FIREFIGHTERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2014

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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November 12, 2014

Board of Trustees
Firefighters' Retirement System
3100 Brentwood Drive
Baton Rouge, LA 70809

Gentlemen:

We are pleased to present our report on the actuarial valuation of the Firefighters' Retirement System for the fiscal year ending June 30, 2014. 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 Firefighters' Retirement System 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, 2015 and to recommend the net direct employer contribution rate for fiscal 2016. 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 Firefighters' Retirement System 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
FIREFIGHTERS' RETIREMENT SYSTEM

Valuation Date:		June 30, 2014	June 30, 2013
Census Summary:	Active Members (excluding DROP)	4,098	4,063
	Retired Members and Survivors	2,057	1,958
	DROP Participants	185	221
	Terminated Due a Deferred Benefit	79	71
	Terminated Due a Refund	472	450

Payroll (excluding DROP accruals):	$ 203,333,976	$ 199,129,982
Benefits in Payment:	$ 73,404,453	$ 67,678,016
Unfunded Actuarial Accrued Liability:	$ 470,163,334	$ 511,583,537
Actuarial Asset Value (AVA):	$ 1,385,135,204	$ 1,260,348,240
Market Value of Assets (MVA):	$ 1,410,307,198	$ 1,253,213,084
Actuarial Accrued Liability (Entry Age Normal):	$ 1,855,298,538	$ 1,771,931,777
Funded Ratio (MVA//Entry Age Normal Accrued Liability):	76.02%	71.13%

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	FISCAL 2015	FISCAL 2014
Employers' Normal Cost (July 1):	$ 50,473,976	$ 49,390,618
Amortization Cost (July 1):	$ 46,842,972	$ 49,629,071
Interest Adjusted Actuarially Required Contributions Including Estimated Administrative Costs:	$ 102,715,436	$ 103,988,293
Expected Insurance Premium Taxes	$ 23,924,457	$ 22,849,383
Net Direct Employer Actuarially Required Contributions	$ 78,790,979	$ 81,138,910
Actuarially Required Net Direct Combined Contribution Rate	37.50%	39.23%
Actual Net Direct Combined Contribution Rate:	39.25%	38.25%

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Minimum Recommended Net Direct Employer Cont. Rate :		
For Employees with Earnings Below Poverty Level-	**Fiscal 2016:** 29.25%	**Fiscal 2015:** 31.25%
For Employees with Earnings Above Poverty Level -	**Fiscal 2016:** 27.25%	**Fiscal 2015:** 29.25%

Employee Contribution Rate: 8.00% of payroll below poverty level/10.00% of payroll above poverty level

Actuarial Cost Method: Individual Entry Age Normal with allocation of cost based on earnings. Unfunded Accrued Liability (exclusive of liability for mergers) as of June 30, 2002 amortized through June 30, 2029 with level dollar payments. Unfunded Accrued Liability resulting from merged systems amortized over thirty years.

Valuation Interest Rate: 7½% (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: Technical changes in valuation model

Method of Recognizing Gains and Losses: Amortized over 15 years prior to fiscal 2010; amortized over 20 years for fiscal 2010 and one less year each year thereafter, but not less than fifteen years. As of 2014, amortized over 15 years.

COMMENTS ON DATA

For the valuation, the administrator of the system furnished an electronic file containing a census derived 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 4,098 active contributing members in the system of whom 1,969 have vested retirement benefits; in addition, there are 185 participants in the Deferred Retirement Option Plan (DROP); 2,057 former members or their beneficiaries are receiving retirement benefits. An additional 551 terminated members have contributions remaining on deposit with the system; of this number 79 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 administrative staff 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. 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 financial statements, the net market value of system's assets was $1,410,307,198 as of June 30, 2014. Net investment income for fiscal 2014 measured on a market value basis amounted to $143,849,237. Contributions to the system for the fiscal year totaled $103,352,727; benefits and expenses amounted to $90,107,850.

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 Entry Age Normal actuarial cost method. Under the provisions of Louisiana R.S. 11:103 the funding excess for the plan which was determined to be $239,425 as of June 30, 1989 was amortized over thirty years. Subsequent experience gains and losses were amortized over fifteen years. Contribution gains or losses arising from contributions in excess of or less than the required contributions are amortized over the same period as experience gains and losses. Further changes in the unfunded accrued liability generated by mergers of groups of firefighters into the system are amortized over thirty years. All non-merger amortization bases in existence on June 30, 2002, were combined, offset, and re-amortized through June 30, 2029, in accordance with R.S. 11:103(D). The aggregate value of the bases as of that date was $175,578,584. Beginning with fiscal 2010, actuarial gains and losses, as well as contribution gains and losses, are amortized over a 20 year period. Each year thereafter, the amortization period will decrease by one year until attaining a 15 year amortization period. All changes in assumptions or the method of valuing assets are amortized over 15 years. All amortization payments are on a level dollar basis.

The cost method used for this valuation generally produces normal costs which are level as a percentage of pay if assumptions are met and the composition of the active group with regard to age, sex, and service is stable. Overall costs may increase or decrease depending on payroll growth. Since payments on all of the fund's amortization bases are level any payroll growth will reduce future amortization payments as a percentage of payroll. Should overall payroll contract, amortization payments will increase as a percentage of payroll.

The current year actuarial assumptions utilized for this report (excluding mortality) are based on the results of an actuarial experience study for the period July 1, 2006 – June 30, 2010, unless otherwise specified in this report. Mortality assumptions were set after reviewing the study performed on plan data for the period 1999 through 2004 as well as an updated study using data for the period of 2005 through 2009. Based upon the variance in the results of these studies and giving consideration to the limited credibility of the data and the lack of an appropriately comparable base table, the projected mortality was set using the RP2000 Healthy Annuitant Table set back one year for males and one year for females. For active members mortality was based on the RP2000 Employee Table set back one year for males and one year for females. A determination was made that these tables would produce liabilities approximating the appropriate generational mortality tables. The RP2000 Disabled Live Mortality Table was selected for disabled annuitants.

In determining the valuation interest rate, consideration was given to several factors. First, consensus estimates of rates of return, standard deviations, and correlation coefficients for asset classes derived from various asset consulting firms were developed. These factors were used to derive forward estimates of the Fund's portfolio earnings rate. Consideration was also given to the 2014 report of New England Pension Consultants on future expected rates of return for the current portfolio asset allocation. This report projected future arithmetic average portfolio nominal returns ranging from 7.8% to 8.0%. Given recognition to the expected variance in returns it was determined the 7.5% rate of return assumption utilized for the fiscal 2013 valuation was still a reasonable estimate of future returns for the system. The salary increase rate for the report was based on forward estimates of future increases in pay resulting from three sources; inflation, merit, and productivity. An inflation rate of 2.75% 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 COLA's 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-nine through forty-two. With the exception of a modification in the software model of plan design, all assumptions were the same as those used in the fiscal 2013 valuation. All assumptions used 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 assumptions decreased the interest-adjusted amortization payments on the system's UAL by $34,852 which corresponds to payments of 0.02% of fiscal 2015 projected payroll.

CHANGES IN PLAN PROVISIONS

The following changes in plan provisions were enacted during the 2014 Regular Session of the Louisiana Legislature:

Act 403 authorizes employers to allow the conversion of unused sick, annual, and compensatory leave to service credit in the Firefighters' Retirement System. The board of trustees will create regulations and procedures necessary to implement these provisions. The act requires the employer to pay into the system an amount which, on an actuarial basis, totally offsets the increase in accrued liability of the system resulting from the conversion within thirty days after receiving an invoice from this system.

Act 441 creates a task force to study and make recommendations concerning a prospective requirement for service by state-affiliated physicians on the State Medical Disability Board upon request of the Firefighters' Retirement System. The task force shall convene on or before September 1, 2014, and shall terminate on September 1, 2015. The task force shall submit findings from the study in the form of a written report no later than sixty days prior to the convening of the 2015 Regular Session of the Legislature of Louisiana.

Act 503 amends R.S. 11:2261(A) to require conformity with applicable federal rules and regulations for the management and investment of system funds. The trustees may adopt the terms of a group trust in compliance with all applicable United States Internal Revenue Service Revenue Rulings.

Act 504 amends R.S. 11:2256.1(A) and (B) relative to removal of former spouses as a beneficiary by a member of the Firefighters Retirement System. The above statute was revised to specify that only retirees may remove a former spouse as a beneficiary.

ASSET EXPERIENCE

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

	Market Value	Actuarial Value	
2005	10.4%	10.4%	
2006	12.3%	9.9%	*
2007	17.2%	11.6%	
2008	- 5.0%	9.0%	
2009	-20.8%	-4.9%	**
2010	12.2%	6.1%	
2011	17.4%	4.5%	
2012	-4.1% †	-0.2%	†
2013	10.5%	2.5%	
2014	11.4%	8.8%	

* Based on the actuarial value of assets and income and expense including the effect of a change in the method for calculating the actuarial value of assets under a 5-year smoothing of investment earnings above or below the assumed 7.5% rate of return subject to a corridor of 90% to 110% of the market value of assets. Returns for years 1998 through 2005 were based on a 2-year smoothing of recognized realized and unrealized capital gains (losses) on all securities.

** Includes the effect of a change in the method for calculating the actuarial value of assets. The actuarial value of assets is based on the market value of investment securities 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.

† Based upon asset values which include an unaudited "best estimate" of the value of a receivable related to the FIA Leveraged Fund.

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. (Asset and income values for merger notes were excluded from calculations in order to provide a measurement of the return on the portion of the portfolio under management.) 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 2014, the fund earned $21,443,002 of dividends, interest and other recurring income. During the same period, the Fund had net realized and unrealized capital gains on investments of $132,757,340. This income was offset by investment expenses of $10,351,104. The geometric mean of the market value rates of return measured over the last ten years was 5.4%. For the last twenty years, the geometric mean return was 6.2%.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.5% used for the valuation. This rate is calculated based on the actuarial value of assets and the market value income adjusted for actuarial smoothing as given in Exhibit VI. Investment income used to calculate this yield is based upon a smoothing of investment income above or below the valuation interest rate over a five year period subject to constraints. The difference between rates of return on an actuarial and market value basis results from the smoothing utilized. Yields in excess of the 7.5% assumption will reduce future costs; yields below 7.5% will increase future costs. For fiscal 2014, the system experienced net actuarial investment earnings of $16,528,266 more than the actuarial assumed earnings rate of 7.5%. This increase in earnings produced an actuarial gain, which decreased the interest-adjusted amortization payments on the system's UAL by $1,805,943 which corresponds to payments of 0.86% of fiscal 2015 projected payroll.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the system is given in Exhibit X. The average active contributing member is 38 years old with 11.41 years of service credit and an annual salary of $49,618. The system's active contributing membership experienced an increase during fiscal 2014 of 35 members. The number of DROP participants decreased by 36. Over the last five years active membership has increased by 216 members. A review of the active census by age indicates that over the last ten years the population in the thirty-one to fifty age group has decreased while the proportion of active members over fifty increased. Over the same ten-year period the system's active census by service remained relatively stable.

The average service retiree is 64 years old with a monthly benefit of $3,393. The number of retirees and beneficiaries receiving benefits from the system increased by 99 during the fiscal year. Over the last five years, the number has increased by 369; during the same period, the annual benefits in payment increased by $20,372,602.

The changes in the makeup of the population and changes in members' salaries increased the interest adjusted normal cost over the last year by $1,123,249; the normal cost percentage increased by 0.14% of payroll. Plan liability experience for fiscal 2014 was favorable. Salary increase rates at most durations were below projections. Retirements were below projections. Withdrawals were above projections. These factors decreased costs. DROP entries, retiree deaths, and disabilities were near projected levels. Net plan liability experience gains totaled $12,708,035. These gains decreased the interest-adjusted amortization payments on the system's unfunded accrued liability by $1,388,530, which corresponds to a decrease in payments of 0.66% of fiscal 2015 projected payroll.

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 payments on the unfunded actuarial accrued liability. The normal cost refers to the annual cost for active members allocated to each year by the particular cost method utilized. 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. In addition it may be increased or diminished by plan experience, changes in assumptions, or changes in benefits including COLA's. Contributions in excess of or less than the actuarially required amount can also decrease or increase the UAL balance. New entrants to the system can also increase or lower costs as a percent of payroll depending upon their demographic distribution. Finally, payroll growth affects plan costs since payments on the system's unfunded liability are on a fixed, level schedule. If payroll increases, these costs are reduced as a percentage of payroll.

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.

An explanation of the change in costs related to asset and liability gains and losses as well as changes in demographics and assumptions is given in prior sections of the report. In addition to these components, variances in contribution levels and payroll also affect costs. For fiscal 2014 contributions totaled $3,117,549 less than required; the interest-adjusted amortization payment on the contribution shortfall for fiscal 2015 is $340,635, or 0.16% of fiscal 2015 projected payroll. In addition, for fiscal 2015 the net effect of the change in payroll on amortization costs was to reduce such costs by 0.38% of projected payroll.

A reconciliation of the change in costs is given below. Values listed in dollars are interest adjusted for payment throughout the fiscal year. Percentages are based on the projected payroll for fiscal 2015 except for those items labeled fiscal 2014.

	Dollars	Percentage of Payroll
Normal Cost for Fiscal 2014	$ 51,209,283	24.76%
Cost of Demographic and Salary Changes	$ 1,123,249	0.14%
Normal Cost for Fiscal 2015	$ 52,332,532	24.90%
UAL Payments for Fiscal 2014	$ 51,456,516	24.88%
Change due to change in payroll	N/A	(0.39%)
Additional Amortization Expenses for Fiscal 2015:		
Asset Experience Loss (Gain)	$ (1,805,943)	(0.86%)
Assumption Loss (Gain)	$ (34,852)	(0.01%)
Contribution Loss (Gain)	$ 340,636	0.16%
Liability Loss (Gain)	$ (1,388,530)	(0.66%)
Net Amortization Expense (Credit) for Fiscal 2015	$ (2,888,689)	(1.37%)
Estimated Administrative Cost for Fiscal 2015	$ 1,815,077	0.86%
Total Normal Cost & Amortization Payments	$ 102,715,436	48.88%

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for fiscal 2015 as of July 1, 2014 is $50,473,976. The amortization payments on the system's unfunded actuarial accrued liability as of July 1, 2014 total $46,842,972. The total actuarially required contribution is determined by adjusting the sum of these two values for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given in line 11 of Exhibit I the total actuarially required contribution for fiscal 2015 is

$102,715,436. We estimate insurance premium taxes of $23,924,457 will be paid to the system in fiscal 2015. Hence, the total actuarially required net direct combined contribution (consisting of employee contributions and the net direct employer contribution) for fiscal 2015 amounts to $78,790,979 or 37.50% of payroll.

Since the actual net direct combined contribution rate for fiscal 2015 is 39.25% of payroll, there will be a contribution gain of 1.75% of payroll. The effect of this gain will be to decrease the required contributions for fiscal 2016 by 0.18% of payroll. The statutes require rounding the net direct employer contribution rate to the nearest 0.25%. Therefore, we recommend a combined employee and net direct employer contribution rate of 37.25% for fiscal 2016. For members with earnings less than or equal to the Department of HHS poverty guidelines, employee contributions will be set equal to 8.00% of payroll. The employer contribution rate to be applied to the earnings of such members should be set equal to 29.25% of payroll. For members with earnings greater than the Department of HHS poverty guidelines, employee contributions will be set equal to 10.00% of payroll. The employer contribution rate to be applied to the earnings of such members should be set equal to 27.25% of payroll.

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 plan's costs to a change in two factors. First, we have determined that based on current assets and demographics, for each percentage under (over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (reduction) in the actuarially required contribution as a percentage of projected payroll of 0.69% for the fund. We have also determined that a 1% reduction in the valuation interest rate for the Fund would increase the actuarially required contribution rate for fiscal 2015 by 16.46% 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 market value of assets is divided by the entry age normal accrued liability for the fund the result is 76.02% as of June 30, 2014. 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 2014, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 2.07%. Cost of living provisions for the system are detailed in R.S. 11:2260A(7) and R.S. 11:246. The former statute allows the board to use interest earnings in excess of the normal requirements to grant annual cost of living increases of up to 3% of each retiree's current benefit. R.S. 11:246 provides cost of living increases to retirees and beneficiaries over the age of 65 equal to 2% of the benefit in 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×(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.

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 76.54% and since the system has not granted a cost of living increase within the three most recent fiscal years, we have determined that for fiscal 2014 the plan meets the criteria set forth in R. S. 11:243 for granting a cost of living increase from "excess interest earnings".

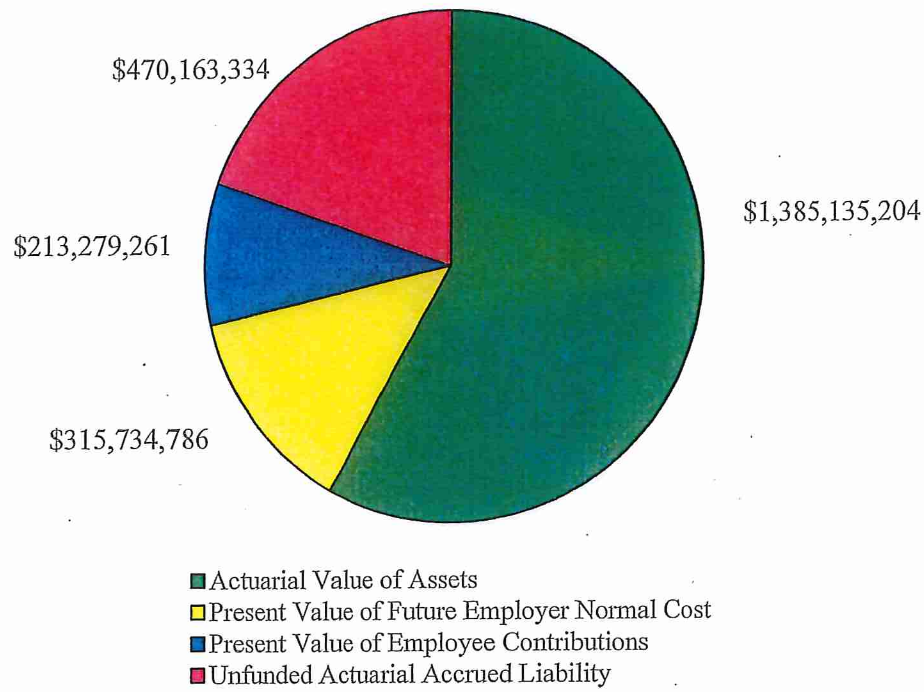
Below is a summary of available cost of living increases and their respective costs:

COLA Description	Annual Increase in Benefits	Present Value Of Increase	Contribution Cost as a % of Payroll
3% to all allowable pensioners	\$ 2,124,728	\$ 21,676,475	1.13%
2% to pensioners over age 65	\$ 456,204	\$ 3,980,189	0.21%
		\$ 25,656,664	

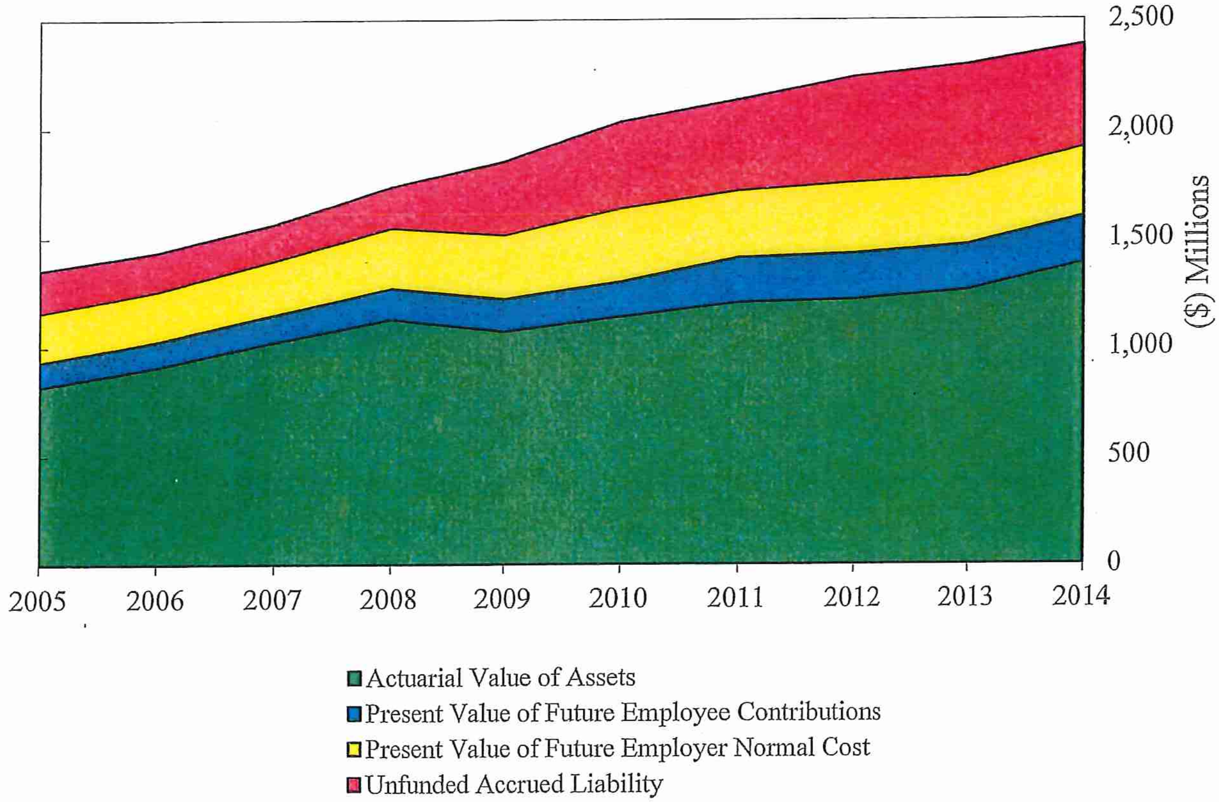
Since there is insufficient excess interest to fund the entire 3% cost of living adjustment, the board may grant either the 2% to pensioners over age 65 or a portion of the 3% cost of living adjustment with a total present value of increase not to exceed the excess interest earnings of \$16,528,266 for fiscal 2014. We have determined that a cost of living increase of 2.25% of the current benefit to all retirees who have been retired a full year would increase annual benefits by \$1,593,547 and would increase the present value of benefits by \$16,257,361. This would increase the contribution cost as a percentage of payroll by 0.85%. Since the amortization period for the additional liability generated by any COLA is 15 years stated in R.S. 11:103, the additional payments by the employer to finance any COLA granted will persist for 15 years.

There is insufficient information available on the system's database to provide meaningful estimates of the costs associated with awarding the cost of living increase detailed in R.S. 11:241.

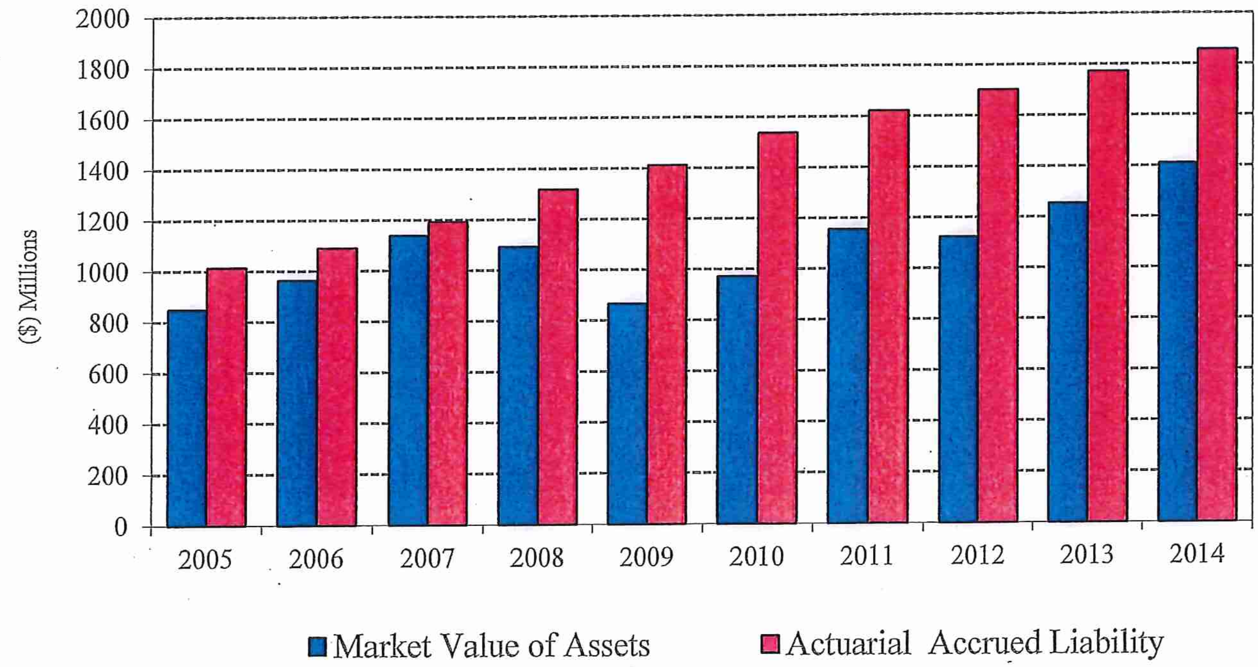
Components of Present Value of Future Benefits
June 30, 2014



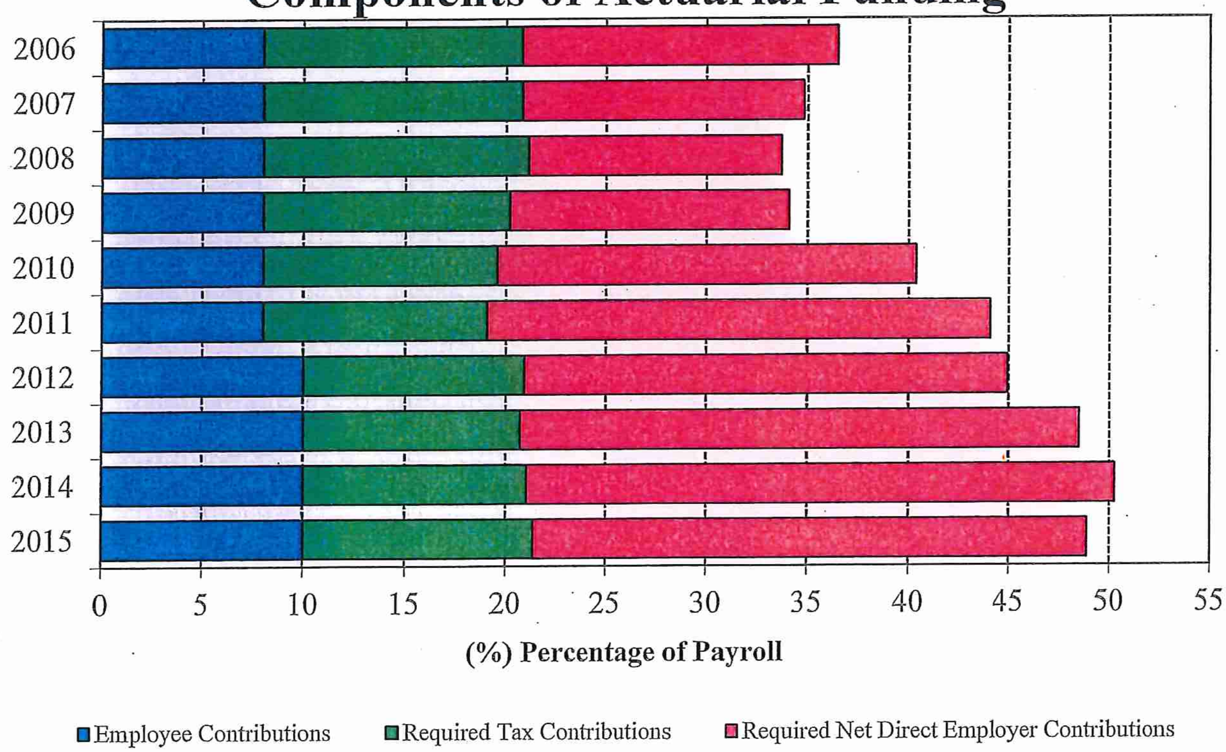
Components of Present Value of Future Benefits
Historical



Market Value of Assets vs. Actuarial Accrued Liability

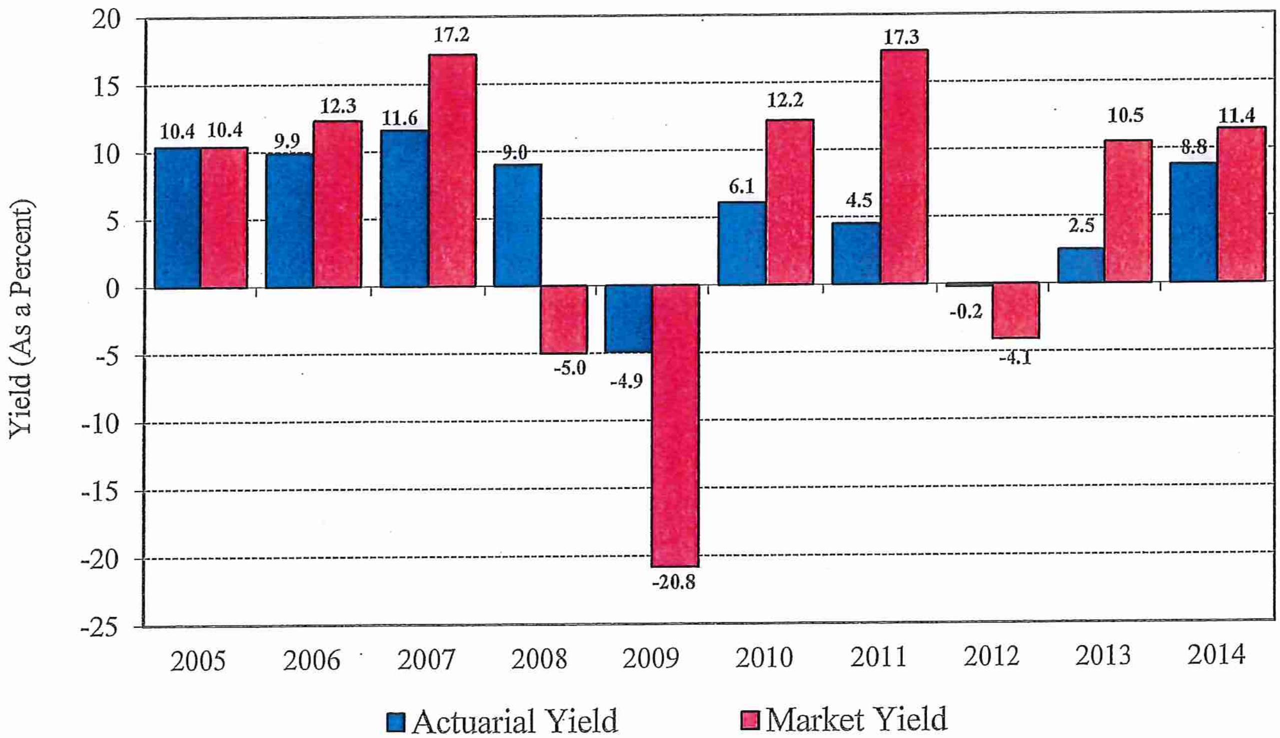


Components of Actuarial Funding

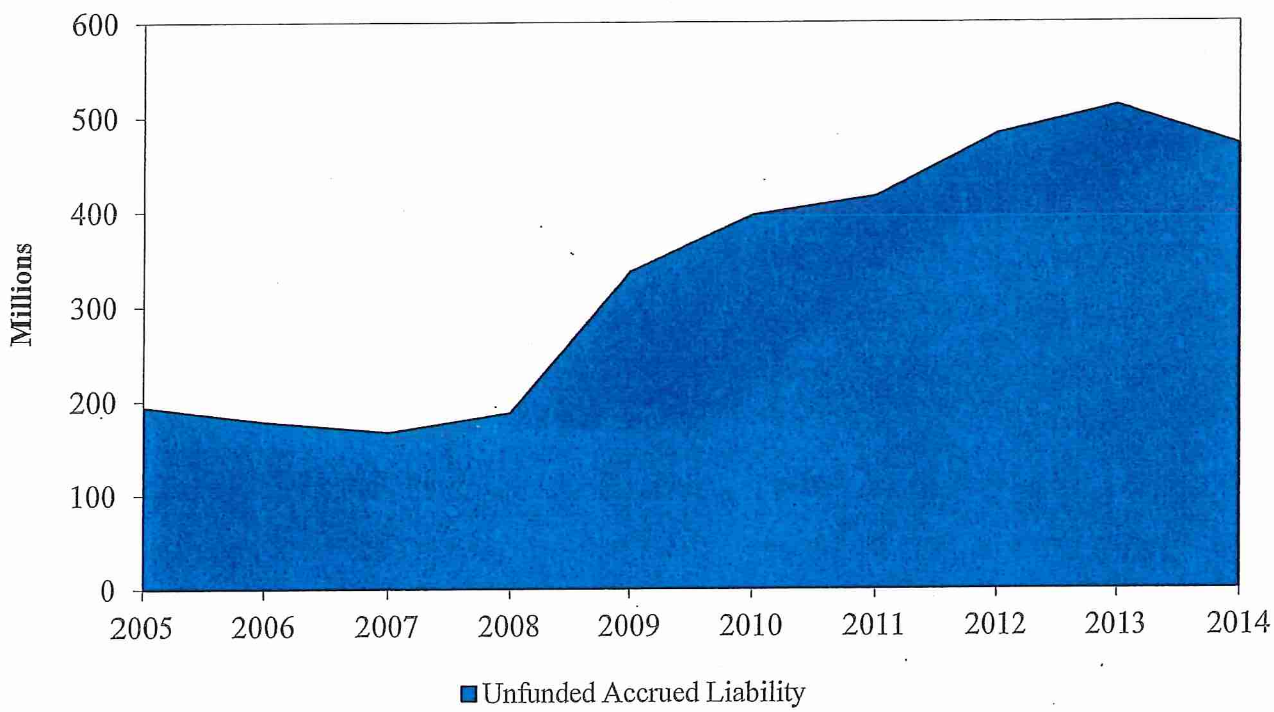


(2012 and later employee contribution level is based on members with earnings above the poverty level)

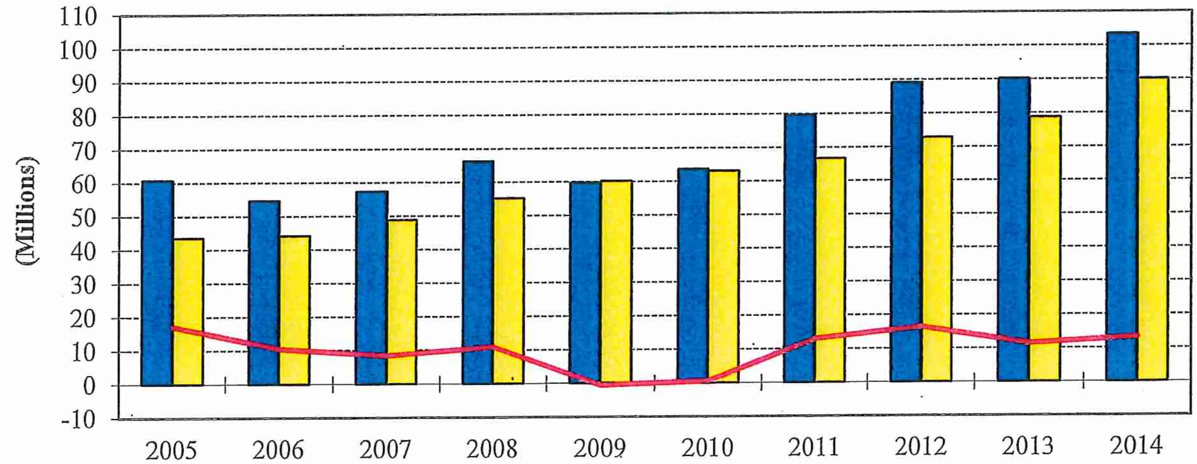
Historical Asset Yields



Unfunded Accrued Liability



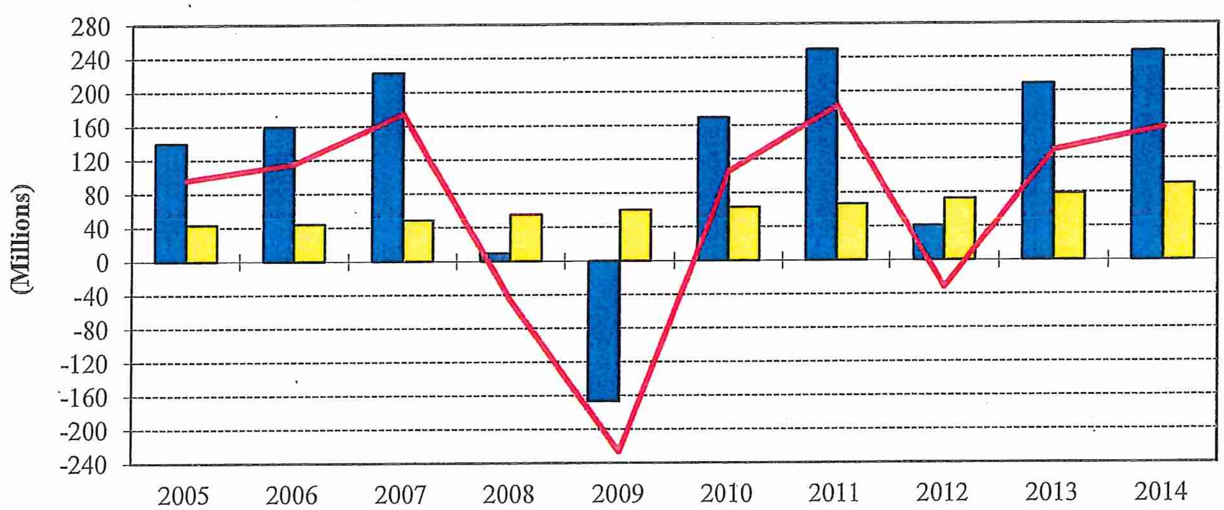
Net Non-Investment Income



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Non-Investment Income ($Mil)	60.8	54.7	57.4	66.3	59.8	63.7	79.7	89.2	90.2	103.4
Benefits and Expenses ($Mil)	43.6	44.2	48.9	55.3	60.3	63.1	66.7	72.8	78.7	90.1
Net Non-Investment Income ($Mil)	17.2	10.5	8.5	11.0	-0.5	0.6	13.0	16.4	11.5	13.3

Total Income vs. Expenses

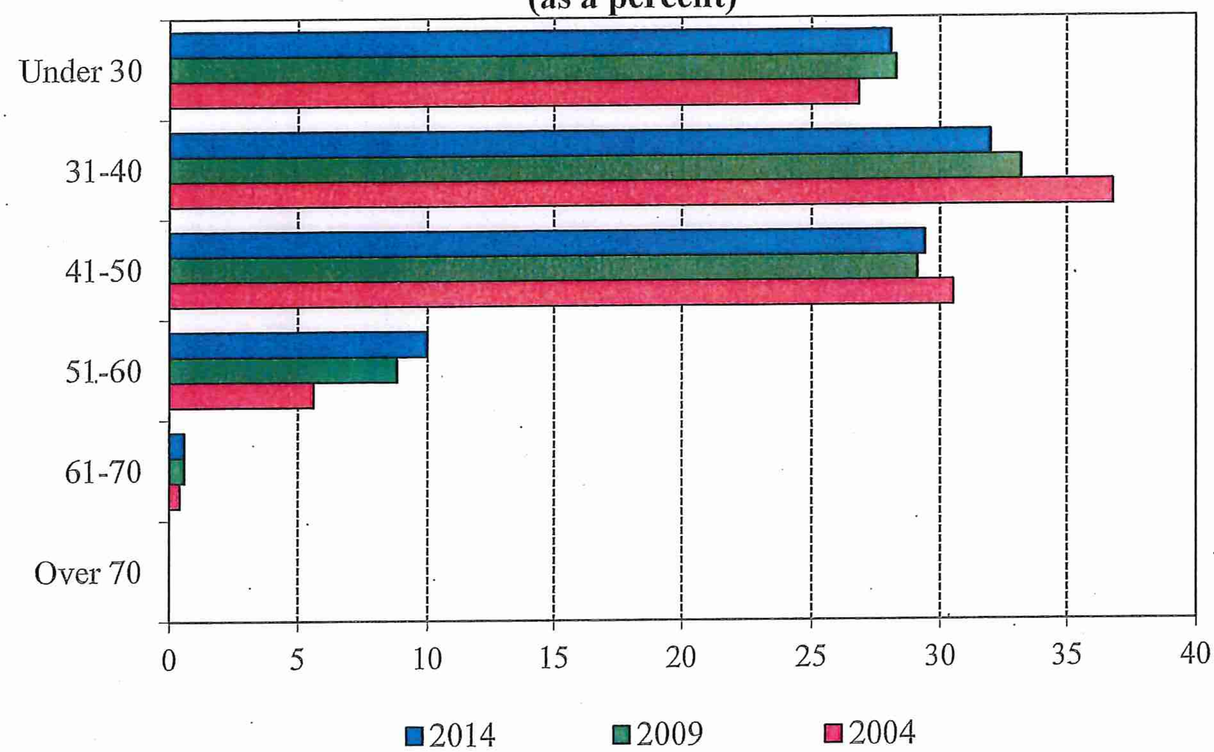
(Based on Market Value of Assets)



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Income ($Mil)	139.8	159.5	223.3	9.5	-166.6	169.3	249.4	41.2	209.0	247.2
Benefits and Expenses ($Mil)	43.6	44.2	48.9	55.3	60.3	63.1	66.7	72.8	78.7	90.1
Net Change in MVA ($Mil)	96.2	115.3	174.4	-45.8	-226.9	106.2	182.7	-31.6	130.3	157.1

Active – Census By Age

(as a percent)



Active – Census By Service

(as a percent)

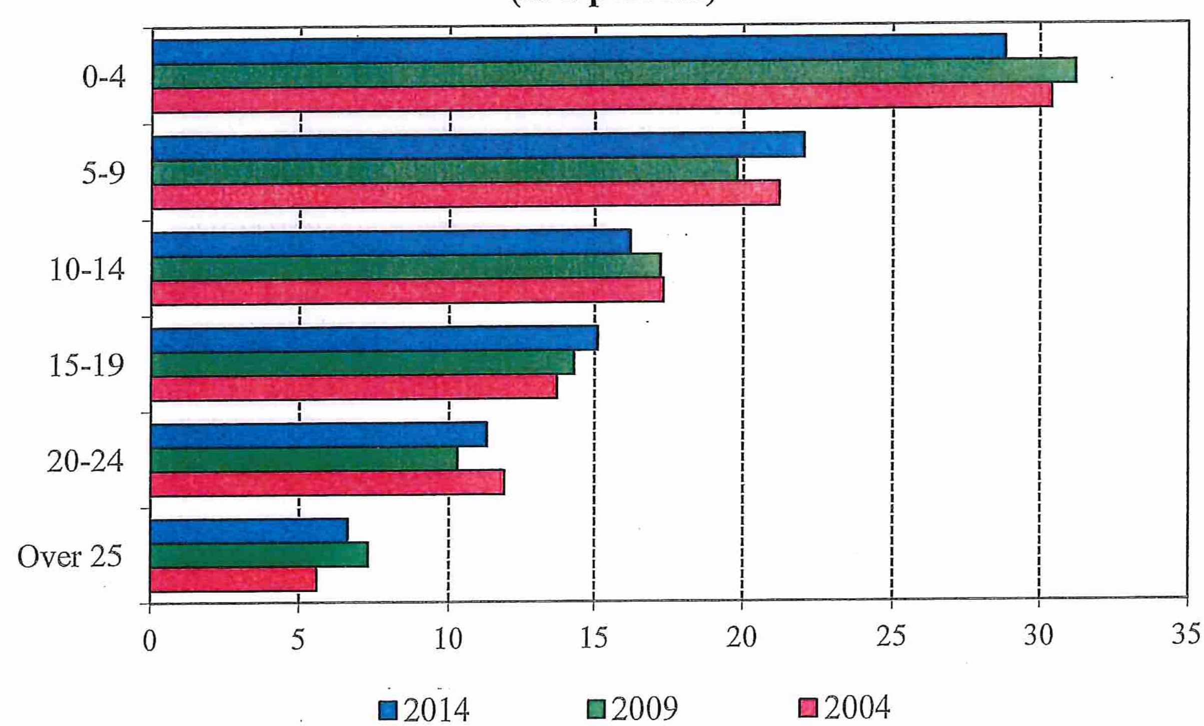


EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Normal Cost of Retirement Benefits	$	44,819,158
2.	Normal Cost of Death Benefits	$	1,326,015
3.	Normal Cost of Disability Benefits	$	1,190,663
4.	Normal Cost of Deferred Retirement Benefits	$	1,513,153
5.	Normal Cost of Contribution Refunds	$	1,624,987
6.	TOTAL Normal Cost as of July 1, 2014 (1+2+3+4+5)	$	50,473,976
7.	Amortization of Unfunded Accrued Liability of $470,163,334	$	46,842,972
8.	TOTAL Normal Cost & Amortization Payments (6+7)		97,316,948
9.	Normal Cost and Amortization Payments Interest Adjusted for Midyear Payment	$	100,900,359
10.	Estimated Administrative Cost for Fiscal 2015	$	1,815,077
11.	TOTAL Administrative and Interest Adjusted Actuarial Costs (9+10)	$	102,715,436
12.	Expected Insurance Premium Taxes due in Fiscal 2015	$	23,924,457
13.	Net Direct Combined Actuarially Req'd Contributions for Fiscal 2014 (11-12)	$	78,790,979
14.	Projected Payroll For Contributing Members July 1, 2014 through June 30, 2015	$	210,131,744
15.	Net Direct Combined Actuarially Required Contributions as a % of Projected Payroll for Fiscal 2015 (13 ÷ 14)	$	37.50%
16.	Actual Net Direct Combined Contribution Rate for Fiscal 2015	$	39.25%
17.	Contribution Gain (Loss) as a Percentage of Payroll (16 – 15)	$	1.75%
18.	Adjustment to Following Year Payment for Contribution Gain (Loss)	$	0.18%
19.	Recommended Net Direct Combined Contribution Rate for Fiscal 2016 (15 – 18) (Rounded to nearest 0.25%)	$	37.25%
20.	Recommended Net Direct Employee Contribution Rate for Fiscal 2016 (members with earnings less than or equal to the Department of HHS poverty guidelines)		8.00%
21.	Recommended Net Direct Employer Contribution Rate for Fiscal 2016 (members with earnings less than or equal to the Department of HHS poverty guidelines)		29.25%
22.	Recommended Net Direct Employee Contribution Rate for Fiscal 2016 (members with earnings more than the Department of HHS poverty guidelines)		10.00%
23.	Recommended Net Direct Employer Contribution Rate for Fiscal 2016 (members with earnings more than the Department of HHS poverty guidelines)		27.25%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 1,440,882,872	
Survivor Benefits	22,368,123	
Disability Benefits	17,371,651	
Vested Termination Benefits	27,997,254	
Refunds of Contributions	11,666,665	
TOTAL Present Value of Future Benefits for Active Members		$ 1,520,286,565

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 12,621,171	
Terminated Members with Reciprocals Due Benefits at Retirement	0	
Terminated Members Due a Refund	2,544,294	
TOTAL Present Value of Future Benefits for Terminated Members		$ 15,165,465

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees			
Maximum	$ 177,582,376		
Option 1	57,051,986		
Option 2	274,852,874		
Option 3	124,277,532		
Option 4	16,801,861		
Option 5	0		
TOTAL Regular Retirees		$ 650,566,629	
Disability Retirees		46,930,050	
Survivors & Widows		56,320,151	
DROP Account Balances Payable to Retirees		91,506,587	
IBO Retirees' Account Balance		3,537,138	
TOTAL Present Value of Future Benefits for Retirees & Survivors			$ 848,860,555

TOTAL Present Value of Future Benefits	$ 2,384,312,585

EXHIBIT III – SCHEDULE A
MARKET VALUE OF ASSETS

CURRENT ASSETS:				
Cash in Banks	$	9,366,395		
Contributions and Taxes Receivable		9,672,434		
Accrued Interest and Dividends		3,037,441		
Investments Receivable		886,936		
Prepaid Expenses		130,668		
Receivable on Currency Contracts		10,460,716		
TOTAL CURRENT ASSETS			$	33,554,590
Property Plant & Equipment			$	751,847
INVESTMENTS:				
Cash Equivalents	$	51,015,107		
Equities		802,057,209		
Fixed Income		274,268,231		
Real Estate		95,376,431		
Alternative Investments		49,334,445		
Tactical Allocation		139,393,769		
TOTAL INVESTMENTS			$	1,411,445,192
MERGER NOTES			$	0
TOTAL ASSETS			$	1,445,751,629
CURRENT LIABILITIES:				
Accounts Payable	$	1,416,817		
Investments Payable		519,104		
Payable on Currency Contracts		10,519,357		
TOTAL CURRENT LIABILITIES			$	12,455,278
OTHER CONTROLLING INTEREST			$	(22,989,153)
MARKET VALUE OF ASSETS			$	1,410,307,198

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2014	$	49,370,553
Fiscal year 2013		34,152,321
Fiscal year 2012		(135,213,355)
Fiscal year 2011		96,347,506
Fiscal year 2010		40,659,988
Total for five years	$	85,317,013

Deferral of excess (shortfall) of invested income:

Fiscal year 2014 (80%)	$	39,496,442
Fiscal year 2013 (60%)		20,491,393
Fiscal year 2012 (40%)		(54,085,342)
Fiscal year 2011 (20%)		19,269,501
Fiscal year 2010 (0%)		0
Total deferred for year	$	25,171,994

Market value of plan net assets, end of year	$	1,410,307,198
Preliminary actuarial value of plan assets, end of year	$	1,385,135,204

Actuarial value of assets corridor

85% of market value, end of year	$	1,198,761,118
115% of market value, end of year	$	1,621,853,278

Final actuarial value of plan net assets, end of year	$	1,385,135,204

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	213,279,261
Employer Normal Contributions to the Pension Accumulation Fund		315,734,786
Employer Amortization Payments to the Pension Accumulation Fund		470,163,334
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	999,177,381

EXHIBIT V - SCHEDULE A
ACTUARIAL ACCRUED LIABILITIES

LIABILITY FOR ACTIVE MEMBERS		
Accrued Liability for Retirement Benefits	$ 971,161,901	
Accrued Liability for Survivor Benefits	8,465,359	
Accrued Liability for Disability Benefits	4,887,243	
Accrued Liability for Vested Termination Benefits	12,133,108	
Accrued Liability for Refunds of Contributions	(5,375,093)	
TOTAL Actuarial Accrued Liability for Active Members		$ 991,272,518
LIABILITY FOR TERMINATED MEMBERS		$ 15,165,465
LIABILITY FOR RETIREES AND SURVIVORS		$ 848,860,555
TOTAL ACTUARIAL ACCRUED LIABILITY		$1,855,298,538
ACTUARIAL VALUE OF ASSETS		$1,385,135,204
UNFUNDED ACTUARIAL ACCRUED LIABILITY		$ 470,163,334

EXHIBIT V - SCHEDULE B
CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Unfunded Accrued Liability		$	511,583,537
Interest on Unfunded Accrued Liability	$ 38,368,765		
Normal Cost for Prior Year	49,390,618		
Interest on the Normal Cost	3,704,296		
Administrative Expenses	1,434,359		
Interest on Expenses	52,816		
TOTAL Interest Adjusted Actuarially Required Contributions		$	92,950,854
Required Contributions for Prior Year with interest	$ 107,933,340		
Contribution Excess (Shortfall) with accrued interest	(3,117,549)		
Liability Assumption Gains (Losses)	318,965		
Liability Experience Gains (Losses)	12,708,035		
Investment Gains (Losses)	16,528,266		
TOTAL Interest Adjusted Employer Contributions		$	134,371,057
NET Change in Frozen Unfunded Accrued Liability		$	(41,420,203)
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY		$	470,163,334

EXHIBIT V - SCHEDULE C
AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY - JUNE 30, 2014

FISCAL YEAR	DESCRIPTION	AMORT. PERIOD	INTIAL BALANCE	YEARS REMAINING	REMAINING BALANCE	AMORT. PAYMENTS
1993	Merger Loss (Gain)	30	13,485,002	9	7,184,153	1,047,664
1995	Merger Loss (Gain)	30	41,779,611	11	25,595,326	3,254,713
1996	Merger Loss (Gain)	30	1,772,399	12	1,149,617	138,251
1997	Merger Loss (Gain)	30	890,324	13	607,397	69,534
1998	Merger Loss (Gain)	30	1,602,435	14	1,143,463	125,299
1999	Merger Loss (Gain)	30	14,104,876	15	10,477,764	1,104,183
2001	Merger Loss (Gain)	30	3,117,590	17	2,480,538	244,593
2002	Cumulative Non-Merger Bases	27	175,578,584	15	135,023,427	14,229,238
2003	Contribution Loss (Gain)	15	2,678,010	4	1,012,900	281,320
2003	Assumption Loss (Gain)	15	(3,248,077)	4	(1,228,516)	(341,205)
2003	Experience Loss (Gain)	15	44,477,780	4	16,822,773	4,672,310
2004	Contribution Loss (Gain)	15	2,129,874	5	974,691	224,102
2004	Experience Loss (Gain)	15	1,570,785	5	718,836	165,275
2005	Experience Loss (Gain)	15	(24,922,321)	6	(13,252,516)	(2,626,401)
2005	Assumption Loss (Gain)	15	(57,207,831)	6	(30,420,429)	(6,028,760)
2005	Contribution Loss (Gain)	15	(2,457,193)	6	(1,306,619)	(258,948)
2006	Experience Loss (Gain)	15	(30,043,731)	7	(18,027,360)	(3,166,113)
2006	Benefits/COLA Loss (Gain)	15	12,495,729	7	7,497,904	1,316,843
2006	Assumption Loss (Gain)	15	7,880,410	7	4,728,540	830,465
2006	Contribution Loss (Gain)	15	(3,044,474)	7	(1,826,798)	(320,837)
2007	Contribution Loss (Gain)	15	(3,684,696)	8	(2,445,009)	(388,306)
2007	Merger Loss (Gain)	30	1,065,812	23	975,235	83,948
2007	Experience Loss (Gain)	15	(19,348,466)	8	(12,838,824)	(2,039,009)
2007	Benefits/COLA Loss (Gain)	15	13,421,495	8	8,905,937	1,414,404
2008	Assumption Loss (Gain)	15	(138,425)	9	(100,032)	(14,588)
2008	Contribution Loss (Gain)	15	(4,399,499)	9	(3,179,282)	(463,635)
2008	Merger Loss (Gain)	30	1,556,324	24	1,447,290	122,582
2008	Experience Loss (Gain)	15	11,244,458	9	8,125,768	1,184,980
2008	Benefits/COLA Loss (Gain)	15	15,006,752	9	10,844,577	1,581,464
2009	Asset Assumption Loss (Gain)	15	(121,695,690)	10	(94,632,121)	(12,824,715)
2009	Asset Experience Loss (Gain)	20	261,874,151	15	226,749,391	23,895,637
2009	COLA Loss (Gain)	20	15,784,880	15	13,667,678	1,440,347
2009	Experience Loss (Gain)	20	(3,921,422)	15	(3,395,448)	(357,824)
2009	Contribution Loss (Gain)	20	993,536	15	860,275	90,659
2010	Liability Assumption Loss(Gain)	15	37,843,942	11	31,362,947	3,988,126
2010	Asset Experience Loss (Gain)	19	14,930,089	15	13,233,121	1,394,552
2010	Experience Loss (Gain)	19	985,441	15	873,435	92,046
2010	Contribution Loss (Gain)	19	11,264,571	15	9,984,229	1,052,173

FISCAL YEAR	DESCRIPTION	AMORT. PERIOD	INTIAL BALANCE	YEARS REMAINING	REMAINING BALANCE	AMORT. PAYMENTS
2011	Merger Loss (Gain)	30	329,132	27	318,849	25,924
2011	Asset Experience Loss (Gain)	18	34,204,316	15	31,107,079	3,278,172
2011	Experience Loss (Gain)	18	(13,197,519)	15	(12,002,470)	(1,264,862)
2011	Contribution Loss (Gain)	18	6,777,563	15	6,163,848	649,568
2012	Asset Experience Loss (Gain)	17	93,583,915	15	87,564,124	9,227,812
2012	Experience Loss (Gain)	17	(21,072,289)	15	(19,716,813)	(2,077,826)
2012	Contribution Loss (Gain)	17	2,867,982	15	2,683,499	282,796
2013	Asset Experience Loss (Gain)	16	61,647,815	15	59,527,675	6,273,233
2013	Experience Loss (Gain)	16	(30,226,604)	15	(29,187,076)	(3,075,836)
2013	Contribution Loss (Gain)	16	9,431,584	15	9,107,221	959,751
2013	Assumption Loss (Gain)	15	1,290,257	14	1,240,857	135,972
2014	Asset Experience Loss (Gain)	15	(16,528,266)	15	(16,528,266)	(1,741,806)
2014	Experience Loss (Gain)	15	(12,708,035)	15	(12,708,035)	(1,339,217)
2014	Contribution Loss (Gain)	15	3,117,549	15	3,117,549	328,538
2014	Liability Assumption Loss (Gain)	15	(318,965)	15	(318,965)	(33,614)

TOTAL Unfunded Actuarial Accrued Liability **$470,163,334**

TOTAL Fiscal 2014 Amortization Payments **$46,842,972**

EXHIBIT VI
ANALYSIS OF INCREASE IN ASSETS

Actuarial Value of Assets (June 30, 2013)		$	1,260,348,240
INCOME:			
Member Contributions	$ 20,465,095		
Employer Contributions	57,778,849		
Irregular Contributions	2,259,400		
Insurance Premium Taxes	22,849,383		
Total Contributions		$	103,352,727
Net Appreciation (Depreciation) of Investments	$ 129,218,700		
Net Appreciation (Depreciation) of Controlling Interests	3,305,307		
Interest & Dividends	21,443,002		
Legal Settlement	233,333		
Investment Expense	(10,351,105)		
Net Investment Income		$	143,849,237
TOTAL Income		$	247,201,964
EXPENSES:			
Retirement Benefits	$ 86,647,146		
Refunds of Contributions	2,026,345		
Administrative Expenses	1,434,359		
TOTAL Expenses		$	90,107,850
Net Market Value Income for Fiscal 2014 (Income - Expenses)		$	157,094,114
Unadjusted Fund Balance as of June 30, 2014 (Fund Balance Previous Year + Net Income)		$	1,417,442,353
Adjustment for Actuarial Smoothing		$	(32,307,149)
Actuarial Value of Assets: (June 30, 2014)		$	1,385,135,204

EXHIBIT VII
PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees..........	$	945,649,027
Present Value of Benefits Payable to Terminated Employees		15,165,465
Present Value of Benefits Payable to Current Retirees and Beneficiaries		848,860,555
TOTAL PENSION BENEFIT OBLIGATION............................	$	1,809,675,047
NET ACTUARIAL VALUE OF ASSETS.................................	$	1,385,135,204
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation....................		76.54%

EXHIBIT VIII
CENSUS DATA

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2013	4,063	521	221	1,958	6,763
Additions to Census					
Initial membership	294	24			318
Omitted in error last year				1	1
Death of another member			(1)	21	20
Adjustment for multiple records				4	4
Change in Status during Year					
Actives terminating service	(107)	107			
Actives who retired	(45)			45	
Actives entering DROP	(60)		60		
Term. members rehired	22	(22)			
Term. members who retire		(4)		4	
Retirees who are rehired					
Refunded who are rehired	1				1
DROP participants retiring			(69)	69	
DROP returned to work	26		(26)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(90)	(74)			(164)
Deaths	(6)	(1)		(45)	(52)
Included in error last year					
Adjustment for multiple records					
Number of members as of June 30, 2014	4,098	551	185	2,057	6,891

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	41	1	42	28,789	1,209,141
21 - 25	406	15	421	34,533	14,538,484
26 - 30	657	30	687	38,836	26,680,144
31 - 35	660	39	699	44,493	31,100,756
36 - 40	586	25	611	49,869	30,469,757
41 - 45	626	39	665	56,417	37,517,402
46 - 50	501	40	541	61,323	33,175,915
51 - 55	246	36	282	64,620	18,222,716
56 - 60	113	13	126	70,271	8,854,161
61 - 65	15	2	17	66,211	1,125,583
66 - 70	5	2	7	62,845	439,917
TOTAL	3,856	242	4,098	49,618	203,333,976

THE ACTIVE CENSUS INCLUDES 1,969 ACTIVES WITH VESTED BENEFITS, INCLUDING 66 ACTIVE FORMER DROP PARTICIPANTS. THE 185 CURRENT DROP PARTICIPANTS ARE EXCLUDED.

DROP PARTICIPANTS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	28	1	29	52,099	1,510,858
51 - 55	93	2	95	57,624	5,474,277
56 - 60	48	2	50	62,079	3,103,966
61 - 65	10	0	10	67,335	673,353
66 - 70	1	0	1	121,060	121,060
TOTAL	180	5	185	58,830	10,883,514

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	2	0	2	17,198	34,395
36 - 40	14	0	14	23,088	323,234
41 - 45	19	0	19	23,816	452,509
46 - 50	27	2	29	26,243	761,039
51 - 55	13	0	13	21,864	284,234
56 - 60	1	0	1	44,344	44,344
66 - 70	1	0	1	23,393	23,393
TOTAL	77	2	79	24,344	1,923,148

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	51	2,305
100	-	499	125	32,798
500	-	999	49	35,752
1000	-	1999	43	60,503
2000	-	4999	71	235,687
5000	-	9999	46	335,394
10000	-	19999	42	595,208
20000	-	99999	45	1,246,647
		TOTAL	472	2,544,294

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	35	1	36	45,480	1,637,273
51 - 55	218	5	223	48,053	10,715,922
56 - 60	295	14	309	45,831	14,161,787
61 - 65	322	10	332	42,293	14,041,206
66 - 70	262	5	267	37,012	9,882,285
71 - 75	160	2	162	36,204	5,865,110
76 - 80	91	0	91	32,002	2,912,170
81 - 85	56	0	56	26,843	1,503,180
86 - 90	34	0	34	24,869	845,556
91 - 99	8	0	8	31,084	248,669
TOTAL	1,481	37	1,518	40,720	61,813,158

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	1	1	2	20,789	41,577
41 - 45	11	1	12	26,716	320,591
46 - 50	22	4	26	23,781	618,316
51 - 55	30	2	32	23,393	748,568
56 - 60	29	2	31	32,343	1,002,622
61 - 65	33	2	35	28,795	1,007,820
66 - 70	22	0	22	34,067	749,467
71 - 75	12	0	12	35,082	420,987
76 - 80	9	0	9	17,546	157,910
81 - 85	5	0	5	16,737	83,684
86 - 90	1	0	1	13,530	13,530
TOTAL	175	12	187	27,621	5,165,072

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	19	19	38	5,492	208,693
26 - 30	1	0	1	31,451	31,451
31 - 35	0	3	3	14,145	42,434
36 - 40	1	3	4	23,050	92,200
41 - 45	1	11	12	23,454	281,453
46 - 50	0	13	13	23,918	310,932
51 - 55	0	18	18	26,079	469,422
56 - 60	1	20	21	27,424	575,897
61 - 65	1	35	36	21,653	779,516
66 - 70	1	29	30	17,871	536,136
71 - 75	0	38	38	21,631	821,979
76 - 80	0	46	46	19,904	915,578
81 - 85	1	55	56	16,049	898,768
86 - 90	0	23	23	12,301	282,914
91 - 99	0	13	13	13,758	178,850
TOTAL	26	326	352	18,256	6,426,223

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	34	8										42
21 - 25	121	93	69	51	60	27						421
26 - 30	78	86	49	64	85	316	9					687
31 - 35	31	31	43	35	56	282	204	17				699
36 - 40	15	17	17	24	23	139	200	170	6			611
41 - 45	6	7	9	14	17	82	130	233	165	2		665
46 - 50	10	4	3	5	8	34	63	128	199	81	6	541
51 - 55		1	1		6	17	31	47	70	81	28	282
56 - 60						5	24	16	20	35	26	126
61 - 65							1	3	2	2	9	17
66 - 70								4	1		2	7
71 & Over												0
Totals	295	247	191	193	255	902	662	618	463	201	71	4098

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	28,533	29,876										28,789
21 - 25	28,595	33,075	37,867	37,808	39,871	39,601						34,533
26 - 30	28,730	33,591	36,959	38,817	40,043	42,465	48,039					38,836
31 - 35	29,939	32,691	36,867	41,019	42,023	44,914	49,857	55,789				44,493
36 - 40	32,612	34,875	38,073	44,879	42,945	45,214	50,679	58,132	62,082			49,869
41 - 45	31,960	31,066	36,312	40,385	43,161	46,083	52,581	60,101	65,040	66,392		56,417
46 - 50	31,172	33,804	35,413	44,566	45,093	45,492	51,426	62,820	64,860	71,450	86,191	61,323
51 - 55		21,369	57,574		51,920	45,569	52,630	61,529	67,642	69,874	76,410	64,620
56 - 60						61,925	58,086	58,401	68,715	74,578	85,828	70,271
61 - 65							33,533	54,851	68,358	53,270	76,027	66,211
66 - 70								57,384	22,681		93,851	62,845
71 & Over												0
Average	29,125	33,134	37,419	39,966	41,345	44,178	51,168	60,025	65,399	71,128	81,128	49,618

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									2			2
36 - 40								14				14
41 - 45						1	18					19
46 - 50		3		1		25						29
51 - 55	3	2	2	4	2							13
56 - 60	1											1
61 - 65												0
66 - 70	1											1
71 & Over												0
Totals	5	5	2	5	2	26	18	14	2	0	0	79

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									17,198			17,198
36 - 40								23,088				23,088
41 - 45						41,265	22,847					23,816
46 - 50		42,307		43,629		23,620						26,243
51 - 55	22,618	13,577	26,935	19,881	27,915							21,864
56 - 60	44,344											44,344
61 - 65												0
66 - 70	23,393											23,393
71 & Over												0
Average	27,118	30,815	26,935	24,631	27,915	24,298	22,847	23,088	17,198	0	0	24,344

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	11	12	3	2	2	6						36
51 - 55	45	41	35	20	21	61						223
56 - 60	40	28	37	27	30	114	30	2	1			309
61 - 65	11	19	15	7	15	102	126	25	12			332
66 - 70	1	1	2	5	6	32	101	88	15	14	2	267
71 - 75			2	1		10	27	64	30	15	13	162
76 - 80			1			2	5	14	20	24	25	91
81 - 85							1	2	7	12	34	56
86 - 90							2		2	4	26	34
91 & Over								1	1	1	5	8
Totals	108	101	95	62	74	327	292	196	88	70	105	1518

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	48,702	44,587	43,902	61,373	53,185	34,282						45,480
51 - 55	53,921	51,503	50,206	44,219	40,666	43,972						48,053
56 - 60	58,230	54,349	50,220	44,170	44,777	39,872	43,206	30,345	14,449			45,831
61 - 65	51,807	51,215	52,962	52,146	44,511	43,899	39,641	36,131	24,618			42,293
66 - 70	27,632	38,984	39,092	47,969	39,320	38,528	39,819	36,444	26,934	25,301	20,913	37,012
71 - 75			32,138	67,686		38,665	38,369	42,046	31,951	24,499	22,583	36,204
76 - 80			54,173			31,108	23,605	44,936	40,006	29,968	21,172	32,002
81 - 85							5,996	39,396	34,676	43,078	19,374	26,843
86 - 90							9,562		48,178	40,707	21,817	24,869
91 & Over								26,346	70,506	28,285	24,706	31,084
Average	54,527	51,292	49,875	46,327	43,341	41,568	39,355	38,756	32,751	30,700	21,088	40,720

DISABILITY 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 - 35												0
36 - 40	1						1					2
41 - 45	2	1		1	2	4	2					12
46 - 50	3	1	1	2	3	8	5	3				26
51 - 55	2	1		2	1	14	7	2	2	1		32
56 - 60			2	1	1	10	5	4	5	3		31
61 - 65			1			4	9	4	11	4	2	35
66 - 70					1	3	2	8	1	4	3	22
71 - 75							2	5	2	1	2	12
76 - 80							2	1	1	1	4	9
81 - 85								1		1	3	5
86 - 90											1	1
91 & Over												0
Totals	8	3	4	6	8	43	35	28	22	15	15	187

AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY 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 - 35												0
36 - 40	26,858						14,719					20,788
41 - 45	48,462	29,145		25,457	40,196	16,635	11,066					26,716
46 - 50	30,786	30,184	24,855	29,902	25,196	24,749	17,163	17,242				23,781
51 - 55	17,550	9,202		30,825	43,320	27,948	21,514	10,693	10,986	14,068		23,393
56 - 60			65,488	19,360	27,324	51,172	19,430	20,139	15,751	18,927		32,343
61 - 65			40,918			55,857	37,237	18,839	18,164	26,832	12,924	28,795
66 - 70					33,784	53,071	42,302	39,943	31,582	21,228	11,943	34,067
71 - 75							19,613	52,486	39,674	19,783	10,100	35,082
76 - 80							9,192	44,377	24,093	13,394	14,415	17,546
81 - 85								33,466		21,638	9,527	16,737
86 - 90											13,530	13,530
91 & Over												0
Average	31,405	22,843	49,187	27,712	32,551	36,050	24,222	31,744	19,798	21,194	12,110	27,621

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	3		1	3	9	8	4	3				31
21 - 25				1	1	3	1	1				7
26 - 30	1											1
31 - 35				2		1						3
36 - 40	2					1				1		4
41 - 45	1				2	3	2	3	1			12
46 - 50	1			3	1	3	3	1	1			13
51 - 55	1	1	3	1	1	5		5	1			18
56 - 60		1		1	1	7	4	3	1	3		21
61 - 65	2			1		4	6	11	6	4	2	36
66 - 70			2				3	8	6	3	8	30
71 - 75			1			3	4	7	6	2	15	38
76 - 80			2				3	3	8	11	19	46
81 - 85			3				1	1	4	6	41	56
86 - 90									1	2	20	23
91 & Over							1			3	9	13
Totals	11	2	12	12	15	38	32	46	35	35	114	352

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	5,747		3,675	4,848	5,632	4,545	3,612	3,649				4,771
21 - 25				5,013	4,431	14,926	3,443	3,125				8,684
26 - 30	31,451											31,451
31 - 35				14,457		13,521						14,145
36 - 40	32,154					26,141				1,752		23,050
41 - 45	30,857				45,607	23,448	18,612	13,167	12,313			23,454
46 - 50	47,632			33,143	16,085	33,404	11,798	2,698	9,482			23,918
51 - 55	23,312	85,899	35,855	15,050	17,723	26,176		16,380	7,093			26,079
56 - 60		41,967		33,144	36,492	28,103	31,102	25,581	25,253	13,723		27,424
61 - 65	31,400			35,590		22,737	20,356	19,660	24,797	22,484	6,531	21,653
66 - 70			21,591				14,641	23,343	21,238	19,610	9,503	17,871
71 - 75			29,376			54,832	25,899	26,306	27,438	8,765	10,547	21,631
76 - 80			19,816				5,261	51,866	30,208	24,983	9,899	19,904
81 - 85			25,378				2,898	32,775	19,690	21,100	14,185	16,049
86 - 90									4,959	28,362	11,062	12,301
91 & Over							2,898			23,364	11,762	13,758
Average	25,236	63,933	24,964	19,307	14,442	23,011	15,817	21,531	23,439	21,070	11,790	18,256

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EXHIBIT IX
YEAR-TO-YEAR COMPARISON

	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011
Number of Active Members	4,098	4,063	4,056	4,020
Number of Retirees & Survivors	2,057	1,958	1,875	1,802
DROP Participants	185	221	217	225
Number of Terminated Due Deferred Benefits	79	71	70	68
Number Terminated Due Refunds	472	450	398	418
Active Lives Payroll (excludes DROP participants)	$ 203,333,976	$ 199,129,982	$ 198,112,999	$ 193,136,985
Retiree Benefits in Payment	$ 73,404,453	$ 67,678,016	$ 62,975,274	$ 58,699,965
Market Value of Assets	$ 1,410,307,198	$ 1,253,213,084	$ 1,122,864,548	$ 1,154,482,040
Ratio of Market Value of Assets to Actuarial Accrued Liability	76.02%	70.73%	66.03%	71.22%
Actuarial Accrued Liability	$ 1,855,298,538	$ 1,771,931,777	$ 1,700,643,083	$ 1,621,007,988
Actuarial Value of Assets	$ 1,385,135,204	$ 1,260,348,240	$ 1,218,618,308	$ 1,204,830,245
UAL (Funding Excess)	$ 470,163,334	$ 511,583,537	$ 482,024,775	$ 416,177,743
P.V. of Future Employer Normal Contributions	$ 315,734,786	$ 310,702,226	$ 325,616,184	$ 305,540,215
Present Value of Future Employee Contrib.	$ 213,279,261	$ 210,842,508	$ 211,015,125	$ 206,989,105
Present Value of Future Benefits	$ 2,384,312,585	$ 2,294,778,794	$ 2,223,486,329	$ 2,133,537,308

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	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012
Employee Contribution Rate (For employees with earnings above the poverty level)	10.00%	10.00%	10.00%	10.00%
Required Tax Contributions as a Percentage of Projected Payroll	11.39%	11.05%	10.72%	10.93%
Actuarially Required Employer Contribution as a Percentage of Projected Payroll (For employees with earnings above the poverty level)	27.50%	29.23%	27.77%	24.02%
Actual Employer Contribution Rate (For employees with earnings above the poverty level)	29.25%	28.25%	24.00%	23.25%

Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005
3,989	3,882	3,821	3,632	3,534	3,532
1,749	1,688	1,631	1,555	1,477	1,434
162	147	130	134	111	103
59	55	55	54	52	45
442	407	350	298	249	189
$ 189,542,210	$ 178,913,097	$ 169,401,716	$ 150,960,665	$ 140,175,740	$ 134,313,739
$ 56,056,554	$ 53,031,851	$ 48,416,581	$ 43,972,738	$ 39,649,619	$ 36,510,489
$ 971,775,080	$ 865,547,030	$ 1,092,459,674	$ 1,138,227,081	$ 963,805,222	$ 848,499,924
63.26%	61.36%	82.94%	95.46%	88.48%	83.77%
$ 1,536,258,543	$ 1,410,559,615	$ 1,317,161,382	$ 1,192,323,327	$ 1,089,280,137	$ 1,012,901,863
$ 1,140,054,175	$ 1,073,797,423	$ 1,129,809,421	$ 1,025,656,019	$ 911,329,622	$ 819,240,156
$ 396,204,368	$ 336,762,192	$ 187,351,961	$ 166,667,308	$ 177,950,515	$ 193,661,707
$ 335,984,027	$ 292,585,945	$ 277,566,364	$ 247,631,617	$ 230,234,335	$ 226,307,495
$ 160,939,180	$ 150,094,699	$ 142,412,175	$ 126,968,955	$ 118,092,552	$ 114,703,708
$ 2,033,181,750	$ 1,853,240,259	$ 1,737,139,921	$ 1,566,923,899	$ 1,437,607,024	$ 1,353,913,066

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Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006
8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
11.09%	11.56%	12.20%	13.16%	12.83%	12.82%
24.97%	20.79%	13.89%	12.56%	14.01%	15.66%
21.50%	14.00%	12.50%	13.75%	15.50%	18.00%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Firefighters' Retirement System was established as of January 1, 1980, for the purpose of providing retirement allowances and other benefits as described under R.S. 11:2256 - 11:2259. The following summary of plan provisions is for general informational purposes only and does not constitute a guarantee of benefits.

MEMBERSHIP - All full time firefighters or any person in a position as defined in the municipal fire and police civil service system who is employed by a fire department of any municipality, parish, or fire protection district of the State of Louisiana, except Orleans, and East Baton Rouge Parishes, who earns at least three hundred seventy-five dollars per month excluding state supplemental pay are required to be members of this retirement system. Employees of the system are eligible, at their option to become members of the system. Persons must be under the age of fifty to be eligible for system membership unless they become members through merger.

CONTRIBUTION RATES – Under the provisions of R.S. 11:62, 11:103, and 22:1476A(3), the fund is financed by a combination of employee contributions, employer contributions, and insurance premium taxes. The employee contribution rate is set by R.S. 11:62 but cannot be less than 8% or more than 10% of earnable compensation. The employee contribution rate is fixed at 8% for members whose earnable compensation is less than or equal to the poverty guidelines issued by the U. S. Department of Health and Human Services. Gross employer contributions are determined by actuarial valuation and are subject to change each year in accordance with R. S. 11:103 and 11:107.2. The employee contribution rate is set at 8% when gross employer contributions total 25% or less of earnable compensation. The employee rate then increases 0.25% for each 0.75% increase in the total rate, subject to a maximum rate of 10%. Insurance premium taxes are allocated to the system based on available funds and the statutory provisions as described in R.S. 22:1476A(3).

CONTRIBUTION REFUNDS - Upon withdrawal from service, members not entitled to a retirement allowance may receive a refund of accumulated contributions. Refunds are payable ninety days after the effective date of withdrawal from service.

RETIREMENT BENEFITS - Members with twelve years of creditable service may retire at age fifty-five; members with twenty years of service may retire at age fifty; members with twenty-five years of service may retire regardless of age, provided that they have been a member of this system for at least one year. 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 one hundred percent of his average final compensation.

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 designated beneficiary will continue to receive the same reduced benefit.

Option 3 - Upon retirement, the member receives a reduced benefit. Upon the member's death, the designated beneficiary will receive one-half of the member's reduced benefit.

Option 4 – Upon retirement, the member elects to receive a board approved benefit payable to the member, the member's spouse, or the member's dependent child, which is actuarially equivalent to the maximum benefit.

A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2 ½% 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.

Initial Benefit Option – This option is available only to regular retirees who have not participated in the Deferred Retirement Option Plan. Under this option members may receive an initial benefit plus a reduced monthly retirement allowance which, when combined, equal the actuarially equivalent amount of the maximum retirement allowance. The initial benefit may not exceed an amount equal to thirty-six payments of the member's maximum retirement allowance. The initial benefit can be paid either as a lump-sum payment or placed in an account called an "initial benefit account" with interest credited thereto and monthly payments made from the account.

DISABILITY BENEFITS - Any member who has been officially certified as totally disabled solely as the result of injuries sustained in the performance of his official duties, or for any cause, provided the member has a least five years of creditable service and provided that the disability was incurred while the member was an active contributing member, is entitled to disability benefits. Any member under the age of fifty who becomes totally disabled will receive a disability benefit equal to 60% of final compensation for an injury received in the line of duty; or 75% of his accrued retirement benefit with a minimum of 25% of average salary for any injury received, even though not in the line of duty. Any member age fifty or older who becomes totally disabled from an injury sustained in the line of duty is entitled to a disability benefit equal to the greater of 60% of final compensation or his accrued retirement benefit. Any member age fifty or older who becomes totally disabled as a result of any injury, even though not in the line of duty, is entitled to a disability benefit equal to his accrued retirement benefit with a minimum of 25% of average salary. The surviving spouse of a member who was on disability retirement at the time of death receives a benefit of $200 per month. When the member takes disability retirement, he may in addition take an actuarially reduced benefit in which case the member's surviving spouse receives 50% of the disability benefit being paid immediately prior to the death of the disability retiree. The retirement system may reduce benefits paid to a disability retiree who is also receiving workers compensation payments.

SURVIVOR BENEFITS - Benefits are payable to survivors of a deceased member who dies and is not eligible for retirement as follows. If any member is killed in the line of duty and leaves a surviving eligible spouse, the spouse is entitled to an annual benefit equal to two-thirds of the deceased member's final compensation. If any member dies from a cause not in the line of duty, the surviving spouse is entitled to an annual benefit equal to 3% of the deceased member's average final compensation multiplied by his total years of creditable service; however, in no event is the annual benefit less than 40% nor more than 60% of the deceased member's average final compensation. Children of the deceased member who are under the age of eighteen years are entitled to the greater of $200 per month or 10% of average final compensation (not to exceed 100% of average final compensation) until reaching the age of eighteen or until the age of twenty-two if enrolled full-time in an institution of higher learning, unless the surviving child is physically handicapped or mentally retarded in which case the benefit is payable regardless of age. If a deceased member dies leaving no surviving spouse, but at least one minor child, each child is entitled to receive forty percent of the deceased's average final compensation, not to exceed an aggregate of sixty percent of average final compensation.

DEFERRED RETIREMENT OPTION PLAN - In lieu of terminating employment and accepting a service retirement allowance, any member of the system who has at least twenty years of creditable service and who is eligible to receive a service retirement allowance may elect to participate in the deferred retirement option plan for up to thirty-six months and defer the receipt of benefits. Upon commencement of participation in the plan, membership in the system terminates and neither the employee nor employer contributions are payable. Compensation and creditable service will remain as they existed on the effective date of commencement of participation in the plan. The monthly retirement benefits that would have been payable, had the member elected to cease employment and receive a service retirement allowance, are paid into the deferred retirement option plan account. Upon termination of employment at the end of the specified period of participation, a participant in the program may receive, at his option, a lump sum payment from the account equal to the payments to the account, or a true annuity based upon his account, or he may elect any other method of payment if approved by the board of trustees. The monthly benefits that were being paid into the fund during the period of participation will begin to be paid to the retiree. If employment is not terminated at the end of the thirty-six months, payments into the account cease and the member resumes active contributing membership in the system. If the participant dies during the period of participation in the program, a lump sum payment equal to his account balance is paid to his named beneficiary or, if none, to his estate; in addition, normal survivor benefits are payable to survivors of retirees.

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 3% of their current benefit, and all retired members and widows who are sixty-five years of age and older a 2% increase in their original benefit. In order for the board to grant either of these increases the system must meet certain criteria detailed in the statute 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.

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: Individual Entry Age Normal With Allocation of Cost Based on Earnings. Entry and Attained Ages Calculated on an Age Near Birthday Basis.

VALUATION INTEREST RATE: 7.5% (Net of investment expense)

ACTUARIAL ASSET VALUES: All 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.

ACTIVE MEMBER MORTALITY: RP-2000 Employee Mortality Table set back 1 year for males and 1 year for females

ANNUITANT AND BENEFICIARY MORTALITY: RP-2000 Healthy Annuitant Morality Table set back 1 year for males and 1 year for females

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.

ANNUAL SALARY INCREASE RATE: Salary increases include 3.00% inflation and merit increases. The gross rates including inflation and merit increases are as follows:

Years of Service	Salary Growth Rate
1 – 2	15.000%
3 – 14	6.500%
15 & over	5.500%

RETIREMENT RATES: The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire.

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

DROP ENTRY RATES: The table of these rates is included later in the report. These rates apply only to those individuals eligible to participate.

DROP PARTICIPATION PERIOD: All DROP participants are assumed to participate for 3 years and retire at the end of this participation period.

RETIREMENT RATES FOR ACTIVE FORMER DROP PARTICIPANTS: Retirement rates for active former DROP participants are as follows:

Ages	Retirement Rates
74 & Under	0.20
75 & Over	1.00

DISABILITY RATES: 55% of the disability rates used for the 21st valuation of the Railroad Retirement System for individuals with 10-19 years of service. The table of these rates is included later in the report. 20% of total disabilities are assumed to be in the line of duty.

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

Service	Factor	Service	Factor
<1	0.100	7	0.020
1	0.060	8	0.020
2	0.060	9	0.020
3	0.060	10	0.020
4	0.035	11	0.020

5	0.035	>11	0.010
6	0.035		

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

MARRIAGE STATISTICS: 80% of the members are assumed to be married; husbands are assumed to be three years older than wives.

SERVICE RELATED DEATH: 20% of Total Deaths

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

DISABLED LIVES MORTALITY: RP-2000 Disabled Lives Mortality Tables for Males and Females

VESTING ELECTING PERCENTAGE: 70% of those vested elect deferred benefits in lieu of contribution refunds.

ACTUARIAL TABLES AND RATES

Age	Active Male Mortality Rates	Active Female Mortality Rates	Retired Male Mortality Rates	Retired Female Mortality Rates	Retirement Rates	DROP Entry Rates	Disability Rates
18	0.00030	0.00018	0.00030	0.00018	0.00000	0.00000	0.00083
19	0.00032	0.00019	0.00032	0.00019	0.00000	0.00000	0.00083
20	0.00033	0.00019	0.00033	0.00019	0.00000	0.00000	0.00083
21	0.00035	0.00019	0.00035	0.00019	0.00000	0.00000	0.00083
22	0.00036	0.00019	0.00036	0.00019	0.00000	0.00000	0.00083
23	0.00037	0.00019	0.00037	0.00019	0.00000	0.00000	0.00083
24	0.00037	0.00020	0.00037	0.00020	0.00000	0.00000	0.00083
25	0.00038	0.00020	0.00038	0.00020	0.00000	0.00000	0.00083
26	0.00038	0.00021	0.00038	0.00021	0.00000	0.00000	0.00083
27	0.00038	0.00021	0.00038	0.00021	0.00000	0.00000	0.00083
28	0.00038	0.00022	0.00038	0.00022	0.00000	0.00000	0.00083
29	0.00039	0.00024	0.00039	0.00024	0.00000	0.00000	0.00083
30	0.00041	0.00025	0.00041	0.00025	0.00000	0.00000	0.00083
31	0.00044	0.00026	0.00044	0.00026	0.00000	0.00000	0.00083
32	0.00050	0.00031	0.00050	0.00031	0.00000	0.00000	0.00083
33	0.00056	0.00035	0.00056	0.00035	0.00000	0.00000	0.00083
34	0.00063	0.00039	0.00063	0.00039	0.00000	0.00000	0.00083
35	0.00070	0.00044	0.00070	0.00044	0.00000	0.00000	0.00094
36	0.00077	0.00047	0.00077	0.00047	0.00000	0.00000	0.00105
37	0.00084	0.00051	0.00084	0.00051	0.00000	0.00000	0.00116
38	0.00090	0.00055	0.00090	0.00055	0.00000	0.00000	0.00132
39	0.00096	0.00060	0.00096	0.00060	0.00000	0.00000	0.00149
40	0.00102	0.00065	0.00102	0.00065	0.00000	0.00000	0.00171
41	0.00108	0.00071	0.00108	0.00071	0.08000	0.15000	0.00193
42	0.00114	0.00077	0.00114	0.00077	0.08000	0.15000	0.00215
43	0.00122	0.00085	0.00122	0.00085	0.08000	0.15000	0.00242
44	0.00130	0.00094	0.00130	0.00094	0.08000	0.15000	0.00275
45	0.00140	0.00103	0.00140	0.00103	0.08000	0.15000	0.00314
46	0.00151	0.00112	0.00151	0.00112	0.08000	0.15000	0.00358
47	0.00162	0.00122	0.00162	0.00122	0.08000	0.15000	0.00402
48	0.00173	0.00133	0.00173	0.00133	0.08000	0.15000	0.00457
49	0.00186	0.00143	0.00186	0.00143	0.08000	0.15000	0.00517
50	0.00200	0.00155	0.00200	0.00155	0.08000	0.15000	0.00589
51	0.00214	0.00168	0.00535	0.00234	0.04000	0.15000	0.00671
52	0.00229	0.00181	0.00553	0.00246	0.04000	0.25000	0.00759
53	0.00245	0.00197	0.00564	0.00265	0.04000	0.25000	0.00864
54	0.00262	0.00213	0.00572	0.00290	0.04000	0.25000	0.00979
55	0.00281	0.00232	0.00580	0.00319	0.14000	0.25000	0.01111
56	0.00303	0.00253	0.00590	0.00353	0.14000	0.25000	0.01265
57	0.00331	0.00276	0.00612	0.00393	0.14000	0.25000	0.01436
58	0.00363	0.00301	0.00644	0.00438	0.14000	0.11000	0.01628
59	0.00400	0.00329	0.00690	0.00492	0.14000	0.11000	0.01854
60	0.00441	0.00360	0.00749	0.00553	0.14000	0.11000	0.02684
61	0.00488	0.00393	0.00820	0.00620	0.14000	0.11000	0.02684
62	0.00538	0.00429	0.00900	0.00692	0.14000	0.38000	0.02684
63	0.00592	0.00466	0.00991	0.00769	0.14000	0.38000	0.02684
64	0.00647	0.00504	0.01095	0.00851	0.50000	0.38000	0.02684
65	0.00703	0.00543	0.01212	0.00939	0.50000	0.38000	0.02684
66	0.00757	0.00582	0.01342	0.01036	0.50000	0.38000	0.02684
67	0.00810	0.00621	0.01487	0.01141	0.50000	0.38000	0.02684
68	0.00860	0.00658	0.01646	0.01254	0.50000	0.38000	0.02684
69	0.00907	0.00695	0.01820	0.01377	0.50000	0.00000	0.02684
70	0.00951	0.00729	0.02011	0.01515	1.00000	0.00000	0.02684
71	0.00992	0.00761	0.02221	0.01674	1.00000	0.00000	0.02684
72	0.02457	0.01858	0.02457	0.01858	1.00000	0.00000	0.02684
73	0.02728	0.02067	0.02728	0.02066	1.00000	0.00000	0.02684
74	0.03039	0.02297	0.03039	0.02297	1.00000	0.00000	0.02684
75	0.03390	0.02546	0.03390	0.02546	1.00000	0.00000	0.02684

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