

STATE OF TENNESSEE – THE TENNESSEE PLAN
POSTRETIREMENT HEALTH BENEFITS

*Actuarial Valuation Report
as of July 1, 2009*

August 25, 2010

August 25, 2010

Mr. Ike Boone
Financial Oversight Coordinator
F&A Division of Accounts
14th Floor, William Snodgrass Tower
312 Rosa L. Parks Ave.
Nashville, TN 37243

Dear Mr. Boone:

This report summarizes the results of our actuarial valuation of health benefits for Medicare-eligible retirees provided through the Tennessee Plan for the fiscal year beginning July 1, 2009.

The purposes of this report are to:

1. Estimate the employer obligation for retiree health benefits under the plan as of July 1, 2009
2. Determine the Annual Required Contribution (ARC) for the fiscal year ending June 30, 2010 under GASB 45
3. Provide additional information for planning.

Our results are based on census data and health plan rates provided by the State of Tennessee, and the actuarial methods and assumptions shown in Exhibit 4. The accuracy of the results depends upon the data provided, particularly at the local level. Our results are also based on our understanding of the relevant plan and contribution provisions provided by the State of Tennessee as outlined in Exhibit 5. There are significant changes in plan provisions and assumptions since the prior valuation; we relied on guidance and documentation provided by the State regarding the Local Government and Local Education employers for these provisions.

The results shown in this valuation report include State obligations for benefits provided to State Employees and Local Education Employees as well as obligations for benefits provided by Local Education and Local Government Employers to their employees.

For the local obligations, this report is provided solely as guidance for participating local employers. The actuarial assumptions and methods used were developed for the plan as a whole, and may or may not be appropriate for an individual employer. Each employer should determine if these actuarial assumptions and methods are appropriate for its specific demographics and healthcare environment. In addition, local employers that provide other postemployment benefits outside of the Tennessee plan will need to separately value and report these benefits.

All demographic assumptions were updated based on an experience study performed by the State's pension actuary. Plan participation rates and premiums were updated using more recent plan experience.

Since the assumption were set, healthcare reform legislation (the Patient Protection and Affordable Care Act signed March 23, 2010, as amended by the Health Care and Education Affordability Reconciliation Act, signed March 30, 2010) has been enacted. We have not evaluated whether this legislation would have significant impact on our calculations. The State is currently undergoing changes in their health plans for actives as well as retirees; details of this new design are still being determined, and these changes are not included in our valuation.

The Annual Required Contribution amounts shown in this report are appropriate for use for the period from July 1, 2009 through June 30, 2010. We have relied on the experience study performed by the State's pension actuary for mortality, disability, retirement and termination rates.

The amortization method is 30 year level percentage of payroll assuming total annual payroll growth of 3% under the closed basis. For State Obligation for State Employees, the amortization is calculated in total and allocated to the employers based on 2009 actuarial liability which is based on 2009 headcount. For State Obligation for Local Education Employees, Local Education and Local Government Employees, the amortization is calculated separately for each local entity.

We certify that we are Members of the American Academy of Actuaries and meet its qualification standards for issuing this Statement of Actuarial Opinion. This valuation was prepared in accordance with our understanding of the requirements of Governmental Accounting Standards Board Statement 45 and the principles of practice prescribed by the Actuarial Standards Board.

Respectfully submitted,



Andrew C. Stratton, FSA, MAAA, EA
Principal, Consulting Actuary



Amy D. Whaley, FSA, MAAA
Principal, Consulting Actuary

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Highlights

	July 1, 2009 - \$ in thousands				July 1, 2007 - \$ in thousands			
	State Obligation for:			Local Education and Local Government Employers	State Obligation for:			Local Education and Local Government Employers
	State Employees	Local Education Employees	Total		State Employees	Local Education Employees	Total	
Present Value of Future Benefits	\$289,678	\$220,855	\$510,533	\$184,036	\$281,359	\$196,526	\$477,885	\$51,786
Unfunded Actuarial Liability	\$209,622	\$158,789	\$368,411	\$107,803	\$200,080	\$140,464	\$340,544	\$29,111
Annual Required Contribution	\$15,554	\$11,517	\$27,071	\$10,266	\$14,900	\$10,064	\$24,964	\$3,089
Discount Rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Payroll Growth	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Expected First Year Net Payments	\$5,364	\$4,038	\$9,402	\$1,025	\$4,960	\$3,711	\$8,671	\$245

Summary of Data*

	2009			2007		
	State	Local Education	Local Government **	State	Local Education	Local Government **
Actives	73,220	58,679	10,231	78,241	62,340	9,284
Retirees/ Former Employees Under Age 65 With Future Eligibility	19,095	14,289	150	17,282	12,626	307

* Spouses are not included, as there is no employer subsidy.

** Only contributing employers are included.

Exhibit 1

Development of Annual Required Contribution

	July 1, 2009 - \$ in thousands					July 1, 2007 - \$ in thousands			
	State Obligation for			Local Education and Local Government Employers	State Obligation for			Local Education and Local Government Employers	
	State Employees	Local Education Employees	Total		State Employees	Local Education Employees	Total		
Present Value of Future Benefits									
Retired	\$110,905	\$96,131	\$207,036	\$41,636	\$97,965	\$82,186	\$180,151	\$7,705	
Active	\$178,773	\$124,724	\$303,497	\$142,400	\$183,394	\$114,340	\$297,734	\$44,081	
Total	\$289,678	\$220,855	\$510,533	\$184,036	\$281,359	\$196,526	\$477,885	\$51,786	
Actuarial Liability									
Retired	\$110,905	\$96,131	\$207,036	\$41,636	\$97,965	\$82,186	\$180,151	\$7,705	
Active	\$98,717	\$62,658	\$161,375	\$66,167	\$102,115	\$58,278	\$160,393	\$21,406	
Total	\$209,622	\$158,789	\$368,411	\$107,803	\$200,080	\$140,464	\$340,544	\$29,111	
Fair Value of Plan Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Unfunded Actuarial Liability	\$209,622	\$158,789	\$368,411	\$107,803	\$200,080	\$140,464	\$340,544	\$29,111	
Expected First Year Net Payments	\$5,364	\$4,038	\$9,402	\$1,025	\$4,960	\$3,711	\$8,671	\$245	
Annual Required Contribution									
Normal Cost	\$6,130	\$4,406	\$10,536	\$5,600	\$6,372	\$4,077	\$10,449	\$1,848	
Amortization of Unfunded Actuarial Liability	\$9,424	\$7,111	\$16,535	\$4,666	\$8,528	\$5,987	\$14,515	\$1,241	
Total	\$15,554	\$11,517	\$27,071	\$10,266	\$14,900	\$10,064	\$24,964	\$3,089	

Highlights

Exhibit 2

Accounting Disclosures (GASB 45) – State Employees

Fiscal Year Ending	6/30/2010	6/30/2009*	6/30/2008*
Normal cost at year end	\$6,130		
Amortization of UAAL	<u>\$9,424</u>		
Annual required contributions (ARC)	\$15,554	\$15,151	\$14,900
Development of Net OPEB Obligation			
Annual Required Contribution (ARC)	\$15,554	\$15,151	\$14,900
Interest on prior year Net OPEB Obligation	\$936	\$468	\$0
Adjustment to ARC	<u>(\$886)</u>	<u>(\$455)</u>	<u>\$0</u>
Annual OPEB Cost	\$15,604	\$15,164	\$14,900
Contribution Made	<u>TBD</u>	<u>(\$4,774)</u>	<u>(\$4,501)</u>
Increase in Net OPEB Obligation	TBD	\$10,390	\$10,399
Net OPEB Obligation at Beginning of Year	<u>\$20,789</u>	<u>\$10,399</u>	<u>\$0</u>
Net OPEB Obligation at End of Year	TBD	\$20,789	\$10,399

*Numbers shown for fiscal year ended 6/30/2008 and 6/30/2009 are based on information from the Comprehensive Annual Financial Report.

Exhibit 2

Accounting Disclosures (GASB 45) – State Employees

(continued)

Schedule of Government Contributions and Three Year Trend Information

Fiscal Year Ending	Annual OPEB Cost	Percentage Contributed	Net OPEB Obligation
June 30, 2008 *	\$14,900	30.2%	\$10,399
June 30, 2009 *	\$15,164	31.5%	\$20,789
June 30, 2010	\$15,604	TBD	TBD

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
July 1, 2007	\$0	\$200,080	\$200,080	0%	N/A	N/A
July 1, 2009	\$0	\$209,622	\$209,622	0%	N/A	N/A

* Numbers shown for fiscal year ended 6/30/2008 and 6/30/2009 are based on information from the Comprehensive Annual Financial Report.

Exhibit 2

Accounting Disclosures (GASB 45) – Local Education (State Share)

Fiscal Year Ending	6/30/2010	6/30/2009 *	6/30/2008 *
Normal cost at year end	\$4,406		
Amortization of UAAL	<u>\$7,111</u>		
Annual required contributions (ARC)	\$11,517	\$10,244	\$10,064
Development of Net OPEB Obligation			
Annual Required Contribution (ARC)	\$11,517	\$10,244	\$10,064
Interest on prior year Net OPEB Obligation	\$590	\$294	\$0
Adjustment to ARC	<u>(\$559)</u>	<u>(\$286)</u>	<u>\$0</u>
Annual OPEB Cost	\$11,548	\$10,252	\$10,064
Contribution Made	<u>TBD</u>	<u>(\$3,669)</u>	<u>(\$3,534)</u>
Increase in Net OPEB Obligation	TBD	\$6,583	\$6,530
Net OPEB Obligation at Beginning of Year	<u>\$13,113</u>	<u>\$6,530</u>	<u>\$0</u>
Net OPEB Obligation at End of Year	TBD	\$13,113	\$6,530

* Numbers shown for fiscal year ended 6/30/2008 and 6/30/2009 are based on information from the Comprehensive Annual Financial Report.

Exhibit 2

Accounting Disclosures (GASB 45) – Local Education (State Share) (continued)

Schedule of Government Contributions and Three Year Trend Information

Fiscal Year Ending	Annual OPEB Cost	Percentage Contributed	Net OPEB Obligation
June 30, 2008 *	\$10,064	35.1%	\$6,530
June 30, 2009 *	\$10,252	35.8%	\$13,113
June 30, 2010	\$11,548	TBD	TBD

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
July 1, 2007	\$0	\$140,464	\$140,464	0.00%	N/A	N/A
July 1, 2009	\$0	\$158,789	\$158,789	0.00%	N/A	N/A

* Numbers shown for fiscal year ended 6/30/2008 and 6/30/2009 are based on information from the Comprehensive Annual Financial Report.

Exhibit 3

Summary of Census Data

State Employees

Active Employees											
Attained Age	Completed Years of Service										Total
	Under 1	1 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	
Under 25	578	828	24								1,430
25 to 29	1,133	2,817	805	29							4,784
30 to 34	1,451	2,328	2,100	568	10						6,457
35 to 39	1,670	2,159	1,877	1,426	398	18					7,548
40 to 44	1,711	1,857	1,676	1,263	1,129	679	60				8,375
45 to 49	1,689	1,907	1,785	1,343	1,118	1,695	980	65			10,582
50 to 54	1,820	1,790	1,754	1,403	1,209	1,509	1,551	919	58		12,013
55 to 59	1,693	1,459	1,528	1,218	1,128	1,324	1,139	1,206	530	23	11,248
60 to 64	1,200	798	987	763	772	783	685	638	594	170	7,390
65 & over	607	229	367	364	318	355	258	301	307	287	3,393
Total	13,552	16,172	12,903	8,377	6,082	6,363	4,673	3,129	1,489	480	73,220

Exhibit 3

Summary of Census Data

State Employees

Retirees, Terminated Vested, and Disabled Former Employees *					
Attained Age	Not Currently in Tennessee Plan			Currently in Tennessee Plan	Total
	Retirees/ Disableds	Vested Terms **	Subtotal		
Under 40	23	0	23	0	23
40 to 44	26	0	26	0	26
45 to 49	122	0	122	0	122
50 to 54	614	64	678	7	685
55 to 59	2,015	9	2,024	8	2,032
60 to 64	3,807	0	3,807	119	3,926
65 to 69	97	0	97	3,420	3,517
70 to 74	47	0	47	3,065	3,112
75 to 79	11	0	11	2,486	2,497
80 to 84	4	0	4	1,936	1,940
85 to 89	1	0	1	886	887
90 to 94	0	0	0	250	250
95 to 99	0	0	0	71	71
100 and Over	0	0	0	7	7
Total	6,767	73	6,840	12,255	19,095

* Spouses are not included, as there is no employer subsidy.

** Employees who do not choose pre-65 retiree coverage may join the Tennessee Plan at age 65.

Exhibit 3

Summary of Census Data

Local Education Employees

Active Employees											
Attained Age	Completed Years of Service										Total
	Under 1	1 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	
Under 25	304	1,115	4								1,423
25 to 29	337	3,882	1,157	3	1						5,380
30 to 34	286	2,084	3,042	879	2						6,293
35 to 39	374	1,953	1,845	2,539	761	4					7,476
40 to 44	418	1,674	1,554	1,401	1,650	454	3				7,154
45 to 49	397	1,379	1,501	1,389	1,023	1,318	510	8			7,525
50 to 54	340	1,076	1,154	1,338	1,092	927	1,326	897	4		8,154
55 to 59	361	858	869	985	979	957	817	1,349	732	2	7,909
60 to 64	316	504	641	583	594	639	545	466	644	159	5,091
65 & over	435	230	283	273	256	210	171	171	102	143	2,274
Total	3,568	14,755	12,050	9,390	6,358	4,509	3,372	2,891	1,482	304	58,679

Exhibit 3

Summary of Census Data

Local Education Employees

Retirees, Terminated Vested, and Disabled Former Employees *					
Attained Age	Not Currently in Tennessee Plan			Currently in Tennessee Plan	Total
	Retirees/Disableds	Vested Terms **	Subtotal		
Under 40	3	0	3	1	4
40 to 44	13	0	13	0	13
45 to 49	35	0	35	0	35
50 to 54	264	67	331	4	335
55 to 59	1,685	16	1,701	15	1,716
60 to 64	3,346	0	3,346	101	3,447
65 to 69	15	0	15	2,640	2,655
70 to 74	8	0	8	1,886	1,894
75 to 79	7	0	7	1,747	1,754
80 to 84	3	0	3	1,363	1,366
85 to 89	3	0	3	620	623
90 to 94	0	0	0	316	316
95 to 99	0	0	0	114	114
100 and Over	0	0	0	17	17
Total	5,382	83	5,465	8,824	14,289

* Spouses are not included, as there is no employer subsidy.

** Employees who do not choose pre-65 retiree coverage may join the Tennessee Plan at age 65.

Exhibit 3

Summary of Census Data

Local Government Employees

Active Employees*											
Attained Age	Completed Years of Service										Total
	Under 1	1 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	
Under 25	111	196	9								316
25 to 29	98	370	133	7							608
30 to 34	94	383	256	99	3						835
35 to 39	112	441	312	246	89	4	1				1,205
40 to 44	101	507	341	266	154	78	1				1,448
45 to 49	106	437	388	322	183	128	59	5			1,628
50 to 54	66	324	322	317	197	156	92	45	4		1,523
55 to 59	58	222	257	239	206	148	81	70	26		1,307
60 to 64	29	152	153	147	126	83	62	38	23	9	822
65 & over	33	92	91	101	83	49	36	23	19	12	539
Total	808	3,124	2,262	1,744	1,041	646	332	181	72	21	10,231

*Contributing employers only.

Exhibit 3

Summary of Census Data

Local Government Employees

Retirees, Terminated Vested, and Disabled Former Employees *					
Attained Age	Not Currently in Tennessee Plan			Currently in Tennessee Plan	Total
	Retirees/ Disableds	Vested Terms **	Subtotal		
Under 40	1	0	1	0	1
40 to 44	0	0	0	0	0
45 to 49	0	0	0	0	0
50 to 54	0	3	3	0	3
55 to 59	4	1	5	0	5
60 to 64	12	0	12	3	15
65 to 69	0	0	0	32	32
70 to 74	0	0	0	24	24
75 to 79	0	0	0	40	40
80 to 84	0	0	0	26	26
85 to 89	0	0	0	4	4
90 to 94	0	0	0	0	0
95 to 99	0	0	0	0	0
100 and Over	0	0	0	0	0
Total	17	4	21	129	150

* Spouses are not included, as there is no employer subsidy. Contributing employers only.

** Employees who do not choose pre-65 retiree coverage may join the Tennessee Plan at age 65.

Exhibit 4

Actuarial Assumptions and Cost Method

(continued)

Valuation Date: July 1, 2009

Discount Rate: 4.5%

Cost Method: Projected Unit Credit with benefits attributed pro rata from date of hire to assumed termination of employment.

Amortization Method: 30 year level percentage of payroll assuming total annual payroll growth of 3%, closed basis. For State Obligation for State Employees, the amortization is calculated in total and allocated to the employers based on 2009 headcount. For State Obligation for Local Education Employees, Local Education and Local Government Employees, the amortization is calculated separately for each local entity.

Preretirement Mortality:

Age	State		Local Education		Local Government	
	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.02%	0.01%	0.03%	0.02%
25	0.03	0.02	0.02	0.01	0.03	0.02
30	0.04	0.02	0.03	0.02	0.04	0.02
35	0.06	0.04	0.05	0.03	0.06	0.04
40	0.09	0.06	0.06	0.04	0.09	0.06
45	0.12	0.09	0.09	0.07	0.12	0.09
50	0.17	0.13	0.13	0.10	0.17	0.13
55	0.24	0.20	0.18	0.15	0.24	0.20
60	0.39	0.31	0.29	0.24	0.39	0.31
65	0.61	0.47	0.45	0.35	0.61	0.47

Exhibit 4

Actuarial Assumptions and Cost Method

(continued)

Postretirement Mortality:

Age	State			Local Education			Local Government		
	Male	Female	Disabled	Male	Female	Disabled	Male	Female	Disabled
40	0.2%	0.1%	2.6%	0.1%	0.1%	2.6%	0.2%	0.1%	2.6%
50	0.4	0.2	3.3	0.3	0.2	3.3	0.4	0.2	3.3
55	0.7	0.4	3.7	0.5	0.3	3.7	0.7	0.4	3.7
60	1.0	0.7	4.1	0.6	0.5	4.1	1.0	0.7	4.1
65	1.4	0.9	4.6	1.0	0.7	4.6	1.4	0.9	4.6
70	2.2	1.3	5.5	1.8	1.1	5.5	2.2	1.3	5.5
75	3.8	2.3	6.9	3.0	1.9	6.9	3.8	2.3	6.9
80	6.5	4.3	9.2	5.2	3.4	9.2	6.5	4.3	9.2
85	10.2	7.2	12.9	9.3	6.5	12.9	10.2	7.2	12.9
90	16.7	13.7	18.4	17.7	12.7	18.4	16.7	13.7	18.4
95	24.6	22.5	26.4	27.0	19.8	26.4	24.6	22.5	26.4

Disability Rates:

Age	State		Local Education		Local Government	
	Male	Female	Male	Female	Male	Female
20	0.06%	0.03%	0.01%	0.01%	0.03%	0.03%
25	0.06	0.03	0.01	0.01	0.03	0.03
30	0.07	0.04	0.01	0.01	0.03	0.03
35	0.11	0.06	0.03	0.03	0.03	0.03
40	0.16	0.14	0.08	0.08	0.08	0.08
45	0.22	0.24	0.14	0.14	0.20	0.20
50	0.27	0.33	0.17	0.17	0.38	0.38
55	0.27	0.38	0.17	0.17	0.49	0.49
60	-	-	-	-	-	-

Service Retirement Rates: Retirement rates prior to age 60 apply only if the participant has completed 30 years of service.

Exhibit 4

Actuarial Assumptions and Cost Method

(continued)

Age	State		Local Education		Local Government	
	Male	Female	Male	Female	Male	Female
50	6.0%	7.5%	6.5%	6.5%	9.0%	8.0%
51	6.0	7.5	7.0	7.0	9.0	8.0
52	6.0	7.5	7.0	8.0	9.0	8.0
53	6.0	7.5	8.5	9.0	9.0	8.0
54	6.5	7.5	9.0	10.0	9.0	8.0
55	6.5	7.5	10.0	10.0	9.0	8.0
56	7.0	8.0	12.0	12.0	9.0	9.0
57	7.0	8.0	12.0	14.0	9.5	9.5
58	7.5	8.0	13.0	14.0	9.5	10.0
59	8.0	8.0	14.0	15.0	10.0	11.0
60	8.5	9.0	15.0	17.0	10.5	11.0
61	11.0	12.0	16.0	20.0	15.0	13.0
62	16.0	18.0	22.0	26.0	20.0	18.0
63	12.0	12.0	16.0	19.5	17.5	16.0
64	14.0	14.0	18.0	24.0	17.5	16.0
65	22.0	22.0	35.0	37.5	24.0	22.0
66	15.5	17.0	16.0	24.0	18.5	19.0
67	15.5	17.0	16.0	24.0	16.0	19.0
68	15.5	17.0	16.0	24.0	16.0	19.0
69	15.5	17.0	16.0	24.0	16.5	19.0
70	15.5	17.0	16.0	34.0	18.0	19.0
71	15.5	17.0	17.0	40.0	18.0	19.0
72	15.5	17.0	17.0	40.0	18.0	19.0
73	15.5	17.0	17.0	40.0	18.0	19.0
74	15.5	17.0	17.0	40.0	18.0	19.0
75	100.0	100.0	100.0	100.0	100.0	100.0

Additional rate of retirement in the year in which an active first reaches age 60 and 15 years of service

State	Local Education	Local Government
2.0%	8.0%	2.0%

Additional rate of retirement in the year in which an active prior to age 60 first reaches 30 years of service

State	Local Education	Local Government
7.5%	12.5%	7.5%

Exhibit 4

Actuarial Assumptions and Cost Method

(continued)

Sample Termination and Early Retirement Rates¹

Age	State				Local Education				Local Government			
	1 st Year	2 nd Year	Male ²	Female ²	1 st Year	2 nd Year	Male ²	Female ²	1 st Year	2 nd Year	Male ²	Female ²
20	30.0%	24.6%	17.8%	18.3%	18.0%	13.5%	10.0%	10.5%	26.2%	21.8%	13.7%	19.6%
25	25.4	21.4	14.4	14.8	18.0	13.5	8.5	10.0	23.0	19.1	10.3	15.1
30	23.0	18.6	9.6	10.3	18.0	13.5	6.0	7.6	21.8	17.9	7.4	11.1
35	20.8	16.1	5.2	6.3	18.0	13.5	3.6	4.6	20.7	17.0	5.1	7.7
40	18.6	13.8	2.6	3.4	18.0	13.5	2.0	2.3	19.2	15.9	3.5	5.4
45	16.5	12.0	1.8	2.2	18.4	13.5	1.5	1.1	17.7	14.1	2.8	4.1
50	14.8	11.1	2.2	2.3	19.7	14.2	2.0	1.6	17.0	13.0	2.8	3.8
55	15.3	11.6	2.6	3.4	22.1	16.8	3.1	3.8	17.4	13.0	3.6	4.3
60	17.9	14.4	4.3	4.9	25.5	21.6	4.7	5.0	20.4	14.9	4.6	5.3
65	24.0	20.5	0.0	0.0	28.0	23.5	0.0	0.0	26.3	19.1	0.0	0.0

¹ Termination rates cease at the earlier of age 60 and 30 years of service

² Ultimate rates apply beginning on an employee's 3rd year of employment

Exhibit 4

Actuarial Assumptions and Cost Method

(continued)

Plan Participation For Future Tennessee Plan Retirees:

For current actives, eligible employees are assumed to elect coverage in the Tennessee plan at a rate based upon the level of service-based subsidy provided. The participation rates are assumed to apply at the first age a participant is eligible for the Tennessee plan at the later of retirement and age 65. Then the assumed participation rate is “frozen” for the remainder of the retiree’s life.

The assumed 2009/2010 participation rates below apply to all active participants

Participation rate – 2009/2010	Kingsport, Sullivan County Board of Education, and Sumner County Board of Education	Other employers who provide a subsidy in addition to the State contribution	Employers who provide no subsidy (only the State contribution is provided)
30+ years of service	100%	95%	75%
20-29 years of service	100%	85%	60%
15-19 years of service	100%	75%	50%
Less than 15 years of service	100%	25%	25%
Support staff	100%	25%	25%
Rate decrease for each year retirement date is later than valuation date	N/A	0.6% (but rates are never below 25%)	0.5% (but rates are never below 25%)

For current pre-65 participants in medical plans, all members are assumed to elect Tennessee plan coverage.

Grandfathered participants remain in the pre-65 plan designs and are assumed not to ever enter the Tennessee plan.

Eligible members are assumed to elect immediate coverage at the later of assumed termination of employment and age 65. All members are assumed to have required plan participation prior to retirement.

Exhibit 4

Actuarial Assumptions and Cost Method

(continued)

**Plan Participation
For Current Tennessee**

Plan Retirees: Current participants in the plan are assumed to continue coverage.

**Terminated Vested
Participation:** 50%

Spouse Participation: None used - spouses receive no employer subsidy.

Assumed Premium: Applies only to Kingsport City Schools, Sullivan County Board of Education, and Sumner County Board of Education. Gross monthly premium before State subsidy is \$120 for 2009, \$121 for 2010. Premiums are assumed to include the cost of administration. The premium is not assumed to vary by age since reflecting any age-related cost differences it not expected to have a material impact on the results.

Kingsport, Sullivan County Board of Education, and Sumner County Board of Education are assumed to continue to pay all premium increases for the retirees they subsidize. The 2009 to 2010 trend was 1%. The premium increases applied on a calendar year basis are assumed to be:

Calendar Year	Rate
2010 to 2011	10.0%
2011 to 2012	9.5
2012 to 2013	9.0
2013 to 2014	8.5
2014 to 2015	8.0
2015 to 2016	7.5
2016 to 2017	7.0
2017 to 2018	6.5
2018 to 2019	6.0
2019 to 2020	5.5
2020 to 2021	5.0

Exhibit 4

Actuarial Assumptions and Cost Method

(continued)

Employer Contribution

Increases:

3.5% per year. This applies to the State contribution as well as for all contributing employers except Kingsport, Sullivan County Board of Education, and Sumner County Board of Education.

Census Data:

Collected as of July 1, 2009. The data was not audited by Buck Consultants. Retirees who waived coverage and showed no spousal coverage were deleted from all files. Except for a group of 217 pre-65 retirees, duplicates were left in the file as is.

Data used is different for the Tennessee Plan than for the pre-65 valuations because of impacts of grandfathered participants (who do not receive Tennessee Plan coverage), spouses (who have no subsidy and are not valued in the Tennessee Plan), and vested terms (who are in Tennessee Plan valuation but not in the pre-65 valuations). For local entities, only those who “contribute” to Tennessee Plan coverage are included.

Where retirement allocation codes were in conflict with Plan codes, we used retirement allocation codes to determine the Plan (and premium information was changed accordingly). Tennessee Plan local government actives were determined using the additional file supplied by the State. All these participants were treated as local government for Tennessee Plan purposes.

Changes Since Prior Valuation:

All demographic assumptions (i.e. mortality, disability, retirement and termination rates) were updated based on the experience study performed by the State’s pension actuary. Plan participation rates and local entity premiums were updated using more recent experience

Exhibit 5

Summary of Substantive Plan Provisions

Eligibility: TCRS participants with state medical benefits are eligible for health coverage following service retirement or early retirement, which are generally as follows:

- Service retirement: age 60 and 10 years of service, or 30 years of service
- Early retirement: age 55 and 10 years of service, or 25 years of service

Similar requirements generally apply to ORP and other non-TCRS participants.

Retirees with less than 20 years of service must participate in the state medical plan for the 3 years prior to retirement and must begin retiree coverage immediately upon retirement. Retirees with 20 years of service must participate for the year prior to retirement and must begin retiree coverage within 5 years of retirement.

Spouse coverage: Spouses may participate in the Tennessee plan but at an unsubsidized rate.

Disabled coverage: Disabled employees who leave employment with five or more years of service may participate at age 65.

Terminated vested: Employees who do not choose pre-65 retiree coverage may join the Tennessee Plan at age 65.

Medicare eligibility: Only Medicare-eligible retirees and spouses over age 65 can join the Tennessee Plan.

Contributions:

State:

Monthly State Contributions For State and Local Education Employees – 2009 and 2010	
Service at Retirement	Employer Support
30+ years of service	\$50.00
20-29 years of service	\$37.50
15-19 years of service	\$25.00
Less than 15 years of service	\$0.00
Education support staff	\$0.00
Dependents (Spouse)	\$0.00

Exhibit 5

Summary of Substantive Plan Provisions

(continued)

Local Education: The following local education employers provide the following subsidy for 2009 (in addition to the State subsidy). Employers not listed below do not provide additional subsidies

AGENCY	30+ Y.O.S	20-29 Y.O.S	15-19 Y.O.S	<15 Y.O.S	Support Staff
Bells City Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Clay County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Giles County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Hamblen County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Hawkins County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	Double the service-based support as non-support staff
Hickman County Schools	\$ 50.00	\$ 37.50	\$0.00	\$0.00	\$0.00
Jackson County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Kingsport	\$ 70.00	\$ 82.50	\$ 95.00	\$120.00	\$120.00
McNairy County School System	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Monroe County Board of Education	\$ 50.00	\$ 37.50	\$ 25.00	\$25.00	\$0.00
Overton County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Scott County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Sevier County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00
Sullivan County Board of Education	\$ 70.00	\$ 82.50	\$ 95.00	\$ 120.00	\$120.00
Sumner County Board of Education	\$ 70.00	\$ 82.50	\$ 95.00	\$0.00	\$0.00
Union County Schools	\$ 50.00	\$ 37.50	\$ 25.00	\$0.00	\$0.00

Local Governments: Contributing Local Governments pay the same as the State subsidy. Only the local governments shown in the Appendix are contributing local government employers.

Exhibit 5

Summary of Substantive Plan Provisions

(continued)

(Effective January 1, 2010)

2010 Medicare Supplement Tennessee Plan

MEDICARE GAPS for 2010 What you owe after Medicare pays	The Tennessee Plan
Basic Benefits \$275/day for 61-90 days in hospital; \$550/day for 60 lifetime reserve hospital days; 20% patient's share of approved medical expense; First three pints of blood	Covered
Skilled Nursing Coinsurance \$137.50/day for 21st-100th day	Covered
Part A Deductible \$1,100/hospital admission	Covered
Part B Deductible \$155/calendar year for medical expenses	Not Covered
Part B Excess Medical expense over approved amount	Not Covered
Foreign Travel Emergency Emergency care beginning during first 60 days of trip outside USA(after \$250 deductible, benefits limited to \$50,000/lifetime)	Covered at 80%
At Home Recovery Up to \$40/visit (limited to 7 visits/week and \$1,600/calendar year)	Covered
Prescription Drugs Outpatient prescriptions drugs covered through Medicare Part D	Not Covered

Appendix

Results by Employer (Dollars in Thousands)

State (Dollars pro-rated by headcount)

Employer	Count		Actuarial Liability		Benefit Payment	Normal Cost	ARC
	Retirees, Vested Terminated & Disabled Employees	Active	Retirees, Vested Terminated & Disabled Employees	Active			
Austin Peay State University	116	794	\$674	\$1,070	\$53	\$66	\$145
Capitol Print Shop	3	9	\$17	\$12	\$1	\$1	\$2
Chattanooga State Technical Community College	83	526	\$482	\$709	\$35	\$44	\$98
Cleveland State Community College	60	193	\$348	\$260	\$15	\$16	\$44
Columbia State Community College	51	236	\$296	\$318	\$17	\$20	\$47
Division of Accounts	15	76	\$87	\$102	\$5	\$6	\$15
Dyersburg State Community College	25	187	\$145	\$252	\$12	\$16	\$34
East Tennessee State University	381	2,151	\$2,213	\$2,900	\$147	\$180	\$410
Governor's Books from Birth	0	3	\$0	\$4	\$0	\$0	\$0
GS Central Stores	7	20	\$41	\$27	\$2	\$2	\$5
GS Food Services	2	2	\$12	\$3	\$0	\$0	\$1
GS Printing	11	43	\$64	\$58	\$3	\$4	\$9
GS Property Utilization	17	22	\$99	\$30	\$2	\$2	\$8
GS Purchasing	16	48	\$93	\$65	\$4	\$4	\$11
GS Records Management	3	15	\$17	\$20	\$1	\$1	\$3
Jackson State Community College	62	243	\$360	\$328	\$18	\$20	\$51
Middle Tennessee State University	317	2,185	\$1,841	\$2,946	\$145	\$183	\$398
Motlow State Community College	57	177	\$331	\$239	\$14	\$15	\$40
Motor Vehicle Management	7	32	\$41	\$43	\$2	\$3	\$6
Nashville State Technical Community College	54	362	\$314	\$488	\$24	\$30	\$66
Northeast State Technical Community College	21	295	\$122	\$398	\$18	\$25	\$48
Office of Information Resources	58	353	\$337	\$476	\$24	\$30	\$66

Appendix

Results by Employer (Dollars in Thousands)

State (Dollars pro-rated by headcount)

Employer	Count		Actuarial Liability		Benefit Payment	Normal Cost	ARC
	Retirees, Vested Terminated & Disabled Employees	Active	Retirees, Vested Terminated & Disabled Employees	Active			
Pellissippi State Technical Community College	50	442	\$290	\$596	\$29	\$37	\$77
Postal Service	14	46	\$81	\$62	\$3	\$4	\$10
Roane State Community College	62	352	\$360	\$475	\$24	\$29	\$67
Southwest State Community College	133	653	\$772	\$880	\$46	\$55	\$129
State of Tennessee	12,766	44,733	\$74,149	\$60,310	\$3,344	\$3,742	\$9,789
Tennessee Board of Regents Central Office	48	123	\$279	\$166	\$10	\$10	\$30
Tennessee State University	148	1,280	\$860	\$1,726	\$83	\$107	\$224
Tennessee Technological University	312	1,047	\$1,812	\$1,412	\$79	\$88	\$233
TN Housing Development Agency	21	198	\$122	\$267	\$13	\$17	\$34
TN Student Assistance Corporation	12	46	\$70	\$62	\$3	\$4	\$10
TN Technical Center at Athens	5	20	\$29	\$27	\$1	\$2	\$4
TN Technical Center at Chattanooga	2	40	\$12	\$54	\$2	\$3	\$6
TN Technical Center at Covington	2	17	\$12	\$23	\$1	\$1	\$3
TN Technical Center at Crossville	8	33	\$46	\$44	\$2	\$3	\$7
TN Technical Center at Crump	3	23	\$17	\$31	\$2	\$2	\$4
TN Technical Center at Dickson	9	37	\$52	\$50	\$3	\$3	\$8
TN Technical Center at Elizabethton	4	31	\$23	\$42	\$2	\$3	\$6
TN Technical Center at Harriman	5	21	\$29	\$28	\$2	\$2	\$4
TN Technical Center at Hartsville	4	27	\$23	\$36	\$2	\$2	\$5
TN Technical Center at Hohenwald	7	36	\$41	\$49	\$2	\$3	\$7
TN Technical Center at Jacksboro	12	16	\$70	\$22	\$2	\$1	\$5

Appendix

Results by Employer (Dollars in Thousands)

State (Dollars pro-rated by headcount)

Employer	Count		Actuarial Liability		Benefit Payment	Normal Cost	ARC
	Retirees, Vested Terminated & Disabled Employees	Active	Retirees, Vested Terminated & Disabled Employees	Active			
TN Technical Center at Jackson	4	46	\$23	\$62	\$3	\$4	\$8
TN Technical Center at Knoxville	10	44	\$58	\$59	\$3	\$4	\$9
TN Technical Center at Livingston	5	30	\$29	\$40	\$2	\$3	\$6
TN Technical Center at McKenzie	4	20	\$23	\$27	\$1	\$2	\$4
TN Technical Center at McMinnville	8	22	\$46	\$30	\$2	\$2	\$5
TN Technical Center at Memphis	14	60	\$81	\$81	\$4	\$5	\$12
TN Technical Center at Morristown	11	46	\$64	\$62	\$3	\$4	\$10
TN Technical Center at Murfreesboro	5	33	\$29	\$44	\$2	\$3	\$6
TN Technical Center at Nashville	7	52	\$41	\$70	\$3	\$4	\$9
TN Technical Center at Newbern	5	20	\$29	\$27	\$1	\$2	\$4
TN Technical Center at Oneida	8	17	\$46	\$23	\$1	\$1	\$5
TN Technical Center at Paris	4	32	\$23	\$43	\$2	\$3	\$6
TN Technical Center at Pulaski	1	28	\$6	\$38	\$2	\$2	\$4
TN Technical Center at Ripley	5	20	\$29	\$27	\$1	\$2	\$4
TN Technical Center at Shelbyville	8	30	\$46	\$40	\$2	\$3	\$6
TN Technical Center at Whiteville	3	19	\$17	\$26	\$1	\$2	\$4
TRICOR	26	123	\$151	\$166	\$9	\$10	\$25
Univ of Tennessee System	3,321	12,206	\$19,289	\$16,456	\$902	\$1,022	\$2,629
University of Memphis	503	2,422	\$2,921	\$3,265	\$170	\$203	\$481
Volunteer State Community College	68	358	\$395	\$483	\$25	\$30	\$69
Walters State Community College	82	399	\$476	\$538	\$28	\$33	\$79
Total	19,095	73,220	\$110,905	\$98,717	\$5,364	\$6,130	\$15,554

Appendix

Results by Employer (Dollars in Thousands)

Local Education

Employer	Count		Actuarial Liability		Benefit Payment	Normal Cost	ARC
	Retirees, Vested Terminated & Disabled Employees	Active	Retirees, Vested Terminated & Disabled Employees	Active			
Bells City Schools	7	30	\$59	\$60	\$3	\$5	\$10
Clay County Schools	36	85	\$312	\$219	\$12	\$14	\$36
Giles County Schools	151	601	\$1,063	\$964	\$42	\$66	\$153
Hamblen County Schools	395	712	\$3,191	\$1,057	\$101	\$92	\$273
Hawkins County Schools	180	878	\$1,277	\$1,094	\$42	\$84	\$185
Hickman County Schools	51	206	\$292	\$284	\$16	\$22	\$46
Jackson County Schools	28	141	\$226	\$324	\$5	\$20	\$44
Kingsport	316	873	\$7,462	\$11,019	\$243	\$1,064	\$1,897
McNairy County School System	91	587	\$652	\$1,079	\$28	\$66	\$140
Monroe County Board of Education	121	356	\$920	\$770	\$38	\$51	\$123
Overton County Schools	81	205	\$606	\$576	\$25	\$31	\$81
Scott County Schools	61	253	\$421	\$539	\$20	\$35	\$76
Sevier County Schools	195	998	\$1,304	\$2,295	\$51	\$142	\$295
Sullivan County Board of Education	464	1,329	\$13,308	\$18,638	\$165	\$1,501	\$2,863
Sumner County Board of Education	383	2,000	\$9,764	\$17,013	\$164	\$1,673	\$2,815
Union County Schools	27	261	\$203	\$465	\$10	\$36	\$65
Total Local Education Liability	2,587	9,515	\$41,060	\$56,396	\$965	\$4,905	\$9,102
Teachers - State as employer	14,289	58,679	\$96,131	\$62,658	\$4,038	\$4,406	\$11,517

Appendix

Results by Employer (Dollars in Thousands)

Local Government

Employer	Count		Actuarial Liability		Benefit Payment	Normal Cost	ARC
	Retirees, Vested Terminated & Disabled Employees	Active	Retirees, Vested Terminated & Disabled Employees	Active			
Bells, City of	2	45	\$8	\$45	\$1	\$3	\$5
Bolivar, City of	4	118	\$10	\$212	\$1	\$11	\$21
Clay County	3	0	\$17	\$0	\$2	\$0	\$1
Clinton, Town of	1	166	\$6	\$174	\$1	\$11	\$20
First Utility District of Hawkins Co	0	22	\$0	\$33	\$0	\$2	\$3
Greeneville, City of	19	510	\$88	\$636	\$7	\$38	\$71
Hamblen County Courthouse	13	720	\$44	\$677	\$5	\$43	\$77
Hartsville/Trousdale County Govt.	7	116	\$21	\$135	\$2	\$8	\$16
Hickman County	5	117	\$7	\$92	\$0	\$7	\$11
Humboldt Utility District	4	1	\$9	\$4	\$1	\$0	\$1
Humboldt, City of	5	230	\$36	\$268	\$2	\$16	\$30
Jackson Co Board of Ed	2	3	\$9	\$0	\$1	\$0	\$0
Jefferson, City of	1	125	\$4	\$182	\$1	\$10	\$19
Monroe County	6	561	\$35	\$510	\$4	\$33	\$58
Norris, City of	1	28	\$4	\$30	\$0	\$2	\$4
Overton County	3	671	\$23	\$654	\$5	\$45	\$75
Overton County Highway Department	3	8	\$8	\$12	\$1	\$1	\$1
Portland, City of	8	142	\$44	\$134	\$1	\$10	\$18
Scott County	5	429	\$37	\$400	\$2	\$28	\$48
Sevier County	5	1,387	\$15	\$1,159	\$5	\$83	\$137
Smithville Electric System	0	10	\$0	\$9	\$0	\$1	\$1
Sumner County	41	2,467	\$118	\$2,228	\$14	\$174	\$279
TN Co Hwy Official Association	1	2	\$11	\$9	\$1	\$0	\$1
Williamson County	9	2,320	\$17	\$2,128	\$3	\$167	\$263
Woodbury Housing Authority	2	33	\$5	\$40	\$0	\$2	\$4
Total	150	10,231	\$576	\$9,771	\$60	\$695	\$1,164