SHERIFFS' PENSION & RELIEF FUND

ACTUARIAL VALUATION AS OF
JUNE 30, 2015

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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December 14, 2015

Board of Trustees
Sheriffs' Pension & Relief Fund
1225 Nicholson Drive
Baton Rouge, Louisiana 70802

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Sheriffs' Pension & Relief Fund for the fiscal year ending June 30, 2015. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrators and accountants. This report was prepared at the request of the Board of Trustees of the Sheriffs' Pension & Relief Fund of the State of Louisiana. The primary purpose of this report is to determine the actuarially required contribution for the retirement system for the fiscal year ending June 30, 2016, and to recommend the net direct employer contribution rate for fiscal 2017. This report does not contain the information necessary for accounting disclosures as required by Governmental Accounting Standards Board (GASB) Statements 67 and 68; that information is included in a separate report. This report was prepared exclusively for the Sheriffs' Pension & Relief Fund for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

In our opinion, all of the assumptions on which this valuation is based are reasonable individually and in the aggregate. Both economic and demographic assumptions are based on our expectations for future experience for the fund. This report has been prepared in accordance with generally accepted actuarial principles and practices, and to the best of our knowledge and belief, fairly reflects the actuarial present values and costs stated herein. The undersigned actuaries are members of the American Academy of Actuaries and have met the qualification standards for the American Academy of Actuaries to render the actuarial opinions incorporated in this report, and are available to provide further information or answer any questions with respect to this valuation.

Sincerely,

G. S. CURRAN & COMPANY, LTD.

By: Gary Curran, F.C.A., M.A.A.A., A.S.A.

Gregory Curran, F.C.A., M.A.A.A., A.S.A.

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SUMMARY OF VALUATION RESULTS
SHERIFFS' PENSION & RELIEF FUND

		June 30, 2015	June 30, 2014
Valuation Date:		June 30, 2015	June 30, 2014
Census Summary:	Active Members	14,689	14,575
	Retired Members and Survivors	4,766	4,510
	Terminated Due a Deferred Benefit	354	362
	Terminated Due a Refund	5,374	5,150
Payroll:		$ 656,499,456	$ 634,536,119
Benefits in Payment:		$ 126,604,621	$ 114,122,739
Funding Deposit Account Balance:		$ 0	$ 0
Frozen Unfunded Actuarial Accrued Liability:		$ 54,953,449	$ 59,264,382
Actuarial Asset Value (AVA):		$ 2,822,174,398	$ 2,513,293,197
Market Value of Assets (MVA):		$ 2,882,373,570	$ 2,733,132,117
Actuarial Accrued Liability (Entry Age Normal):		$ 3,328,125,306	$ 3,129,132,635
Funded Ratio (AVA/Entry Age Normal Accrued Liability):		84.80%	80.32%

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	FISCAL 2016	FISCAL 2015
Employers' Normal Cost (July 1):	$ 89,855,762	$ 102,738,673
Amortization Cost (July 1):	$ 8,481,885	$ 8,239,824
Interest Adjusted Actuarially Required Contributions Including Estimated Administrative Costs:	$ 103,735,812	$ 116,756,942
Projected Ad Valorem and Revenue Sharing	$ 20,621,998	$ 19,951,646
Projected Insurance Premium Taxes	$ 18,605,064	$ 17,704,000
Net Direct Employer Actuarially Required Contributions	$ 64,508,750	$ 79,101,296
Actuarially Required Net Direct Employer Contribution Rate	9.54%	12.07%
Actual Net Direct Employer Contribution Rate:	13.75%	14.25%

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Minimum Recommended Net Employer Contribution Rate: Fiscal 2017: 9.50% Fiscal 2016: 11.75%

Employee Contribution Rate: 10.25%

Dedicated Funding: 0.50% of ad valorem taxes plus revenue sharing funds and funds from the state's Insurance Premium Taxes as allocated by the Louisiana Public Retirement Systems' Actuarial Committee.

Actuarial Cost Method: Frozen Attained Age Normal Actuarial Cost Method

Valuation Interest Rate: 7.6% (Net of Investment Expense)

Census Exclusions: None

Basis of Actuarial Asset Value: The actuarial value of assets is based on the market value of assets adjusted to phase in asset earnings above or below the assumed rate of return over a five-year period with limits set at 85% and 115% of the market value of assets. When the adjusted value falls outside of the limits, the actuarial value is set equal to the average of the limited and adjusted value.

Changes in Valuation Methods, Assumptions, and/or Amortization Periods: The valuation interest rate was lowered from 7.7% to 7.6% beginning June 30, 2015. Changes were made to the salary scale, mortality, retirement, disability, and withdrawal rates. In addition, family statistics were updated.

Method of Recognizing Gains and Losses: Under the Frozen Attained Age Normal Method, actuarial gains and losses are spread over future normal costs.

COMMENTS ON DATA

For the valuation, the administrative staff of the system furnished a census on electronic media from the system's master data processing file indicating each active covered employee's sex, date of birth, service credit, annual salary, and accumulated contributions. Information on retirees detailing dates of birth of retirees and beneficiaries, as well as option categories and benefit amounts, was provided in like manner. In addition, data was supplied on former employees who are vested or who have contributions remaining on deposit. As illustrated in Exhibit IX, there are 14,689 active members in the system of whom 4,709 members have vested retirement benefits; 4,766 former members or their beneficiaries are receiving retirement benefits. An additional 5,728 terminated members have contributions remaining on deposit with the system; of this number, 354 have vested rights for future retirement benefits. All individuals submitted were included in the valuation.

Census data submitted to our office is tested for errors. Several types of census data errors are possible; to ensure that the valuation results are as accurate as possible, a significant effort is made to identify and correct these errors. In order to minimize coverage errors (i.e., missing or duplicated individual records) the records are checked for duplicates, and a comparison of the current year's records to those submitted in prior years is made. Changes in status, new records, and previous records, which have no corresponding current record are identified. This portion of the review indicates the annual flow of members from one status to another and is used to check some of the actuarial assumptions, such as retirement rates, rates of withdrawal, and mortality. In addition, the census is checked for reasonableness in several areas, such as age, service, salary, and current benefits. The records identified by this review as questionable are checked against data from prior valuations; those not recently verified are included in a detailed list of items sent to the system's administrator for verification and/or correction. Once the identified data has been researched and verified or corrected, it is returned to us for use in the valuation. Occasionally some requested information is either unavailable or impractical to obtain. In such cases, values may be assigned to missing data. For this valuation, the number of such records with imputed data is de minimis. The assigned values are based on information from similar records or based on information implied from other data in the record.

In addition to the statistical information provided on the system's participants, the system's administrator furnished general information related to other aspects of the system's expenses, benefits and funding. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, L.L.P. As indicated in the system's audit report, the net market value of system's assets was $2,882,373,570 as of June 30, 2015. Net investment income for fiscal 2015 measured on a market value basis was $103,374,920. Contributions to the system for the fiscal year totaled $205,198,146; benefits and expenses amounted to $159,331,613.

Notwithstanding our efforts to review both census and financial data for apparent errors, we must rely upon the system's administrative staff and accountants to provide accurate information. Our review of submitted information is limited to validation of reasonableness and consistency. Verification of submitted data to source information is beyond the scope of our efforts.

COMMENTS ON ACTUARIAL METHODS AND ASSUMPTIONS

This valuation is based on the Frozen Attained Age Normal actuarial cost method with the unfunded accrued liability frozen as of June 30, 1989. Under the provisions of Louisiana R.S. 11:103 the unfunded accrued liability which was determined to be $69,702,461 as of June 30, 1989, was amortized over forty years with payments increasing at 3.50% per year. Payroll growth in excess of 3.50% per year will reduce future amortization payments as a percent of payroll; payroll growth less than 3.50% will increase future payments as a percent of payroll. Under the Frozen Attained Age Normal Cost Method, actuarial gains and losses are spread over future normal costs. Thus, favorable plan experience will lower future normal costs; unfavorable experience will cause future normal costs to increase. In addition, changes in benefits and assumptions are also spread over future normal costs as are contribution surpluses and shortfalls.

Prior to the passage of Act 247 in the 2009 legislative session, in any year in which the net direct employer contribution was scheduled to decrease, the board of trustees could freeze the net direct employer contribution rate and use the excess funds collected, if any, to reduce the frozen unfunded actuarial accrued liability. Notwithstanding such a decrease, payments were made according to the regular amortization schedule, thereby reducing the amortization period. In fiscal 2008 the excess contributions collected from the frozen employer contribution rate reduced the frozen unfunded actuarial accrued liability by $22,548,024. Based upon the additional contributions collected during fiscal 2008, the current frozen unfunded actuarial accrued liability will be fully amortized by June 30, 2023. Subsequent to June 30, 2008, any surplus contributions collected as a result of R. S. 11:2175.1 are credited to the Funding Deposit Account. The funds may then be used, at the discretion of the Board, to reduce the Unfunded Accrued Liability, reduce future normal costs, as an offset to direct employer contributions, or to provide funding for a cost of living increase.

For fiscal 2016 the Board of Trustees set the employer contribution rate to 13.75%, which was above the minimum recommended net direct employer contribution rate of 11.75%. If this produces a contribution excess during fiscal 2016, the excess contributions will be deposited into the funding deposit account as of June 30, 2016.

The current year actuarial assumptions utilized for this report are based on the results of an actuarial experience study for the period July 1, 2009 – June 30, 2014, unless otherwise specified in this report. Based on the results of the actuarial experience study and expectations of future experience, retirement, disability, and withdrawal rates were changed. Family statistics were also updated based on more recent measures available from the United States Census Bureau. The new assumptions are listed in the back of this report. In the case of mortality, the data was assigned credibility weighting and combined with a standard table to produce current levels of mortality. This mortality was then projected forward to a period equivalent to the estimated duration of the fund's liabilities. The RP-2000 Combined Healthy with Blue Collar Adjustment Sex Distinct Table projected to 2028 for males and the RP-2000 Combined Healthy with Blue Collar Adjustment Sex Distinct Table set forward 1 year and projected to 2028 for females were selected for employee, annuitant, and beneficiary mortality. The RP-2000 Disabled Lives Mortality Table set back 5 years for males and set back 3 years for females was selected for disabled annuitants. Setbacks in the disabled tables were used to approximate mortality improvement.

In reviewing the valuation interest rate, consideration was given to several factors. First, we considered consensus estimates of rates of return, standard deviations, and correlation coefficients for asset classes derived from various asset consulting firms. These factors were used to derive forward estimates of the Fund's portfolio. The valuation interest rate was reduced from 7.7% to 7.6% as a part of the Board approved plan to reduce the valuation interest to 7.5% over a five year period. The salary increase rate was reduced to 5.50% based on forward estimates of future increases in pay resulting from three sources; inflation, merit, and productivity. An inflation rate of 2.875% was implicit in both the assumed rate of return and rate of salary increases.

Although the board of trustees has authority to grant ad hoc Cost of Living Increases (COLAs) under limited circumstances, these COLAs have not been shown to have a historical pattern, the amounts of the COLAs have not been relative to a defined cost-of-living or inflation index, and there is no evidence to conclude that COLAs will be granted on a predictable basis in the future. Therefore, for purposes of determining the present value of benefits, these COLAs were deemed not to be substantively automatic and the present value of benefits excludes COLAs not previously granted by the board of trustees.

The current year actuarial assumptions utilized for the report are outlined on pages thirty-six through thirty-nine. All assumptions are based on estimates of future long-term experience for the Fund. All calculations, recommendations, and conclusions are based on the assumptions specified. To the extent that prospective experience differs from that assumed, adjustments will be required to contribution levels. Such differences will be revealed in future actuarial valuations. The net effect of the changes in plan assumptions on the normal cost accrual rate was a decrease of 0.6301%.

CHANGES IN PLAN PROVISIONS

The following changes to the system were enacted during the 2015 Regular Session of the Louisiana Legislature.

Act 136 increases the allowable permissive service credit that a member with at least twelve years of creditable service may purchase from three to five years. The act also allows the Board of Trustees to set the employer contribution rate at any point between the previous year's employer contribution rate and the decreased rate in years that the rate decreases. The surplus funds collected shall be credited to the funding deposit account.

ASSET EXPERIENCE

The actuarial and market rates of return for the past ten years are given below. The rates of return on assets were calculated by assuming a uniform distribution of income and expense throughout the fiscal year.

	Market Value		Actuarial Value
2006	8.5%	*	13.8%
2007	16.0%		10.2%
2008	-6.4%		6.5%
2009	-17.4%	**	-5.0%
2010	10.9%		5.8%
2011	20.2%		5.0%
2012	-0.2%		2.3%
2013	12.9%		5.5%
2014	17.9%		11.6%
2015	3.8%		10.4%

* Includes effect of change in asset valuation method. Effective with the 2006 valuation the method was changed from smoothing capital gains and losses over 3 years to smoothing investment earnings above or below the assumed rate of return over a five year period, subject to a limit of 90% to 110% of the market value of assets.

** Includes effect of change in asset valuation method. Effective with 2009 fiscal year, the corridor limits were increased to 85% to 115% of the market value of assets and the final asset value was determined by averaging the smoothed value with the corridor limit if the smoothed value extends beyond the corridor.

The market rate of return gives a measure of investment return on a total return basis and includes realized and unrealized capital gains and losses as well as interest income and dividends. This rate of return gives an indication of performance for an actively managed portfolio where securities are bought and sold with the objective of producing the highest total rate of return. During 2015, the fund earned $33,424,289 of dividends, interest and other recurring income. Net income was increased by realized and unrealized capital gains of $80,863,648. Investment expenses reduced income by $10,913,017. The geometric mean of the market value rates of return measured over the last ten years was 6.0%. For the last twenty years, the geometric mean returns was 6.2%.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return. As of June 30, 2012, the valuation interest rate was 8.0%. In response to a review of the assumed long term rate of return performed in the course of the development of the 2012 valuation, a recommendation was made to lower the valuation interest rate from 8.0% to 7.5%. The Board of Trustees approved a plan to reduce the valuation interest rate over five years by reducing the assumption by 0.10% each year from fiscal 2013 through fiscal 2017. The assumed rate of return for fiscal 2016 is 7.6%. This rate is calculated based on the actuarial value of assets and all interest, dividends, and recognized capital gains as given in Exhibit VI. Investment income used to calculate this yield is based upon smoothing earnings above or below the valuation interest rate over a five-year period, subject to constraints as outlined in the section in the report describing actuarial assumptions. (Since the valuation interest rate was changed effective June 30, 2015, the amount smoothed each year was based on a valuation interest rate of 7.7% for fiscal 2015, 7.8% for fiscal 2014, 7.9% for fiscal 2013, and 8.0% for all prior years.) The difference between rates of return on an actuarial and market value basis results from the smoothing of gains or losses on investments relative to the valuation interest rate over the five-year period. Yields in excess of the valuation interest rate assumption will reduce future costs; yields below the assumption will increase future costs. For fiscal 2015, the system experienced net actuarial investment earnings of $67,757,974 more than the actuarial assumed earnings rate of 7.7% for fiscal 2015. These excess earnings produced an actuarial gain, which decreased the normal cost accrual rate by 1.0326%.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the system is given in Exhibit IX. The average active member is 43 years old with 9.4 years of service and an average salary of $44,693. The system's active contributing membership increased during the fiscal year by 114 members. The plan has experienced a decrease in the active plan population of 22 members over the last five years. A review of the active census by age indicates that over the last ten years the population in the under-forty age group has decreased while the proportion of active members over-forty increased. During this ten-year period the plan showed a decrease in the percentage of members with service less than five years and a corresponding increase in all other service groups.

The average service retiree is 68 years old with a monthly benefit of $2,432. The retired population increased by 256 during the last fiscal year. Over the last five years the number of retirees increased by 1,256. During this same period, annual benefits in payment increased by $50,225,413 (i.e. by 65%).

Plan liability experience for fiscal 2015 was favorable. Salary increases and disabilities were below projected levels and retiree deaths were above projected levels. These factors tend to reduce costs. Partially offsetting these factors were withdrawals below expected levels. Retirements were above projected levels. Overall, plan liability experience decreased the normal cost accrual rate by 0.2867%.

FUNDING ANALYSIS AND RECOMMENDATIONS

Actuarial funding of a retirement system is a process whereby funds are accumulated over the working lifetimes of employees in such a manner as to have sufficient assets available at retirement to pay for the lifetime benefits accrued by each member of the system. The required contributions are determined by an actuarial valuation based on rates of mortality, termination, disability, and retirement, as well as investment return and other statistical measures specific to the particular group. Each year a determination is made of two cost components, and the actuarially required contributions are based on the sum of these two components plus administrative expenses. These two components are the normal cost and the amortization payment on the unfunded actuarial accrued liability. The normal cost refers to the portion of annual cost based on the salary of active participants. The term unfunded accrued liability (UAL) refers to the excess of the present value of plan benefits over the sum of current assets and future normal costs. Each year the UAL grows with interest and is reduced by payments. Under the funding method used for the plan, changes in plan experience, benefits, or assumptions do not affect the frozen unfunded actuarial accrued liability. These items increase or decrease future normal costs.

In order to establish the actuarially required contribution in any given year, it is necessary to define the assumptions, funding method, and method of amortizing the UAL. Thus, the determination of what contribution is actuarially required depends upon the funding method and amortization schedules employed. Regardless of the method selected, the ultimate cost of providing benefits is dependent upon the benefits, expenses, and investment earnings. Only to the extent that some methods accumulate assets more rapidly and thus produce greater investment earnings does the funding method affect the ultimate cost.

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for fiscal 2016 as of July 1, 2015 is $89,855,762. The amortization payment on the fund’s frozen unfunded actuarial accrued liability as of July 1, 2015, is $8,481,885. The total actuarially required contribution is determined by adjusting these two values for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given on line 15 of Exhibit I the total actuarially required contribution for fiscal 2016 is $103,735,812. When this amount is reduced by projected ad valorem tax contributions, revenue sharing funds, and insurance premium taxes the remaining portion to be funded by direct employer contributions for fiscal 2016 is $64,508,750 or 9.54% of projected payroll.

Liability and asset experience as well as changes in assumptions and benefits can increase or lower plan costs. In addition to these factors, any COLA granted in the prior fiscal year will increase required contributions. New entrants to the system can also increase or lower costs as a percent of payroll depending upon their demographic distribution and other factors related to prior plan experience. Finally, contributions above or below requirements may reduce or increase future costs.

The effects of various factors on the fund's cost structure are outlined below:

Employer's Normal Cost Accrual Rate – Fiscal 2015	17.0165%
Factors Increasing the Normal Cost Accrual Rate:	
Change in Valuation Interest Rate	0.9198%
Cost of Living Increase Loss	0.3179%
Factors Decreasing the Normal Cost Accrual Rate:	
Asset Experience Gain	1.0326%
New Members	0.8674%
Non-Interest Rate Assumptions Gain	1.5499%
Liability Experience Gain	0.2867%
Contribution Gain	0.2375%
Employer's Normal Cost Accrual Rate – Fiscal 2016	14.2801%

In addition to the above factors, payroll growth affects plan costs to the extent that payments on the system's unfunded liability are on a schedule that varies from actual trends in payroll growth or decline. If payroll changes at rates not consistent with the amortization schedule the result will be costs that change as a percentage of payroll. For fiscal 2016, the net effect of the change in payroll on amortization costs was to decrease such costs by 0.01% of projected payroll. Required net direct employer contributions are also affected by the available ad valorem taxes, revenue sharing funds, and insurance premium taxes which the system receives each year. When these funds change as a percentage of payroll, net direct employer contributions are adjusted accordingly. We estimate that these funds will increase by 0.01% of payroll in fiscal 2016.

The balance in the Funding Deposit Account is zero as of June 30, 2015. Since the net direct employer contribution rate for fiscal 2015 was set equal to the minimum actuarially required net direct employer contribution rate, no funding deposit additions were made as of June 30, 2015.

Although the actuarially required net direct employer contribution rate for fiscal 2016 is 9.54%; the actual employer contribution rate for fiscal 2016 is 13.75% of payroll. Since the contribution rate for fiscal 2016 was set at 13.75%, which is higher than the minimum recommended net direct employer contribution rate of 11.75%, any surplus in employer contributions collected in the fiscal year will be added to the funding deposit account as of June 30, 2016. Because the rate was set above the minimum rate for 2016, no adjustment for the expected surplus is required in the determination of the minimum recommended net direct employer contribution rate for fiscal 2017. R.S. 11:103 requires that the net direct employer contributions be rounded to the nearest 0.25%, hence we are recommending a minimum net direct employer contribution rate of 9.50% for fiscal 2017.

Under the provisions of R. S. 11:105, in any fiscal year in which the net direct employer contribution rate would otherwise decrease, the Board of Trustees may maintain the net direct employer contribution rate for the preceding year. Should the net direct employer contribution rate be held at a level above the minimum recommended employer contribution rate, the resulting additional contributions paid by the employers, if they exceed any potential contribution losses, would be added to the Funding Deposit Account.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, completion of amortization payments or credit schedules, and changes in plan provisions or applicable law. Analysis of the effect of all these factors is beyond the scope of this report. We have, however, calculated the sensitivity of the plans' costs to two factors. First, we have determined that based on current assets and demographics, for each percentage earnings in a single year under (or over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (or reduction) in the normal cost accrual rate of 0.43%. We have also determined that a 1% reduction in the valuation interest rate would increase the actuarially required contribution rate for fiscal 2016 by 8.91% of payroll.

In addition to calculating the actuarially required contribution to the fund, we have also calculated the ratio of the system's assets to liabilities. When the actuarial value of assets is divided by the entry age normal accrued liability for the fund the result is 84.80% as of June 30, 2015. This value in isolation does not give a measure of the ability of the fund to pay benefits in the future or indicate that future contributions are likely to be greater or less than current contributions. In addition, the ratio cannot be used to compare the relative strength of different retirement systems. However, the trend of this ratio over time can give some insight into the financial health of the plan. Even in this regard caution is warranted since market fluctuations in asset values and changes in plan assumptions can distort the underlying trends in this value.

COST OF LIVING INCREASES

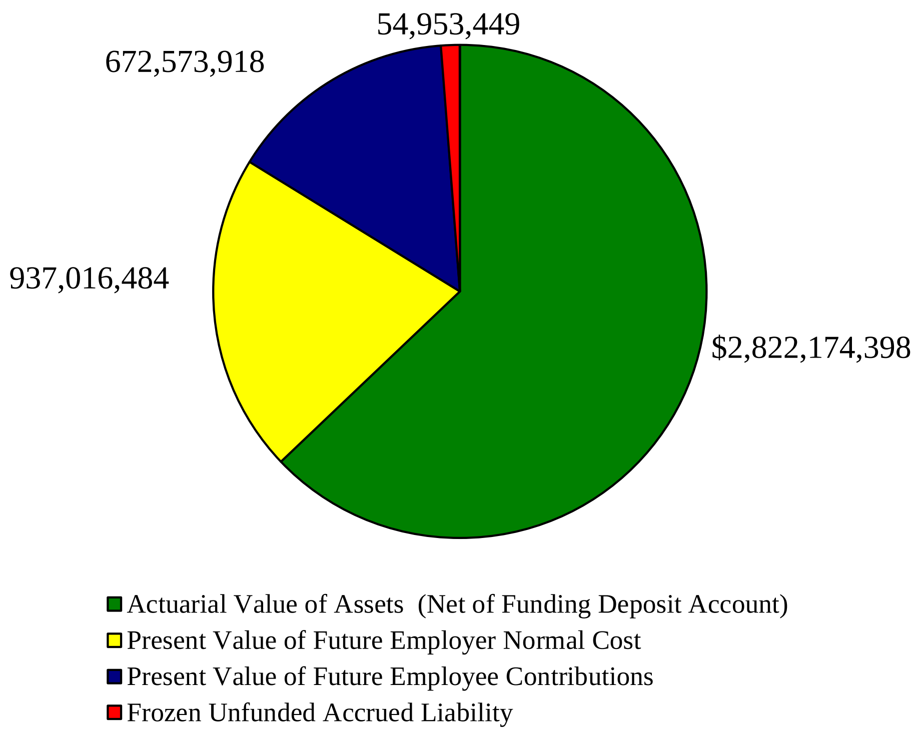
During fiscal 2015, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 0.12%. Cost of living provisions for the system are detailed in R.S. 11:2178 and R.S. 11:246. R.S. 11:2178 details the provisions applicable to system retirees subject to certain limitations relative to the age and elapsed time since retirement. The permissible COLA is based on the members' current benefit and is subject to various percentage and dollar minimums and maximums. R.S. 11:246 provides cost of living increases for retirees and beneficiaries age 65 and over equal to 2% of the benefit payment on October 1, 1977, or the date the benefit was originally received if retirement commenced after that date. R.S. 11:241 provides that cost of living benefits shall be in the form (unless the board otherwise specifies) of $\$X \times (A+B)$ where X is at most \$1 and "A" represents the number of years of credited service accrued at retirement or at death of the member or retiree and "B" is equal to the number of years since retirement or since death of the member or retiree to June 30th of the initial year of such increase. The provisions of this subpart do not repeal provisions relative to cost of living adjustments contained within the individual laws governing systems; however, they are to be controlling in cases of conflict.

The above provisions require that the system's investments produce sufficient excess interest earnings to fund the increases or that such an increase be paid for by funds from the Funding Deposit Account. R.S. 11:243 sets forth the funding criteria necessary in order to grant cost of living adjustments to regular retirees and beneficiaries (who are neither the surviving spouse nor children of the retiree.) The criteria for the fund to qualify as eligible to grant any such increase is as follows: a funded ratio of at least 70% if the system has not granted a benefit increase to retirees, survivors, or beneficiaries in any of the three most recent fiscal years; a funded ratio of at least 80% if the system has not granted such an increase in any of the two most recent fiscal years; or a funded ratio of at least 90% if the system has not granted such an increase in the most recent fiscal year. The funded ratio at any fiscal year end is the ratio of the actuarial value of assets to the actuarial accrued liability under the funding method prescribed by the legislative auditor (currently the Projected Unit Credit Method for this system.)

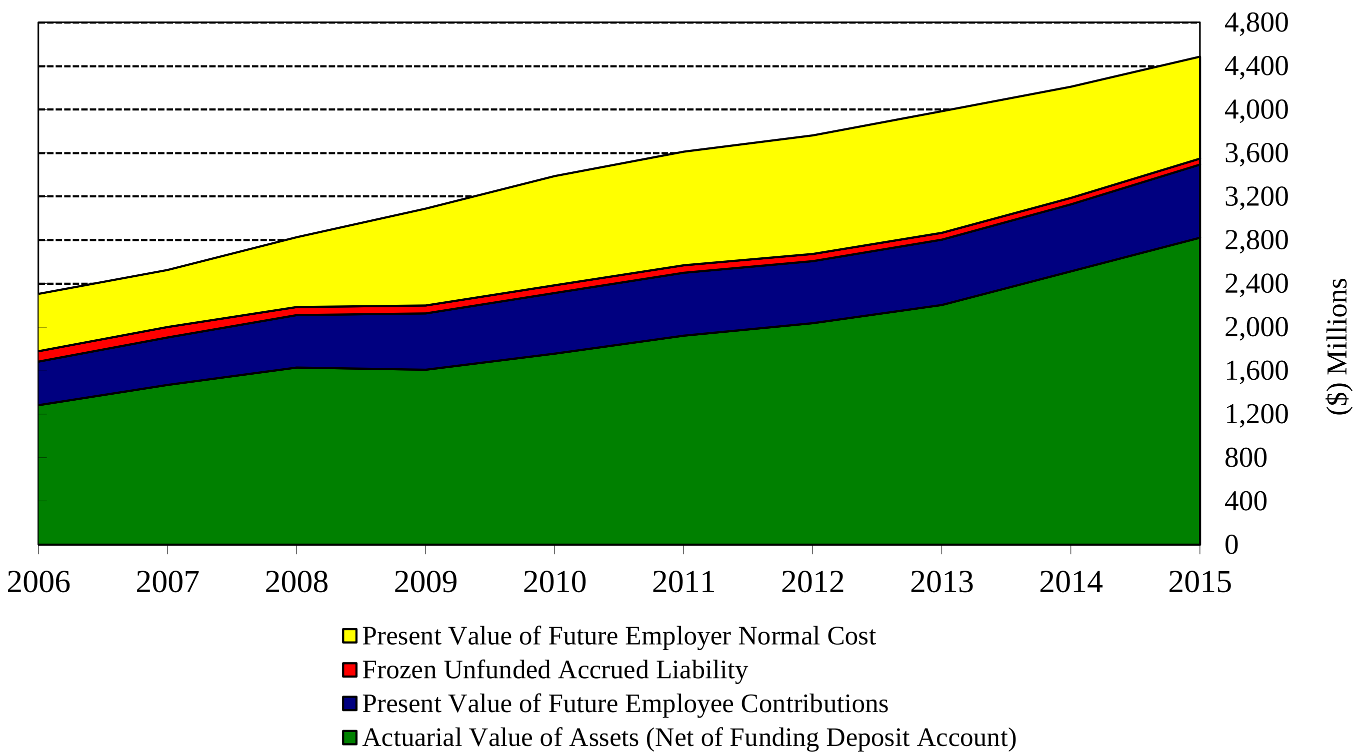
With a funded ratio (as measured by the Actuarial Value of Assets divided by the Pension Benefit Obligation) of 90.99% and since the system granted a cost of living increase on January 1, 2015 which is within the two most recent fiscal years, we have determined that for fiscal 2015 the plan does not meet the criteria set forth in R. S. 11:243 for granting a cost of living increase from "excess interest earnings."

Components of Present Value of Future Benefits

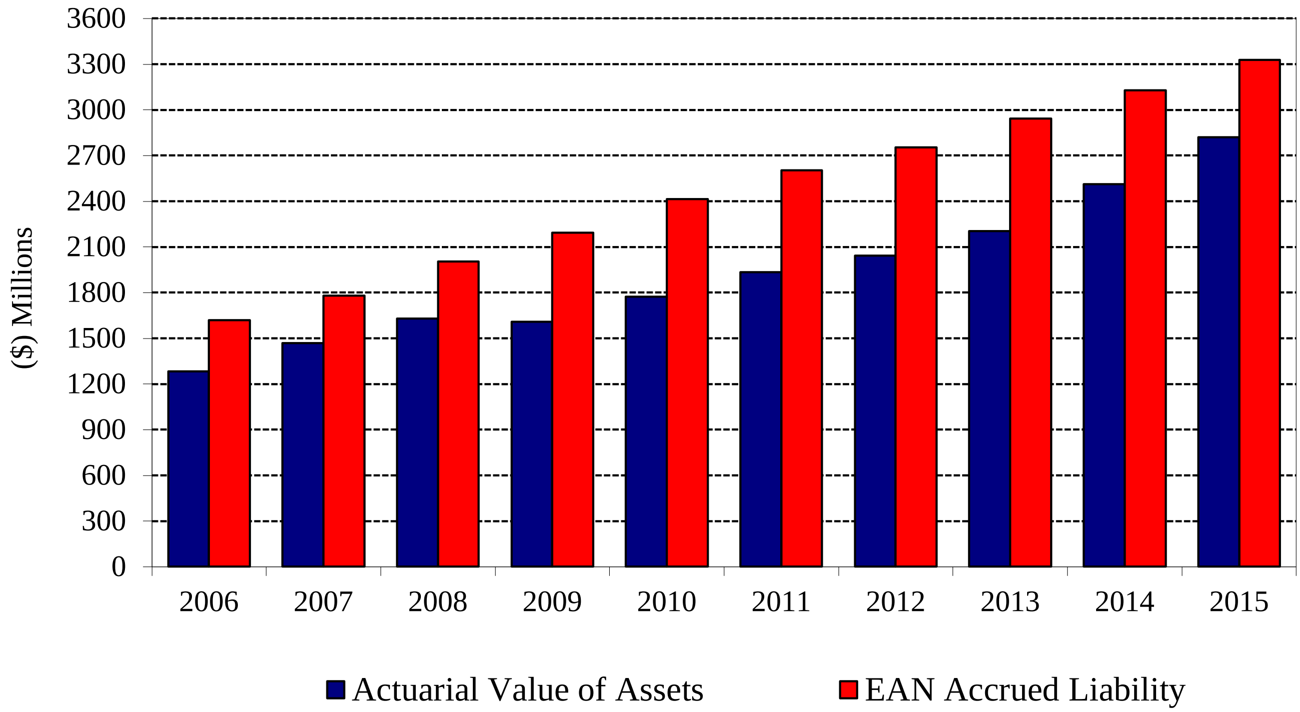
June 30, 2015



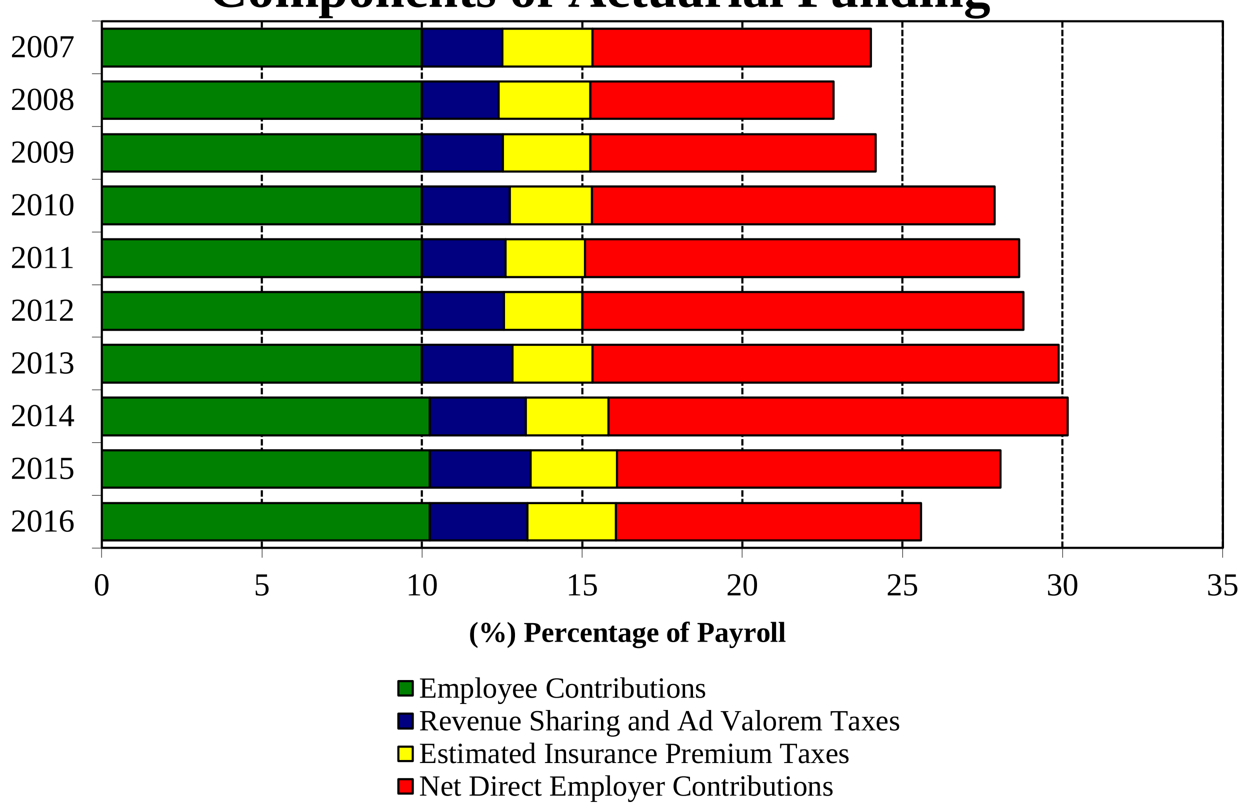
Components of Present Value of Future Benefits



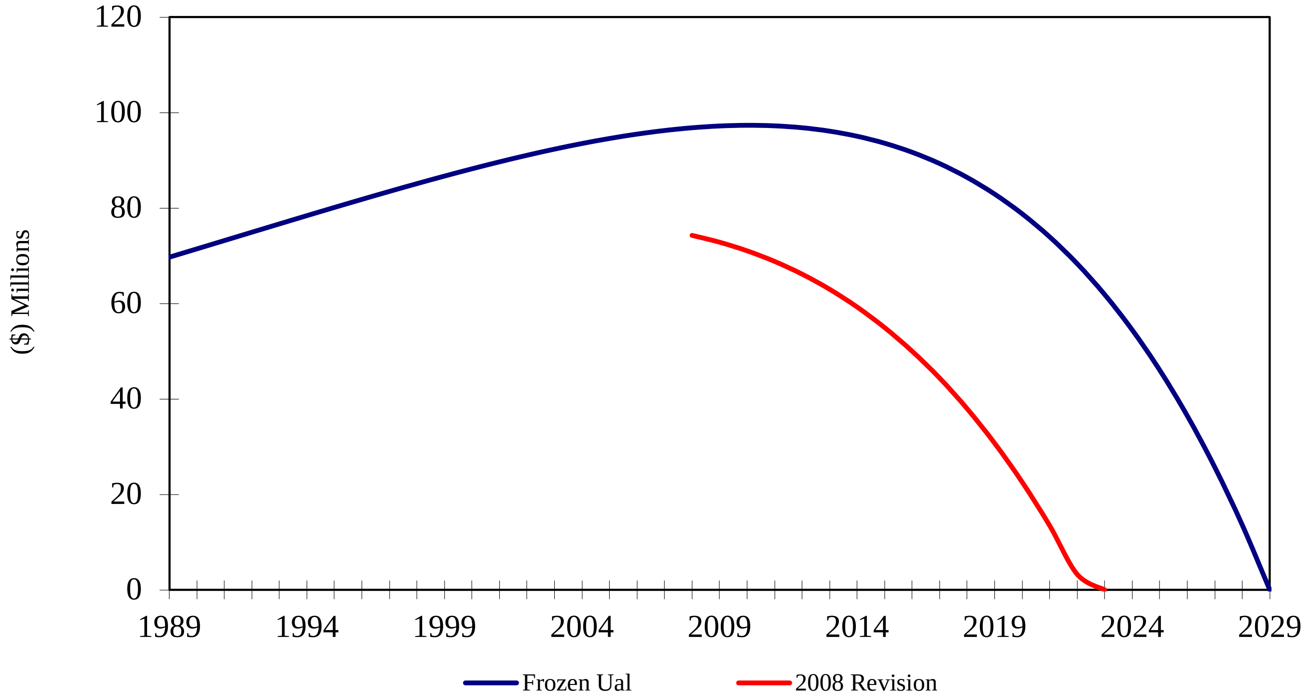
Actuarial Value of Assets vs. EAN Accrued Liability



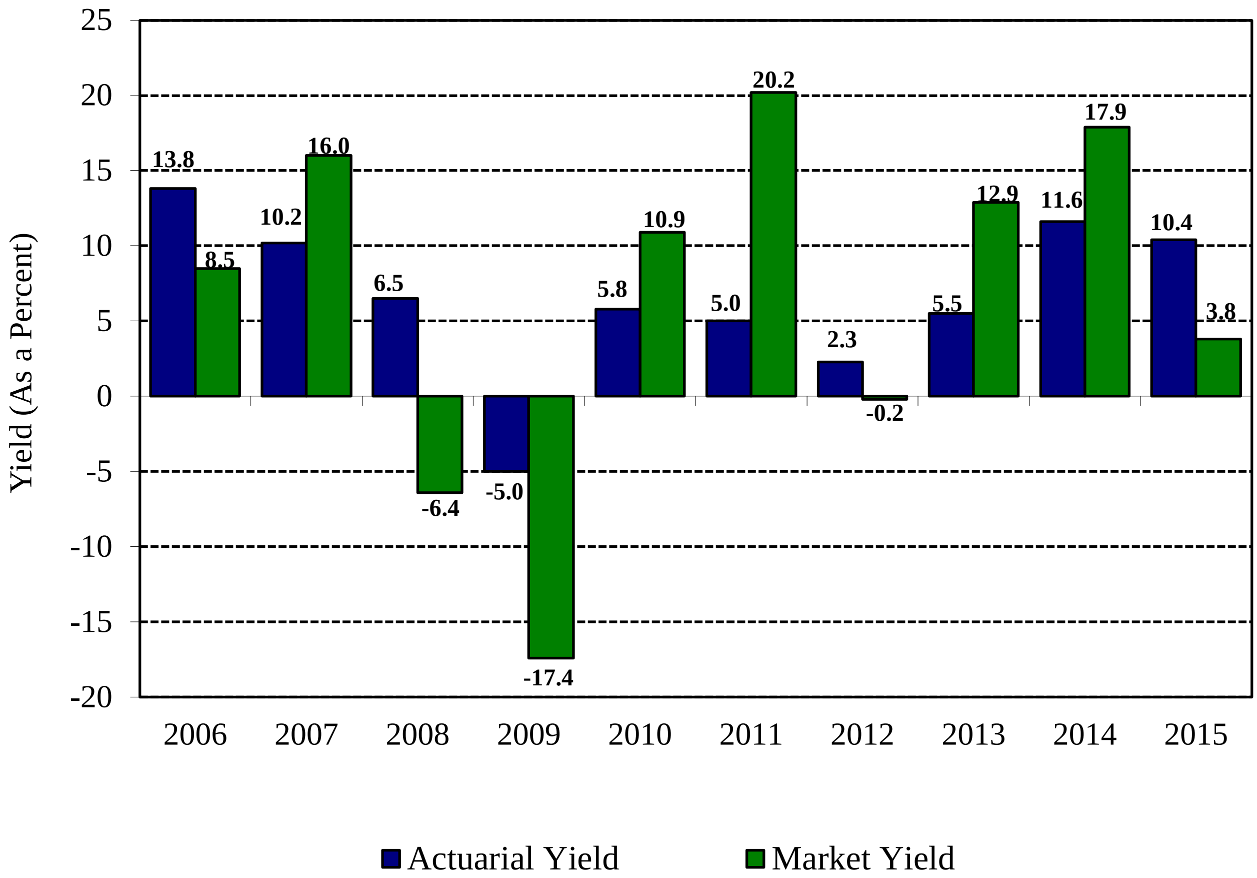
Components of Actuarial Funding



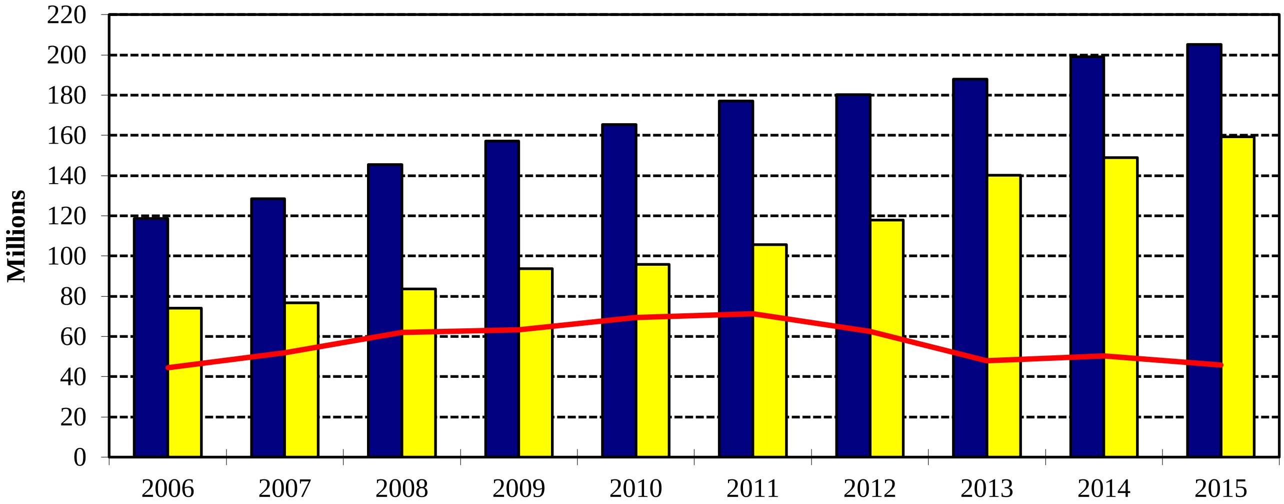
Frozen Unfunded Actuarial Accrued Liability



Historical Asset Yields

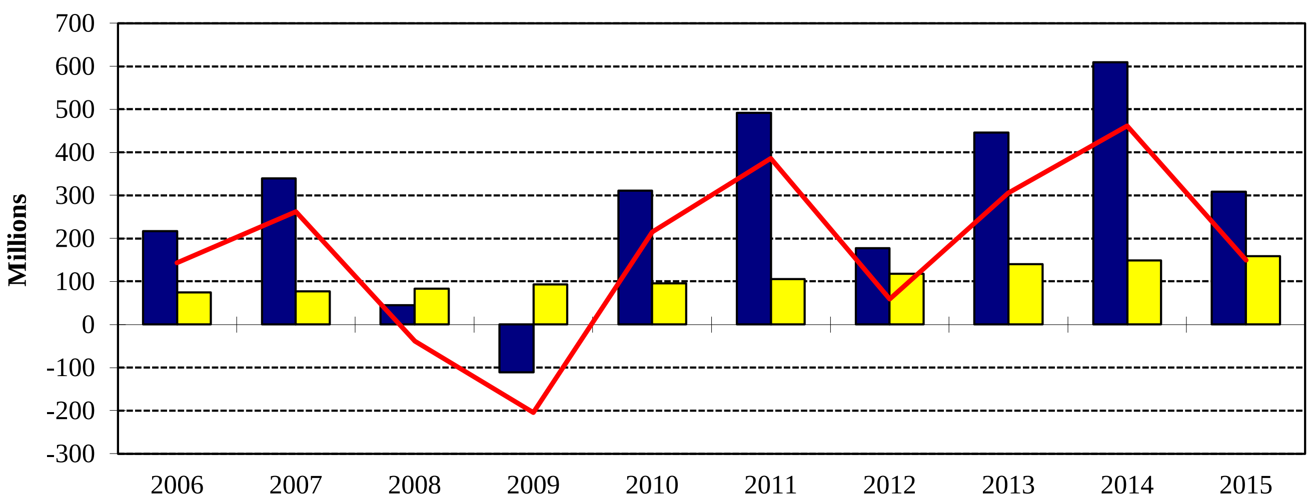


Net Non-Investment Income



		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Non-Investment Income ($Mil)		118.7	128.6	145.7	157.1	165.3	177.0	180.2	188.1	199.2	205.2
Benefits and Expenses ($Mil)		74.2	76.6	83.6	93.8	95.8	105.6	117.8	140.2	149.0	159.3
Net Non-Investment Income ($Mil)		44.5	52.0	62.1	63.3	69.5	71.4	62.4	47.9	50.2	45.9

Total Income vs. Expenses

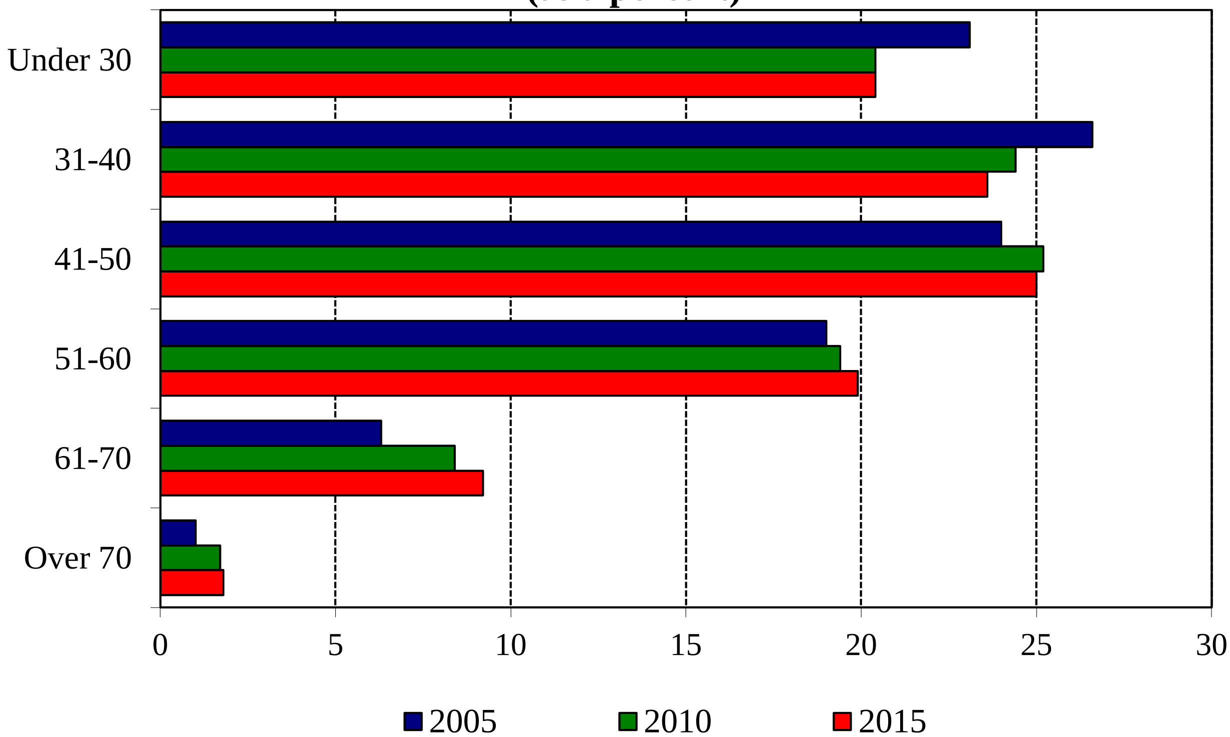


(Based on Market Value of Assets)

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Income ($Mil)		217.5	339.3	44.6	-111.0	311.0	491.3	176.9	445.4	609.8	308.6
Benefits and Expenses ($Mil)		74.2	76.6	83.6	93.8	95.8	105.6	117.8	140.2	149.0	159.3
Net Change in MVA ($Mil)		143.3	262.7	-39.0	-204.8	215.2	385.7	59.1	305.2	460.8	149.3

Active – Census By Age

(as a percent)



Active – Census By Service

(as a percent)

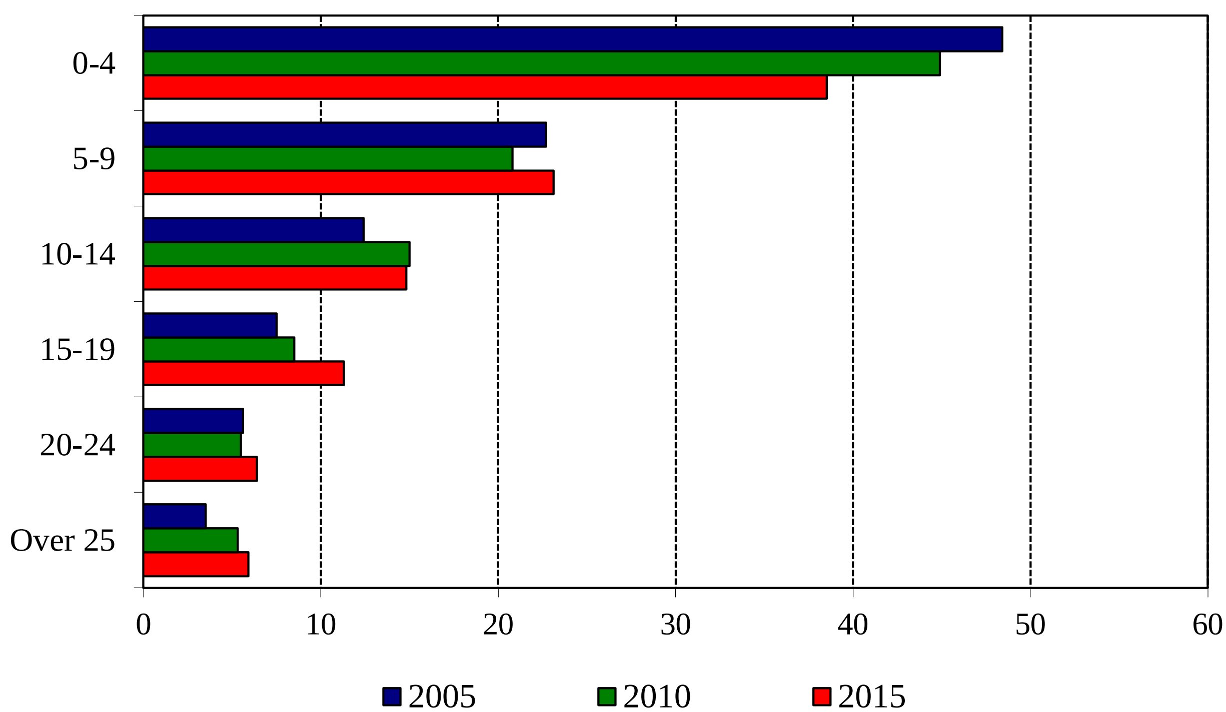


EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Present Value of Future Benefits	$	4,486,718,249
2.	Funding Deposit Account Credit Balance	$	0
3.	Unfunded Actuarial Accrued Liability	$	54,953,449
4.	Actuarial Value of Assets	$	2,822,174,398
5.	Present Value of Future Employee Contributions	$	672,573,918
6.	Present Value of Future Employer Normal Costs (1 + 2 – 3 – 4 – 5)	$	937,016,484
7.	Present Value of Future Salaries	$	6,561,706,901
8.	Employer Normal Cost Accrual Rate (6 ÷ 7)		14.280072%
9.	Projected Fiscal 2016 Salary for Current Membership	$	629,238,855
10.	Employer Normal Cost as of July 1, 2015 (8 × 9)	$	89,855,762
11.	Amortization Payment on remaining frozen Unfunded Accrued Liability with Payments increasing at 3.50% per year	$	8,481,885
12.	TOTAL Employer Normal Cost and Amortization Payment (10 + 11)	$	98,337,647
13.	Normal Cost Adjusted for Midyear Payment	$	102,006,054
14.	Estimated Administrative Cost for Fiscal 2016	$	1,729,758
15.	GROSS Employer Actuarially Required Contribution for Fiscal 2016 (13 + 14)	$	103,735,812
16.	Projected Ad Valorem Tax Contributions for Fiscal 2016	$	20,200,569
17.	Projected Revenue Sharing Funds for Fiscal 2016	$	421,429
18.	GROSS Employer Actuarially Required Contribution to be funded by direct employer contributions and Insurance Premium Taxes for Fiscal 2016 (15 – 16 – 17)	$	83,113,814
19.	Estimated Insurance Premium Taxes due for Fiscal 2016	$	18,605,064
20.	Employer's Net Direct Actuarially Required Contribution (18 – 19)	$	64,508,750
21.	Projected Payroll for Fiscal 2016	$	676,382,757
22.	Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2016 (20 ÷ 21)		9.54%
23.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2017 (22, Rounded to nearest 0.25%)		9.50%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 2,865,610,316	
Survivor Benefits	108,422,461	
Disability Benefits	13,788,764	
Vested Termination Benefits	71,319,093	
Refunds of Contributions	75,834,967	
TOTAL Present Value of Future Benefits for Active Members		$ 3,134,975,601

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 52,134,248	
Terminated Members with Reciprocals Due Benefits at Retirement	777,285	
Terminated Members Due a Refund	17,229,279	
TOTAL Present Value of Future Benefits for Terminated Members		$ 70,140,812

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees			
Maximum	$ 325,504,663		
Option 1	118,935,848		
Option 2	446,648,366		
Option 3	155,163,650		
Option 4	2,347,251		
Option 5	45,303,795		
TOTAL Regular Retirees		$ 1,093,903,573	
Disability Retirees		31,298,594	
Survivors & Widows		123,070,210	
Annuities Certain Payable to Retirees		23,704,029	
DROP and Back-DROP Account Balances		9,625,430	
TOTAL Present Value of Future Benefits for Retirees & Survivors			$ 1,281,601,836

TOTAL Present Value of Future Benefits	$ 4,486,718,249

EXHIBIT III – SCHEDULE A
MARKET VALUE OF ASSETS

CURRENT ASSETS:		
Cash in Banks	$ 12,318,384	
Contributions and Taxes Receivable	10,726,817	
Accrued Interest and Dividends	4,799,793	
Investments Receivable	168,044,560	
Other Receivable	162,667	
TOTAL CURRENT ASSETS		$ 196,052,221
Property Plant & Equipment		$ 2,354,983
INVESTMENTS:		
Cash Equivalents	$ 135,367,387	
Equities	1,699,458,356	
Fixed Income	788,255,757	
Alternative Investments	378,108,420	
Collateral for Securities Lending	14,380,647	
TOTAL INVESTMENTS		$ 3,015,570,567
TOTAL ASSETS		$ 3,213,977,771
CURRENT LIABILITIES:		
Accounts Payable	$ 2,774,653	
Benefits Payable	31,125	
Refunds Payable	624,707	
Investments Payable	277,345,778	
Securities Lending Obligations	14,371,234	
Other Current Liabilities	36,456,704	
TOTAL CURRENT LIABILITIES		$ 331,604,201
MARKET VALUE OF ASSETS		$ 2,882,373,570

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

Excess (Shortfall) of invested income
for current and previous 4 years:

Fiscal year 2015	$ (108,809,371)
Fiscal year 2014	231,506,629
Fiscal year 2013	100,065,241
Fiscal year 2012	(158,417,021)
Fiscal year 2011	189,806,398
Total for five years	$ 254,151,876

Deferral of excess (shortfall) of invested income:

Fiscal year 2015 (80%)	$ (87,047,497)
Fiscal year 2014 (60%)	138,903,977
Fiscal year 2013 (40%)	40,026,096
Fiscal year 2012 (20%)	(31,683,404)
Fiscal year 2011 (0%)	0
Total deferred for year	$ 60,199,172

Market value of plan net assets, end of year	$ 2,882,373,570
Preliminary actuarial value of plan assets, end of year	$ 2,822,174,398

Actuarial value of assets corridor

85% of market value, end of year	$ 2,450,017,535
115% of market value, end of year	$ 3,314,729,606

Final actuarial value of plan net assets, end of year	$ 2,822,174,398

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	672,573,918
Employer Normal Contributions to the Pension Accumulation Fund		937,016,484
Employer Amortization Payments to the Pension Accumulation Fund		54,953,449
Funding Deposit Account Credit Balance		0
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	1,664,543,851

EXHIBIT V
CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Frozen Unfunded Accrued Liability			$	59,264,382
Interest on Frozen Unfunded Accrued Liability	$	4,563,357		
Employer Normal Cost for Prior Year		102,738,673		
Interest on the Normal Cost		7,910,878		
Administrative Expenses		1,752,637		
Interest on Administrative Expenses		66,225		
Credit to Funding Deposit Account		0		
TOTAL Interest Adjusted Actuarially Required Contributions			$	117,031,770
Direct Employer Contributions	$	94,496,664		
Interest on Employer Contributions		3,570,660		
Ad Valorem Taxes and Revenue Sharing		19,738,873		
Interest on Ad Valorem Taxes and Revenue Sharing Funds		745,854		
Insurance Premium Taxes		17,704,000		
Interest on Insurance Premium Taxes		668,965		
Contribution Shortfall		(14,468,257)		
Interest on Contribution Shortfall		(1,114,056)		
Withdraw From Funding Deposit Account		0		
Interest on Withdrawal		0		
TOTAL Interest Adjusted Employer Contributions			$	121,342,703
NET Change in Frozen Unfunded Accrued Liability			$	(4,310,933)
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY			$	54,953,449

EXHIBIT VI
ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2014)		$ 2,513,293,197
INCOME:		
Member Contributions	$ 68,009,895	
Employer Contributions	94,496,664	
Irregular Contributions	5,248,714	
Ad Valorem Taxes and Revenue Sharing	19,738,873	
Insurance Premium Taxes	17,704,000	
Total Contributions		$ 205,198,146
Net Appreciation of Investments	$ 80,863,648	
Interest & Dividends	33,414,788	
Miscellaneous Income	9,501	
Investment Expense	(10,913,017)	
Net Investment Income		$ 103,374,920
TOTAL Income		$ 308,573,066
EXPENSES:		
Retirement Benefits	$ 139,219,191	
Refunds of Contributions	16,895,783	
Transfers to Other Systems	1,464,002	
Administrative Expenses	1,752,637	
TOTAL Expenses		$ 159,331,613
Net Market Value Income for Fiscal 2015 (Income – Expenses)		$ 149,241,453
Unadjusted Fund Balance as of June 30, 2015 (Fund Balance Previous Year + Net Income)		$ 2,662,534,650
Adjustment for Actuarial Smoothing		$ 159,639,748
Actuarial Value of Assets: (June 30, 2015)		$ 2,822,174,398

EXHIBIT VII
PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees	$ 1,749,866,679
Present Value of Benefits Payable to Terminated Employees	70,140,812
Present Value of Benefits Payable to Current Retirees and Beneficiaries	1,281,601,836
TOTAL PENSION BENEFIT OBLIGATION	$ 3,101,609,327
NET ACTUARIAL VALUE OF ASSETS	$ 2,822,174,398
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation	90.99%

EXHIBIT VIII
ENTRY AGE NORMAL ACCRUED LIABILITIES

Accrued Liability for Active Employees	$ 1,976,382,658
Accrued Liability for Terminated Employees	70,140,812
Accrued Liability for Current Retirees and Beneficiaries	1,281,601,836
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY	$ 3,328,125,306
NET ACTUARIAL VALUE OF ASSETS	$ 2,822,174,398
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability	84.80%

EXHIBIT IX
CENSUS DATA

	Active	Terminated with Funds on Deposit	Retired	Total
Number of members as of June 30, 2014	14,575	5,512	4,510	24,597
Additions to Census				
Initial membership	1,730	185		1,915
Omitted in error last year				
Death of another member			65	65
Adjustment for multiple records			8	8
Change in Status during Year				
Actives terminating service	(422)	422		
Actives who retired	(328)		328	
Actives entering DROP				
Term. members rehired	101	(101)		
Term. members who retire		(23)	23	
Retirees who are rehired	2		(2)	
Refunded who are rehired	67	15		82
DROP participants retiring				
DROP returned to work				
Omitted in error last year				
Eliminated from Census				
Refund of contributions	(1,002)	(273)		(1,275)
Deaths	(34)	(7)	(164)	(205)
Included in error last year				
Adjustment for multiple records		(2)	(2)	(4)
Number of members as of June 30, 2015	14,689	5,728	4,766	25,183

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	65	27	92	28,859	2,655,013
21 - 25	767	404	1,171	32,959	38,594,444
26 - 30	1,127	612	1,739	38,375	66,733,540
31 - 35	1,202	598	1,800	42,921	77,257,085
36 - 40	1,066	598	1,664	45,672	75,997,820
41 - 45	1,164	649	1,813	48,074	87,158,306
46 - 50	1,201	659	1,860	49,705	92,451,372
51 - 55	1,000	694	1,694	50,617	85,744,706
56 - 60	736	500	1,236	47,222	58,366,517
61 - 65	588	314	902	46,666	42,092,575
66 - 70	312	144	456	43,931	20,032,696
71 - 75	133	36	169	37,083	6,267,046
76 - 80	61	14	75	34,061	2,554,569
81 - 85	12	3	15	31,713	475,692
86 - 90	2	0	2	33,600	67,199
91 - 95	1	0	1	50,876	50,876
TOTAL	9,437	5,252	14,689	44,693	656,499,456

THE ACTIVE CENSUS INCLUDES 4,709 ACTIVES WITH VESTED BENEFITS, INCLUDING 0 DROP PARTICIPANTS AND 3 ACTIVE FORMER DROP PARTICIPANTS.

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	2	3	5	17,974	89,872
36 - 40	23	8	31	20,055	621,702
41 - 45	47	17	64	26,175	1,675,203
46 - 50	85	28	113	21,904	2,475,120
51 - 55	89	26	115	20,176	2,320,262
56 - 60	4	4	8	18,998	151,980
61 - 65	8	2	10	12,731	127,312
66 - 70	2	2	4	10,859	43,435
71 - 75	1	0	1	993	993
81 - 85	2	0	2	1,140	2,279
86 - 90	1	0	1	2,081	2,081
TOTAL	264	90	354	21,215	7,510,239

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	1,321	56,649
100	-	499	1,529	391,107
500	-	999	652	469,645
1000	-	1999	515	734,911
2000	-	4999	552	1,771,917
5000	-	9999	311	2,169,276
10000	-	19999	266	3,811,718
20000	-	99999	228	6,726,909
		TOTAL	5,374	16,132,132

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	4	1	5	39,929	199,645
51 - 55	83	43	126	47,531	5,988,942
56 - 60	345	194	539	38,034	20,500,548
61 - 65	538	272	810	32,976	26,710,571
66 - 70	631	266	897	28,881	25,906,044
71 - 75	476	178	654	24,047	15,726,411
76 - 80	289	104	393	20,394	8,014,892
81 - 85	141	53	194	18,920	3,670,407
86 - 90	69	20	89	19,582	1,742,839
91 - 99	15	12	27	19,618	529,678
TOTAL	2,591	1,143	3,734	29,189	108,989,977

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
26 - 30	1	0	1	17,457	17,457
31 - 35	0	2	2	10,863	21,725
36 - 40	2	1	3	19,511	58,534
41 - 45	6	3	9	14,092	126,826
46 - 50	16	8	24	18,321	439,697
51 - 55	20	9	29	22,504	652,629
56 - 60	18	15	33	18,547	612,053
61 - 65	28	10	38	13,904	528,337
66 - 70	18	3	21	14,024	294,507
71 - 75	12	3	15	12,209	183,136
76 - 80	9	2	11	11,411	125,525
81 - 85	3	2	5	15,576	77,879
86 - 90	3	0	3	10,654	31,963
TOTAL	136	58	194	16,342	3,170,268

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	9	30	39	6,674	260,293
26 - 30	1	2	3	7,600	22,799
31 - 35	0	3	3	16,314	48,941
36 - 40	1	14	15	21,526	322,888
41 - 45	2	13	15	20,860	312,893
46 - 50	0	12	12	27,198	326,373
51 - 55	5	45	50	20,090	1,004,509
56 - 60	3	50	53	23,123	1,225,498
61 - 65	5	91	96	21,020	2,017,915
66 - 70	2	115	117	19,152	2,240,791
71 - 75	11	119	130	17,303	2,249,454
76 - 80	4	104	108	14,127	1,525,739
81 - 85	2	93	95	14,719	1,398,333
86 - 90	1	61	62	16,155	1,001,588
91 - 99	1	39	40	12,159	486,362
TOTAL	47	791	838	17,237	14,444,376

ACTIVE MEMBERS:

Attained Ages	Completed Years of Service: 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	72	20										92
21 - 25	525	292	189	108	34	23						1,171
26 - 30	344	283	235	194	144	516	23					1,739
31 - 35	236	168	128	121	97	697	337	16				1,800
36 - 40	157	100	86	84	74	434	425	292	12			1,664
41 - 45	126	123	108	65	69	375	311	419	205	12		1,813
46 - 50	123	89	80	63	52	360	287	292	317	189	8	1,860
51 - 55	84	86	84	75	43	311	240	233	197	212	129	1,694
56 - 60	80	62	64	48	43	254	210	191	107	79	98	1,236
61 - 65	37	46	61	46	32	222	191	119	66	49	33	902
66 - 70	25	13	28	21	21	123	101	53	34	20	17	456
71 & Over	14	7	18	11	15	73	53	42	9	9	11	262
Totals	1823	1289	1081	836	624	3388	2178	1657	947	570	296	14689

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service: 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Salary
0 - 20	28,611	29,750										28,859
21 - 25	30,032	33,060	35,520	37,854	41,292	42,119						32,959
26 - 30	30,861	34,960	37,560	39,289	40,625	44,353	45,180					38,375
31 - 35	31,412	36,214	38,252	40,453	42,457	45,800	50,719	52,219				42,921
36 - 40	32,053	35,432	36,769	39,999	40,853	44,714	50,941	55,281	56,619			45,672
41 - 45	32,923	34,681	36,918	40,741	39,218	44,878	50,316	56,460	61,365	57,371		48,074
46 - 50	32,583	32,677	34,371	39,616	37,529	42,428	50,309	56,081	61,693	64,373	65,888	49,705
51 - 55	30,505	33,986	37,258	42,435	40,442	42,438	46,643	52,974	58,868	66,022	76,581	50,617
56 - 60	31,220	33,480	36,201	38,238	36,151	40,054	45,043	49,564	59,932	65,622	75,408	47,222
61 - 65	30,176	32,364	37,570	44,561	31,157	42,502	45,705	52,435	53,563	67,542	87,855	46,666
66 - 70	29,822	26,350	36,495	43,751	36,556	37,929	46,503	50,189	50,647	64,219	71,050	43,931
71 & Over	28,905	28,697	25,520	37,704	28,443	30,188	39,917	40,365	44,569	42,016	65,019	35,937
Average	30,922	34,115	36,591	40,084	39,323	43,377	48,698	53,962	59,645	64,926	76,413	44,693

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 30												0
31 - 35									5			5
36 - 40								31				31
41 - 45							63	1				64
46 - 50						109	4					113
51 - 55	12	20	24	30	25	4						115
56 - 60	8											8
61 - 65	10											10
66 - 70	4											4
71 - 75	1											1
76 - 80												0
81 - 85	2											2
86 - 90	1											1
91 & Over												0
Totals	38	20	24	30	25	113	67	32	5	0	0	354

AVERAGE ANNUAL BENEFITS OF TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 30												0
31 - 35									17,975			17,975
36 - 40								20,055				20,055
41 - 45							26,345	15,476				26,175
46 - 50						22,411	8,082					21,904
51 - 55	22,326	21,046	21,807	17,353	21,663	11,474						20,176
56 - 60	18,998											18,998
61 - 65	12,731											12,731
66 - 70	10,859											10,859
71 - 75	993											993
76 - 80												0
81 - 85	1,140											1,140
86 - 90	2,081											2,081
91 & Over												0
Average	15,684	21,046	21,807	17,353	21,663	22,024	25,255	19,912	17,975	0	0	21,215

SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 50	4					1						5
51 - 55	59	26	20	11	7	3						126
56 - 60	107	100	108	67	62	86	8		1			539
61 - 65	79	75	114	69	62	331	77	3				810
66 - 70	53	61	96	69	64	255	267	31	1			897
71 - 75	29	29	55	24	24	164	194	116	18	1		654
76 - 80	5	18	16	14	10	51	115	82	58	24		393
81 - 85	2	3	5	7	2	22	29	43	30	41	10	194
86 - 90	2			1	1	2	8	10	17	21	27	89
91 & Over						1	1		3	9	13	27
Totals	340	312	414	262	232	916	699	285	128	96	50	3734

AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 50	47,138					11,094						39,929
51 - 55	49,518	45,567	55,691	39,115	37,114	26,245						47,531
56 - 60	38,944	36,609	41,500	37,975	34,136	37,716	35,118		5,288			38,034
61 - 65	29,035	33,355	38,872	31,816	38,287	31,001	33,795	17,080				32,976
66 - 70	23,402	27,343	38,026	28,445	29,901	29,362	27,888	16,894	13,873			28,881
71 - 75	21,527	22,750	27,231	25,584	27,358	24,180	26,832	18,098	21,455	17,557		24,047
76 - 80	23,284	17,268	19,910	14,087	19,033	26,949	24,896	17,188	15,645	13,636		20,394
81 - 85	28,449	19,032	21,092	23,555	18,063	12,826	29,117	16,998	18,012	15,967	19,745	18,920
86 - 90	24,072			6,651	5,235	17,031	23,160	24,142	22,136	19,421	16,218	19,582
91 & Over						17,923	52,746		13,227	18,853	19,204	19,618
Average	34,285	32,189	37,680	30,975	32,552	29,210	27,869	17,741	17,728	16,427	17,700	29,189

DISABILITY RETIREES:

Attained Ages	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
	Completed Years Since Retirement											
0 - 30	1											1
31 - 35						2						2
36 - 40		1				2						3
41 - 45	1		2	1		1	2	1	1			9
46 - 50			5	4	2	9	3	1				24
51 - 55	1	1	5	2	1	7	8	2	2			29
56 - 60	1	1	2	2	4	6	10	1	2	3	1	33
61 - 65	2				2	6	9	11	3	4	1	38
66 - 70	1	2		1		3	2	6	5	1		21
71 - 75			1			1	3	2	2	5	1	15
76 - 80							1	1	2	3	4	11
81 - 85										2	3	5
86 - 90							1			1	1	3
91 & Over												0
Totals	7	5	15	10	9	37	39	25	17	19	11	194

AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Attained Ages	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
	Completed Years Since Retirement											
0 - 30	17,457											17,457
31 - 35						10,863						10,863
36 - 40		27,787				15,374						19,511
41 - 45	16,167		15,493	22,880		13,014	13,501	9,358	7,420			14,092
46 - 50			23,989	18,587	18,628	18,599	11,471	6,350				18,321
51 - 55	47,036	28,590	34,482	27,191	22,404	24,043	14,564	11,822	9,673			22,504
56 - 60	10,461	14,808	33,273	20,165	12,413	19,004	23,232	18,357	11,653	9,674	13,229	18,547
61 - 65	14,955				10,583	15,071	17,209	12,506	9,997	12,573	14,114	13,904
66 - 70	17,205	17,894		15,573		15,253	18,853	13,332	10,477	10,102		14,024
71 - 75			21,690			12,956	11,845	8,516	11,328	12,647	10,032	12,209
76 - 80							9,500	5,966	8,908	13,267	13,111	11,411
81 - 85										16,946	14,662	15,576
86 - 90							6,215			14,371	11,377	10,654
91 & Over												0
Average	19,748	21,395	27,438	20,751	14,498	17,955	16,771	11,930	10,172	12,669	13,198	16,342

SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	4	5	4	2	2	16	1	1				35
21 - 25		1	1				2					4
26 - 30			1				1	1				3
31 - 35			1			1		1				3
36 - 40	1	2	2		1	6	2	1				15
41 - 45	2		1	2		3	5	1			1	15
46 - 50	1	2				5	1	2		1		12
51 - 55	1	1	4	1	2	12	11	12	3	2	1	50
56 - 60	2	5	6	3	4	11	11	7	3	1		53
61 - 65	1	4	2	5	5	22	23	11	9	7	7	96
66 - 70	1	3	5	2	3	20	41	27	5	7	3	117
71 - 75	1	3	3		5	25	30	30	21	5	7	130
76 - 80	2	1	1		2	3	14	36	24	16	9	108
81 - 85				1		5	5	17	18	21	28	95
86 - 90								3	10	14	35	62
91 & Over							1	1	2	3	33	40
Totals	16	27	31	16	24	129	148	151	95	77	124	838

AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 20	7,605	10,034	6,553	5,858	5,176	6,126	5,529	4,951				6,782
21 - 25		6,132	9,309				3,742					5,732
26 - 30			14,227				3,742	4,830				7,600
31 - 35			18,609			25,826		4,506				16,314
36 - 40	34,402	43,286	22,077		15,495	19,786	6,477	10,595				21,526
41 - 45	46,489		12,074	20,540		27,369	13,001	14,480			5,170	20,860
46 - 50	40,887	50,426				26,693	13,795	15,345		6,683		27,198
51 - 55	20,040	72,289	23,497	20,588	36,392	24,877	19,075	11,405	11,647	19,516	5,624	20,090
56 - 60	13,885	32,299	27,704	33,762	34,786	26,082	18,646	12,748	10,959	15,467		23,123
61 - 65	58,204	23,455	42,122	23,060	35,092	25,458	20,158	15,117	15,980	11,013	11,429	21,020
66 - 70	20,809	18,902	20,025	56,576	19,947	19,520	22,546	14,391	14,177	12,575	9,301	19,152
71 - 75	13,707	15,865	28,208		15,958	23,177	17,438	15,937	14,587	12,017	10,951	17,303
76 - 80	10,448	3,226	9,850		31,053	9,143	14,929	15,542	13,049	12,475	13,438	14,127
81 - 85				5,361		36,857	21,869	11,296	13,808	17,521	10,387	14,719
86 - 90								36,268	26,447	14,674	12,082	16,155
91 & Over							6,821	22,755	18,681	21,691	10,738	12,159
Average	22,507	25,143	21,408	25,530	25,624	21,590	18,647	14,650	15,289	14,603	11,164	17,237

EXHIBIT X
YEAR-TO-YEAR COMPARISON

	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012
Number of Active Members	14,689	14,575	14,559	14,231
Number of Retirees & Survivors	4,766	4,510	4,293	3,922
Number of Terminated Due Deferred Benefits	354	362	343	350
Number Terminated Due Refunds	5,374	5,150	5,069	5,056
Active Lives Payroll	$ 656,499,456	$ 634,536,119	$ 622,720,506	$ 611,139,881
Retiree Benefits in Payment	$ 126,604,621	$ 114,122,739	$ 105,832,204	$ 90,894,373
Market Value of Assets	$ 2,882,373,570	$ 2,733,132,117	$ 2,272,263,124	$ 1,967,024,952
Actuarial Value of Assets	$ 2,822,174,398	$ 2,513,293,197	$ 2,203,646,722	$ 2,042,809,526
EAN Accrued Liability	$3,328,125,306	$ 3,129,132,635	$ 2,942,457,560	$ 2,752,868,402
Ratio of AVA to EAN Accrued Liability	84.80%	80.32%	74.89%	74.21%
Frozen Unfunded Actuarial Accrued Liability	$ 54,953,449	$ 59,264,382	$ 62,983,756	$ 66,156,793
Present Value of Future Employer Normal Cost	$ 937,016,484	$ 1,022,657,685	$ 1,125,270,083	$ 1,089,982,874
Present Value of Future Employee Contrib.	$ 672,573,918	$ 616,003,094	$ 600,569,823	$ 570,327,767
Funding Deposit Account Balance	$ 0	$ 0	$ 3,689,049	$ 6,448,956
Present Value of Future Benefits	$ 4,486,718,249	$ 4,211,218,358	$ 3,998,781,335	$ 3,762,828,004

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	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013
Employee Contribution Rate	10.25%	10.25%	10.25%	10.00%
Estimated Tax Contribution as % of Payroll	3.05%	3.04%	2.99%	2.82%
Estimated Insurance Taxes as a % of Payroll	2.75%	2.70%	2.59%	2.51%
Actuarially Required Net Direct Employer Contributions as a % of Projected Payroll	9.54%	12.07%	14.33%	14.55%
Actual Employer Contribution Rate	13.75%	14.25%	14.50% §	13.75% *

† 12.00% paid directly by employers with additional 0.75% allocated from the Funding Deposit Account
‡ 12.50% paid directly by employers with additional 1.25% allocated from the Funding Deposit Account
* 13.25% paid directly by employers with additional 0.50% allocated from the Funding Deposit Account
§ 13.89% paid directly by employers with additional 0.61% allocated from the Funding Deposit Account

Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006
14,754	14,711	14,396	14,038	13,530	12,835
3,716	3,510	3,369	3,140	2,995	2,859
323	325	306	328	340	329
4,743	4,727	4,435	4,156	3,939	3,722
$ 623,084,570	$ 603,250,449	$ 577,078,980	$ 537,082,456	$ 481,418,484	$ 436,370,158
$ 83,741,250	$ 76,379,208	$ 71,517,150	$ 64,309,775	$ 55,471,909	$ 50,612,587
$ 1,907,946,452	$ 1,522,233,162	$1,306,974,663	$ 1,511,820,016	$ 1,550,829,081	$ 1,288,100,175
$ 1,935,179,988	$ 1,773,450,705	$1,608,228,363	$ 1,628,303,910	$ 1,468,646,528	$1,282,638,484
$ 2,603,584,473	$ 2,415,074,197	$2,192,263,534	$ 2,003,918,104	$ 1,780,867,852	$ 1,620,279,244
74.33%	73.43%	73.36%	81.26%	82.47%	79.16%
$ 68,826,417	$ 71,042,296	$ 72,846,699	$ 74,278,468	$ 96,251,088	$ 95,495,221
$ 1,044,434,589	$ 1,003,967,230	$ 890,632,040	$ 641,924,601	$ 524,216,581	$ 527,090,828
$ 578,341,253	$ 557,530,584	$ 517,818,601	$ 482,053,768	$ 436,275,292	$ 400,151,989
$ 13,680,020	$ 17,151,710	$ 15,881,213	$ 0	$ 0	$ 0
$ 3,613,102,227	$ 3,388,839,105	$3,073,644,490	$ 2,826,560,747	$ 2,525,389,489	$ 2,305,740,522

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Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007
10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
2.56%	2.61%	2.75%	2.53%	2.39%	2.47%
2.44%	2.48%	2.55%	2.72%	2.87%	2.77%
13.78%	13.56%	12.58%	8.92%	7.59%	8.699%
13.75% ‡	12.75% †	11.00%	11.00%	11.00%	11.00%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Sheriffs' Pension & Relief Fund is a defined benefit pension plan that provides retirement allowances and other benefits. The following summary of plan provisions is for general informational purposes only and does not constitute a guarantee of benefits.

MEMBERSHIP – Any sheriff elected or deputy employed, who is otherwise eligible for membership must become a participating member of the fund. All salaried employees of the Sheriffs' Pension and Relief Fund and the Louisiana Sheriffs' Association who meet certain requirements are also eligible to become members of the retirement system.

CONTRIBUTION RATES – Under the provisions of R.S. 11:62, 11:82 and 11:103, the fund is financed by a combination of employee contributions, employer contributions, dedicated ad valorem taxes, revenue sharing funds, and insurance premium taxes. The employee contribution rate is determined by the Board of Trustees but cannot be less than 9.8% or more than 10.25% of earnable compensation. Gross employer contributions are determined by actuarial valuation and are subject to change each year in accordance with R. S. 11:103 and R. S. 11:105. Any excess funds resulting from additional contributions will be credited to the Funding Deposit Account defined in R.S. 11:2175.1. Also, the fund annually receives revenue sharing funds and ad valorem taxes equal to 0.5% of the aggregate amount of the tax shown to be collected by the tax roll of each respective parish, and additional funds as indicated by valuation and apportioned by the Public Employees' Retirement Systems' Actuarial Committee from available insurance premium taxes described in R.S. 22:1476(A)(3).

CONTRIBUTION REFUNDS – Upon withdrawal from service, members not entitled to a retirement allowance who have remained out of service for a period of thirty days are paid a refund of accumulated contributions upon request. Receipt of such a refund cancels all accrued benefits in the system.

NORMAL RETIREMENT BENEFITS – For members whose first employment making them eligible for membership in the system began on or before December 31, 2011: Members with twelve years of creditable service may retire at age fifty-five; members with thirty years of creditable service may retire at any age. The retirement allowance is equal to three and one-third percent of the member's average final compensation multiplied by his years of creditable service, not to exceed (after reduction for optional payment form) 100% of average final compensation.

For members whose first employment making them eligible for membership in the system began on or after January 1, 2012: Members with twelve years of creditable service may retire at age sixty-two; members with twenty years of service may retire at age sixty; members with thirty years of creditable service may retire at age fifty-five. The benefit accrual rate for such members with less than thirty years of service is three percent; for members with thirty or more years of service, the accrual rate is three and one-third percent. The retirement allowance is equal to the benefit accrual rate times the member's average final compensation multiplied by his years of creditable service, not to exceed (after reduction for optional payment form) 100% of average final compensation.

EARLY RETIREMENT BENEFITS – For members whose first employment making them eligible for membership in the system began on or before December 31, 2011: Active, contributing members with at least ten years of creditable service may retire at age sixty. The accrued normal retirement benefit is reduced actuarially for each month or fraction thereof that retirement begins prior the member's earliest normal retirement date assuming continuous service.

For all members: Members with twenty or more years of service may retire with a reduced retirement at age fifty.

FINAL AVERAGE COMPENSATION – For a member whose first employment making him eligible for membership in the system began on or before June 30, 2006, final average compensation is based on the average monthly earnings during the highest thirty-six consecutive months or joined months if service was interrupted. The earnings to be considered for each twelve month period within the thirty-six month period shall not exceed 125% of the preceding twelve month period.

For a member whose first employment making him eligible for membership in the system began after June 30, 2006 and prior to July 1, 2013, final average compensation is based on the average monthly earnings during the highest sixty consecutive months or joined months if service was interrupted.

For a member whose first employment making him eligible for membership in the system began on or after July 1, 2013, final average compensation is based on the average monthly earnings during the highest sixty consecutive months or joined months if service was interrupted. The earnings to be considered for each twelve month period within the thirty-six month period shall not exceed 115% of the preceding twelve month period.

OPTIONAL ALLOWANCES – Members may receive their benefits as a life annuity, or in lieu of such receive a reduced benefit according to the option selected, which is the actuarial equivalent of the maximum benefit.

Option 1 – If the member dies before he has received in annuity payments the present value of his member's annuity as it was at the time of retirement, the balance is paid to his beneficiary.

Option 2 – Upon retirement, the member receives a reduced benefit. Upon the member's death, the spouse to whom the member was married and living with at the time of retirement will continue to receive the same reduced benefit.

Option 2A – Upon retirement, the member receives a reduced benefit. Upon the member's death, the spouse to whom the member was married and living with at the time of retirement will continue to receive the same reduced benefit. If the member's spouse dies before the member, the member's benefit will revert to the maximum.

Option 3 – Upon retirement, the member receives a reduced benefit. Upon the member's death, the spouse to whom the member was married and living with at the time of retirement will receive one-half of the member's reduced benefit.

Option 3A – Upon retirement, the member receives a reduced benefit. Upon the member's death, the spouse to whom the member was married and living with at the time of retirement will receive one-half of the member's reduced benefit. If the member's spouse dies before the member, the member's benefit will revert to the maximum.

Option 4 – Upon retirement, the member elects to receive a board-approved benefit that is actuarially equivalent to the maximum benefit.

Option 5 – Upon retirement, the member may receive ninety percent of the maximum benefit. Upon the member's death, if survived by a surviving spouse to whom the member was married and living with at the time of retirement, fifty percent of the member's benefit shall be paid to the spouse during said spouse's lifetime.

A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2½% annual compound increase in monthly retirement benefits based on the reduced benefit and commencing on the later of age fifty-five or retirement anniversary; this COLA is in addition to any ad hoc COLAs which are payable. Back-DROP participants are not eligible for this benefit.

DISABILITY BENEFITS – Ten years of creditable service are required in order to be eligible for disability benefits when a non-service related disability is incurred; there are no service requirements for a service related disability. Totally disabled members receive the lesser of their accrued retirement benefit (with a minimum of 45%) or their accrued retirement benefit assuming continued service to their earliest normal retirement age. Members who become partially disabled receive 75% of the amount payable for total disability.

SURVIVOR BENEFITS – Survivor benefits for death solely as a result of injuries received in the line of duty are based on the following. For a spouse alone, a sum equal to 50% of the member's final average compensation with a minimum of $150 per month. If a spouse is entitled to benefits and has a child or children under eighteen years of age (or over said age if physically or mentally incapacitated and dependent upon the member at the time of his death), an additional sum of 15% of the member's final average compensation is paid to each child with total benefits paid to spouse and children not to exceed 100%. If a member dies with no surviving spouse, surviving children under age eighteen receive monthly benefits of 15% of the member's final average compensation up to a maximum of 60% of final average compensation if there are more than four children. If a member is eligible for normal retirement at the time of death, the surviving spouse receives an automatic option 2 benefit; the additional benefit payable to children is the same as those available for members who die in the line of duty. In lieu of receiving option 2 benefits, the surviving spouse may receive a refund of the member's accumulated contributions. Benefits payable to surviving children are extended through age twenty-three, if the child is a full time student in good standing enrolled at a board approved or accredited school, college, or university.

Back-DROP – In lieu of receiving a service retirement allowance any member of the fund who has more than sufficient service for a regular service retirement may elect to receive a "Back-DROP" benefit. The Back-DROP benefit is based upon the Back-DROP period selected and the final average compensation prior to the period selected. The Back-DROP period is the lesser of three years or the service accrued between the time a member first becomes eligible for retirement and his actual date of retirement. Members who have thirty or more years of service may elect a Back-DROP period not to exceed the lesser of forty-eight months or the number of months of creditable service accrued after the member first became eligible for regular retirement. At retirement the member's maximum monthly retirement benefit is based upon his service, final average compensation, and plan provisions in effect on the last day of creditable service immediately prior to the commencement of the Back-DROP period. In addition to the monthly benefit at retirement, the member receives a lump-sum payment equal to the maximum monthly benefit as calculated above multiplied by the number of months in the Back-DROP period. In addition, the member's Back-DROP account is credited with employee contributions received by the retirement fund during the Back-DROP period.

FUNDING DEPOSIT ACCOUNT – If the contribution rate is set above the minimum recommended rate pursuant to RS 11:105, the surplus contributions collected, if any, are credited to the Funding

Deposit Account defined in R.S. 11:2175.1. For any fiscal year ending on or after December 31, 2008, in which the board of trustees elects or previously elected to set the net direct employer contribution rate higher than the minimum recommended rate, all surplus funds collected by the system shall be credited to the system's funding deposit account. The funds in the account earn interest annually at the board-approved actuarial valuation interest rate, and such interest is credited to the account at least once a year. The board of trustees may in any fiscal year direct that funds from the account be charged for the following purposes: (1) to reduce the unfunded accrued liability; (2) to reduce the present value of future normal costs; (3) to pay all or a portion of any future net direct employer contributions; and (4) to provide for permanent benefit increases as provided for in R.S. 11.2178(K). In no event shall the funds charged from the account exceed the outstanding account balance. If the board of trustees of the system elects to utilize funds from the funding deposit account to pay all or a portion of any future net direct employer contributions, the percent reduction in the minimum recommended employer contribution rate otherwise applicable is determined by dividing the interest-adjusted value of the charges from the funding deposit account by the projected payroll for the fiscal year for which the contribution rate is to be reduced. For funding purposes, any asset value utilized in the calculation of the actuarial value of assets of a system excludes the funding deposit account balance as of the asset determination date for such calculation. For all purposes other than funding, the funds in the account are considered assets of the system.

COST OF LIVING INCREASES – The board of trustees is authorized to grant retired members and widows of members who have retired an annual cost of living increase of up to 2½% of their current benefit, not to exceed five percent of the average monthly benefit in payment to service retirees at the end of the preceding fiscal year. Members retiring on or after July 1, 2007, who have not attained the age of sixty years, may not receive this cost-of-living increase until they have been retired for three years. Those who have attained the age of sixty years may not receive this cost-of-living increase until they have been retired for one year. Different waiting periods applied to retirements prior to July 1, 2007. In addition, the board may grant retired members and widows who are sixty-five years of age and older a 2% increase in their original benefit (or the benefit being received on October 1, 1977 if retirement had commenced prior to that date). In order for the board to grant either of these increases the system must meet certain criteria in the statutes related to funding status and interest earnings. In lieu of these cost of living adjustments the board may also grant an increase in the form of "X×(A+B)" where "X" is any amount up to $1 per month and "A" is equal to the number of years of credited service accrued at retirement or at death of the member of retiree, and "B" is equal to the number of years since retirement or since death of the member or retiree to June thirtieth of the initial year of such increase. The board may only grant such COLA's in years in which the fund meets certain funding and investment earnings targets.

ACTUARIAL ASSUMPTIONS

In determining actuarial costs, certain assumptions must be made regarding future experience under the plan. These assumptions include the rate of investment return, mortality of plan members, rates of salary increase, rates of retirement, rates of termination, rates of disability, and various other factors that have an impact on the cost of the plan. To the extent that future experience varies from the assumptions selected for valuation, future costs will be either higher or lower than anticipated. The following chart illustrates the effect of emerging experience on the plan.

Factor	Increase in Factor Results in
Investment Earnings Rate	Decrease in Cost
Annual Rate of Salary Increase	Increase in Cost
Rates of Retirement	Increase in Cost
Rates of Termination	Decrease in Cost
Rates of Disability	Increase in Cost
Rates of Mortality	Decrease in Cost

ACTUARIAL COST METHOD:	Frozen Attained Age Normal actuarial cost method with allocation based on earnings. The frozen actuarial accrued liabilities were calculated on the projected unit credit cost method.
VALUATION INTEREST RATE:	7.6%
ACTUARIAL ASSET VALUES:	Invested assets are valued at market value adjusted to defer four-fifths of all earnings above or below the valuation interest rate in the valuation year, three-fifths of all earnings above or below the valuation interest rate in the prior year, two-fifths of all earnings above or below the valuation interest rate from two years prior, and one-fifth of all earnings above or below the valuation interest rate from three years prior. The resulting smoothed values are subject to a corridor of 85% to 115% of the market value of assets. If the smoothed value falls outside the corridor, the actuarial value is set equal to the average of the corridor limit and the smoothed value.
ANNUAL SALARY INCREASE RATE:	5.5% (2.875% Inflation; 2.625% Merit)
ACTIVE MEMBER, ANNUTITANT, AND BENEFICIARY MORTALITY:	RP-2000 Combined Healthy with Blue Collar Adjustment Sex Distinct Tables Projected to 2028 for males and set forward 1 year and Projected to 2028 for females. (Projections based on Scale AA as published by the Society of Actuaries)

Back-DROP: Members eligible for Back-DROP are assumed to elect benefits which have a present value of ½% less than the maximum possible present value based on a comparison to available back DROP benefits and regular retirement benefits.

RETIREE COST OF LIVING INCREASES: The present value of future retirement benefits is based on benefits currently being paid by the system and includes previously granted cost of living increases. The present values do not include provisions for potential future increases not yet authorized by the Board of Trustees.

RATES OF RETIREMENT: The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire. Retirement rates for members who have completed DROP participation and are currently active are 0.3.

RETIREMENT LIMITATIONS: Projected retirement benefits are not subjected to IRS Section 415 limits.

RATES OF WITHDRAWAL: The rates of withdrawal are applied based upon completed years of service according to the following table:

Service	Factor
<1	0.210
1	0.160
2	0.120
3	0.110
4	0.090
5	0.080
6-7	0.060
8-9	0.040
10-15	0.030
16-18	0.020
>18	0.010

Note: The withdrawal rate for individuals eligible to retire is assumed to be zero.

MARRIAGE STATISTICS: 70% of the members are assumed to be married; husbands are assumed to be three years older than wives.

FAMILY STATISTICS: Assumptions utilized in determining the costs of various survivor benefits as listed below, are derived from the information provided in the 2010 U. S. Census:

Member's Age	% With Children	Number of Children	Average Age
25	70%	1.84	5
35	86%	2.13	9
45	75%	1.70	12
55	22%	1.42	14
65	4%	1.45	15

DISABLED LIVES MORTALITY: RP-2000 Disabled Lives Mortality Tables set back 5 years for males and set back 3 years for females.

SERVICE RELATED DEATHS: 15% of total deaths

RATES OF DISABILITY: 12% of the disability rates used for the 21st valuation of the Railroad Retirement System for individuals with 10 – 19 years of service.

PARTIAL DISABILITIES: 20% of Total Disabilities

SERVICE RELATED DISABILITIES: 20% of Total Disabilities

VESTING ELECTING PERCENTAGE: 60% of those members under age 50 who are terminated vested elect deferred benefits in lieu of contribution refunds. 80% of those who are at least age 50 who are terminated vested elect deferred benefits in lieu of contribution refunds.

ACTUARIAL TABLES AND RATES

Age	Disability Rates	Retirement Rates	Remarriage Rates	Male Mortality Rates	Female Mortality Rates	Male Disabled Mortality Rates	Female Disabled Mortality Rates
18	0.00018	0.00000	0.06124	0.00018	0.00012	0.02257	0.00745
19	0.00018	0.00000	0.06124	0.00019	0.00012	0.02257	0.00745
20	0.00018	0.00000	0.06124	0.00020	0.00012	0.02257	0.00745
21	0.00018	0.00000	0.05818	0.00021	0.00012	0.02257	0.00745
22	0.00018	0.00000	0.05524	0.00023	0.00013	0.02257	0.00745
23	0.00018	0.00000	0.05242	0.00024	0.00013	0.02257	0.00745
24	0.00018	0.00000	0.04971	0.00026	0.00014	0.02257	0.00745
25	0.00018	0.00000	0.04566	0.00028	0.00015	0.02257	0.00745
26	0.00018	0.00000	0.04335	0.00032	0.00016	0.02257	0.00745
27	0.00018	0.00000	0.04114	0.00033	0.00017	0.02257	0.00745
28	0.00018	0.00000	0.03902	0.00034	0.00018	0.02257	0.00745
29	0.00018	0.00000	0.03698	0.00036	0.00022	0.02257	0.00745
30	0.00018	0.00000	0.03502	0.00063	0.00026	0.02257	0.00745
31	0.00018	0.00000	0.03314	0.00070	0.00029	0.02257	0.00745
32	0.00018	0.00000	0.03134	0.00076	0.00032	0.02257	0.00745
33	0.00018	0.00000	0.02961	0.00082	0.00035	0.02257	0.00745
34	0.00018	0.00000	0.02795	0.00089	0.00038	0.02257	0.00745
35	0.00020	0.00000	0.02636	0.00094	0.00041	0.02257	0.00745
36	0.00023	0.00000	0.02483	0.00100	0.00045	0.02257	0.00745
37	0.00025	0.00000	0.02336	0.00105	0.00048	0.02257	0.00745
38	0.00029	0.00000	0.02195	0.00107	0.00052	0.02257	0.00745
39	0.00032	0.00000	0.02060	0.00108	0.00058	0.02257	0.00745
40	0.00037	0.00000	0.01930	0.00109	0.00064	0.02257	0.00745
41	0.00042	0.00000	0.01805	0.00111	0.00070	0.02257	0.00745
42	0.00047	0.00000	0.01686	0.00114	0.00077	0.02257	0.00745
43	0.00053	0.00000	0.01571	0.00117	0.00084	0.02257	0.00745
44	0.00060	0.00000	0.01461	0.00120	0.00088	0.02257	0.00745
45	0.00068	0.00000	0.01355	0.00124	0.00092	0.02257	0.00745
46	0.00078	0.14000	0.01253	0.00128	0.00096	0.02257	0.00745
47	0.00088	0.14000	0.01156	0.00131	0.00103	0.02257	0.00745
48	0.00100	0.14000	0.01063	0.00135	0.00110	0.02257	0.00745
49	0.00113	0.14000	0.00973	0.00140	0.00121	0.02257	0.00818
50	0.00128	0.05000	0.00887	0.00145	0.00134	0.02257	0.00896
51	0.00146	0.05000	0.00804	0.00160	0.00151	0.02385	0.00978
52	0.00166	0.05000	0.00725	0.00170	0.00172	0.02512	0.01063
53	0.00188	0.05000	0.00649	0.00187	0.00195	0.02640	0.01154
54	0.00214	0.05000	0.00576	0.00207	0.00223	0.02769	0.01248
55	0.00242	0.14000	0.00000	0.00245	0.00258	0.02897	0.01346
56	0.00276	0.14000	0.00000	0.00299	0.00295	0.03027	0.01446
57	0.00313	0.14000	0.00000	0.00348	0.00330	0.03156	0.01550
58	0.00355	0.14000	0.00000	0.00407	0.00374	0.03286	0.01654
59	0.00404	0.14000	0.00000	0.00462	0.00430	0.03415	0.01760
60	0.00586	0.14000	0.00000	0.00526	0.00504	0.03544	0.01865
61	0.00586	0.14000	0.00000	0.00617	0.00589	0.03673	0.01971
62	0.00586	0.14000	0.00000	0.00706	0.00693	0.03803	0.02077
63	0.00586	0.14000	0.00000	0.00829	0.00794	0.03933	0.02184
64	0.00586	0.14000	0.00000	0.00931	0.00904	0.04067	0.02294
65	0.00586	0.21000	0.00000	0.01047	0.01029	0.04204	0.02408
66	0.00586	0.21000	0.00000	0.01217	0.01149	0.04347	0.02529
67	0.00586	0.21000	0.00000	0.01355	0.01279	0.04498	0.02660
68	0.00586	0.21000	0.00000	0.01461	0.01424	0.04658	0.02803
69	0.00586	0.21000	0.00000	0.01613	0.01619	0.04831	0.02959
70	0.00586	0.21000	0.00000	0.01753	0.01752	0.05017	0.03132
71	0.00586	0.21000	0.00000	0.01921	0.01949	0.05221	0.03323
72	0.00586	0.21000	0.00000	0.02108	0.02100	0.05445	0.03533
73	0.00586	0.21000	0.00000	0.02319	0.02315	0.05691	0.03764
74	0.00586	0.21000	0.00000	0.02558	0.02467	0.05961	0.04014
75	0.00586	0.21000	0.00000	0.02906	0.02698	0.06258	0.04285

PRIOR YEAR ASSUMPTIONS

VALUATION INTEREST RATE:	7.7%
ANNUAL SALARY INCREASE RATE:	6% (3.00% inflation; 3.00% Merit)
ACTIVE MEMBER MORTALITY:	RP 2000 Employee Table set back 1 year for males and females
ANNUITANT AND BENEFICIARY MORTALITY	RP 2000 Healthy Annuitant Table set back 1 year for males and females
DISABLED LIVES MORTALITY:	RP-2000 Disabled Lives Mortality Tables for Males and Females
RATES OF WITHDRAWAL:	The rates of withdrawal are applied based upon completed years of service according to the following table:

Service	Factor	Service	Factor
<1	0.260	15	0.025
1	0.170	16	0.025
2	0.130	17	0.025
3	0.120	18	0.025
4	0.100	19	0.015
5	0.080	20	0.015
6	0.070	21	0.015
7	0.070	22	0.015
8	0.060	23	0.015
9	0.040	24	0.015
10	0.040	25	0.015
11	0.040	26	0.015
12	0.040	27	0.015
13	0.025	28	0.015
14	0.025	>28	0.010

Note: The withdrawal rate for individuals eligible to retire is assumed to be zero.

MARRIAGE STATISTICS:	85% of the members are assumed to be married; husbands are assumed to be three years older than wives.
FAMILY STATISTICS:	Assumptions utilized in determining the costs of various survivor benefits as listed below, are derived from the information provided in the 2000 U. S. Census:

Member's Age	% With Children	Number of Children	Average Age
25	62%	1.7	6
35	82%	2.1	10
45	66%	1.8	13
55	19%	1.4	15
65	2%	1.4	15

RATES OF DISABILITY: 15% of the disability rates used for the 21st valuation of the Railroad Retirement System for individuals with 10 – 19 years of service.

PRIOR YEAR ACTUARIAL TABLES AND RATES

Age	Active Male Mortality Rates	Active Female Mortality Rates	Retired Male Mortality Rates	Retired Female Mortality Rates	Retirement Rates	Disability Rates
18	0.00030	0.00018	0.00030	0.00018	0.00000	0.00023
19	0.00032	0.00019	0.00032	0.00019	0.00000	0.00023
20	0.00033	0.00019	0.00033	0.00019	0.00000	0.00023
21	0.00035	0.00019	0.00035	0.00019	0.00000	0.00023
22	0.00036	0.00019	0.00036	0.00019	0.00000	0.00023
23	0.00037	0.00019	0.00037	0.00019	0.00000	0.00023
24	0.00037	0.00020	0.00037	0.00020	0.00000	0.00023
25	0.00038	0.00020	0.00038	0.00020	0.00000	0.00023
26	0.00038	0.00021	0.00038	0.00021	0.00000	0.00023
27	0.00038	0.00021	0.00038	0.00021	0.00000	0.00023
28	0.00038	0.00022	0.00038	0.00022	0.00000	0.00023
29	0.00039	0.00024	0.00039	0.00024	0.00000	0.00023
30	0.00041	0.00025	0.00041	0.00025	0.00000	0.00023
31	0.00044	0.00026	0.00044	0.00026	0.00000	0.00023
32	0.00050	0.00031	0.00050	0.00031	0.00000	0.00023
33	0.00056	0.00035	0.00056	0.00035	0.00000	0.00023
34	0.00063	0.00039	0.00063	0.00039	0.00000	0.00023
35	0.00070	0.00044	0.00070	0.00044	0.00000	0.00025
36	0.00077	0.00047	0.00077	0.00047	0.00000	0.00029
37	0.00084	0.00051	0.00084	0.00051	0.00000	0.00031
38	0.00090	0.00055	0.00090	0.00055	0.00000	0.00036
39	0.00096	0.00060	0.00096	0.00060	0.00000	0.00041
40	0.00102	0.00065	0.00102	0.00065	0.00000	0.00047
41	0.00108	0.00071	0.00108	0.00071	0.00000	0.00053
42	0.00114	0.00077	0.00114	0.00077	0.00000	0.00058
43	0.00122	0.00085	0.00122	0.00085	0.00000	0.00066
44	0.00130	0.00094	0.00130	0.00094	0.00000	0.00075
45	0.00140	0.00103	0.00140	0.00103	0.00000	0.00086
46	0.00151	0.00112	0.00151	0.00112	0.15000	0.00098
47	0.00162	0.00122	0.00162	0.00122	0.15000	0.00110
48	0.00173	0.00133	0.00173	0.00133	0.15000	0.00125
49	0.00186	0.00143	0.00186	0.00143	0.15000	0.00141
50	0.00200	0.00155	0.00200	0.00155	0.07000	0.00161
51	0.00214	0.00168	0.00535	0.00234	0.07000	0.00183
52	0.00229	0.00181	0.00553	0.00246	0.07000	0.00207
53	0.00245	0.00197	0.00564	0.00265	0.07000	0.00236
54	0.00262	0.00213	0.00572	0.00290	0.07000	0.00267
55	0.00281	0.00232	0.00580	0.00319	0.15000	0.00303
56	0.00303	0.00253	0.00590	0.00353	0.15000	0.00345
57	0.00331	0.00276	0.00612	0.00393	0.15000	0.00392
58	0.00363	0.00301	0.00644	0.00438	0.15000	0.00444
59	0.00400	0.00329	0.00690	0.00492	0.15000	0.00505
60	0.00441	0.00360	0.00749	0.00553	0.15000	0.00732
61	0.00488	0.00393	0.00820	0.00620	0.15000	0.00732
62	0.00538	0.00429	0.00900	0.00692	0.15000	0.00732
63	0.00592	0.00466	0.00991	0.00769	0.15000	0.00732
64	0.00647	0.00504	0.01095	0.00851	0.15000	0.00732
65	0.00703	0.00543	0.01212	0.00939	0.24000	0.00732
66	0.00757	0.00582	0.01342	0.01036	0.24000	0.00732
67	0.00810	0.00621	0.01487	0.01141	0.24000	0.00732
68	0.00860	0.00658	0.01646	0.01254	0.24000	0.00732
69	0.00907	0.00695	0.01820	0.01377	0.24000	0.00732
70	0.00951	0.00729	0.02011	0.01515	0.24000	0.00732
71	0.00992	0.00761	0.02221	0.01674	0.24000	0.00732
72	0.02457	0.01858	0.02457	0.01858	0.24000	0.00732
73	0.02728	0.02067	0.02728	0.02066	0.24000	0.00732
74	0.03039	0.02297	0.03039	0.02297	0.24000	0.00732
75	0.03390	0.02546	0.03390	0.02546	0.24000	0.00732

GLOSSARY

Accrued Benefit – The pension benefit that an individual has earned as of a specific date based on the provisions of the plan and the individual's age, service, and salary as of that date.

Actuarial Accrued Liability – The actuarial present value of benefits payable to members of the fund less the present value of future normal costs attributable to the members.

Actuarial Assumptions – Assumptions as to the occurrence of future events affecting pension costs. These assumptions include rates of mortality, withdrawal, disablement, and retirement. Also included are rates of investment earnings, changes in compensation, as well as statistics related to marriage and family composition.

Actuarial Cost Method – A procedure for determining the portion of the cost of a pension plan to be allocated to each year. Each cost method allocates a certain portion of the actuarial present value of benefits between the actuarial accrued liability and future normal costs. Once this allocation is made, a determination of the normal cost attributable to a specific year can be made along with the payment to amortize any unfunded actuarial accrued liability. To the extent that a particular funding method allocates a greater (lesser) portion of the actual present value of benefits to the actuarial accrued liability it will allocate less (more) to future normal costs.

Actuarial Equivalence – Payments or receipts with equal actuarial value on a given date when valued using the same set of actuarial assumptions.

Actuarial Gain (Loss) – The financial effect on the fund of the difference between the expected and actual experience of the fund. The experience may be related to investment earnings above (or below) those expected or changes in the liability structure due to fewer (or greater) than the expected numbers of retirements, deaths, disabilities, or withdrawals. In addition, other factors such as pay increases above (or below) those forecast can result in actuarial gains or losses. The effect of such gains (or losses) is to decrease (or increase) future costs.

Actuarial Present Value – The value, as of a specified date, of an amount or series of amounts payable or receivable thereafter, with each amount adjusted to reflect the time value of money (through accrual of interest) and the probability of payments. For example: if $600 invested today will be worth $1,000 in 10 years and there is a 50% probability that a person will live 10 years, then the actuarial present value of $1,000 payable to that person if he should survive 10 years is $300.

Actuarial Value of Assets – The value of cash, investments, and other property belonging to the pension plan as used by the actuary for the purpose of the actuarial valuation. This may correspond to the book value, market value, or some modification involving either or both book and market value. Adjustments to market values are often made to reduce the volatility of asset values.

Asset Gain (Loss) – That portion of the actuarial gain attributable to investment performance above (below) the expected rate of return in the actuarial assumptions.

Amortization Payment – That portion of the pension plan contribution designated to pay interest and reduce the outstanding principal balance of unfunded actuarial accrued liability. If the amortization payment is less than the accrued interest on the unfunded actuarial accrued liability the outstanding principal balance will increase.

Contribution Shortfall (Excess) – The difference between contributions recommended in the prior valuation and the actual amount received.

Decrements – Events which result in the termination of membership in the system such as retirement, disability, withdrawal, or death.

Employer Normal Cost – That portion of the normal cost not attributable to employee contributions. It includes both direct contributions made by the employer and contributions from other non-employee sources such as revenue sharing and revenues related to taxes.

Funded Ratio – A measure of the ratio of assets to liabilities of the system according to a specific definition of those two values. Typically the assets used in the measure are the actuarial value of assets; the liabilities are defined by reference to some recognized actuarial funding method. Thus the funded ratio of a plan depends not only on the financial strength of the plan but also on the funding method used to determine the liabilities and the asset valuation method used to determine the assets in the ratio.

Normal Cost – That portion of the actuarial present value of pension plan benefits and expenses allocated to a valuation year by the actuarial cost method. This is analogous to one year's insurance premium.

Pension Benefit Obligation – The actuarial present value of benefits earned or credited to date based on the members expected final average compensation at retirement. For current retirees or terminated members this is equivalent to the actuarial present value of their accrued benefit.

Projected Benefits – The benefits expected to be paid in the future based on the provisions of the plan and the actuarial assumptions. The projected values are based on anticipated future advancement in age and accrual of service as well as increases in salary paid to the participant.

Unfunded Actuarial Accrued Liability – The excess of the actuarial accrued liability over the actuarial value of assets.

Vested Benefits – Benefits that the members are entitled to even if they withdraw from service.

NOTES