

STATE OF WYOMING RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT
FOR THE YEAR BEGINNING JANUARY 1, 2010

April 7, 2010

Board of Trustees
State of Wyoming Retirement System
6101 Yellowstone Road
Suite 500
Cheyenne, WY 82002

Dear Board of Trustees:

Subject: Actuarial Valuation as of January 1, 2010

We are pleased to present the report of the actuarial valuation of the State of Wyoming Retirement System (“the Fund”) for the plan year commencing January 1, 2010. This report describes the current actuarial condition of the Fund, determines the calculated employer contribution rate (the actuarially required rate), and analyzes changes in this contribution rate from the prior year. Valuations are prepared annually, as of January 1, the first day of the Fund’s plan year.

Financing objectives and funding policy

The employer contribution rate is determined by the Fund’s statute, based on the Board’s funding policy and Fund’s governing law. The purpose of this actuarial valuation is to determine whether or not this statutory contribution is sufficient to meet the obligations of the Fund.

Progress toward realization of financing objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan’s funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The funded ratio, based upon the assumption of no further cost-of-living adjustment increases as of January 1, 2010 is 87.5%. In the January 1, 2009 valuation, this funded ratio was 78.6%.

Due to the current actuarial value of assets being higher than the market value of assets, continued recovery in the investment markets will be needed over the next few years (annual returns in excess of 8.0%) to keep the Plan’s funded ratio and unfunded actuarial accrued liability relatively stable in the short-term.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2010. There were no changes in the benefit provisions since the prior valuation.

The benefit provisions are summarized in Appendix B of the report.

Assumptions and methods

Actuarial assumptions and methods are set by the Board, based upon recommendations made by the plan's actuary. The current assumptions used in the valuation were adopted by the Board based on the recommendations from an experience study performed by the prior actuary as of December 31, 2007.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations presented in our report are intended to provide information for rational decision making.

The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in Governmental Accounting Standards Board (GASB) Statement Number 25.

All assumptions and methods are described in Appendix A of our report.

Data

Member data for retired, active and inactive members was supplied as of January 1, 2010 by the Fund's staff. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data.

Asset and financial information as of January 1, 2010 was supplied to us by McGee, Hearne & Paiz, LLP.

Plan Experience

As part of each valuation, we examine the Fund's experience relative to the assumptions. As experience in a given year deviates from the assumptions, a gain occurs if the liabilities grow slower than the assumption set anticipates and a loss occurs if the liabilities grow faster. This past fiscal year the Fund had a total liability loss of approximately \$62 million. The aggregate results of these analyses are disclosed in Tables 4 & 5 under Section III of the report.

Actuarial Certification

All of the tables contained in this actuarial valuation report and in the actuarial section of the Fund's Comprehensive Annual Financial Report (CAFR) were prepared by Gabriel, Roeder, Smith & Company. Historical information for years prior to 2010 was prepared by the prior actuarial firm and was not subjected to our actuarial review.

We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Fund as of January 1, 2010.

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries and consultants. Mark Randall, Joseph Newton, and Leslie Thompson are Enrolled Actuaries and Members of the American Academy of Actuaries, and all meet the Qualification Standards of the American Academy of Actuaries. Finally, all of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



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SECTION I

EXECUTIVE SUMMARY

Executive Summary

Item	January 1, 2010	January 1, 2009
	No COLA	No COLA
1. Contributions:		
a. Total Normal Cost	10.86%	10.10%
b. Employee Contributions	(5.57%)	(5.57%)
c. Net Employer Normal Cost	5.29%	4.53%
d. Amortization Payment	2.60%	4.45%
e. Administrative Expenses	0.17%	0.17%
f. Required	8.06%	9.15%
g. Statutory	(5.68%)	(5.68%)
h. Shortfall/(Surplus)	2.38%	3.47%
2. Funding Elements:		
a. Market Value of Assets (MVA)	\$4,971,154,914	\$4,029,895,818
b. Actuarial Value of Assets (AVA)	\$5,742,541,676	\$4,835,874,981
c. Actuarial Accrued Liability (AAL)	\$6,565,676,761	\$6,152,122,000
d. Unfunded/(overfunded) actuarial accrued liability (UAAL)	\$823,135,085	\$1,316,247,019
3. GASB 25/27 Elements:		
a. Annual required contribution	\$136,990,330	\$145,015,000
b. Actual contributions	N/A	88,451,655
c. Percentage contributed	N/A	61.0%
d. Funded ratio on an actuarial basis (AVA/AAL)	87.5%	78.6%
e. Funded ratio on a market basis (MVA/AAL)	75.7%	65.5%
f. Covered payroll	\$1,698,835,822	\$1,585,727,706

Contribution Requirements and COLA Comparison

Item	January 1, 2010					
	No COLA 0.00%		Break-Even 0.00%		Max COLA 3.00%	
	Dollar	% of Pay	Dollar	% of Pay	Dollar	% of Pay
1. Funding Elements						
a. Actuarial Value of Assets (AVA)	\$5,742,541,676		\$5,742,541,676		\$5,742,541,676	
b. Actuarial Accrued Liability (AAL)	6,565,676,761		6,565,676,761		8,391,588,656	
c. Unfunded/(overfunded) actuarial accrued liability	823,135,085		823,135,085		2,649,046,980	
2. Contributions:						
a. Total Normal Cost	\$184,499,149	10.86%	\$184,499,149	10.86%	\$231,905,034	13.65%
b. Employee Contributions	(94,625,155)	(5.57%)	(94,625,155)	(5.57%)	(94,625,155)	(5.57%)
c. Net Employer Normal Cost	\$89,873,994	5.29%	\$89,873,994	5.29%	\$137,279,879	8.08%
d. Amortization Payment	44,146,736	2.60%	44,146,736	2.60%	142,074,832	8.36%
e. Administrative Expenses	2,969,600	0.17%	2,969,600	0.17%	2,969,600	0.17%
f. Required	\$136,990,330	8.06%	\$136,990,330	8.06%	\$282,324,311	16.61%
g. Statutory	(96,493,875)	(5.68%)	(96,493,875)	(5.68%)	(96,493,875)	(5.68%)
h. Shortfall/(Surplus)	\$40,496,456	2.38%	\$40,496,456	2.38%	\$185,830,436	10.93%
3. Funded Ratios						
a. Funded ratio on an actuarial basis (AVA/AAL)	87.5%		87.5%		68.4%	
b. Funded ratio on an market basis (MVA/AAL)	75.7%		75.7%		59.2%	

SECTION II
DISCUSSION

Contribution Requirements

- Exhibits throughout this report are based primarily, unless stated otherwise, on the assumption of no future cost-of-living increases (COLAs).
- Rates shown on the Executive Summary are calculated rates for the twelve-month period beginning January 1, 2010, based on current board policy
- Table 5 under Section III of the report reconciles the calculated contribution rate from the prior valuation date to the current valuation date
- The most significant factor in the decrease in the rate was the recognition of the Fiscal Year 2009 investment gain. There were no changes to the benefit provisions reflected in this actuarial valuation
- There were no changes to the actuarial assumptions or methods
- The amortization payment is based upon the following assumptions:
 - 30-year open funding period beginning January 1, 2010
 - Contribution amounts are calculated in such a way that they will increase as a level percentage of payroll
 - Total payroll increases are assumed at 4.50% per year
 - Future growth in the number of active members is not reflected in the annual valuation
- The System's funded ratio increased from the prior year and the actuarially determined contribution rate decreased from the prior year primarily due to the gain on the actuarial value of assets (17.89% return versus the assumed rate of return of 8.00% per annum)
 - Analysis of the change in contribution rates is shown in Table 1 under Section III of the report

Calculation of Contribution Rates

The funds available to pay benefits come from two sources, contributions and investment income on those contributions (the majority of the funds available to pay benefits typically come from investment income). The Fund receives contributions from two sources, employer contributions which are currently based on a fixed schedule and member contributions which are determined as a percentage of pay. As shown in Table 2 under Section III of the report, the employer contribution rate has three components:

- The amortization percentage (UAAL%)
- The normal cost percentage (NC%)
- Administrative expenses

The NC% is the theoretical amount which would be required to pay the members' benefits if this amount had been contributed from each member's entry date and if the fund's experience exactly followed the actuarial assumptions. The NC% is shown in Table 3 under Section III of the report.

Members are required to make employee contributions and only the excess of the NC% over the member contribution rate is included in the employer contribution rate.

The actuarial accrued liability (AAL) is the difference between (i) the actuarial present value of all future benefits for all current participants of the fund, including active, inactive and retired members, and (ii) the actuarial present value of future normal costs. Thus, the AAL represents the liability associated with past years. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and the actuarial value of assets (AVA). It is the shortfall/excess between the liability associated with prior years (the AAL) and the assets actually accumulated (the AVA). This shortfall/excess can arise from several sources, including actuarial gains and losses which are caused by differences between actual experience and the plan's assumptions, changes to the plan's actuarial assumptions, and amendments to the benefit provisions.

The UAAL% is the amount required to fund this difference. It is the amount, expressed as a level percentage of payroll, necessary to amortize the UAAL. This amortization is over a period of 30 years beginning January 1, 2010. The Executive Summary shows the UAAL%, called Amortization Payment, compared to that of last year.

The calculated rate is used in determining the contributions necessary to meet the GASB Annual Required Contribution (ARC) for the twelve-month period beginning January 1, 2010. As of January 1, 2010, the employer contribution is set at 5.68% of payroll, which would not meet the ARC. However, as of September 1, 2010, the employer contribution rate will be increased to 7.12% of payroll while the employee contribution rate will be increased from 5.57% to 7.00% of pay, which will meet the ARC at that time.

Financial Data and Experience

As of January 1, 2010, the Fund has a total market value of \$4,971 million. Financial information was received from McGee, Hearne & Paiz, LLP.

Table 7 under Section III of the report shows a reconciliation of the market values between the beginning and end of 2009.

During 2009, the dollar-weighted total investment return on the market value of assets (MVA) was 23.07%, as shown in Table 10 under Section III of the report.

In determining the contribution rates and funded status of the System, an actuarial value of assets (AVA) is used rather than the market value of assets. The method used to compute the AVA takes the difference between actual earnings and expected earnings (based on the annual assumed 8.00% investment return rate) each year, and recognizes the difference over five years, at 20% per year. This “smoothing method” is intended to help reduce the volatility of the contribution rates from year to year.

The development of the AVA is shown in Table 9 under Section III of the report. The AVA is \$5.7 billion. The AVA is 115.5% of the MVA as of December 31, 2009, compared to 120.0% last year. The difference between the AVA and the MVA is the deferred gains and losses. As of January 1, 2009, the total deferred loss was \$806 million. As of January 1, 2010, the total deferred loss was \$771 million.

In addition to the market return, Table 10 also shows the return on the actuarial value of assets for the Fund. For 2009, this return was 17.89%. Because this is greater than the assumed 8.00% investment return, an actuarial gain occurred decreasing the unfunded actuarial accrued liabilities of the System by \$480.2 million.

Member Data

Member data as of January 1, 2010 was supplied electronically by the System's staff. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall.

Table 15 under Section III of the report shows the number of members by category (active, inactive, retired, etc.) along with member statistics. Tables 16 through 28 show summaries of certain historical data and include membership statistics.

Total active member payroll increased 7.13% last year, compared with an 8.43% increase the prior year.

This uptrend in payroll is significant because the methodology used in the valuation to amortize the unfunded actuarial accrued liability assumes a growing payroll into the future. If the payroll does not grow at the assumed 4.50% per year average, then the current amortization payments may be understated and the funding position of the System will not strengthen as assumed over time. Higher than expected payroll growth, however, has the opposite effect of this and the funded position of the System should trend to 100%. Table 5 under Section III of the report shows the Effect of Payroll Growing Faster than Assumption on the contribution. For the past year, payroll for the plan increased more than expected, so the effect is a decrease in the calculated contribution rate of 0.07% of payroll.

Benefit Provisions

Appendix B of the report includes a more detailed summary of the benefit provisions for the Fund. A brief summary is as follows:

- *Normal Retirement Eligibility*
 - Age 60 with at least four years of service
- *Normal Retirement Benefit*
 - 2.125% of employee's Final Average Salary for each year of credited service for the first 15 years of service credit plus 2.25% of Final Average Salary for any years of service credit exceeding 15 years. This amount is reduced by 5.0% per year that the employee is under age 60. However, members retiring with a combined age and service of at least 85 receive an unreduced benefit. Employees hired prior to July 1, 1981 may be entitled to benefits earned under a different formula.
- *Normal Form of Payment*
 - Monthly benefit for life with a lump-sum death benefit equal to the excess (if any) of the employee contributions with interest over the total benefits received.
- *Employee Contributions* are required
 - 5.57% of pay.
- *Post-retirement Cost of Living Adjustments (COLA)* may be granted each year up to a maximum of 3.00%. The Board may decide not to grant the full COLA in any year if the increase is deemed not to be actuarially sound. The balance of a COLA greater than 3.00% may be deferred to a future year when the COLA would be less than the maximum.

This valuation reflects all benefits offered to the Fund's members. There are no ancillary benefits that might be deemed a Fund liability if continued beyond the availability of funding by the current funding source.

There have been no changes to plan provisions since the prior valuation.

Actuarial Methods and Assumptions

Appendix A of the report includes a summary of the actuarial assumptions and methods used in this valuation. A few highlights are listed as follows:

- Costs are determined using the Entry Age Normal actuarial cost method, calculated as a level percentage of payroll.
- The unfunded actuarial accrued liability is amortized over 30 years.
- The assumed annual investment return rate is 8.00%, with assumed inflation of 3.50%.
- Payroll is assumed to increase at 4.50% per year.
- Inactive vested participants are assumed to retire at age 60 or on the valuation date if over age 60.
- No benefit data is available for members entitled to deferred benefits. The present value of benefits expected to be paid to vested inactive non-retired members is approximated using the data provided.

Using the current mortality tables, the average future lifetime for current pensioners is 15.7 years.

There have been no changes in actuarial assumptions or methods since the prior valuation.

GASB and Funding Progress

Governmental Accounting Standards Board Statement Number 25 (GASB 25) contains certain accounting requirements for the Fund. In particular, it requires the inclusion of two special schedules in the Fund's annual report:

1. Schedule of Funding Progress
2. Schedule of Employer Contributions

Information needed to prepare the Schedule of Funding Progress is included in Table 12 under Section III of the report.

Governmental Accounting Standards Board Statement Number 27 (GASB 27) also requires that plans calculate an Annual Required Contribution (ARC), and, if actual contributions received are less than the ARC, this must be disclosed.

Under GASB 27, the ARC must be calculated in accordance with certain parameters. In particular, it must include a payment to amortize the unfunded actuarial accrued liability (UAAL). This amortization payment must be computed using a funding period no greater than 30 years. Further, the amortization payment included in the ARC may be computed as a level dollar amount, or it may be computed as an amount which increases with payroll (level percentage of payroll). However, if payments are computed on a level percentage of payroll approach, the payroll growth assumption may not anticipate future membership growth.

Since the recommended employer contribution rate of 8.06% is computed as a level percentage of payroll using an amortization period of 30 years from the valuation date, the calculated rate meets the definition of an acceptable ARC.

SECTION III

SUPPORTING EXHIBITS

Calculation of Annual Required Contribution Rate
(Assumes No Future Cost-Of-Living Increases)

Item	January 1, 2010	January 1, 2009
1. Projected valuation payroll	\$ 1,698,835,822	\$ 1,585,727,706
2. Present value of future pay	\$ 11,053,832,566	\$10,733,608,593
3. Employer normal cost rate	5.29%	4.53%
4. Actuarial accrued liability for active members		
a. Present value of future benefits for active members	\$ 4,773,514,557	\$ 4,658,537,527
b. Less: present value of future employer normal costs*	(524,605,853)	(704,861,528)
c. Less: present value of future employee contributions*	(616,934,433)	(597,861,999)
d. Actuarial accrued liability	<u>\$ 3,631,974,271</u>	<u>\$ 3,355,814,000</u>
5. Total actuarial accrued liability for:		
a. Retirees and beneficiaries	\$ 2,636,317,583	\$ 2,515,102,000
b. Disabled members	29,980,220	---
c. Inactive members	267,404,687	281,206,000
d. Active members (Item 5d)	3,631,974,271	3,355,814,000
e. Total	<u>\$ 6,565,676,761</u>	<u>\$ 6,152,122,000</u>
6. Actuarial value of assets (Table 9)	\$ 5,742,541,676	\$ 4,835,874,981
7. Unfunded actuarial accrued liability (UAAL) (Item 5e - Item 6)	\$ 823,135,085	\$ 1,316,247,019
8. Funding period	30 years	30 years
9. Assumed payroll growth rate	4.50%	4.50%
10. Employer Contribution requirement		
a. UAAL amortization payment as % of pay	2.60%	4.45%
b. Employer normal cost	5.29%	4.53%
c. Administrative Expense	0.17%	0.17%
d. Contribution requirement (a + b + c)	<u>8.06%</u>	<u>9.15%</u>

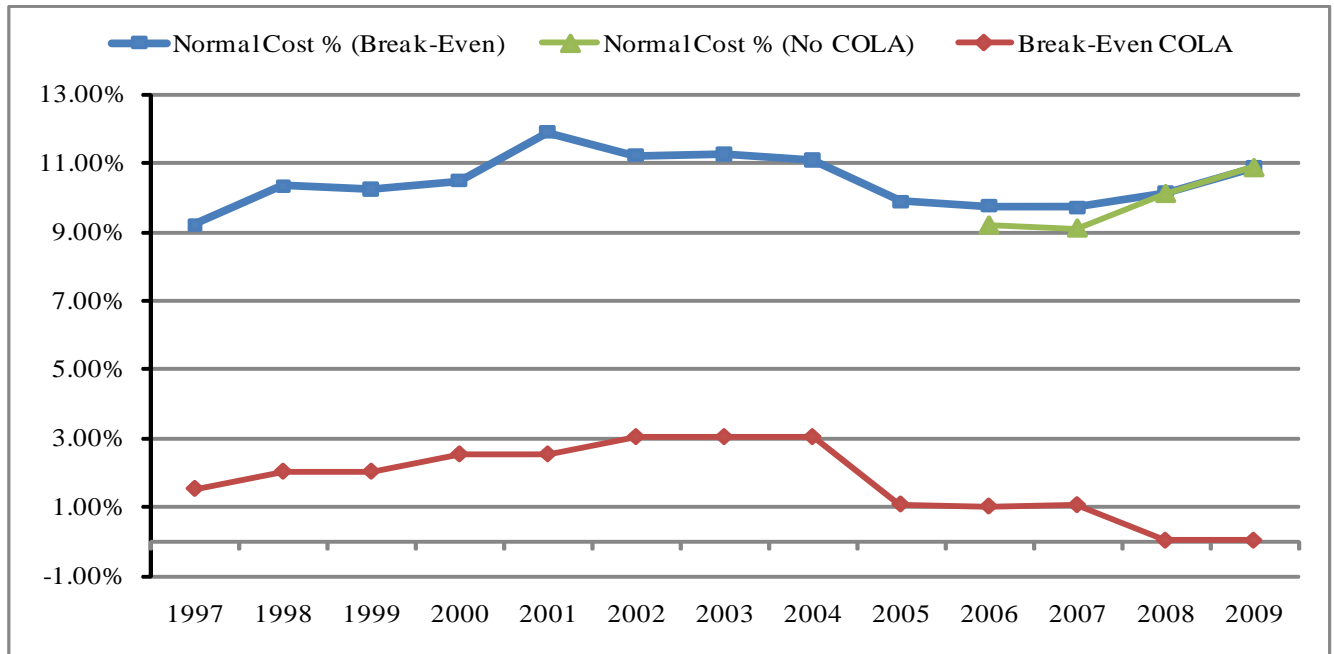
* For 2009, the present value of future employee contributions is approximated using the 2009 statutory employee contribution rate of 5.57%.

Cost Breakdown
(Assumes No Future Cost-Of-Living Increases)

Item	Present Value of Future Normal Costs (1)	Actuarial Accrued Liabilities (2)	Total Present Value of Benefits (3) = (1) + (2)
Age and service allowances based on total service and disability benefits likely to be rendered by present active members	\$915,709,986	\$3,592,826,092	\$4,508,536,078
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	29,726,751	64,565,131	94,291,882
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	196,103,549	(25,416,952)	170,686,597
Benefits likely to be paid to vested inactive members	0	238,865,514	238,865,514
Benefits to be paid to members due refunds	0	28,539,173	28,539,173
Benefits to be paid to current retirees, disabled members, beneficiaries, and future beneficiaries of current retirees	0	2,666,297,803	2,666,297,803
Total	\$1,141,540,286	\$6,565,676,761	\$7,707,217,047
Actuarial Value of Assets	0	5,742,541,676	5,742,541,676
Liabilities to be covered by Future Contributions	\$1,141,540,286	\$823,135,085	\$1,964,675,371

History of Plan Normal Cost

Fiscal Year Ending December 31 (1)	Normal Cost as Percent of Payroll Break-Even		Break-Even COLA (3)
	No COLA (2a)	COLA (2b)	
1997		9.19%	1.50%
1998		10.31%	2.00%
1999		10.22%	2.00%
2000		10.47%	2.50%
2001		11.87%	2.50%
2002		11.19%	3.00%
2003		11.24%	3.00%
2004		11.07%	3.00%
2005		9.87%	1.05%
2006	9.17%	9.73%	0.99%
2007	9.08%	9.70%	1.03%
2008	10.10%	10.10%	0.00%
2009*	10.86%	10.86%	0.00%



* The methodology for calculating the normal cost as a rate of payroll was modified since the prior valuation to mimic the current policy of receiving the contributions throughout the year on behalf of each member who is active during a specific payroll period. The prior methodology assumed the salary for all members active on the valuation date would be available for the entire year as a basis to make contributions on behalf that member. The new methodology reflects the pattern of expected termination and retirement which will occur throughout the year for those members active on the valuation date, meaning less salary will be available as a basis for contributions as these members leave active status throughout the year.

Calculation of Total Actuarial Gain/(Loss)
(Assumes No Future Cost-Of-Living Increases)

Item	January 1, 2010
1. Derivation of Experience Gain/(Loss)	
a. Unfunded Actuarial Accrued Liability (UAAL) - Previous Valuation	\$1,316,247,000
b. Normal Cost (NC) - Previous Valuation	160,112,000
c. Actuarially Determined Contribution - Previous Year	233,340,034
d. Interest Accrual:	
(i) For whole year on (a)	105,299,760
(ii) For half year on (b) - (c) + (d)	(2,929,121)
(iii) Total Interest: (d)(i) + (d)(ii)	102,370,639
e. Change in UAAL due to Plan Changes	-
f. Change in UAAL due to Assumption change	-
g. Expected UAAL Current Year: (a) + (b) - (c) + (d)(iii) + (e) + (f)	1,345,389,605
h. Actual UAAL Current Year	823,135,085
i. Experience Gain/(Loss): (g) - (h)	\$522,254,520
j. Experience Gain/(Loss) as a % of Actuarial Accrued Liability	7.95%
2. Approximate Portion of Gain/(Loss) Due to Investments (at Actuarial Value)	\$480,226,535
3. Approximate Portion of Gain/(Loss) Due to Contributions Higher or Lower than Expected	\$104,235,508
4. Approximate Portion of Gain/(Loss) Due to Liabilities: (1) - (2)	(\$62,207,524)
a. Age & Service Retirements	6,467,981
b. Disability Retirements	(458,048)
c. Death-In-Service Retirements	(76,703)
d. Withdrawal From Employment	(18,206,056)
e. New Entrants	(6,312,063)
f. Pay Increases	43,312,732
g. Break-even COLA Being Granted	-
h. Expenses Higher or Lower Than Expected	(484,629)
i. Death After Retirement	4,650,284
j. Other	(91,101,023)
k. Other as a % of Actuarial Accrued Liability	-1.39%

Change in Calculated Contribution Rate Since the Prior Valuation
(Assumes No Future Cost-Of-Living Increases)

Item	January 1, 2010
1. Calculated contribution rate as of January 1, 2009	9.15%
2. Change in contribution rate during year	
a. Change in employer normal cost	0.76%
b. Assumption changes	0.00%
c. Recognition of prior asset losses (gains)	1.28%
d. Actuarial (gain) loss from current year asset performance	-2.87%
e. Actuarial (gain) loss from liability sources (excluding expenses)	0.20%
f. Shortfall between contribution made and required contribution	-0.34%
g. Effect of payroll growing faster than assumption	-0.07%
h. Effect of resetting the amortization period to 30	-0.05%
i. Other changes	0.00%
j. Total change	-1.09%
3. Calculated contribution rate as of January 1, 2010	8.06%

Statement of Plan Net Assets

Assets at Market Value		
Item	2010	2009
1. Cash and Cash Equivalents (Operating Cash)	\$214,352,027	\$206,608,124
2. Receivables		
a. Insurance premium tax	\$0	\$0
b. Buy backs	\$81,981	\$122,971
c. Employee contributions	\$4,607,040	\$5,757,532
d. Employer contributions	\$4,695,350	\$5,977,260
e. Securities sold	\$16,700,186	\$5,960,099
f. Accrued interest and dividends	\$23,076,760	\$19,304,545
g. Currency contract receivable	\$185,718,183	\$315,884,159
h. Other	\$97,273	\$192,293
i. Rebate and Fee Income Receivable	\$0	\$0
j. Total Receivables	\$234,976,773	\$353,198,859
3. Investments, at fair value	\$5,610,410,999	\$4,028,974,602
4. Liabilities		
a. Benefits and refunds payable	(\$1,412,936)	(\$103,782)
b. Securities purchased	(\$69,364,560)	(\$64,965,359)
c. Administrative and consulting fees payable	(\$6,770,923)	(\$4,832,262)
d. Currency contract payable	(\$187,374,562)	(\$312,386,664)
e. Securities lending collateral	(\$823,661,904)	(\$176,597,700)
f. Total Liabilities	(\$1,088,584,885)	(\$558,885,767)
5. Total Market Value of Assets Available for Benefits	\$4,971,154,914	\$4,029,895,818

Reconciliation of Plan Net Assets

Assets at Market Value		
Item	2010	2009
A. Market Value of Assets at Beginning of Year	\$4,029,895,818	\$5,768,482,476
B. Contribution Income:		
1. Contributions		
a. Employee	\$89,353,317	\$84,814,014
b. Employer	90,645,254	85,938,379
c. Other	153,567,913	2,513,276
d. Total	<u>\$333,566,484</u>	<u>\$173,265,669</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$148,604,188	\$154,597,557
b. Net Appreciation	762,288,014	(1,785,929,653)
c. Investment Expenses	<u>(9,581,545)</u>	<u>(13,578,563)</u>
d. Net Investment Income	\$901,310,657	(\$1,644,910,659)
3. Securities Lending		
a. Gross Income	\$2,545,520	\$13,525,887
b. Deductions	<u>(645,293)</u>	<u>(9,456,264)</u>
c. Net Investment Income	\$1,900,227	\$4,069,623
4. Benefits and Refunds		
a. Refunds	(\$13,015,223)	(\$9,401,431)
b. Regular Monthly Benefits	<u>(279,420,060)</u>	<u>(258,830,870)</u>
c. Total	(\$292,435,283)	(\$268,232,301)
5. Administrative and Miscellaneous Expenses	(\$3,082,989)	(\$2,778,990)
C. Market Value of Assets at End of Year	\$4,971,154,914	\$4,029,895,818

Progress of Fund Through December 31, 2009

Plan Year Ending December 31	Employer Contributions*	Employee Contributions	Administrative Expenses	Net Investment Income**	Benefit Payments	Transfers	Actuarial Value of Assets
Total	\$ 1,421,209,595	\$ 1,252,716,153	\$ (30,736,045)	\$ 5,725,439,705	\$ (3,276,571,194)	\$ (115,633,895)	
1986	\$ 41,364,465	\$ 36,365,804	\$ (782,000)	\$ 98,998,090	\$ (42,082,765)	\$ -	\$ 900,097,591
1987	39,901,834	36,039,418	(808,023)	91,374,783	(50,604,364)	-	1,016,001,239
1988	38,414,939	33,222,264	(444,343)	103,025,282	(48,627,479)	-	1,141,591,902
1989	36,139,394	36,231,108	(424,136)	128,370,680	(55,459,353)	-	1,286,449,595
1990	38,668,634	38,960,372	(850,148)	114,218,588	(61,154,261)	-	1,416,292,780
1991	38,903,350	39,288,267	(863,301)	148,164,188	(69,348,501)	-	1,572,336,783
1992	42,354,843	42,883,874	(909,653)	175,246,400	(75,211,430)	-	1,756,700,817
1993	41,596,571	42,266,219	(801,026)	189,281,426	(82,480,713)	-	1,946,563,294
1994	42,791,243	43,415,880	(888,518)	136,210,578	(89,707,717)	-	2,078,384,760
1995	43,714,263	44,435,762	(937,480)	230,731,781	(99,689,985)	-	2,296,639,101
1996	43,495,146	44,761,611	(1,028,163)	233,212,720	(108,536,621)	-	2,508,543,794
1997	44,958,544	46,152,691	(1,147,818)	314,340,179	(117,126,096)	-	2,795,721,294
1998	46,183,091	47,366,181	(1,074,562)	436,098,461	(123,858,991)	-	3,200,435,474
1999	48,681,209	50,106,535	(1,182,899)	475,758,627	(132,428,572)	-	3,641,370,374
2000	50,539,675	51,868,059	(1,096,747)	592,379,739	(144,620,949)	-	4,190,440,151
2001	56,517,377	53,792,429	(1,387,930)	439,286,379	(156,189,100)	-	4,582,462,306
2002	57,377,428	58,234,324	(1,281,554)	(66,209,697)	(171,160,286)	(106,978,719)	4,352,423,802
2003	55,363,788	60,848,296	(1,435,922)	376,524,142	(185,826,481)	-	4,657,897,625
2004	60,573,670	61,412,824	(1,644,382)	127,831,761	(201,772,174)	-	4,704,299,324
2005	65,191,670	63,381,309	(1,930,627)	238,882,774	(217,308,520)	(8,655,176)	4,843,861,114
2006	72,664,403	69,020,297	(1,949,051)	409,948,934	(232,944,164)	-	5,160,601,533
2007	83,149,236	78,495,298	(2,005,783)	583,547,681	(249,765,088)	-	5,654,022,877
2008	88,451,655	84,814,014	(2,778,990)	(720,402,274)	(268,232,301)	-	4,835,874,981
2009	244,213,167	89,353,317	(3,082,989)	868,618,483	(292,435,283)	-	5,742,541,676

* Includes other State funding sources

** Net of investment expenses

Development of Actuarial Value of Assets

Item	2010	2009
1. Actuarial value of assets, beginning of year (without corridor)	\$5,652,782,236	\$5,654,022,877
2. Market value, end of year	4,971,154,914	4,029,895,818
3. Market value, beginning of year	4,029,895,818	5,768,482,476
4. Non-investment/administrative net cash flow:		
a. Employee contributions	\$89,353,317	\$84,814,014
b. Employer contributions	90,645,254	85,938,379
c. Other contributions	153,567,913	2,513,276
d. Refund of employee accounts	(13,015,223)	(9,401,431)
e. Retirement benefits	(279,420,060)	(258,830,870)
f. Administrative Expenses	(3,082,989)	(2,778,990)
g. Total net cash flow: [sum of (4a) through (4f)]	\$38,048,212	(\$97,745,622)
5. Investments and securities lending:		
a. Interest and dividends on investments	\$148,604,188	\$154,597,557
b. Gross income from securities lending	2,545,520	13,525,887
c. Fees and expenses	(10,226,838)	(23,034,827)
d. Total net income: [sum of (5a) through (5c)]	\$140,922,870	\$145,088,617
6. Investment income:		
a. Actual market return: (2) - (3) - (4g) - (5d)	\$762,288,014	(\$1,785,929,653)
b. Assumed rate of return	8.0%	8.0%
c. Assumed amount of return (actuarial value)	182,961,445	312,555,373
d. Amount subject to phase-in: (6a) - (6c)	\$579,326,569	(\$2,098,485,026)
7. Phase-in recognition of investment income:		
a. Current year: 0.20 * (6d)	\$115,865,314	(\$419,697,005)
b. First prior year	(419,697,005)	(8,464,695)
c. Second prior year	(8,464,695)	41,172,389
d. Third prior year	41,172,389	(1,049,090)
e. Fourth prior year	(1,049,090)	26,899,391
f. Total recognition	(\$272,173,087)	(\$361,139,009)
8. Actuarial value of assets, end of year		
a. Preliminary actuarial value of assets, end of year: (1) + (4g) + (5d) + (6c) + (7f)	\$5,742,541,676	\$5,652,782,236
b. Upper corridor limit: 120% * (2)	5,965,385,897	4,835,874,982
c. Lower corridor limit: 80% * (2)	3,976,923,931	3,223,916,654
d. Actuarial value of assets, end of year	\$5,742,541,676	\$4,835,874,982
9. Difference between market and actuarial value of assets	(771,386,762)	(805,979,164)
10. Actuarial rate of return	17.89%	-12.85%
11. Market rate of return	23.07%	-29.63%
12. Ratio of actuarial value to market value of assets	115.5%	120.0%

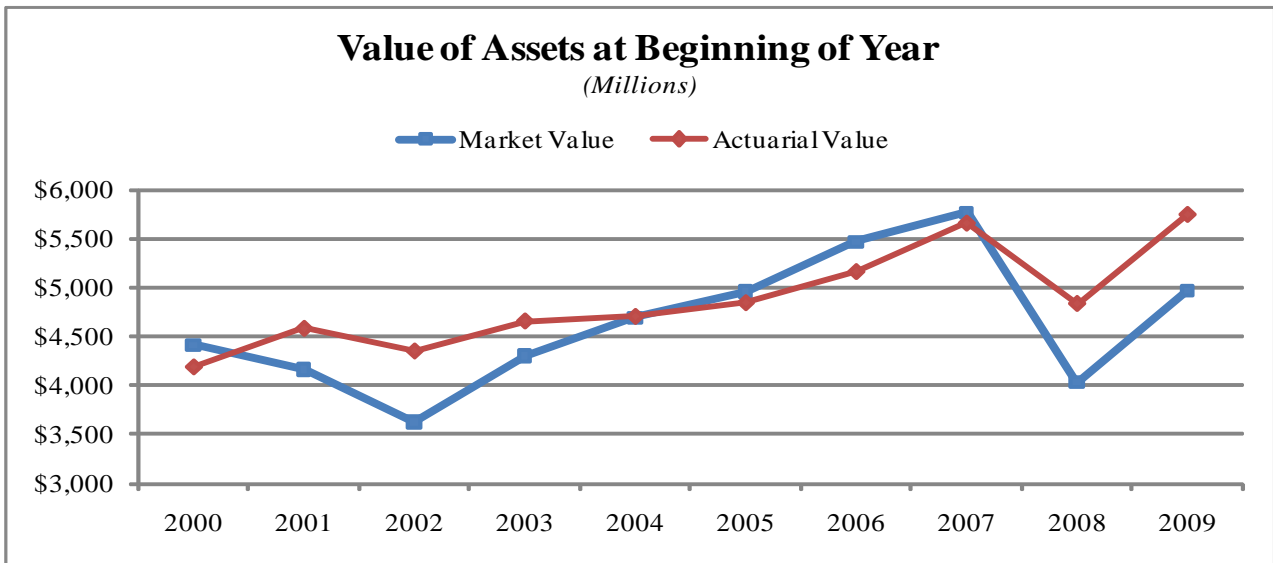
History of Investment Returns

Plan Year (1)	Market Value (2)	Actuarial Value (3)
2000	-0.99%	16.37%
2001	-4.47%	10.54%
2002	-9.29%	-1.47%
2003	21.00%	8.72%
2004	11.54%	2.77%
2005	8.22%	5.13%
2006	12.63%	8.55%
2007	7.44%	11.41%
2008	-29.63%	-12.85%
2009	23.07%	17.89%

Average returns:

Last five years:	2.55%	5.49%
Last ten years:	2.76%	6.34%

The Market rates above were provided by the system's investment consultants. The Actuarial rates above are based on the financial information provided to the actuary by McGee, Heame & Paiz, LLP.



Solvency Test

Valuation Date January 1	Total Active Member Contributions (1)	Inactive and Pensioner Liability (2)	Active Accrued Liability (3)	Actuarial Value of Assets	Percentage of Liabilities Covered by Assets		
					(1)	(2)	(3)
2005	\$840,104,000	\$2,592,159,000	\$2,103,929,000	\$4,704,299,324	100%	100%	60.5%
2006	888,544,000	2,354,500,000	1,848,710,000	4,843,861,114	100%	100%	86.6%
2007	941,572,000	2,488,504,000	2,038,153,000	5,160,601,533	100%	100%	84.9%
2008	991,444,000	2,699,505,000	2,325,036,000	5,654,022,877	100%	100%	84.4%
2009	1,036,443,231	2,796,308,000	2,319,370,769	4,835,874,981	100%	100%	43.2%
2010	1,111,029,866	2,903,722,270	2,520,944,405	5,742,541,676	100%	100%	68.5%

Schedule of Funding Progress

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Valuation Date January 1	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)*	Unfunded AAL (UAAL) [(3) - (2)]	Funded Ratio [(2)/(3)]	Covered Payroll	UAAL as a Percentage of Covered Payroll [(4)/(6)]
2001	\$4,190,440,151	\$3,683,174,000	-\$507,266,151	113.77%	\$897,641,000	-56.51%
2002	4,582,462,306	4,442,033,000	(140,429,306)	103.16%	964,121,000	-14.57%
2003	4,352,423,802	4,718,618,000	366,194,198	92.24%	988,135,000	37.06%
2004	4,657,897,625	5,077,443,000	419,545,375	91.74%	1,032,259,000	40.64%
2005	4,704,299,324	4,902,322,000	198,022,676	95.96%	1,086,736,000	18.22%
2006	4,843,861,114	5,091,763,000	247,901,886	95.13%	1,156,400,000	21.44%
2007	5,160,601,533	5,468,229,000	307,627,467	94.37%	1,285,096,000	23.94%
2008	5,654,022,877	6,015,985,000	361,962,123	93.98%	1,462,474,000	24.75%
2009	4,835,874,981	6,152,122,000	1,316,247,019	78.60%	1,585,728,000	83.01%
2010	5,742,541,676	6,565,676,761	823,135,085	87.46%	1,698,835,822	48.45%

* Before 2006, the AAL was based on Maximum COLA liabilities. Between 2006 and 2009, the AAL was based on Break-Even COLA liabilities. Starting in 2010, the AAL is based on No COLA liabilities.

Schedule of Contributions from the Employer(s) and Other Contributing Entities

(1)	(2)	(3)	(4)	(5)	(6)
Fiscal Year Ending December 31	GASB N0. 25 Annual Required Contribution (ARC)		Employer Contributions*		Percentage of GASB ARC Contributed
	% of Payroll	Amount**	% of Payroll	Amount	[(5)/(3)]
2004	8.76%	\$90,477,000	5.36%	\$55,363,788	61.19%
2005	10.00%	108,707,000	5.57%	60,573,670	55.72%
2006	5.68%	65,714,000	5.64%	65,191,670	99.21%
2007	5.68%	73,035,000	5.65%	72,664,403	99.49%
2008	5.68%	83,036,000	5.69%	83,149,236	100.14%
2009	9.15%	145,015,000	5.58%	88,451,655	60.99%
2010	8.06%	136,990,330	-	-	-

* Includes other State funding sources

** Before 2006, the AAL was based on Maximum COLA liabilities. Between 2006 and 2009, the AAL was based on Break-Even COLA liabilities. Starting in 2010, the AAL is based on No COLA liabilities.

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Retired Participants	Disabled	Beneficiaries	Participants Due Refunds	Total
Number as of January 1, 2009	35,055	5,583	16,275	244	1,780	19,395	78,332
New participants	3,148	2	7	-	10	523	3,690
Vested Terminations	(510)	517	-	-	-	(7)	-
Retirements	(733)	(262)	1,004	-	-	(9)	-
Disability	(12)	(2)	(1)	15	-	-	-
Deceased with Beneficiary	(9)	(1)	(113)	(1)	124	-	-
Deceased without Beneficiary	(44)	(22)	(330)	(11)	(77)	(3)	(487)
Due refunds	(1,196)	(4)	-	-	-	1,200	-
Lump sum payoffs	(786)	(191)	(2)	(1)	-	(1,783)	(2,763)
Rehires/Return to Active	696	(326)	(2)	-	-	(368)	-
Certain Period Expired	-	-	-	-	(2)	-	(2)
Reclassifications	(22)	(4)	(32)	-	15	-	(43)
Data Corrections	6	(18)	15	-	(1)	1	3
Number as of January 1, 2010	35,593	5,272	16,821	246	1,849	18,949	78,730

Includes employees of the Air Guard Firefighter Pension Plan

Demographic Statistics

	<u>January 1</u>		Change
	2010	2009	
<u>Active Participants</u>			
Number	35,593	35,055	1.5%
Average age (years)	46.75	46.50	0.5%
Average service (years)	10.42	10.20	2.2%
Average Entry Age (years)	36.33	36.30	0.1%
Total payroll*	\$1,698,835,822	\$1,585,727,706	7.1%
Average projected salary*	\$47,729	\$45,235	5.5%
Total employee contributions with interest	\$1,111,029,866	\$1,036,443,231	7.2%
Average employee contributions with interest	\$31,215	\$29,566	5.6%
<u>Vested Former Participants</u>			
Number	5,272	5,583	-5.6%
Average age (years)	51.95	0.00	
Total employee contributions with interest	\$144,393,924	\$0	
Average employee contributions with interest	\$27,389	\$0	
<u>Service Retirees</u>			
Number	16,821	16,275	3.4%
Average age (years)	71.09	0.00	
Total annual benefits	\$261,032,265	\$0	
Average annual benefit	\$15,518	\$0	
<u>Disability Retirees</u>			
Number	246	244	0.8%
Average age (years)	61.54	0.00	
Total annual benefits	\$3,461,649	\$0	
Average annual benefit	\$14,072	\$0	
Beneficiaries	1,849	1,780	3.9%
Participants Due Refunds	18,949	19,395	-2.3%

* Payroll shown is projected for the upcoming valuation year

Distribution of Male Active Members by Age and by Years of Service

Average Age = 47.3 Average Service = 10.9

Age Last Birthday		Whole Years of Service at Valuation Date							Totals
		0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Less than 20	Count	25	-	-	-	-	-	-	25
	Avg. Salary	17,784	-	-	-	-	-	-	17,784
20-24	Count	310	5	-	-	-	-	-	315
	Avg. Salary	30,757	\$30,170	-	-	-	-	-	30,748
25-29	Count	804	111	2	-	-	-	-	917
	Avg. Salary	40,250	46,323	*	-	-	-	-	40,986
30-34	Count	710	365	59	1	-	-	-	1,135
	Avg. Salary	44,529	53,299	52,632	*	-	-	-	47,765
35-39	Count	588	332	278	50	-	-	-	1,248
	Avg. Salary	45,537	54,115	60,173	59,491	-	-	-	51,638
40-44	Count	524	305	271	266	73	2	-	1,441
	Avg. Salary	46,745	52,993	61,174	65,592	\$60,234	*	-	54,937
45-49	Count	557	315	248	228	233	134	12	1,727
	Avg. Salary	45,918	49,283	57,883	61,692	65,358	64,974	\$56,634	54,508
50-54	Count	539	342	229	227	258	393	109	2,097
	Avg. Salary	44,394	49,708	56,020	59,305	63,406	68,564	66,840	56,180
55-59	Count	453	306	209	216	273	295	280	2,032
	Avg. Salary	43,812	47,843	51,349	57,137	64,528	69,833	72,272	57,093
60-64	Count	300	222	141	165	142	148	196	1,314
	Avg. Salary	40,739	48,261	57,340	58,312	63,300	67,056	69,645	55,712
65-69	Count	104	73	46	30	37	30	34	354
	Avg. Salary	33,858	38,596	40,909	51,454	60,753	67,341	75,494	46,890
70 & Over	Count	59	42	25	13	10	3	10	162
	Avg. Salary	18,664	26,486	32,799	33,497	49,248	*	64,180	29,685
Totals	Count	4,973	2,418	1,508	1,196	1,026	1,005	641	12,767
	Avg. Salary	\$42,514	\$49,911	\$56,496	\$60,143	\$63,674	\$68,148	\$70,297	52,331

* Average Salary represents unprojected salary earned in 2009 and is not shown for cells representing less than or equal to three participants

Distribution of Female Active Members by Age and by Years of Service

Average Age = 46.4 Average Service = 10.1

Age Last Birthday		Whole Years of Service at Valuation Date							Totals
		0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Less than 20	Count	34	-	-	-	-	-	-	34
	Avg. Salary	12,007	-	-	-	-	-	-	12,007
20-24	Count	717	3	-	-	-	-	-	720
	Avg. Salary	26,937	*	-	-	-	-	-	26,908
25-29	Count	1,577	201	2	-	-	-	-	1,780
	Avg. Salary	35,202	41,629	*	-	-	-	-	35,925
30-34	Count	1,287	632	98	1	-	-	-	2,018
	Avg. Salary	33,086	45,539	49,149	*	-	-	-	37,768
35-39	Count	1,270	643	396	79	1	-	-	2,389
	Avg. Salary	31,385	42,798	52,220	51,898	*	-	-	38,593
40-44	Count	1,084	655	367	306	74	5	-	2,491
	Avg. Salary	30,534	39,266	48,616	58,901	56,461	\$59,026	-	39,806
45-49	Count	1,073	784	604	381	315	155	7	3,319
	Avg. Salary	31,197	36,127	41,956	51,303	57,252	57,907	\$46,225	40,379
50-54	Count	941	714	663	541	426	468	233	3,986
	Avg. Salary	31,541	36,236	39,947	46,881	53,974	62,730	59,117	43,534
55-59	Count	681	505	552	526	505	495	363	3,627
	Avg. Salary	32,537	36,283	38,918	45,834	48,847	56,423	64,633	44,701
60-64	Count	349	303	264	290	265	230	234	1,935
	Avg. Salary	28,738	36,156	35,714	44,088	46,716	51,651	55,340	41,554
65-69	Count	80	79	47	65	64	40	47	422
	Avg. Salary	20,036	30,019	33,491	35,472	39,135	46,557	47,697	34,272
70 & Over	Count	31	24	12	16	10	5	7	105
	Avg. Salary	16,679	20,107	26,058	40,747	32,748	29,794	39,439	25,874
Totals	Count	9,124	4,543	3,005	2,205	1,660	1,398	891	22,826
	Avg. Salary	\$31,591	\$38,912	\$42,605	\$48,490	\$51,281	\$57,545	\$59,514	40,242

* Average Salary represents unprojected salary earned in 2009 and is not shown for cells representing less than or equal to three participants

Distribution of Total Active Members by Age and by Years of Service

Average Age = 46.8 Average Service = 10.4

Age Last Birthday		Whole Years of Service at Valuation Date							Totals
		0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Less than 20	Count	59	-	-	-	-	-	-	59
	Avg. Salary	\$14,455	-	-	-	-	-	-	\$14,455
20-24	Count	1,027	8	-	-	-	-	-	1,035
	Avg. Salary	28,090	\$26,354	-	-	-	-	-	28,077
25-29	Count	2,381	312	4	-	-	-	-	2,697
	Avg. Salary	36,907	43,299	\$36,825	-	-	-	-	37,646
30-34	Count	1,997	997	157	2	-	-	-	3,153
	Avg. Salary	37,155	48,380	50,458	*	-	-	-	41,366
35-39	Count	1,858	975	674	129	1	-	-	3,637
	Avg. Salary	35,864	46,652	55,500	54,841	*	-	-	43,069
40-44	Count	1,608	960	638	572	147	7	-	3,932
	Avg. Salary	35,816	43,627	53,950	62,012	58,335	\$54,339	-	45,351
45-49	Count	1,630	1,099	852	609	548	289	19	5,046
	Avg. Salary	36,227	39,898	46,592	55,192	60,698	61,184	\$52,799	45,215
50-54	Count	1,480	1,056	892	768	684	861	342	6,083
	Avg. Salary	36,222	40,599	44,073	50,553	57,532	65,393	61,578	47,893
55-59	Count	1,134	811	761	742	778	790	643	5,659
	Avg. Salary	37,041	40,645	42,332	49,124	54,350	61,430	67,959	49,151
60-64	Count	649	525	405	455	407	378	430	3,249
	Avg. Salary	34,285	41,275	43,243	49,246	52,502	57,682	61,861	47,280
65-69	Count	184	152	93	95	101	70	81	776
	Avg. Salary	27,849	34,138	37,160	40,519	47,054	55,464	59,365	40,028
70 & Over	Count	90	66	37	29	20	8	17	267
	Avg. Salary	17,980	24,166	30,612	37,497	40,998	44,330	53,993	28,186
Totals	Count	14,097	6,961	4,513	3,401	2,686	2,403	1,532	35,593
	Avg. Salary	\$35,444	\$42,732	\$47,247	\$52,588	\$56,015	\$61,980	\$64,026	\$44,578

* Average Salary represents unprojected salary earned in 2009 and is not shown for cells representing less than or equal to three participants

Distribution of Male Deferred Members by Age and by Years of Service

Average Age = 51.8 Average Service = 9.8

Age Last Birthday	Whole Years of Service at Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	13	8	-	-	-	-	-	21
30-34	24	32	1	-	-	-	-	57
35-39	33	75	13	-	-	-	-	121
40-44	30	97	29	7	1	-	-	164
45-49	43	127	60	33	12	3	-	278
50-54	40	142	83	70	25	8	1	369
55-59	56	192	99	62	36	15	-	460
60-64	39	62	24	16	6	2	-	149
65-69	10	28	9	3	1	2	-	53
70 & Over	10	17	2	1	-	-	-	30
Totals	298	780	320	192	81	30	1	1,702

Distribution of Female Deferred Members by Age and by Years of Service

Average Age = 52.0 Average Service = 9.2

Age Last Birthday	Whole Years of Service at Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	20	14	-	-	-	-	-	34
30-34	63	88	3	-	-	-	-	154
35-39	72	129	22	1	-	-	-	224
40-44	65	194	52	11	1	-	-	323
45-49	113	271	119	38	6	2	-	549
50-54	125	358	205	83	46	17	-	834
55-59	107	408	222	102	65	17	2	923
60-64	72	160	67	40	16	2	1	358
65-69	26	60	20	5	1	1	-	113
70 & Over	25	42	7	2	-	-	-	76
Totals	688	1,724	717	282	135	39	3	3,588

Distribution of Total Deferred Members by Age and by Years of Service

Average Age = 52.0 Average Service = 9.4

Age Last Birthday	Whole Years of Service at Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	33	22	-	-	-	-	-	55
30-34	87	120	4	-	-	-	-	211
35-39	105	204	35	1	-	-	-	345
40-44	95	291	81	18	2	-	-	487
45-49	156	398	179	71	18	5	-	827
50-54	165	500	288	153	71	25	1	1,203
55-59	163	600	321	164	101	32	2	1,383
60-64	111	222	91	56	22	4	1	507
65-69	36	88	29	8	2	3	-	166
70 & Over	35	59	9	3	-	-	-	106
Totals	986	2,504	1,037	474	216	69	4	5,290

Schedule of Pension Recipients Added to and Removed from Rolls

Fiscal Year Ending December 31	Added to Rolls*		Removed from Rolls		Total		Percent Increase in Annual Pension Benefits	Average Annual Pension Benefit
	Count	Annual Pension Benefits	Count	Annual Pension Benefits	Count	Annual Pension Benefits		
2008	1,290	\$26,985,322	552	\$3,650,746	18,333	\$268,901,376	9.50%	\$14,668
2009	1,160	\$24,062,484	577	\$6,292,131	18,916	\$286,671,729	6.61%	\$15,155

* Includes cost of living increases

Retired and Disabled Members by Option Code

Age Last Birthday	Count			Monthly Benefit		
	Male	Female	Total	Male	Female	Total
Option Code						
1	1,659	4,850	6,509	1,659,000	4,850,000	6,509,000
2	366	1,138	1,504	366,000	1,138,000	1,504,000
3	3,356	1,845	5,201	3,356,000	1,845,000	5,201,000
4	820	916	1,736	820,000	916,000	1,736,000
5	-	-	-	-	-	-
6	501	351	852	501,000	351,000	852,000
7	195	301	496	195,000	301,000	496,000
8	293	476	769	293,000	476,000	769,000
9	-	-	-	-	-	-
Other	-	-	-	-	-	-
Total	7,190	9,877	17,067	7,190,000	9,877,000	17,067,000
Beneficiaries	328	1,521	1,849	3,331,000	18,847,000	22,178,000
Grand Total	7,518	11,398	18,916	10,521,000	28,724,000	39,245,000

Retirees, Disabled Members, and Beneficiaries by Amount and Option Code

Males	Option Code									
Benefit Amount	1	2	3	4	5	6	7	8	9	Total
Under \$200	109	85	163	50	-	4	2	30	-	443
\$200-\$399	197	114	319	81	-	17	14	31	-	773
\$400-\$599	195	96	315	89	-	36	10	39	-	780
\$600-\$799	154	80	269	69	-	33	13	30	-	648
\$800-\$999	144	54	249	64	-	26	9	19	-	565
\$1,000-\$1,499	245	87	473	112	-	91	23	48	-	1,079
\$1,500-\$1,999	182	45	421	73	-	62	20	31	-	834
\$2,000-\$2,499	144	51	386	108	-	72	32	18	-	811
\$3,000 & over	289	82	761	174	-	160	72	47	-	1,585
Total	1,659	694	3,356	820	-	501	195	293	-	7,518
Females										
Benefit Amount	1	2	3	4	5	6	7	8	9	Total
Under \$200	495	298	187	67	-	11	7	57	-	1,122
\$200-\$399	786	442	302	123	-	43	16	97	-	1,809
\$400-\$599	706	395	242	96	-	35	25	76	-	1,575
\$600-\$799	593	316	166	94	-	47	28	61	-	1,305
\$800-\$999	415	235	158	78	-	24	28	40	-	978
\$1,000-\$1,499	741	387	306	123	-	67	53	54	-	1,731
\$1,500-\$1,999	422	239	167	95	-	50	40	22	-	1,035
\$2,000-\$2,499	285	150	129	98	-	38	39	29	-	768
\$3,000 & over	407	196	189	142	-	36	65	40	-	1,075
Total	4,850	2,658	1,846	916	-	351	301	476	-	11,398
Males & Females										
Benefit Amount	1	2	3	4	5	6	7	8	9	Total
Under \$200	604	383	350	117	-	15	9	87	-	1,565
\$200-\$399	983	556	621	204	-	60	30	128	-	2,582
\$400-\$599	901	491	557	185	-	71	35	115	-	2,355
\$600-\$799	747	396	435	163	-	80	41	91	-	1,953
\$800-\$999	559	289	407	142	-	50	37	59	-	1,543
\$1,000-\$1,499	986	474	779	235	-	158	76	102	-	2,810
\$1,500-\$1,999	604	284	588	168	-	112	60	53	-	1,869
\$2,000-\$2,499	429	201	515	206	-	110	71	47	-	1,579
\$3,000 & over	696	278	950	316	-	196	137	87	-	2,660
Total	6,509	3,352	5,202	1,736	-	852	496	769	-	18,916

Retirees, Disabled Members, and Beneficiaries by Age and Option Code

Average Age Male = 70.9

Average Age Female = 71.6

Average Age Total = 71.3

Males		Option Code								
Age Last Birthday	1	2	3	4	5	6	7	8	9	Total
Under 50	2	13	5	1	-	-	-	-	-	21
50-54	23	9	38	5	-	2	-	4	-	81
55-59	99	45	192	87	-	19	15	23	-	480
60-64	285	114	637	228	-	63	46	56	-	1,429
65-69	368	132	783	263	-	93	65	71	-	1,775
70-74	302	135	687	141	-	107	43	48	-	1,463
75-79	241	90	496	78	-	92	19	37	-	1,053
80-84	192	88	315	15	-	81	7	34	-	732
85 & over	147	68	203	2	-	44	-	20	-	484
Total	1,659	694	3,356	820	-	501	195	293	-	7,518
Females										
Age Last Birthday	1	2	3	4	5	6	7	8	9	Total
Under 50	1	26	6	-	-	-	-	-	-	33
50-54	44	32	33	9	-	6	4	8	-	136
55-59	259	137	184	143	-	23	33	38	-	817
60-64	745	299	443	360	-	72	83	102	-	2,104
65-69	1,001	427	457	262	-	79	107	109	-	2,442
70-74	909	475	276	100	-	58	50	82	-	1,950
75-79	723	437	225	34	-	55	16	76	-	1,566
80-84	575	438	140	8	-	31	7	36	-	1,235
85 & over	593	387	82	-	-	27	1	25	-	1,115
Total	4,850	2,658	1,846	916	-	351	301	476	-	11,398
Males & Females										
Age Last Birthday	1	2	3	4	5	6	7	8	9	Total
Under 50	3	39	11	1	-	-	-	-	-	54
50-54	67	41	71	14	-	8	4	12	-	217
55-59	358	182	376	230	-	42	48	61	-	1,297
60-64	1,030	413	1,080	588	-	135	129	158	-	3,533
65-69	1,369	559	1,240	525	-	172	172	180	-	4,217
70-74	1,211	610	963	241	-	165	93	130	-	3,413
75-79	964	527	721	112	-	147	35	113	-	2,619
80-84	767	526	455	23	-	112	14	70	-	1,967
85 & over	740	455	285	2	-	71	1	45	-	1,599
Total	6,509	3,352	5,202	1,736	-	852	496	769	-	18,916

Pensions Awarded in 2009 by Option Code

Average Age = 71.3

Males & Females	Option Code									
Benefit Amount	1	2	3	4	5	6	7	8	9	Total
Under \$200	20	22	21	12	0	1	0	5	0	81
\$200-\$399	30	33	30	8	0	3	3	5	0	112
\$400-\$599	24	22	28	11	0	7	2	3	0	97
\$600-\$799	30	19	16	18	0	3	2	2	0	90
\$800-\$999	28	22	24	13	0	0	3	0	0	90
\$1,000-\$1,499	43	38	48	19	0	9	5	5	0	167
\$1,500-\$1,999	27	24	38	17	0	8	2	2	0	118
\$2,000-\$2,499	17	12	29	16	0	6	5	2	0	87
\$2,500 & over	63	33	114	57	0	15	20	16	0	318
Total	282	225	348	171	0	52	42	40	0	1,160
Males & Females										
Age Last Birthday	1	2	3	4	5	6	7	8	9	Total
Under 50	0	6	2	0	0	0	0	0	0	8
50-54	13	6	18	6	0	4	1	7	0	55
55-59	57	36	93	58	0	13	9	8	0	274
60-64	134	51	162	80	0	25	18	19	0	489
65-69	63	44	68	24	0	8	12	4	0	223
70-74	10	31	5	2	0	1	2	1	0	52
75-79	2	20	0	1	0	1	0	1	0	25
80-84	2	20	0	0	0	0	0	0	0	22
85 & over	1	11	0	0	0	0	0	0	0	12
Total	282	225	348	171	0	52	42	40	0	1,160

Retirees and Disabled Members by Service at Retirement and Years Since Retirement

Average Service at Retirement = 18.8

Average Years Since Retirement = 11.6

Service at Retirement	Years Elapsed Since Retirement							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Less than 5	195	167	124	141	132	90	32	881
5-9	687	571	422	439	396	190	158	2,863
10-14	624	572	553	508	377	153	117	2,904
15-19	673	623	642	400	313	144	69	2,864
20-24	670	606	493	302	253	85	56	2,465
25-29	897	640	473	219	198	76	25	2,528
30-34	686	520	357	236	160	31	3	1,993
35 & Over	221	119	90	94	31	9	5	569
Totals	4,653	3,818	3,154	2,339	1,860	778	465	17,067

Retirees and Disabled Members by Year of Retirement

Total = 17,067

Year of Retirement	Count	Year of Retirement	Count
Under 1960	-	1986	312
1960	-	1987	501
1961	-	1988	397
1962	-	1989	375
1963	-	1990	397
1964	-	1991	398
1965	-	1992	530
1966	-	1993	478
1967	1	1994	523
1968	-	1995	868
1969	-	1996	543
1970	1	1997	566
1971	26	1998	578
1972	17	1999	604
1973	26	2000	652
1974	35	2001	722
1975	39	2002	720
1976	49	2003	808
1977	70	2004	890
1978	94	2005	831
1979	102	2006	857
1980	110	2007	954
1981	144	2008	1,108
1982	132	2009 & Over	956
1983	165		
1984	212		
1985	276		

Air Guard Firefighter Pension Plan

	January 1		Change
	2010	2009	
<u>Active Participants</u>			
Number	24	---	
Average age (years)	42.33	---	
Average service (years)	11.72	---	
Average Entry Age (years)	30.61	---	
Total payroll*	\$1,494,439	---	
Average projected salary*	\$62,268	N/A	
Total employee contributions with interest	\$2,028,113	---	
Average employee contributions with interest	\$84,505	N/A	
<u>Vested Former Participants</u>			
Number	1	---	
Average age (years)	42.51	---	
Total employee contributions with interest	\$75,601	---	
Average employee contributions with interest	\$75,601	N/A	

* Payroll shown is projected for the upcoming valuation year

Age Last Birthday	Whole Years of Service at Valuation Date						Totals
	0-4	5-9	10-14	15-19	20-24	25-29	
Less than 20	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-
25-29	2	-	-	-	-	-	2
30-34	2	-	1	-	-	-	3
35-39	-	3	2	2	-	-	7
40-44	-	-	1	1	-	-	2
45-49	-	1	1	2	1	-	5
50-54	-	1	1	1	-	-	3
55-59	-	-	1	1	-	-	2
60-64	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-
70 & Over	-	-	-	-	-	-	-
Totals	4	5	7	7	1	-	24

* Average Salary represents unprojected salary earned in 2009 and is not shown for cells representing less than or equal to three participants

APPENDIX A

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2010 actuarial valuation report.

1. Valuation Date

The valuation date for any given year is January 1st, the first day of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

2. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal (EAN) actuarial cost method, amortized as a level percentage of payroll. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) the rate that will amortize the unfunded actuarial accrued liability (UAAL).

- a. The valuation is prepared on the projected benefit basis, under which the present value, at the investment return rate assumed to be earned in the future (currently 8.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the System on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the System are determined using a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

3. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income, with interest, dividends, and other income recognized immediately. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

4. Economic Assumptions

a. Investment return

8.00% per year, compounded annually, composed of an assumed 3.50% inflation rate and a 4.50% net real rate of return. This rate represents the assumed return, net of investment expenses.

b. Salary increase rate

Age	Rate
20	9.50%
25	8.30%
30	6.90%
35	6.05%
40	5.60%
45	5.35%
50	5.00%
55	5.00%
60	5.00%

- c. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 4.50% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Mortality: 1994 Group Annuity Mortality with margins projected (scale AA) to 2008

Disabled Mortality: 1979 PBGC Disabled Lives Receiving Social Security

Age	Death		Disability	Withdrawal	
	Male	Female		Ultimate	
				Male	Female
20	0.04%	0.02%	0.01%	10.00%	11.00%
25	0.06%	0.02%	0.01%	10.00%	11.00%
30	0.07%	0.03%	0.01%	10.00%	11.00%
35	0.08%	0.04%	0.01%	4.83%	5.83%
40	0.10%	0.06%	0.01%	4.43%	5.43%
45	0.13%	0.08%	0.03%	4.21%	5.21%
50	0.20%	0.11%	0.08%	4.10%	5.09%
55	0.34%	0.21%	0.20%	4.02%	5.03%
60	0.64%	0.41%	0.20%	4.00%	5.00%

Service	Withdrawal	
	Male	Female
1	25%	28%
2	18%	22%
3	12%	15%
4	10%	13%
5	10%	12%

Retirement Rates

Age	Rate
50	10%
55	10%
60	15%
61	17%
62	25%
63	17%
64	20%
65	35%
66	20%
67	20%
68	20%
69	20%
70	100%

6. Other Assumptions

- a. Percent married: 85.00% of employees are assumed to be married. (No beneficiaries other than the spouse assumed.)
- b. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
- c. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.
- d. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit. It is assumed that 25% of active members who terminate with a deferred vested benefit will elect to have their contributions refunded.
- e. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available, which for this plan is age 60.
- f. No benefit data is available for members entitled to deferred benefits. The present value of benefits expected to be paid to vested inactive non-retired members is approximated using the data provided.
- g. There will be no recoveries once disabled.
- h. No surviving spouse will remarry.
- i. Administrative expenses: Assumed to increase 6.5% per year. Expenses for the valuation year are projected at this rate based on the average adjusted expenses paid for the prior two years.
- j. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pay represents amount paid to members during the year ended on the valuation date.
- k. Decrement timing: Decrements of all types are assumed to occur mid-year.
- l. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

- m. Decrement relativity: Decrement rates are converted to probabilities in order to account for multiple decrements.
- n. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in the report, and the actual payroll payable at the time contributions are made.
- o. Benefit Service: All members are assumed to accrue one year of service each year. Exact fractional service is used to determine the amount of benefit payable.
- p. Employees in the Air Guard Firefighter Pension Plan are valued using the same assumptions as detailed above.

Assumptions were made to correct for missing or inconsistent data. These had no material impact on the results presented.

APPENDIX B

SUMMARY OF PLAN PROVISIONS

Summary of Plan Provisions

Covered Members	Any full-time or regular part-time employee of an employer as defined under W.S. 9-3-402(a)(vii) including employees covered by the Air Guard Firefighter Pension Plan (Air Guard Fire employees).
Final Average Salary	Employee's average annual salary for the highest paid three continuous years of service.
Service Retirement	
Eligibility	Age 60 with four or more years of service. Air Guard Fire employees are also eligible at age 50 with 25 or more years of service. All employees are eligible for a reduced benefit at age 50 with four or more years of service or any age with 25 or more years of service.
Monthly Benefit	2.125% of employee's Final Average Salary for each year of credited service for the first 15 years of service credit plus 2.25% of Final Average Salary for any years of service credit exceeding 15 years. This amount is reduced by 5.0% per year that the employee is under age 60. However, members retiring with a combined age and service of at least 85 receive an unreduced benefit. Employees hired prior to July 1, 1981 may be entitled to benefits earned under a different formula.
Monthly Benefit (Air Guard Fire Employees)	250% of employee's Final Average Salary for each year of credited service. This amount is reduced by 5.0% per year that the employee is under age 60. However, members who are at least age 55 retiring with a combined age and service of at least 75 receive an unreduced benefit.
Vesting	Any employee who has left employment with four or more years of service, and who has not withdrawn accumulated contributions, is eligible to receive the above benefit or can elect to receive a lump-sum refund of contributions with interest. An employee who terminates with less than four years of service is only eligible for the lump-sum benefit.
Disability Benefit	
Eligibility	Ten or more years of service.
Benefit	Service retirement benefit earned as of the date of disability, payable immediately.

Pre-retirement Death Benefit

Eligibility	No age or service requirements.
Benefit	A lump sum equal to two times the employee contributions with interest. If the employee is vested, the beneficiary can elect, in lieu of this lump sum, to receive a monthly annuity equal to the actuarial equivalent of the retirement benefit that would be due the employee.

Contributions

Employee	5.57% of salary. Air Guard Fire employees contribute an extra 9.65% of salary for a total of 15.22% of salary.
Employer	5.68% of salary.
Interest	5.50% annually.

Cost-of-Living Improvements

Maximum	3.00% per year, applied annually on July 1 following the two-year anniversary of retirement.
Actuarially Sound	The cost-of-living improvement for a given year is determined to be the highest allowable, up to the maximum, in which the Wyoming Retirement System can project to pay indefinitely while maintaining actuarial soundness of the plan.

Optional Forms of Payment

Option 1 (normal form)	Monthly benefit for life with a lump-sum death benefit equal to the excess (if any) of the employee contributions with interest over the total benefits received.
Option 2	The largest possible monthly benefit payable for life with no lump-sum death benefit.
Option 3	Monthly benefit for life. Upon death, 100% of the benefit continues to be paid to the beneficiary.
Option 4	Monthly benefit for life. Upon death, 100% of the benefit continues to be paid to the beneficiary. Benefit reverts to Option 1 amount but without the cash refund feature upon beneficiary death.
Option 5	Monthly benefit for life. Upon death, 66% of the benefit continues to be paid to the beneficiary.
Option 6	Monthly benefit for life. Upon death, 50% of the benefit continues to be paid to the beneficiary.
Option 7	Monthly benefit for life. Upon death, 50% of the benefit continues to be paid to the beneficiary. Benefit reverts to Option 1 amount but without the cash refund feature upon beneficiary death.
Option 8	Monthly benefit for life with a guarantee of 120 monthly payments
Option 9	Temporary Monthly benefit for the child of a deceased member
Other Options	Any other modified monthly benefit determined to be actuarially equivalent and approved by the board.