MUNICIPAL POLICE EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2012

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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December 7, 2012

Board of Trustees
Municipal Police Employees' Retirement System
7722 Office Park Boulevard, Suite 200
Baton Rouge, LA 70809

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Municipal Police Employees' 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 Municipal Police Employees' 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 Municipal Police Employees' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

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.

By: ______________________
Gregory Curran, F.C.A., M.A.A.A., A.S.A.

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SUMMARY OF VALUATION RESULTS
MUNICIPAL POLICE EMPLOYEES' RETIREMENT SYSTEM

Valuation Date:		June 30, 2012	June 30, 2011
Census Summary:	Active Contributing Members	5,779	5,933
	Retired Members and Beneficiaries	4,230	4,165
	DROP Participants	284	231
	Terminated Due a Deferred Benefit	130	128
	Terminated Due a Refund	1,176	1,251
Payroll (excludes DROP Participants):		$ 272,606,934	$ 273,348,634
Benefits in Payment:		$ 104,988,503	$ 99,863,547
Market Value of Assets:		$ 1,406,662,003	$ 1,440,795,586
Unfunded Actuarial Accrued Liability:		$ 931,247,979	$ 929,386,692
Actuarial Asset Value:		$ 1,382,503,860	$ 1,286,287,651
Actuarial Accrued Liability:		$ 2,313,751,839	$ 2,215,674,343
Ratio of Actuarial Value of Assets to Actuarial Accrued Liabilities:		59.75%	58.05%

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	FISCAL 2013	FISCAL 2012
Normal Cost as of July 1:	$ 45,263,337	$ 45,607,236
Amortization Cost (Credit) as of July 1:	$ 77,273,677	$ 76,616,490
Total Actuarially Required Contribution Inclusive of Estimated Administrative Costs:	$ 128,413,205	$ 127,797,631
Expected Insurance Premium Taxes	$ 15,794,377	$ 15,637,701
Net Direct Combined Actuarially Req'd Contributions	$ 112,618,828	$ 112,159,930
Actual Net Direct Combined Contribution Rate:	41.00%	36.50%
Actuarially Required Net Direct Combined Cont. Rate:	41.03%	40.52%

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Minimum Recommended Net Direct Employer Cont. Rate		
For Employees with Earnings Below Poverty Level-	**Fiscal 2014:** 33.50%	**Fiscal 2013:** 33.50%
For Employees with Earnings Above Poverty Level -	**Fiscal 2014:** 31.00%	**Fiscal 2013:** 31.00%

Employee Contribution Rate: 7.50% 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.

Valuation Interest Rate: 7½% (Net of Investment Expense)

Exclusions from Census: None

Basis of Actuarial Asset Value: A transition from the prior method, a four year smoothing of unrealized capital gains, to an actuarial value of assets 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 were made to rate of salary increase, as well as, disability rates, retirement rates and the rate of DROP entry.

Method of Recognizing Gains and Losses: Gains and losses are amortized over 30 years, with the exception of contribution surpluses or shortfalls which are amortized over 15 years.

COMMENTS ON DATA

For the valuation, the administrator of the system furnished a census on CD 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 5,779 active contributing members in the system of whom 2,515 have vested retirement benefits; in addition, there are 284 participants in the Deferred Retirement Option Plan (DROP); 4,230 former system members or their beneficiaries are receiving retirement benefits. An additional 1,306 members have contributions remaining on deposit with the system; of this number, 130 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 that 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, Certified Public Accountants. As indicated in the system's financial statements, the net market value of the system's assets was $1,406,662,003 as of June 30, 2012. Net investment income for fiscal 2012 measured on a market value basis amounted to a loss of $30,144,446. Contributions to the system for fiscal 2012 totaled $115,995,510; benefits and expenses amounted to $119,984,647.

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. Prior to fiscal 2002, experience gains and losses as well as contribution gains and losses were amortized over fifteen years with level amortization payments. Act 1079 of 2003 explicitly changed the amortization period for experience gains and losses, changes in assumptions, changes in methods, cost of living increases, and changes in plan benefit provisions to thirty years with level amortization payments.

Since it was not practical to perform a detailed analysis of plan experience, the assumptions utilized for the fiscal 2011 report, with the exception of active and healthy annuitant mortality, were designed to match, to the extent possible, those used by the prior actuary for the fiscal 2010 valuation. Adjustments to some non-mortality decrements were necessary due to differences in software design. For the 2012 valuation, technical changes were made to several assumptions. First, the salary increase assumption was simplified and smoothed to reduce fluctuations at several points on the scale. Disability rates were also rescaled to conform to a standard table. The DROP entry and retirement rates were recalibrated to more closely reflect recent plan experience. The net effect of all such changes was an increase in the actuarial accrued liability of $1,590,422. This resulted in an interest adjusted amortization payment of $129,881, or 0.05% of projected payroll.

The method for determining the actuarial value of assets was changed with respect to the fiscal 2011 valuation. The prior valuation utilized a four year phase-in of all unrealized capital gains and losses at 25% per year. With the fiscal 2011 valuation, we began to transition to a five year phase-in of all market earnings above or below the valuation interest rate, subject to a corridor with a maximum of 115% of the market value of assets and a minimum of 85% of the market value of assets. In the event that the preliminary value of the actuarial value of assets falls outside of the corridor, the final value will be determined by averaging the preliminary value with the nearest corridor limit. In order to transition to the new method for calculating the actuarial value of assets, the deferral of capital gains for all years before fiscal 2011 was based upon the prior method. The deferral of all gains and losses for fiscal 2011 and later was based on the new method.

The current year actuarial assumptions utilized for the report are outlined on pages thirty-eight through forty-two. All assumptions are within our “best estimate range" 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.

CHANGES IN PLAN PROVISIONS

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

Act 522 addresses retirement eligibility and calculation of benefits for individuals hired on or after January 1, 2013. For members hired on or after January 1, 2013, “final compensation” means the average monthly earnings during the sixty highest consecutive months of employment or the sixty highest successive joined months of employment if interruption of service occurred. The earnings to be considered for the thirteenth through the twenty-fourth month will not exceed one hundred fifteen percent of the earnings for the first through the twelfth month. The earnings to be considered for the twenty-fifth through the thirty-sixth month will not exceed one hundred fifteen percent of the earnings for the thirteenth through the twenty-fourth month. The earnings to be considered for the thirty-seventh through the forty-eighth month will not exceed one hundred fifteen percent of the earnings for the twenty-fifth through the thirty-sixth month. The earnings to be considered for the final twelve months may not exceed one hundred fifteen percent of the earnings for the thirty-seventh through the forty-eighth month.

Act 522 also established a new set of plan provisions for members whose first employment making them eligible for membership in MPERS on or after January 1, 2013. Persons who are so enrolled become members of either the Hazardous or Non-Hazardous Duty sub plan based on their eligibility to receive state supplemental pay. Members eligible to receive state supplemental pay will be placed in the new Hazardous Duty sub plan. Members not eligible to receive state supplemental pay will be placed in the new Non-Hazardous Duty sub plan. Provisions of each of these plans are as follows:

Hazardous Duty Plan:

Benefits will be based on a 3% accrual rate and a 60 month final average compensation. Members will be eligible for retirement if they have 25 years of service credit, regardless of age, or 12 years of service credit and attain the age of 55. Members may also receive an early retirement benefit after 20 years of service credit (actuarially reduced from age 55). Any member who earns at least 30 years of service credit shall have the retirement benefit based on a 3 1/3% accrual rate. In order to be eligible for DROP or an IBO benefit, the member must be eligible to receive a regular retirement. Disability benefits will be based on a 2.75% accrual rate with a minimum benefit of 33% of final average compensation and a maximum benefit of 55% of final average compensation. In order to qualify for disability benefits, a member must either be disabled in the line of duty or have 10 years of service credit. In order to qualify for a survivor benefit, a member must either be killed in the line of duty or have 10 years of service credit. The survivor benefit for members not killed in the line of duty is equal to the full accrued retirement benefit but not less than 33% or more than 55% of final average compensation. For members killed in the line of duty, the survivor benefit payable to the spouse is 100% of final average compensation reduced for any benefit due to the children of the member. Beneficiaries of members who die while in service but who are otherwise ineligible for survivor benefits will receive a refund of employer contributions. Minor children of members who die with 10 years of service credit or who are killed in the line of duty will receive 10% of final average compensation or $200 per month, whichever is greater.

Non-Hazardous Duty Plan:

Benefits will be based on a 2.5% accrual rate and a 60 month final average compensation. Members will be eligible for retirement if they have 30 years of service credit, regardless of age, 25 years of service credit and attain the age of 55, or 10 years of service credit and attain the age of 60. Members may also receive an early retirement benefit after 20 years of service credit (actuarially reduced from age 55). Any member who earns at least 30 years of service credit shall have the retirement benefit based on a 3 1/3% accrual rate. In order to be eligible for DROP or an IBO benefit, the member must be eligible to receive a regular retirement. Disability benefits will be based on a 2.25% accrual rate with a minimum benefit of 25% of final average compensation and a maximum benefit of 50% of final average compensation. In order to qualify for disability benefits, a member must have 10 years of service credit. In order to qualify for a survivor benefit, a member must have 10 years of service credit.

The survivor benefit for members is equal to the full accrued retirement benefit but not less than 25% or more than 50% of final average compensation. Beneficiaries of members who die while in service but who are otherwise ineligible for survivor benefits will receive a refund of employer contributions. Minor children of members who die with 10 years of service credit will receive 10% of final average compensation or $200 per month, whichever is greater.

The employee contribution rate for the Hazardous Duty Plan remains the same as for the existing plan. Employee contributions for the Non-Hazardous Duty Plan will be 8% or equal to the rate of the Hazardous Duty Plan, if less than 8%.

Act 511 includes provisions to comply with IRS qualification requirements. It also provides additional survivor benefits in the case of a death of a member on or after January 1, 2007, while performing military service. The system will credit the member's qualified military service as service credit for vesting purposes and for eligibility purposes as though the member had resumed employment immediately prior to the member's death. However, the time spent by the member in qualified military service will not be used for calculation of benefit accrual purposes.

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	3.8%	-6.8%
2004	12.9%	7.8%
2005	9.3%	9.4%
2006	8.7%	13.2%
2007	16.5%	13.6%
2008	- 7.6%	6.4%
2009	-24.2%	-16.7%
2010	12.4%	-0.8%
2011	23.5%	3.9% *
2012	-2.1%	7.8%

* Includes the effect of transition to a new method for calculating the actuarial value of assets. The new method for calculating 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.

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. 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 $31,826,685 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital losses on investments of $56,207,135. Investment expenses amounted to $5,763,996. The geometric mean of the market value rate of return was 4.4% measured over the last ten 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. For fiscal 2012, this rate adjusted for elimination of the effect of merger payments was 7.8%. 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 four year period (five year period after the transition period is completed) 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. 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 $3,880,660 above the actuarial assumed earnings rate of 7.5% which produced an actuarial gain and decreased the interest-adjusted amortization payments on the system's UAL by $ 316,911 or 0.12% of projected payroll.

PLAN DEMOGRAPHICS AND LIABILITY EXPERIENCE

The average active contributing member is 39 years old with 10.73 years of service credit and an annual salary of $47,172. The system's active contributing membership experienced a decrease during fiscal 2012 of 154 members. The number of DROP participants increased by 53. Over the last five years active membership has decreased by 61 members.

The average service retiree is 65 years old with a monthly benefit of $2,485. The number of retirees and beneficiaries receiving benefits from the system increased by 65 during the fiscal year. Over the last five years, the number of retirees increased by 396 with annual benefits in payment increasing by $23,011,907.

Liability experience for the year was unfavorable. DROP entries and retirements when combined exceeded projected levels. This was partially offset by salary increases below expected levels and withdrawals and deaths above expected levels. Other factors were largely neutral. The overall liability experience loss was $4,302,454. The interest adjusted amortization payment on this loss was $351,356, or 0.13% of 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.

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 $45,263,337. The amortization payments on the system's unfunded actuarial accrued liability as of July 1, 2012 total $77,273,677. 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 $128,413,205. We estimate insurance premium taxes of $15,794,377 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 $112,618,828 or 41.03% of payroll.

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 $12,507,797 less than required; the interest-adjusted amortization payment on the contribution shortfall for fiscal 2013 is $1,366,651 or 0.50% of payroll. Two amortization bases were fully amortized by the end of fiscal 2012 reducing contributions by 0.31% of the projected payroll. In addition, for fiscal 2013 the net effect of the change in payroll on amortization costs was to increase such costs by 0.24% 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	$ 47,286,589	17.08%
Cost of Demographic and Salary Changes	$ 305,865	0.26%
Cost of Assumption Change	$ (662,427)	(0.24%)
Normal Cost for Fiscal 2013	$ 46,930,027	17.10%
UAL Payments for Fiscal 2012	$ 79,437,667	28.70%
Change due to change in payroll	N/A	0.24%
Change due to elimination of Amortization	$ (849,592)	(0.31%)

Additional Amortization Expenses for Fiscal 2013:		
Assumption Loss (Gain)	$ 129,881	0.05%
Asset Experience Loss (Gain)	$ (316,911)	(0.12%)
Contribution Loss (Gain)	$ 1,366,651	0.50%
Liability Experience Loss (Gain)	$ 351,356	0.13%
Net Amortization Expense (Credit) for Fiscal 2013	$ 1,530,977	0.56%
Estimated Administrative Cost for Fiscal 2013	$ 1,364,125	0.50%
Total Normal Cost & Amortization Payments	$ 128,413,205	46.78%

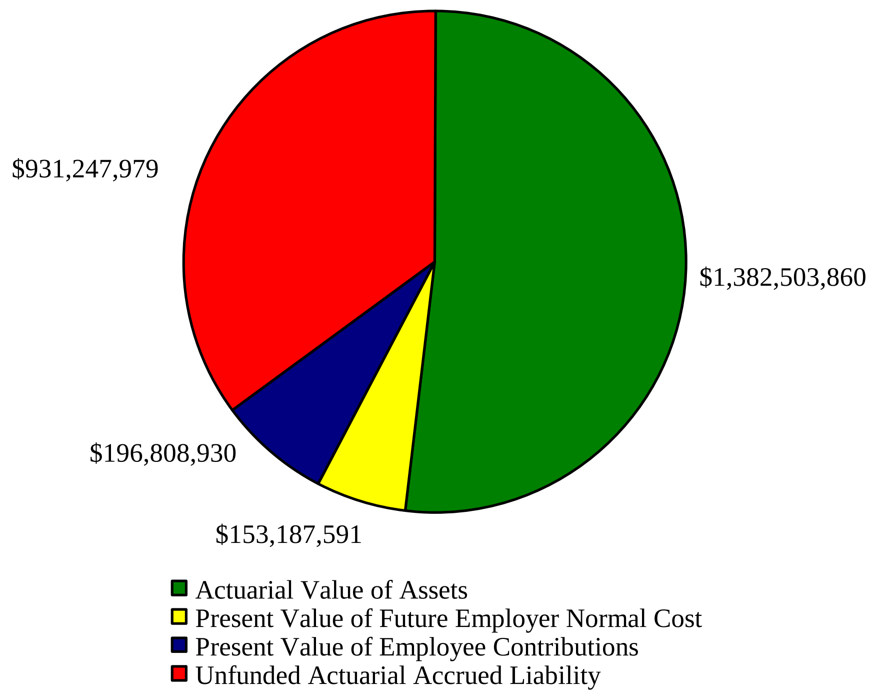
Since the actual net direct combined contribution rate for fiscal 2013 is 41.00% of payroll, there will be a contribution shortfall of 0.03% of payroll. Since this shortfall will be de minimus, it will have no effect on required contributions for fiscal 2013. The statutes require rounding the net direct employer contribution rate to the nearest 0.25%. Therefore, we recommend a combined employee and net direct employer contribution rate of 41.00% 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 7.50% of payroll. The recommended employer contribution rate to be applied to the earnings of such members is 33.50% 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 recommended employer contribution rate to be applied to the earnings of such members is 31.00% 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 0.41%. 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 2013 by 9.27%.

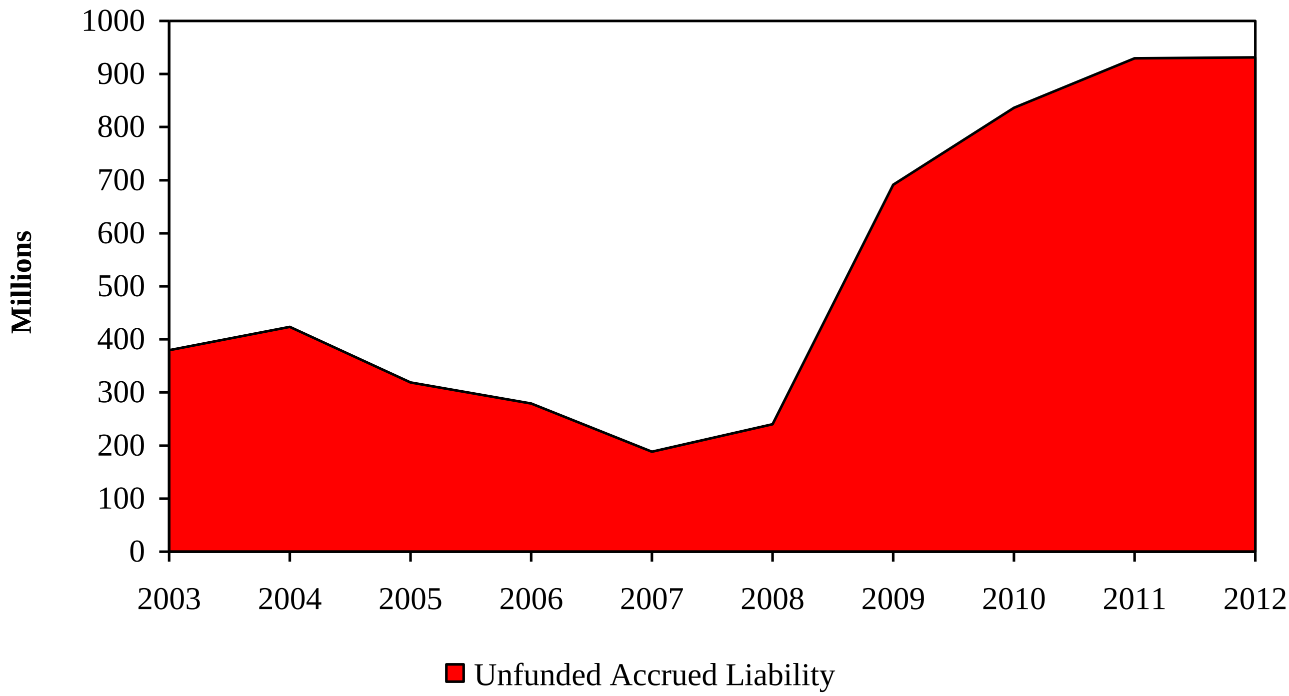
COST OF LIVING INCREASES

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. 11:2225(A)(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 original or current benefit. R. S. 11:2225(A)(7)(c) and (d) provide that the board of trustees is authorized to provide a one-time cost of living adjustment of 3% of each retiree's normal monthly benefit from excess interest earnings without regard to the provisions of R.S. 11:242 (which describes the target ratio). 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 30^{th} 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 actuarial accrued liability. We have determined that for fiscal 2012 the plan has not met the necessary target ratio. Hence the system is unable to grant a COLA under R.S. 11:2225 (A)(7) or R.S. 11:246; and although R.S. 11:2225 (A)(7)(c) does not require the system to meet the target ratio, the excess interest accrued is insufficient to pay the COLA authorized by that provision.

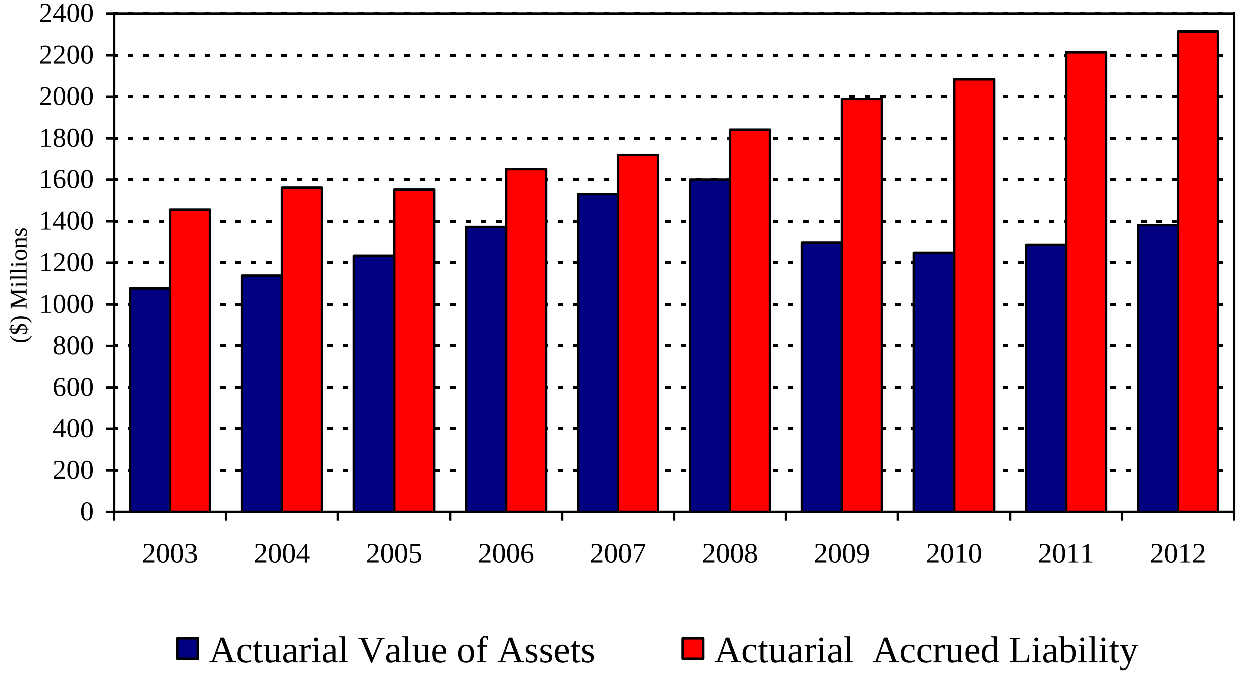
Components of Present Value of Future Benefits
June 30, 2012



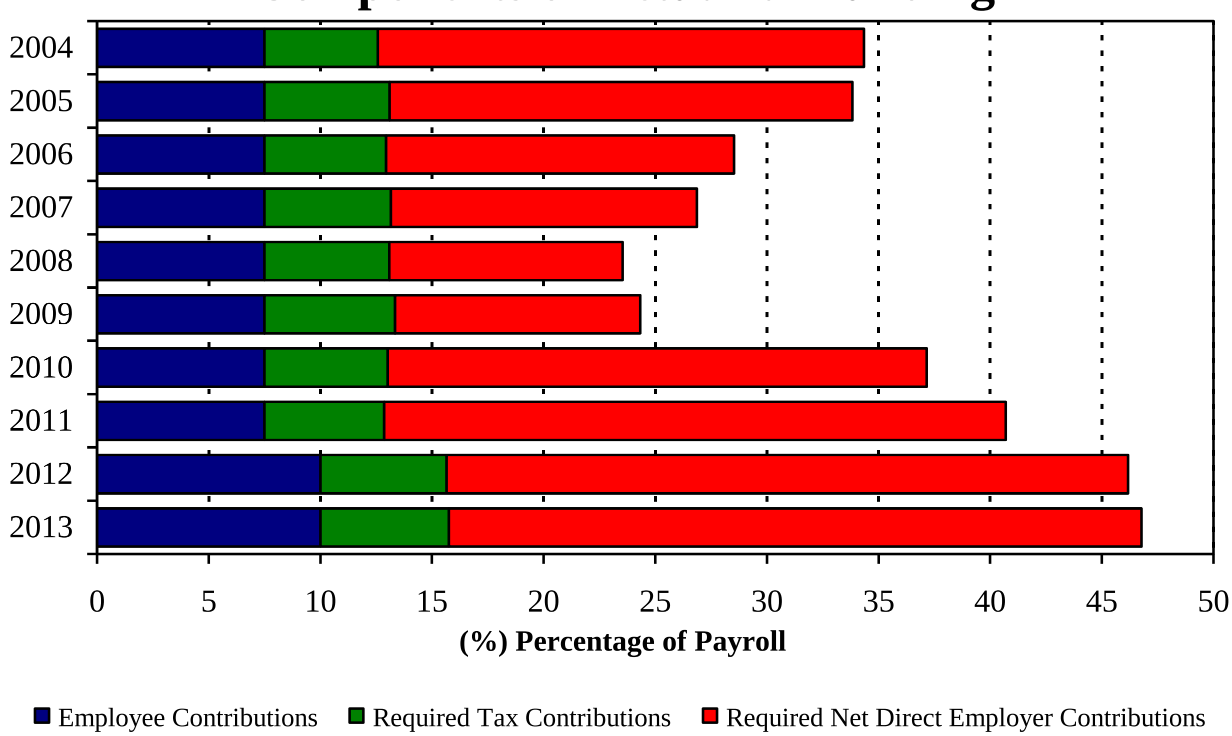
Unfunded Accrued Liability



Actuarial Value of Assets vs. Actuarial Accrued Liability

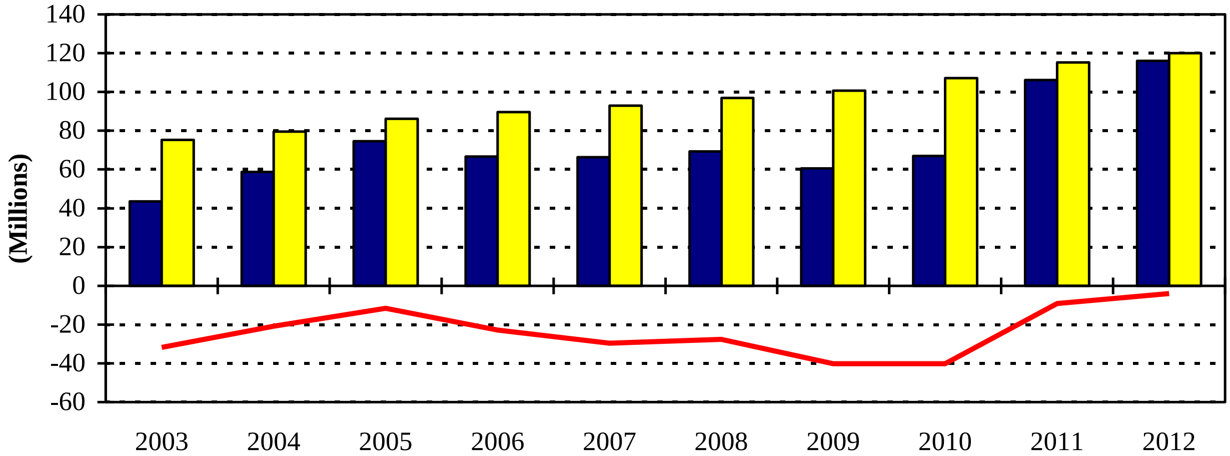


Components of Actuarial Funding



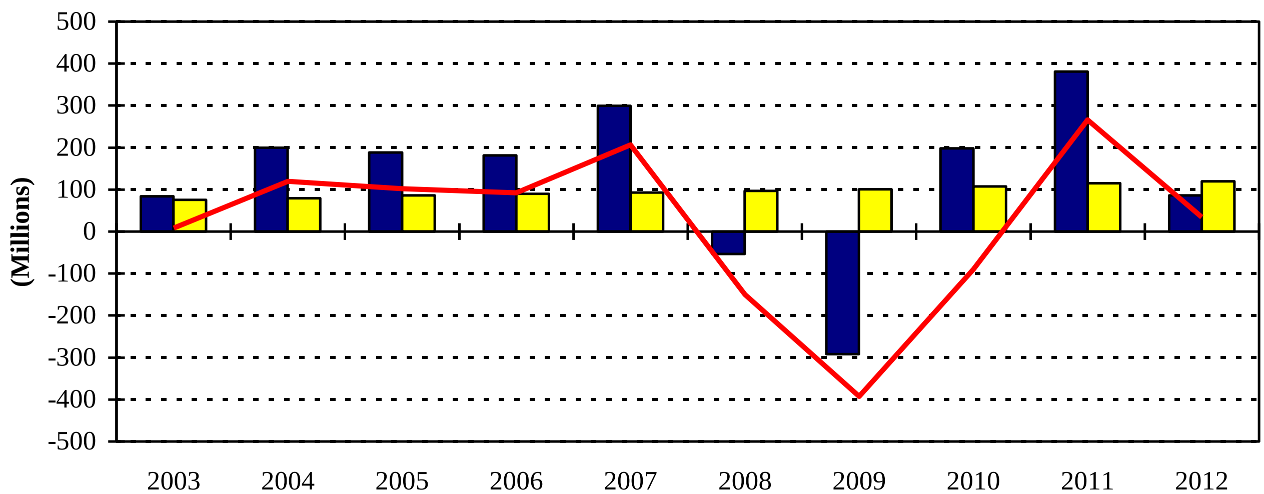
(2012 and 2013 employee contribution level is based on members with earnings above the poverty level)

Net Non-Investment Income



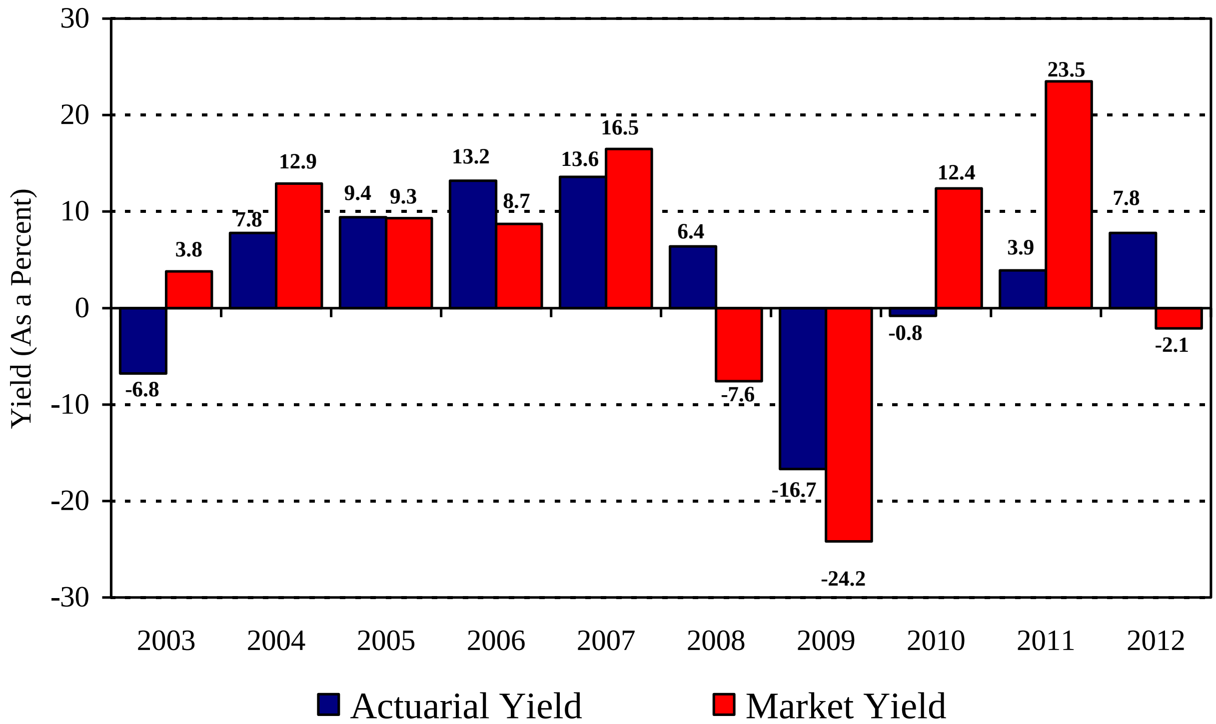
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Non-Investment Income ($Mil)	43.6	58.7	74.6	66.7	66.3	69.3	60.6	67.0	106.1	116.0
Benefits and Expenses ($Mil)	75.3	79.6	86.2	89.6	92.9	96.9	100.7	107.2	115.3	120.0
Net Non-Investment Income ($Mil)	-31.7	-20.9	-11.6	-22.9	-29.6	-27.6	-40.1	-40.2	-9.2	-4.0

Total Income vs. Expenses
(Based on Market Value of Assets)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total Income ($Mil)	83.5	199.6	188.6	181.6	299.2	-53.6	-291.8	198.1	381.0	85.9
Benefits and Expenses ($Mil)	75.3	79.6	86.2	89.6	92.9	96.9	100.7	107.2	115.3	120.0
Net Change in MVA ($Mil)	8.2	120.0	102.4	92.0	206.3	-150.5	-392.5	90.9	265.7	34.1

Historical Asset Yields



EXHIBITS

EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Normal Cost of Retirement Benefits	$ 34,439,876
2.	Normal Cost of Death Benefits	$ 1,372,178
3.	Normal Cost of Disability Benefits	$ 2,214,652
4.	Normal Cost of Deferred Retirement Benefits	$ 1,495,839
5.	Normal Cost of Contribution Refunds	$ 5,740,792
6.	TOTAL Normal Cost as of July 1, 2012 (1+2+3+4+5)	$ 45,263,337
7.	Amortization of Unfunded Accrued Liability of $931,247,979	$ 77,273,677
8.	TOTAL Normal Cost & Amortization Payments (6+7)	$122,537,014
9.	Normal Cost and Amortization Payments Interest Adjusted for Midyear Payment	$127,049,080
10.	Estimated Administrative Cost for Fiscal 2013	$ 1,364,125
11.	TOTAL Administrative and Interest Adjusted Actuarial Costs (9+10)	$128,413,205
12.	Expected Insurance Premium Taxes due in Fiscal 2013	$ 15,794,377
13.	Net Direct Combined Actuarially Req'd Contributions for Fiscal 2013 (11-12)	$112,618,828
14.	Projected Payroll For Contributing Members July 1, 2012 through June 30, 2013	$274,512,153
15.	Net Direct Combined Actuarially Required Contributions as a % of Projected Payroll for Fiscal 2013 (13 ÷ 14)	41.03%
16.	Actual Net Direct Combined Contribution Rate for Fiscal 2013	41.00%
17.	Contribution Gain (Loss) as a Percentage of Payroll (16 – 15)	(0.03%)
18.	Adjustment to Following Year Payment for Contribution Gain (Loss)	(0.00%)
19.	Recommended Net Direct Combined Contribution Rate for Fiscal 2014 (15 – 18) (Rounded to nearest 0.25%)	41.00%
20.	Recommended Net Direct Employee Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)	7.50%
21.	Recommended Net Direct Employer Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)	33.50%
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)	31.00%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

Present Value of Future Benefits for Active Members:

Retirement Benefits	$ 1,365,394,806	
Survivor Benefits	18,921,386	
Disability Benefits	41,420,570	
Vested Deferred Termination Benefits	29,738,306	
Contribution Refunds	55,426,014	
TOTAL Present Value of Future Benefits for Active Members		$ 1,510,901,082

Present Value of Future Benefits for Terminated Members:

Terminated Vested Members Due Benefits at Retirement	$ 17,638,263	
Terminated Members with Reciprocals Due Benefits at Retirement	12,165	
Terminated Members Due a Refund	3,644,792	
TOTAL Present Value of Future Benefits for Terminated Members		$ 21,295,220

Present Value of Future Benefits for Retirees:

Regular Retirees	$ 917,015,522	
Disability Retirees	46,512,639	
Survivors & Widows	118,144,313	
Retiree DROP & IBO Account Balance	49,879,583	
TOTAL Present Value of Future Benefits for Retirees & Survivors		$ 1,131,552,057
TOTAL Present Value of Future Benefits		$ 2,663,748,359

EXHIBIT III – Schedule A
MARKET VALUE OF ASSETS

Current Assets:			
Cash & Cash Equivalents in Banks	$ 27,688,604		
Contributions Receivable from Members	2,238,471		
Contributions Receivable from Employers	6,052,552		
Accrued Interest and Dividends on Investments	3,885,906		
Investments Receivables	12,333,482		
Other Receivables	45,005		
Due From Merged Systems	352,935		
TOTAL CURRENT ASSETS		$	52,596,955
Property, Plant and Equipment (Net of accumulated depreciation)		$	2,297,129
Other Assets		$	51,000
Investments:			
Marketable Securities - Domestic	$461,054,379		
Marketable Securities - International	220,991,723		
Bonds – Domestic & Foreign	199,632,286		
Real Estate Fund	117,357,421		
Other Investments	103,516,787		
Mutual Funds	89,106,155		
Pooled Bond Fund	84,827,089		
Cash & Cash Equivalents	43,970,174		
Investment in Partnership	38,451,010		
Real Estate – Olde Oaks Development	5,942,367		
Real Estate – Olde Oaks Golf Course	1,725,414		
Real Estate – The Golf Club at Stone Bridge	1,182,837		
Real Estate – Land & Rental	726,563		
TOTAL INVESTMENTS		$	1,368,484,205
TOTAL ASSETS		$	1,423,429,289
Current Liabilities:			
Investment Payables	13,987,439		
Obligations Under Securities Lending Program	1,061,117		
Accounts Payable	564,841		
Refunds Payable	441,501		
Other Post-Employment Benefits	402,662		
Deferred Contributions	88,603		
Capital Lease Payable	79,347		
Accrued Payroll & Taxes	79,157		
Other Liabilities	62,619		
TOTAL CURRENT LIABILITIES		$	16,767,286
NET MARKET VALUE OF ASSETS		$	1,406,662,003

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2012	$	(138,057,227)
Fiscal year 2011		187,118,241
Fiscal year 2010 Unrealized Capital Gain (Loss)		89,331,921
Fiscal year 2009 Unrealized Capital Gain (Loss)		(159,410,474)
Fiscal year 2008 Unrealized Capital Gain (Loss)		(239,025,571)
Total for five years	$	(260,043,110)

Deferral of excess (shortfall) of invested income:

Fiscal year 2012 (80%)	$	110,445,782
Fiscal year 2011 (60%)		(112,270,945)
Fiscal year 2010 (25%)		(22,332,980)
Fiscal year 2009 (0%)		0
Fiscal year 2008 (0%)		N/A
Total deferred for year	$	(24,158,143)

Market value of plan net assets, end of year	$	1,406,662,003
Preliminary actuarial value of plan assets, end of year	$	1,382,503,860

Actuarial value of assets corridor

85% of market value, end of year	$	1,195,662,703
115% of market value, end of year	$	1,617,661,303

Final actuarial value of plan net assets, end of year	$	1,382,503,860

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	196,808,930
Employer Normal Contributions to the Pension Accumulation Fund		153,187,590
Employer Payments on the Unfunded Actuarial Accrued Liability		931,247,979
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	1,281,244,499

EXHIBIT V - SCHEDULE A
ACTUARIAL ACCRUED LIABILITIES

LIABILITY FOR ACTIVE MEMBERS				
Accrued Liability for Retirement Benefits	$	1,096,204,596		
Accrued Liability for Survivor Benefits		8,670,570		
Accrued Liability for Disability Benefits		24,730,559		
Accrued Liability for Vested Termination Benefits		18,441,837		
Accrued Liability for Refunds of Contributions		12,857,000		
TOTAL Actuarial Accrued Liability for Active Members			$	1,160,904,562
LIABILITY FOR TERMINATED MEMBERS			$	21,295,220
LIABILITY FOR RETIREES AND SURVIVORS			$	1,131,552,057
TOTAL ACTUARIAL ACCRUED LIABILITY			$	2,313,751,839
ACTUARIAL VALUE OF ASSETS			$	1,382,503,860
UNFUNDED ACTUARIAL ACCRUED LIABILITY			$	931,247,979

EXHIBIT V - SCHEDULE B
CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Unfunded Accrued Liability			$	929,386,692
Interest on Unfunded Accrued Liability	$	69,704,002		
Normal Cost for Prior Year		45,607,236		
Interest on the Normal Cost		3,420,543		
Administrative Expenses		1,220,577		
Interest on Expenses		44,944		
TOTAL Increases to Unfunded Accrued Liability			$	119,997,302
Required Contributions for Prior Year with interest	$	132,656,027		
Contribution Excess (Shortfall) with accrued interest		(12,507,796)		
Investment Gains (Losses)		3,880,660		
Liability Experience Gains (Losses)		(4,302,454)		
Liability Assumption Gains (Losses)		(1,590,422)		
TOTAL Decreases to Unfunded Accrued Liability			$	118,136,015
CURRENT YEAR UNFUNDED ACCRUED LIABILITY			$	931,247,979

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
1998	Contribution Loss (Gain)	15	(176,672)	1	(18,424)	(18,396)
1998	Change In Liability	15	(50,648,475)	1	(5,273,634)	(5,273,635)
1999	Contribution Loss (Gain)	15	89,574	2	18,037	9,344
1999	Change In Liability	15	(45,292,161)	2	(9,119,905)	(4,724,769)
2000	Contribution Loss (Gain)	15	15,208	3	4,444	1,589
2000	Change In Liability	15	(4,827,975)	3	(1,410,533)	(504,561)
2001	Contribution Loss (Gain)	15	(65,357)	4	(24,637)	(6,842)
2001	Change In Liability	15	90,820,890	4	34,234,915	9,508,310
2002	Contribution Loss (Gain)	15	(88,166)	5	(40,213)	(9,247)
2002	Change In Liability	30	207,093,231	20	178,243,934	16,264,500
2003	Contribution Loss (Gain)	15	(225,280)	6	(119,411)	(23,666)
2003	Change In Liability	30	184,314,964	21	162,208,453	14,490,024
2004	Contribution Loss (Gain)	15	13,640,571	7	8,172,023	1,435,238
2004	Change In Liability	30	31,940,093	22	28,686,674	2,513,402
2005	Contribution Loss (Gain)	15	(2,113,182)	8	(1,402,218)	(222,694)
2005	Change In Liability	30	(99,765,418)	23	(91,286,928)	(7,857,917)
2006	Contribution Loss (Gain)	15	(2,889,137)	9	(2,087,825)	(304,467)
2006	Change In Liability	30	(35,359,493)	24	(32,882,255)	(2,785,053)
2007	Contribution Loss (Gain)	15	(4,778,013)	10	(3,715,444)	(503,523)
2007	Change In Liability	30	(84,963,993)	25	(80,191,199)	(6,692,099)
2008	Contribution Loss (Gain)	15	(11,106,672)	11	(9,204,590)	(1,170,459)
2008	Change In Liability	30	63,387,672	26	60,645,605	4,992,663
2009	Contribution Loss (Gain)	15	3,102,817	12	2,719,024	326,989
2009	Change In Liability	30	448,280,459	27	434,274,348	35,308,335
2010	Contribution Loss (Gain)	15	36,539,742	13	33,636,805	3,850,685
2010	Change In Liability	30	113,378,069	28	111,102,819	8,930,103
2011	Contribution Loss (Gain)	15	11,941,362	14	11,484,160	1,258,422
2011	Change In Liability	30	88,934,043	29	88,073,941	7,004,796
2012	Assumption Loss (Gain)	30	1,590,422	30	1,590,422	125,268
2012	Liability Experience Loss (Gain)	30	4,302,454	30	4,302,454	338,878
2012	Asset Experience Loss (Gain)	30	(3,880,660)	30	(3,880,660)	(305,656)
2012	Contribution Loss (Gain)	15	12,507,797	15	12,507,797	1,318,115

TOTAL Unfunded Actuarial Accrued Liability $ 931,247,979

TOTAL Fiscal 2013 Amortization Payments $ 77,273,677

EXHIBIT VI
ANALYSIS OF INCREASE IN ASSETS

Actuarial Value of Assets (June 30, 2011)		$1,286,287,651
Income:		
Regular Member Contributions	$ 27,034,278	
Regular Employer Contributions	73,218,759	
Insurance Premium Taxes	15,628,206	
Irregular Contributions	114,267	
TOTAL CONTRIBUTIONS		$ 115,995,510
Net Appreciation of Fair Value of Investments	$(56,207,135)	
Dividends – Stock	16,774,445	
Interest – Notes, Bonds, Etc.	12,297,708	
Dividends – Commingled Funds	1,973,304	
Interest – Securities Lending	603,292	
Miscellaneous	135,971	
Contributions from Mergers	26,112	
Interest – Cash Equivalents	15,853	
Investment Expenses	(5,763,996)	
SUBTOTAL OF ALL MARKET INVESTMENT INCOME		$ (30,144,446)
TOTAL Income		$ 85,851,064
Expenses:		
Benefits	$114,693,248	
Refunds of Contributions	3,713,577	
Administrative Expenses	1,220,577	
Transfers to Other Systems	357,245	
TOTAL Expenses		$ 119,984,647
Net Market Income for Fiscal 2012 (Income - Expenses)		$ (34,133,583)
Adjustment for Actuarial Smoothing		$ 130,349,792
Actuarial Value of Assets (June 30, 2012)		$1,382,503,860

EXHIBIT VII
FUND BALANCE

Present Assets of the System Creditable to:

Annuity Savings Fund	$	184,584,042
Annuity Reserve Fund		1,081,672,474
Pension Accumulation Fund		51,748,300
Deferred Retirement Option Plan/IBO Account		88,657,187
NET MARKET VALUE OF ASSETS	$	1,406,662,003
ADJUSTMENT FOR ACTUARIAL SMOOTHING		(24,158,143)
NET ACTUARIAL VALUE OF ASSETS	$	1,382,503,860

EXHIBIT VIII
COST OF LIVING ADJUSTMENTS - TARGET RATIO

Actuarial Value of Assets Divided by AAL as of Fiscal 1986:		93.19%
Amortization of Unfunded Balance over 30 years:		5.90%
Adjustments in Funded Ratio Due to Mergers or Changes in Assumption(s):		
Changes for Fiscal 1987	(8.84%)	
Changes for Fiscal 1988	12.27%	
Changes for Fiscal 1991	(0.91%)	
Changes for Fiscal 1993	(1.35%)	
Changes for Fiscal 1996	(1.67%)	
Changes for Fiscal 1999	(0.57%)	
Changes for Fiscal 2000	(5.72%)	
Changes for Fiscal 2004	(0.96%)	
Changes for Fiscal 2005	3.94%	
Changes for Fiscal 2009	(1.09%)	
Changes for Fiscal 2011	(0.04%)	
Changes for Fiscal 2012	(0.04%)	
TOTAL Adjustments		(4.98%)
Amortization of Adjustments in Funded Ratio over 30 years:		
Changes for Fiscal 1987	7.37%	
Changes for Fiscal 1988	(9.82%)	
Changes for Fiscal 1991	0.64%	
Changes for Fiscal 1993	0.86%	
Changes for Fiscal 1996	0.89%	
Changes for Fiscal 1999	0.25%	
Changes for Fiscal 2000	2.29%	
Changes for Fiscal 2004	0.26%	
Changes for Fiscal 2005	(0.92%)	
Changes for Fiscal 2009	0.11%	
Changes for Fiscal 2011	0.00%	
Changes for Fiscal 2012	0.00%	
TOTAL Amortization of Adjustments		1.93%
Target Ratio for Current Fiscal Year		96.04%
Actuarial Value of Assets Divided by Actuarial Accrued Liability as of Fiscal 2012		59.75%

EXHIBIT X
CENSUS DATA

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2011	5,933	1,379	231	4,165	11,708
Additions to Census					
Initial membership	388	42			430
Death of another member					
Omitted in error last year					
Adjustment for multiple records					
Change in Status during Year					
Actives terminating service	(155)	155			
Actives who retired	(92)			92	
Actives entering DROP	(120)		120		
Term. members rehired	38	(38)			
Term. members who retire		(14)		14	
Retirees who are rehired	1			(1)	
Refunded who are rehired	11				11
DROP participants retiring			(53)	53	
DROP returned to work	14		(14)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(232)	(214)			(446)
Deaths	(2)	(4)		(87)	(93)
Included in error last year	(5)			(2)	(7)
Suspended Benefits					
Adjustment for Multiple Records				(4)	(4)
Number of members as of June 30, 2012	5,779	1,306	284	4,230	11,599

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	8	2	10	26,195	261,945
21 - 25	257	68	325	34,512	11,216,405
26 - 30	679	164	843	39,810	33,559,945
31 - 35	744	239	983	42,891	42,161,467
36 - 40	773	219	992	47,055	46,678,201
41 - 45	886	200	1,086	50,489	54,830,716
46 - 50	673	172	845	53,943	45,582,251
51 - 55	319	104	423	54,611	23,100,300
56 - 60	137	61	198	56,144	11,116,437
61 - 65	42	13	55	53,857	2,962,128
66 - 70	11	4	15	62,029	930,442
71 - 75	2	0	2	40,461	80,922
76 - 80	1	0	1	57,993	57,993
81 - 85	1	0	1	67,782	67,782
TOTAL	4,533	1,246	5,779	47,172	272,606,934

THE ACTIVE CENSUS INCLUDES 2,515 ACTIVES WITH VESTED BENEFITS, INCLUDING 159 ACTIVE FORMER DROP PARTICIPANTS. THE 284 CURRENT DROP PARTICIPANTS ARE EXCLUDED.

DROP PARTICIPANTS BY AGE:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	43	6	49	54,065	2,649,187
51 - 55	109	26	135	56,083	7,571,186
56 - 60	60	14	74	50,195	3,714,463
61 - 65	16	6	22	35,556	782,225
66 - 70	1	3	4	24,544	98,175
TOTAL	229	55	284	52,166	14,815,236

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	2	0	2	22,264	44,528
36 - 40	17	1	18	22,216	399,882
41 - 45	34	4	38	21,888	831,762
46 - 50	31	13	44	22,883	1,006,857
51 - 55	23	3	26	19,223	499,789
56 - 60	0	1	1	16,455	16,455
71 - 75	1	0	1	1,658	1,658
TOTAL	108	22	130	21,546	2,800,931

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	199	8,737
100	-	499	319	82,630
500	-	999	148	105,282
1000	-	1999	129	188,029
2000	-	4999	127	418,295
5000	-	9999	100	720,720
10000	-	19999	122	1,749,310
20000	-	99999	32	813,290
		TOTAL	1,176	4,086,293

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	4	0	4	21,512	86,046
46 - 50	45	8	53	42,095	2,231,055
51 - 55	253	54	307	41,529	12,749,416
56 - 60	507	78	585	35,059	20,509,420
61 - 65	642	69	711	30,606	21,760,635
66 - 70	537	59	596	24,809	14,785,944
71 - 75	283	23	306	24,499	7,496,611
76 - 80	180	10	190	21,718	4,126,497
81 - 85	97	6	103	20,617	2,123,548
86 - 90	48	6	54	18,822	1,016,378
91 - 99	8	2	10	14,819	148,193
TOTAL	2,604	315	2,919	29,816	87,033,743

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	4	1	5	19,509	97,544
36 - 40	7	6	13	16,472	214,136
41 - 45	20	6	26	17,188	446,888
46 - 50	19	14	33	18,772	619,462
51 - 55	35	7	42	15,094	633,968
56 - 60	39	11	50	16,216	810,796
61 - 65	46	10	56	15,544	870,456
66 - 70	24	3	27	14,021	378,556
71 - 75	13	2	15	12,386	185,786
76 - 80	7	0	7	12,759	89,311
81 - 85	5	0	5	10,018	50,089
91 - 99	2	0	2	13,865	27,729
TOTAL	221	60	281	15,746	4,424,721

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	45	52	97	5,910	573,297
26 - 30	1	0	1	1,803	1,803
31 - 35	0	5	5	18,119	90,595
36 - 40	0	13	13	16,888	219,545
41 - 45	1	21	22	16,062	353,368
46 - 50	0	38	38	16,781	637,668
51 - 55	2	41	43	19,203	825,740
56 - 60	9	72	81	16,244	1,315,739
61 - 65	3	100	103	15,564	1,603,072
66 - 70	11	129	140	14,891	2,084,710
71 - 75	5	115	120	13,123	1,574,809
76 - 80	4	131	135	11,788	1,591,362
81 - 85	6	110	116	11,512	1,335,355
86 - 90	4	75	79	11,799	932,103
91 - 99	4	33	37	10,564	390,873
TOTAL	95	935	1,030	13,136	13,530,039

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	8	2										10
21 - 25	117	80	59	48	16	5						325
26 - 30	94	87	121	165	137	233	6					843
31 - 35	74	48	82	104	91	425	158	1				983
36 - 40	45	28	34	45	66	263	376	132	3			992
41 - 45	31	32	37	47	31	172	242	299	187	8		1,086
46 - 50	18	16	17	27	8	104	136	185	254	79	1	845
51 - 55	4	2	4	12	5	51	66	76	90	78	35	423
56 - 60	2		1	1		15	33	39	18	39	50	198
61 - 65						3	6	7	6	15	18	55
66 - 70								2	2	4	7	15
71 & Over								1	1		2	4
Totals	393	295	355	449	354	1271	1023	742	561	223	113	5779

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Average Salary
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	
0 - 20	26,312	25,725										26,195
21 - 25	31,528	32,664	37,073	39,945	38,805	37,792						34,512
26 - 30	29,995	32,569	40,005	40,690	42,632	44,012	42,858					39,810
31 - 35	33,850	31,123	37,979	40,683	40,158	45,358	49,634	43,877				42,891
36 - 40	31,929	32,822	38,268	38,795	40,703	45,102	51,828	53,417	63,068			47,055
41 - 45	31,054	36,517	35,566	42,239	39,723	44,742	48,895	55,928	60,452	76,451		50,489
46 - 50	32,313	38,181	41,550	37,744	34,664	42,314	49,446	54,177	60,830	72,687	45,913	53,943
51 - 55	30,301	39,194	37,564	33,538	34,540	41,442	45,205	51,353	61,535	67,371	68,067	54,611
56 - 60	37,385		25,164	47,122		44,171	42,719	51,170	53,874	62,114	70,186	56,144
61 - 65						51,195	29,777	40,574	52,248	53,774	68,098	53,857
66 - 70								43,673	37,637	60,932	74,871	62,029
71 & Over								19,977	57,993		64,364	51,674
Average	31,554	33,115	38,425	40,227	40,914	44,538	49,575	54,083	60,426	67,631	69,170	47,172

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								18				18
41 - 45						2	36					38
46 - 50	2		1		3	38						44
51 - 55	4	2	3	10	7							26
56 - 60					1							1
61 - 65												0
66 - 70												0
71 - 75	1											1
76 & Over												0
Totals	7	2	4	10	11	40	36	18	2	0	0	130

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									22,264			22,264
36 - 40								22,216				22,216
41 - 45						29,826	21,447					21,888
46 - 50	30,713		45,520		44,275	20,186						22,883
51 - 55	18,653	25,544	15,820	19,247	19,166							19,223
56 - 60					16,455							16,455
61 - 65												0
66 - 70												0
71 - 75	1,658											1,658
76 & Over												0
Average	19,671	25,544	23,245	19,247	25,767	20,668	21,447	22,216	22,264	0	0	21,546

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	16	17	10	4	3	7						57
51 - 55	56	63	35	36	29	84	4					307
56 - 60	37	65	30	52	50	273	68	10				585
61 - 65	25	28	23	30	28	236	234	95	8	3	1	711
66 - 70	3	7	4	6	6	77	184	236	25	13	35	596
71 - 75	2	2	1	1	3	17	21	86	98	15	60	306
76 - 80			2			4	5	23	36	43	77	190
81 - 85					1	2	3	5	10	14	68	103
86 - 90							1	1	3	9	40	54
91 & Over											10	10
Totals	139	182	105	129	120	700	520	456	180	97	291	2919

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	45,921	46,689	40,696	32,107	33,043	22,018						40,651
51 - 55	49,640	44,948	41,938	38,628	39,342	36,629	15,423					41,529
56 - 60	37,891	38,934	36,829	36,794	36,419	35,314	28,644	14,918				35,059
61 - 65	36,732	37,301	35,865	38,487	37,994	30,484	28,936	26,305	27,177	18,118	18,594	30,606
66 - 70	28,686	23,590	44,372	23,688	26,184	27,345	23,642	26,774	25,137	17,634	12,170	24,809
71 - 75	24,772	15,838	46,547	40,534	20,370	22,780	20,990	26,453	29,912	21,155	15,258	24,499
76 - 80			62,309			37,260	18,184	18,489	27,412	25,768	16,127	21,718
81 - 85					17,213	7,818	40,488	33,567	21,599	26,124	17,936	20,617
86 - 90							6,365	35,542	17,974	30,181	16,223	18,822
91 & Over											14,819	14,819
Average	42,953	40,645	39,554	36,974	36,335	32,462	26,520	26,031	27,967	24,189	15,872	29,816

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 - 30												0
31 - 35		2	2	1								5
36 - 40	1	4		1	2	3	2					13
41 - 45	2	4	1	1	3	7	8					26
46 - 50	2	4	4	1	1	8	7	4	2			33
51 - 55		1	1			12	15	7	5	1		42
56 - 60	1	6	4	1		7	7	12	8	4		50
61 - 65				1		6	9	12	19	5	4	56
66 - 70					1		2	3	7	3	11	27
71 - 75								3	4	3	5	15
76 - 80											7	7
81 - 85											5	5
86 - 90												0
91 & Over											2	2
Totals	6	21	12	6	7	43	50	41	45	16	34	281

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 - 30												0
31 - 35		11,886	16,713	40,345								19,509
36 - 40	16,500	18,225		14,013	12,682	21,195	10,888					16,472
41 - 45	25,362	17,474	16,230	27,726	23,161	16,864	11,848					17,188
46 - 50	20,969	21,820	32,416	33,517	39,862	16,499	11,113	9,919	18,869			18,772
51 - 55		31,885	20,038			19,920	14,246	11,642	8,302	6,320		15,094
56 - 60	15,496	18,679	21,124	13,441		18,497	19,391	14,773	12,161	11,378		16,216
61 - 65				11,676		17,510	15,417	17,380	15,978	10,768	12,248	15,544
66 - 70					13,160		14,220	11,202	15,648	13,352	13,978	14,021
71 - 75								8,933	10,164	15,989	14,073	12,386
76 - 80											12,759	12,759
81 - 85											10,018	10,018
86 - 90												0
91 & Over											13,865	13,865
Average	20,777	18,943	23,655	23,453	21,124	18,307	14,219	13,839	14,007	12,106	12,948	15,746

SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement: 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	4	6	9	2	13	22	8	11	2			77
21 - 25		1	1	1	1	6	4	6				20
26 - 30							1					1
31 - 35						3			1		1	5
36 - 40	2	1	1	1	3	1	2	1			1	13
41 - 45		2	1	1	2	6	4	3	1	1	1	22
46 - 50	1	1	2		1	6	7	13	5	2		38
51 - 55			2		3	10	6	13	4	3	2	43
56 - 60		2	1	1		12	15	21	12	10	7	81
61 - 65			2	1	1	12	25	24	12	7	19	103
66 - 70					1	6	15	36	30	12	40	140
71 - 75		1					5	13	20	17	64	120
76 - 80	2			1			5	6	12	20	89	135
81 - 85	1						1	1	7	19	87	116
86 - 90							1	1	1	10	66	79
91 & Over									1		36	37
Totals	10	14	19	8	25	84	99	149	108	101	413	1030

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	3,897	3,523	10,511	5,179	4,178	6,726	5,241	4,779	2,662			5,763
21 - 25			16,076	19,613		8,738	7,447	1,934				6,475
26 - 30							1,803					1,803
31 - 35						24,255			15,364		2,465	18,119
36 - 40	20,171	13,318	16,950	13,998	28,717	21,593	9,151	5,297			3,593	16,888
41 - 45		24,849	34,267	32,950	26,766	15,144	8,675	9,557	21,683	3,379	3,624	16,062
46 - 50	10,640	34,401	37,825		18,983	26,577	15,794	10,308	12,397	15,990		16,781
51 - 55			42,499		40,922	25,315	18,580	13,386	10,273	8,914	5,743	19,203
56 - 60		24,593	40,778	29,193		26,057	17,816	15,110	11,550	12,008	5,809	16,244
61 - 65			24,027	11,152	19,663	19,071	17,147	17,396	16,403	13,614	8,266	15,564
66 - 70					28,273	23,718	13,391	19,223	16,892	13,908	8,690	14,891
71 - 75		6,000					17,756	16,362	20,265	15,846	9,260	13,123
76 - 80	4,800			60,562			12,237	7,082	17,975	15,907	9,929	11,788
81 - 85	4,800						4,896	19,067	25,825	16,216	9,399	11,512
86 - 90							4,896	28,013	29,769	22,113	9,823	11,799
91 & Over									15,444		10,429	10,564
Average	8,097	12,410	21,651	22,228	15,348	17,644	14,193	14,331	16,987	15,457	9,405	13,136

EXHIBIT X
YEAR-TO-YEAR COMPARISON

	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009
Number of Active Contributing Members	5,779	5,933	6,197	6,071
Number of Retirees & Survivors	4,230	4,165	4,028	3,984
DROP Participants	284	231	194	185
Number Terminated Due Deferred Benefits	130	128	112	112
Number of Terminated Due Refund	1,176	1,251	1,198	1,197
Active Lives Payroll (excludes DROP participants)	$ 272,606,934	$ 273,348,634	$ 280,977,278	$ 270,236,561
Retiree Benefits in Payment	$ 104,998,503	$ 99,863,547	$ 93,382,980	$ 90,285,300
Market Value of Assets*	$1,406,662,003	$1,440,795,586	$1,175,083,706	$1,084,169,309
Ratio of Actuarial Value of Assets to Actuarial Accrued Liability	59.75%	58.05%	59.87%	65.23%
Actuarial Accrued Liability	$2,313,751,839	$2,215,674,343	$2,083,809,321	$1,988,394,358
Actuarial Value of Assets	$1,382,503,860	$1,286,287,651	$1,247,546,395	$1,297,128,398
UAL (Funding Excess)	$ 931,247,979	$ 929,386,692	$ 836,262,926	$ 691,265,960

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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%	7.50%	7.50%
Required Tax Contributions as a Percentage of Projected Payroll	5.75%	5.65%	5.36%	5.52%
Actuarially Required Employer Contribution as a Percentage of Projected Payroll (For employees with earnings above the poverty level)	31.03%	30.52%	27.84%	24.13%
Actual Employer Contribution Rate (For employees with earnings above the poverty level)	31.00%	26.50%	25.00%	11.00%

Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005	Fiscal 2004	Fiscal 2003
5,908	5,840	5,769	6,000	6,013	5,957
3,896	3,834	3,739	3,652	3,648	3,544
213	217	227	239	265	247
114	108	99	88	80	79
1,095	993	926	602	687	679
$ 252,562,020	$ 229,145,048	$ 223,213,661	$ 215,638,892	$ 208,756,800	$ 197,254,559
$ 85,848,060	$ 81,976,596	$ 77,538,204	$ 73,587,564	$ 69,061,812	$ 65,454,708
$1,476,652,461	$1,627,120,612	$1,420,792,356	$1,328,792,481	$1,226,382,950	$1,106,407,469
86.95%	89.05%	83.10%	79.47%	72.89%	73.93%
$1,841,234,995	$1,719,536,371	$1,651,055,550	$1,552,332,283	$1,561,739,325	$1,455,791,019
$1,600,941,810	$1,531,297,284	$1,371,981,645	$1,233,572,172	$1,138,387,070	$1,076,306,717
$ 240,293,185	$ 188,239,087	$ 279,073,905	$ 318,760,111	$ 423,352,255	$ 379,484,302

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Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005	Fiscal 2004
7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
5.85%	5.59%	5.66%	5.44%	5.60%	5.07%
10.98%	10.45%	13.70%	15.59%	20.73%	21.77%
9.5%	13.75%	15.50%	16.25%	21.50%	15.25%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Municipal Police Employees' Retirement System was established as of July 1, 1973, for the purpose of providing retirement allowances and other benefits as described under R.S. 11:2211 - 11:2235. The following summary of plan provisions is for general informational purposes only and does not constitute a guarantee of benefits. The provisions contained within this section are as of June 30, 2012. Changes effective January 1, 2013 are described in the section titled, Changes in Plan Provisions, under Act 522.

MEMBERSHIP - All full-time police officers empowered to make arrests, all full-time police officers decommissioned due to illness or injury, empowered by a municipality of the state of Louisiana, and engaged in law enforcement, all individuals in a position as defined in the municipal fire and police civil service system who are employed on a full-time basis by a police department of any municipality of this state, and are under the direction of a chief of police, and are paid from the budget of the applicable police department are required to become members of this retirement system, if they earn at least $375 per month excluding state supplemental pay. All elected chiefs of police, whose salary is at least $100 per month, all academy recruits who are participating in or awaiting participation in a formal training program, required prior to commission as a municipal police officer, with complete law enforcement office authority, all full-time secretaries to an appointed chief or elected chief of police, and all full-time employees of the system are required to become members of this retirement system. Persons must be under the age of fifty on their date of employment to be eligible for system membership. Certain restrictions to membership apply to those who are receiving disability or regular retirement benefits from another system.

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 RS 22:1476A(3). Employee contribution rates effective July 1, 2011 changed from a fixed rate of 7.5% to a rate which is at least 7.5% 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 7.5%. The employee rate then increases 0.25% for each 0.75% increase in the total rate, and an additional 0.25% when the rate exceeds 28.75%, subject to a maximum rate of 10%. The change does not apply to 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 (9.0%) 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 9.0%. Members are not required to contribute to the system once they have enough service to have accrued 100% of final average compensation, but the employer is required to continue to contribute the employer's contribution until the member retires or enters DROP.

CONTRIBUTION REFUNDS - Upon withdrawal from service, members not entitled to a retirement allowance may receive a refund of accumulated contributions. Refunds are payable thirty days after the effective date of withdrawal from service, if the member's employer has submitted all contributions.

AVERAGE FINAL COMPENSATION – The average annual earned compensation of an employee for the highest period of thirty-six successive or joined months of service as an employee.

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. 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.
Members with twenty or more years of creditable service who leave employment before age fifty may elect to receive early retirement benefits equal to an actuarially reduced accrued normal retirement benefit.

EARLY RETIREMENT – Members with twenty or more years of creditable service who leave employment before age fifty may elect to receive early retirement benefits equal to an actuarially reduced accrued normal retirement benefit.

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 ten years of creditable service and provided that the disability was incurred while the member was an active contributing member, is entitled to disability benefits. Disability retirees will receive a benefit equal to three percent of final average compensation multiplied by the number of years of service, subject to a minimum of 40% of final compensation and a maximum of 60% of final compensation. Any disability retiree who is in a coma or paraplegic, or who is blinded or loses the total use of a limb, solely as a result of injuries sustained in the line of duty will receive a benefit equal to 100% of final average compensation. Disability retirees who retired with a service-connected disability benefit have the option, at normal retirement age, to continue receiving a disability benefit or to convert to receiving their vested retirement benefit. All other disability retirees, at normal retirement age, will receive the greater of their disability retirement benefit or their vested benefit.

SURVIVOR BENEFITS – Benefits are payable to survivors of any active contributing member who dies before retirement, or disability retirees who die after retirement as follows. If he leaves a surviving spouse, she will receive an annual benefit equal to 3 1/3% 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. If the surviving spouse remarries, the benefits shall cease unless the remarriage occurs after age fifty-five. If the member dies as a result of injuries sustained in the line of duty, the surviving spouse receives a benefit equal to 100% of final average compensation, which shall not cease due to remarriage, less any benefits payable to surviving children. Unmarried 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 when combined with the surviving spouse's benefit) until reaching the age of eighteen, or until the age of twenty-three, assuming they remain unmarried, if enrolled full-time in an institution of higher learning, high school, or vocational-technical school, 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, subject to the same age restrictions as in the case of a surviving spouse with minor children. If a member dies after he is eligible for retirement but before actual retirement, his surviving spouse will be paid the greater of the surviving spouse benefits detailed above, or an automatic option 2 benefit. Members who have terminated employment with at least twelve years of service credit are eligible for the benefits detailed in this paragraph.

DEFERRED RETIREMENT OPTION PLAN - In lieu of terminating employment and accepting a service retirement allowance, any member of the system who is eligible to receive a regular 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. Such members may accumulate an additional benefit for service rendered after completion of the Deferred Retirement Option Plan. 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 – Pursuant to R.S. 11:2225, the board of trustees is authorized to use interest earnings in excess of the normal requirements to grant annual cost of living increases of 3% of each retiree's original or 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 $\$X \times (A+B)$ where X is at most $1 and "A" represents the number of years of credited service accrued at retirement or at death of the member or retiree, and "B" is equal to the number of years since retirement or since death of the member or retiree to June 30th of the initial year of such increase. The provisions of this subpart do not repeal provisions relative to cost of living adjustments contained within the individual laws governing systems; however, they are to be controlling in cases of conflict. 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 accrued liabilities 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 system's accrued liabilities.

R. S. 11:2225(A)(7)(c) and (d) provide that the board of trustees is authorized to provide a one-time cost of living adjustment of 3% of each retiree's normal monthly benefit from excess interest earnings without regard to the provisions of R.S. 11:242 (which describes the target ratio).

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 TRANSITION: For this valuation, the Actuarial Value of Assets was calculated by phasing in to the ultimate approach as given below from the prior method which smoothed unrealized capital gains of losses over a four year period at 25% per year. The deferral of capital gains for all years before fiscal 2011 was based on the prior method. The deferral of gains and losses for fiscal 2011 and later is based on the ultimate method.

ACTUARIAL ASSET VALUES ULTIMATE METHOD: 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 Sex Distinct Employee Tables set back 1 year for males and set back 1 year for females.
ANNUITANT AND BENEFICIARY MORTALITY:	RP 2000 Sex Distinct Healthy Annuitant Tables set back 1 year for males and set back 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:	The gross rates including inflation and merit increases are as follows:

Years of Service	Salary Growth Rate
1	10%
2	6%
3-19	4.3%
20-29	5.5%
Above 30	4%

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:	These rates apply only to those individuals eligible to participate.

Age	Rate
54 & Under	22%
55	40%
56 – 66	22%
67 & Over	40%

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:

Age	Rate
49 & Under	25%
50-53	27%
54	30%
55	45%
56-59	25%
60-66	30%
67 & Above	99%

DISABILITY RATES: The table of these rates is included later in this report.

WITHDRAWAL RATES: The rates of withdrawal are applied based upon the attained age and are given later in the report. Those rates are multiplied by the following factors based on the member's completed years of service.

Service	Factor
<1	1.25
1	1.20
2	1.15
3	1.10
>3	1.00

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 are listed below.

Member's Age	% With Children	Number of Children	Average Age
25	80%	1.16	3
35	80%	1.71	7
45	80%	1.38	12
55	80%	0.83	16
65	80%	0.28	18

DISABLED LIVES MORTALITY:	RP-2000 Disabled Lives Mortality Tables for Males and Females
VESTING ELECTING PERCENTAGE:	20% of those vested elect deferred benefits in lieu of contribution refunds.

ACTUARIAL TABLES AND RATES

Age	Male Employee Mortality	Female Employee Mortality	Male Retiree Mortality	Female Retiree Mortality	Retirement Rates	Disability Rates	Remarriage Rates	Withdrawal Rates
18	0.00030	0.00018	0.00030	0.00018	0.00000	0.00060	0.00000	0.085
19	0.00032	0.00019	0.00032	0.00019	0.00000	0.00060	0.09349	0.085
20	0.00033	0.00019	0.00033	0.00019	0.00000	0.00060	0.09350	0.085
21	0.00035	0.00019	0.00035	0.00019	0.00000	0.00060	0.09152	0.085
22	0.00036	0.00019	0.00036	0.00019	0.00000	0.00060	0.08954	0.085
23	0.00037	0.00019	0.00037	0.00019	0.00000	0.00060	0.08757	0.085
24	0.00037	0.00020	0.00037	0.00020	0.00000	0.00060	0.08569	0.080
25	0.00038	0.00020	0.00038	0.00020	0.00000	0.00060	0.08402	0.080
26	0.00038	0.00021	0.00038	0.00021	0.00000	0.00060	0.08225	0.080
27	0.00038	0.00021	0.00038	0.00021	0.00000	0.00060	0.08028	0.070
28	0.00038	0.00022	0.00038	0.00022	0.00000	0.00060	0.07802	0.070
29	0.00039	0.00024	0.00039	0.00024	0.00000	0.00060	0.07556	0.070
30	0.00041	0.00025	0.00041	0.00025	0.00000	0.00060	0.07281	0.070
31	0.00044	0.00026	0.00044	0.00026	0.00000	0.00060	0.06976	0.060
32	0.00050	0.00031	0.00050	0.00031	0.00000	0.00060	0.06652	0.060
33	0.00056	0.00035	0.00056	0.00035	0.00000	0.00060	0.06308	0.060
34	0.00063	0.00039	0.00063	0.00039	0.00000	0.00060	0.05945	0.060
35	0.00070	0.00044	0.00070	0.00044	0.00000	0.00068	0.05582	0.060
36	0.00077	0.00047	0.00077	0.00047	0.00000	0.00076	0.05230	0.050
37	0.00084	0.00051	0.00084	0.00051	0.00000	0.00084	0.04890	0.050
38	0.00090	0.00055	0.00090	0.00055	0.00000	0.00096	0.04570	0.050
39	0.00096	0.00060	0.00096	0.00060	0.00000	0.00108	0.04271	0.036
40	0.00102	0.00065	0.00102	0.00065	0.00000	0.00124	0.03993	0.036
41	0.00108	0.00071	0.00108	0.00071	0.00000	0.00140	0.03769	0.036
42	0.00114	0.00077	0.00114	0.00077	0.00000	0.00156	0.03480	0.036
43	0.00122	0.00085	0.00122	0.00085	0.00000	0.00176	0.03256	0.036
44	0.00130	0.00094	0.00130	0.00094	0.00000	0.00200	0.03037	0.036
45	0.00140	0.00103	0.00140	0.00103	0.00000	0.00228	0.02822	0.036
46	0.00151	0.00112	0.00151	0.00112	0.00000	0.00260	0.02632	0.036
47	0.00162	0.00122	0.00162	0.00122	0.08000	0.00292	0.02455	0.040
48	0.00173	0.00133	0.00173	0.00133	0.08000	0.00332	0.02303	0.040
49	0.00186	0.00143	0.00186	0.00143	0.08000	0.00376	0.02154	0.040
50	0.00200	0.00155	0.00200	0.00155	0.08000	0.00428	0.02019	0.050
51	0.00214	0.00168	0.00535	0.00234	0.08000	0.00488	0.01889	0.050
52	0.00229	0.00181	0.00553	0.00246	0.08000	0.00552	0.01808	0.050
53	0.00245	0.00197	0.00564	0.00265	0.08000	0.00628	0.01733	0.050
54	0.00262	0.00213	0.00572	0.00290	0.08000	0.00712	0.01671	0.050
55	0.00281	0.00232	0.00580	0.00319	0.15000	0.00808	0.01622	0.050
56	0.00303	0.00253	0.00590	0.00353	0.08000	0.00920	0.01596	0.050
57	0.00331	0.00276	0.00612	0.00393	0.08000	0.01044	0.01584	0.050
58	0.00363	0.00301	0.00644	0.00438	0.08000	0.01184	0.01589	0.050
59	0.00400	0.00329	0.00690	0.00492	0.08000	0.01348	0.01622	0.050
60	0.00441	0.00360	0.00749	0.00553	0.08000	0.01952	0.01682	0.050
61	0.00488	0.00393	0.00820	0.00620	0.08000	0.01952	0.01764	0.050
62	0.00538	0.00429	0.00900	0.00692	0.08000	0.01952	0.01906	0.050
63	0.00592	0.00466	0.00991	0.00769	0.08000	0.01952	0.02061	0.050
64	0.00647	0.00504	0.01095	0.00851	0.08000	0.01952	0.02239	0.000
65	0.00703	0.00543	0.01212	0.00939	0.08000	0.01952	0.02446	0.050

PRIOR YEAR ASSUMPTIONS

DROP ENTRY RATES: These rates apply only to those individuals eligible to participate. These rates are determined by the age a member enters the system.

Entry Age	Rate
30 & Under	4.5%
31	7%
32-33	5%
34	6.5%
35-44	2.5%
45-46	8%
47	6%
48 & Above	4%

ANNUAL SALARY INCREASE RATE: The gross rates including inflation and merit increases are as follows:

Years of Service	Salary Growth Rate
1	10%
2	6%
3-4	3.5%
5-8	4.4%
9-10	5%
11-18	4.2%
19-20	5%
21	6%
22-25	5.5%
26	6%
27-30	5%
Above 30	4%

PRIOR YEAR - ACTUARIAL TABLES AND RATES

Age	Male Employee Mortality	Female Employee Mortality	Male Retiree Mortality	Female Retiree Mortality	Retirement Rates	Disability Rates	Remarriage Rates	Withdrawal Rates
18	0.00030	0.00018	0.00030	0.00018	0.00000	0.00010	0.00000	0.085
19	0.00032	0.00019	0.00032	0.00019	0.00000	0.00010	0.09349	0.085
20	0.00033	0.00019	0.00033	0.00019	0.00000	0.00010	0.09350	0.085
21	0.00035	0.00019	0.00035	0.00019	0.00000	0.00010	0.09152	0.085
22	0.00036	0.00019	0.00036	0.00019	0.00000	0.00010	0.08954	0.085
23	0.00037	0.00019	0.00037	0.00019	0.00000	0.00010	0.08757	0.085
24	0.00037	0.00020	0.00037	0.00020	0.00000	0.00010	0.08569	0.080
25	0.00038	0.00020	0.00038	0.00020	0.00000	0.00100	0.08402	0.080
26	0.00038	0.00021	0.00038	0.00021	0.00000	0.00100	0.08225	0.080
27	0.00038	0.00021	0.00038	0.00021	0.00000	0.00100	0.08028	0.070
28	0.00038	0.00022	0.00038	0.00022	0.00000	0.00100	0.07802	0.070
29	0.00039	0.00024	0.00039	0.00024	0.00000	0.00100	0.07556	0.070
30	0.00041	0.00025	0.00041	0.00025	0.00000	0.00200	0.07281	0.070
31	0.00044	0.00026	0.00044	0.00026	0.00000	0.00200	0.06976	0.060
32	0.00050	0.00031	0.00050	0.00031	0.00000	0.00200	0.06652	0.060
33	0.00056	0.00035	0.00056	0.00035	0.00000	0.00200	0.06308	0.060
34	0.00063	0.00039	0.00063	0.00039	0.00000	0.00200	0.05945	0.060
35	0.00070	0.00044	0.00070	0.00044	0.00000	0.00200	0.05582	0.060
36	0.00077	0.00047	0.00077	0.00047	0.00000	0.00200	0.05230	0.050
37	0.00084	0.00051	0.00084	0.00051	0.00000	0.00200	0.04890	0.050
38	0.00090	0.00055	0.00090	0.00055	0.00000	0.00300	0.04570	0.050
39	0.00096	0.00060	0.00096	0.00060	0.00000	0.00300	0.04271	0.036
40	0.00102	0.00065	0.00102	0.00065	0.00000	0.00300	0.03993	0.036
41	0.00108	0.00071	0.00108	0.00071	0.00000	0.00300	0.03769	0.036
42	0.00114	0.00077	0.00114	0.00077	0.00000	0.00300	0.03480	0.036
43	0.00122	0.00085	0.00122	0.00085	0.00000	0.00300	0.03256	0.036
44	0.00130	0.00094	0.00130	0.00094	0.00000	0.00300	0.03037	0.036
45	0.00140	0.00103	0.00140	0.00103	0.00000	0.00300	0.02822	0.036
46	0.00151	0.00112	0.00151	0.00112	0.00000	0.00300	0.02632	0.036
47	0.00162	0.00122	0.00162	0.00122	0.20500	0.00100	0.02455	0.040
48	0.00173	0.00133	0.00173	0.00133	0.20500	0.00100	0.02303	0.040
49	0.00186	0.00143	0.00186	0.00143	0.20500	0.00100	0.02154	0.040
50	0.00200	0.00155	0.00200	0.00155	0.22500	0.00350	0.02019	0.050
51	0.00214	0.00168	0.00535	0.00234	0.20000	0.00500	0.01889	0.050
52	0.00229	0.00181	0.00553	0.00246	0.22000	0.00500	0.01808	0.050
53	0.00245	0.00197	0.00564	0.00265	0.22000	0.00250	0.01733	0.050
54	0.00262	0.00213	0.00572	0.00290	0.23500	0.00250	0.01671	0.050
55	0.00281	0.00232	0.00580	0.00319	0.42500	0.00250	0.01622	0.050
56	0.00303	0.00253	0.00590	0.00353	0.22500	0.00250	0.01596	0.050
57	0.00331	0.00276	0.00612	0.00393	0.17000	0.00250	0.01584	0.050
58	0.00363	0.00301	0.00644	0.00438	0.17000	0.00100	0.01589	0.050
59	0.00400	0.00329	0.00690	0.00492	0.19000	0.00100	0.01622	0.050
60	0.00441	0.00360	0.00749	0.00553	0.26000	0.00100	0.01682	0.050
61	0.00488	0.00393	0.00820	0.00620	0.26000	0.00100	0.01764	0.050
62	0.00538	0.00429	0.00900	0.00692	0.26000	0.00100	0.01906	0.050
63	0.00592	0.00466	0.00991	0.00769	0.26000	0.00100	0.02061	0.050
64	0.00647	0.00504	0.01095	0.00851	0.26000	0.00100	0.02239	0.000
65	0.00703	0.00543	0.01212	0.00939	0.26000	0.00000	0.02446	0.050

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.

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: