MUNICIPAL POLICE EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2014

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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November 18, 2014

Board of Trustees
Municipal Police Employees' Retirement System
7722 Office Park Boulevard, Suite 200
Baton Rouge, Louisiana 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, 2014. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrators and accountants. This report was prepared at the request of the Board of Trustees of 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, 2015 and to recommend the net direct employer contribution rate for fiscal 2016. This report was prepared exclusively for 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.

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

Sincerely,

G. S. CURRAN & COMPANY, LTD.

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

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

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SUMMARY OF VALUATION RESULTS
MUNICIPAL POLICE EMPLOYEES' RETIREMENT SYSTEM

Valuation Date:		June 30, 2014	June 30, 2013
Census Summary:	Active Members (excluding DROP)	5,468	5,602
	Retired Members and Survivors	4,444	4,340
	DROP Participants	271	314
	Terminated Due a Deferred Benefit	159	145
	Terminated Due a Refund	1,272	1,252
Payroll (excluding DROP participants):		$ 259,594,435	$ 264,711,491
Benefits in Payment (excluding DROP accruals):		$ 118,522,277 *	$ 110,735,234
Unfunded Actuarial Accrued Liability:		$ 801,359,380	$ 860,157,735
Actuarial Asset Value (AVA):		$ 1,711,268,285	$ 1,539,218,085
Market Value of Assets (MVA):		$ 1,887,019,463	$ 1,600,532,779
Actuarial Accrued Liability:		$ 2,512,627,665	$ 2,399,375,820
Ratio of MVA to Actuarial Accrued Liabilities:		75.10%	66.71%

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	FISCAL 2015	FISCAL 2014
Employers' Normal Cost (July 1):	$ 43,010,879	$ 44,231,463
Amortization Cost (July 1):	$ 73,122,882	$ 78,078,232
Interest Adjusted Actuarially Required Contributions Including Estimated Administrative Costs:	$ 121,848,176	$ 128,119,166
Expected Insurance Premium Taxes	$ 17,704,000	$ 16,628,926
Net Direct Combined Actuarially Required Contributions	$ 104,144,176	$ 111,490,240
Actuarially Required Net Direct Combined Contribution Rate:	39.80%	41.53%
Actual Net Direct Combined Contribution Rate:	41.50%	41.00%

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Minimum Recommended Net Direct Employer Cont. Rate **:**

For Employees with Earnings Above Poverty Level -	**Fiscal 2016:**	29.50%	**Fiscal 2015:**	31.50%
For Employees with Earnings Below Poverty Level-	**Fiscal 2016:**	32.00%	**Fiscal 2015:**	34.00%
For Employees in the Non-Hazardous Subplan -	**Fiscal 2016**:	31.50%	**Fiscal 2015**:	33.50%

Employee Contribution Rate: 7.50% of payroll below poverty level/10.00% above poverty level/8.00% Non-Hazardous

Actuarial Cost Method: Individual Entry Age Normal with allocation of cost based on earnings.

Valuation Interest Rate: 7.50% (Net of Investment Expense)

Census Exclusions: 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 in valuation model

Method of Recognizing Gains and Losses: All bases and gains and losses through June 30, 2014 are amortized over 20 years; effective with fiscal 2015, gains and losses will be amortized over 15 years.

* Additional benefits payable as a result of the COLA granted effective November 1, 2014 not included.

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 IX, there are 5,468 active contributing members in the system of whom 2,516 have vested retirement benefits; in addition, there are 271 participants in the Deferred Retirement Option Plan (DROP); 4,444 former members or their beneficiaries are receiving retirement benefits. An additional 1,431 terminated members have contributions remaining on deposit with the system; of this number 159 have vested rights for future retirement benefits. All individuals submitted were included in the valuation. Cost of living benefits approved by the Board of Trustees prior to the completion of this valuation were not included in the data used in this valuation. The retiree liabilities were adjusted to include the expected present value of the cost of living adjustment.

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. For this valuation, the number of such records with imputed data is de minimis.

Issues with salary and service were discovered during the system's auditor's review of census data, due in part to leave without pay not properly reported to the retirement system by the City of New Orleans. Such information is being reviewed with the employer and data records are being adjusted by the system's staff. No change was made to the fiscal 2014 actuarial valuation data related to this issue since it was determined that these issues would not have a material impact on the valuation results. Staff expects the issue to be resolved by the submission of the 2015 actuarial valuation data.

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 system's assets was $1,887,019,463 as of June 30, 2014. Net investment income for fiscal 2014 measured on a market value was $296,633,966. Contributions to the system for the fiscal year totaled $126,555,754; benefits and expenses amounted to $136,703,036.

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. Act 402 of 2014 was introduced to improve the long-term health of the system and to reduce the likelihood for intergenerational cost shifting due to long amortization periods. The act changed the amortization period for all the existing outstanding unfunded liability bases from various periods ranging from one to thirty years to twenty years. The act also sets the period to amortize all future actuarial gains and losses as well as changes in assumptions and benefits at fifteen years.

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. For the fiscal 2013 valuation, DROP entry and retirement rates were extended to lower eligible ages. Also, changes were made to several variables related to family statistics and several technical program improvements. In addition, a technical change in the software model was made in fiscal 2014. The net effect of this change was a decrease in the actuarial accrued liability of $225,724 with a corresponding interest adjusted amortization credit of $21,355, or 0.01% 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.

In determining the valuation interest rate, consideration was given to several factors. First, consensus estimates of rates of return, standard deviations, and correlation coefficients for asset classes derived from various asset consulting firms were developed. These factors were used to derive forward estimates of the Fund's portfolio earnings rate. Consideration was also given to the 2014 report of New England Pension Consultants on future expected rates of return for the current portfolio asset allocation. This report projected future long-term arithmetic average portfolio nominal returns to be 8.0%. Given recognition to the expected variance in returns it was determined the 7.5% rate of return assumption utilized for the fiscal 2013 valuation was still a reasonable estimate of future returns for the system. The salary increase rate for the report was based on forward estimates of future increases in pay resulting from three sources; inflation, merit, and productivity. An inflation rate of 3.00% was implicit in both the assumed rate of return and rate of salary increases.

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

The current year actuarial assumptions utilized for the report are outlined on pages thirty-seven through forty-one. With the exception of a modification in the software model of plan design, all assumptions were the same as those used in the fiscal 2013 valuation. All assumptions used are based on estimates of future long-term experience for the fund. All calculations, recommendations, and conclusions are based on the assumptions specified. To the extent that prospective experience differs from that assumed, adjustments will be required to contribution levels. Such differences will be revealed in future actuarial valuations.

CHANGES IN PLAN PROVISIONS

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

Act 402 changes the amortization period for all the existing outstanding unfunded liability bases from various periods ranging from one to thirty years to twenty years. The act also sets the period to amortize all future actuarial gains and losses as well as changes in assumptions and benefits at fifteen years.

ASSET EXPERIENCE

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

	Market Value	Actuarial Value
2005	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%	
2013	13.7%	11.2%	
2014	18.6%	11.9%	

* 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 2014, the fund earned $37,952,363 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital gains on investments of $267,050,468. This income was offset by investment expenses of $8,368,865. The geometric mean of the market value rate of return measured over the last ten years was 5.9%.

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 2014, this rate adjusted for elimination of the effect of merger payments was 11.9%. DROP accounts should be credited with 11.4% (i.e. 11.9% less 0.5%). The actuarial rate of return 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 2014, the system experienced net actuarial investment earnings of $67,129,770 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 $6,351,047 or 2.43% of projected payroll.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

The average active contributing member is 40 years old with 11.12 years of service credit and an annual salary of $47,475. The system's active contributing membership experienced a decrease of 134 members during fiscal 2014. The number of DROP participants decreased by 43. Over the last five years active membership has decreased by 603 members.

The average service retiree is 65 years old with a monthly benefit of $2,665. The number of retirees and beneficiaries receiving benefits from the system increased by 104 during the fiscal year. Over the last five years, the number of retirees increased by 460 with annual benefits in payment increasing by $28,236,977.

Liability experience for the year was favorable. The number of retirements, disabilities, and DROP entries was below projected levels. Salary increases were also below expected levels. Withdrawals and deaths were above projected levels. These factors tend to reduce costs. Net plan liability experience gains totaled $14,670,717. The interest adjusted amortization credit on this gain was $1,387,975, or 0.53% 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.

An explanation of the change in costs related to asset and liability gains and losses as well as changes in demographics and assumptions is given in prior sections of the report. In addition to these components, variances in contribution levels and payroll also affect costs. For fiscal 2014 contributions totaled $3,720,140 less than required; the interest-adjusted amortization payment on the contribution shortfall for fiscal 2015 is $351,957, or 0.13% of projected payroll.

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

	Dollars	Percentage of Payroll
Normal Cost for Fiscal 2014	$ 45,860,157	17.08%
Cost of Demographic and Salary Changes	$ (1,265,529)	(0.04%)
Normal Cost for Fiscal 2015	$ 44,594,628	17.04%
UAL Payments for Fiscal 2014	$ 80,953,234	30.15%
Change due to change in payroll	N/A	0.79%
Change due to elimination of Amortization	$ 4,889,056	1.87%
Change due to reamortization	$ (6,301,560)	(2.41%)
Additional Amortization Expenses for Fiscal 2015:		
Asset Experience Loss (Gain)	$ (6,351,047)	(2.43%)
Assumption Loss (Gain)	$ (21,355)	(0.01%)
COLA Loss (Gain)	$ 3,683,108	1.41%
Contribution Loss (Gain)	$ 351,957	0.14%
Liability Loss (Gain)	$ (1,387,975)	(0.53%)
Net Amortization Expense (Credit) for Fiscal 2015	$ (3,725,312)	(1.42%)
Estimated Administrative Cost for Fiscal 2015	$ 1,438,130	0.55%
Total Normal Cost & Amortization Payments	$ 121,848,176	46.57%

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for fiscal 2015 as of July 1, 2015 is $43,010,879. The amortization payments on the system's unfunded actuarial accrued liability as of July 1, 2015 total $73,122,882. The total actuarially required contribution is determined by adjusting the sum of these two values for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given in line 11 of Exhibit I the total actuarially required contribution for fiscal 2015 is $121,848,176. We estimate insurance premium taxes of $17,704,000, or 6.77% of payroll, will be paid to the system in fiscal 2015. This level of Insurance Premium Taxes represents a 0.58% increase over the prior year as a percentage of payroll. Therefore, the amount of Insurance Premium Taxes helped to further reduce costs. Hence, the total actuarially required net direct combined contribution (consisting of employee contributions and the net direct employer contribution) for fiscal 2015 amounts to $104,144,176 or 39.80% of payroll.

Since the actual net direct combined contribution rate for fiscal 2015 is 41.50% of payroll, there will be a contribution surplus of 1.70% of payroll. This surplus will reduce the actuarially required contribution by 0.18% for fiscal 2016. 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 39.50% for fiscal 2016. 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 29.50% of payroll. 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 32.00% of payroll. The employee contribution rate for members of the Nonhazardous Subplan is 8.00%; hence the employer contribution rate for this group for fiscal 2016 is 31.50%.

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, demographics, and amortization periods 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 0.62% for the fund. We have also determined that a 1% reduction in the valuation interest rate for the Fund would increase the actuarially required contribution rate for fiscal 2015 by 12.20% of payroll.

In addition to calculating the actuarially required contribution to the fund, we have also calculated the ratio of the system's assets to liabilities. When the market value of assets is divided by the entry age normal accrued liability for the fund the result is 75.10% as of June 30, 2014. This value in isolation does not give a measure of the ability of the fund to pay benefits in the future or indicate that future contributions are likely to be greater or less than current contributions. In addition, the ratio cannot be used to compare the relative strength of different retirement systems. However, the trend of this ratio over time can give some insight into the financial health of the plan. Even in this regard caution is warranted since market fluctuations in asset values and changes in plan assumptions can distort the underlying trends in this value.

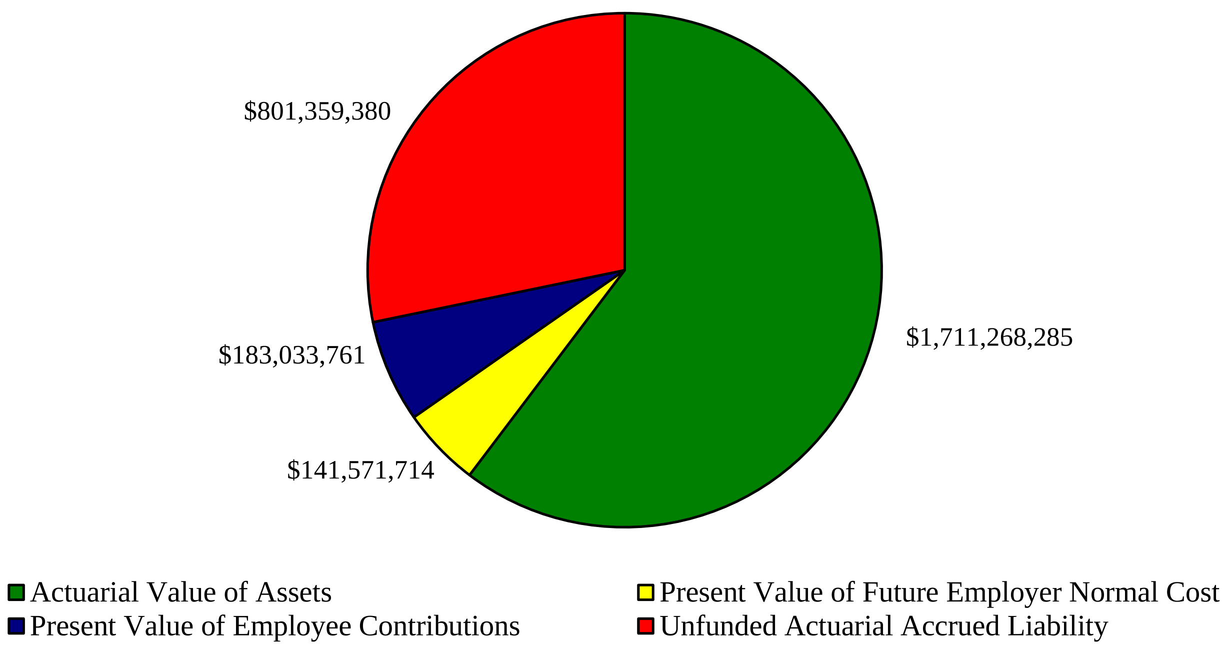
COST OF LIVING INCREASES

During fiscal 2014, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 2.07%. Cost of living provisions for the system are detailed in R.S. 11:2225(A)(7)(b), R.S. 11:246, and R.S. 11:241. R.S. 11:2225(A)(7)(b) 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. 11:246 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's investments produce sufficient excess interest earnings to fund the increases. R.S. 11:243 sets forth the funding criteria necessary in order to grant cost of living adjustments to regular retirees and beneficiaries (who are neither the surviving spouse nor children of the retiree.) The criteria for the fund to qualify as eligible to grant any such increase is as follows: a funded ratio of at least 70% if the system has not granted a benefit increase to retirees, survivors, or beneficiaries in any of the three most recent fiscal years; a funded ratio of at least 80% if the system has not granted such an increase in any of the two most recent fiscal years; or a funded ratio of at least 90% if the system has not granted such an increase in the most recent fiscal year. The funded ratio at any fiscal year end is the ratio of the actuarial value of assets to the actuarial accrued liability under the funding method prescribed by the legislative auditor (currently the Entry Age Normal Method for this system.)

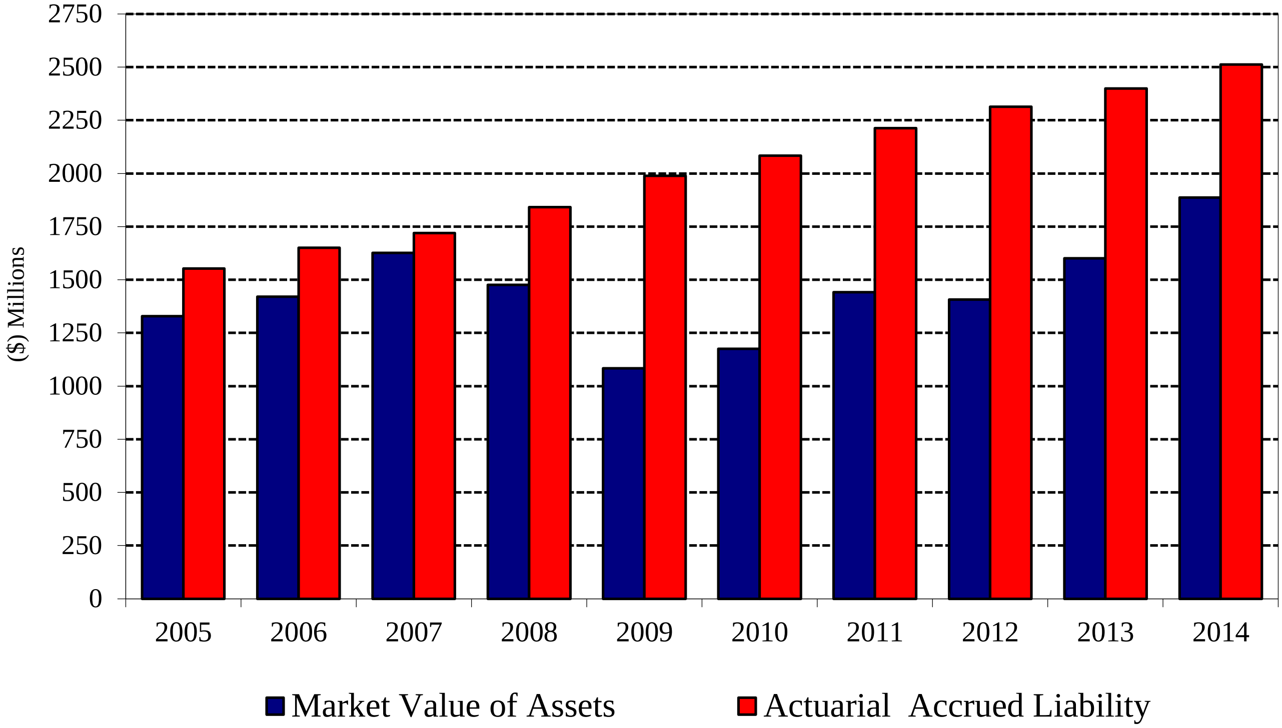
Since the Board of Trustees elected to grant a cost of living increase during 2014, the system is not authorized to grant a cost of living increase based upon this valuation. Based on the fiscal 2013 valuation, the Board of Trustees voted to grant a cost of living increase pursuant to R. S. 11:2225(A)(7)(c) and (d). The present value of this cost of living increase was estimated at $38,924,984. This was included in the present value of future benefits and actuarial accrued liability as stated in this report.

Components of Present Value of Future Benefits
June 30, 2014

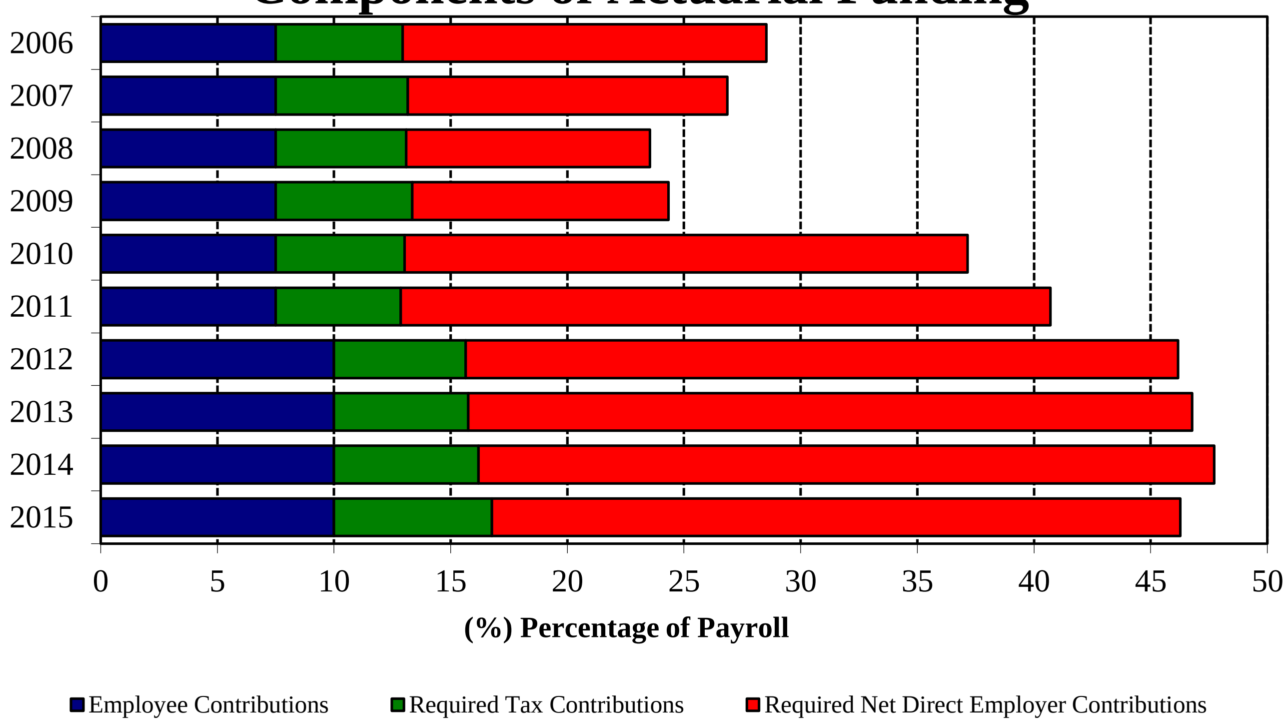


Unfunded Accrued Liability

Market Value of Assets vs. Actuarial Accrued Liability

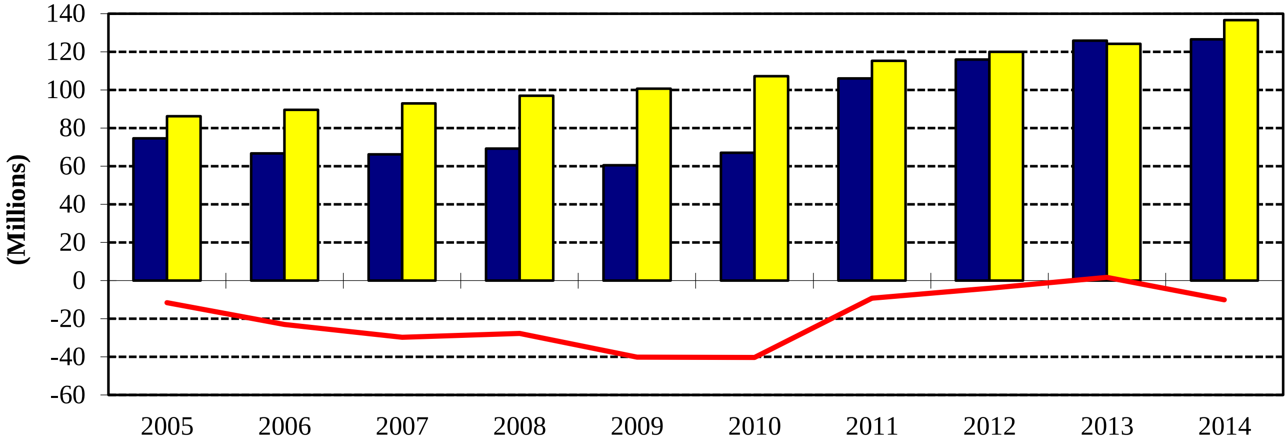


Components of Actuarial Funding



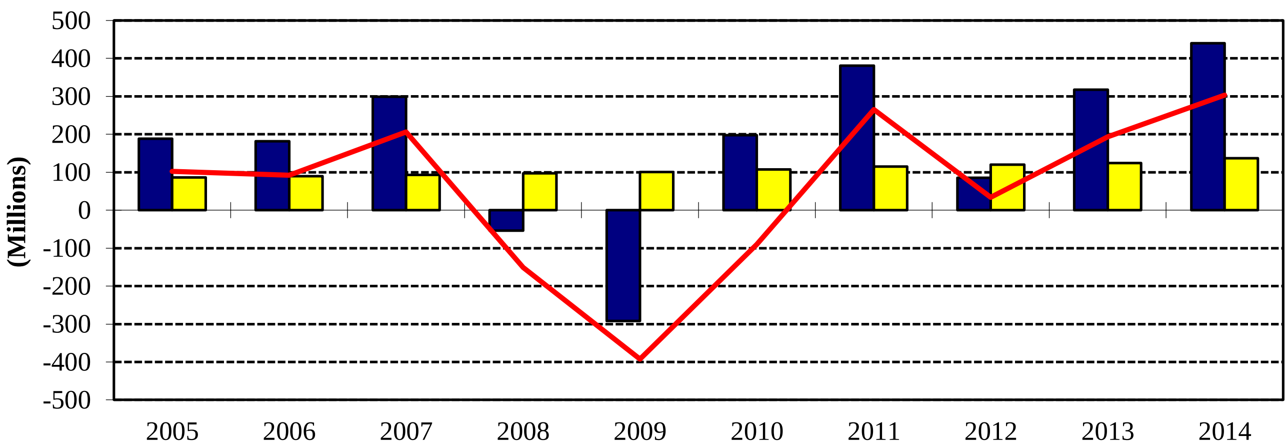
(2012 and later employee contribution level is based on members with earnings above the poverty level)

Net Non-Investment Income



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Non-Investment Income ($Mil)	74.6	66.7	66.3	69.3	60.6	67.0	106.1	116.0	125.9	126.6
Benefits and Expenses ($Mil)	86.2	89.6	92.9	96.9	100.7	107.2	115.3	120.0	124.2	136.7
Net Non-Investment Income ($Mil)	-11.6	-22.9	-29.6	-27.6	-40.1	-40.2	-9.2	-4.0	1.7	-10.1

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



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Income ($Mil)	188.6	181.6	299.2	-53.6	-291.8	198.1	381.0	85.9	318.0	439.9
Benefits and Expenses ($Mil)	86.2	89.6	92.9	96.9	100.7	107.2	115.3	120.0	124.2	136.7
Net Change in MVA ($Mil)	102.4	92.0	206.3	-150.5	-392.5	90.9	265.7	34.1	193.8	303.2

Historical Asset Yields

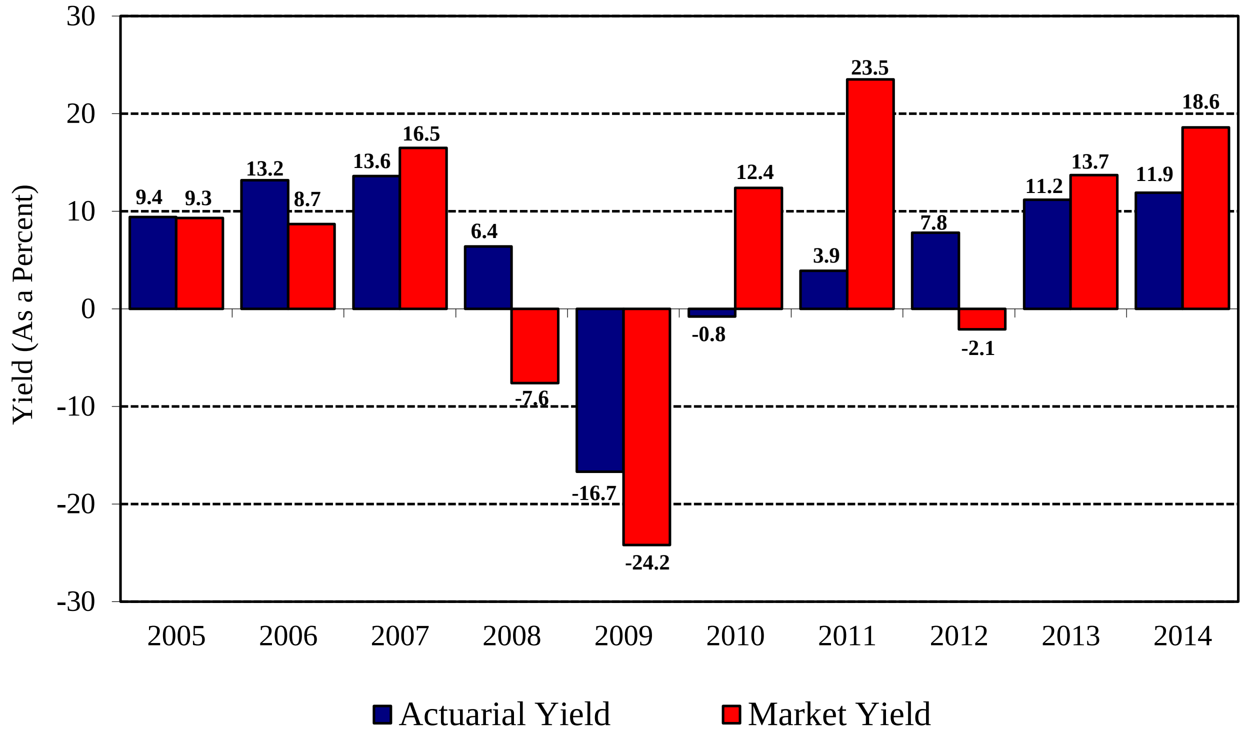


EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Normal Cost of Retirement Benefits	$	32,233,824
2.	Normal Cost of Death Benefits	$	1,431,149
3.	Normal Cost of Disability Benefits	$	2,204,853
4.	Normal Cost of Deferred Retirement Benefits	$	1,424,192
5.	Normal Cost of Contribution Refunds	$	5,716,861
6.	TOTAL Normal Cost as of July 1, 2014 (1+2+3+4+5)	$	43,010,879
7.	Amortization of Unfunded Accrued Liability of $801,359,380	$	73,122,882
8.	TOTAL Normal Cost & Amortization Payments (6+7)		116,133,761
9.	Normal Cost and Amortization Payments Interest Adjusted for Midyear Payment	$	120,410,046
10.	Estimated Administrative Cost for Fiscal 2015	$	1,438,130
11.	TOTAL Administrative and Interest Adjusted Actuarial Costs (9+10)	$	121,848,176
12.	Expected Insurance Premium Taxes due in Fiscal 2015	$	17,704,000
13.	Net Direct Combined Actuarially Req'd Contributions for Fiscal 2015 (11-12)	$	104,144,176
14.	Projected Payroll For Contributing Members July 1, 2014 through June 30, 2015	$	261,650,924
15.	Net Direct Combined Actuarially Required Contributions as a % of Projected Payroll for Fiscal 2015 (13 ÷ 14)	$	39.80%
16.	Actual Net Direct Combined Contribution Rate for Fiscal 2015	$	41.50%
17.	Contribution Gain (Loss) as a Percentage of Payroll (16 – 15)	$	1.70%
18.	Adjustment to Following Year Payment for Contribution Gain (Loss)	$	0.18%
19.	Recommended Net Direct Combined Contribution Rate for Fiscal 2016 (15 – 18) (Rounded to nearest 0.25%)	$	39.50%
20.	Recommended Net Direct Employee Contribution Rate (for members with earnings more than the Department of HHS poverty guidelines)		10.00%
21.	Recommended Net Direct Employer Contribution Rate (for members with earnings more than the Department of HHS poverty guidelines)		29.50%
22.	Recommended Net Direct Employee Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)		7.50%
23.	Recommended Net Direct Employer Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)		32.00%
24	Recommended Net Direct Employee Contribution Rate (Non-Hazardous Subplan)		8.00%
25.	Recommended Net Direct Employer Contribution Rate (Non-Hazardous Subplan)		31.50%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 1,333,514,627	
Survivor Benefits	19,017,224	
Disability Benefits	42,398,452	
Vested Termination Benefits	28,672,667	
Refunds of Contributions	54,712,490	
TOTAL Present Value of Future Benefits for Active Members		$ 1,478,315,460

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 25,450,455	
Terminated Members with Reciprocals Due Benefits at Retirement	0	
Terminated Members Due a Refund	5,754,407	
TOTAL Present Value of Future Benefits for Terminated Members		$ 31,204,862

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees	$ 1,049,949,895	
Disability Retirees	47,216,944	
Survivors & Widows	121,297,118	
DROP Account Balances Payable to Retirees	69,476,162	
IBO Retirees' Account Balance	842,715	
Additional Liability for Cost of Living Increase Previously Granted	38,929,984	
TOTAL Present Value of Future Benefits for Retirees & Survivors		$ 1,327,712,818

TOTAL Present Value of Future Benefits	$ 2,837,233,140

EXHIBIT III – SCHEDULE A
MARKET VALUE OF ASSETS

CURRENT ASSETS:			
Cash in Banks	$ 34,567,283		
Contributions and Taxes Receivable	9,498,832		
Accrued Interest and Dividends	3,468,197		
Investments Receivable	858,710		
Receivable on Currency Contracts	8,219		
TOTAL CURRENT ASSETS		$	48,401,241
Property Plant & Equipment		$	2,160,394
INVESTMENTS:			
Cash Equivalents	$ 44,686,860		
Equities	1,096,569,011		
Fixed Income	320,737,930		
Real Estate	177,987,806		
Alternative Investments	123,402,294		
Tactical Allocation	78,180,751		
Collateral for Securities Lending	86,575,755		
Other Investments	370,950		
TOTAL INVESTMENTS		$	1,928,511,357
TOTAL ASSETS		$	1,979,072,992
CURRENT LIABILITIES:			
Accounts Payable	$ 684,483		
Refunds Payable	486,448		
Investments Payable	3,751,895		
Securities Lending Obligations	86,575,755		
Other Post-Employment Benefits	516,238		
Deferred Contributions	31,875		
Payable on Currency Contracts	6,835		
TOTAL CURRENT LIABILITIES		$	92,053,529
MARKET VALUE OF ASSETS		$	1,887,019,463

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2014	$	176,967,651
Fiscal year 2013		86,627,167
Fiscal year 2012		(138,057,227)
Fiscal year 2011		187,118,241
Fiscal year 2010		0
Total for five years	$	312,655,832

Deferral of excess (shortfall) of invested income:

Fiscal year 2014 (80%)	$	141,574,121
Fiscal year 2013 (60%)		51,976,300
Fiscal year 2012 (40%)		(55,222,891)
Fiscal year 2011 (20%)		37,423,648
Fiscal year 2010 (0%)		0
Total deferred for year	$	175,751,178

Market value of plan net assets, end of year	$	1,887,019,463
Preliminary actuarial value of plan assets, end of year	$	1,711,268,285

Actuarial value of assets corridor

85% of market value, end of year	$	1,603,966,544
115% of market value, end of year	$	2,170,072,382

Final actuarial value of plan net assets, end of year	$	1,711,268,285

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	183,033,761
Employer Normal Contributions to the Pension Accumulation Fund		141,571,714
Employer Amortization Payments to the Pension Accumulation Fund		801,359,380
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	1,125,964,855

EXHIBIT V - SCHEDULE A
ACTUARIAL ACCRUED LIABILITIES

LIABILITY FOR ACTIVE MEMBERS			
Accrued Liability for Retirement Benefits	$ 1,087,526,523		
Accrued Liability for Survivor Benefits	8,579,707		
Accrued Liability for Disability Benefits	26,160,432		
Accrued Liability for Vested Termination Benefits	18,168,470		
Accrued Liability for Refunds of Contributions	13,274,853		
TOTAL Actuarial Accrued Liability for Active Members		$	1,153,709,985
LIABILITY FOR TERMINATED MEMBERS		$	31,204,862
LIABILITY FOR RETIREES AND SURVIVORS		$	1,327,712,818
TOTAL ACTUARIAL ACCRUED LIABILITY		$	2,512,627,665
ACTUARIAL VALUE OF ASSETS		$	1,711,268,285
UNFUNDED ACTUARIAL ACCRUED LIABILITY		$	801,359,380

EXHIBIT V - SCHEDULE B
CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Unfunded Accrued Liability		$	860,157,735
Interest on Unfunded Accrued Liability	$ 64,511,830		
Normal Cost for Prior Year	44,231,463		
Interest on the Normal Cost	3,317,360		
Administrative Expenses	1,585,760		
Interest on Expenses	58,392		
TOTAL Interest Adjusted Actuarially Required Contributions		$	113,704,805
Required Contributions for Prior Year with interest	$ 133,127,073		
Contribution Excess (Shortfall) with accrued interest	(3,720,140)		
Liability Assumption Gains (Losses)	225,724		
Cost of Living Adjustment Gains (Losses)	(38,929,984)		
Liability Experience Gains (Losses)	14,670,717		
Investment Gains (Losses)	67,129,770		
TOTAL Interest Adjusted Employer Contributions		$	172,503,160
NET Change in Frozen Unfunded Accrued Liability		$	(58,798,355)
CURRENT YEAR UNFUNDED ACCRUED LIABILITY		$	801,359,380

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

FISCAL YEAR	DESCRIPTION	AMORT. PERIOD	INITIAL BALANCE	YEARS REMAINING	REMAINING BALANCE	AMORT. PAYMENTS
2014	Cumulative Bases	20	801,359,380	20	801,359,380	73,122,882
	TOTAL Unfunded Actuarial Accrued Liability			$	801,359,380	
	TOTAL Fiscal 2014 Amortization Payments				$	73,122,882

EXHIBIT VI
ANALYSIS OF INCREASE IN ASSETS

Actuarial Value of Assets (June 30, 2013)		$	1,539,218,085
INCOME:			
Member Contributions	$ 25,922,508		
Employer Contributions	82,259,694		
Irregular Contributions	1,744,626		
Insurance Premium Taxes	16,628,926		
Total Contributions		$	126,555,754
Net Appreciation (Depreciation) of Investments	$ 266,260,151		
Interest & Dividends	34,653,295		
Alternative Investment Income	3,299,068		
Securities Litigation Income	789,864		
Other Income	453		
Investment Expense	(8,368,865)		
Net Investment Income		$	296,633,966
TOTAL Income		$	423,189,720
EXPENSES:			
Retirement Benefits	$ 114,361,996		
DROP Disbursements	12,986,778		
Refunds of Contributions	4,503,123		
Transfers to Other Systems	3,265,379		
Administrative Expenses	1,585,760		
TOTAL Expenses		$	136,703,036
Net Market Value Income for Fiscal 2014 (Income - Expenses)		$	286,486,684
Unadjusted Fund Balance as of June 30, 2014 (Fund Balance Previous Year + Net Income)		$	1,825,704,769
Adjustment for Actuarial Smoothing		$	114,436,484
Actuarial Value of Assets (June 30, 2014)		$	1,711,268,285

EXHIBIT VII
CENSUS DATA

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2013	5,602	1,397	314	4,340	11,653
Additions to Census					
Initial membership	360	59			419
Omitted in error last year				3	3
Death of another member				26	26
Adjustment for multiple records					
Change in Status during Year					
Actives terminating service	(203)	203			
Actives who retired	(83)			83	
Actives entering DROP	(92)		92		
Term. members rehired	42	(42)			
Term. members who retire		(7)		7	
Retirees who are rehired	1			(1)	
Refunded who are rehired	21				21
DROP participants retiring			(100)	100	
DROP returned to work	35		(35)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(210)	(176)			(386)
Deaths	(5)	(3)		(103)	(111)
Included in error last year					
Adjustment for multiple records				(11)	(11)
Number of members as of June 30, 2014	5,468	1,431	271	4,444	11,614

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	8	1	9	30,922	278,297
21 - 25	219	72	291	32,782	9,539,471
26 - 30	573	158	731	39,237	28,682,506
31 - 35	690	240	930	43,293	40,262,451
36 - 40	717	224	941	47,134	44,352,748
41 - 45	794	210	1,004	50,869	51,072,191
46 - 50	681	165	846	54,359	45,987,872
51 - 55	343	98	441	54,434	24,005,375
56 - 60	123	57	180	55,704	10,026,783
61 - 65	48	24	72	56,599	4,075,116
66 - 70	13	3	16	60,050	960,796
71 - 75	3	1	4	45,534	182,135
76 - 80	2	0	2	50,390	100,779
81 - 85	1	0	1	67,915	67,915
TOTAL	4,215	1,253	5,468	47,475	259,594,435

THE ACTIVE CENSUS INCLUDES 2,516 ACTIVES WITH VESTED BENEFITS, INCLUDING 144 ACTIVE FORMER DROP PARTICIPANTS. THE 271 CURRENT DROP PARTICIPANTS ARE EXCLUDED.

DROP PARTICIPANTS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	1	0	1	59,288	59,288
46 - 50	37	6	43	54,561	2,346,107
51 - 55	112	17	129	55,831	7,202,216
56 - 60	54	18	72	45,656	3,287,196
61 - 65	19	6	25	40,213	1,005,316
71 - 75	1	0	1	30,064	30,064
TOTAL	224	47	271	51,403	13,930,187

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	2	0	2	20,933	41,866
36 - 40	20	0	20	22,910	458,202
41 - 45	46	5	51	21,831	1,113,372
46 - 50	42	9	51	27,255	1,389,998
51 - 55	26	8	34	20,413	694,051
56 - 60	0	1	1	16,455	16,455
TOTAL	136	23	159	23,358	3,713,944

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	190	7,983
100	-	499	316	80,314
500	-	999	156	111,221
1000	-	1999	133	193,199
2000	-	4999	138	448,927
5000	-	9999	138	992,994
10000	-	19999	126	1,838,713
20000	-	99999	75	2,081,056
	TOTAL		1,272	5,754,407

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	5	0	5	25,170	125,851
46 - 50	40	2	42	43,986	1,847,392
51 - 55	259	51	310	46,323	14,360,005
56 - 60	493	106	599	39,307	23,544,868
61 - 65	643	89	732	33,050	24,192,436
66 - 70	579	62	641	27,624	17,707,126
71 - 75	364	37	401	23,995	9,621,801
76 - 80	178	13	191	22,539	4,304,973
81 - 85	111	6	117	21,917	2,564,334
86 - 90	56	5	61	19,107	1,165,519
91 - 99	16	3	19	15,260	289,936
TOTAL	2,744	374	3,118	31,983	99,724,241

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	3	1	4	22,519	90,076
36 - 40	7	3	10	18,188	181,876
41 - 45	15	8	23	15,705	361,210
46 - 50	23	13	36	18,798	676,718
51 - 55	34	9	43	15,955	686,047
56 - 60	38	13	51	17,868	911,253
61 - 65	41	9	50	14,443	722,127
66 - 70	31	5	36	15,434	555,616
71 - 75	17	4	21	14,619	307,007
76 - 80	5	0	5	11,174	55,870
81 - 85	6	0	6	11,184	67,102
TOTAL	220	65	285	16,193	4,614,902

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	43	51	94	6,844	643,346
26 - 30	0	1	1	17,552	17,552
31 - 35	1	2	3	17,422	52,265
36 - 40	0	11	11	15,693	172,625
41 - 45	1	18	19	15,410	292,784
46 - 50	0	35	35	18,543	648,996
51 - 55	1	44	45	20,352	915,834
56 - 60	9	59	68	18,487	1,257,112
61 - 65	4	102	106	15,547	1,647,997
66 - 70	8	123	131	15,006	1,965,748
71 - 75	6	136	142	13,290	1,887,188
76 - 80	5	132	137	13,486	1,847,647
81 - 85	7	110	117	10,905	1,275,878
86 - 90	3	87	90	11,650	1,048,495
91 - 99	3	39	42	12,135	509,667
TOTAL	91	950	1,041	13,625	14,183,134

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	9											9
21 - 25	122	98	39	22	5	5						291
26 - 30	104	119	81	75	97	249	6					731
31 - 35	49	70	55	46	79	477	151	3				930
36 - 40	51	36	32	21	39	279	330	152	1			941
41 - 45	32	24	29	23	28	169	220	325	151	3		1,004
46 - 50	19	17	11	9	19	106	126	193	279	66	1	846
51 - 55	2	3	8	9	6	45	82	96	93	74	23	441
56 - 60			1		1	13	26	36	34	26	43	180
61 - 65						4	11	14	10	4	29	72
66 - 70								2	3	4	7	16
71 & Over	1								2	1	3	7
Totals	389	367	256	205	274	1347	952	821	573	178	106	5468

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Salary
0 - 20	30,922											30,922
21 - 25	30,786	32,899	35,425	36,135	38,407	38,174						32,782
26 - 30	31,310	36,271	37,237	37,356	41,321	44,260	43,860					39,237
31 - 35	30,626	34,481	37,715	35,115	40,818	45,444	50,259	56,044				43,293
36 - 40	33,404	34,274	35,993	38,882	39,800	45,094	50,652	56,172	59,958			47,134
41 - 45	31,054	33,930	35,746	35,956	39,528	44,992	49,123	56,227	62,403	62,105		50,869
46 - 50	35,117	39,035	43,063	41,846	42,532	41,046	48,030	56,228	60,742	71,256	94,044	54,359
51 - 55	29,067	35,339	29,351	39,066	39,354	38,166	45,960	55,129	60,564	68,823	65,861	54,434
56 - 60			50,641		25,474	46,743	42,470	51,402	56,782	61,881	66,252	55,704
61 - 65						58,892	45,359	43,669	51,953	64,911	67,243	56,599
66 - 70								44,447	41,606	49,283	78,565	60,050
71 & Over	40,279								40,510	30,331	66,400	50,118
Average	31,502	34,801	36,795	36,994	40,707	44,532	49,158	55,634	60,590	67,855	67,518	47,475

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								20				20
41 - 45						2	49					51
46 - 50	1	3	4	2	3	38						51
51 - 55	3	10	6	9	6							34
56 - 60	1											1
61 & Over												0
Totals	5	13	10	11	9	40	49	20	2	0	0	159

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									20,933			20,933
36 - 40								22,910				22,910
41 - 45						29,291	21,526					21,831
46 - 50	26,622	45,759	47,434	39,290	34,285	22,498						27,255
51 - 55	32,917	19,666	17,910	18,200	21,231							20,413
56 - 60	16,455											16,455
61 & Over												0
Average	28,366	25,688	29,720	22,034	25,582	22,838	21,526	22,910	20,933	0	0	23,358

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	19	14	6	4	3	1						47
51 - 55	71	48	50	51	27	61	2					310
56 - 60	62	54	40	74	39	256	68	6				599
61 - 65	21	21	40	37	24	250	256	75	8			732
66 - 70	7	8	6	12	9	88	190	257	39	7	18	641
71 - 75	1		2	3	1	28	45	113	135	11	62	401
76 - 80					1	3	6	18	35	60	68	191
81 - 85					1	2	3	10	14	16	71	117
86 - 90							1	2	4	7	47	61
91 & Over							1			1	17	19
Totals	181	145	144	181	105	689	572	481	235	102	283	3118

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	45,595	40,491	44,544	35,591	33,569	29,734						41,984
51 - 55	54,580	47,154	48,850	45,827	43,443	36,256	28,579					46,323
56 - 60	47,401	46,166	45,091	40,675	36,150	37,950	30,894	12,291				39,307
61 - 65	44,528	43,297	37,310	39,588	39,967	32,810	31,974	24,729	23,636			33,050
66 - 70	40,244	36,713	37,071	29,808	36,651	31,364	25,842	27,450	26,867	31,469	12,722	27,624
71 - 75	13,244		20,813	23,221	46,547	24,241	25,940	24,377	27,115	29,866	13,887	23,995
76 - 80					44,539	42,914	18,839	15,823	28,737	26,493	16,743	22,539
81 - 85					80,078	19,959	16,166	32,436	24,059	28,738	17,956	21,917
86 - 90							40,820	17,934	16,887	26,328	17,808	19,107
91 & Over							6,365			21,699	15,404	15,260
Average	49,229	45,008	43,541	40,782	39,464	34,494	29,072	25,744	26,841	27,492	16,262	31,983

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			1	1						4
36 - 40		1		5	1	3						10
41 - 45	2	2	3	3		7	5	1				23
46 - 50	3	1	1	4	4	6	9	7	1			36
51 - 55	2	2	2	3	1	6	16	5	5	1		43
56 - 60		3	1	5	4	6	10	11	5	6		51
61 - 65				1		2	11	11	15	8	2	50
66 - 70						2	2	7	11	6	8	36
71 - 75								2	5	2	12	21
76 - 80								1		1	3	5
81 - 85											6	6
86 & Over												0
Totals	7	11	7	21	11	33	53	45	42	24	31	285

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		17,392			14,947	40,345						22,519
36 - 40		22,508		15,402	18,479	21,293						18,188
41 - 45	22,768	17,683	17,355	18,464		14,763	11,547	11,779				15,705
46 - 50	26,794	23,315	35,982	17,809	25,150	28,173	12,444	10,631	9,751			18,798
51 - 55	13,380	18,534	25,847	26,935	20,038	25,365	12,366	10,205	11,354	11,844		15,955
56 - 60		19,111	15,496	19,942	21,124	20,277	23,327	14,695	15,181	10,288		17,868
61 - 65				12,365		10,628	15,614	16,876	15,641	9,641	9,685	14,443
66 - 70						12,418	10,605	18,386	16,643	13,796	14,377	15,434
71 - 75								7,428	12,291	21,672	15,613	14,619
76 - 80								11,982		7,522	12,122	11,174
81 - 85											11,184	11,184
86 & Over												0
Average	21,811	19,125	22,176	18,882	21,687	21,108	14,978	14,223	14,799	11,848	13,716	16,193

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	1	3	5	6	10	27	11	11	1	1		76
21 - 25				1	1	4	4	5	3			18
26 - 30			1									1
31 - 35						1		1	1			3
36 - 40			1	1	1	5	1				2	11
41 - 45			1	1		6	4	6		1		19
46 - 50	1		1	1	4	5	5	6	7	3	2	35
51 - 55				1	1	11	9	14	5	2	2	45
56 - 60	2		1	2	2	10	17	14	9	5	6	68
61 - 65	1	2		1	1	8	15	24	22	12	20	106
66 - 70		2			1	7	11	37	29	8	36	131
71 - 75	1	2		1		1	7	24	27	21	58	142
76 - 80						1	4	8	11	23	90	137
81 - 85			1				2	2	2	9	101	117
86 - 90			1				1		3	7	78	90
91 & Over									1	2	39	42
Totals	6	9	12	15	21	86	91	152	121	94	434	1041

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	20,507	15,856	7,591	3,523	11,980	5,356	5,726	3,674	2,924	2,400		6,583
21 - 25				3,822	21,305	11,575	8,725	4,997	3,908			7,946
26 - 30			17,552									17,552
31 - 35						35,097		1,803	15,364			17,422
36 - 40			25,178	13,318	16,950	20,435	8,947				3,029	15,693
41 - 45			15,165	31,054		23,939	12,678	8,140		3,379		15,410
46 - 50	32,792		10,640	18,645	38,794	27,884	15,810	11,361	10,921	14,016	13,306	18,543
51 - 55				34,401	55,873	30,440	24,007	14,034	10,502	7,114	5,727	20,352
56 - 60	14,870		13,707	24,593	34,952	26,887	22,558	13,569	16,062	11,275	8,555	18,487
61 - 65	37,886	13,217		16,511	6,770	20,806	18,797	18,941	14,272	13,489	9,078	15,547
66 - 70		10,479			41,285	19,293	17,552	19,390	14,160	16,736	8,706	15,006
71 - 75	6,896	3,415		3,423		35,632	13,320	15,260	18,791	17,396	8,660	13,290
76 - 80						60,562	24,299	13,267	16,032	20,943	10,286	13,486
81 - 85			4,800				4,896	12,418	33,612	23,157	9,513	10,905
86 - 90			4,800				4,896		22,531	29,319	9,820	11,650
91 & Over									29,769	16,372	11,466	12,135
Average	21,303	11,310	10,816	12,766	23,194	18,752	16,663	14,736	15,508	18,166	9,660	13,625

EXHIBIT VIII
YEAR-TO-YEAR COMPARISON

	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011
Number of Active Members	5,468	5,602	5,779	5,933
Number of Retirees & Survivors	4,444	4,340	4,230	4,165
DROP Participants	271	314	284	231
Number of Terminated Due Deferred Benefits	159	145	130	128
Number Terminated Due Refunds	1,272	1,252	1,176	1,251
Active Lives Payroll (excludes DROP participants)	$ 259,594,435	$ 264,711,491	$ 272,606,934	$ 273,348,634
Retiree Benefits in Payment	$ 118,522,277 *	$ 110,735,234	$ 104,998,503	$ 99,863,547
Market Value of Assets	$ 1,887,019,463	$1,600,532,779	$ 1,406,662,003	$ 1,440,795,586
Ratio of Market Value of Assets to Actuarial Accrued Liability	75.10%	66.71%	60.80%	65.03%
Actuarial Accrued Liability	$ 2,512,627,665	$ 2,399,375,820	$ 2,313,751,839	$ 2,215,674,343
Actuarial Value of Assets	$ 1,711,268,285	$ 1,539,218,085	$ 1,382,503,860	$1,286,287,651
UAL (Funding Excess)	$ 801,359,380	$ 860,157,735	$ 931,247,979	$ 929,386,692

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	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012
Employee Contribution Rate (For employees with earnings above the poverty level)	10.00%	10.00%	10.00%	10.00%
Required Tax Contributions as a Percentage of Projected Payroll	6.77%	6.19%	5.75%	5.65%
Actuarially Required Employer Contribution as a Percentage of Projected Payroll (For employees with earnings above the poverty level)	29.80%	31.53%	31.03%	30.52%
Actual Employer Contribution Rate (For employees with earnings above the poverty level)	31.50%	31.00%	31.00%	26.50%

* COLA not included

Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005
6,197	6,071	5,908	5,840	5,769	6,000
4,028	3,984	3,896	3,834	3,739	3,652
194	185	213	217	227	239
112	112	114	108	99	88
1,198	1,197	1,095	993	926	602
$ 280,977,278	$ 270,236,561	$ 252,562,020	$ 229,145,048	$ 223,213,661	$ 215,638,892
$ 93,382,980	$ 90,285,300	$ 85,848,060	$ 81,976,596	$ 77,538,204	$ 73,587,564
$ 1,175,083,706	$ 1,084,169,309	$ 1,476,652,461	$ 1,627,120,612	$ 1,420,792,356	$ 1,328,792,481
56.39%	54.52%	80.20%	94.63%	86.05%	85.60%
$2,083,809,321	$ 1,988,394,358	$1,841,234,995	$ 1,719,536,371	$1,651,055,550	$ 1,552,332,283
$1,247,546,395	$1,297,128,398	$ 1,600,941,810	$ 1,531,297,284	$ 1,371,981,645	$ 1,233,572,172
$ 836,262,926	$ 691,265,960	$ 240,293,185	$ 188,239,087	$ 279,073,905	$ 318,760,111

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Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006
7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
5.36%	5.52%	5.85%	5.59%	5.66%	5.44%
27.84%	24.13%	10.98%	10.45%	13.70%	15.59%
25.00%	11.00%	9.50%	13.75%	15.50%	16.25%

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, 2013.

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.

For employees whose first employment making them eligible for membership in the system occurred on or after January 1, 2013, membership will be in the Hazardous Duty Subplan if they are eligible to receive state supplemental pay by virtue of their employment or the Nonhazardous Duty Subplan if they are not eligible for state supplemental pay.

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. 11:62, R.S 11:103, and R.S. 22:1476A(3). For employees hired prior to January 1, 2013, the employee contribution rate 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%. Regardless of the total contribution rate, members whose earnable compensation is less than or equal to the poverty guidelines issued by the U.S. Department of Health and Human Services have an employee contribution rate of 7.5%. 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.

For employees hired on or after January 1, 2013 who are members of the Hazardous Duty Subplan, the employee contribution rate is the same as that for employees hired before January 1, 2013. For employees hired on or after January 1, 2013 who are members of the Nonhazardous Duty Subplan, the employee contribution rate is 8%.

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 –

For employees hired prior to January 1, 2013: The average annual earned compensation of an employee for the highest period of thirty-six successive or joined months of service as an employee.

For employees hired on or after January 1, 2013: The average annual earned compensation of an employee for the highest period of sixty successive or joined months of service as an employee.

The twelve month salaries used to compute the average final compensation are subject to a limit in the rate of increase of 15% per year with certain exceptions.

NORMAL RETIREMENT BENEFITS –

For employees hired prior to January 1, 2013: 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.

For employees hired on or after January 1, 2013 who participate in the Hazardous Duty Subplan: Members with twelve years of creditable service may retire at age fifty-five; members with twenty-five years of service may retire at any age. The retirement allowance is equal to three 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 in this subplan who retire with thirty or more years of creditable service receive benefits according to a three and one-third percent retirement allowance.

For employees hired on or after January 1, 2013 who participate in the Nonhazardous Duty Subplan: Members with twenty-five years of creditable service may retire at age fifty-five; members with thirty years of service may retire at any age. The retirement allowance is equal to two and one-half 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.

EARLY RETIREMENT –

For employees hired prior to January 1, 2013: 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.

For employees hired on or after January 1, 2013: Members with twenty or more years of creditable service 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.

For employees hired prior to January 1, 2013: 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.

For employees hired on or after January 1, 2013 who participate in the Hazardous Duty Subplan: Disability retirees who are disabled in the line of duty or who have 10 years of service credit will receive a benefit equal to two and three-quarters percent of final average compensation multiplied by the number of years of service, subject to a minimum of 33% of final compensation and a maximum of 55%

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.

For employees hired on or after January 1, 2013 who participate in the Nonhazardous Duty Subplan: Disability retirees who have at least 10 years of service credit will receive a benefit equal to two and one-quarter percent of final average compensation multiplied by the number of years of service, subject to a minimum of 25% of final compensation and a maximum of 50% 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. At normal retirement age, disability retirees 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.

For employees hired prior to January 1, 2013: 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.

For employees hired on or after January 1, 2013 who participate in the Hazardous Duty Subplan: The surviving spouse of a deceased active contributing member or disability retiree with at least ten years of creditable service not killed in the line of duty will receive an annual benefit equal to the benefit calculated using the regular retirement formula; however, in no event is the annual benefit less than 33% nor more than 55% of the deceased member's average final compensation. If the surviving spouse remarries, the benefits shall cease unless the remarriage occurs after age sixty. 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 twenty-five percent of the deceased's average final compensation, not to exceed an aggregate of fifty 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.

For employees hired on or after January 1, 2013 who participate in the Nonhazardous Duty Subplan: The surviving spouse of a deceased active contributing member or disability retiree with at least ten years of creditable service not killed in the line of duty will receive an annual benefit equal to the benefit calculated using the regular retirement formula; however, in no event is the annual benefit less than 25% nor more than 50% of the deceased member's average final compensation. If the surviving spouse remarries, the benefits shall cease unless the remarriage occurs after age sixty. 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 twenty percent (twenty-five percent in the case of one minor child) of the deceased's average final compensation, not to exceed an aggregate of fifty 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. In lieu of these cost of living adjustments, the board may grant an increase under R.S. 11:241 in the form 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.

All of the above provisions require that the system earn sufficient excess interest earnings to fund the increases and to meet certain other criteria detailed in the statutes related to funding status.

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 (not to be less than $20 per month) 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 through age 75 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	62%	1.66	6
35	82%	2.06	10
45	66%	1.75	13
55	19%	1.35	15
65	2%	1.35	15

SERVICE RELATED DISABILITY:	20% of Total Disabilities
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	0.02476	0.08500
19	0.00032	0.00019	0.00032	0.00019	0.00000	0.00060	0.02476	0.08500
20	0.00033	0.00019	0.00033	0.00019	0.00000	0.00060	0.02476	0.08500
21	0.00035	0.00019	0.00035	0.00019	0.00000	0.00060	0.05657	0.08500
22	0.00036	0.00019	0.00036	0.00019	0.00000	0.00060	0.06698	0.08500
23	0.00037	0.00019	0.00037	0.00019	0.00000	0.00060	0.07211	0.08500
24	0.00037	0.00020	0.00037	0.00020	0.00000	0.00060	0.06124	0.08000
25	0.00038	0.00020	0.00038	0.00020	0.00000	0.00060	0.04566	0.08000
26	0.00038	0.00021	0.00038	0.00021	0.00000	0.00060	0.04335	0.08000
27	0.00038	0.00021	0.00038	0.00021	0.00000	0.00060	0.04114	0.07000
28	0.00038	0.00022	0.00038	0.00022	0.00000	0.00060	0.03902	0.07000
29	0.00039	0.00024	0.00039	0.00024	0.00000	0.00060	0.03698	0.07000
30	0.00041	0.00025	0.00041	0.00025	0.00000	0.00060	0.03502	0.07000
31	0.00044	0.00026	0.00044	0.00026	0.00000	0.00060	0.03314	0.06000
32	0.00050	0.00031	0.00050	0.00031	0.00000	0.00060	0.03134	0.06000
33	0.00056	0.00035	0.00056	0.00035	0.00000	0.00060	0.02961	0.06000
34	0.00063	0.00039	0.00063	0.00039	0.00000	0.00060	0.02795	0.06000
35	0.00070	0.00044	0.00070	0.00044	0.00000	0.00068	0.02636	0.06000
36	0.00077	0.00047	0.00077	0.00047	0.00000	0.00076	0.03483	0.05000
37	0.00084	0.00051	0.00084	0.00051	0.00000	0.00084	0.02336	0.05000
38	0.00090	0.00055	0.00090	0.00055	0.00000	0.00096	0.02195	0.05000
39	0.00096	0.00060	0.00096	0.00060	0.00000	0.00108	0.02060	0.03600
40	0.00102	0.00065	0.00102	0.00065	0.00000	0.00124	0.01930	0.03600
41	0.00108	0.00071	0.00108	0.00071	0.08000	0.00140	0.01805	0.03600
42	0.00114	0.00077	0.00114	0.00077	0.08000	0.00156	0.01686	0.03600
43	0.00122	0.00085	0.00122	0.00085	0.08000	0.00176	0.01571	0.03600
44	0.00130	0.00094	0.00130	0.00094	0.08000	0.00200	0.01461	0.03600
45	0.00140	0.00103	0.00140	0.00103	0.08000	0.00228	0.01355	0.03600
46	0.00151	0.00112	0.00151	0.00112	0.08000	0.00260	0.01253	0.03600
47	0.00162	0.00122	0.00162	0.00122	0.08000	0.00292	0.01156	0.04000
48	0.00173	0.00133	0.00173	0.00133	0.08000	0.00332	0.01063	0.04000
49	0.00186	0.00143	0.00186	0.00143	0.08000	0.00376	0.00973	0.04000
50	0.00200	0.00155	0.00200	0.00155	0.08000	0.00428	0.00887	0.05000
51	0.00214	0.00168	0.00535	0.00234	0.08000	0.00488	0.00804	0.05000
52	0.00229	0.00181	0.00553	0.00246	0.08000	0.00552	0.00725	0.05000
53	0.00245	0.00197	0.00564	0.00265	0.08000	0.00628	0.00649	0.05000
54	0.00262	0.00213	0.00572	0.00290	0.08000	0.00712	0.00576	0.05000
55	0.00281	0.00232	0.00580	0.00319	0.15000	0.00808	0.00506	0.05000
56	0.00303	0.00253	0.00590	0.00353	0.08000	0.00920	0.00438	0.05000
57	0.00331	0.00276	0.00612	0.00393	0.08000	0.01044	0.00374	0.05000
58	0.00363	0.00301	0.00644	0.00438	0.08000	0.01184	0.00312	0.05000
59	0.00400	0.00329	0.00690	0.00492	0.08000	0.01348	0.00252	0.05000
60	0.00441	0.00360	0.00749	0.00553	0.08000	0.01952	0.00000	0.05000
61	0.00488	0.00393	0.00820	0.00620	0.08000	0.01952	0.00000	0.05000
62	0.00538	0.00429	0.00900	0.00692	0.08000	0.01952	0.00000	0.05000
63	0.00592	0.00466	0.00991	0.00769	0.08000	0.01952	0.00000	0.05000
64	0.00647	0.00504	0.01095	0.00851	0.08000	0.01952	0.00000	0.00000
65	0.00703	0.00543	0.01212	0.00939	0.08000	0.01952	0.00000	0.05000
66	0.00757	0.00582	0.01342	0.01036	0.08000	0.01952	0.00000	0.05000
67	0.00810	0.00621	0.01487	0.01141	0.15000	0.01952	0.00000	0.00000
68	0.00860	0.00658	0.01646	0.01254	0.15000	0.01952	0.00000	0.00000
69	0.00907	0.00695	0.01820	0.01377	0.15000	0.01952	0.00000	0.00000
70	0.00951	0.00729	0.02011	0.01515	0.15000	0.01952	0.00000	0.00000
71	0.00992	0.00761	0.02221	0.01674	0.15000	0.01952	0.00000	0.00000
72	0.02457	0.01858	0.02457	0.01858	0.15000	0.01952	0.00000	0.00000
73	0.02728	0.02067	0.02728	0.02066	0.15000	0.01952	0.00000	0.00000
74	0.03039	0.02297	0.03039	0.02297	0.15000	0.01952	0.00000	0.00000
75	0.03390	0.02546	0.03390	0.02546	0.15000	0.01952	0.00000	0.00000

GLOSSARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

NOTES