State of Connecticut Other Post-Employment Benefits Program

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2015 In accordance with GASB Statements No. 43 and No. 45

Segal Consulting

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August 24, 2016

Thomas C. Woodruff, PhD
Director
Healthcare Policy & Benefit Services Division
Office of the State Comptroller
55 Elm Street
Hartford, Connecticut 06106-1775

Dear Dr. Woodruff:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2015 under Governmental Accounting Standards Board Statements 43 and 45. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB obligation (NOO) as of June 30, 2015, establishes the Annual Required Contribution (ARC) for the coming year, and analyzes the preceding year's experience. This report was based on the census and financial data provided by the Healthcare Policy & Benefit Services Division of the Office of the State Comptroller and the terms of the Plan. The actuarial calculations were completed under the supervision of Daniel J. Rhodes, FSA, MAAA, FCA, Vice President and Consulting Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in this valuation and described in Exhibit II are reasonably related to the experience of and the expectations for the Plan. The actuarial projections are based on these assumptions and the plan of benefits as summarized in Exhibit III.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

Daniel J. Rhodes, FSA, MAAA, FCA
Vice President and Consulting Actuary

Theresa DeMattie
Benefits Consultant

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SECTION 1

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IMPORTANT INFORMATION ABOUT ACTUARIAL VALUATIONS

An actuarial valuation is a budgeting tool with respect to the defining future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may require the award of a Social Security disability pension as a condition for receiving a disability pension from the plan and subsequent health benefits. If so, changes in the Social Security law or administration may change the plan's costs without any change in the terms of the plan itself. It is important for the State to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.

- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. For most plans, it is not possible or desirable to take a snapshot of the actual work force on the valuation date. In any event, the actuarial valuation is based on a future work force that is presumed to be the same as the active population included in the valuation, but in fact, employment varies from year to year, sometimes quite considerably. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.

- **Assets** Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. Some plans include assets, such as private equity holdings, real estate, or hedge funds, that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.

- **Actuarial assumptions** In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return on high quality fixed income investments. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results and will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the State Finance Department. It includes information for compliance with accounting standards and for the plan's auditor. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial snapshot is a measurement at a specific date – it is not a prediction of a plan's future financial condition.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in employment levels, variation in claims and investment losses, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The State should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the State upon delivery and review. State should notify Segal immediately of any questions or concerns about the final content.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

PURPOSE

This report presents the results of our actuarial valuation of the State of Connecticut (the "State") OPEB plan as of June 30, 2015. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants' active working lifetimes.

HIGHLIGHTS OF THE VALUATION

- The **unfunded actuarial accrued liability (UAAL)** as of June 30, 2015 is $18,889,942,595, a decrease of $642,571,424, from the prior valuation UAAL of $19,532,514,019. An update to the prior valuation for new retiree claims experience dated June 8, 2015 lowered the UAAL as of June 30, 2013 to $18,645,605,417. Net unfunded plan obligations had been expected to increase from the updated UAAL to $20,346,424,099 as of June 30, 2015, due to normal plan operations. The difference between actual and expected unfunded actuarial accrued liabilities was the net effect of several factors:
  - An **actuarial experience loss** increased the UAAL by $67,847,558. This was the net result of gains and losses due to fund investment performance, demographic changes and actual 2014 and 2015 contributions and benefit payments that were different from expected.
  - **Valuation assumption changes** decreased the AAL by $1,524,329,062. This was almost entirely the result of a net decrease in obligations due to lowering the valuation-year per capita health costs and updating the future trend on such costs. There was also a small decrease (less than 0.1% of the UAAL) due to minor demographic assumption changes, primarily for the State Teacher's Retirement System (which represents a relatively small percentage of the group eligible for OPEB from the State).
- As of June 30, 2015, the ratio of assets to the AAL (the funded ratio) is 1.20%.
- The **Net OPEB Obligation (NOO)** increased to $8,002,059,000 for the year ending June 30, 2015. The NOO generally increases if the contributions in relation to the ARC are less than the ARC. The contributions in relation to the ARC during the year ending June 30, 2015 were $546,284,000 compared to the ARC of $1,513,336,000. Contributions in relation to the ARC totaled 36.10% of the ARC in the year ending June 30, 2015. Chart 6 shows the detailed derivation of the NOO as of June 30, 2015.
- The **Annual Required Contribution (ARC)** decreased to $1,443,716,000 for the year ending June 30, 2016. The ARC was $1,525,371,000 for the year ending June 30, 2014 as shown in the last valuation and $1,513,336,000 for the year ending June 30, 2015 as shown in the June 8, 2015 update. As a percentage of payroll, the ARC decreased from 43.09% last valuation to 37.07% this year.
- The **Annual OPEB Cost (AOC)** decreased to $1,435,596,000 for the year ending June 30, 2016. The AOC was $1,560,006,000 for the year ending June 30, 2014 as shown in the last valuation and $1,541,667,000 for the year ending June 30, 2015 as shown in the June 8, 2015 update.

The key valuation results for the current and prior years are shown.

SUMMARY OF VALUATION RESULTS

	June 30, 2015	June 30, 2013
Actuarial Accrued Liability (AAL)	$19,119,580,595	$19,676,322,019
Actuarial Value of Assets	229,638,000	143,808,000
Unfunded Actuarial Accrued Liability	18,889,942,595	19,532,514,019
Funded Ratio	1.20%	0.76%
Market Value of Assets	$229,638,000	$143,808,000
Annual Required Contribution (ARC) for Fiscal Year Ending:	**June 30, 2016**	**June 30, 2014**
Normal cost (beginning of year)	$364,390,490	$480,565,944
Amortization of the unfunded actuarial accrued liability	1,036,797,537	999,871,770
Adjustment for timing	42,528,126	44,933,471
Total Annual Required Contribution, including adjustment for timing	$1,443,716,153	$1,525,371,185
Covered payroll	$3,895,077,944	$3,539,727,598
ARC as a percentage of pay	37.07%	43.09%
Total Participants	100,696	98,460
Annual OPEB Cost (AOC) for Fiscal Year Ending:	**June 30, 2016**	**June 30, 2014**
Annual Required Contributions	$1,443,716,000	$1,525,371,000
Interest on Net OPEB Obligations	456,117,000	339,798,000
ARC Adjustments	-464,237,000	-305,163,000
Total Annual OPEB Cost	$1,435,596,000	$1,560,006,000
AOC as a percent of pay	36.86%	44.07%

August 24, 2016

ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting, a Member of The Segal Group, Inc., has conducted an actuarial valuation of certain benefit obligations of State of the Connecticut's Other Post-employment Benefits Program as of June 30, 2015, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the State and reliance on asset, participant, premium, claims and expense data provided by the State or from vendors employed by the State. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

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

To the best of my knowledge, this report is complete and accurate and in my opinion presents the information necessary to comply with GASB Statements 43 and 45 with respect to the benefit obligations addressed. The signing actuary is a member of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and meets their "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein. Further, in my opinion, the assumptions as approved by the State are reasonably related to the experience and expectations of the postemployment benefit programs.

Daniel J. Rhodes, FSA, MAAA, FCA
Vice President and Consulting Actuary

The actuarial present value of total projected benefits uses the actuarial assumptions disclosed in Section 4 to calculate the value today of all benefits expected to be paid to current actives and retired plan members. The actuarial balance sheet shows the expected breakdown of how these benefits will be financed.

CHART 1

Actuarial Present Value of Total Projected Benefits (APB) and Actuarial Balance Sheet

	Actuarial Present Value of Total Projected Benefits (APB)	
	June 30, 2015	**June 30, 2013**
Participant Category		
Current retirees, beneficiaries, and dependents	$9,340,727,908	$9,356,955,529
Current active members	14,061,600,873	14,564,245,680
Terminated members entitled but not yet eligible	104,473,264	138,781,373
Total as of June 30	$23,506,802,045	$24,059,982,582

	June 30, 2015	**June 30, 2013**
Actuarial Balance Sheet		
The actuarial balance sheet as of the valuation date is as follows:		
Assets		
1. Actuarial value of assets	$229,638,000	$143,808,000
2. Present value of future normal costs	4,387,221,450	4,383,660,563
3. Unfunded actuarial accrued liability	18,889,942,595	19,532,514,019
4. Present value of current and future assets	$23,506,802,045	$24,059,982,582
Liabilities		
5. Actuarial Present Value of total Projected Benefits	$23,506,802,045	$24,059,982,582

The actuarial accrued liability shows that portion of the APB (Chart 1) allocated to periods prior to the valuation date by the actuarial cost method. The chart below shows the portion covered by retiree contributions and the portion covered by accumulated plan asset.

The unfunded actuarial accrued liability may be amortized over periods of up to 30 years. Amortization payments may be calculated as level dollar amounts or as amounts designed to remain level as a percent of a growing payroll base. The State of Connecticut Other Post-Employment Benefits Program has elected to amortize unfunded actuarial accrued liability using the following rules: 30-year closed period, level percent of growing payroll as of June 30, 2007.

CHART 2

Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)

	June 30, 2015	June 30, 2013
Participant Category		
Current retirees, beneficiaries, and dependents	$9,340,727,908	$9,356,955,529
Current active members	9,674,379,423	10,180,585,117
Terminated members entitled but not yet eligible	104,473,264	138,781,373
Total	$19,119,580,595	$19,676,322,019
Effect of Retiree Contributions		
Actuarial accrued liability before reduction for retiree contributions	$20,310,965,228	$20,772,630,435
Less projected retiree contributions	1,191,384,633	1,096,308,416
Net employer actuarial accrued liability	19,119,580,595	19,676,322,019
Actuarial value of assets	229,638,000	143,808,000
Unfunded actuarial accrued liability	$18,889,942,595	$19,532,514,019

The Annual Required Contribution (ARC) is the amount calculated to determine the annual cost of the OPEB plan for accounting purposes *as if* the plan were being funded through contributions to a trust fund. The GASB standards cannot require the contributions actually be made to a trust fund. The ARC is simply a device used to measure annual plan costs on an accrual basis. The calculation consists of adding the Normal Cost of the plan to an amortization payment. The resulting sum is then adjusted to the start of the accounting period and adjusted as if the annual cost were to be contributed in twelve equal monthly installments.

The amortization payment is based on a 30-year amortization (22 years remaining as of June 30, 2015) of the Unfunded Actuarial Accrued Liability on a percentage of growing payroll basis.

CHART 3

Determination of Annual Required Contribution (ARC) – Payable Throughout Fiscal Year

Cost Element	Fiscal Year Beginning July 1, 2015 and Ending June 30, 2016		Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014	
	Amount	**Percentage of Compensation**	**Amount**	**Percentage of Compensation**
1. Normal cost	$364,390,490	9.36%	$480,565,944	13.58%
2. Amortization of the unfunded actuarial accrued liability (22/24 years as of July 1, 2015/2013)	1,036,797,537	26.62%	999,871,770	28.25%
3. Adjustment for timing	42,528,126	1.09%	44,933,471	1.26%
4. Total Annual Required Contribution (ARC)	$1,443,716,153	37.07%	$1,525,371,185	43.09%
5. Total Compensation	$3,895,077,944		$3,539,727,598	

The Annual OPEB Cost (AOC) adjusts the ARC for timing differences between the ARC and contributions in relation to the ARC. The AOC is the cost of OPEB actually booked as an expense for the Fiscal Year under GASB 45.

CHART 3 (continued)

Determination of Annual OPEB Cost (AOC) – Payable Throughout Fiscal Year

Cost Element	Fiscal Year Beginning July 1, 2015 and Ending June 30, 2016		Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Annual Required Contribution	$1,443,716,000	37.07%	$1,525,371,000	43.09%
2. Interest on Beginning of Year Net OPEB Obligation (NOO)	456,117,000	11.71%	339,798,000	9.60%
3. ARC adjustment	-464,237,000	-11.92%	-305,163,000	-8.62%
4. Annual OPEB Cost	$1,435,596,000	36.86%	$1,560,006,000	44.07%

For GASB 43 (plan reporting) purposes, the schedule of employer contributions compares actual contributions to the ARC. For GASB 45 (employer reporting) purposes, the schedule of employer contributions compares actual contributions to the AOC.

CHART 4

Required Supplementary Information – Schedule of Employer Contributions
GASB 43

Fiscal Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2012	$1,354,738,000	$541,262,000	39.95%
2013	1,271,279,000	542,615,000	42.68%
2014	1,525,371,000	514,696,000	33.74%
2015	1,513,336,000	546,284,000	36.10%
2016	1,443,716,000	Not made yet	N/A

Required Supplementary Information – Schedule of Employer Contributions

GASB 45

Fiscal Year Ended June 30	Annual OPEB Cost	Actual Contributions	Percentage Contributed
2012	$1,220,577,000	$541,262,000	44.34%
2013	1,316,612,000	542,615,000	41.21%
2014	1,560,006,000	514,696,000	32.99%
2015	1,541,667,000	546,284,000	35.43%
2016	1,435,596,000	Not made yet	N/A

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

CHART 5

Required Supplementary Information – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a) / (c)]
04/01/2006*	$0	$21,681,444,000	$21,681,444,000	0.00%	N/A	N/A
04/01/2008*	0	26,566,940,000	26,566,940,000	0.00%	N/A	N/A
06/30/2011	49,647,000	17,954,274,000	17,904,627,000	0.28%	$3,902,248,000	458.83%
06/30/2013	143,808,000	19,676,322,000	19,532,514,000	0.73%	3,539,728,000	551.81%
06/30/2015	229,638,000	19,119,581,000	18,889,943,000	1.20%	3,895,078,000	484.97%

**The April 1, 2006 and April 1, 2008 numbers were taken from the April 1, 2008 valuation report issued by the prior actuary.*

The Net OPEB obligation measures the accumulated differences between the annual OPEB cost and the actual contributions in relation to the ARC.

CHART 6

Required Supplementary Information – Net OPEB Obligation (NOO)

Actuarial Valuation Date	Fiscal Year End	Annual Required Contribution (a)	Interest on Existing NOO (b)	ARC Adjustment (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Actual Contribution Amount (e)	Net Increase in NOO (d) – (e) (f)	NOO as of Fiscal Year (g)
- -	06/30/2011	- -	- -	- -	- -	- -	- -	$4,508,054,000*
06/30/2011	06/30/2012	$1,354,738,000	$73,689,000	-$207,850,000	$1,220,577,000	$541,262,000	$679,315,000	5,187,369,000
06/30/2011	06/30/2013	1,271,279,000	295,680,000	-250,347,000	1,316,612,000	542,615,000	773,997,000	5,961,366,000
06/30/2013	06/30/2014	1,525,371,000	339,798,000	-305,163,000	1,560,006,000	514,696,000	1,045,310,000	7,006,676,000
06/30/2013	06/30/2015	1,513,336,000	399,381,000	-371,050,000	1,541,667,000	546,284,000	995,383,000	8,002,059,000
06/30/2015	06/30/2016	1,443,716,000	456,117,000	-464,237,000	1,435,596,000	Not made yet	N/A	N/A

** As restated in the June 30, 2012 Comprehensive Annual Financial Report for the State of Connecticut.*

This exhibit summarizes the participant data used for the current and prior valuations.

EXHIBIT A

Summary of Participant Data

	June 30, 2015	June 30, 2013
Retirees		
Number of retirees	43,130	41,313
Average age of retirees	69.7	69.6
Number of spouses	23,665	22,442
Average age of spouses	65.9	66.0
Surviving Spouses		
Number	3,981	3,838
Average age	76.8	76.5
Active Participants		
Number	53,101	52,720
Average age	47.7	47.7
Average years of benefit service	14.6	15.2
Average expected retirement age	61.6	61.3
Inactive Vesteds		
Number of inactive vested	484	589
Average age of inactive vested	51.4	50.1

EXHIBIT B

Financial Information

Employers may accumulate assets to pay for future OPEB. In order to be treated as plan assets, the funds must be set aside in a trust fund or equivalent arrangement that has the following characteristics:

a. Employer contributions are irrevocable
b. Plan assets are dedicated to OPEB only
c. Plan assets are legally protected from the creditors of the employer and the plan administrator.

The State of Connecticut Other Post-Employment Benefits Program has an arrangement that meets those requirements.

Statement of Plan Net Assets

	Year Ended June 30, 2015	Year Ended June 30, 2014	Year Ended June 30, 2013
Assets			
Cash equivalents	$0	$19,507,000	$43,756,000
Accounts receivable from other funds	-8,000	8,000	6,658,000
Investments and securities lending collateral	275,740,000	170,652,000	107,006,000
Total assets	$275,732,000	$190,167,000	$157,420,000
Liabilities			
Less accounts payable:	-46,094,000	-40,126,000	-13,612,000
Net assets held in trust for other postemployment benefits	$229,638,000	$150,041,000	$143,808,000

EXHIBIT C

Statement of Changes in Plan Net Assets

	Year Ended June 30, 2015		Year Ended June 30, 2014		Year Ended June 30, 2013	
Additions						
State contributions	$546,284,000		$514,696,000		$542,615,000	
Employee contributions	93,277,000		45,510,000		27,504,000	
Total Contributions		$639,561,000		$560,206,000		$570,119,000
Transfers in		15,368,000		142,000		0
Net investment income		6,851,000		14,109,000		-54,000
Total additions:		$661,780,000		$574,457,000		$570,065,000
Deductions						
Benefit payments	-$582,157,000		-$568,224,000		-$485,969,000	
Expenses and other	-26,000		0		-5,000	
Total deductions		-$582,183,000		-$568,224,000		-$485,974,000
Net increase		$79,597,000		$6,233,000		$84,091,000
Net assets held in trust for other postemployment benefits						
Beginning of year		$150,041,000		$143,808,000		$59,717,000
End of year		$229,638,000		$150,041,000		$143,808,000

** Employer contributions include both implicit and explicit subsidies for the retirees' cost of OPEB. These are the contributions in relation to the ARC.*

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	June 30, 2015
Actuarial cost method	Projected Unit Credit
Amortization method	Level percent of growing payroll, closed, 30 years
Remaining amortization period	22 years as of June 30, 2015
Asset valuation method	Market Value
Actuarial assumptions:	
Investment rate of return	5.70%
Payroll growth rate	3.75%
Medical cost trend rate	5.00%
Drug cost trend rate	10.00% graded to 5.00% over 5 years
Dental and Part B trend rates	5.00%
Plan membership:	
Current retirees, beneficiaries, and dependents	70,776
Current active participants	53,101
Terminated participants entitled but not yet eligible	484
Total	124,361

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Demographic Assumptions:	The demographic assumptions used in this valuation are the same as those used in the most recent pension valuation report or experience study available, completed by Cavanaugh Macdonald Consulting, LLC. Given that the participants in this Plan are a subset of the participants in the respective pension plans, we have no reason to doubt the reasonableness of these specific assumptions for this valuation.
Data:	Detailed census data, premium data and/or claim experience, and summary plan descriptions for OPEB were provided by the Healthcare Policy & Benefit Services Division of the Office of the State Comptroller. Eligible groups for the Program include State employees covered under the State Employees Retirement System (SERS), State Teachers' Retirement System (STRS), Probate Judges and Employees Retirement System (PJERS), Judges, Family Support Magistrates and Compensation Commissioners Retirement System (JFSMCCRS), Alternative Retirement Program (ARP), and the Hybrid Defined Benefit/Defined Contribution Plan (HYBRID). In addition, there are other State employees not covered under the retirement systems who are eligible for this program (OTHER). Actuarial assumptions that differ by group are noted.
Actuarial Cost Method:	Projected Unit Credit. The accrued benefit for actives is the pro-rata portion (based on service to date divided by service at first eligibility for early retirement) of the projected benefit payable upon retirement, disability, termination or death.
Asset Valuation Method:	Market Value
Measurement Date:	June 30, 2015
Discount Rate:	5.70% determined for the June 30, 2011 valuation and confirmed appropriate for this valuation using the following methodology to blend discount rates: 1. The expected return on trust assets for each of the next ten years was calculated assuming that trust assets earn 8.25% (8.00% for 2015), except that pay-as-you-go amounts were assumed to reside in the trust for an average of 3 months and be invested in funds similar to the State's general assets (i.e., earn 4.50% annually).

2. The expected asset level in the trust was then determined for each of the next ten years, based on any initial deposits plus any ongoing contributions.
3. A weighted average blended rate was determined for each of the next ten years based on 8.25% (8.00% for 2015) weighted by the expected asset level in the trust and 4.50% weighted by the annual pay-as-you-go level.
4. The weighted average blended rates for the ten-year period were then averaged to arrive at the final blended discount rates.

Salary Increases:

SERS, ARP, HYBRID, OTHER Rates are 1% less than table for 2015 and 2016.

Rates vary by years of service as follows:

Years of Service	Rate	Years of Service	Rate
0	10.00%	5	5.75%
1	20.00	6-9	5.50
2	10.00	10-14	5.00
3	6.25	15+	4.00
4	6.00		

STRS Rates vary by years of service as follows:

Years of Service	Rate	Years of Service	Rate
0-1	6.50%	17	4.25%
2-9	6.25	18	4.00
10-11	5.50	19	3.75
12-14	5.00	20	3.50
15	4.75	21+	3.25
16	4.50		

PJERS 4.75%

JFSMCCRS 4.75%

Payroll Growth Rate: 3.75%

Mortality Rates:

Healthy

SERS, PJERS, JFSMCCRS, ARP, HYBRID, OTHER

RP-2000 Combined Healthy Mortality Table with sex-distinct rates with male rates projected 15 years (set back 2 years) and female rates projected 25 years (set back one year) under Scale AA

STRS

Headcount-Weighted RP-2014 White Collar Mortality Table with employee and annuitant rates blended from ages 50 to 80 projected to year 2020 under Scale BB and further adjusted to grade in increases (5% for females and 8% for males) to rates over ages 80

Disabled

SERS, PJERS, JFSMCCRS, ARP, HYBRID, OTHER

RP-2000 Disabled Retiree Mortality Table with sex-distinct rates using 55% of the male rates for male participants and 80% of the female rates for female participants

STRS

Headcount-Weighted RP-2014 Disabled Retiree Mortality Table projected to 2017 with Scale BB

The above tables were selected based on the most recent pension valuations or experience studies available for each group and were assumed to contain provision appropriate to reasonably reflect future mortality improvement based on a review by the pension actuary of the mortality experience. We have no reason to doubt their applicability here.

Termination Rates before Retirement:

SERS

	Rate (%)					
	Mortality		Disability*		Turnover**	
Age	Male	Female	Hazardous	Non-Hazardous	Male	Female
25	0.0297	0.0138	0.0000	0.0100	5.0000	5.0000
35	0.0585	0.0338	0.1500	0.0500	3.0000	3.0000
45	0.1100	0.0705	0.3000	0.1600	2.2000	2.0000
55	0.2154	0.1885	0.6000	0.4000	0.0000	0.0000
65	0.8104	0.7604	1.1000	0.8000	0.0000	0.0000

* *20% of disabilities are assumed to be in-service. Rates cut off at early retirement eligibility.*

** *Represents rates for non-Hazardous participants. Higher select period turnover rates varying by age and gender are used for participants with less than 10 years of service. For Hazardous participants, the male rates are multiplied by 35% and the female rates by 55%.*

STRS

	Rate (%)					
	Mortality		Disability*		Turnover**	
Age	Male	Female	Male	Female	Male	Female
25	0.0412	0.0162	0.0341	0.0500	1.5000	4.0000
35	0.0448	0.0272	0.0341	0.0410	1.5000	3.5000
45	0.0818	0.0622	0.1219	0.1200	1.5900	1.5000
55	0.2800	0.1927	0.5363	0.4380	3.4400	2.5000
65	0.7214	0.4747	0.9604	0.5000	0.0000	0.0000

* *Rates cut off at early retirement eligibility.*

** *Higher select period turnover rates varying by age and gender are used for participants with less than 10 years of service.*

PJERS

Age	Mortality Male	Mortality Female	Disability* Male	Disability* Female	Turnover Male	Turnover Female
25	0.0297	0.0138	0.0400	0.0400	5.0000	7.5000
35	0.0585	0.0338	0.0800	0.0800	5.0000	5.0000
45	0.1100	0.0705	0.1900	0.1900	5.0000	5.0000
55	0.2154	0.1885	0.5200	0.5200	5.0000	5.0000
65	0.8104	0.7604	0.0000	0.0000	5.0000	5.0000

Rate (%)

* *Rates cut off at early retirement eligibility.*

JFSMCCRS

Age	Mortality Male	Mortality Female	Disability* Male	Disability* Female	Turnover** Male	Turnover** Female
25	0.0297	0.0138	0.0854	0.0854	0.0000	0.0000
35	0.0585	0.0338	0.1474	0.1474	0.0000	0.0000
45	0.1100	0.0705	0.3595	0.3595	0.0000	0.0000
55	0.2154	0.1885	1.0089	1.0089	0.0000	0.0000
65	0.8104	0.7604	0.0000	0.0000	0.0000	0.0000

Rate (%)

* *Rates equal to 30% of the 1975 Social Security Table and cut off at normal retirement eligibility.*

** *No pre-retirement turnover is assumed.*

ARP

Age	Mortality Male	Mortality Female	Disability* Male	Disability* Female	Turnover** Male	Turnover** Female
25	0.0297	0.0138	0.0100	0.0100	5.0000	5.0000
35	0.0585	0.0338	0.0500	0.0500	3.0000	3.0000
45	0.1100	0.0705	0.1600	0.1600	2.2000	2.0000
55	0.2154	0.1885	0.4000	0.4000	0.0000	0.0000
65	0.8104	0.7604	0.8000	0.8000	0.0000	0.0000

Rate (%)

* *Rates cut off at early retirement eligibility.*

** *Higher select period turnover rates varying by age and gender are used for participants with less than 10 years of service.*

OTHER

	Rate (%)					
	Mortality		Disability*		Turnover**	
Age	Male	Female	Male	Female	Male	Female
25	0.0297	0.0138	0.0100	0.0100	5.0000	5.0000
35	0.0585	0.0338	0.0500	0.0500	3.0000	3.0000
45	0.1100	0.0705	0.1600	0.1600	2.2000	2.0000
55	0.2154	0.1885	0.4000	0.4000	0.0000	0.0000
65	0.8104	0.7604	0.8000	0.8000	0.0000	0.0000

* *Rates cut off at early retirement eligibility.*

** *Higher select period turnover rates varying by age and gender are used for participants with less than 10 years of service.*

HYBRID

	Rate (%)					
	Mortality		Disability*		Turnover**	
Age	Male	Female	Male	Female	Male	Female
25	0.0297	0.0138	0.0100	0.0100	5.0000	5.0000
35	0.0585	0.0338	0.0500	0.0500	3.0000	3.0000
45	0.1100	0.0705	0.1600	0.1600	2.2000	2.0000
55	0.2154	0.1885	0.4000	0.4000	0.0000	0.0000
65	0.8104	0.7604	0.8000	0.8000	0.0000	0.0000

* *Rates cut off at early retirement eligibility.*

** *Higher select period turnover rates varying by age and gender are used for participants with less than 10 years of service.*

Actives' Retirement Rates

SERS (Tier I, II, IIA), HYBRID

Hazardous			Non-Hazardous			
Age	**First Year Eligible**	**Subsequent Years**	**Age**	**First Year Eligible for Reduced**	**First Year Eligible for Unreduced**	**Subsequent Years**
<45	18.0%	10.0%	55	7.5%	15.0%	12.5%
45-48	25.0	10.0	56-59	5.0	15.0	12.5
49-59	10.0	10.0	60	5.0	25.0	12.5
60-69	25.0	15.0	61	15.0	25.0	15.0
70-79	100.0	20.0	62	10.0	10.0	30.0
80+	100.0	100.0	63	35.0	35.0	25.0
			64	45.0	45.0	25.0
			65-69	65.0	65.0	25.0
			70-79	100.0	100.0	20.0
			80+	100.0	100.0	100.0

SERS (Tier III), HYBRID

Hazardous			Non-Hazardous			
Age	**First Year Eligible**	**Subsequent Years**	**Age**	**First Year Eligible for Reduced**	**First Year Eligible for Unreduced**	**Subsequent Years**
<50	18.0%	10.0%	58-59	5.0%	7.5%	5.0%
50-59	25.0	10.0	60	5.0	12.5	12.5
60-69	10.0	10.0	61	10.0	15.0	15.0
70-79	100.0	20.0	62	10.0	10.0	30.0
80+	100.0	100.0	63	10.0	35.0	25.0
			64	10.0	45.0	25.0
			65-69	25.0	65.0	25.0
			70-79	25.0	100.0	20.0
			80+	100.0	100.0	100.0

STRS

	Unreduced		Proratable		Reduced	
Age	Male	Female	Male	Female	Male	Female
50	27.50%	27.50%	--	--	1.00%	1.00%
51	27.50	27.50	--	--	1.00	1.25
52	27.50	27.50	--	--	1.00	1.75
53	27.50	27.50	--	--	2.00	2.25
54	27.50	27.50	--	--	3.00	2.75
55	38.50	27.50	--	--	4.00	4.75
56	38.50	27.50	--	--	6.00	6.25
57	38.50	27.50	--	--	7.00	6.75
58	38.50	27.50	--	--	8.00	7.25
59	38.50	27.50	--	--	11.00	8.50
60	22.00	27.50	6.00%	5.50%	--	--
61	25.30	27.50	6.00	6.50	--	--
62	25.30	27.50	9.00	7.50	--	--
63	27.50	27.50	11.00	7.50	--	--
64	27.50	27.50	10.00	8.00	--	--
65	36.30	32.50	13.00	12.50	--	--
66-67	27.50	32.50	20.00	12.50	--	--
68	27.50	32.50	20.00	12.00	--	--
69	27.50	32.50	30.00	14.50	--	--
70-73	100.00	32.50	30.00	14.50	--	--
74-79	100.00	32.50	30.00	18.00	--	--
80+	100.00	100.0	100.00	100.00	--	--

PJERS

Age	Rate
50-61	5.0%
62-64	10.0
65-69	20.0
70+	100.0

JFSMCCRS

50% are assumed to retire at the later of age 65 and 10 years of service with 100% at age 70

ARP

Age	First Year Eligible	Subsequent Years
55-59	15.0%	12.5%
60	25.0	12.5
61	25.0	15.0
62	10.0	30.0
63	35.0	25.0
64	45.0	25.0
65-69	65.0	25.0
70-79	100.0	20.0
80+	100.0	100.0

OTHER

Age	First Year Eligible for Reduced	First Year Eligible for Unreduced	Subsequent Years
55	7.5%	15.0%	12.5%
56-59	5.0	15.0	12.5
60	5.0	25.0	12.5
61	15.0	25.0	15.0
62	10.0	10.0	30.0
63	35.0	35.0	25.0
64	45.0	45.0	25.0
65-69	65.0	65.0	25.0
70-79	100.0	100.0	20.0
80+	100.0	100.0	100.0

Inactive Vesteds' Retirement Rates: 100% are assumed to retire at first eligibility for normal retirement

Unknown Data for Participants: Same as those exhibited by participants with similar known characteristic. If not specified, participants are assumed to be female.

For this valuation, 1,520 active members were reported with missing compensation.

Spousal coverage was set for current retirees based on their medical tier.

For retirees with spousal coverage who did not have demographic data available, the assumption for the respective active group was used.

Current retirees missing date of retirement were assumed to retire before June 1, 2009 and therefore receive the prescription drug benefit for retirements prior to June 1, 2009. New retirees missing date of retirement were assumed to retire after June 1, 2009.

HYBRID members were assumed to elect the SERS tier available at their original date of hire.

Current employee Trust Fund balances for employees missing balance information and hired before July 1, 2013 were estimated to be equal to two years of contributions of 3% of current salary (discounted by the payroll growth assumption to the year of contribution) per year.

Inactive vested participants missing service were assumed to terminate as of January 1, 2013 and for those missing service we calculated employment service between their date of hire and their termination date.

75% of actives missing medical plan or dental plan information were assumed to be in a plan that paid contributions.

We assumed STRS retirees paying a percentage of the Early Retirement Premium would reach Normal Retirement Age at age 60. Similarly, we assumed SERS retirees paying a percentage of the Early Retirement Premium would reach Normal Retirement Age at age 62.

Continuation of Medical and Dental Benefits after Retiree's Death: For retiree medical and dental benefits, we assumed that 64% of current and future retired members have medical and dental benefits that continue after the retiree's death, and 36% have medical and dental benefits that stop upon the retiree's death.

Participation and Coverage Election: 100% of current active and inactive vested participants are assumed to elect coverage.

Health Enhancement Program Election: 100% of future retirees were assumed to elect to participate in the Health Enhancement Program.

Dependents: Demographic data was available for spouses of current retirees. The percentage of future retirees electing coverage and assumed age differences between husbands and wives are shown below:

	Percentage Electing Spousal Coverage	Age of Spouse
SERS	80%	Females 3 years younger than males
STRS	85% of males; 75% of females	Females 3 years younger than males
PJERS	100%	Females 3 years younger than males
JFSMCCRS	80%	Females 3 years younger than males
ARP	100%	Females same age as males
HYBRID	80%	Females 3 years younger than males
OTHER	80%	Females 3 years younger than males

Per Capita Cost Development:

Self-Funded (Medical and Drug Plan)

Per capita claims costs were based on actual paid retiree claim experience from the Conifer data warehouse for the period March 1, 2014 through February 29, 2016. Prescription drug claims include offsets for rebates and EGWP subsidies. Claims were separated by plan and adjusted as follows:

- paid claims were multiplied by a factor to yield an estimate of incurred claims,
- total claims were divided by the number of adult members to yield a per capita claim,
- the per capita claim was trended to the midpoint of the valuation year at assumed trend rates, and
- the per capita claim was adjusted for the effect of any plan changes.

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

Fully Insured Dental Plan Per capita costs were based on actual premium rates effective July 1, 2015.

Administrative Expenses Administrative expenses were based on UHC and Anthem's access fees furnished by the State.

Per Capita Health Costs: Dental claims costs for the valuation year are $445. The annual per capita cost for Medicare Part B reimbursement for the plan year beginning July 1, 2015 is assumed to be $1,259. Medical and prescription drug claims costs for the valuation year, excluding assumed expenses, are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions. Medical and prescription drug claims costs for retirees not eligible for Medicare are approximately eight and two times higher, respectively, than the costs listed at ages 65 and above. Prescription drug costs for retirees who retired before June 1, 2009 are approximately 7% higher than the cost shown below for ages under age 65.

	Medical				Prescription Drug			
	Retiree		Spouse		Retiree		Spouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	$8,499	$9,681	$5,937	$7,773	$2,620	$2,984	$1,830	$2,396
55	10,094	10,421	7,944	8,998	3,111	3,212	2,449	2,773
60	11,988	11,233	10,635	10,436	3,695	3,462	3,278	3,216
64	13,753	11,916	13,425	11,746	4,239	3,673	4,138	3,620
65	1,878	1,596	1,878	1,596	2,332	1,982	2,332	1,982
70	2,177	1,720	2,177	1,720	2,703	2,136	2,703	2,136
75	2,346	1,852	2,346	1,852	2,913	2,299	2,913	2,299

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are "net" and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year's cost to yield the next year's projected cost.

	Rate (%)			
Year Ending June 30,	Medical	Prescription Drug	Dental	Part B
2016	5.00	10.00	5.00	5.00
2017	5.00	9.00	5.00	5.00
2018	5.00	8.00	5.00	5.00
2019	5.00	7.00	5.00	5.00
2020	5.00	6.00	5.00	5.00
2021 & later	5.00	5.00	5.00	5.00

The trend rate assumptions were developed using Segal's internal guidelines, which are established each year using data sources such as the 2015 Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

Retiree Contributions:

An average contribution of $174 was used for plans requiring contributions in the valuation year. An average contribution of $356 was used in the valuation year for dental benefits. Early Retiree Premiums were based on an average premium of $14,271 in the valuation year.

Retiree Contribution Increase Rate: Contributions for dental benefits are assumed to increase at 5.00% per year. An annual increase in required retiree contributions for medical and prescription drugs was assumed, as shown below.

Year Ending June 30,	Rate (%)
2016	6.25
2017	6.00
2018	5.75
2019	5.50
2020	5.25
2021 & later	5.00

Administrative Expenses: An administrative expense load of $250 per participant remaining level through June 30, 2018 and increasing at 3.00% per year thereafter was added to projected incurred medical claim costs in developing the benefit obligations.

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

Assumption Changes since Prior Valuation: Medical, prescription drug and dental claims costs, Medicare Part B premiums, and administrative expenses were updated for recent experience.

Trend rates on medical and prescription drug were adjusted, along with assumed increases in retiree contributions.

The average retiree contribution and average premium used to calculate Early Retirement Premiums were updated to reflect recent experience.

The salary scale, retirement rates, mortality rates and turnover rates for STRS were updated based on the October 29, 2015 Experience Investigation completed by Cavanaugh Macdonald for the Retirement System.

The spouse age for SERS, Hybrid and OTHER was updated based on the June 30, 2015 valuation report completed by Cavanaugh Macdonald for SERS.

EXHIBIT III
Summary of Plan

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

Eligibility:

Retired and receiving a Normal, Early, Disabled, or Pre-retirement Survivor pension from the following Retirement Plan.

- SERS – State Employees Retirement System.
- JFSMCCRS – Judges, Family Support Magistrates, and Compensation Commissioners Retirement System.
- PJERS – Probate Judges and Employees Retirement System.
- STRS – State Teachers' Retirement System.
- ARP – Alternate Retirement System.
- HYBRID – Hybrid Defined Benefit/Defined Contribution Plan

In addition, there are a small number of "Other" State employees who are not covered by the retirement systems above but who are eligible for OPEB benefits. Employees with less than 10 years of service as of July 1, 2009, must have 10 years of service to receive retiree medical benefits. In addition, an employee must have a combined age plus service of 75 years to receive retiree medical benefits unless they retire directly from active service. New employees must have 15 years of service to receive retiree medical benefits.

Benefit Types:

Medical, prescription drug, dental, life insurance. Prescription drug benefits for Medicare-eligible retirees are provided through a Part D Employer Group Waiver Plan (EGWP). The State also reimburses the Medicare Part B premium for Medicare-eligible retirees.

Probate judges, probate employees, and terminated vested participants are not eligible for life insurance.

Teachers and terminated vested participants are not eligible for pre-retirement death benefits.

Duration of Coverage:	Lifetime
Spouse Benefits:	Same benefits as for retirees except no life insurance. Spousal coverage is for life if the spouse receives a survivor pension from their retirement system; otherwise coverage ends at the retiree's death.
Retiree Contributions:	
Medical, Rx, and Dental	The monthly retiree contributions used were provided in a schedule supplied by the Office of the State Comptroller.
Health Enhancement Program	Individuals who retire after October 1, 2011, and who decline participation in the Health Enhancement Program, or who are removed from the program, must pay an additional $100 per month in premium share.

Early Retiree Premiums

Individuals who elect early retirement will be charged the greater of the retiree contribution described above and a percentage of the premium (as described on the following page) until they reach their normal retirement date, or age 65, whichever is earlier. The percentages will also be applied to individuals who are eligible for a deferred vested benefit that elect to receive their pension benefits before age 65. If the participant has fewer than 15 years of service, 15 years is used. If the participant has more than 25 years of service, 25 years is used. If the participant retires more than 5 years early, 5 years is used. The premium is capped at 25% of the person's actual pension benefit.

		Years Retired Early				
		5	4	3	2	1
Years of Service	15	40.00%	32.00%	24.00%	16.00%	8.00%
	16	37.00%	29.60%	22.20%	14.80%	7.40%
	17	34.00%	27.20%	20.40%	13.60%	6.80%
	18	31.00%	24.80%	18.60%	12.40%	6.20%
	19	28.00%	22.40%	16.80%	11.20%	5.60%
	20	25.00%	20.00%	15.00%	10.00%	5.00%
	21	22.00%	17.60%	13.20%	8.80%	4.40%
	22	19.00%	15.20%	11.40%	7.60%	3.80%
	23	16.00%	12.80%	9.60%	6.40%	3.20%
	24	13.00%	10.40%	7.80%	5.20%	2.60%
	25	10.00%	8.00%	6.00%	4.00%	2.00%

Employee Contributions:

Current active employees pay a percentage of their pay into the Retiree Health Care Trust Fund for pre-funding of OPEB benefits.

All employees hired after July 1, 2009, or with fewer than five years of service as of July 1, 2010, are contributing 3.0% of their salaries to the Fund, for a period of 10 years or until their retirement, whichever is sooner.

All employees not paying into the Fund as of June 30, 2013, began paying a contribution at that time. The contribution was 0.5% for the year beginning July 1, 2013, increasing to 2.0% for the year beginning July 1, 2014, and to 3.0% for the year beginning July 1, 2015. Contributions will continue for a period of 10 years or until the employee retires, whichever is sooner.

Contributions are refundable to employees who leave State employment prior to completing 10 years of service.

Effective July 1, 2017, the State will begin to contribute into the Retiree Health Care Trust Fund an amount equal to the amount contributed by employees each year.

Benefit Descriptions:

Medical (Anthem or UnitedHealthcare)

Point of Service	**In-Network**	**Out-Of-Network**
Deductible	$350/person, up to $1,400/family*	$300/person, up to $900/family
Member Coinsurance	None	80%
Out-of-pocket Maximum (not incl. ded.)	$2,000/$4,000 single/family	$2,000/$4,000 single/family
Office Visit Copay	$15**	Deductible and coinsurance
Emergency Room Copay	$35 (waived if admitted)	$35 (waived if admitted)

Point of Enrollment, Out of Area	**Participating Provider**
Deductible	$350/person, up to $1,400/family*
Member Coinsurance	None
Out-of-pocket Maximum (not incl. ded.)	$2,000/$4,000 single/family
Office Visit Copay	$15**
Emergency Room Copay	$35 (waived if admitted)

* Waived for post-October 2011 retirees enrolled in Health Enhancement Program.
** $5 copay for retirees who retired prior to July 1, 1999.

Prescription Drug (CVS Caremark)

Retirement Date Prior to 5/1/2009	**30-Day Supply Retail or 90-Day Supply Mail**
Generic	$3
Brand-name (no generic available)	$6
Brand-name (with generic available)	$3 plus difference between brand and generic cost

Retirement Date 6/1/2009 to 10/1/2011	**30-Day Supply Retail or 90-Day Supply Mail**
Generic	$5
Preferred brand-name	$10
Non-preferred brand-name	$25 ($10 if non-preferred is medically necessary

Retirement Date 10/2/2011 or Later	**Non-Maintenance Drug (30-Day Supply)**	**Maintenance Drug (90-day Supply*)**
Generic	$5	$5
Preferred brand-name	$20	$10
Non-preferred brand-name	$35	$25
Mail Order Program	N/A	Mandatory for under-65 retirees; optional for over-65 retirees.

* If enrolled in Health Enhancement Program, copay for drugs prescribed for certain chronic conditions will be waived or reduced to $0/$5/$12.50.

Dental

	CIGNA Basic	CIGNA Enhanced	CIGNA DHMO
Deductible	None	$25/$75 single/family	None
Annual Maximum	$500* for periodontics	$3,000	None
*Exam and X-rays**	Covered at 100%	Covered at 100%	Covered at 100%
Simple Restoration			
Fillings	Covered at 80%	Covered at 80%	Covered w/ copay
Oral Surgery	Covered at 67%	Covered at 80%	Covered w/ copay
Major Restoration			
Crowns	Covered at 67%	Covered at 67%	Covered w/ copay
Dentures, Fixed Bridges	Not covered	Covered at 50%	Covered w/ copay
Implants	Not covered	Covered at 50% (up to $500)	Covered w/ copay
Orthodontia	Not covered	$1,500 lifetime maximum per person	Covered w/ copay

** If enrolled in the Health Enhancement Program, annual dental cleaning (up to two) and unlimited periodontal care provided.*

Life Insurance	Pay-related coverage, equal to 50% of the basic coverage amount immediately before retirement. The basic coverage amount is a function of the employee's salary and the position held by the employee. The minimum post-retirement coverage amount is $10,000 for employees with 25 or more years of service. For retirees with less than 25 years of service, the above coverage amount is proportionately reduced based on years of service, and has no minimum amount of coverage. Members who retire under the hazardous duty provisions of C.G.S. 5-173 receive coverage equal to 50% of the basic coverage amount immediately before retirement, regardless of the number of years of service. Retired members who are totally and permanently disabled before age 60 receive coverage equal to 100% of the basic coverage amount.
Plan Changes since Prior Valuation:	None.

EXHIBIT IV

Definitions of Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Actuarial Present Value of Total Projected Benefits (APB): Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.

Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Retirees: The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

Actuarial Value of Assets (AVA): The value of assets used by the actuary in the valuation. These may be at market value or some other method used to smooth variations in market value from one valuation to the next.

Funded Ratio: The ratio AVA/AAL.

Unfunded Actuarial Accrued Liability (UAAL): The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return (discount rate): The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is tied to the expected rate of return on day-to-day employer funds.

Covered Payroll: Annual reported salaries for all active participants on the valuation date.

ARC as a Percentage of Covered Payroll: The ratio of the annual required contribution to covered payroll.

Health Care Cost Trend Rates: The annual rate of increase in net claims costs per individual benefiting from the Plan.

Annual Required Contribution (ARC): The ARC is equal to the sum of the normal cost and the amortization of the unfunded actuarial accrued liability.

Net OPEB Obligation (NOO):	The NOO is the cumulative difference between the ARC and actual contributions made. If the plan is not pre-funded, the actual contribution would be equal to the annual benefit payments less retiree contributions. There are additional adjustments in the NOO calculations to adjust for timing differences between cash and accrual accounting, and to prevent double counting of OPEB plan costs.

EXHIBIT V

Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 – *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions.* Under these statements, all state and local government entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The standards are an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards are also consistent with accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 4. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

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

4 contain a definition of terms as well as more information about GASB 43/45 concepts.

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

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

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

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