

**MUNICIPAL POLICE EMPLOYEES'
RETIREMENT SYSTEM**

ACTUARIAL VALUATION AS OF
JUNE 30, 2011

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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December 30, 2011

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

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Municipal Police Employees' Retirement System for the fiscal year ending June 30, 2011. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrators and accountants. This report was prepared at the request of the Board of Trustees of the Municipal Police Employees' Retirement System of the State of Louisiana. The primary purposes of the report are to determine the actuarially required contribution for the retirement system for the fiscal year ending June 30, 2012, to recommend the net direct employer contribution rate for fiscal 2013, and to provide information for the system's financial statements. This report was prepared exclusively for the Municipal Police Employees' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

This report has been prepared in accordance with generally accepted actuarial principles and practices, and to the best of our knowledge and belief, fairly reflects the actuarial present values and costs stated herein. The undersigned actuaries are members of the American Academy of Actuaries and have met the qualification standards for the American Academy of Actuaries to render the actuarial opinions incorporated in this report, and are available to provide further information or answer any questions with respect to this valuation.

Sincerely,

G. S. CURRAN & COMPANY, LTD.

By: 

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

By: 

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

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SUMMARY OF VALUATION RESULTS MUNICIPAL POLICE EMPLOYEES' RETIREMENT SYSTEM

Valuation Date:	June 30, 2011	June 30, 2010
Census Summary: Active Contributing Members	5,933	6,197
Retired Members and Beneficiaries	4,165	4,028
DROP Participants	231	194
Terminated Due a Deferred Benefit	128	112
Terminated Due a Refund	1,251	1,198
Payroll (excludes DROP Participants):	\$ 273,348,634	\$ 280,977,278
Benefits in Payment:	\$ 99,863,547	\$ 93,382,980
Market Value of Assets:	\$ 1,440,795,586	\$ 1,175,083,706
Unfunded Actuarial Accrued Liability:	\$ 929,386,692	\$ 836,262,926
Actuarial Asset Value:	\$ 1,286,287,651	\$ 1,247,546,395
Actuarial Accrued Liability:	\$ 2,215,674,343	\$ 2,083,809,321

Ratio of Actuarial Value of Assets to Actuarial Accrued Liabilities: 58.05% 59.87%

FISCAL 2012 FISCAL 2011

Normal Cost as of July 1:	\$ 45,607,236	\$ N/A
Amortization Cost (Credit) as of July 1:	\$ 76,616,490	\$ N/A
Total Actuarially Required Contribution		
Inclusive of Estimated Administrative Costs:	\$ 127,797,631	\$ N/A
Expected Insurance Premium Taxes	\$ 15,637,701	\$ N/A
Net Direct Combined Actuarially Req'd Contributions	\$ 112,159,930	\$ N/A
Actual Net Direct Combined Contribution Rate:	36.50%	32.50%
Actuarially Required Net Direct Combined Cont. Rate:	40.52%	N/A

Minimum Recommended Net Direct Employer Cont. Rate

For Employees with Earnings Below Poverty Level-	Fiscal 2013: 33.50%	Fiscal 2012: 29.00%
For Employees with Earnings Above Poverty Level -	Fiscal 2013: 31.00%	Fiscal 2012: 26.50%

Employee Contribution Rate: 7.50% of payroll below poverty level/10.00% of payroll above poverty level

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

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

Exclusions from Census: None

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

Changes in Valuation Methods, Assumptions, and/or Amortization Periods: Mortality tables utilized for employees and non-disabled annuitants were changed to the sex distinct RP 2000 Employee Tables (set back 1 year) for employees and the sex distinct RP 2000 Healthy Annuitant Tables (set back 1 year) for non-disabled annuitants. Also, technical changes to various assumptions were made to conform to a change in valuation software.

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

COMMENTS ON DATA

For the valuation, the administrator of the system furnished a census on CD derived from the system's master data processing file indicating each active covered employee's sex, date of birth, service credit, annual salary, and accumulated contributions. Information on retirees detailing dates of birth of retirees and beneficiaries, sex, as well as option categories and benefit amounts, was provided in like manner. In addition, data was supplied on former employees who are vested or who have contributions remaining on deposit. As illustrated in Exhibit X, there are 5,933 active contributing members in the system of whom 2,470 have vested retirement benefits; in addition, there are 231 participants in the Deferred Retirement Option Plan (DROP); 4,165 former system members or their beneficiaries are receiving retirement benefits. An additional 1,379 members have contributions remaining on deposit with the system; of this number, 128 have vested rights for future retirement benefits. All individuals submitted were included in the valuation.

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

In addition to the statistical information provided on the system's participants, the system's administrator furnished general information related to other aspects of the system's expenses, benefits and funding. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, Certified Public Accountants. As indicated in the system's financial statements, the net market value of the system's assets was \$1,440,795,586 as of June 30, 2011. Net investment income for fiscal 2011 measured on a market value basis amounted to \$274,910,796. Contributions to the system for fiscal 2011 totaled \$106,054,387; benefits and expenses amounted to \$115,253,303.

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

COMMENTS ON ACTUARIAL METHODS AND ASSUMPTIONS

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

Since it was not practical to perform a detailed analysis of plan experience, the assumptions utilized in this 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. Nevertheless, a comparative valuation utilizing the same mortality assumptions produced aggregate normal cost and accrued liability values that were within 1% of the published values for June 30, 2010. Differences in the total accrued liabilities produced by the two valuations as of June 30, 2010 amounted to a decrease of \$12,158,673. The prior valuation used the 2000 RP Combined Healthy table for both employees and healthy annuitants. Based upon our review of similar law enforcement mortality, in accordance with current standards of practice, and in order to provide for future improvement in mortality, for this valuation we have used the sex distinct 2000 RP Employee Tables set back 1 year for active participants and the sex distinct 2000 RP Healthy Annuitant Tables set back 1 year for non-disabled, inactive participants. This change led to an increase in the accrued liability for fiscal 2011 of \$14,425,073.

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

The current year actuarial assumptions utilized for the report are outlined on pages thirty-seven through forty-one. In aggregate the assumptions represent our "best estimate" 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 2011 Regular Session of the Louisiana Legislature:

Act 82 provides that if a member is not married to the natural parent of any child and if the member has created a trust for the benefit of such child, any survivor payments due to the child are to be paid to the trustee of the trust.

Act 231 requires a member to repay any refunded employee contributions with interest thereon in order to be approved for disability benefits.

Act 238 changes the employee contribution rate effective July 1, 2011 from a fixed rate of 7.5% to a rate which is at least 7.5% but not greater than 10% based on the total contribution expressed as a percentage of payroll after applying all required tax contributions. The employee rate, when such contributions total 25% or less, is set at 7.5%. The employee rate then increases 0.25% for each 0.75% increase in the total rate, and an additional 0.25% when the rate exceeds 28.75%, subject to a maximum rate of 10%. The change does not apply to members whose earnable compensation is less than or equal to the poverty guidelines issued by the U. S. Department of Health and Human Services.

The act also allows the Board of Trustees to maintain the net direct employer contribution rate at the prior fiscal year level at such time as the rate would otherwise decrease or to set the rate at any point between the previous year's net direct employer contribution rate and the recommended net direct employer contribution rate. Any excess funds collected, resulting from the higher contribution rate, are used to reduce the system's unfunded actuarial accrued liability. The Board may not utilize the above provision to set the net direct employer contribution rate at a level higher than 15%.

The act also limited the earnings to be considered in calculating final average compensation such that the earnings for the thirteenth through the twenty-fourth month may not exceed 115% of the earnings for the first twelve months and the earnings to be considered for the final twelve months may not exceed 115% of the earnings for the thirteenth through the twenty-fourth months. However, the provision set the minimum average final compensation to be used in the calculation of retirement benefits to the average compensation as it existed prior to the effective date of the act. In addition, the act excludes salary increases related to a promotion within the civil service system.

The act also increased the Board of Trustees from eleven to fifteen members. The four additional members include the Commissioner of Administration, or his designee, the State Treasurer, or his designee, and two mayors appointed by the Louisiana Municipal Association from municipalities having police departments participating in the system. In addition, the act changed quorum requirements and permitted the House and Senate Retirement Committee Chairmen to appoint designees for their positions.

The act also made various changes to the structure of the Funding Review Panel.

Act 377 excludes from earnable compensation for any member of a state or statewide retirement system who was elected for a term commencing July 1, 2011 or later, and who is employed in another position of public office or employment, any compensation earned from legislative service.

ASSET EXPERIENCE

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

	<u>Market Value</u>	<u>Actuarial Value</u>
2002	-5.3%	-4.1%
2003	3.8%	-6.8%
2004	12.9%	7.8%
2005	9.3%	9.4%
2006	8.7%	13.2%
2007	16.5%	13.6%
2008	- 7.6%	6.4%
2009	-24.2%	-16.7%
2010	12.4%	-0.8%
2011	23.5%	3.9% *

* 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 2011, the fund earned \$33,957,112 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital gains on investments of \$247,038,743. Investment expenses amounted to \$6,085,059. The geometric mean of the market value rate of return was 4.1% measured over the last ten years.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.5% used for the valuation. This rate is calculated based on the actuarial value of assets and all interest, dividends, and recognized capital gains as given in Exhibit VI. Investment income used to calculate this yield is based upon a smoothing of investment returns above or below the valuation interest rate over a four year period (five year period after the transition period is completed) subject to constraints. The difference between rates of return on an actuarial and market value basis results from the smoothing of gains or losses on investments relative to the valuation interest rate. Yields in excess of the 7.5% assumption will reduce future costs; yields below 7.5% will increase future costs. For fiscal 2011, the system experienced net actuarial investment earnings of \$45,730,863 below the actuarial assumed earnings rate of 7.5% which produced an actuarial loss and increased the interest-adjusted amortization payments on the system's UAL by \$ 4,996,733 or 1.81% of payroll, in fiscal 2012.

PLAN DEMOGRAPHICS AND LIABILITY EXPERIENCE

The average active contributing member is 39 years old with 10.61 years of service credit and an annual salary of \$46,073. The system's active contributing membership experienced a decrease during fiscal 2011 of 264 members. The number of DROP participants increased by 37. Over the last five years active membership has increased by 164 members.

The average service retiree is 65 years old with a monthly benefit of \$2,407. The number of retirees and beneficiaries receiving benefits from the system increased by 137 during the fiscal year. Over the last five years, the number of retirees increased by 426 with annual benefits in payment increasing by \$22,325,343.

FUNDING ANALYSIS AND RECOMMENDATIONS

Actuarial funding of a retirement system is a process whereby funds are accumulated over the working lifetimes of employees in such a manner as to have sufficient assets available at retirement to pay for the lifetime benefits accrued by each member of the system. The required contributions are determined by an actuarial valuation based on rates of mortality, termination, disability, and retirement, as well as investment return and other statistical measures specific to the particular group. Each year a determination is made of two cost components, and the actuarially required contributions are based on the sum of these two components plus administrative expenses. These two components are the normal cost and the amortization payments on the unfunded actuarial accrued liability. The normal cost refers to the annual cost for active members allocated to each year by the particular cost method utilized. The term unfunded accrued liability (UAL) refers to the excess of the present value of plan benefits over the sum of current assets and future normal costs. Each year the UAL grows with interest and is reduced by payments. In addition it may be increased or diminished by plan experience, changes in assumptions, or changes in benefits including COLA's. Contributions in excess of or less than the actuarially required amount can also decrease or increase the UAL balance. New entrants to the system can also increase or lower costs as a percent of payroll depending upon their demographic distribution. Finally, payroll growth affects plan costs since payments on the system's unfunded liability are on a fixed, level schedule. If payroll increases, these costs are reduced as a percentage of payroll.

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

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for fiscal 2012 as of July 1, 2011 is \$45,607,236. The amortization payments on the system's unfunded actuarial accrued liability as of July 1, 2011 total \$76,616,490. 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 2012 is \$127,797,631. We estimate insurance premium taxes of \$15,637,701 will be paid to the system in fiscal 2012. Hence,

the total actuarially required net direct combined contribution (consisting of employee contributions and the net direct employer contribution) for fiscal 2012 amounts to \$112,159,930 or 40.52% of payroll.

Since the actual net direct combined contribution rate for fiscal 2012 is 36.50% of payroll, we estimate that there will be a contribution shortfall of 4.02% of payroll. The effect of this shortfall will be to increase the required contributions for fiscal 2013 by 0.42% of payroll. The statutes require rounding the net direct employer contribution rate to the nearest 0.25%. Therefore, we recommend a combined employee and net direct employer contribution rate of 41.00% for fiscal 2013. 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 employer contribution rate to be applied to the earnings of such members should be set equal to 33.50% of payroll. For members with earnings greater than the Department of HHS poverty guidelines, employee contributions will be set equal to 10.00% of payroll. The employer contribution rate to be applied to the earnings of such members should be set equal to 31.00% of payroll.

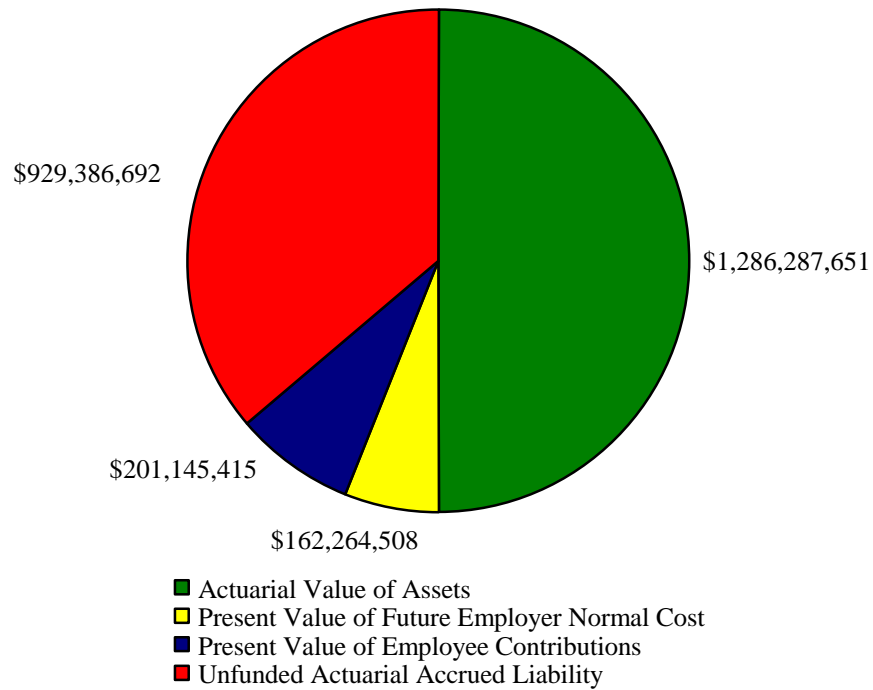
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, completion of amortization payments or credit schedules, and changes in plan provisions or applicable law. Analysis of the effect of all these factors is beyond the scope of this report. We have, however, calculated the sensitivity of the plan's costs to a change in two factors. First, we have determined that based on current assets and demographics, for each percentage under (over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (reduction) in the actuarially required contribution as a percentage of projected payroll of 0.37%. In addition, we have determined that a 1% reduction in the valuation interest rate for the Fund would increase the actuarially required contribution rate for fiscal 2012 by 8.32%.

COST OF LIVING INCREASES

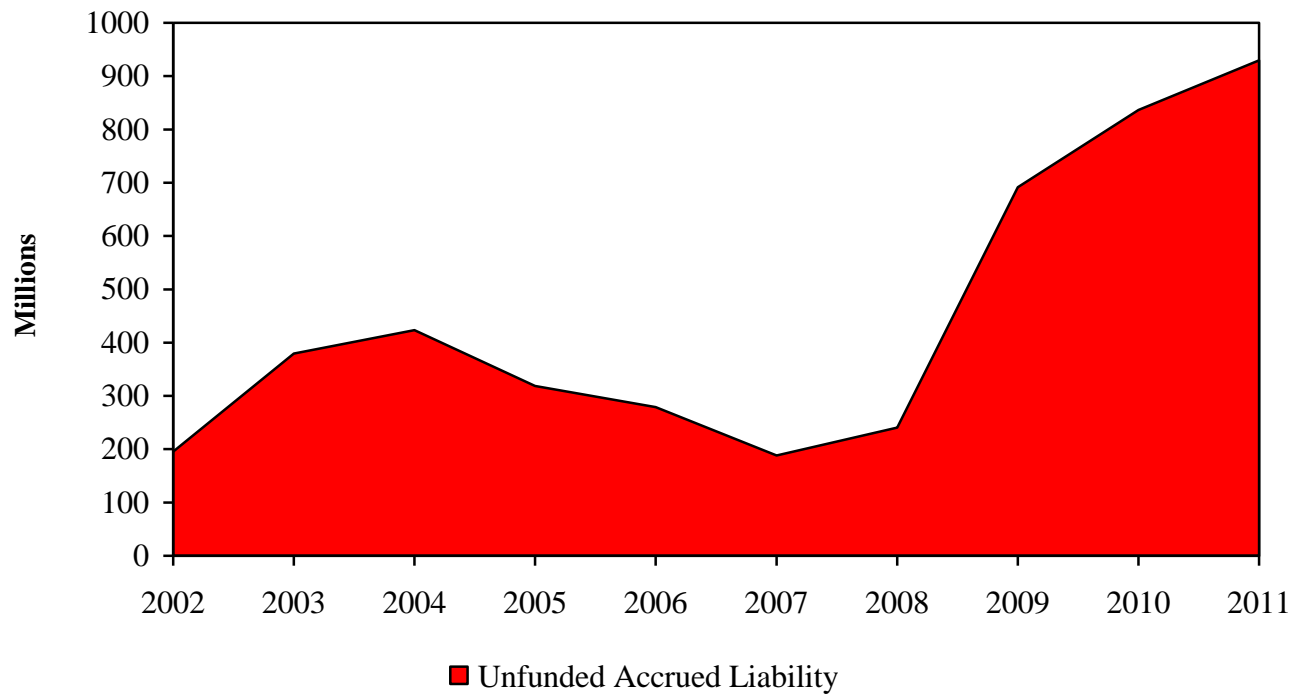
During fiscal 2011, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 3.56%. Cost of living provisions for the system are detailed in R.S. 11:2225(A)(7) and R.S. 11:246. The former statute allows the board to use interest earnings in excess of the normal requirements to grant annual cost of living increases of 3% of each retiree's original or current benefit. R. S. 11:2225(A)(7)(c) and (d) provide that the board of trustees is authorized to provide a one-time cost of living adjustment of 3% of each retiree's normal monthly benefit from excess interest earnings without regard to the provisions of R.S. 11:242 (which describes the target ratio). R.S. 11:246 provides cost of living increases to retirees and beneficiaries over the age of 65 equal to 2% of the benefit in payment on October 1, 1977, or the date the benefit was originally received if retirement commenced after that date. R.S. 11:241 provides that cost of living benefits shall be in the form (unless the board otherwise specifies) of $\$X \times (A+B)$ where X is at most \$1 and "A" represents the number of years of credited service accrued at retirement or at death of the member or retiree and "B" is equal to the number of years since retirement or since death of the member or retiree to June 30th of the initial year of such increase. The provisions of this subpart do not repeal provisions relative to cost of living adjustments contained within the individual laws governing systems; however, they are to be controlling in cases of conflict. All of the above provisions require that the system earn sufficient excess interest earnings to fund the increases. In addition, the ratio of the plan's assets to benefit obligations must meet the criteria established in R.S. 11:242. This section sets forth a minimum

“target ratio” of the actuarial value of assets to the Pension Benefit Obligation. We have determined that for fiscal 2011 the plan has not met the necessary target ratio and does not have excess investment earnings. Therefore, the Fund is unable to grant COLAs to retirees at this time.

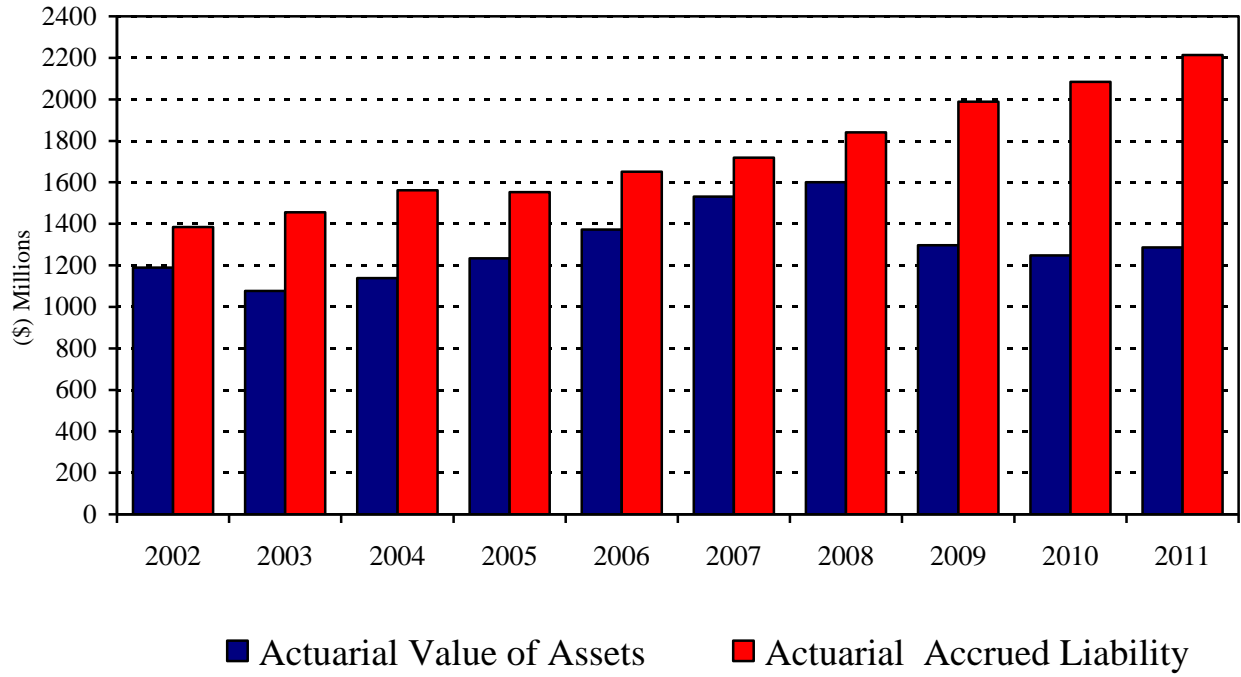
Components of Present Value of Future Benefits June 30, 2011



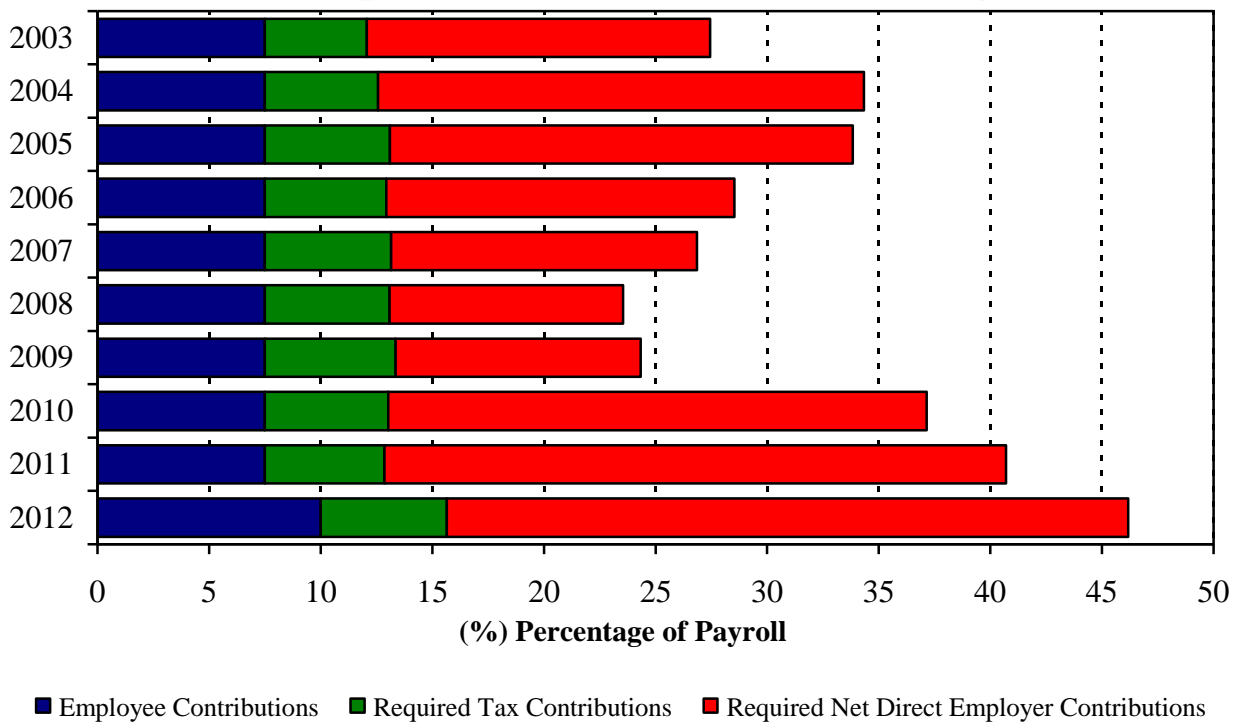
Unfunded Accrued Liability



Actuarial Value of Assets vs. Actuarial Accrued Liability

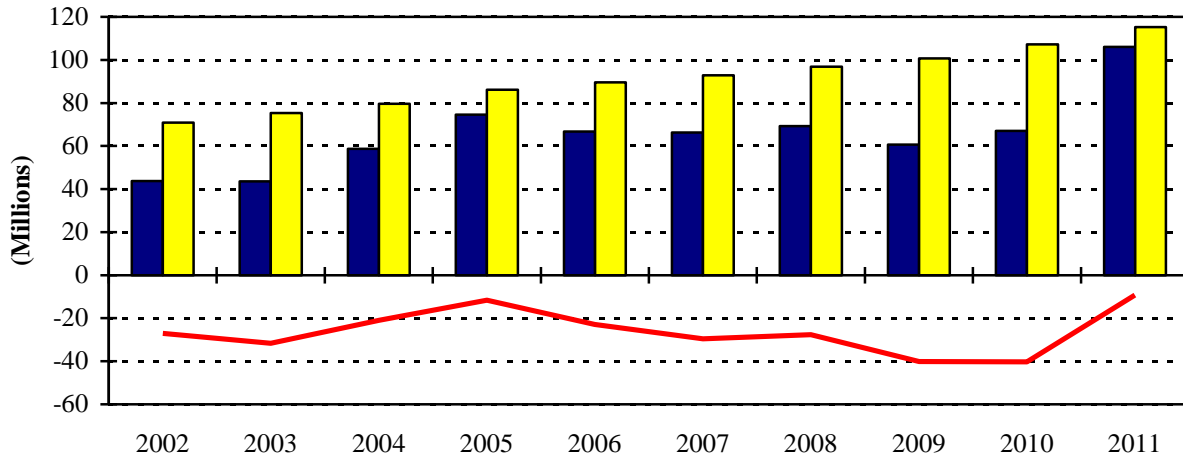


Components of Actuarial Funding



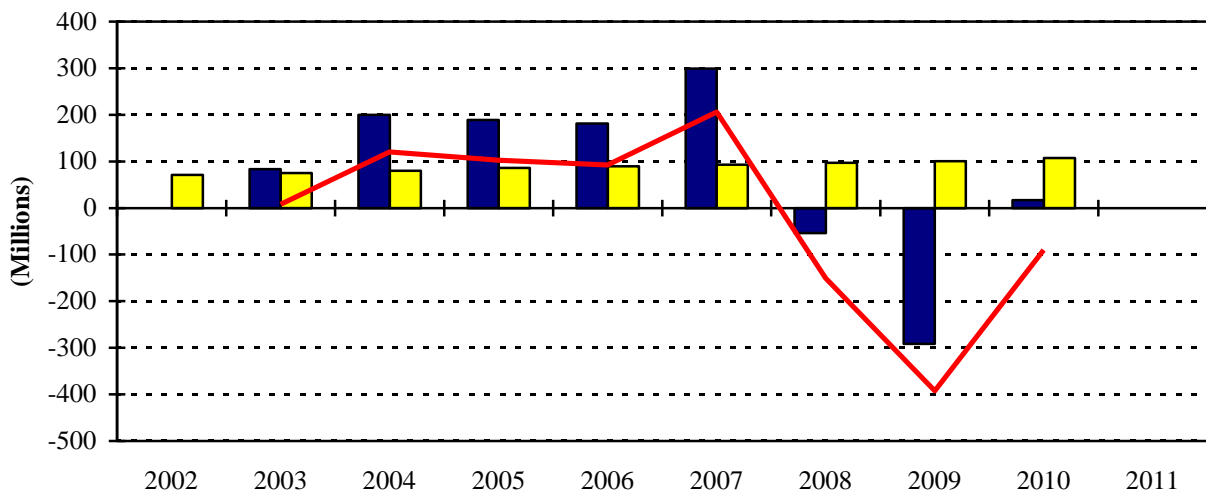
(2012 employee contribution level is based on members with earnings above the poverty level)

Net Non-Investment Income



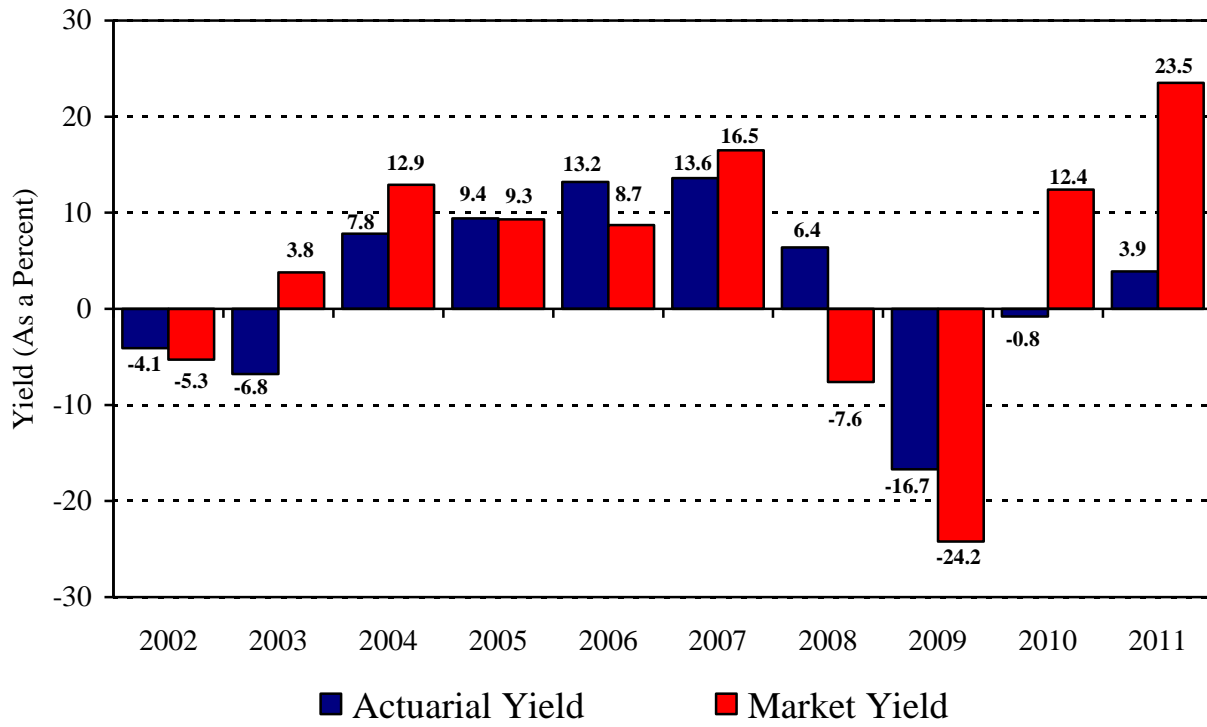
		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Non-Investment Income (\$Mil)	■	43.8	43.6	58.7	74.6	66.7	66.3	69.3	60.6	67.0	106.1
Benefits and Expenses (\$Mil)	■	70.9	75.3	79.6	86.2	89.6	92.9	96.9	100.7	107.2	115.3
Net Non-Investment Income (\$Mil)	—	-27.1	-31.7	-20.9	-11.6	-22.9	-29.6	-27.6	-40.1	-40.2	-9.2

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



		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Income (\$Mil)	■	-26.6	83.5	199.6	188.6	181.6	299.2	-53.6	-291.8	198.1	381.0
Benefits and Expenses (\$Mil)	■	70.9	75.3	79.6	86.2	89.6	92.9	96.9	100.7	107.2	115.3
Net Change in MVA (\$Mil)	—	-97.5	8.2	120.0	102.4	92.0	206.3	-150.5	-392.5	90.9	265.7

Historical Asset Yields



EXHIBITS

EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Normal Cost of Retirement Benefits.....	\$ 34,995,729
2.	Normal Cost of Death Benefits.....	\$ 1,410,119
3.	Normal Cost of Disability Benefits.....	\$ 2,217,565
4.	Normal Cost of Deferred Retirement Benefits	\$ 1,474,491
5.	Normal Cost of Contribution Refunds.....	\$ 5,509,332
6.	TOTAL Normal Cost as of July 1, 2011 (1+2+3+4+5).....	\$ 45,607,236
7.	Amortization of Unfunded Accrued Liability of \$929,386,692	\$ 76,616,490
8.	TOTAL Normal Cost & Amortization Payments (6+7)	\$ 122,223,726
9.	Normal Cost and Amortization Payments Interest Adjusted for Midyear Payment	\$ 126,724,256
10.	Estimated Administrative Cost for Fiscal 2012	\$ 1,073,375
11.	TOTAL Administrative and Interest Adjusted Actuarial Costs (9+10).....	\$ 127,797,631
12.	Expected Insurance Premium Taxes due in Fiscal 2012.....	\$ 15,637,701
13.	Net Direct Combined Actuarially Req'd Contributions for Fiscal 2012 (11-12) ..	\$ 112,159,930
14.	Projected Payroll For Contributing Members July 1, 2011 through June 30, 2012	\$ 276,812,479
15.	Net Direct Combined Actuarially Required Contributions as a % of Projected Payroll for Fiscal 2012 (13 ÷ 14)	40.52%
16.	Actual Net Direct Combined Contribution Rate for Fiscal 2012.....	36.50%
17.	Contribution Gain (Loss) as a Percentage of Payroll (16 – 15)	(4.02%)
18.	Adjustment to Following Year Payment for Contribution Gain (Loss).....	(0.42%)
19.	Recommended Net Direct Combined Contribution Rate for Fiscal 2013 (15 – 18) (Rounded to nearest 0.25%)	41.00%
20.	Recommended Net Direct Employee Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)	7.50%
21.	Recommended Net Direct Employer Contribution Rate (for members with earnings less than or equal to the Department of HHS poverty guidelines)	33.50%
22.	Recommended Net Direct Employee Contribution Rate (for members with earnings more than the Department of HHS poverty guidelines)	10.00%
23.	Recommended Net Direct Employer Contribution Rate (for members with earnings more than the Department of HHS poverty guidelines)	31.00%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

Present Value of Future Benefits for Active Members:

Retirement Benefits.....	\$ 1,344,638,304
Survivor Benefits	20,140,660
Disability Benefits.....	32,142,969
Vested Deferred Termination Benefits	29,131,439
Contribution Refunds	53,580,953

TOTAL Present Value of Future Benefits for Active Members..... \$ 1,479,634,325

Present Value of Future Benefits for Terminated Members:

Terminated Vested Members Due Benefits at Retirement	\$ 3,770,315
Terminated Members with Reciprocals Due Benefits at Retirement.....	12,577
Terminated Members Due a Refund.....	17,319,988

TOTAL Present Value of Future Benefits for Terminated Members \$ 21,102,880

Present Value of Future Benefits for Retirees:

Regular Retirees.....	\$ 870,178,741
Disability Retirees	46,536,940
Survivors & Widows	115,773,670
Retiree DROP & IBO Account Balance.....	45,857,710

TOTAL Present Value of Future Benefits for Retirees & Survivors \$ 1,078,347,061

TOTAL Present Value of Future Benefits..... \$ 2,579,084,266

**EXHIBIT III – Schedule A
MARKET VALUE OF ASSETS**

Current Assets:

Cash & Cash Equivalents in Banks	\$ 18,983,631	
Contributions Receivable from Members	1,772,654	
Contributions Receivable from Employers.....	6,004,796	
Accrued Interest and Dividends on Investments	3,754,315	
Other Receivables	138,161	
Investments Receivables	13,414,991	
Due From Merged Systems	559,134	
TOTAL CURRENT ASSETS		\$ 44,627,682

Property, Plant and Equipment (Net of accumulated depreciation)	\$ 2,358,276
Other Assets	\$ 55,053

Investments:

Marketable Securities - Domestic	\$470,516,047	
Mutual Funds	95,470,665	
Pooled Bond Fund.....	117,294,767	
Real Estate Fund	102,684,689	
Bonds – Domestic & Foreign	189,722,651	
Cash & Cash Equivalents.....	34,706,510	
Marketable Securities - International.....	267,987,562	
Investment in Partnership	39,243,352	
Other Investments	76,906,407	
Real Estate – Land & Rental.....	726,563	
Real Estate – Olde Oaks Development.....	6,911,100	
Real Estate – Olde Oaks Golf Course.....	3,012,628	
Real Estate – The Golf Club at Stone Bridge	2,706,475	
TOTAL INVESTMENTS		\$ 1,407,889,416
TOTAL ASSETS		\$ 1,454,930,427

Current Liabilities:

Accrued Payroll & Taxes.....	58,799	
Investment Payables.....	8,009,162	
Accounts Payable.....	735,793	
Refunds Payable.....	341,358	
Deferred Contributions	60,144	
Other Liabilities	3,000	
Capital Lease Payable	40,381	
Other Post-Employment Benefits	363,131	
Obligations Under Securities Lending Program	4,523,073	
TOTAL CURRENT LIABILITIES		\$ 14,134,841
NET MARKET VALUE OF ASSETS		\$ 1,440,795,586

**EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS**

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

Fiscal year 2011	\$ 187,118,241
Fiscal year 2010 Unrealized Capital Gain (Loss)	89,331,921
Fiscal year 2009 Unrealized Capital Gain (Loss).....	(159,410,474)
Fiscal year 2008 Unrealized Capital Gain (Loss).....	(239,025,571)
Fiscal year 2007	<u>N/A</u>
Total for five years	\$ (121,985,883)

Deferral of excess (shortfall) of invested income:

Fiscal year 2011 (80%)	\$ 149,694,593
Fiscal year 2010 (50%)	44,665,961
Fiscal year 2009 (25%)	(39,852,619)
Fiscal year 2008 (0%)	0
Fiscal year 2007 (0%)	<u>N/A</u>
Total deferred for year	\$ 154,507,935

Market value of plan net assets, end of year..... \$1,440,795,586

Preliminary actuarial value of plan assets, end of year \$1,286,287,651

Actuarial value of assets corridor

85% of market value, end of year	\$1,224,676,248
115% of market value, end of year	\$1,656,914,924

Final actuarial value of plan net assets, end of year \$1,286,287,651

**EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS**

Employee Contributions to the Annuity Savings Fund	\$ 201,145,415
Employer Normal Contributions to the Pension Accumulation Fund.....	162,264,508
Employer Payments on the Unfunded Actuarial Accrued Liability	929,386,692
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	\$ 1,292,796,615

**EXHIBIT V - SCHEDULE A
ACTUARIAL ACCRUED LIABILITIES**

LIABILITY FOR ACTIVE MEMBERS	
Accrued Liability for Retirement Benefits.....	\$ 1,061,934,812
Accrued Liability for Survivor Benefits	9,375,429
Accrued Liability for Disability Benefits.....	15,204,839
Accrued Liability for Vested Termination Benefits.....	17,726,336
Accrued Liability for Refunds of Contributions	11,982,986
TOTAL Actuarial Accrued Liability for Active Members	\$ 1,116,224,402
LIABILITY FOR TERMINATED MEMBERS	\$ 21,102,880
LIABILITY FOR RETIREES AND SURVIVORS	\$ 1,078,347,061
TOTAL ACTUARIAL ACCRUED LIABILITY.....	\$ 2,215,674,343
ACTUARIAL VALUE OF ASSETS.....	\$ 1,286,287,651
UNFUNDED ACTUARIAL ACCRUED LIABILITY	\$ 929,386,692

**EXHIBIT V - SCHEDULE B
CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY**

Prior Year Unfunded Accrued Liability	\$ 836,262,926
Interest on Unfunded Accrued Liability	\$ 62,719,719
Normal Cost for Prior Year	46,584,782
Interest on the Normal Cost.....	3,493,859
Administrative Expenses	1,164,842
Interest on Expenses	42,892
TOTAL Increases to Unfunded Accrued Liability	\$ 114,006,094
Required Contributions for Prior Year with interest	\$ 121,757,733
Contribution Excess (Shortfall) with accrued interest.....	(11,941,362)
Asset Method Gains (Losses)	443,778
Investment Gains (Losses).....	(45,730,863)
Liability Experience Gains (Losses).....	(41,380,558)
Liability Assumption Gains (Losses)	(2,266,400)
TOTAL Decreases to Unfunded Accrued Liability	\$ 20,882,328
CURRENT YEAR UNFUNDED ACCRUED LIABILITY	\$ 929,386,692

EXHIBIT V - SCHEDULE C
AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
JUNE 30, 2011

FISCAL YEAR	DESCRIPTION	AMORT. PERIOD	INITIAL BALANCE	YEARS REMAINING	REMAINING BALANCE	AMORT. PAYMENTS
1997	Contribution Loss (Gain)	15	76,966	1	7,998	7,998
1997	Change In Liability	15	7,807,987	1	811,421	811,421
1998	Contribution Loss (Gain)	15	(176,672)	2	(35,508)	(18,396)
1998	Change In Liability	15	(50,648,475)	2	(10,179,341)	(5,273,635)
1999	Contribution Loss (Gain)	15	89,574	3	26,123	9,344
1999	Change In Liability	15	(45,292,161)	3	(13,208,402)	(4,724,769)
2000	Contribution Loss (Gain)	15	15,208	4	5,723	1,589
2000	Change In Liability	15	(4,827,975)	4	(1,816,685)	(504,561)
2001	Contribution Loss (Gain)	15	(65,357)	5	(29,760)	(6,842)
2001	Change In Liability	15	90,820,890	5	41,354,743	9,508,310
2002	Contribution Loss (Gain)	15	(88,166)	6	(46,654)	(9,247)
2002	Change In Liability	30	207,093,231	21	182,072,811	16,264,500
2003	Contribution Loss (Gain)	15	(225,280)	7	(134,746)	(23,666)
2003	Change In Liability	30	184,314,964	22	165,381,608	14,490,024
2004	Contribution Loss (Gain)	15	13,640,571	8	9,037,120	1,435,238
2004	Change In Liability	30	31,940,093	23	29,198,680	2,513,402
2005	Contribution Loss (Gain)	15	(2,113,182)	9	(1,527,083)	(222,695)
2005	Change In Liability	30	(99,765,418)	24	(92,775,990)	(7,857,917)
2006	Contribution Loss (Gain)	15	(2,889,137)	10	(2,246,630)	(304,467)
2006	Change In Liability	30	(35,359,493)	25	(33,373,198)	(2,785,053)
2007	Contribution Loss (Gain)	15	(4,778,013)	11	(3,959,750)	(503,523)
2007	Change In Liability	30	(84,963,993)	26	(81,288,562)	(6,692,099)
2008	Contribution Loss (Gain)	15	(11,106,672)	12	(9,732,869)	(1,170,459)
2008	Change In Liability	30	63,387,672	27	61,407,179	4,992,663
2009	Contribution Loss (Gain)	15	3,102,817	13	2,856,308	326,989
2009	Change In Liability	30	448,280,459	28	439,284,450	35,308,335
2010	Contribution Loss (Gain)	15	36,539,742	14	35,140,736	3,850,685
2010	Change In Liability	30	113,378,069	29	112,281,565	8,930,103
2011	Contribution Loss (Gain)	15	11,941,362	15	11,941,362	1,258,422
2011	Change In Liability	30	88,934,043	30	88,934,043	7,004,796

TOTAL Unfunded Actuarial Accrued Liability \$ 929,386,692

TOTAL Fiscal 2012 Amortization Payments \$ 76,616,490

EXHIBIT VI
ANALYSIS OF INCREASE IN ASSETS

Actuarial Value of Assets (June 30, 2010) \$ 1,247,546,395

Income:

Regular Member Contributions.....	\$ 20,549,471	
Regular Employer Contributions.....	69,936,156	
Insurance Premium Taxes	15,430,686	
Irregular Contributions	138,074	
TOTAL CONTRIBUTIONS.....		\$ 106,054,387

Net Appreciation of Fair Value of Investments.....	\$ 247,038,743	
Dividends – Stock.....	14,633,038	
Interest – Notes, Bonds, Etc.	11,913,441	
Income on Real Estate Investments.....	4,833,332	
Dividends – Commingled Funds	1,811,259	
Interest – Securities Lending	503,767	
Miscellaneous	172,108	
Contributions from Mergers	52,511	
Interest – Sweep Account	25,465	
Interest – Cash Equivalents	12,191	
Investment Expenses	(6,085,059)	
SUBTOTAL OF ALL MARKET INVESTMENT INCOME		\$ 274,910,796

TOTAL Income \$ 380,965,183

Expenses:

Benefits.....	\$ 110,405,145
Refunds of Contributions.....	2,757,367
Administrative Expenses	1,164,842
Transfers to Other Systems.....	925,949

TOTAL Expenses \$ 115,253,303

Net Market Income for Fiscal 2011 (Income - Expenses)..... \$ 265,711,880

Adjustment for Actuarial Smoothing..... \$ (226,970,624)

Actuarial Value of Assets (June 30, 2011) \$ 1,286,287,651

**EXHIBIT VII
FUND BALANCE**

Present Assets of the System Creditable to:

Annuity Savings Fund	\$ 165,498,584
Annuity Reserve Fund	1,032,489,351
Pension Accumulation Fund.....	161,697,732
Deferred Retirement Option Plan/IBO Account	81,109,919
NET MARKET VALUE OF ASSETS.....	\$ 1,440,795,586
ADJUSTMENT FOR ACTUARIAL SMOOTHING	(154,507,935)
NET ACTUARIAL VALUE OF ASSETS	\$ 1,286,287,651

EXHIBIT VIII
COST OF LIVING ADJUSTMENTS - TARGET RATIO

Actuarial Value of Assets Divided by PBO as of Fiscal 1986:	93.19%
Amortization of Unfunded Balance over 30 years:	5.68%
Adjustments in Funded Ratio Due to Mergers or Changes in Assumption(s):	
Changes for Fiscal 1987	(8.84%)
Changes for Fiscal 1988	12.27%
Changes for Fiscal 1991	(0.91%)
Changes for Fiscal 1993	(1.35%)
Changes for Fiscal 1996	(1.67%)
Changes for Fiscal 1999	(0.57%)
Changes for Fiscal 2000	(5.72%)
Changes for Fiscal 2004	(0.96%)
Changes for Fiscal 2005	3.94%
Changes for Fiscal 2009	(1.09%)
Changes for Fiscal 2011	(0.04%)
TOTAL Adjustments.....	(4.94%)
Amortization of Adjustments in Funded Ratio over 30 years:	
Changes for Fiscal 1987	7.07%
Changes for Fiscal 1988	(9.41%)
Changes for Fiscal 1991	0.61%
Changes for Fiscal 1993	0.81%
Changes for Fiscal 1996	0.84%
Changes for Fiscal 1999	0.23%
Changes for Fiscal 2000	2.10%
Changes for Fiscal 2004	0.22%
Changes for Fiscal 2005	(0.79%)
Changes for Fiscal 2009	0.07%
Changes for Fiscal 2011	0.00%
TOTAL Amortization of Adjustments	1.75%
Target Ratio for Current Fiscal Year	95.68%
Actuarial Value of Assets Divided by Actuarial Accrued Liability as of Fiscal 2011	58.05%

EXHIBIT IX CENSUS DATA

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	7	2	9	28,691	258,217
21 - 25	290	68	358	33,451	11,975,625
26 - 30	713	198	911	38,769	35,318,311
31 - 35	779	232	1,011	42,233	42,697,297
36 - 40	798	218	1,016	46,139	46,877,705
41 - 45	860	201	1,061	49,411	52,424,585
46 - 50	673	166	839	52,917	44,397,241
51 - 55	329	113	442	54,054	23,891,701
56 - 60	143	57	200	54,788	10,957,535
61 - 65	51	16	67	54,190	3,630,717
66 - 70	11	5	16	47,611	761,772
71 - 75	1	0	1	35,287	35,287
76 - 80	1	0	1	55,845	55,845
81 - 85	1	0	1	66,796	66,796
TOTAL	4,657	1,276	5,933	46,073	273,348,634

THE ACTIVE CENSUS INCLUDES 2,470 ACTIVES WITH VESTED BENEFITS, INCLUDING 189 ACTIVE FORMER DROP PARTICIPANTS. THE 231 CURRENT DROP PARTICIPANTS ARE EXCLUDED.

DROP PARTICIPANTS BY AGE:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	42	7	49	51,335	2,515,407
51 - 55	91	20	111	53,897	5,982,546
56 - 60	45	11	56	47,544	2,662,480
61 - 65	11	3	14	34,832	487,647
71 - 75	0	1	1	27,339	27,339
TOTAL	189	42	231	50,543	11,675,419

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	3	0	3	23,549	70,646
36 - 40	18	3	21	19,683	413,336
41 - 45	31	3	34	22,298	758,117
46 - 50	34	10	44	22,576	993,357
51 - 55	17	6	23	17,703	407,176
56 - 60	1	1	2	11,014	22,028
71 - 75	1	0	1	1,656	1,656
TOTAL	105	23	128	20,831	2,666,316

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging		Number	Total Contributions
From	To		
0	- 99	206	9,200
100	- 499	335	85,746
500	- 999	158	110,989
1000	- 1999	140	205,472
2000	- 4999	161	533,664
5000	- 9999	104	741,142
10000	- 19999	119	1,721,729
20000	- 99999	28	703,731
TOTAL		1,251	4,111,673

REGULAR RETIREES:

Age	Number	Number	Total	Average	Total
	Male	Female	Number	Benefit	Benefit
41 - 45	3	0	3	20,064	60,191
46 - 50	56	8	64	40,363	2,583,253
51 - 55	260	51	311	39,079	12,153,656
56 - 60	515	77	592	33,547	19,859,821
61 - 65	642	71	713	29,281	20,877,230
66 - 70	496	43	539	24,434	13,169,906
71 - 75	261	18	279	23,679	6,606,338
76 - 80	173	12	185	21,464	3,970,929
81 - 85	96	5	101	19,333	1,952,598
86 - 90	46	6	52	17,105	889,435
91 - 99	9	1	10	15,625	156,252
TOTAL	2,557	292	2,849	28,880	82,279,609

DISABILITY RETIREES:

Age	Number	Number	Total	Average	Total
	Male	Female	Number	Benefit	Benefit
26 - 30	1	0	1	14,947	14,947
31 - 35	3	1	4	21,426	85,703
36 - 40	10	7	17	16,228	275,875
41 - 45	21	3	24	15,631	375,148
46 - 50	23	12	35	17,783	622,417
51 - 55	38	6	44	16,148	710,503
56 - 60	39	14	53	15,194	805,303
61 - 65	46	8	54	15,476	835,722
66 - 70	19	4	23	14,248	327,709
71 - 75	12	1	13	12,629	164,179
76 - 80	10	0	10	11,613	116,127
81 - 85	2	0	2	10,033	20,065
91 - 99	2	0	2	13,865	27,729
TOTAL	226	56	282	15,537	4,381,427

SURVIVORS:

Age	Number	Number	Total	Average	Total
	Male	Female	Number	Benefit	Benefit
0 - 25	54	59	113	5,611	634,010
26 - 30	1	0	1	1,803	1,803
31 - 35	0	7	7	18,517	129,616
36 - 40	0	11	11	17,257	189,824
41 - 45	1	24	25	15,247	381,187
46 - 50	0	44	44	16,495	725,764
51 - 55	5	37	42	18,934	795,221
56 - 60	7	69	76	15,687	1,192,181
61 - 65	3	97	100	15,998	1,599,773
66 - 70	11	132	143	13,415	1,918,287
71 - 75	4	115	119	12,814	1,524,873
76 - 80	7	125	132	11,910	1,572,147
81 - 85	5	114	119	12,601	1,499,509
86 - 90	5	71	76	10,402	790,559
91 - 99	2	24	26	9,529	247,757
TOTAL	105	929	1,034	12,768	13,202,511

ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	
0 - 20	9											9
21 - 25	112	97	92	42	11	4						358
26 - 30	91	128	183	158	135	215	1					911
31 - 35	54	82	94	106	87	434	154					1,011
36 - 40	38	44	57	54	52	269	377	122	3			1,016
41 - 45	26	38	45	33	43	155	236	310	169	6		1,061
46 - 50	22	16	30	12	19	100	124	167	245	103	1	839
51 - 55	3	3	5	5	14	51	67	81	73	89	51	442
56 - 60		1	2		2	14	33	32	21	39	56	200
61 - 65					1	2	5	9	9	18	23	67
66 - 70							1	2	5	2	6	16
71 & Over								1	1	1	1	3
Totals	355	409	508	410	364	1244	998	724	526	257	138	5933

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Average Salary
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	
0 - 20	28,691											28,691
21 - 25	28,022	33,738	37,251	38,206	34,705	37,769	36,139					33,451
26 - 30	29,372	35,282	38,998	39,702	39,996	43,182	49,338					38,769
31 - 35	28,736	34,270	38,096	37,839	40,133	45,285	49,338					42,233
36 - 40	30,445	33,831	37,577	38,055	39,845	44,599	51,062	53,561	60,449			46,139
41 - 45	31,027	32,299	36,982	39,508	41,137	42,121	48,997	55,138	58,998	83,032		49,411
46 - 50	32,766	35,419	35,033	36,767	37,477	41,580	47,520	52,686	60,555	69,558		52,917
51 - 55	42,986	41,535	31,811	34,698	41,990	40,134	45,230	49,315	61,599	65,012	55,988	54,054
56 - 60		21,886	56,311		39,231	43,009	39,540	51,375	52,925	59,130	67,431	54,788
61 - 65					32,102	56,832	35,561	39,769	48,184	54,013	67,101	54,190
66 - 70							32,155	30,898	31,879	51,808	67,468	47,611
71 & Over								55,845	35,287	66,796		52,643
Average	29,393	34,298	37,940	38,687	39,901	43,839	48,984	53,232	59,362	65,489	66,742	46,073

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility										Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29		30&Over
0 - 30												0
31 - 35									3			3
36 - 40								21				21
41 - 45												34
46 - 50	3	3		1		2	32					44
51 - 55	5	4	1	3	9	37						23
56 - 60	2					1						2
61 - 65												0
66 - 70												0
71 - 75	1											1
76 & Over												0
Totals	11	7	1	4	9	40	32	21	3	0	0	128

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

Attained Ages	Years Until Retirement Eligibility										Average Benefit	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29		30&Over
0 - 30												0
31 - 35									23,549			23,549
36 - 40								19,683				19,683
41 - 45						47,207	20,741					22,298
46 - 50	47,626	32,411		45,520		19,128						22,576
51 - 55	15,078	18,653	25,426	15,820	18,648	16,455						17,703
56 - 60	11,014											11,014
61 - 65												0
66 - 70												0
71 - 75												1,656
76 & Over												0
Average	21,996	24,549	25,426	23,245	18,648	20,465	20,741	19,683	23,549	0	0	20,831

SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											Total			
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over				
0 - 50	25	14	9	7	9	3									67
51 - 55	68	38	40	33	43	86	3								311
56 - 60	57	28	51	48	58	272	72	5	1						592
61 - 65	17	20	25	25	29	229	256	94	8	7	3				713
66 - 70	8	4	5	4	11	62	153	224	17	27	24				539
71 - 75	1		1	3		16	24	62	90	21	61				279
76 - 80		2			1	3	12	20	39	40	68				185
81 - 85				1		1	4	3	11	21	60				101
86 - 90							1	1	5	6	39				52
91 & Over											10				10
Totals	176	106	131	121	151	672	525	409	171	122	265				2849

AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											Average Benefit			
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over				
0 - 50	45,542	39,940	37,139	35,168	30,845	29,235									39,454
51 - 55	43,805	41,497	39,666	39,305	36,532	36,139	11,822								39,079
56 - 60	37,751	36,881	35,111	35,788	32,285	33,976	27,444	11,729	18,201	15,879	11,987				33,547
61 - 65	37,258	36,029	38,538	37,135	32,696	28,484	27,944	28,035	28,026	15,879	11,987				29,281
66 - 70	20,655	43,040	21,202	28,829	28,307	25,776	22,644	27,264	26,980	13,357	12,948				24,434
71 - 75	23,282		40,534	20,370	37,317	25,211	20,078	27,919	28,215	21,476	14,342				23,679
76 - 80		62,309		17,213		18,459	18,847	22,783	27,429	25,046	14,709				21,464
81 - 85						2,600	30,447	11,514	23,561	23,784	16,964				19,333
86 - 90							6,365	35,542	25,582	21,923	15,079				17,105
91 & Over											15,625				15,625
Average	40,290	39,491	36,806	36,224	33,231	31,279	25,649	27,036	27,469	20,948	15,034				28,880

DISABILITY RETIREES:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 30		1										1
31 - 35	2	1	1									4
36 - 40	5	1	1	3	2	5	1					17
41 - 45	1	3	1	3	1	7	8					24
46 - 50	3	3	1	1	2	10	10	3	2			35
51 - 55	2	1	1	1	1	13	16	5	5	1		44
56 - 60	4	4	1		2	7	6	16	10	3		53
61 - 65			1	1	1	6	6	16	11	9	3	54
66 - 70							2	3	5	5	8	23
71 - 75							1	1	4	2	5	13
76 - 80											10	10
81 - 85										2	2	2
86 - 90												0
91 & Over										2	2	2
Totals	17	13	6	8	9	48	50	44	37	20	30	282

AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 30		14,947										14,947
31 - 35	13,439	18,479	40,345									21,426
36 - 40	18,757	14,013	14,263	14,263	14,081	17,355	10,349					16,228
41 - 45	10,369	16,688	27,726	22,723	12,766	16,448	11,365					15,631
46 - 50	26,935	38,492	33,517	39,862	28,669	12,295	10,777	15,068	9,745			17,783
51 - 55	24,694	20,038		23,202	20,245	20,245	14,606	14,607	8,329	6,320		16,148
56 - 60	15,672	21,124	13,441		11,359	22,465	15,069	14,008	11,467	11,834		15,194
61 - 65			11,676	13,160	14,245	13,575	18,528	18,278	14,453	13,042	11,738	15,476
66 - 70							10,446	12,902	17,147	12,573	14,938	14,248
71 - 75							11,982	8,572	10,156	17,757	13,497	12,629
76 - 80											11,613	11,613
81 - 85											10,032	10,032
86 - 90												0
91 & Over											13,865	13,865
Average	19,054	23,346	23,453	20,498	17,603	17,224	13,544	15,502	12,463	12,879	12,871	15,537

SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	7	9	3	13	11	19	10	13				85
21 - 25		1		2	1	5	9	8	2			28
26 - 30							1				1	1
31 - 35	1			1	2	1			1		1	7
36 - 40	1	1	1	2	2	2	2	1	1		1	11
41 - 45	1	1	1	2	2	6	5	3	1	2	1	25
46 - 50		1		2	2	6	12	14	5	2	1	44
51 - 55	2	3		2	2	6	11	8	3	3	2	42
56 - 60			1	1	2	14	14	16	13	8	7	76
61 - 65		2		2	1	10	29	22	13	8	13	100
66 - 70						5	14	31	26	25	42	143
71 - 75						1	7	9	17	28	57	119
76 - 80			1				5	7	18	14	87	132
81 - 85							1	2	13	22	81	119
86 - 90							1		2	4	69	76
91 & Over										2	24	26
Totals	12	18	7	27	23	75	121	134	114	118	385	1034

AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 20	3,405	10,511	9,990	4,178	6,739	7,646	3,920	4,383	1,586			6,098
21 - 25		16,076		14,346	9,586	7,640	2,220					4,132
26 - 30							1,803					1,803
31 - 35	13,318			25,703	23,187	26,392	15,364	5,297			2,465	18,517
36 - 40	31,054	16,950	13,998	30,225	21,992	20,090	9,151	10,560	21,683	13,184	3,593	17,257
41 - 45	18,645	34,267	32,950	26,766	47,069	11,803	8,728	10,560	12,577	7,218	3,624	15,247
46 - 50		31,260		36,554	47,069	26,300	12,440	10,204	12,577	8,408		16,495
51 - 55	24,593	41,926	29,193	34,320	27,061	20,437	18,101	13,718	9,772	11,829	5,743	18,934
56 - 60				23,116	22,033	21,560	19,188	15,285	10,669	11,829	6,777	15,687
61 - 65		24,027		23,968	41,931	17,844	16,742	18,042	15,711	10,946	8,396	15,998
66 - 70						16,394	13,253	19,326	16,664	10,592	8,420	13,415
71 - 75						19,518	14,005	21,253	19,428	12,852	9,226	12,814
76 - 80			60,562				13,550	8,227	20,544	13,240	9,553	11,910
81 - 85							4,896	23,540	25,729	14,406	9,829	12,601
86 - 90							4,896		17,141	19,520	9,758	10,402
91 & Over										8,062	9,651	9,529
Average	11,336	20,388	23,811	16,129	17,753	15,774	13,112	14,053	17,346	12,452	9,323	12,768

EXHIBIT X YEAR-TO-YEAR COMPARISON

	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
Number of Active Contributing Members	5,933	6,197	6,071	5,908
Number of Retirees & Survivors	4,165	4,028	3,984	3,896
DROP Participants	231	194	185	213
Number Terminated Due Deferred Benefits	128	112	112	114
Number of Terminated Due Refund	1,251	1,198	1,197	1,095
Active Lives Payroll (excludes DROP participants)	\$ 273,348,634	\$ 280,977,278	\$ 270,236,561	\$ 252,562,020
Retiree Benefits in Payment	\$ 99,863,547	\$ 93,382,980	\$ 90,285,300	\$ 85,848,060
Market Value of Assets	\$1,440,795,586	\$1,175,083,706	\$1,084,169,309	\$1,476,652,461
Ratio of Actuarial Value of Assets to Actuarial Accrued Liability	58.05%	59.87%	65.23%	86.95%
Actuarial Accrued Liability	\$2,215,674,343	\$2,083,809,321	\$1,988,394,358	\$1,841,234,995
Actuarial Value of Assets	\$1,286,287,651	\$1,247,546,395	\$1,297,128,398	\$1,600,941,810
UAL (Funding Excess)	\$ 929,386,692	\$ 836,262,926	\$ 691,265,960	\$ 240,293,185

	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009
Employee Contribution Rate (For employees with earnings above the poverty level)	10.00%	7.50%	7.50%	7.50%
Required Tax Contributions as a Percentage of Projected Payroll	5.65%	5.36%	5.52%	5.85%
Actuarially Required Employer Contribution as a Percentage of Projected Payroll (For employees with earnings above the poverty level)	30.52%	27.84%	24.13%	10.98%
Actual Employer Contribution Rate (For employees with earnings above the poverty level)	26.50%	25.00%	11.00%	9.5%

Fiscal 2007	Fiscal 2006	Fiscal 2005	Fiscal 2004	Fiscal 2003	Fiscal 2002
5,840	5,769	6,000	6,013	5,957	5,924
3,834	3,739	3,652	3,648	3,544	3,438
217	227	239	265	247	272
108	99	88	80	79	N/A
993	926	602	687	679	N/A
\$ 229,145,048	\$ 223,213,661	\$ 215,638,892	\$ 208,756,800	\$ 197,254,559	\$ 187,567,901
\$ 81,976,596	\$ 77,538,204	\$ 73,587,564	\$ 69,061,812	\$ 65,454,708	\$ 61,576,524
\$1,627,120,612	\$1,420,792,356	\$1,328,792,481	\$1,226,382,950	\$1,106,407,469	\$1,098,224,003
89.05%	83.10%	79.47%	72.89%	73.93%	85.90%
\$1,719,536,371	\$1,651,055,550	\$1,552,332,283	\$1,561,739,325	\$1,455,791,019	\$1,384,605,589
\$1,531,297,284	\$1,371,981,645	\$1,233,572,172	\$1,138,387,070	\$1,076,306,717	\$1,189,425,521
\$ 188,239,087	\$ 279,073,905	\$ 318,760,111	\$ 423,352,255	\$ 379,484,302	\$ 195,180,068

Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005	Fiscal 2004	Fiscal 2003
7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
5.59%	5.66%	5.44%	5.60%	5.07%	4.57%
10.45%	13.70%	15.59%	20.73%	21.77%	15.38%
13.75%	16.50%	20.25%	21.50%	15.25%	9.00%

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.

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

CONTRIBUTION RATES - The fund is financed by employee and employer contributions together with funds from dedicated insurance premium taxes as allocated by the Public Retirement Systems' Actuarial Committee in accordance with RS 22:1476A(3). Employee contribution rates effective July 1, 2011 changed from a fixed rate of 7.5% to a rate which is at least 7.5% but not greater than 10% based on the total contribution expressed as a percentage of payroll after applying all required tax contributions. The employee rate, when such contributions total 25% or less, is set at 7.5%. The employee rate then increases 0.25% for each 0.75% increase in the total rate, and an additional 0.25% when the rate exceeds 28.75%, subject to a maximum rate of 10%. The change does not apply to members whose earnable compensation is less than or equal to the poverty guidelines issued by the U.S. Department of Health and Human Services. Net direct employer contributions are nine percent (9.0%) of earnable compensation unless the funds allocated from dedicated taxes are insufficient to provide the actuarially required contributions or the actuarially required contributions are less than 9.0%. Members are not required to contribute to the system once they have enough service to have accrued 100% of final average compensation, but the employer is required to continue to contribute the employer's contribution until the member retires or enters DROP.

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

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

RETIREMENT BENEFITS - Members with twelve years of creditable service may retire at age fifty-five; members with twenty years of service may retire at age fifty; members with twenty-five years of

service may retire regardless of age. The retirement allowance is equal to three and one-third percent of the member's average final compensation multiplied by his years of creditable service, not to exceed one hundred percent of his average final compensation.

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

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

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

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

Option 2 - Upon retirement, the member receives a reduced benefit. Upon the member's death, the designated beneficiary will continue to receive the same reduced benefit.

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

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

A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2 ½% annual compound increase in monthly retirement benefits based on the reduced benefit and commencing on the later of age fifty-five or retirement anniversary; this COLA is in addition to any ad hoc COLAs which are payable.

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

DISABILITY BENEFITS - Any member who has been officially certified as totally disabled solely as the result of injuries sustained in the performance of his official duties, or for any cause, provided the member has a least ten years of creditable service and provided that the disability was incurred while the member was an active contributing member, is entitled to disability benefits. Disability retirees will receive a benefit equal to three percent of final average compensation multiplied by the number of years of service, subject to a minimum of 40% of final compensation and a maximum of 60% of final compensation. Any disability retiree who is in a coma or paraplegic, or who is blinded or loses the total use of a limb, solely as a result of injuries sustained in the line of duty will receive a benefit equal to 100% of final average compensation. Disability retirees who retired with a service-connected

disability benefit have the option, at normal retirement age, to continue receiving a disability benefit or to convert to receiving their vested retirement benefit. All other disability retirees, at normal retirement age, will receive the greater of their disability retirement benefit or their vested benefit.

SURVIVOR BENEFITS – Benefits are payable to survivors of any active contributing member who dies before retirement, or disability retirees who die after retirement as follows. If he leaves a surviving spouse, she will receive an annual benefit equal to 3 1/3% of the deceased member's average final compensation multiplied by his total years of creditable service; however, in no event is the annual benefit less than 40% nor more than 60% of the deceased member's average final compensation. If the surviving spouse remarries, the benefits shall cease unless the remarriage occurs after age fifty-five. If the member dies as a result of injuries sustained in the line of duty, the surviving spouse receives a benefit equal to 100% of final average compensation, which shall not cease due to remarriage, less any benefits payable to surviving children. Unmarried children of the deceased member who are under the age of eighteen years are entitled to the greater of \$200 per month or 10% of average final compensation (not to exceed 100% of average final compensation when combined with the surviving spouse's benefit) until reaching the age of eighteen, or until the age of twenty-three, assuming they remain unmarried, if enrolled full-time in an institution of higher learning, high school, or vocational-technical school, unless the surviving child is physically handicapped or mentally retarded in which case the benefit is payable regardless of age. If a deceased member dies leaving no surviving spouse, but at least one minor child, each child is entitled to receive forty percent of the deceased's average final compensation, not to exceed an aggregate of sixty percent of average final compensation, subject to the same age restrictions as in the case of a surviving spouse with minor children. If a member dies after he is eligible for retirement but before actual retirement, his surviving spouse will be paid the greater of the surviving spouse benefits detailed above, or an automatic option 2 benefit. Members who have terminated employment with at least twelve years of service credit are eligible for the benefits detailed in this paragraph.

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

COST OF LIVING INCREASES – Pursuant to R.S. 11:2225, the board of trustees is authorized to use interest earnings in excess of the normal requirements to grant annual cost of living increases of 3% of

each retiree's original or current benefit. R.S. 11:246 provides cost of living increases to retirees and beneficiaries over the age of 65 equal to 2% of the benefit in payment on October 1, 1977, or the date the benefit was originally received if retirement commenced after that date. R.S. 11:241 provides that cost of living benefits shall be in the form (unless the board otherwise specifies) of $\$X \times (A+B)$ where X is at most \$1 and "A" represents the number of years of credited service accrued at retirement or at death of the member or retiree, and "B" is equal to the number of years since retirement or since death of the member or retiree to June 30th of the initial year of such increase. The provisions of this subpart do not repeal provisions relative to cost of living adjustments contained within the individual laws governing systems; however, they are to be controlling in cases of conflict. All of the above provisions require that the system earn sufficient excess interest earnings to fund the increases. In addition, the ratio of the plan's assets to accrued liabilities must meet the criteria established in R.S. 11:242. This section sets forth a minimum "target ratio" of the actuarial value of assets to the system's accrued liabilities.

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

ACTUARIAL ASSUMPTIONS

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

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

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

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

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

ACTUARIAL ASSET VALUES ULTIMATE METHOD: All assets are valued at market value adjusted to defer four-fifths of all earnings above or below the valuation interest rate in the valuation year, three-fifths of all earnings above or below the valuation interest rate in the prior year, two-fifths of all earnings above or below the valuation interest rate from two years prior, and one-fifth of all earnings above or below the valuation interest rate from three years prior. The resulting smoothed values are subject to a corridor of 85% to 115% of the market value of assets. If the smoothed value falls outside the corridor, the actuarial value is set equal to the average of the corridor limit and the smoothed value.

ACTIVE MEMBER MORTALITY: RP 2000 Sex Distinct Employee Tables set back 1 year for males and set back 1 year for females.

ANNUITANT AND BENEFICIARY MORTALITY: RP 2000 Sex Distinct Healthy Annuitant Tables set back 1 year for males and set back 1 year for females.

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

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

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

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

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

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

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

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:

<u>Age</u>	<u>Rate</u>
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.

<u>Service</u>	<u>Factor</u>
<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.

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

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

VESTING ELECTING PERCENTAGE: 20% of those vested elect deferred benefits in lieu of contribution refunds.

ACTUARIAL TABLES AND RATES

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

GLOSSARY

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

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

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

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

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

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

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

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

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

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

Amortization Payment - That portion of the pension plan contribution designated to pay interest and reduce the outstanding principal balance of unfunded actuarial accrued liability. If the amortization

payment is less than the accrued interest on the unfunded actuarial accrued liability the outstanding principal balance will increase.

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

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

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

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

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

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

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

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

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

NOTES: