Gabriel Roeder Smith & Company
Consultants & Actuaries

WYOMING PAID FIREMEN'S RETIREMENT FUND PLAN B

ACTUARIAL VALUATION REPORT
FOR THE YEAR BEGINNING JANUARY 1, 2016

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April 28, 2016

Board of Trustees
Wyoming Paid Firemen's Retirement Fund Plan B
6101 Yellowstone Road
Suite 500
Cheyenne, WY 82002

Dear Board of Trustees:

Subject: Actuarial Valuation as of January 1, 2016

We are pleased to present the report of the actuarial valuation of the Wyoming Paid Firemen's Retirement Fund Plan B ("the Fund") for the plan year commencing January 1, 2016. This report describes the current actuarial condition of the Fund, determines the calculated employer contribution rate (the actuarially determined contribution rate), and analyzes changes in this contribution rate for 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 and employee contribution rates are specified in statute. 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. The funded ratio, based upon the assumption of no further cost-of-living adjustment increases as of January 1, 2016 is 98.85%. In the January 1, 2015 valuation, this funded ratio was 100.15%. On a market value of assets basis, the Fund's funded ratio decreased from 100.87% as of January 1, 2015 to 93.15% as of January 1, 2016.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2016. W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change. Therefore, this valuation does not include any liability for future cost-of-living increases. There were no benefit changes 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 actuarial valuation were adopted by the Board effective February 22, 2013 and were first utilized with the January 1, 2014 valuation report. For a detailed description of the experience related to these assumptions as well as the rationale for the changes please see our latest Wyoming Retirement System Actuarial Experience Study Report. Our experience study report was dated February 21, 2013 and it covered the five-year investigation period ending December 31, 2011.

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 the report are intended to provide information for rational decision making. All assumptions and methods are described in Appendix A of the report.

The 12.00% employer contribution and the 9.245% employee contribution are the rates that comply with State law. Due to the many factors affecting a retirement system, users of this report should be aware that contributions made at that rate do not necessarily guarantee long-term benefit security.

The employer contribution requirement in Table 1 of this report is determined using the actuarial assumptions and methods disclosed in Appendix A of this report. This report does not include a detailed assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the plan's financial condition.

Data

Member data for retired, active and inactive members was supplied as of January 1, 2016 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, 2016 was prepared by Wyoming Retirement System and is the responsibility of management. Eide Bailly, LLP provided us the asset and financial information and will opine on Wyoming Retirement System's statements.

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 experience loss of approximately $1.6 million. The aggregate results of these analyses are disclosed in Tables 4 and 5 under Section III of the report.

Actuarial certification

All of the tables contained in this actuarial valuation report 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, 2016.

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 and ERISA. The undersigned are independent actuaries and consultants. Mark Randall and Leslie Thompson are Enrolled Actuaries and Mark Randall, Leslie Thompson, and Paul Wood are Members of the American Academy of Actuaries, and all three meet all 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

Mark R. Randall

Mark R. Randall, FCA, EA, MAAA
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SECTION I

EXECUTIVE SUMMARY

Executive Summary

Item	January 1, 2016 No COLA	January 1, 2015 No COLA
1. Contributions:		
a. Total normal cost	21.03%	20.99%
b. Employee contributions	(9.245%)	(9.245%)
c. Other expected contributions	0.00%	0.00%
d. Net employer normal cost	11.79%	11.75%
e. Amortization payment	0.28%	(0.03%)
f. Administrative expenses	0.37%	0.38%
g. Required contribution	12.44%	12.10%
h. Statutory	(12.00%)	(12.00%)
i. Shortfall/(surplus)	0.44%	0.10%
2. Funding Elements:		
a. Market value of assets (MVA)	$117,313,946	$116,157,258
b. Actuarial value of assets (AVA)	$124,496,124	$115,323,104
c. Actuarial accrued liability (AAL)	$125,941,369	$115,152,708
d. Unfunded/(overfunded) actuarial accrued liability (UAAL)	$1,445,245	($170,396)
3. GASB 25/27 Elements:		
a. Annual required contribution	$3,420,716	$3,275,448
b. Actual contributions	N/A	3,273,668
i. Employer	*N/A*	*3,273,301*
ii. Other	*N/A*	*367*
c. Percentage contributed	N/A	99.95%
d. Funded ratio on an actuarial basis (AVA/AAL)	98.85%	100.15%
e. Funded ratio on a market basis (MVA/AAL)	93.15%	100.87%
f. Projected valuation payroll	$27,512,076	$27,090,867

SECTION II

DISCUSSION

Contribution Requirements

- Exhibits throughout this report are based primarily, unless stated otherwise, on the assumption of no future cost-of-living adjustments (COLAs).
- W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change. The actuarial value funded ratio is 98.85% and the market value funded ratio is 93.15%.
- There were no changes in the benefit provisions since the prior valuation.
- There were no changes to actuarial assumptions or methods since the prior valuation.
- The amortization payment is based upon the following assumptions:
  - 30-year open funding period
  - Contribution amounts are calculated in such a way that they will increase as a level percentage of payroll
  - Total payroll increases are assumed at 4.25% per year
  - Future growth in the number of active members is not reflected in the annual valuation
- The analysis of the changes in contribution rates is shown in Table 5 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 and member contributions, which are both determined as a percentage of pay. As shown in Table 1 under Section III of the report, the employer contribution rate has three components:

- The normal cost percentage (NC%)
- The amortization percentage (UAAL%)
- The 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.

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, 2016. The Executive Summary shows the UAAL%, called Amortization Payment, compared to that of last year.

Assumed administrative expenses are the average of the prior two years, with each year projected at 6.5% to the valuation date.

The calculated rate is used in determining the contributions necessary to meet the Actuarially Determined Contribution for the twelve-month period beginning January 1, 2016. Note, however, that the employer contribution is set at 12.00% of payroll. Therefore, the contribution will be slightly lower than the Actuarially Determined Contribution. This is detailed in the Executive Summary.

Financial Data and Experience

As of January 1, 2016, the Fund has a total market value of $117 million. Financial information was received from Eide Bailly, LLP.

Table 7 under Section III of the report shows a reconciliation of the market values between the beginning and end of 2015.

During 2015, the total investment return on the market value of assets (MVA), as reported by NEPC, LLC, was (0.26%), and is shown in Table 10 under Section III of the report.

In determining the contribution rates and funded status of the Fund, an actuarial value of assets (AVA) is used rather than the market 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 (or less than) expected investment income. 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. An adjustment is made if the actuarial value is not within 20% of the Market Value. For any year following a year in which the 20% of market value adjustment was applied, the actuarial value is determined as if the adjustment was not applied in the previous year.

The development of the AVA is shown in Table 9 under Section III of the report. The AVA is $125 million. The AVA is 106.12% of the MVA as of December 31, 2015, compared to 99.28% last year. The difference between the AVA and the MVA is the deferred gains and losses. As of January 1, 2015, the total deferred gain was $0.8 million. As of January 1, 2016, the total deferred loss was $7.2 million.

In addition to the market return, Table 10 also shows the return on the actuarial value of assets for the Fund. For 2015, this return was 5.89%. Since this return is less than the assumed 7.75% investment return, an actuarial loss occurred, increasing the unfunded actuarial accrued liabilities of the Fund by $1.8 million.

Member Data

Member data as of January 1, 2016, was supplied electronically by the Fund’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 1.55% last year, compared with a 5.84% increased the prior year.

Of the 372 active participants, 47 are eligible or will become eligible for normal retirement in 2016.

The average of the final average salaries for participants who retired or became disabled this year is $91,091.

Changes in payroll are 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 4.25% per year average, then the current amortization payments may be understated and the funding position of the Fund 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 Fund should trend to 100%. Please note that the Plan has fallen below a 100% funded ratio this year.

One reason payroll increased less than expected is that the salary, for continuing active participants, increased less than expected. This represented a loss to the Plan as shown in Table 5 under Section III of the report.

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 50 with at least four years of service.
- *Normal Retirement Benefit*
  - 2.80% of final average salary, maximum 25 years or 70%.
- *Normal Form of Payment*
  - Monthly benefit for life with a lump-sum death benefit equal to the excess (if any) of the employee contributions over the total benefits received.
- *Employee Contributions* are required
  - 9.245% of pay, effective July 1, 2014.
- *Post-retirement Cost-of-Living Adjustments (COLAs)*
  - W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change.

Other than the scheduled contribution increases, 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, if any, is amortized over an open 30 year period as a level percent of payroll.
- The assumed annual investment return rate is 7.75%, with assumed inflation of 3.25%.
- Aggregate payroll is assumed to increase at 4.25% per year.
- Inactive vested participants are assumed to retire at age - or on the valuation date if over age 50.
- 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.

The average future lifetime for current pensioners is 26.4 years.

Actuarial assumptions and methods were not changed since the prior valuation.

GASB and Funding Progress

Governmental Accounting Standards Board Statement Number 67 (GASB 67) contains certain accounting requirements for the Fund. Schedules, notes and required supplementary information are provided under separate cover.

SECTION III

SUPPORTING EXHIBITS

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

Item			January 1, 2016	January 1, 2015
1.	Projected valuation payroll		$27,512,076	$27,090,867
2.	Present value of future pay		$261,651,445	$259,496,722
3.	Employer normal cost rate		11.79%	11.75%
4.	Actuarial accrued liability for active members			
	a.	Present value of future benefits for active members	$127,770,296	$126,157,066
	b.	Less: present value of future employer normal costs	(28,569,483)	(28,368,312)
	c.	Less: present value of future employee contributions	(24,189,675)	(23,990,471)
	d.	Actuarial accrued liability	$75,011,138	$73,798,283
5.	Total actuarial accrued liability for:			
	a.	Retirees and beneficiaries	$41,578,106	$34,488,781
	b.	Disabled members	3,171,838	3,224,321
	c.	Inactive members	6,180,287	3,641,323
	d.	Active members (Item 4d)	75,011,138	73,798,283
	e.	Total	$125,941,369	$115,152,708
6.	Actuarial value of assets (Table 9)		$124,496,124	$115,323,104
7.	Unfunded actuarial accrued liability (UAAL) (Item 5e - Item 6)		$1,445,245	($170,396)
8.	Funding period		30 years	30 years
9.	Assumed payroll growth rate		4.25%	4.25%
10.	Employer Contribution requirement			
	a.	UAAL amortization payment as % of pay	0.28%	-0.03%
	b.	Employer normal cost	11.79%	11.75%
	c.	Administrative expense	0.37%	0.38%
	d.	Contribution requirement (a + b + c)	12.44%	12.10%

Cost Breakdown

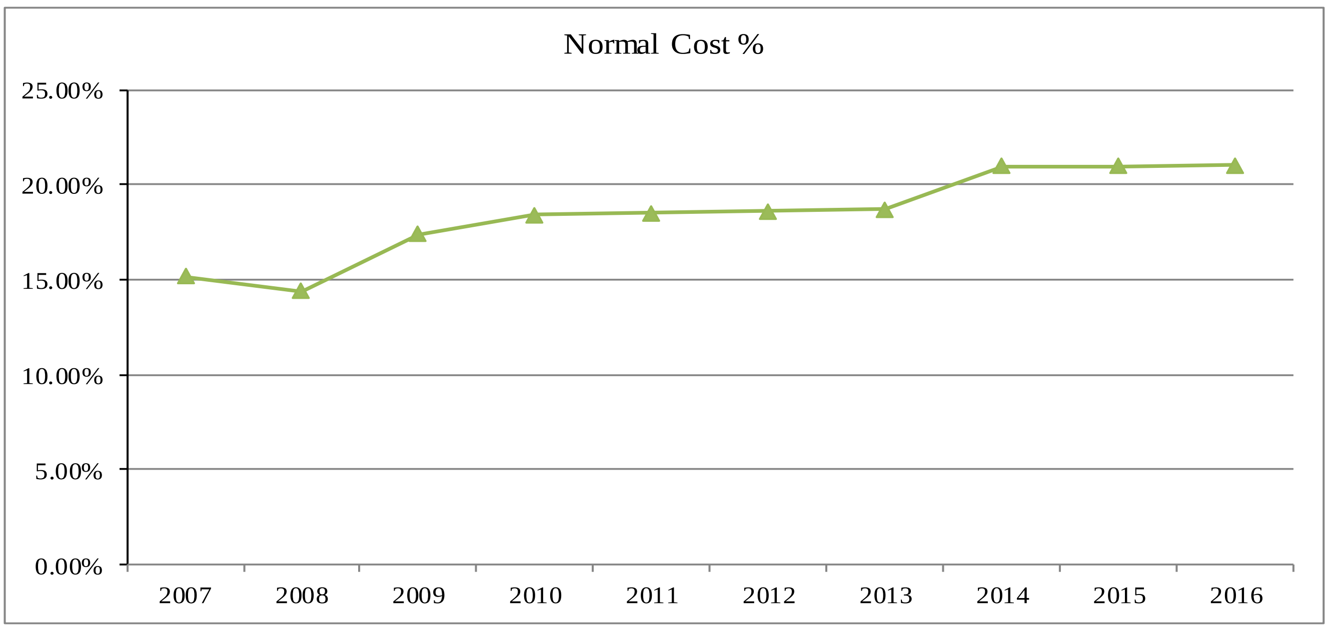
(Assumes No Future Cost-Of-Living Increases)

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	$45,595,649	$73,225,162	$118,820,811
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	1,373,078	730,967	2,104,045
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	5,790,431	1,055,009	6,845,440
Benefits likely to be paid to vested inactive members	0	5,954,169	5,954,169
Benefits to be paid to members due refunds	0	226,118	226,118
Benefits to be paid to current retirees, disabled members, beneficiaries, and future beneficiaries of current retirees	0	44,749,944	44,749,944
Total	$52,759,158	$125,941,369	$178,700,527
Actuarial value of assets	0	124,496,124	124,496,124
Liabilities to be covered by future contributions	$52,759,158	$1,445,245	$54,204,403

History of Total Normal Cost

(Assumes No Future Cost-Of-Living Increases)

Fiscal Year Ending December 31 (1)	Normal Cost as Percent of Payroll (2)
2007	15.18%
2008	14.41%
2009	17.40%
2010	18.42%
2011	18.49%
2012	18.58%
2013	18.71%
2014	20.97%
2015	20.99%
2016	21.03%



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

Item	January 1, 2016
1. Derivation of Experience Gain/(Loss)	
a. Unfunded actuarial accrued liability (UAAL) - previous valuation	($170,396)
b. Normal cost (NC) for fiscal year ending December 31, 2015	5,687,135
c. Actual administrative expenses for fiscal year ending December 31, 2015	95,882
d. Actuarially determined contribution for fiscal year ending December 31, 2015	5,779,998
e. Interest accrual:	
(i) For whole year on (a)	(13,206)
(ii) For half year on (b) + (c) - (d)	117
(iii) Total interest: (e)(i) + (e)(ii)	(13,089)
f. Change in UAAL due to plan changes	-
g. Change in UAAL due to assumption change	-
h. Expected UAAL current year: (a) + (b) + (c) - (d) + (e)(iii) + (f) + (g)	(180,466)
i. Actual UAAL current year	1,445,245
j. Experience gain/(loss): (h) - (i)	(1,625,711)
k. Experience gain/(loss) as a % of actuarial accrued liability	-1.29%
2. Approximate portion of gain/(loss) due to investments (at actuarial value)	($1,757,880)
3. Approximate portion of gain/(loss) due to contributions higher or lower than expected	$23,043
4. Approximate amount of gain/(loss) due to liabilities: (1)(j) - (2) - (3)	$109,125
a. Age & service retirements	$92,722
b. Disability retirements	81,317
c. Death-in-service	72,492
d. Withdrawal from employment	(340,738)
e. Rehires	(23,902)
f. Pay increases	1,554,530
g. Death after retirement	(171,680)
h. Other	(1,155,615)
i. Other as a % of actuarial accrued liability	-0.92%

Change in Calculated Contribution Rate Since the Prior Valuation

(Assumes No Future Cost-Of-Living Increases)

Item	January 1, 2016
1. Calculated contribution rate as of January 1, 2015	12.10%
2. Change in contribution rate during year	
a. Change in employer normal cost	0.04%
b. Assumption changes	0.00%
c. Recognition of prior asset losses (gains)	0.06%
d. Actuarial (gain) loss from current year asset performance	0.28%
e. Actuarial (gain) loss from liability sources and administrative expenses	-0.03%
f. Difference between contributions made and required contributions	-0.01%
g. Effect of payroll growing (faster)/slower than assumption	0.01%
h. Open amortization period reset to 30 years	-0.01%
i. Other changes	0.00%
j. Total change	0.34%
3. Calculated contribution rate as of January 1, 2016	12.44%

Statement of Plan Net Assets

Assets at Market Value		
Item	**FYE 2015**	**FYE 2014**
1. Cash and Cash Equivalents (Operating Cash)	$8,454,471	$7,396,489
2. Receivables		
a. Employer contributions	$260,054	$274,133
b. Employee contributions	200,350	211,196
c. Securities sold	-	57,485
d. Accrued interest and dividends	230,374	303,091
e. Currency contract receivable	52,813,632	17,015,962
f. Other	567,936	-
g. Rebate and fee income receivable	-	-
h. Total receivables	$54,072,346	$17,861,867
3. Investments, at Fair Value	$114,698,990	$118,565,315
4. Liabilities		
a. Benefits and refunds payable	$0	($18,454)
b. Accrued payroll taxes and deductions	-	-
c. Securities purchased	(965,088)	(1,051,599)
d. Administrative and consulting fees payable	(211,611)	(201,748)
e. Currency contract payable	(52,710,789)	(16,634,469)
f. Securities lending collateral	(6,024,373)	(9,760,143)
g. Total liabilities	($59,911,861)	($27,666,413)
5. Total Market Value of Assets Available for Benefits	$117,313,946	$116,157,258

Reconciliation of Plan Net Assets

Assets at Market Value			
	Item	**FYE 2015**	**FYE 2014**
A.	Market Value of Assets at Beginning of Year	$116,157,258	$108,231,641
B.	Contribution Income:		
	1. Contributions		
	a. Employee	$2,528,514	$2,414,435
	b. Employer	3,273,301	3,184,045
	c. Other	396,605	265,481
	d. Total	$6,198,420	$5,863,961
	2. Investment Income		
	a. Interest, dividends, and other income	$2,716,702	$2,760,192
	b. Net appreciation	(3,218,890)	3,207,193
	c. Investment expenses	(691,380)	(721,086)
	d. Net investment income	($1,193,568)	$5,246,299
	3. Securities Lending		
	a. Gross income	$40,885	$67,422
	b. Deductions	(5,865)	(10,103)
	c. Net investment income	$35,020	$57,319
	4. Benefits and Refunds		
	a. Refunds	($75,062)	($62,762)
	b. Regular monthly benefits	(3,712,240)	(3,090,522)
	c. Total	($3,787,302)	($3,153,284)
	5. Administrative and Miscellaneous Expenses	($95,882)	($88,678)
C.	Market Value of Assets at End of Year	$117,313,946	$116,157,258

Progress of Fund Through December 31, 2015

Plan Year Ending December 31	Employer Contributions*	Employee Contributions*	Administrative Expenses	Net Investment Income**	Benefit Payments	Transfers	Actuarial Value of Assets
Total	$ 34,357,671	$ 22,197,773	$ (572,359)	$ 57,867,734	$ (21,034,955)	$ -	
2001	$ 1,191,603	$ 244,783	$ (9,170)	$ 3,364,254	$ (229,960)	$ -	$ 36,241,771
2002	1,233,700	616,850	(12,003)	(43,020)	(283,033)	-	37,754,265
2003	1,396,498	882,653	(7,567)	2,930,176	(275,060)	-	42,680,965
2004	1,704,986	871,595	(9,424)	1,749,206	(317,416)	-	46,679,912
2005	1,834,792	916,633	(15,911)	2,903,414	(419,341)	-	51,899,499
2006	1,997,106	978,240	(14,430)	4,709,483	(512,555)	-	59,057,343
2007	2,217,964	1,129,783	(17,014)	6,490,577	(651,489)	-	68,227,164
2008	2,330,110	1,441,056	(25,147)	(8,775,824)	(865,599)	-	62,331,759
2009	2,490,830	1,847,639	(27,732)	10,778,950	(1,264,158)	-	76,157,288
2010	2,638,781	1,850,089	(32,796)	2,830,428	(1,680,856)	-	81,762,934
2011	2,713,265	1,921,682	(52,758)	1,834,542	(2,049,604)	-	86,130,061
2012	2,832,064	1,997,810	(67,187)	2,984,749	(2,629,118)	-	91,248,379
2013	3,052,778	2,159,773	(96,660)	10,245,079	(2,916,180)	-	103,693,169
2014	3,449,526	2,414,435	(88,678)	9,007,936	(3,153,284)	-	115,323,104
2015	3,273,668	2,924,752	(95,882)	6,857,784	(3,787,302)	-	124,496,124

* Employer contributions include other funding sources and employee contributions may include member redeposits and member service purchase contributions

** Net of investment expenses

Development of Actuarial Value of Assets

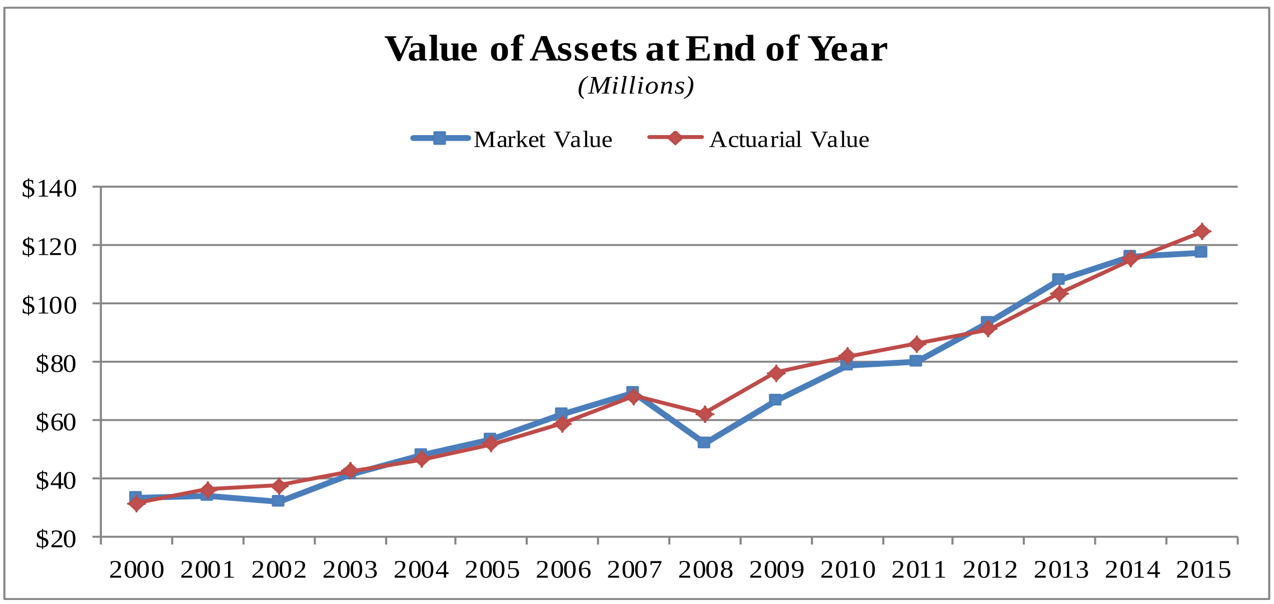
Item	FYE 2015	FYE 2014
1. Actuarial value of assets, beginning of year (before corridor)	$115,323,104	$103,693,169
2. Market value, end of year	$117,313,946	$116,157,258
3. Market value, beginning of year	$116,157,258	$108,231,641
4. Non-investment/administrative net cash flow:		
a. Employee contributions	$2,528,514	$2,414,435
b. Employer contributions	3,273,301	3,184,045
c. Other contributions	396,605	265,481
d. Refund of employee accounts	(75,062)	(62,762)
e. Retirement benefits	(3,712,240)	(3,090,522)
f. Administrative expenses	(95,882)	(88,678)
g. Total net cash flow: [sum of (4a) through (4f)]	$2,315,236	$2,621,999
5. Investments and securities lending:		
a. Interest and dividends on investments	$2,716,702	$2,760,192
b. Gross income from securities lending	40,885	67,422
c. Fees and expenses	(697,245)	(731,189)
d. Total net income: [sum of (5a) through (5c)]	$2,060,342	$2,096,425
6. Investment income:		
a. Actual market return: (2) - (3) - (4g) - (5d)	($3,218,890)	$3,207,193
b. Assumed rate of return	7.75%	7.75%
c. Assumed amount of return	7,029,887	6,391,234
d. Amount subject to phase-in: (6a) - (6c)	($10,248,777)	($3,184,041)
7. Phase-in recognition of investment income:		
a. Current year: 0.20 * (6d)	($2,049,755)	($636,808)
b. First prior year	(636,808)	1,002,712
c. Second prior year	1,002,712	921,843
d. Third prior year	921,843	(1,470,437)
e. Fourth prior year	(1,470,437)	702,967
f. Total recognition	($2,232,445)	$520,277
8. Actuarial value of assets, end of year		
a. Preliminary actuarial value of assets, end of year: (1) + (4g) + (5d) + (6c) + (7f)	$124,496,124	$115,323,104
b. Upper corridor limit: 120% * (2)	140,776,735	139,388,710
c. Lower corridor limit: 80% * (2)	93,851,157	92,925,806
d. Actuarial value of assets, end of year	$124,496,124	$115,323,104
9. Difference between market and actuarial value of assets	($7,182,178)	$834,154
10. Actuarial rate of return	5.89%	8.58%
11. Market rate of return*	-0.26%	4.70%
12. Ratio of actuarial value to market value of assets	106.12%	99.28%

* Current year market rate of return is based on unaudited data and is supplied by NEPC, LLC.

History of Investment Returns

Plan Year (1)	Market Value (2)	Actuarial Value (3)
2000	-0.99%	16.60%
2001	-4.47%	10.42%
2002	-9.29%	-0.12%
2003	21.00%	7.56%
2004	11.54%	3.99%
2005	8.22%	6.07%
2006	12.63%	8.87%
2007	7.44%	10.75%
2008	-29.63%	-12.60%
2009	23.72%	16.88%
2010	13.80%	3.65%
2011	-0.90%	2.21%
2012	14.05%	3.42%
2013	13.53%	11.09%
2014	4.70%	8.58%
2015	-0.26%	5.89%
Average returns:		
Last five years:	6.03%	6.19%
Last ten years:	4.85%	5.59%

The market rates above were provided by NEPC, LLC. The actuarial rates above are based on the financial information provided by Eide Bailly, LLP.



Solvency Test

Valuation Date January 1	Total Active Member Contributions (1)	Inactive and Pensioner Liability (2)	Employer Financed Active Accrued Liability (3)	Actuarial Value of Assets	Percentage of Liabilities Covered by Assets (1)	(2)	(3)
2004	$4,500,000	$4,214,000	$25,966,000	$42,681,000	100%	100%	130.8%
2005	5,229,000	5,625,000	29,915,000	46,680,000	100%	100%	119.8%
2006	5,924,000	7,117,000	34,112,000	51,900,000	100%	100%	113.9%
2007	6,704,000	9,264,000	38,699,000	59,057,000	100%	100%	111.3%
2008	7,444,000	11,374,000	45,657,000	68,227,000	100%	100%	108.2%
2009	8,327,862	15,729,000	40,532,000	62,331,759	100%	100%	94.4%
2010	9,543,358	18,438,067	37,566,664	76,157,288	100%	100%	128.2%
2011	10,789,060	22,028,593	37,849,461	81,762,934	100%	100%	129.3%
2012	11,510,781	29,263,818	37,989,048	86,130,061	100%	100%	119.4%
2013	12,908,873	32,550,608	40,004,972	91,248,379	100%	100%	114.5%
2014	14,398,244	36,922,600	53,303,854	103,693,169	100%	100%	98.3%
2015	16,382,165	41,354,425	57,416,118	115,323,104	100%	100%	100.3%
2016	17,297,744	50,930,231	57,713,394	124,496,124	100%	100%	97.5%

Effective January 1, 2010, liabilities are calculated assuming no future cost-of-living increases.

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	$31,680,261	$18,951,300	($12,728,961)	167.17%	$10,917,600	-116.59%
2002	36,241,771	23,805,700	(12,436,071)	152.24%	12,811,600	-97.07%
2003	37,754,265	30,673,200	(7,081,065)	123.09%	13,633,500	-51.94%
2004	42,680,965	34,680,000	(8,000,965)	123.07%	14,244,400	-56.17%
2005	46,679,912	40,769,400	(5,910,512)	114.50%	14,647,900	-40.35%
2006	51,899,499	47,153,000	(4,746,499)	110.07%	15,527,800	-30.57%
2007	59,057,343	54,666,500	(4,390,843)	108.03%	17,273,900	-25.42%
2008	68,227,164	64,474,700	(3,752,464)	105.82%	20,053,800	-18.71%
2009	62,331,759	75,270,800	12,939,041	82.81%	22,865,300	56.59%
2010	76,157,288	65,548,088	(10,609,200)	116.19%	22,211,586	-47.76%
2011	81,762,934	70,667,114	(11,095,820)	115.70%	22,517,176	-49.28%
2012	86,130,061	78,763,646	(7,366,415)	109.35%	22,678,277	-32.48%
2013	91,248,379	85,464,453	(5,783,926)	106.77%	24,210,827	-23.89%
2014	103,693,169	104,624,698	931,529	99.11%	25,596,043	3.64%
2015	115,323,104	115,152,708	(170,396)	100.15%	27,090,867	-0.63%
2016	124,496,124	125,941,369	1,445,245	98.85%	27,512,076	5.25%

Effective January 1, 2010, liabilities are calculated assuming no future cost-of-living increases.

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

(1)	(2)	(3)	(4)	(5)	(6)
Fiscal Year Ending December 31	Actuarially Determined Contribution		Employer Contributions*		Percentage of Actuarially Determined Contribution Contributed
	% of Payroll	Amount	% of Payroll	Amount	[(5)/(3)]
2004	16.62%	$2,367,900	11.97%	$1,704,986	72.00%
2005	10.74%	1,572,900	12.53%	1,834,792	116.65%
2006	11.46%	1,780,100	12.86%	1,997,106	112.19%
2007	13.26%	2,289,900	12.84%	2,217,964	96.86%
2008	12.47%	2,501,600	11.62%	2,330,110	93.14%
2009	16.43%	3,756,684	10.89%	2,490,830	66.30%
2010	7.49%	1,663,392	11.54%	2,638,781	158.64%
2011	7.50%	1,688,788	12.05%	2,713,265	160.66%
2012	8.55%	1,937,521	12.49%	2,832,064	146.17%
2013	9.20%	2,227,008	12.61%	3,052,778	137.08%
2014	12.80%	3,273,329	13.48%	3,449,526	105.38%
2015	12.10%	3,275,448	12.08%	3,273,668	99.95%
2016	12.44%	3,420,716	-	-	-

Effective January 1, 2010, liabilities are calculated assuming no future cost-of-living increases.

*Includes other funding sources but excludes member redeposits and member service purchase contributions.

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Retired Participants	Disableds	Beneficiaries	Participants Due Refunds	Total
Number as of January 1, 2015	**369**	**29**	**66**	**13**	**11**	**26**	**514**
New participants	29	-	-	-	-	-	29
Vested terminations	(6)	6	-	-	-	-	-
Retirements	(10)	(1)	11	-	-	-	-
Disability	-	-	-	-	-	-	-
Deceased with beneficiary	-	-	-	-	-	-	-
Deceased without beneficiary	-	-	-	-	-	-	-
Due refunds	(9)	-	-	-	-	9	-
Lump sum payoffs	(2)	-	-	-	-	(4)	(6)
Rehires/return to active	1	-	-	-	-	(1)	-
Certain period expired	-	-	-	-	(1)	-	(1)
Reclassifications	-	-	-	-	-	-	-
Data corrections	-	2	-	-	-	-	2
Number as of January 1, 2016	**372**	**36**	**77**	**13**	**10**	**30**	**538**

Demographic Statistics

	January 1		
	2016	**2015**	**Change**
Active Participants			
Number	372	369	0.8%
Vested	*267*	*267*	
Not vested	*105*	*102*	
Average age (years)	39.54	39.46	0.2%
Average service (years)	10.14	10.28	-1.4%
Average entry age (years)	29.40	29.18	0.8%
Total payroll*	$27,512,076	$27,090,867	1.6%
Average payroll*	$73,957	$73,417	0.7%
Total employee contributions	$17,297,744	$16,382,165	5.6%
Average employee contributions	$46,499	$44,396	4.7%
Vested Former Participants			
Number	36	29	24.1%
Average age (years)	43.25	42.69	1.3%
Total employee contributions	$1,408,677	$884,015	59.3%
Average employee contributions	$39,130	$30,483	28.4%
Service Retirees			
Number	77	66	16.7%
Average age (years)	58.11	57.51	1.0%
Total annual benefits	$3,335,980	$2,704,851	23.3%
Average annual benefit	$43,324	$40,983	5.7%
Disability Retirees			
Number	13	13	0.0%
Average age (years)	53.63	52.63	1.9%
Total annual benefits	$340,186	$340,186	0.0%
Average annual benefit	$26,168	$26,168	0.0%
Beneficiaries			
Number	10	11	-9.1%
Average age (years)	55.30	54.69	1.1%
Total annual benefits	$260,025	$273,634	-5.0%
Average annual benefit	$26,002	$24,876	4.5%
Participants Due Refunds			
Number	30	26	15.4%
Total Refunds Due	$226,118	$172,478	31.1%

* Projected payroll for the upcoming valuation year

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

Average Age = 39.5 Average Service = 10.3

Age Last Birthday		Whole Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
20-24	Count	12	-	-	-	-	-	-	12
	Avg. Salary	$40,530	-	-	-	-	-	-	$40,530
25-29	Count	35	9	-	-	-	-	-	44
	Avg. Salary	50,002	$62,134	-	-	-	-	-	52,483
30-34	Count	33	26	5	-	-	-	-	64
	Avg. Salary	54,897	72,225	$93,938	-	-	-	-	64,986
35-39	Count	13	22	28	11	-	-	-	74
	Avg. Salary	51,095	73,595	82,855	$85,693	-	-	-	74,944
40-44	Count	11	7	19	27	2	-	-	66
	Avg. Salary	55,346	72,948	77,727	85,380	*	-	-	76,767
45-49	Count	6	5	11	21	13	4	-	60
	Avg. Salary	65,896	66,099	75,664	81,791	$90,151	$103,715	-	81,043
50-54	Count	4	2	4	3	9	2	-	24
	Avg. Salary	64,732	*	77,991	*	83,889	*	-	80,041
55-59	Count	2	2	1	-	3	3	1	12
	Avg. Salary	*	*	*	-	*	*	*	81,622
60-64	Count	-	2	1	-	-	-	1	4
	Avg. Salary	-	*	*	-	-	-	*	74,426
65-69	Count	-	1	-	-	-	-	-	1
	Avg. Salary	-	*	-	-	-	-	-	*
70 & Over	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
Totals	Count	**116**	**76**	**69**	**62**	**27**	**9**	**2**	**361**
	Avg. Salary	**$52,901**	**$70,437**	**$80,824**	**$84,034**	**$87,757**	**$97,351**	*****	**$71,170**

Average Salary represents annualized salary earned in 2015 and is not shown for cells with counts less than or equal to three participants

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

Average Age = 41.8 Average Service = 5.9

Age Last Birthday		Whole Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
20-24	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
25-29	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
30-34	Count	1	2	-	-	-	-	-	3
	Avg. Salary	*	*	-	-	-	-	-	*
35-39	Count	1	2	1	-	-	-	-	4
	Avg. Salary	*	*	*	-	-	-	-	$68,141
40-44	Count	-	-	1	-	-	-	-	1
	Avg. Salary	-	-	*	-	-	-	-	*
45-49	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
50-54	Count	1	-	-	-	-	-	-	1
	Avg. Salary	*	-	-	-	-	-	-	*
55-59	Count	2	-	-	-	-	-	-	2
	Avg. Salary	*	-	-	-	-	-	-	*
60-64	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
65-69	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
70 & Over	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
Totals	Count	**5**	**4**	**2**	**-**	**-**	**-**	**-**	**11**
	Avg. Salary	**$59,081**	**$61,913**	*****	**-**	**-**	**-**	**-**	**$63,449**

Average Salary represents annualized salary earned in 2015 and is not shown for cells with counts less than or equal to three participants

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

Average Age = 39.5 Average Service = 10.1

Age Last Birthday		Whole Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
20-24	Count	12	-	-	-	-	-	-	12
	Avg. Salary	$40,530	-	-	-	-	-	-	$40,530
25-29	Count	35	9	-	-	-	-	-	44
	Avg. Salary	50,002	$62,134	-	-	-	-	-	52,483
30-34	Count	34	28	5	-	-	-	-	67
	Avg. Salary	53,870	71,116	$93,938	-	-	-	-	64,067
35-39	Count	14	24	29	11	-	-	-	78
	Avg. Salary	51,952	73,056	82,591	$85,693	-	-	-	74,595
40-44	Count	11	7	20	27	2	-	-	67
	Avg. Salary	55,346	72,948	77,825	85,380	*	-	-	76,810
45-49	Count	6	5	11	21	13	4	-	60
	Avg. Salary	65,896	66,099	75,664	81,791	$90,151	$103,715	-	81,043
50-54	Count	5	2	4	3	9	2	-	25
	Avg. Salary	65,405	*	77,991	*	83,889	*	-	79,563
55-59	Count	4	2	1	-	3	3	1	14
	Avg. Salary	76,355	*	*	-	*	*	*	80,263
60-64	Count	-	2	1	-	-	-	1	4
	Avg. Salary	-	*	*	-	-	-	*	74,426
65-69	Count	-	1	-	-	-	-	-	1
	Avg. Salary	-	*	-	-	-	-	-	*
70 & Over	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
Totals	Count	**121**	**80**	**71**	**62**	**27**	**9**	**2**	**372**
	Avg. Salary	**$53,157**	**$70,011**	**$80,729**	**$84,034**	**$87,757**	**$97,351**	*****	**$70,942**

Average Salary represents annualized salary earned in 2015 and is not shown for cells with counts less than or equal to three participants

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

Average Age = 43.5 Average Service = 11.0

Age Last Birthday	Whole Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	1	-	-	-	-	1
30-34	-	1	4	-	-	-	-	5
35-39	-	-	5	1	-	-	-	6
40-44	-	1	1	5	1	-	-	8
45-49	-	-	4	3	2	2	1	12
50-54	-	-	-	-	-	-	-	-
55-59	-	1	-	-	-	-	-	1
60-64	-	-	-	1	1	-	-	2
65-69	-	-	-	-	-	-	-	-
70 & Over	-	-	-	-	-	-	-	-
Totals	**-**	**3**	**15**	**10**	**4**	**2**	**1**	**35**

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

Average Age = 33.2 Average Service = 5.0

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

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

Average Age = 43.2 Average Service = 10.9

Age	Whole Years of Service at Valuation Date							
Last Birthday	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	1	-	-	-	-	1
30-34	-	2	4	-	-	-	-	6
35-39	-	-	5	1	-	-	-	6
40-44	-	1	1	5	1	-	-	8
45-49	-	-	4	3	2	2	1	12
50-54	-	-	-	-	-	-	-	-
55-59	-	1	-	-	-	-	-	1
60-64	-	-	-	1	1	-	-	2
65-69	-	-	-	-	-	-	-	-
70 & Over	-	-	-	-	-	-	-	-
Totals	**-**	**4**	**15**	**10**	**4**	**2**	**1**	**36**

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	8	N/A	1	N/A	35	$957,366	50.19%	$27,353
2009	11	$496,899	1	$16,148	45	1,438,117	50.22%	31,958
2010	10	383,726	0	0	55	1,821,843	26.68%	33,124
2011	12	535,099	0	0	67	2,356,942	29.37%	35,178
2012	7	278,412	0	0	74	2,635,354	11.81%	35,613
2013	7	274,075	0	0	81	2,909,429	10.40%	35,919
2014	11	481,088	2	71,846	90	3,318,671	14.07%	36,874
2015	11	631,130	1	13,610	100	3,936,191	18.61%	39,362

* Includes cost-of-living increases

Pensioners by Option Code

	Count			Monthly Benefit		
Option Code*	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
1	21	1	22	$66,426	$2,471	$68,897
2	33	-	33	101,437	-	101,437
3	21	1	22	83,719	2,610	86,329
4	8	-	8	31,702	-	31,702
5	5	-	5	17,983	-	17,983
Total	**88**	**2**	**90**	**$301,266**	**$5,081**	**$306,347**
Beneficiaries	**-**	**10**	**10**	**-**	**$21,669**	**$21,669**
Grand Total	**88**	**12**	**100**	**$301,266**	**$26,750**	**$328,016**

* See optional forms of payment in Appendix

Pensioners by Monthly Benefit and Option Code

Males	Option Code					
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	-	-	-	-	-	-
$200-$399	-	-	-	-	-	-
$400-$599	-	1	-	-	-	1
$600-$799	-	1	-	-	-	1
$800-$999	1	1	-	-	-	2
$1,000-$1,499	2	2	1	-	-	5
$1,500-$1,999	1	5	1	-	-	7
$2,000-$2,499	7	3	1	-	1	12
$2,500 & over	10	20	18	8	4	60
Total	**21**	**33**	**21**	**8**	**5**	**88**
Females						
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	-	-	-	-	-	-
$200-$399	-	-	-	-	-	-
$400-$599	-	-	-	-	-	-
$600-$799	-	-	-	-	1	1
$800-$999	-	-	-	-	-	-
$1,000-$1,499	-	-	-	-	1	1
$1,500-$1,999	-	-	-	-	3	3
$2,000-$2,499	1	-	-	-	2	3
$2,500 & over	-	-	1	-	3	4
Total	**1**	**-**	**1**	**-**	**10**	**12**
Males & Females						
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	-	-	-	-	-	-
$200-$399	-	-	-	-	-	-
$400-$599	-	1	-	-	-	1
$600-$799	-	1	-	-	1	2
$800-$999	1	1	-	-	-	2
$1,000-$1,499	2	2	1	-	1	6
$1,500-$1,999	1	5	1	-	3	10
$2,000-$2,499	8	3	1	-	3	15
$2,500 & over	10	20	19	8	7	64
Total	**22**	**33**	**22**	**8**	**15**	**100**

Pensioners by Age and Option Code

Average Age Male = 57.5   Average Age Female = 55.3   Average Age Total = 57.2

Males	Option Code					
Age Last Birthday	**1**	**2**	**3**	**4**	**5**	**Total**
Under 50	-	2	1	-	-	3
50-54	9	5	4	-	1	19
55-59	8	14	8	4	2	36
60-64	3	10	7	3	2	25
65-69	1	2	1	1	-	5
70-74	-	-	-	-	-	-
75-79	-	-	-	-	-	-
80-84	-	-	-	-	-	-
85 & over	-	-	-	-	-	-
Total	**21**	**33**	**21**	**8**	**5**	**88**
Females						
Age Last Birthday	**1**	**2**	**3**	**4**	**5**	**Total**
Under 50	-	-	-	-	3	3
50-54	1	-	-	-	1	2
55-59	-	-	1	-	2	3
60-64	-	-	-	-	2	2
65-69	-	-	-	-	-	-
70-74	-	-	-	-	1	1
75-79	-	-	-	-	1	1
80-84	-	-	-	-	-	-
85 & over	-	-	-	-	-	-
Total	**1**	**-**	**1**	**-**	**10**	**12**
Males & Females						
Age Last Birthday	**1**	**2**	**3**	**4**	**5**	**Total**
Under 50	-	2	1	-	3	6
50-54	10	5	4	-	2	21
55-59	8	14	9	4	4	39
60-64	3	10	7	3	4	27
65-69	1	2	1	1	-	5
70-74	-	-	-	-	1	1
75-79	-	-	-	-	1	1
80-84	-	-	-	-	-	-
85 & over	-	-	-	-	-	-
Total	**22**	**33**	**22**	**8**	**15**	**100**

Pensions Awarded in 2015 by Option Code

Average Age = 55.5

Males & Females	Option Code					
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	-	-	-	-	-	-
$200-$399	-	-	-	-	-	-
$400-$599	-	-	-	-	-	-
$600-$799	-	-	-	-	-	-
$800-$999	-	-	-	-	-	-
$1,000-$1,499	-	-	-	-	-	-
$1,500-$1,999	-	-	-	-	-	-
$2,000-$2,499	-	-	-	-	-	-
$2,500 & over	2	3	4	1	1	11
Total	**2**	**3**	**4**	**1**	**1**	**11**

Males & Females						
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under 50	-	-	-	-	-	-
50-54	-	2	2	-	-	4
55-59	2	1	1	-	1	5
60-64	-	-	1	1	-	2
65-69	-	-	-	-	-	-
70-74	-	-	-	-	-	-
75-79	-	-	-	-	-	-
80-84	-	-	-	-	-	-
85 & over	-	-	-	-	-	-
Total	**2**	**3**	**4**	**1**	**1**	**11**

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

(Average Monthly Benefit)

Average Service at Retirement = 21.5 Average Years Since Retirement = 6.1

Service at Retirement		Years Elapsed Since Retirement							
		0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 5	Count	1	1	1	-	1	-	-	4
	Avg. Benefit	$2,071	$561	$1,844	-	$2,192	-	-	$1,667
5-9	Count	2	2	1	-	-	-	-	5
	Avg. Benefit	2,834	829	1,484	-	-	-	-	1,762
10-14	Count	3	1	3	-	1	-	-	8
	Avg. Benefit	1,125	2,471	1,998	-	1,452	-	-	1,662
15-19	Count	5	2	3	2	-	-	-	12
	Avg. Benefit	3,018	1,898	1,895	$1,797	-	-	-	2,347
20-24	Count	5	6	4	-	-	-	-	15
	Avg. Benefit	4,432	2,590	2,486	-	-	-	-	3,176
25-29	Count	19	20	-	-	-	-	-	39
	Avg. Benefit	4,838	3,901	-	-	-	-	-	4,357
30-34	Count	7	-	-	-	-	-	-	7
	Avg. Benefit	4,549	-	-	-	-	-	-	4,549
35 & Over	Count	-	-	-	-	-	-	-	-
	Avg. Benefit	-	-	-	-	-	-	-	-
Totals	Count	**42**	**32**	**12**	**2**	**2**	-	-	**90**
	Avg. Benefit	**$4,098**	**$3,189**	**$2,079**	**$1,797**	**$1,822**	-	-	**$3,404**

Retirees and Disabled Members by Year of Retirement

January 1, 2016 Total = 90

Year of Retirement	Count	Year of Retirement	Count
Under 1960	-	1988	-
1960	-	1989	-
1961	-	1990	-
1962	-	1991	1
1963	-	1992	-
1964	-	1993	-
1965	-	1994	1
1966	-	1995	-
1967	-	1996	-
1968	-	1997	-
1969	-	1998	-
1970	-	1999	1
1971	-	2000	1
1972	-	2001	2
1973	-	2002	-
1974	-	2003	-
1975	-	2004	7
1976	-	2005	3
1977	-	2006	3
1978	-	2007	3
1979	-	2008	7
1980	-	2009	10
1981	-	2010	9
1982	-	2011	12
1983	-	2012	5
1984	-	2013	6
1985	-	2014	9
1986	-	2015*	10
1987	-		

**May include retirements as of January 1, 2016*

Thirty Year Projected Benefit Payments

Year Ending December 31	Actives	Retirees*	Total
2016	$ 333,731	$ 4,053,940	$ 4,387,672
2017	892,715	4,107,523	5,000,238
2018	1,427,575	4,146,953	5,574,528
2019	2,010,169	4,167,018	6,177,187
2020	2,638,901	4,202,676	6,841,577
2021	3,322,218	4,231,056	7,553,273
2022	4,049,066	4,276,347	8,325,413
2023	4,811,060	4,282,819	9,093,879
2024	5,672,424	4,285,477	9,957,901
2025	6,609,871	4,248,956	10,858,827
2026	7,557,558	4,227,970	11,785,528
2027	8,550,592	4,205,280	12,755,872
2028	9,678,352	4,167,632	13,845,983
2029	10,942,921	4,126,461	15,069,382
2030	12,280,962	4,121,994	16,402,955
2031	13,632,396	4,089,232	17,721,628
2032	14,946,763	4,048,708	18,995,471
2033	16,322,384	4,006,682	20,329,066
2034	17,734,430	3,949,438	21,683,868
2035	19,104,129	3,882,331	22,986,460
2036	20,435,534	3,816,266	24,251,800
2037	21,715,289	3,743,374	25,458,664
2038	22,847,678	3,661,012	26,508,690
2039	23,877,162	3,572,965	27,450,127
2040	24,804,835	3,478,981	28,283,816
2041	25,540,245	3,378,759	28,919,004
2042	26,142,169	3,272,054	29,414,223
2043	26,566,521	3,158,662	29,725,183
2044	26,843,596	3,038,551	29,882,147
2045	26,989,150	2,911,793	29,900,943

* Includes Disabled Members, Beneficiaries, and Deferred Vested Members. Retirement benefit payments for deferred vested members are assumed to commence at age 50.

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, 2016 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) or the surplus amount.

   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 7.75%), 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 Fund on account of the present group of participants and beneficiaries.

   b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and a unfunded 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 or "overfunded" 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. 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. An adjustment is made if the actuarial value is not within 20% of the Market Value. For any year following a year in which the 20% of market value adjustment was applied, the actuarial value is determined as if the adjustment was not applied in the previous year.

4. Economic Assumptions

a. Investment return

7.75% per year, compounded annually, composed of an assumed 3.25% 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	7.00%
25	7.00%
30	7.00%
35	6.50%
40	5.50%
45	5.50%
50	5.00%
55	4.75%
60	4.25%

c. Payroll growth rate

In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 4.25% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

d. Cost-of-Living adjustment

No cost-of-living adjustment is assumed since the policy for providing the benefit requires Board approval to make the recommendation to the Joint Appropriations

Committee and the funded level of the plan shows a cost-of-living requirement would not be permitted.

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Pre-Retirement Mortality:
RP-2000 Combined Mortality Table, fully generational, projected with Scale BB
Males: Set back 4 years with a multiplier of 104%
Females: Set back 3 years with a multiplier of 90%
Healthy Post-Retirement Mortality:
RP-2000 Combined Mortality Table, fully generational, projected with Scale BB
Males: Set back 0 years with a multiplier of 104%
Females: Set forward 1 year with a multiplier of 90%
Disabled Mortality:
RP-2000 Disabled Mortality Table, fully generational, projected with Scale BB
Males: Set forward 5 years with a multiplier of 120%
Females: Set forward 5 years with a multiplier of 120%

	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2016 using Scale BB					
Age	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.03%	0.02%	2.58%	0.85%
25	0.04%	0.02%	0.04%	0.02%	2.58%	0.85%
30	0.04%	0.02%	0.04%	0.03%	2.58%	0.85%
35	0.05%	0.03%	0.08%	0.04%	2.58%	0.85%
40	0.08%	0.05%	0.11%	0.07%	2.58%	0.85%
45	0.11%	0.07%	0.15%	0.10%	3.31%	1.32%
50	0.16%	0.11%	0.21%	0.16%	4.05%	1.83%
55	0.24%	0.17%	0.36%	0.25%	4.51%	2.23%
60	0.42%	0.28%	0.63%	0.44%	4.96%	2.77%
65	0.70%	0.49%	1.09%	0.81%	5.90%	3.72%
70	1.22%	0.90%	1.81%	1.38%	7.73%	5.17%
75			3.09%	2.30%	10.31%	7.15%
80			5.26%	3.77%	13.34%	9.91%
85			9.04%	6.41%	18.44%	14.08%
90			15.98%	11.08%	29.15%	21.20%
95			25.27%	17.06%	39.41%	27.16%
100			34.15%	21.34%	47.75%	35.17%

100% of active deaths and disabilities are assumed to be duty-related.

b. Disability and Withdrawal

	Disability		Withdrawal Ultimate	
Age	Male	Female	Male	Female
20	0.03%	0.03%	12.00%	12.00%
25	0.03%	0.03%	8.00%	8.00%
30	0.03%	0.03%	5.00%	5.00%
35	0.19%	0.19%	3.00%	3.00%
40	0.42%	0.42%	1.00%	1.00%
45	0.65%	0.65%	1.00%	1.00%
50	0.82%	0.82%	1.00%	1.00%
55	1.81%	1.81%	0.50%	0.50%
60	2.00%	2.00%	0.50%	0.50%

c. Retirement Rates

Age	Rate
50	20.0%
51	10.0%
52	15.0%
53	20.0%
54	20.0%
55	30.0%
56	30.0%
57	30.0%
58	30.0%
59	30.0%
60	50.0%
61	50.0%
62	100.0%

6. Other Assumptions

a. Percent married: 100.00% 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, whichever is more valuable at the time of termination.

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 50.

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. We assume all members are totally disabled.

h. Administrative expenses: Assumed to be the average of the prior two years, with each year projected at 6.5% to the valuation date.

i. 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.

j. Decrement timing: Decrements of all types are assumed to occur mid-year.

k. 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.

l. 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.

m. Benefit Service: All members are assumed to accrue one year of service each year**.**

APPENDIX B

SUMMARY OF PLAN PROVISIONS

Summary of Plan Provisions

Covered Members	Any person who is employed by the Wyoming Paid Firemen Retirement Fund Plan B for members hired on or after July 1, 1981.
Final Average Salary	Employee's average annual salary for the highest paid three continuous years of service.
Service Retirement	
Eligibility	Age 50 with four or more years of service.
Monthly Benefit	2.80% of employee's highest three-year average salary for each year of credited service, with a max of 25 years or 70%.
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 without interest. An employee who terminates with less than four years of service is only eligible for the lump-sum benefit.
Disability Retirement	
Eligibility	No age or service eligibility requirements. Partial or total disability resulting from an individual and specific act, the type of which would normally occur only while employed as an employee, or as otherwise defined under W.S. 15-5-405.
Monthly Benefit	50.0% of Final Average Salary.

Pre-retirement Death Benefit

Eligibility	No age or service requirements.
Monthly Benefit	50% of member's final actual salary, payable to the surviving spouse or eligible dependent child.

Post-retirement Death Benefit

Monthly Benefit	On the death of a member, inactive member, retired member, or survivor the excess of the accumulated member contributions over all pension payments made are payable as a death benefit.

Contributions

Employee	9.245% of salary. The employer may subsidize all or part of the employee contributions.
Employer	12.00% of salary.
Interest	None.

Cost-of-Living Improvements W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change.

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 over the total benefits received.
Option 2	Monthly benefit for life. Upon death, 100% of the benefit continues to be paid to the beneficiary.
Option 3	Monthly benefit for life. Upon death, 50% of the benefit continues to be paid to the beneficiary.
Option 4	Monthly benefit for life with a guarantee of 120 monthly payments
Option 5	The largest possible monthly benefit payable for life with no lump-sum death benefit.