FIREFIGHTERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2012

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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Consulting Actuary

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November 27, 2012

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

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Firefighters' Retirement System for the fiscal year ending June 30, 2012. 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 Firefighters' Retirement System of the State of Louisiana. The primary purposes of the report are to determine the actuarially required contribution for the retirement system for the fiscal year ending June 30, 2013, to recommend the net direct employer contribution rate for fiscal 2014, and to provide information for the system's financial statements. This report was prepared exclusively for the Firefighters' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

Except as stated below, 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. This report contains a limitation with respect to the determination of asset values as a result of an exception detailed in the June 30, 2012 audit report. This limitation relates to the investments receivable given in the statement of plan net assets and is outlined in the audit report issued by Duplantier, Hrapmann, Hogan & Maher, L.L.P., Certified Public Accountants, as well as in this report in the section titled "Comments on Data". The qualification of the audit report limits our ability to determine with certainty the actuarially required contribution and funded ratio given in this report.

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.

By: ________________________________
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, 2012		June 30, 2011
Census Summary:	Active Contributing Members	4,056		4,020
	Retired Members and Beneficiaries	1,875		1,802
	DROP Participants	217		225
	Terminated Due a Deferred Benefit	70		68
	Terminated Due a Refund	398		418
Payroll (excludes DROP Participants):		$ 198,112,999		$ 193,136,985
Benefits in Payment:		$ 62,975,274		$ 58,699,965
Market Value of Assets:		$ 1,122,864,548	†	$ 1,154,482,040
Unfunded Actuarial Accrued Liability:		$ 482,024,775		$ 416,177,743
Actuarial Value of Assets (AVA):		$ 1,218,618,308	†	$ 1,204,830,245
Actuarial Accrued Liability:		$ 1,700,643,083		$ 1,621,007,988
Ratio of AVA to Actuarial Accrued Liabilities:		71.66%		74.33%

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	FISCAL 2013		FISCAL 2012
Normal Cost as of July 1:	$ 49,186,008		$ 47,869,777
Amortization Cost (Credit) as of July 1:	$ 45,335,951		$ 37,903,169
Total Actuarially Required Contribution Inclusive of Estimated Administrative Costs:	$ 99,587,792		$ 89,914,621
Expected Insurance Premium Taxes	$ 22,014,834		$ 21,858,158
Net Direct Combined Actuarially Req'd Contributions	$ 77,572,958		$ 68,056,463
Actual Net Direct Combined Contribution Rate:	34.00%		33.25%
Actuarially Required Net Direct Combined Cont. Rate:	37.77%	†	34.02%

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Minimum Recommended Net Direct Employer Cont. Rate

For Employees with Earnings Below Poverty Level-	**Fiscal 2014:** 30.25%	†	**Fiscal 2013:**	26.00%
For Employees with Earnings Above Poverty Level -	**Fiscal 2014:** 28.25%	†	**Fiscal 2013:**	24.00%

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)

Exclusions from Census: 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: None

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.

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

COMMENTS ON DATA

For the valuation, the administrator of the system furnished a census on a USB drive 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, sex, 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 X, there are 4,056 active contributing members in the system of whom 1,927 have vested retirement benefits; in addition, there are 217 participants in the Deferred Retirement Option Plan (DROP); 1,875 former system members or their beneficiaries are receiving retirement benefits. An additional 468 members have contributions remaining on deposit with the system; of this number, 70 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. Except as stated below, 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, Certified Public Accountants. Please note that an investment receivable in the amount of $45,277,182 as of June 30, 2012 was not audited due to the lack of current financial information. This receivable is included in the consolidated statement of plan assets and represents 4% of total net assets. Since an audited value of the asset was not available, the statement of assets includes management's "best estimate" of the value of this receivable. The receivable is based upon an unfulfilled redemption request tendered to the FIA Leveraged Fund. This Fund has been placed in liquidation. As of the date this report was issued, the Court-appointed valuation experts have not yet had the opportunity to provide the Firefighters' Retirement System with audited statements. To the extent that future valuations determine that the actual value of this asset differs with the "best estimate" provided, future contribution rates will be affected.

As indicated in the system's financial statements, the net market value of the system's assets was $1,122,864,548 as of June 30, 2012. Net investment losses for fiscal 2012 measured on a market value basis amounted to $48,023,113. Contributions to the system for fiscal 2012 totaled $89,202,966; benefits and expenses amounted to $72,797,345.

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 current year actuarial assumptions utilized for the report are outlined on pages thirty-seven through forty. In the aggregate the assumptions are within our "best estimate range" of future long-term experience for the fund. No changes were made to the assumptions used in the prior year report.

CHANGES IN PLAN PROVISIONS

The following changes in plan provisions were enacted during the 2012 Regular Session of the Louisiana Legislature:

Act 480 allows members to receive vesting and benefit accrual for qualified military service if the member timely remits any employee contributions which would have been required. Survivors of members who die while on a leave of absence to perform qualified military service are also allowed to remit employee contributions which would have been required to receive vesting and benefit accrual. If the survivor does not remit employee contributions, then no benefits are accrued during the period of military service. The act also allows the system to promulgate rules in accordance with the Administrative Procedure Act to maintain compliance with the Internal Revenue Code and Regulations.

Act 427 provides for distribution of benefits of a member to a trust established for the benefit of a minor child. The board of trustees may implement a court order directing payment of any portion of a benefit to a trust pursuant to the provisions of R.S. 11:2256.2.

ASSET EXPERIENCE

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

	Market Value	Actuarial Value
2003	5.4%	0.9%
2004	11.0%	8.0%
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% †

* 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 2012, the fund earned $30,018,317 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital losses on investments of $71,947,308. Investment expenses amounted to $6,094,122. The geometric mean of the market value rates of return was 4.9% measured over the last ten years and 5.6% measured over the last twenty years.

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 all interest, dividends, and recognized capital gains as given in Exhibit VI. Investment income used to calculate this yield is based upon a smoothing of investment returns 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 of gains or losses on investments relative to the valuation interest rate over a five-year period. Yields in excess of the 7.5% assumption will reduce future costs; yields below 7.5% will increase future costs. For fiscal 2012, the system experienced net actuarial investment earnings of $93,583,915 below the actuarial assumed earnings rate of 7.5% which produced an actuarial loss and increased the interest-adjusted amortization payments on the system's UAL by $9,567,599 or 4.66% of payroll, in fiscal 2013.

PLAN 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 11.18 years of service credit and an annual salary of $48,844. The system's active contributing membership experienced an increase during fiscal 2012 of 36 members. The number of DROP participants decreased by 8. Over the last five years active membership has increased by 424 members. A review of the active census by age indicates that over the last ten years the population in the under thirty-one to forty 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 $3,210. The number of retirees and beneficiaries receiving benefits from the system increased by 73 during the fiscal year. Over the last five years, the number has increased by 320; during the same period, the annual benefits in payment increased by $19,002,536.

The changes in the makeup of the population and changes in members' salaries increased the interest adjusted normal cost over the last year by $1,364,698; the normal cost percentage increased by 0.02% of payroll. Plan liability experience for fiscal 2012 was favorable. Salary increase rates at most durations were below projections. Disabilities and DROP entries were below projections. Retiree deaths and withdrawals were above projections. These factors decreased costs. Retirements were at projected levels. Net plan liability experience gains totaled $21,072,289. These gains decreased the interest-adjusted amortization payments on the system's unfunded accrued liability by $2,154,336, or 1.05% of payroll, in fiscal 2012.

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 2012 contributions totaled $2,867,982 less than required; the interest-adjusted amortization payment on the contribution shortfall for fiscal 2013 is $293,209, or 0.14% of payroll. In addition, for fiscal 2013 the net effect of the change in payroll on amortization costs was to reduce such costs by 0.51% of 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 2013 except for those items labeled fiscal 2012.

	Dollars	Percentage of Payroll
Normal Cost for Fiscal 2012	$ 49,632,441	24.81%
Cost of Demographic and Salary Changes	$ 1,364,698	0.02%
Normal Cost for Fiscal 2013	$ 50,997,139	24.83%
UAL Payments for Fiscal 2012	$ 39,298,842	19.65%
Change due to change in payroll	N/A	(0.51%)
Additional Amortization Expenses for Fiscal 2013:		
Asset Experience Loss (Gain)	$ 9,567,599	4.66%
Contribution Loss (Gain)	$ 293,209	0.14%
Liability Loss (Gain)	$ (2,154,336)	(1.05%)
Net Amortization Expense (Credit) for Fiscal 2013	$ 7,706,472	3.75%
Estimated Administrative Cost for Fiscal 2013	$ 1,585,339	0.77%
Total Normal Cost & Amortization Payments	$ 99,587,792	48.49%

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for fiscal 2013 as of July 1, 2012 is $49,186,008. The amortization payments on the system's unfunded actuarial accrued liability as of July 1, 2012 total $45,335,951. 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 2013 is $99,587,792. We estimate insurance premium taxes of $22,014,834 will be paid to the system in fiscal 2013. Hence, the total actuarially required net direct combined contribution (consisting of employee contributions and the net direct employer contribution) for fiscal 2013 amounts to $77,572,958 or 37.77% of payroll.

Since the actual net direct combined contribution rate for fiscal 2013 is 34.00% of payroll, there will be a contribution shortfall of 3.77% of payroll. The effect of this shortfall will be to increase the required contributions for fiscal 2013 by 0.38% 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 38.25% for fiscal 2014. 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 will be set equal to 30.25% 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 will be set equal to 28.25% of payroll.

Due to the unavailability of an unqualified audit report for this valuation, our ability to determine with certainty the actuarially required contribution to the Fund is limited. It should be noted that any substantial reduction to the value of receivables given on the statement of assets may result in a significant increase in future contributions.

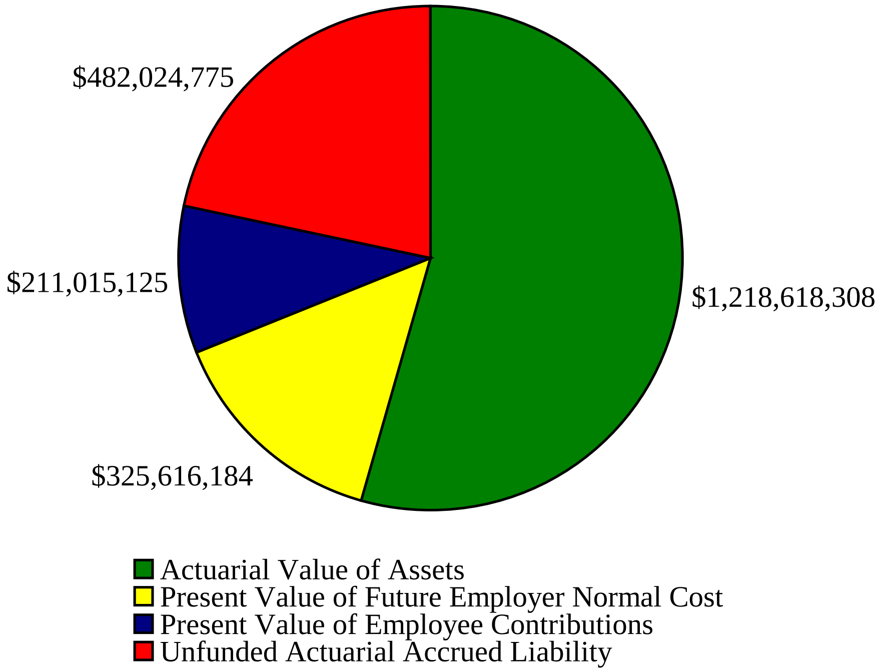
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, completion of 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 0.61%. In addition, we have determined that a 1% reduction in the valuation interest rate for the Fund would increase the actuarially required contribution rate for fiscal 2012 by 15.71%.

Notwithstanding recent contribution increases, a significant portion of investment losses incurred in fiscal 2009 have not yet been released into the actuarial value of assets due to the current asset smoothing methodology. These losses will be released over the next year and will put upward pressure on costs as they are released into income unless they are offset by substantial asset or liability gains.

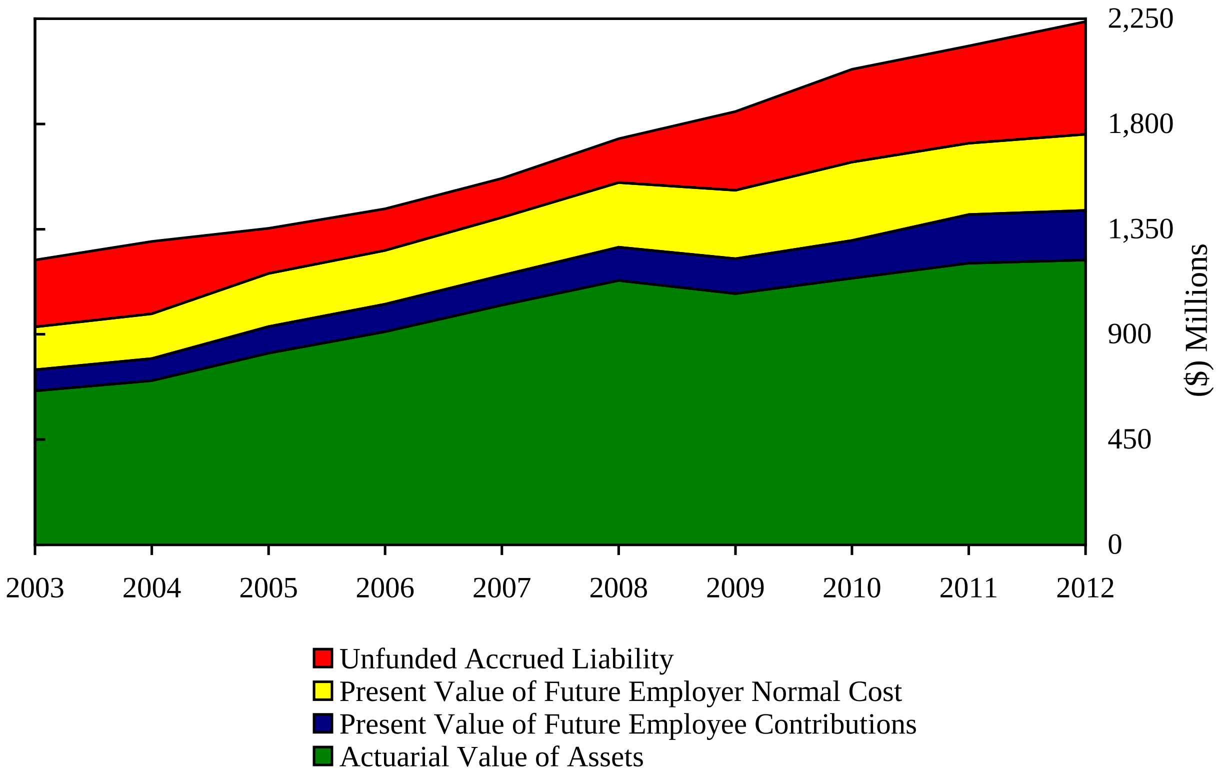
COST OF LIVING INCREASES

During fiscal 2012, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 1.66%. 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 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. All of the above provisions require that the system earn sufficient excess interest earnings to fund the increases. In addition, the ratio of the plan's assets to benefit obligations must meet the criteria established in R.S. 11:242. This section sets forth a minimum "target ratio" of the actuarial value of assets to the Pension Benefit Obligation. We have determined that for fiscal 2012 the plan has not met the necessary target ratio and does not have excess investment earnings. Therefore, the Fund is unable to grant COLAs to retirees at this time.

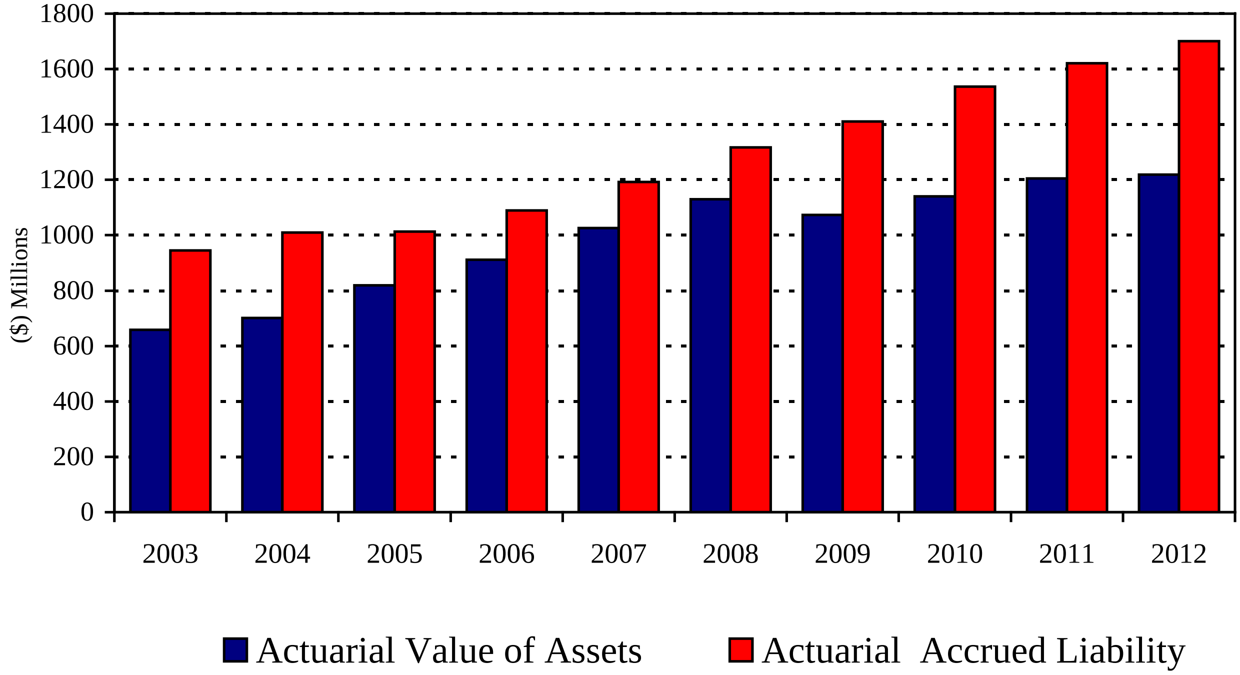
Components of Present Value of Future Benefits
June 30, 2012



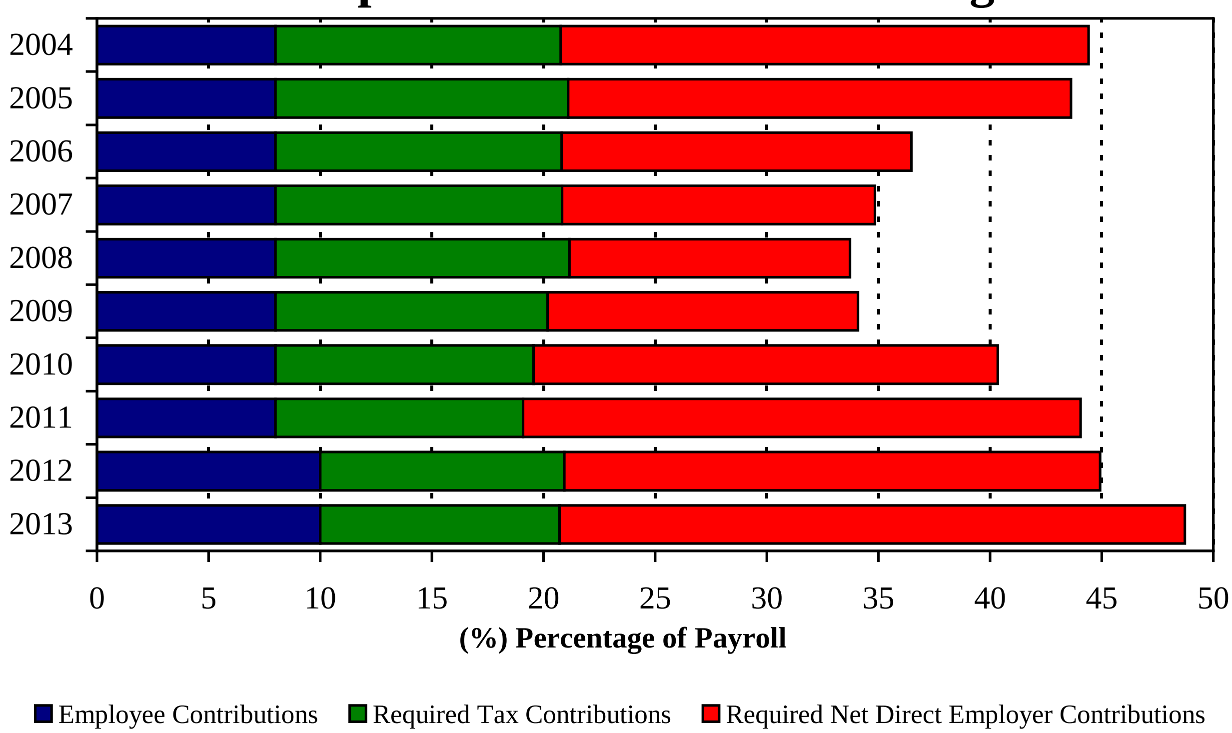
Components of Present Value of Future Benefits
Historical



Actuarial Value of Assets vs. Actuarial Accrued Liability

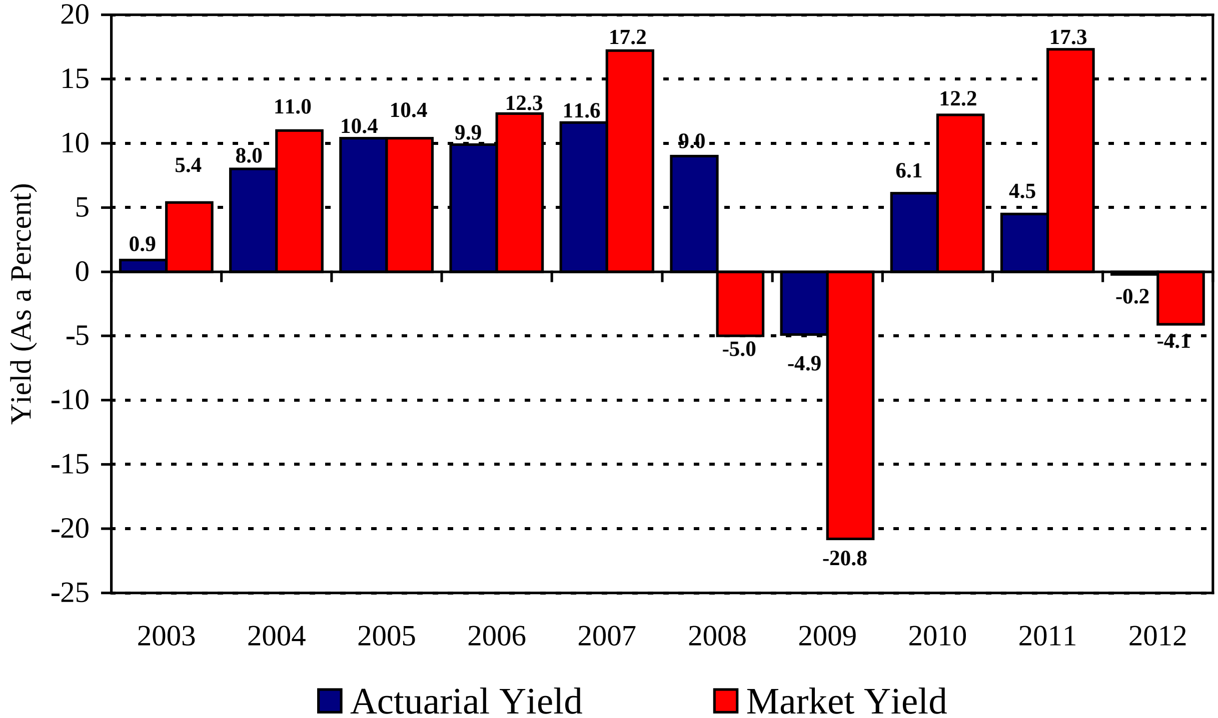


Components of Actuarial Funding

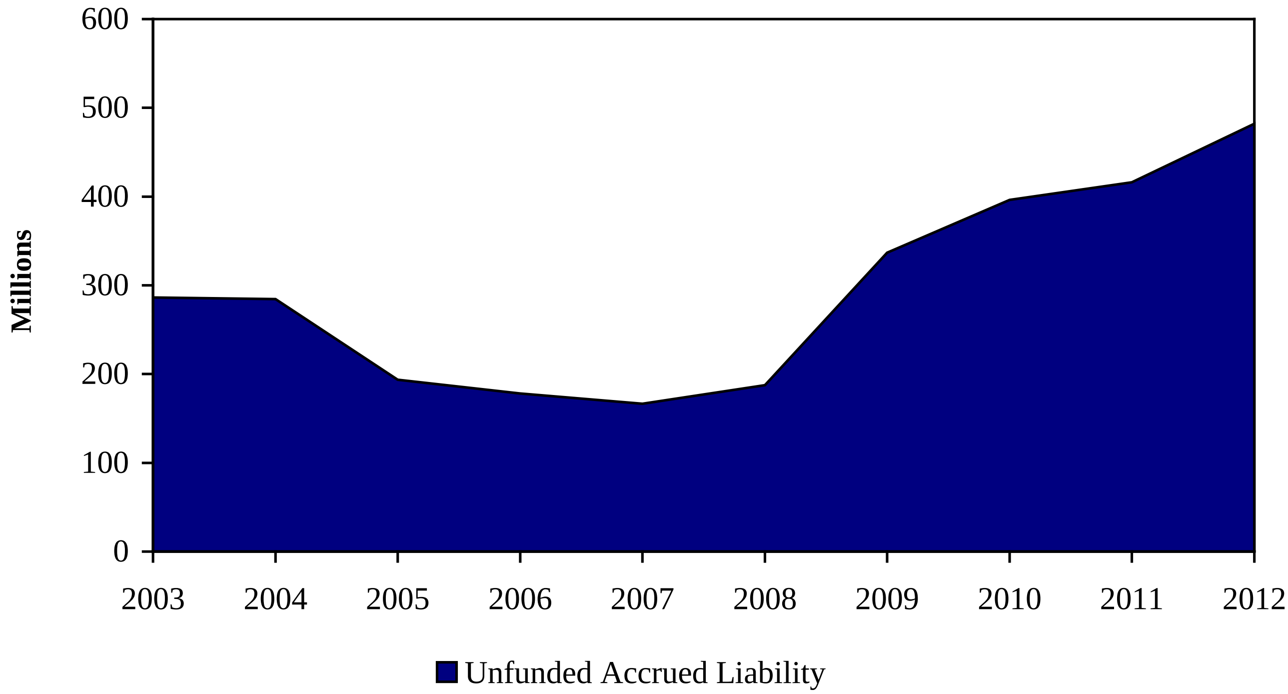


(2012 and later employee contribution level is based on members with earnings above the poverty level)

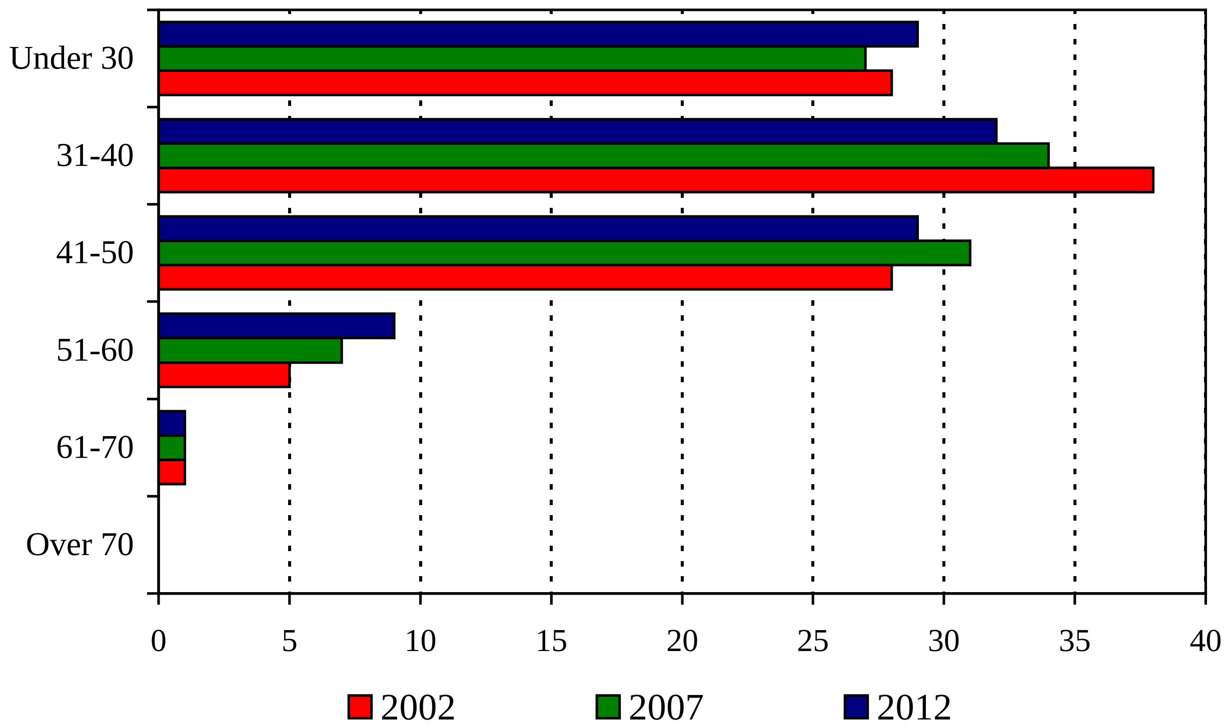
Historical Asset Yields



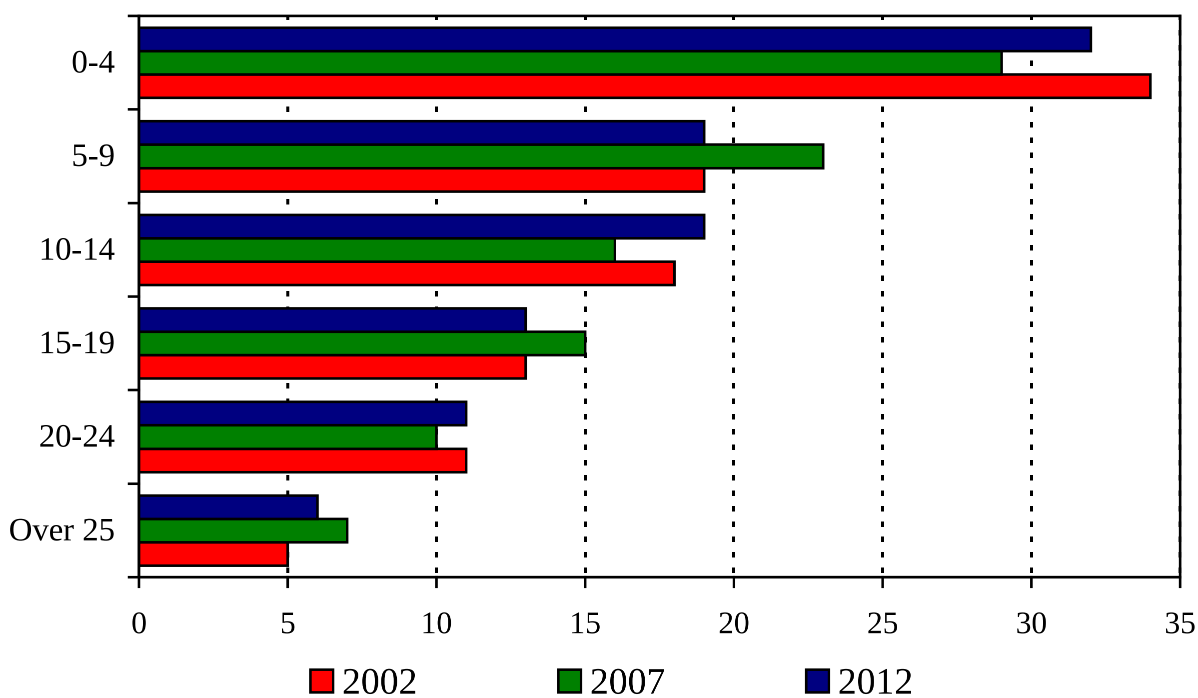
Unfunded Accrued Liability



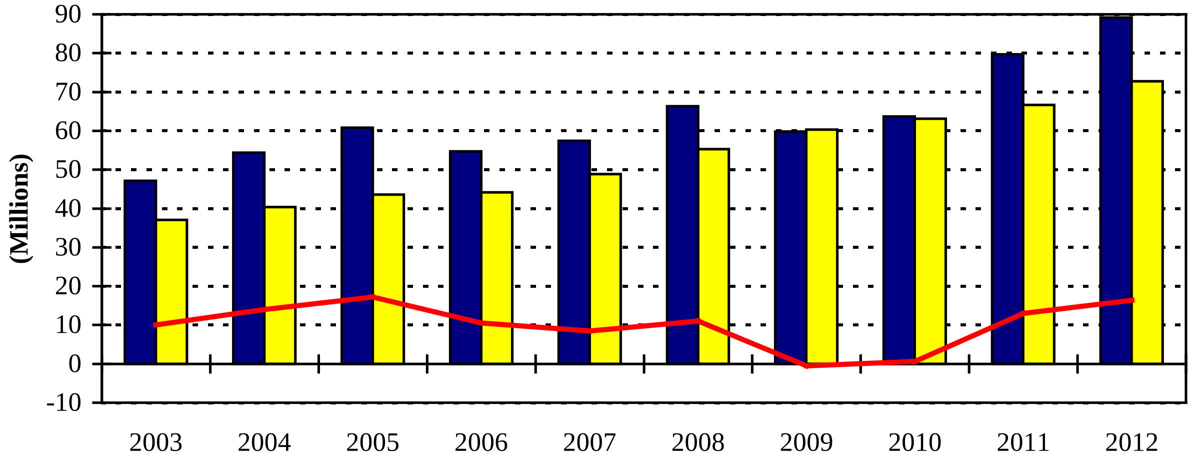
Active – Census By Age
(as a percent)



Active – Census By Service
(as a percent)



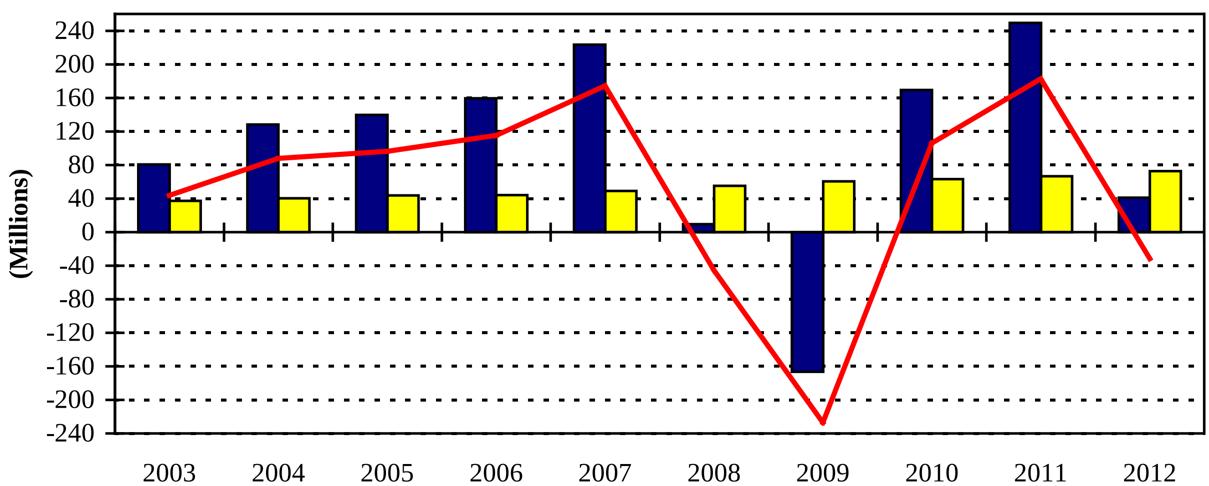
Net Non-Investment Income



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Non-Investment Income ($Mil)	47.1	54.4	60.8	54.7	57.4	66.3	59.8	63.7	79.7	89.2
Benefits and Expenses ($Mil)	37.1	40.4	43.6	44.2	48.9	55.3	60.3	63.1	66.7	72.8
Net Non-Investment Income ($Mil)	10.0	14.4	17.2	10.5	8.5	11.0	-0.5	0.6	13.0	16.4

Total Income vs. Expenses

(Based on Market Value of Assets)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total Income ($Mil)	80.8	128.1	139.8	159.5	223.3	9.5	-166.6	169.3	249.4	41.2
Benefits and Expenses ($Mil)	37.1	40.4	43.6	44.2	48.9	55.3	60.3	63.1	66.7	72.8
Net Change in MVA ($Mil)	43.7	87.7	96.2	115.3	174.4	-45.8	-226.9	106.2	182.7	-31.6

EXHIBITS

EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Normal Cost of Retirement Benefits	$ 43,719,642
2.	Normal Cost of Death Benefits	$ 1,304,984
3.	Normal Cost of Disability Benefits	$ 1,175,066
4.	Normal Cost of Deferred Retirement Benefits	$ 1,469,597
5.	Normal Cost of Contribution Refunds	$ 1,516,719
6.	TOTAL Normal Cost as of July 1, 2012 (1+2+3+4+5)	$ 49,186,008
7.	Amortization of Unfunded Accrued Liability of $482,024,775	$ 45,335,951
8.	TOTAL Normal Cost & Amortization Payments (6+7)	$ 94,521,959
9.	Normal Cost and Amortization Payments Interest Adjusted for Midyear Payment	$ 98,002,453
10.	Estimated Administrative Cost for Fiscal 2013	$ 1,585,339
11.	TOTAL Administrative and Interest Adjusted Actuarial Costs (9+10)	$ 99,587,792
12.	Expected Insurance Premium Taxes due in Fiscal 2013	$ 22,014,834
13.	Net Direct Combined Actuarially Req'd Contributions for Fiscal 2013 (11-12)	$ 77,572,958
14.	Projected Payroll For Contributing Members July 1, 2012 through June 30, 2013	$ 205,370,929
15.	Net Direct Combined Actuarially Required Contributions as a % of Projected Payroll for Fiscal 2013 (13 ÷ 14)	37.77%
16.	Actual Net Direct Combined Contribution Rate for Fiscal 2013	34.00%
17.	Contribution Gain (Loss) as a Percentage of Payroll (16 – 15)	(3.77%)
18.	Adjustment to Following Year Payment for Contribution Gain (Loss)	(0.38%)
19.	Recommended Net Direct Combined Contribution Rate for Fiscal 2014 (15 – 18) (Rounded to nearest 0.25%)	38.25%
20.	Recommended Net Direct Employee Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)	8.00%
21.	Recommended Net Direct Employer Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)	30.25%
22.	Recommended Net Direct Employee Contribution Rate (for members with earnings more than the Department of HHS poverty guidelines)	10.00%
23.	Recommended Net Direct Employer Contribution Rate (for members with earnings more than the Department of HHS poverty guidelines)	28.25%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

Present Value of Future Benefits for Active Members:

Retirement Benefits	$ 1,412,611,726	
Survivor Benefits	22,073,971	
Disability Benefits	17,375,444	
Vested Deferred Termination Benefits	27,634,567	
Contribution Refunds	11,191,090	
TOTAL Present Value of Future Benefits for Active Members		$ 1,490,886,798

Present Value of Future Benefits for Terminated Members:

Terminated Vested Members Due Benefits at Retirement	$ 10,419,627	
Terminated Members with Reciprocals Due Benefits at Retirement	0	
Terminated Members Due a Refund	1,540,057	
TOTAL Present Value of Future Benefits for Terminated Members		$ 11,959,684

Present Value of Future Benefits for Retirees:

Regular Retirees	$ 547,889,068	
Disability Retirees	48,993,285	
Survivors & Widows	47,734,717	
Retiree DROP Account Balance	73,126,769	
IBO Retirees' Account Balance	2,896,008	
TOTAL Present Value of Future Benefits for Retirees & Survivors		$ 720,639,847
TOTAL Present Value of Future Benefits		$ 2,223,486,329

EXHIBIT III – Schedule A
MARKET VALUE OF ASSETS – AS OF 6/30/2012

Current Assets:

Cash & Cash Equivalents in Banks	$ 8,604,720	
Contributions Receivable from Members	1,767,520	
Contributions Receivable from Employers	4,115,300	
Accrued Interest and Dividends on Investments	3,224,434	
Receivable on Currency Contracts	12,915,846	
Investments Receivables	77,864,566	
Prepaid Expenses	811,691	
TOTAL CURRENT ASSETS		$ 109,304,077
Property, Plant and Equipment (Net of accumulated depreciation)		$ 783,082

Investments:

Common Stock	$263,777,661	
Mutual Funds	259,150,775	
Private Equity	131,176,701	
Hedge Funds	102,070,691	
Private Real Estate	87,108,143	
Cash & Cash Equivalents	68,175,062	
Corporate Bonds	41,012,664	
Emerging Market Debt	40,284,012	
U. S. Government Securities	17,219,624	
Asset Backed Securities	15,205,652	
TOTAL INVESTMENTS		$1,025,180,985
MERGER NOTES		$ 3,029,077
TOTAL ASSETS		$1,138,297,221

Current Liabilities:

Payable on Currency Contracts	12,693,590	
Investment Payables	1,850,265	
Accounts Payable	888,818	
TOTAL CURRENT LIABILITIES		$ 15,432,673
NET MARKET VALUE OF ASSETS		$1,122,864,548

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2012	$ (135,213,355)
Fiscal year 2011	96,347,506
Fiscal year 2010	40,659,988
Fiscal year 2009	(308,277,876)
Fiscal year 2008	(142,555,260)
Total for five years	$ (449,038,997)

Deferral of excess (shortfall) of invested income:

Fiscal year 2012 (80%)	$ (108,170,684)
Fiscal year 2011 (60%)	57,808,504
Fiscal year 2010 (40%)	16,263,995
Fiscal year 2009 (20%)	(61,655,575)
Fiscal year 2008 (0%)	0
Total deferred for year	$ (95,753,760)

Market value of plan net assets, end of year	$ 1,122,864,548
Preliminary actuarial value of plan assets, end of year	$ 1,218,618,308

Actuarial value of assets corridor

85% of market value, end of year	$ 954,434,866
115% of market value, end of year	$ 1,291,294,230

Final actuarial value of plan net assets, end of year	$ 1,218,618,308

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	211,015,125
Employer Normal Contributions to the Pension Accumulation Fund		325,616,184
Employer Payments on the Unfunded Actuarial Accrued Liability		482,024,775
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	1,018,656,084

EXHIBIT V - SCHEDULE A
ACTUARIAL ACCRUED LIABILITIES

LIABILITY FOR ACTIVE MEMBERS		
Accrued Liability for Retirement Benefits	$ 947,970,366	
Accrued Liability for Survivor Benefits	8,183,127	
Accrued Liability for Disability Benefits	4,864,795	
Accrued Liability for Vested Termination Benefits	11,994,520	
Accrued Liability for Refunds of Contributions	(4,969,256)	
TOTAL Actuarial Accrued Liability for Active Members		$ 968,043,552
LIABILITY FOR TERMINATED MEMBERS		$ 11,959,684
LIABILITY FOR RETIREES AND SURVIVORS		$ 720,639,847
TOTAL ACTUARIAL ACCRUED LIABILITY		$1,700,643,083
ACTUARIAL VALUE OF ASSETS		$1,218,618,308
UNFUNDED ACTUARIAL ACCRUED LIABILITY		$ 482,024,775

EXHIBIT V - SCHEDULE B
CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Unfunded Accrued Liability		$ 416,177,743
Interest on Unfunded Accrued Liability	$ 31,213,331	
Normal Cost for Prior Year	47,869,777	
Interest on the Normal Cost	3,590,233	
Normal Cost for Merged Systems with Accrued Interest	0	
Administrative Expenses	2,020,947	
Interest on Expenses	74,415	
TOTAL Increases to Unfunded Accrued Liability		$ 84,768,703
Required Contributions for Prior Year with interest	$ 94,301,279	
Contribution Excess (Shortfall) with accrued interest	(2,867,982)	
Cost of Living Adjustment Gains (Losses)	0	
Merger Gains (Losses)	0	
Investment Gains (Losses)	(93,583,915)	
Liability Experience Gains (Losses)	21,072,289	
Liability Assumption Gains (Losses)	0	
TOTAL Decreases to Unfunded Accrued Liability		$ 18,921,671
CURRENT YEAR UNFUNDED ACCRUED LIABILITY		$ 482,024,775

EXHIBIT V - SCHEDULE C
AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
JUNE 30, 2012

FISCAL YEAR	DESCRIPTION	AMORT. PERIOD	INITIAL BALANCE	YEARS REMAINING	REMAINING BALANCE	AMORT. PAYMENTS
1993	Merger Loss (Gain)	30	13,485,002	11	8,238,918	1,047,664
1995	Merger Loss (Gain)	30	41,779,611	13	28,430,823	3,254,713
1996	Merger Loss (Gain)	30	1,772,399	14	1,261,658	138,251
1997	Merger Loss (Gain)	30	890,324	15	659,816	69,534
1998	Merger Loss (Gain)	30	1,602,435	16	1,231,333	125,299
1999	Merger Loss (Gain)	30	14,104,876	17	11,198,081	1,104,183
2001	Merger Loss (Gain)	30	3,117,590	19	2,618,611	244,593
2002	Cumulative Non-Merger Bases	27	175,578,584	17	144,305,932	14,229,238
2003	Contribution Loss (Gain)	15	2,678,010	6	1,419,509	281,320
2003	Assumption Loss (Gain)	15	(3,248,077)	6	(1,721,679)	(341,205)
2003	Experience Loss (Gain)	15	44,477,780	6	23,575,939	4,672,310
2004	Contribution Loss (Gain)	15	2,129,874	7	1,276,001	224,102
2004	Experience Loss (Gain)	15	1,570,785	7	941,052	165,275
2005	Experience Loss (Gain)	15	(24,922,321)	8	(16,537,399)	(2,626,401)
2005	Assumption Loss (Gain)	15	(57,207,831)	8	(37,960,699)	(6,028,760)
2005	Contribution Loss (Gain)	15	(2,457,193)	8	(1,630,489)	(258,948)
2006	Experience Loss (Gain)	15	(30,043,731)	9	(21,710,997)	(3,166,113)
2006	Benefits/COLA Loss (Gain)	15	12,495,729	9	9,029,995	1,316,843
2006	Assumption Loss (Gain)	15	7,880,410	9	5,694,751	830,465
2006	Contribution Loss (Gain)	15	(3,044,474)	9	(2,200,078)	(320,837)
2007	Contribution Loss (Gain)	15	(3,684,696)	10	(2,865,267)	(388,306)
2007	Merger Loss (Gain)	30	1,065,812	25	1,005,941	83,948
2007	Experience Loss (Gain)	15	(19,348,466)	10	(15,045,614)	(2,039,009)
2007	Benefits/COLA Loss (Gain)	15	13,421,495	10	10,436,726	1,414,404
2008	Assumption Loss (Gain)	15	(138,425)	11	(114,719)	(14,588)
2008	Contribution Loss (Gain)	15	(4,399,499)	11	(3,646,059)	(463,635)
2008	Merger Loss (Gain)	30	1,556,324	26	1,488,999	122,582
2008	Experience Loss (Gain)	15	11,244,458	11	9,318,779	1,184,980
2008	Benefits/COLA Loss (Gain)	15	15,006,752	11	12,436,758	1,581,464
2009	Asset Assumption Loss (Gain)	15	(121,695,690)	12	(106,642,943)	(12,824,715)
2009	Asset Experience Loss (Gain)	20	261,874,151	17	242,337,760	23,895,637
2009	COLA Loss (Gain)	20	15,784,880	17	14,607,293	1,440,347
2009	Experience Loss (Gain)	20	(3,921,422)	17	(3,628,875)	(357,824)
2009	Contribution Loss (Gain)	20	993,536	17	919,416	90,659
2010	Liability Assumption Loss(Gain)	15	37,843,942	13	34,837,392	3,988,126
2010	Asset Experience Loss (Gain)	19	14,930,089	17	14,142,861	1,394,552
2010	Experience Loss (Gain)	19	985,441	17	933,481	92,046
2010	Contribution Loss (Gain)	19	11,264,571	17	10,670,617	1,052,173
2011	Merger Loss (Gain)	30	329,132	29	325,949	25,924
2011	Asset Experience Loss (Gain)	18	34,204,316	17	33,245,605	3,278,172
2011	Experience Loss (Gain)	18	(13,197,519)	17	(12,827,606)	(1,264,862)
2011	Contribution Loss (Gain)	18	6,777,563	17	6,587,595	649,568
2012	Asset Experience Loss (Gain)	17	93,583,915	17	93,583,915	9,227,812
2012	Experience Loss (Gain)	17	(21,072,289)	17	(21,072,289)	(2,077,826)
2012	Contribution Loss (Gain)	17	2,867,982	17	2,867,982	282,796
	TOTAL Unfunded Actuarial Accrued Liability				$ 482,024,775	
	TOTAL Fiscal 2013 Amortization Payments					$ 45,335,951

* Under the provisions of Act 620 of the 2003 Regular Legislative Session, all non-merger bases established on or before June 30, 2002 were combined, offset, and re-amortized through June 30, 2029.

EXHIBIT VI
ANALYSIS OF INCREASE IN ASSETS

Actuarial Value of Assets (June 30, 2011)		$	1,204,830,245
Income:			
Regular Member Contributions	$ 19,970,481		
Regular Employer Contributions	46,366,958		
Insurance Premium Taxes	21,848,664		
Irregular Contributions	0		
Contributions from Mergers	1,016,863		
TOTAL CONTRIBUTIONS		$	89,202,966
Interest and Dividends	$ 29,782,399		
Rent Income	18,927		
Interest from Merger Notes	216,991		
Net Appreciation of Fair Value of Investments	(71,947,308)		
Investment Expenses	(6,094,122)		
SUBTOTAL OF ALL MARKET INVESTMENT INCOME		$	(48,023,113)
TOTAL Income		$	41,179,853
Expenses:			
Retirement/Survivor Benefits/DROP Disbursements	$ 64,732,899		
Refunds of Contributions	1,376,677		
Disability Benefits	4,743,571		
Administrative Expenses	2,020,947		
Funds Transferred to Another System	(76,749)		
TOTAL Expenses		$	72,797,345
Net Market Income for Fiscal 2012 (Income - Expenses)		$	(31,617,492)
Adjustment for Actuarial Smoothing		$	45,405,555
Actuarial Value of Assets (June 30, 2012)		$	1,218,618,308

EXHIBIT VII
FUND BALANCE

Present Assets of the System Creditable to:

Annuity Savings Fund	$	139,800,968
Annuity Reserve Fund		644,617,070
Pension Accumulation Fund		236,182,704
Deferred Retirement Option Plan Account		99,367,798
Initial Benefit Option Plan Account		2,896,008
NET MARKET VALUE OF ASSETS	$	1,122,864,548
ADJUSTMENT FOR ACTUARIAL SMOOTHING		95,753,760
NET ACTUARIAL VALUE OF ASSETS	$	1,218,618,308

EXHIBIT VIII
PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Payable to Current Employees	$	923,185,122
Present Value of Benefits Payable to Terminated Employees		11,959,684
Present Value of Benefits Payable to Current Retirees and Beneficiaries		720,639,847
TOTAL PENSION BENEFIT OBLIGATION	$	1,655,784,653
NET ACTUARIAL VALUE OF ASSETS	$	1,218,618,308
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation		73.60%

EXHIBIT IX
COST OF LIVING ADJUSTMENTS - TARGET RATIO

Actuarial Value of Assets Divided by PBO as of Fiscal 1986:		99.35%
Amortization of Unfunded Balance over 30 years:		0.56%
Adjustments in Funded Ratio Due to Mergers or Changes in Assumption(s):		
Changes for Fiscal 1987	(0.72%)	
Changes for Fiscal 1988	(3.24%)	
Changes for Fiscal 1989	(3.80%)	
Changes for Fiscal 1992	1.34%	
Changes for Fiscal 1993	(1.25%)	
Changes for Fiscal 1994	(0.03%)	
Changes for Fiscal 1995	(1.73%)	
Changes for Fiscal 1996	(16.29%)	
Changes for Fiscal 1997	(3.65%)	
Changes for Fiscal 1998	(0.27%)	
Changes for Fiscal 1999	(0.97%)	
Changes for Fiscal 2000	(2.97%)	
Changes for Fiscal 2001	(0.23%)	
Changes for Fiscal 2003	0.45%	
Changes for Fiscal 2005	4.16%	
Changes for Fiscal 2006	(0.71%)	
Changes for Fiscal 2007	(0.09%)	
Changes for Fiscal 2008	(0.01%)	
Changes for Fiscal 2009	8.88%	
Changes for Fiscal 2010	(2.00%)	
Changes for Fiscal 2011	(0.02%)	
TOTAL Adjustments		(23.15%)
Amortization of Adjustments in Funded Ratio over 30 years:		
Changes for Fiscal 1987	0.60%	
Changes for Fiscal 1988	2.59%	
Changes for Fiscal 1989	2.91%	
Changes for Fiscal 1992	(0.89%)	
Changes for Fiscal 1993	0.79%	
Changes for Fiscal 1994	0.02%	
Changes for Fiscal 1995	0.98%	
Changes for Fiscal 1996	8.69%	
Changes for Fiscal 1997	1.83%	
Changes for Fiscal 1998	0.13%	
Changes for Fiscal 1999	0.42%	
Changes for Fiscal 2000	1.19%	
Changes for Fiscal 2001	0.08%	
Changes for Fiscal 2003	(0.14%)	
Changes for Fiscal 2005	(0.97%)	
Changes for Fiscal 2006	0.14%	
Changes for Fiscal 2007	0.02%	
Changes for Fiscal 2008	0.00%	
Changes for Fiscal 2009	(0.89%)	
Changes for Fiscal 2010	0.13%	
Changes for Fiscal 2011	0.00%	
TOTAL Amortization of Adjustments		17.63%
Target Ratio for Current Fiscal Year		94.39%
Actuarial Value of Assets Divided by PBO as of Fiscal 2012		73.60%

EXHIBIT X
CENSUS DATA

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2011	4,020	486	225	1,802	6,533
Additions to Census					
Initial membership	252	21			273
Death of another member				13	13
Omitted in error last year					
Adjustment for multiple records					
Change in Status during Year					
Actives terminating service	(73)	73			
Actives who retired	(45)			45	
Actives entering DROP	(57)		57		
Term. members rehired	15	(15)			
Term. members who retire		(4)		4	
Retirees who are rehired					
Refunded who are rehired	4				4
DROP participants retiring			(52)	52	
DROP returned to work	13		(13)		
Omitted in error last year				2	2
Eliminated from Census					
Refund of contributions	(73)	(93)			(166)
Deaths				(43)	(43)
Included in error last year					
Suspended Benefits					
Adjustment for Multiple Records					
Number of members as of June 30, 2012	4,056	468	217	1,875	6,616

ACTIVES CENSUS BY AGE:

[redacted]

Total Number	Average Salary	Total Salary	Age	Number Male	Number Female
37	29,651	1,097,090	16 - 20	35	2
431	34,981	15,076,773	21 - 25	422	9

[redacted]

- 35	612	41	653	43,863	28,642,361	31
- 40	636	28	664	49,887	33,125,249	36
- 45	580	36	616	54,895	33,815,158	41
- 50	515	39	554	60,003	33,241,780	46
- 55	258	33	291	62,777	18,268,056	51
- 60	78	9	87	66,828	5,813,999	56

[redacted]

68,674	1,922,867	61 - 65	27	1	28
58,970	58,970	66 - 70	1	0	1
48,844	198,112,999	TOTAL	3,835	221	4,056

VESTED BENEFITS, INCLUDING
JRRENT DROP PARTICIPANTS

THE ACTIVE CENSUS INCLUDES 1,927 ACTIVES WITH V
48 ACTIVE FORMER DROP PARTICIPANTS. THE 217 CU
ARE EXCLUDED.

[redacted]

CIPANTS CENSUS BY AGE:

DROP PARTI

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

[redacted]

ber le	Number Female	Total Number	Average Benefit	Total Benefit	Age	Num Ma
1	0	1	19,513	19,513	31 - 35	
9	0	9	20,320	182,877	36 - 40	

[redacted]

26	26,804	696,893	46 - 50	26	0
10	21,358	213,582	51 - 55	10	0
1	23,393	23,393	66 - 70	1	0
70	23,104	1,617,308	TOTAL	69	1

[redacted]

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

ons	Contributions Ranging From		To	Number	Total Contributic
	0	-	99	49	2,267

[redacted]

100	-	499	111	28,480

REGULAR RETIREES:

[redacted]

Number Female	Total Number	Average Benefit	Total Benefit	Age	Number Male
0	1	45,679	45,679	41 - 45	1
0	48	44,363	2,129,446	46 - 50	48
6	188	45,061	8,471,416	51 - 55	182
11	269	42,066	11,315,748	56 - 60	258

[redacted]

7,670,464	66 - 70	207	5	212	36,181
5,102,024	71 - 75	145	2	147	34,708
2,191,918	76 - 80	75	0	75	29,226
1,513,558	81 - 85	60	0	60	25,226
606,240	86 - 90	20	0	20	30,312
146,823	91 - 99	6	0	6	24,471

[redacted]

IREES: **DISABILITY RET**

Number Male	Number Female	Total Number	Average Benefit	Total Benefit	Age

[redacted]

14,719	14,719	31 - 35	1	0	1
17,159	34,318	36 - 40	1	1	2
19,827	317,227	41 - 45	16	0	16
24,231	581,537	46 - 50	20	4	24
25,857	827,438	51 - 55	29	3	32
30,860	925,785	56 - 60	28	2	30

[redacted]

66 - 70	26	0	26	32,090	834,341
71 - 75	12	0	12	22,480	269,758
76 - 80	8	0	8	18,825	150,600
81 - 85	2	0	2	11,509	23,018
86 - 90	1	0	1	13,530	13,530
TOTAL	180	11	191	27,580	5,267,839

[redacted]

SURVIVORS:

Number Female	Total Number	Average Benefit	Total Benefit	Age	Number Male

Compl
4
65
105
44
32
15
10
4
275
Compl
4
38,299
39,945
39,444
39,530
39,601
39,307
46,603
39,482

[redacted]

45,164 54,729
44,068 58,963
46,161 59,245
61,415
43,601 51,996
eted Years of Ser
5- 9 10-14
22
257 22
257 214
107 264
68 138
35 73
26 35
5 15
2
777 763
eted Years of Ser
5- 9 10-14
40,794
42,668 43,972
43,756 49,315
44,984 51,957
44,096 53,369

[redacted]

15-19 20-24
54,372
58,022 66,067
59,614 61,517
59,062 63,477
58,537 65,072
58,377 65,946
56,604 71,219
58,824 63,310
rvice
15-19 20-24
4
159 8
206 146
101 213
41 77
11 17
11 3
533 464
rvice

[redacted]

178 69
25-29 30&Over
57,448
70,926 64,074
67,957 82,199
66,789 80,218
63,825 85,807
58,970
69,095 78,754
25-29 30&Over
2
85 11
74 24
14 24
3 9
1

[redacted]

431
694
653
664
616
554
291
87
28
1
0
4056
Average
Salary
29,651
34,981
38,978
43,863
49,887
54,895
60,003
62,777
66,828
68,674
58,970
0
48,844
Total
37

[redacted]

[redacted] 20,320 [redacted] 9
23
26
Until Retirement [redacted] 10
0
0
5- 9 10-14 [redacted] 25-29 30&Over [redacted] 1
0

20,320 19,513 [redacted] 70

2 21
22

Eligibility

15-19 20-24 [redacted] Average Benefit

24 21 [redacted] 0 [redacted]
0
1 [redacted] 19,513
9 [redacted] 20,320
RED RETIREMENT BE [redacted] 20,915
26,804
Until Retirement [redacted] 21,358
0
0
5- 9 10-14 [redacted] 25-29 30&Over [redacted] 23,393
0

9 1 [redacted] 23,104

39,734 19,123 [redacted] NEFIT:
24,772

Eligibility

15-19 20-24 [redacted] Total

26,019 19,123 [redacted] 0 [redacted]
0
19,513 [redacted] 1

G. S. CURRAN & COMPANY, LTD.

[redacted]

40,853 37,859

eted Years Since

5- 9	10-14
7	
40	1
125	26
100	142
28	75
10	25
1	3
	3
311	275

eted Years Since

5- 9	10-14
37,861	
39,395	35,916
41,438	36,117
41,943	37,827
37,544	39,972
42,032	36,608
18,971	42,265
	8,373

[redacted]

23,609	
30,111	23,938
35,920	25,314
43,092	32,366
45,063	36,907
38,548	35,216
	55,621
26,346	
36,962	32,202

Retirement

15-19	20-24
6	
20	10
66	14
41	37
5	18
3	6
	3
1	
142	88

Retirement

15-19 20-24

[redacted]

72 95

25-29	30&Over
25,680	
24,400	17,759
22,932	20,846
31,288	18,955
38,704	18,225
35,150	23,852
	24,095
29,229	19,932

25-29	30&Over
3	
14	1
18	13
20	28
14	34
3	14
	5

[redacted]

188
269
328
212
147
75
60
20
6

1354

Average Benefit
44,390
45,061
42,066
39,520
36,181
34,708
29,226
25,226
30,312
24,471
38,520

Total
49

[redacted]

41 35,055

Compl

3	4
1	
2	1
	3
	3
1	
1	1
5	8

TY RETIREES:

Compl

3	4
51	
77	18,202
	34,117
	39,610
43	

[redacted]

50	32

eted Years Since

5- 9	10-14
14,719	
15,303	10,147
23,322	17,254
32,234	19,645
46,848	14,674
45,625	40,016
91,741	38,723
	9,192
35,304	25,241

eted Years Since

5- 9	10-14
1	
5	2
9	5
14	5
7	5
13	6
1	7
	2

[redacted]

15-19	20-24
1	
2	
3	5
4	6
5	7
6	3
4	1
2	1
27	23

Retirement

15-19	20-24
17,811	
14,168	
11,272	12,521
19,528	17,048
21,397	20,630
39,469	20,392
42,515	24,093
32,874	13,394
27,322	17,738

Retirement

[redacted]

27,189	
17,490	14,67
20,864	7,28
	11,44
21,638	12,45
	11,50
	13,53
21,604	11,52

25-29	30&Ove
3	
3	1
6	2
	5
1	4
	2
	1
13	15

25-29	30&Ove

[redacted]

2
1
0
191

Average Benefit
0
14,719
17,159
19,827
24,231
25,857
30,859
34,475
32,090
22,480
18,825
11,509
13,530
0
27,580

Total
0
1
2
16
24
32
30
37
26
12

[redacted]

2
2
1
1 14

ORS OF FORMER MEM

Comple

3 4

,745 5,426
13,521
26,141
20,244
37,433
17,697
25,002
27,189

,745 19,219

:

Comple

3 4

1 4
1
1
1
2

[redacted]

ted Years Since R

5- 9 10-14

6 2
1
3 2
1
1
5 3
5 4
2 5
2 5
1 6
4
1
26 33

BERS:

ted Years Since R

5- 9 10-14

7,006 3,009
8,190
1,219 14,312
3,667
22,075
3,382 19,618
9,379 22,232
5,978 19,416
3,154 26,174
5,565 19,943
7,053
2,898
9,815 17,673

[redacted]

10,269 9,482
25,253
42,200 22,662
21,842 16,458
23,714 2,795
42,355 25,400
37,978 25,043
20,847 16,539
4,959 39,470
16,902
23,324 22,057

etirement

15-19 20-24

2
1
1
2
3 1
1
1 6
10 2
6 1
4 12
4 8
2 3
1 1
1
37 36

etirement

15-19 20-24

4,022
4,788
1,752
11,596

[redacted]

25-29 30&Over

9,388
18,206
19,706 7,037
13,636 5,840
16,993 10,782
26,539 11,185
20,893 11,786
27,325 10,432
17,344 9,674
18,941 10,848

25-29 30&Over

2
2
1 2
5 4
3 17
2 28
12 40
2 10
2 12
31 113

[redacted]

11
16
22
22
25
48
48
59
14
16
330

Average Benefit

5,299
9,398
13,521
14,202
19,940
24,506
21,848
20,860
26,022
18,825
17,479
20,781
16,557
14,725
14,529
10,661
16,823

Total

29
3
1
4
6
6

[redacted]

EXHIBIT XI
YEAR-TO-YEAR COMPARISON

	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009
Number of Active Contributing Members	4,056	4,020	3,989	3,882
Number of Retirees & Survivors	1,875	1,802	1,749	1,688
DROP Participants	217	225	162	147
Number Terminated Due Deferred Benefits	70	68	59	55
Number of Terminated Due Refund	398	418	442	407
Active Lives Payroll (excludes DROP participants)	$ 198,112,999	$ 193,136,985	$ 189,542,210	$ 178,913,097
Retiree Benefits in Payment	$ 62,975,274	$ 58,699,965	$ 56,056,554	$ 53,031,851
Market Value of Assets	$ 1,122,864,548	$1,154,482,040	$ 971,775,080	$ 865,547,030
Ratio of Actuarial Value of Assets to Actuarial Accrued Liability	71.66%	74.33%	74.21%	76.13%
Actuarial Accrued Liability	$ 1,700,643,083	$1,621,007,988	$1,536,258,543	$1,410,559,615
Actuarial Value of Assets	$ 1,218,618,308	$1,204,830,245	$1,140,054,175	$1,073,797,423
UAL (Funding Excess)	$ 482,024,775	$ 416,177,743	$ 396,204,368	$ 336,762,192
P.V. of Future Employer Normal Contributions	$ 325,616,184	$ 305,540,215	$ 335,984,027	$ 292,585,945
P.V. of Future Employee Contributions	$ 211,015,125	$ 206,989,105	$ 160,939,180	$ 150,094,699
Present Value of Future Benefits	$ 2,223,486,329	$2,133,537,308	$2,033,181,750	$1,853,240,259

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	Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010
Employee Contribution Rate (For employees with earnings above the poverty level)	10.00%	10.00%	8.00%	8.00%
Required Tax Contributions as a Percentage of Projected Payroll	10.72%	10.93%	11.09%	11.56%
Actuarially Required Employer Contribution as a Percentage of Projected Payroll (For employees with earnings above the poverty level)	27.77%	24.02%	24.97%	20.79%
Actual Employer Contribution Rate (For employees with earnings above the poverty level)	24.00%	23.25%	21.50%	14.00%

Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005	Fiscal 2004	Fiscal 2003
3,821	3,632	3,534	3,532	3,431	3,360
1,631	1,555	1,477	1,434	1,379	1,315
130	134	111	103	114	120
55	54	52	45	42	36
350	298	249	189	181	143
$ 169,401,716	$ 150,960,665	$ 140,175,740	$ 134,313,739	$ 128,144,746	$ 121,012,780
$ 48,416,581	$ 43,972,738	$ 39,649,619	$ 36,510,489	$ 34,076,169	$ 31,542,638
$1,092,459,674	$1,138,227,081	$ 963,805,222	$ 848,499,924	$ 752,274,788	$ 664,570,797
85.78%	86.02%	83.66%	80.88%	71.84%	69.69%
$1,317,161,382	$1,192,323,327	$1,089,280,137	$1,012,901,863	$1,010,016,864	$ 944,688,430
$1,129,809,421	$1,025,656,019	$ 911,329,622	$ 819,240,156	$ 725,615,787	$ 658,376,086
$ 187,351,961	$ 166,667,308	$ 177,950,515	$ 193,661,707	$ 284,401,078	$ 286,312,344
$ 277,566,364	$ 247,631,617	$ 230,234,335	$ 226,307,495	$ 192,151,099	$ 182,925,316
$ 142,412,175	$ 126,968,955	$ 118,092,552	$ 114,703,708	$ 94,736,659	$ 90,145,420
$1,737,139,921	$1,566,923,899	$1,437,607,024	$1,353,913,066	$1,296,904,623	$1,217,759,166

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Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005	Fiscal 2004
8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
12.20%	13.16%	12.83%	12.82%	13.11%	12.77%
13.89%	12.56%	14.01%	15.66%	22.51%	23.64%
12.50%	13.75%	15.50%	18.00%	24.00%	21.00%

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 - The fund is financed by employee and employer contributions together with funds from dedicated insurance premium taxes as allocated by the Public Retirement Systems' Actuarial Committee in accordance with R. S. 22:1476A(3). The employee contribution rate is at least 8% but not greater than 10% based on the total contribution expressed as a percentage of payroll after applying all required tax contributions. The employee rate, when such contributions total 25% or less, is set at 8%. The employee rate then increases 0.25% for each 0.75% increase in the total rate, subject to a maximum rate of 10%. The 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. Net direct employer contributions are nine percent (9%) of earnable compensation unless the funds allocated from dedicated taxes are insufficient to provide the actuarially required contributions or the actuarially required contributions are less than 9%.

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 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, ANNUITANT, AND BENEFICIARY MORTALITY: RP 2000 Combined Healthy Table set back 1 years 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 3.25% 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	Active Female Mortality	Retired Male Mortality	Retired Female Mortality	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	0.00151	0.00112	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

GLOSSARY

Accrued Benefit – The pension benefit that an individual has earned as of a specific dated 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.

Actuarially Required Net Direct Combined Contribution – The sum of the actuarially required employee contributions and net direct employer contributions after reduction for projected Insurance Premium Taxes due to the system.

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: