RDS") payments are not reflected as on ongoing offsetting item in GASB 45 valuations, and so no direct impact is reflected. It is our understanding that Medicare prescription drug benefits will be offered through an Employer Group Waiver Plan (EGWP) effective January 1, 2015. Therefore, VSERS 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. The 4.25% discount rate assumed in prior valuations was predicated on the commitment to continue to contribute the RDS amount into the plan. The discount rate was lowered to 4.00% for the 2014 valuation to reflect that there is currently no plan to contribute additional funds to the plan. The benefits provided to Medicare eligible Vermont retirees under this plan have enough subsidy provided by the plan that we do not anticipate that plan participation will be affected as the competing Part D benefits are improved.

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 1.2%.

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 VSERS 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 preliminary 2015 plan premiums which reflect the System's and BCBS Vermont's expectations of subsidies to be collected under the EGWP. However, we were unable to fully review and directly incorporate this information in the current valuation as the information was not available at the time the valuation was being finalized. Therefore, consistent with past practice, we incorporated guidance obtained from System personnel when setting healthcare cost trend assumptions, and have reflected these expectations about short term trends into our assumed per capita costs and healthcare cost trends. We note that the final 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

ELIGIBILITY AND PREMIUM SUBSIDY

Retiree Coverage and Subsidy Level

Group A:

Retirement	Earlier of (a) age 55 with 5 years of service or (b) 30 years of service: 80% Subsidy

Group C:

Retirement	Earlier of (a) age 55, (b) age 50 with 20 years of service, or (c) 30 years of service: 80% Subsidy
Termination	Participants who terminate with 20 or more years of service may begin medical benefits upon commencement of retirement benefits: 80% Subsidy.

Group D:

Retirement	Age 55 with 5 years of service: 80% Subsidy

Group F and Defined Contribution:

Retirement	Earlier of (a) age 55 with 5 years of service or (b) 30 years of service *Hired prior to July 1, 2008* - 80% Subsidy *Hired on or after July 1, 2008* Less than 10 years: 0% Subsidy 10-14 years: 40% Subsidy 15-19 years: 60% Subsidy 20 years or more: 80% Subsidy
Termination	Participants who are first included in the membership on or after July 1, 2008 who terminate with 20 or more years of service may begin medical benefits upon commencement of retirement benefits: 80% Subsidy.

RETIREE CONTRIBUTIONS

Retirees must pay all premium costs in excess of the VSERS subsidy. The VSERS subsidy is equal to the retiree's subsidy percentage applied to the plan premium according to the plan and tier elected.

Premium Reduction Option: For retirements on or after January 1, 2007, members entitled to a VSERS premium subsidy have a one-time option to reduce the percentage of VSERS subsidy during the retiree's life, with the provision that a surviving spouse will continue to receive the same

	VSERS subsidy for his or her lifetime. The reduction in VSERS subsidy is intended to result in an actuarially equivalent benefit.
BENEFIT DURATION	Lifetime for retirees. Spouses of retirees who elect the joint and survivor pension option may continue coverage for their lifetimes but must pay 100% of the plan premium (unless PRO option is elected).

State of Vermont Employee Medical Plan Options for Retirees
Effective January 1, 2014

Benefit/Feature	TotalChoice Plan	SelectCare POS Plan		HealthGuard PPO Plan	
		In-Network	Out-of-Network	In-Network	Out-of-Network
Annual DEDUCTIBLE	$300 per person; $600 per family	none	$500 per person; $1,000 per family	$300 per person; $600 per family	$500 per person; $1,000 per family
MAXIMUM annual COPAYS (after deductible is met)	$750 per person; $2,250 per family	none	$2,000 per person; $6,000 per family	$2,000 per person; $6,000 per family	$4,000 per person; $12,000 per family
Maximum Lifetime Benefit Per Member	none	none	none	none	none
PERCENTAGE THAT THE PLAN PAYS					
Inpatient Hospital	90%	100% after $250 co-pay	70%	80%	60%
Outpatient Hospital	80%	100%	70%	80%	60%
Emergency Room	80%	100% after $50 co-pay (waived if admitted)	70%	80%	60%
Physician Charges • **Office visit** • **Surgery** • **In-Hospital visit**	 80% 90% inpatient; 80% outpatient 90%	 100% after $20 copay 100% 100%	 70% 70% 70%	 80% 80% 80%	 60% 60% 60%
Diagnostic X-ray and Labs	80%	100%	70%	80%	60%
Home Healthcare	80%	100%	70%	80%	60%
COMMON BENEFITS IN ALL PLAN OPTIONS					
Preventive Exams & Tests-Program Benefits	Covered at 100%				
Wellness Program Benefits	Available to all active employees and retirees in any of the three health plan options, at no charge to the employee or retiree.				
COMMON BENEFITS IN ALL PLAN OPTIONS					
Mental Health & Substance Abuse Program Benefits	In-Network: Paid at 100%.				
Prescription Drugs • **Retail** • **Mail**	This is a prescription drug card plan, which combines both local retail and mail order drugs. There is an annual $25 per person/$75 family deductible. Individual pays 10% copay for generic drugs, 20% copay for preferred brand drugs, and 40% copay for non-preferred brand drugs. 40% copay drugs will **not** be counted toward the maximum out-of-pocket limit, except for Specialty drugs. Maximum out-of-pocket is $775 per covered member per year for both retail and mail order including the deductible.				
Routine Vision Care	The plan pays $100 every two years, with no deductible and coinsurance, or copay. Benefits available for every plan member, **including dependents.** Covers routine exams and/or lens changes.				

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 calculations 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 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.

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 Employees' Retirement System (VSERS). 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.

VSERS						
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%	$909.3M	$183.4M	$442.8M	$183.4M	$218.7M	$183.4M
4.25%	$875.8M	$176.7M	$427.8M	$176.7M	$214.1M	$176.7M
8.10%	$537.7M	$107.9M	$279.1M	$107.9M	$166.6M	$107.9M

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.