



## **Board of Regents of the University System of Georgia**

### **Actuarial Report GASB 45**

**Valuation Date:** July 1, 2012  
**Fiscal Year Ending:** June 30, 2013  
**Date of Report:** August 29, 2013



August 29, 2013

Vikki L. Williamson  
Asst. Vice Chancellor, Fiscal Affairs – Accounting and Reporting  
Board of Regents of the University System of Georgia  
270 Washington Street  
Atlanta, GA 30334-1450

Dear Vikki:

We respectfully present in this report the results of our GASB 45 actuarial valuation for the fiscal year ending June 30, 2013.

For your convenience, we have summarized the highlights and essential results of the valuation in the Summary of Results found in Section 1. The Table of Contents following this letter outlines sections included in this report.

Sincerely,

A handwritten signature in black ink that reads "Michael J. Schooley".

Michael Schooley, A.S.A., E.A.

cc: Stephen Lambert-Oswald  
Garry Spinks  
Jarod Spessard

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# 1. Summary of Results

## Financial Information

The following table illustrates key financial information for the fiscal year end.

	Fiscal Year Ending	
	06/30/2012	06/30/2013
(1) Net Claims		
(a) Total Claims	\$117,600,957	\$121,977,982
(b) Less Retiree Premiums	\$28,648,097	\$30,135,574
(c) Expected Net Claims	\$88,952,860	\$91,842,408
(2) Annual Required Contribution (ARC)	\$345,297,650	\$362,426,199
(3) Annual OPEB Cost (AOC)	\$349,583,164	\$367,810,038
(4) End of Year Net OPEB Obligation (NOO)	\$1,278,146,146	\$1,562,541,568

## Liabilities and Normal Cost

The following table illustrates the liabilities and normal cost used for the development of the foregoing financial information.

	Valuation Date	
	07/01/2011	07/01/2012
(1) Assets	\$123,230	\$165,684
(2) Present Value of Benefits		
(a) Active	\$3,761,599,909	\$3,761,678,486
(b) Inactive	\$1,635,461,773	\$1,948,460,107
(c) Total	\$5,397,061,682	\$5,710,138,593
(3) Accrued Liability		
(a) Active	\$1,859,039,465	\$1,810,509,829
(b) Inactive	\$1,635,461,773	\$1,948,460,107
(c) Total	\$3,494,501,238	\$3,758,969,936
(5) Normal Cost	\$171,238,942	\$171,697,446

## 1. Summary of Results (cont.)

### Net OPEB Obligation at Fiscal Year End

The chart below shows the development of the prior year's and current year's: Net OPEB Obligation (NOO):

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	06/30/2012	06/30/2013
(1) Net OPEB Obligation as of the beginning of the fiscal year	\$1,017,399,154	\$1,278,146,146
(2) Annual OPEB Cost (AOC) for the fiscal year	\$349,583,164	\$367,810,038
(3) Contributions made during the fiscal year:		
(a) To a Trust	\$88,836,172	\$83,414,616
(b) Outside a Trust	\$0	\$0
(c) Total	\$88,836,172	\$83,414,616
(4) Net OPEB Obligation as of the end of the fiscal year	\$1,278,146,146	\$1,562,541,568

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# 1. Summary of Results (cont.)

## Valuation Data

The following table summarizes key demographic statistics used in the valuation. The demographic data was collected as of July, 2013 and liabilities were rolled back to beginning of the fiscal year.

	07/01/2011	07/01/2012
(1) Number of Participants		
(a) Active Employees		
(i) Currently Receiving Medical	40,835	37,587
(ii) Currently Not Receiving Medical	N/A	6,847
(iii) Total	40,835	44,434
(b) Inactive		
(i) Currently Receiving Medical	13,010	15,060
(ii) Life Insurance Only	1,200	1,219
(iii) Total	14,210	16,279
(c) Total	55,045	60,713
(2) Active Statistics		
(a) Average Age	46	46
(b) Average Service	9	9
(3) Inactive Statistics (In Pay Status)		
(a) Average Age	71	72
(b) Single Coverage	7,647	7,089
(c) Family Coverage	5,363	7,971

## 2. Actuarial Certification

We have performed an actuarial valuation of Board of Regents of the University System of Georgia's postretirement medical program as of July 1, 2012. The employee data and claims information used in this valuation were submitted to us by the plan sponsor, or at the plan sponsor's direction. The demographic data was collected as of July 1, 2013. We did not audit any of the submitted data. On the basis of our review of the data, however, we believe that the information is sufficiently complete and reliable, and that it is appropriate for the purposes intended.

In our opinion, the assumptions and methodology underlying this valuation are consistent with the criteria outlined under GASB Statements 45.

The assumptions and methodology underlying this valuation conform to the Actuarial Standard of Practice No. 6, Measuring Retiree Group Benefit Obligations and Actuarial Compliance Guideline No. 3, published by the Actuarial Standards Board.

We have no relationship with the client which may impair or appear to impair the objectivity of our work.

### **Aon Consulting**



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Michael Schooley, A.S.A., E.A., M.A.A.A.  
Enrollment Number 11-06225  
7650 West Courtney Campbell Causeway  
Suite 1000  
Tampa, Florida 33607  
(813) 636-3000

### 3. Actuarial Commentary

#### Sensitivity Analysis

The Board's true liability for postretirement benefits depends on future economic and demographic factors which are difficult to predict accurately. The calculations in this report are based on the actuarial assumptions that are outlined in the assumption section of this report. Different assumptions could yield significantly different results. For example, the following table illustrates the sensitivity of medical trend assumptions on the Liability, Normal Cost and AOC.

Medical Benefits	Liability	Normal Cost	AOC
Current Assumption	\$3,758,969,936	\$171,697,446	\$367,810,038
1% Increase in Trend	\$4,313,182,243 14.7%	\$212,775,783 23.9%	\$434,359,216 18.1%

#### Beginning Medical Claim Level

Medical claims costs were developed based on actual experience from the 24 month period ending May 31, 2013.

#### Medical Trend Rate

We assume the medical claims and retiree premiums will increase at an annual trend rate of 7.80%/7.30% (Pre-Medicare/Medicare) for the year ending June 30, 2013, grading down to an ultimate rate of 4.50% in 2027/2028.

#### Health Care Reform

The excise tax on high cost plans effective in 2018 has a small impact on the results and is included in our calculations. Based on the following we concluded no other adjustments for Health Care Reform is required:

- We do not value lifetime or annual maximums in our calculations
- The employer already allows dependent children to stay on the plan until age 26.
- We did not adjust plan participation rates due to the new requirement for individuals to maintain minimum essential health care coverage

#### Changes in Actuarial Assumptions

Expected claims costs were updated to reflect actual claims experience. We included all active employees in our valuation this year. Last year we only included active employees who were currently in the medical plan. We have lowered the participation assumption from 90% to 80% based on change in data collection method.

#### Changes in Plan Provisions

None.

## 4. Forecast of Results

### 5 Year Forecast

The following table illustrates a 5-year forecast of Cash Outlay, Annual OPEB Cost (AOC) and Net OPEB Obligation (NOO).

Fiscal Year Ending	Cash Outlay <sup>1</sup>	Annual OPEB Cost (AOC)	End of Year Net OPEB Obligation (NOO)	
06/30/2013	\$83,414,616	\$367,810,038	\$1,562,541,568	
06/30/2014	\$123,544,637	\$394,382,636	\$1,833,379,567	
06/30/2015	\$134,289,687	\$421,115,346	\$2,120,205,226	
06/30/2016	\$145,602,506	N/A	\$4,922,879,850	Assumes New Rules
06/30/2017	\$157,602,085	N/A	\$5,358,158,924	Assumes New Rules
06/30/2018	\$170,604,825	N/A	\$5,822,880,568	Assumes New Rules

It is expected that GASB will significantly change how the accounting results are presented for fiscal years ending 2016 and later. Currently, the liability footnote in the Comprehensive Annual Financial Report (CAFR) is the NOO. The NOO is equal to a running total of the AOC less employer contributions. From the Table below, you can see the board has expensed \$2.062 billion and contribution \$499 million since GASB 45 was enacted. The difference of \$1.563 billion is the 2013 fiscal year end NOO footnoted in the CAFR.

Fiscal Year	AOC	Contribution	Increase in NOO
06/30/2008	\$224.9	\$87.1	\$137.8
06/30/2009	\$347.1	\$89.2	\$257.9
06/30/2010	\$374.4	\$69.9	\$304.5
06/30/2011	\$397.7	\$80.2	\$317.5
06/30/2012	\$349.6	\$88.8	\$260.8
06/30/2013	\$367.8	\$83.4	\$284.4
Total	\$2,061.5	\$498.6	\$1,562.9

The new rules require that you simply book the unfunded actuarial liability.

	07/01/2012	Projected 06/30/2016
Assets	\$165,684	\$216,775
Accrued Liability	\$3,758,969,936	\$4,922,879,850
Unfunded Liability	\$3,758,804,252	\$4,922,663,075

<sup>1</sup> Annual cash outlay for development of NOO assumed to be (i) equal to payout projections (page 13).

## 5. Assets

### Asset Reconciliation

Below is the reconciliation of Assets.

	Valuation Date	
	07/01/2012	07/01/2013
(1) Assets as of Prior Valuation Date	\$123,230	\$165,684
(2) Income		
(a) Employer Contributions	\$88,836,172	\$83,414,616
(b) Employee Contributions	\$28,648,097	\$30,135,574
(c) Other	\$12,940,079	\$14,999,814
(3) Investment Earnings	\$159,142	\$107,533
(4) Benefit Payments (Medical)	(\$116,642,662)	(\$114,296,083)
(5) Benefit Payments (Life)	(\$9,009,169)	(\$8,398,592)
(6) Administrative Expenses	(\$4,889,205)	(\$5,911,771)
(7) Assets as of the Valuation Date	\$165,684	\$216,775

## 6. Liability Summary

### Liabilities and Normal Cost

The following table illustrates the liabilities and normal cost used for the development of the financial information.

	Valuation Date	
	July 1, 2011	July 1, 2012
(1) Present Value of Benefits		
(a) Active	\$3,761,599,909	\$3,761,678,486
(b) Inactive	\$1,635,461,773	\$1,948,460,107
(c) Total	<u>\$5,397,061,682</u>	<u>\$5,710,138,593</u>
(2) Accrued Liability		
(a) Active	\$1,859,039,465	\$1,810,509,829
(b) Inactive	\$1,635,461,773	\$1,948,460,107
(c) Total	<u>\$3,494,501,238</u>	<u>\$3,758,969,936</u>
(3) Normal Cost	\$171,238,942	\$171,697,446
(4) Expected Net Claims	<u>\$95,734,000</u>	<u>\$114,393,182</u>

## 7. Development of Annual Required Contribution

### Calculation Details

The following table illustrates the development of the Annual Required Contribution underlying the foregoing financial information.

	Fiscal Year End	
	June 30, 2012	June 30, 2013
(1) Unfunded Accrued Liability	\$3,494,378,008	\$3,758,804,252
(2) Annual Required Contribution (ARC)		
(a) Amortization Amount	\$159,189,431	\$175,121,883
(b) Normal Cost	\$171,238,942	\$171,697,446
(c) Interest	\$14,869,277	\$15,606,870
(d) Total	\$345,297,650	\$362,426,199
(3) Less Amortization of NOO	\$41,497,448	\$52,132,738
(4) Plus Interest on NOO	\$45,782,962	\$57,516,577
(5) Annual OPEB Costs (AOC)	\$349,583,164	\$367,810,038

## 8. Unfunded Liability

### Actuarial (Gain)/Loss

Below is the development of the Actuarial (gain)/loss.

	Valuation Date	
	July 1, 2011	July 1, 2012
(1) Unfunded Accrued Liability as of Prior Valuation Date	\$3,383,977,404	\$3,494,378,008
(2) Amortization Payment	\$209,534,205	\$159,189,431
(3) Prior Year Funding Rate	4.50%	4.50%
(4) Interest	\$142,803,994	\$150,083,486
(5) Expected Unfunded Accrued Liability as of Valuation Date: (1) - (2) + (4)	\$3,317,247,193	\$3,485,272,063
(6) Actual Unfunded Accrued Liability as of Valuation Date		
(a) Accrued Liability	\$3,494,501,238	\$3,758,969,936
(b) Asset Value	\$123,230	\$165,684
(c) Unfunded Accrued Liability: (a) - (b)	\$3,494,378,008	\$3,758,804,252
(7) Actuarial (Gain)/Loss: (6)(c) - (5)	\$177,130,815	\$273,532,189

### Amortization of Unfunded Liability

The table below lists the amortization bases included in the calculation of the ARC as of July 1, 2012.

Date Established	Type of Base	Period		Balance		Annual Payment
		Original	Remaining	Original	Remaining	
07/01/2007	Initial Unfunded	30	25	\$1,985,200,000	\$1,840,684,040	\$87,102,437
07/01/2008	Loss	29	25	\$1,305,250,480	\$1,230,400,666	\$58,223,406
07/01/2009	Gain	28	25	(\$82,232,746)	(\$78,890,953)	(\$3,733,174)
07/01/2010	Loss	27	25	\$322,800,737	\$315,526,495	\$14,930,930
07/01/2011	Loss	30	29	\$177,130,815	\$177,551,815	\$7,441,515
07/01/2012	Loss	30	30	\$273,532,189	\$273,532,189	\$11,156,769
	Total Charges				\$3,758,804,252	\$175,121,883

## 9. Disclosure – Funding Progress

### Funding Progress

The following table illustrates the funding progress.

	Fiscal Year Ending	
	June 30, 2012	June 30, 2013
(1) Interest Rate	4.5%	4.5%
(2) Covered Payroll	\$2,526,211,986	\$2,466,313,700
(3) Assets	\$123,230	\$165,684
(4) Accrued Liability Begging of Fiscal Year		
(a) Active	\$1,859,039,465	\$1,810,509,830
(b) Inactive	\$1,635,461,773	\$1,948,460,107
(c) Total	\$3,494,501,238	\$3,758,969,936
(6) Unfunded Actuarial Accrued Liability	\$3,494,378,008	\$3,758,804,252
(7) Funded Ratio	0.0%	0.0%
(8) Unfunded as a Percent of Covered Payroll	138.3%	152.4%

### Funding Progress History

The following table illustrates the funding progress history.

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded as a Percent of Covered Payroll
07/01/2007	\$0	\$1,985,200,000	\$1,985,200,000	0.0%	\$2,201,804,000	90.2%
07/01/2008	\$290,000	\$3,258,200,000	\$3,257,910,000	0.0%	\$2,372,385,000	137.3%
07/01/2009	\$10,566,000	\$3,129,508,000	\$3,118,942,000	0.3%	\$2,399,532,000	130.0%
07/01/2010	\$122,538	\$3,384,099,942	\$3,383,977,404	0.0%	\$2,432,366,796	139.1%
07/01/2011	\$123,230	\$3,494,501,238	\$3,494,378,008	0.0%	\$2,526,211,986	138.3%
07/01/2012	\$165,684	\$3,758,969,936	\$3,758,804,252	0.0%	\$2,466,313,700	152.4%

## 10. Disclosure – Annual Cost and Net Obligation

### Annual OPEB Cost and Net OPEB Obligation

The following table illustrates the development of the Annual OPEB Cost and the fiscal year end Net OPEB Obligation required by GASB 45.

	Fiscal Year Ending	
	June 30, 2012	June 30, 2013
(1) Interest Rate	4.50%	4.50%
(2) Annual OPEB Cost (AOC)		
(a) Annual Required Contribution (ARC)	\$345,297,650	\$362,426,199
(b) Less Amortization of NOO	\$41,497,448	\$52,132,738
(c) Plus Interest on NOO	\$45,782,962	\$57,516,577
(d) Total AOC	\$349,583,164	\$367,810,038
(3) End of Year Net OPEB Obligation (NOO)		
(a) Actual Beginning of Year NOO	\$1,017,399,154	\$1,278,146,146
(b) Plus Actual AOC	\$349,583,164	\$367,810,038
(c) Minus Contributions	\$88,836,172	\$83,414,616
(d) End of Year NOO	\$1,278,146,146	\$1,562,541,568

## 11. Projected Payouts

### 10-Year Payout Projection

Annual payments expected based on assumptions and contributions detailed in the Methods and Assumptions Section.

Year Ending	Total (a)	Retiree Premium (b)	Employer Cost (c) = (a) - (b)
07/01/2013 - 06/30/2014	\$154,828,224	\$31,283,587	\$123,544,637
07/01/2014 - 06/30/2015	\$168,430,675	\$34,140,988	\$134,289,687
07/01/2015 - 06/30/2016	\$182,766,516	\$37,164,010	\$145,602,506
07/01/2016 - 06/30/2017	\$197,982,032	\$40,379,947	\$157,602,085
07/01/2017 - 06/30/2018	\$214,469,893	\$43,865,068	\$170,604,825
07/01/2018 - 06/30/2019	\$233,298,659	\$47,653,412	\$185,645,247
07/01/2019 - 06/30/2020	\$252,715,867	\$51,622,783	\$201,093,084
07/01/2020 - 06/30/2021	\$274,003,874	\$55,883,392	\$218,120,482
07/01/2021 - 06/30/2022	\$296,935,560	\$60,479,617	\$236,455,943
07/01/2022 - 06/30/2023	\$320,655,409	\$65,316,199	\$255,339,210

## 12. Valuation Data

### Summary Statistics – Actives

	Number of Employees Costed	Percentage of Total	Average Past Service	Average Attained Age
Males	20,580	46.3%	9.1	46.4
Females	23,854	53.7%	8.6	45.5
<b>TOTAL</b>	<b>44,434</b>	<b>100.0%</b>	<b>8.8</b>	<b>45.9</b>

### Age Distribution – Retirees, Widows and Disableds

Age	Medical		Life Insurance Only	All Retirees
	Single	Family		
<50	59	99	18	176
50-54	188	141	39	368
55-59	515	376	95	986
60-64	1,151	1,112	176	2,439
65-69	1,667	1,546	243	3,456
70-74	1,513	1,537	227	3,277
75-79	978	1,219	158	2,355
80-84	630	951	126	1,707
85+	388	990	137	1,515
<b>Total</b>	<b>7,089</b>	<b>7,971</b>	<b>1,219</b>	<b>16,279</b>

## 12. Valuation Data (cont.)

### Active Age - Service Distribution

Shown below is the distribution of active participants based on age and service as of the valuation date.

Age	Years of Service As Of 7/1/2013									Total
	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	1,007	49	0	0	0	0	0	0	0	1,056
25 - 29	3,138	643	22	0	0	0	0	0	0	3,803
30 - 34	3,604	1,372	360	25	0	0	0	0	0	5,361
35 - 39	2,800	1,634	713	186	0	0	0	0	0	5,333
40 - 44	2,212	1,675	1,022	569	165	9	0	0	0	5,652
45 - 49	1,869	1,321	1,026	740	445	218	10	0	1	5,630
50 - 54	1,589	1,236	1,053	809	577	456	90	5	0	5,815
55 - 59	1,361	1,104	961	824	725	522	149	40	0	5,686
60 - 64	866	832	607	518	435	323	175	48	6	3,810
65 - 69	351	371	288	188	174	112	81	53	13	1,631
70 & Up	149	147	120	80	64	27	20	26	24	657
<b>Totals</b>	<b>18,946</b>	<b>10,384</b>	<b>6,172</b>	<b>3,939</b>	<b>2,585</b>	<b>1,667</b>	<b>525</b>	<b>172</b>	<b>44</b>	<b>44,434</b>

The following table shows averages in total for active participants in this valuation.

Averages	Amount
Age:	45.89
Service:	8.84

## 13. Summary of Principal Plan Provisions

### General Eligibility Rules

Former employees and beneficiaries satisfy retirement under any one of the following conditions:

- (1) Disabled with at least 10 years of service,
- (2) Retire at age 60 with at least 10 years of service,
- (3) Retire with 25 years of service, regardless of age if hired before November 1, 2002, or
- (4) Retire with 30 years of service, regardless of age if hired after November 1, 2002.

### Medical and Drug Benefits Covered

Eligible retirees are generally have a choice of a POS, HDHP, and two HMOs. The HMO plans are frozen to new enrollment for pre Medicare retirees in 2012.

Plan Type	HMO	POS		HDHP	
		In	Out	In	Out
(1) Deductible	\$0	\$300	\$400	\$1,500	\$1,500
(2) Coinsurance	100%	100%	60%	90%	70%
(3) Copayment	\$15	\$20	\$0	\$0	\$0
(4) Out-Of-Pocket Limit	\$0	\$1,000	\$2,000	\$3,000	\$6,000

### Employee Costs

The chart below shows the calendar year 2013 monthly retiree cost of medical and drug:

	HMO	POS	HDHP
(1) Pre Medicare			
(a) Individual	\$142.00	\$180.00	\$47.00
(b) Retiree Plus Spouse	\$297.00	\$377.00	\$96.00
(2) Medicare Eligible			
(a) Individual	\$114.00	\$101.00	\$47.00
(b) Retiree Plus Spouse	\$228.00	\$203.00	\$96.00

### Spouse's Covered

Spouses' of retirees, spouses of active employees eligible for retirement, or surviving spouses' of retirees of the Board of Regents who meet the above conditions may elect medical coverage.

### Life

Retirees receive a \$25,000 life insurance benefit.)

## 14. Valuation Methods and Assumptions

### Cost Method

Projected Unit Credit cost method was used.

### Amortization Method

Past service liability is amortized over a closed 30 year period, as a percent of payroll.

### Asset Method

Fair Value.

### Employees Included in the Calculations

All employees who meet retirement or disability eligibility may participate in the Board's medical plan. 80% of all employees (Regardless of current medical coverage) are assumed to elect medical coverage, and 100% are assumed to elect life insurance coverage.

### Future Medical Plan Election

Future retirees who elect medical coverage are expected to elect between available options as follows.

		POS	HDHP	BCBS HMO	Kaiser HMO
(1)	Pre Medicare	75%	25%	0%	0%
(2)	Post Medicare	95%	2%	0%	3%

### Marital Status and Age of Spouse

The following marriage, family coverage and spouse's age difference assumption have been made for active participants:

		Male	Female
(1)	Elect Spouse Coverage	61%	61%
(2)	Spouse Age Difference	3 years younger	3 years older

### Interest Discounting and Salary Growth

(1)	Interest Rate	4.50%
(2)	General Inflation	2.50%
(3)	Salary Growth	3.00%
(4)	Salary Scale	4.00%

## 14. Valuation Methods and Assumptions (cont.)

### Claims

The chart below shows the blended medical and drug claim level per person including retention costs used for the 12-month period beginning July 1, 2012.

(1) Individual Coverage		
(a)	Age 52	\$6,545
(b)	Age 57	\$7,708
(c)	Age 62	\$9,292
(d)	Age 67	\$4,455
(e)	Age 72	\$5,045
(f)	Age 77	\$5,589

### Trend Assumptions

The chart below shows the assumed trend of our base calculation. Sensitivity calculations add 1.00% to the rates below.

	Pre 65 Claims	Medicare Eligible Claims
07/01/2012 – 06/30/2013	7.80%	7.30%
07/01/2013 – 06/30/2014	7.50%	7.00%
07/01/2014 – 06/30/2015	7.30%	6.80%
07/01/2015 – 06/30/2016	7.10%	6.60%
07/01/2016 – 06/30/2017	6.80%	6.30%
07/01/2017 – 06/30/2018	6.60%	6.10%
07/01/2018 – 06/30/2019	6.40%	5.90%
07/01/2019 – 06/30/2020	6.20%	5.70%
07/01/2020 – 06/30/2021	6.00%	5.50%
07/01/2021 – 06/30/2022	5.70%	5.20%
07/01/2022 – 06/30/2023	5.50%	5.00%
07/01/2023 – 06/30/2024	5.40%	4.90%
07/01/2024 – 06/30/2025	5.30%	4.80%
07/01/2025 – 06/30/2026	4.90%	4.50%
07/01/2026 – 06/30/2027	4.70%	4.50%
Ultimate	4.50%	4.50%

## 14. Valuation Methods and Assumptions (cont.)

### Decrement Assumptions

Below is a summary of decrements used in this valuation. Sample Retirement, Disability, and Termination rates are illustrated in the tables below.

<b>Mortality Decrements</b>	<b>Description</b>
(1) Healthy	RP 2000 Projected to 2018
(2) Disabled	1983 Group annuity Mortality Table for males and females, loaded 10%

<b>Retirement Rates</b>	
<b>Attained Age</b>	<b>Rate</b>
50 - 54	2.5%
55 - 59	5.0%
60	20.0%
61	15.0%
62	40.0%
63 - 64	20.0%
65	80.0%
66 - 74	10.0%
75+	100.0%

<b>Withdrawal Rates (based on year of Service)</b>				
<b>Attained Age</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3+</b>
20	0.5969	0.3582	0.2388	0.1194
25	0.5812	0.3487	0.2325	0.1162
30	0.5605	0.3363	0.2242	0.1121
35	0.5277	0.3166	0.2111	0.1055
40	0.4698	0.2819	0.1879	0.0940
45	0.3772	0.2263	0.1509	0.0754
50	0.2417	0.1450	0.0967	0.0483
55	0.0863	0.0518	0.0345	0.0173
60	0.0081	0.0048	0.0032	0.0016

## 14. Valuation Methods and Assumptions (cont.)

### Decrement Assumptions (cont.)

Disability Incidence		
Attained Age	Male	Female
20	0.0007	0.0008
25	0.0007	0.0008
30	0.0007	0.0008
35	0.0007	0.0008
40	0.0011	0.0018
45	0.0019	0.0027
50	0.0035	0.0036
55	0.0066	0.0053
60	0.0101	0.0072
65	0.0133	0.0090

### Changes in assumptions since prior valuation

Expected claims costs were updated to reflect actual claims experience. We have updated the participation assumption to 80% based on recent data.

## 15. Glossary

### **Accrual Accounting**

An accounting method that recognizes the cost of benefits when they are earned.

### **Actuarial Accrued Liability**

The present value of benefits attributable to current service.

### **Amortization**

The gradual elimination of past liability in regular payments, which include principal and interest, over a period of time.

### **Annual OPEB Cost**

The employer's periodic expense on an accrual-basis.

### **Annual Required Contributions**

The sum of the past service amortization payment and the current annual normal cost that if contributed to the plan would result in no OPEB Obligation for that year.

### **Entry Age Actuarial Cost Method**

A method under which the present value of future benefit of each plan participant is distributed based on service or earnings between entry age and assumed exit age.

### **Net OPEB Obligation**

The cumulative difference between past Annual OPEB Cost and past employer contributions

### **Normal Cost**

The amount of plan benefits and expenses that is allocated to a valuation year, based on a cost method.

### **Pay As You Go Expensing**

An accounting method that recognizes the cost of benefits when they are paid.

### **Projected Unit Credit Actuarial Cost Method**

A method under which the present value of future benefit of each plan participant is distributed based on service or earnings between entry age and assumed exit age.