

## *Hall Actuarial Associates*

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Enrolled Actuary

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October 17, 2008

Board of Trustees  
MUNICIPAL POLICE EMPLOYEES'  
RETIREMENT SYSTEM  
7722 OFFICE PARK BOULEVARD, Suite 200  
Baton Rouge, Louisiana 70809-7601

Gentlemen:

This report presents the results of the actuarial valuation of assets and liabilities, as well as funding requirements, for the Municipal Police Employees' Retirement System as of June 30, 2008.

This report has been prepared in accordance with generally accepted actuarial principles and practices and to the best of my knowledge, fairly reflects the actuarial present value of accrued benefits of the Municipal Police Employees' Retirement System.

In preparing this valuation, I have relied upon the information provided regarding plan provisions, plan membership, plan assets and other matters as detailed in the exhibits of this report. In particular, I have relied upon the statement of assets as audited by Duplantier, Hrapmann, Hogan and Maher, Certified Public Accountants.

The present values shown herein have been estimated on the basis of actuarial method, as specified in Louisiana Revised Statutes Title 11 Section 22(7). The Actuarial Assumptions, which have been approved by the Board of Trustees, are appropriate for the purposes of this valuation are reasonable in the aggregate, and when applied in combination represents my best estimates of the anticipated experience under the plan.

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October 17, 2008

A brief summary of the more important figures developed in this valuation, with comparable results from previous valuations are as follows:

	-----Prior Years-----		
	<u>June 30, 2008</u>	<u>June 30, 2007</u>	<u>June 30, 2006</u>
I. Membership Census			
1) Retirees	3,896	3,834	3,739
2) Actives	5,908	5,840	5,769
3) DROP	213	217	227
4) Vested Deferred	114	108	99
II. Annual Benefits	\$ 85,848,060	\$ 81,976,596	\$ 77,538,204
III. Total Payroll	252,562,020	229,145,048	223,213,661
IV. Valuation Assets	1,600,941,810	1,531,297,284	1,371,981,645
V. Investment Yield			
Market Value	<u>-7.63%</u>	<u>16.46%</u>	<u>8.72%</u>
5 year avg.	7.61%	10.18%	5.69%
10 year avg.	4.50%	6.80%	6.56%
Actuarial Value	<u>6.41%</u>	<u>13.58%</u>	<u>13.20%</u>
5 year avg.	10.04%	7.18%	3.61%
10 year avg.	5.90%	6.48%	6.50%
DROP Accounts	<u>5.91%</u>	<u>13.08%</u>	<u>12.70%</u>
VI. Cost to Fund Annual Pension Accruals (Normal Costs)	43,428,131 17.20%	39,837,614 17.39%	38,555,196 17.27%
VII. Unfunded Actuarial Accrued Liability	240,293,185	188,239,087	279,073,905
VIII. Funded Percentage	86.9%	89.05%	83.10%
IX. Funding Requirements (Mid Year Payment)			
1) Employee Rate	7.50%	7.50%	7.50%
2) Employer Rate <sup>1</sup>	10.25%	10.50%	15.50%
Premium Tax Allocation <sup>1</sup> (Current Year)	15,000,000(est)	14,455,288	12,817,414
3) Projected Employer Rate <sup>1</sup> (Next Year)	11.00%(est)	9.50%	13.75%

Funding requirement measures the cost of benefits in effect on June 30, 2008.

<sup>1</sup> The rate is based on the estimated allocation from the Insurance Premium Tax Fund. The actual rate will be determined based on the actual allocation from the Insurance Premium Tax Fund determined by PERSAC.

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Changes in Unfunded Actuarial Liability

The Actuarial Valuation for the plan year ending June 30, 2008 discloses an increase in the value of the plan's unfunded actuarial accrued liability due primarily to favorable investment performance. It is generally appropriate for the current valuation process to disclose the source and causes of any significant changes in the plan from year to year. Changes that occur are generally the result of changes in actuarial assumptions, gains or losses resulting from actual experience which differs significantly from expected plan experience or some external force such as plan restructuring.

During the past fiscal year, the actuarial unfunded accrued liability/ (surplus) increased from \$188.2 million to \$240.3 million dollars.

To clarify the decrease in the actuarial unfunded accrued liability, the following gain/loss analysis is presented as follows:

CHANGE IN UNFUNDED LIABILITY (SURPLUS)

UNFUNDED LIABILITY 6/30/2007		\$ 188,239,087
INCREASES		
Interest on Unfunded Liability	14,117,932	
Investment Loss	16,478,804	
Experience Loss	44,821,037	
Retiree COLA	<u>2,087,831</u>	
Incurred Increases	77,505,604	
DECREASES		
Amortization Payment	14,344,834	
Employer Contribution Variance	<u>11,106,672</u>	
Incurred Decreases	25,451,506	
UNFUNDED LIABILITY 6/30/2008		\$ 240,293,185

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### History of Changes in Funding Requirements

The Legislature recognized that the statutory employee and employer contribution rates were not sufficient to fund the benefit structure of the new retirement system. The State allocated 4/10<sup>th</sup> of 1% of the casualty insurance premium to supplement the employers' contribution and supplement the merger of under funded municipalities. Previously, employees and employers contributed a combined 14% of payroll, which is now 10.0% below the current projected actuarial funding requirement.

During the early 1980's, the tax revenue as a percentage of payroll continued to decline. This was largely due to the influx of new members resulting from mergers of non-participating municipalities. Unlike the employee contribution rate, the tax revenue is not fixed as a percentage of payrolls. The table at the end of this section indicates that portion of the employers' contribution rate that is supplemented by the Insurance Premium Tax.

1988 Legislative Session: Two bills were enacted which had a tremendous impact on the future funding of the system. The Insurance Premium Tax, which was dedicated by statute, was revoked. As a result of Act 81, the employee contribution rate was raised from 7% to 8% of payroll. Furthermore, Act 81 required the employer to fund the employer portion, raising the employer rate from 7% to approximately 12.0%. The contribution rates were increased to replace the lost revenue provided by the insurance premium tax in order to meet actuarial funding requirements.

1990 Legislative Session: The Actuarial Forecast Committee set the employer contribution rate at 11.38%, 9.00% plus a \$2,236,000 appropriation. However, Governor Roemer vetoed the enabling legislation which resulted in a reversion to the higher 11.38% rate for the municipalities during the 1990-1991 fiscal year.

1991 Legislative Session: Act 397 reestablished the employee rate at 7% and the employer rate at 9%, the balance of the funding requirement from the Insurance Premium Tax. The excess, if any, would revert to the general fund. Act 456 added a 25 year at any age retirement eligibility benefit. Members' contribution rate was increased from 7% to 8%. Members pay the increased rate for thirty years or until the system becomes 100% funded. At that time, the employee contribution rate decreases to 7.5%. The plan became fully funded on June 30, 1993, the employee rate decreased to 7.5% effective July 1, 1994.

2001 Legislative Session: Act 1160 reallocates the distribution of the .7% Insurance Premium Tax. La. State Police receives the first \$1,500,000. The balance is divided into fourths. One fourth is allocated each to Municipal Police, Firefighters, Sheriffs' and the Merger Fund. Amounts allocated in excess of current funding requirements are reallocated to the remaining Funds. Excesses after reallocation are returned to the State's General Fund.

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**History of Changes in Funding Requirements (continued)**

2005 Legislative Session: Act 448 urges the Municipal Police, Firefighters, Sheriffs' to review their actuarial assumptions for the purpose of reducing the employers' contribution rate. Effective July 1, 2005, the Board of Trustees' voted to increase the actuarial discount rate to 7.5%, reducing the 05-06 PERSAC rate from 20.25% to 16.50%.

**Tax Revenue as a Percentage of Contributions**

Year End 6/30/YY	Employee Rate	Employer Rate	IPT Rate	Insurance Premium	Unfunded Liability	Funded Percent	Market Yield	Actuarial Yield
1991	7.00%	9.00%	1.63%	1,538,104	2,361,789	99.6%	8.20%	8.81%
1992	8.00%	9.00%	12.55%	12,153,985	4,252,517	99.3%	12.63%	10.06%
1993	8.00%	9.00%	3.49%	3,418,553	-7,285,866	101.1%	13.14%	13.03%
1994	7.50%	9.00%	2.88%	2,822,166	-3,640,164	100.5%	0.32%	7.81%
1995	7.50%	9.00%	2.74%	2,751,785	6,618,618	99.1%	12.09%	5.50%
1996	7.50%	9.00%	3.41%	3,569,803	-27,156,135	103.3%	11.07%	12.97%
1997	7.50%	9.00%	4.05%	5,005,376	-18,182,503	102.0%	13.86%	14.90%
1998	7.50%	9.00%	1.14%	1,498,487	-68,156,543	107.2%	14.80%	12.44%
1999	7.50%	9.00%	2.12%	3,041,136	-110,425,877	110.6%	9.26%	13.71%
2000	7.50%	9.00%	0.00%	0	-110,301,247	109.5%	3.66%	7.91%
2001	7.50%	9.00%	0.00%	0	-14,071,173	101.1%	-3.35%	2.06%
2002	7.50%	9.00%	0.00%	0	195,180,068	85.9%	-5.41%	-5.10%
2003	7.50%	15.25%	2.44%	4,806,272	379,484,302	73.9%	3.90%	-7.12%
2004	7.50%	21.50%	4.16%	8,689,205	423,352,255	72.9%	12.87%	7.80%
2005	7.50%	20.25%	4.70%	10,135,228	318,760,111	79.5%	9.34%	9.44%
2006	7.50%	16.50%	5.17%	11,539,000	279,073,905	83.1%	8.72%	13.20%
2007	7.50%	13.75%	5.59%	12,817,388	181,195,765	89.4%	16.46%	13.58%
2008	7.50%	9.50%	5.72%	14,455,288	240,293,185	86.9%	-7.63	6.41%

**Reporting Disclosures**

Exhibit 3 "Pension Accounting and Financial Disclosure" contains disclosure of the accrued liabilities under the Entry Age Normal Actuarial Cost Method required by the Governmental Accounting Board Statement No. 25.

The Board of Trustees approved a five year Experience Study which adjusted the actuarial assumptions. The adopted rates are subject to the Legislative Actuary's review, but are utilized in this valuation. The new assumptions are illustrated in Exhibit 6. A copy of the study dated July 16, 2004 can be obtained from the Retirement System Office.

Board of Trustees  
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**Legislative Changes**

Act 110 changes the non-service disability eligibility requirement from 5 years to 10 years of service. The Act is effective July 1, 2008.

Act 113 grants the Board of Trustees the authority to grant one future, one-time, permanent 3% cost-of-living adjustment to retirees and survivors from excess interest earnings. This adjustment is not subject to the Target Ratio criteria.

Act 827 grants to members eligible to participate in DROP on or after January 1, 2004 the right to make an irrevocable election to waive his rights as protected by the Constitution of Louisiana relative to the interest earned by his DROP account in lieu of money market rates.

**Consideration for Cost-of-Living Increase**

The Development of the Target Ratio (see Exhibit 7) makes specific provisions for the determination of whether or not a retirement system is systematically approaching the targeted funding ratio. This is an important consideration for both retired members and the Board of Trustees. The Board is specifically prohibited from granting a cost-of-living raise to retirees and survivors by Act 256 of the 1986 regular session unless the system has met the Funding Target or unless the Legislature authorizes a COLA.

For the plan year ending June 30, 2008 the funding target is .95671, which is greater than the current .86949 funding ratio. Therefore, the Board is not permitted to consider granting a cost-of-living increase by statute.

The format of this report was designed with the intent of highlighting the pertinent results of the valuation's funding requirements. Should you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Charles G. Hall, FCA, MAAA, ASA  
Actuary

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**EXHIBIT 1**  
**DEVELOPMENT**  
**OF**  
**COSTS, LIABILITIES AND CONTRIBUTIONS**

Normal Costs and Accrued Liabilities are calculated in accordance with the Individual entry Age Normal Actuarial Cost Method, and the Actuarial Assumptions outlined in Exhibit 6 based on the Provisions of the Plan as summarized in Exhibit 5.

	<u>June 30, 2008</u>		<u>June 30, 2007</u>	
	<u>Dollar</u>	<u>% of</u>	<u>Dollar</u>	<u>% of</u>
	<u>Amount</u>	<u>Salary</u>	<u>Amount</u>	<u>Salary</u>
I. Normal Costs				
(to fund annual pension accruals)				
Active Members with Complete Data				
a) Retirement Benefits	\$ 33,076,389	13.10%	\$ 29,949,257	13.07%
b) Disability Benefits	2,499,148	.99%	2,575,620	1.13%
c) Survivor Benefits	1,365,910	.54%	1,245,857	.55%
d) Voluntary Termination	5,392,684	2.14%	5,002,880	2.18%
e) Expenses	<u>1,094,000</u>	<u>.43%</u>	<u>1,064,000</u>	<u>.46%</u>
TOTAL NORMAL COST	43,428,131	17.20%	39,837,614	17.39%
II. Actuarial Accrued Liability				
a) Active Members				
1) Retirement Benefits	705,546,161		634,105,691	
2) Disability Benefits	12,864,760		10,019,922	
3) Survivor Benefits	11,022,848		10,011,043	
4) Voluntary Termination	<u>19,146,099</u>		<u>17,532,326</u>	
	748,579,868		671,668,982	
b) Retired and Inactive Members				
1) Regular Retirees	693,227,166		665,513,409	
2) Disabled Retirees	33,607,018		32,650,137	
3) Survivors	108,807,918		104,125,361	
4) Vested Deferred & Transfers	9,006,630		9,277,591	
5) Contributions Refunded	4,205,886		3,915,829	
6) DROP Deferred Benefits	163,252,327		158,513,499	
7) DROP Account Balance	<u>80,548,182</u>		<u>73,871,563</u>	
	1,092,655,127		1,047,867,389	
TOTAL ACCRUED LIABILITY	1,841,234,995		1,719,536,371	

Exhibit 1 (Continued)**Costs, Liabilities & Contributions**

	<u>June 30, 2008</u>	<u>--Prior Year--</u> <u>June 30, 2007</u>
II. Actuarial Accrued Liability		
TOTAL (Preceding page)	\$ 1,841,234,995	\$ 1,719,536,371
III. Valuation Assets	1,600,941,810	1,531,297,284
IV. Unfunded Actuarial Accrued Liabilities - (Surplus)	240,293,185	188,239,087
a) Change over prior year	52,054,098	-90,834,818
b) Funded Percentage	86.9%	89.05%
V. Employer Contributions		
To Fund current Plan Year <sup>1</sup>		
a) Employer Portion of Normal Cost	25,387,604	23,485,819
b) Amortization Payments	18,580,048	13,403,545
c) Employer Shortfall Credit	<u>-802,173</u>	<u>431,841</u>
TOTAL Required Contribution	43,165,479	37,321,205
Estimated Premium Tax Offset	<u>15,000,000 (est)</u>	<u>14,455,288</u>
Net Employer Contribution	28,165,479	22,865,917
	10.25% (est)	10.00%
VI. Projected Employer Contributions		
To Fund Next Plan Year <sup>1</sup>		
a) Employer Portion of Normal Cost	26,522,497	24,532,866
b) Amortization Payments	18,580,048	13,403,545
c) Employer Shortfall Credit	<u>-487,184</u>	<u>-445,286</u>
TOTAL Projected Contribution	44,615,361	37,491,125
Estimated Premium Tax Offset	<u>15,000,000 (est)</u>	<u>14,455,288</u>
Net Employer Contribution	29,615,361	22,904,041
	11.00% (est)	9.50%
VII. Current Payroll	252,562,020	229,145,048
Projected Payroll - Mid Year	256,480,197	232,675,127
Projected Payroll - Next Year	267,945,538	243,048,266

<sup>1</sup> Dollar Amounts reflect estimated payments due mid-year on January 1st. The Net Employer Rate is rounded to the nearest .25%, but not less than 9.00%

## EXHIBIT 2

**FINANCIAL SUMMARY  
STATEMENT OF REVENUES AND EXPENSES  
FOR FISCAL YEAR ENDING**

	<u>June 30, 2008</u>	-----Prior Years----- <u>June 30, 2007</u>	<u>June 30, 2006</u>
<u>OPERATING REVENUES:</u>			
1. Contribution Income			
Member	\$ 18,637,104	\$ 17,157,738	\$ 16,878,085
Employer	35,174,945	35,867,002	37,221,473
2. Other Income			
General Fund/Premium Tax	14,455,288	12,817,388	12,217,914
Merger Interest	84,889	96,467	107,023
Transfers	955,158	343,337	0
Miscellaneous	360	681	319,768
TOTAL CONTRIBUTIONS	69,307,744	66,282,613	66,744,263
3. Investment Income			
Investments	-118,410,098	238,130,897	118,890,181
Less, Manager fees	-4,493,097	-5,173,962	-4,019,378
TOTAL INVESTMENT INCOME	-122,903,195	232,956,935	114,870,803
4. Total Revenues	-53,595,451	299,239,548	181,615,066
<u>OPERATING EXPENSES:</u>			
1. General Administration	1,094,511	1,063,168	892,225
Other Expenses	94,896	94,428	561,868
92,841,073			
2. Benefits Paid			
a) Pension Benefits	92,841,073	87,910,584	82,988,328
b) Return of Contrib.	2,842,220	3,843,112	4,660,819
c) Transfers	0	0	511,951
TOTAL BENEFITS PAID	95,683,293	91,753,696	88,161,098
3. Total Expenses	96,872,700	92,911,292	89,615,191
<u>NET INCOME:</u>	-150,468,151	206,328,256	91,999,875

**EXHIBIT 2 (Continued)**  
**Financial Summary**

**FINANCIAL SUMMARY**  
**STATEMENT OF ASSETS**  
**FOR FISCAL YEAR ENDING**

	<u>June 30, 2008</u>	-----Prior Years-----	
		<u>June 30, 2007</u>	<u>June 30, 2006</u>
<b><u>ASSETS</u></b>			
1. Short Term Assets			
Cash in Banks	\$ 16,264,396	\$ 9,295,570	\$ 10,882,724
Cash Equivalents	39,380,469	35,964,735	29,054,919
2. Bonds			
Domestic and Foreign	199,014,122	183,798,885	206,779,897
Pooled Funds	87,264,987	71,772,589	203,729,874
Real Estate Funds	130,495,197	133,418,423	146,959,606
Mutual Funds	44,693,248	56,682,712	n/a
3. Equities, Insurance Agreements			
Domestic Stock	644,791,428	634,416,607	568,232,813
Foreign Stocks	176,653,335	342,868,811	228,978,543
4. Other Investments	83,504,186	98,553,462	1,779,569
5. Other Assets			
Property/Equipment	2,517,916	2,574,618	2,639,998
Real Estate	21,125,881	19,994,127	83,753,228
Receivables (-) Payables	29,746,917	36,443,184	-63,536,182
Receivables from Mergers	<u>1,200,379</u>	<u>1,336,889</u>	<u>1,537,367</u>
 TOTAL ASSETS			
Market Value	1,476,652,461	1,627,120,612	1,420,792,356
Valued at Cost	1,438,094,799	1,349,537,379	1,247,655,333
 <b><u>INVESTMENT YIELD:</u></b>			
To Actuarial Value	6.41%	13.57%	13.20%
-Net of Mergers	6.41%	13.58%	13.20%
DROP Account Yield	5.91%	13.08%	12.70%
Market Value	-7.63%	16.46%	8.72%
 <b><u>ACTUARIAL VALUE OF ASSETS:</u></b>			
TOTAL Assets, less	1,476,652,461	1,627,120,612	1,420,792,356
Change in Unrealized (G/L)			
Plan Year - 2 (wt. 1/4)	11,026,896	47,900,892	66,360,372
Plan Year - 1 (wt. 2/4)	104,446,210	11,026,896	47,900,892
Plan Year (wt. 3/4)	<u>-239,025,571</u>	<u>104,446,210</u>	<u>11,026,896</u>
Valuation Assets	1,600,941,810	1,531,297,284	1,371,981,645

## EXHIBIT 3

**PENSION ACCOUNTING  
AND  
FINANCIAL DISCLOSURE**

The Governmental Accounting Standards Board (GASB) was established as an arm of the Financial Accounting Foundation in April, 1984 by amendment to the Foundation's certificate of incorporation and by-laws. GASB's objective is to promulgate standards of financial accounting and reporting relative to the activities and transactions of state and local governmental entities. The following disclosures and statistical tables are in accordance with the GASB's Statement No. 25.

**SCHEDULE OF FUNDING PROGRESS**

(Dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability(AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Payroll ((b-a)/c)
1999	1,148,896	1,038,470	-110,426	110.6	143,670	-76.9
2000	1,277,548	1,167,247	-110,301	109.5	163,773	-71.6
2001	1,275,128	1,261,057	-14,071	101.1	181,738	-7.7
2002	1,189,425	1,384,605	195,180	85.9	187,568	104.1
2003	1,076,306	1,455,791	379,484	73.9	197,254	192.4
2004	1,138,387	1,561,739	423,252	72.9	208,756	202.7
2005	1,233,572	1,552,332	318,760	79.5	215,639	147.8
2006	1,371,982	1,651,056	279,074	83.1	223,214	125.0
2007	1,531,297	1,719,536	188,239	89.1	229,145	82.2
2008	1,600,942	1,841,234	240,293	86.9	252,562	95.1

The total actuarial accrued liability determined using the Individual Entry Age Normal cost method increased by \$121,698,624 from June 30, 2007 to June 30, 2008. There was a net experience loss of \$44,821,037.

**EXHIBIT 3 (Continued)****Pension Accounting & Financial Disclosure****SUPPLEMENTARY INFORMATION****SCHEDULE OF EMPLOYER CONTRIBUTIONS**

<u>Fiscal Year</u>	<u>Actuarial Required Contribution</u> <sup>1</sup>	<u>Percent Contributed</u>	<u>Annual Pension Cost (APC)</u> <sup>1</sup>	<u>Actual Contribution</u> <sup>1</sup>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u> <sup>1</sup>
1999	13,568,502	99.3	13,578,983	13,478,928	99.3	63,093
2000	15,362,721	99.9	15,370,370	15,347,513	99.9	85,949
2001	17,123,946	100.4	17,131,525	17,189,303	100.3	28,172
2002	22,389,583	100.4	22,400,294	22,477,751	100.4	-49,285
2003	27,268,852	100.3	27,283,821	27,494,127	100.7	-259,591
2004	57,420,770	76.2	57,445,752	43,780,202	76.2	13,405,959
2005	58,109,563	103.6	57,593,472	60,222,742	104.6	10,776,689
2006	48,370,710	106.0	47,919,406	51,259,847	107.0	7,436,248
2007	45,699,034	110.5	45,324,500	50,477,050	111.4	2,283,698
2008	40,351,047	127.5	40,074,581	51,457,721	128.4	-9,099,441

Analysis of the percentage contributed over a period of years will give a relative indication of the funding progress for the liabilities of the Municipal Police Employees' Retirement System.

The difference between the Actuarial Required Contribution and the APC is the amortization payment for the Net pension Obligation (see Exhibit A).

**DEVELOPMENT OF NET  
PENSION OBLIGATION:**

(1) Actuarial Required Contribution	\$40,351,047
(2) Interest on Net Pension Obligation	171,277
(3) Amortization of Net Pension Obligation	447,742
(4) Accrued Pension Cost(1)+(2)-(3)	40,074,581
(5) Employer Contribution	51,457,721
(6) Increase (-decrease) in Net Pension Obligation	-11,383,140
(7) Net Pension Obligation Beginning of Year	2,283,698
(8) Net Pension Obligation End of Year (6) + (7)	-9,099,442

<sup>1</sup> Actuarial Contributions, the Annual Pension Cost (APC), and the actual employer contribution made have been adjusted with interest at the valuation rate to the end of the fiscal year in accordance with GASB's Statement No. 25.

**EXHIBIT 3 (Continued)****Pension Accounting & Financial Disclosure**

## STATISTICAL DATA

COMPARATIVE SUMMARY OF REVENUES BY SOURCE  
AND EXPENSES BY TYPE

## Revenues by Source

<u>Fiscal</u> <u>Year End</u>	<u>Members</u> <u>Contribution</u>	<u>Employer</u> <u>Contribution</u>	<u>Investment</u> <u>Income</u>	<u>Total</u>
1999	10,930,972	43,841,701 <sup>1</sup>	99,479,917	154,252,590
2000	12,376,419	87,844,851 <sup>1</sup>	44,467,036	144,688,306
2001	13,838,527	18,415,443	-34,986,464	-2,732,494
2002	14,032,129	23,068,690	-63,719,980	-26,619,161
2003	14,727,154	27,321,001	41,473,699	83,521,854
2004	15,646,734	42,887,212	141,065,828	199,599,774
2005	16,136,038	58,324,486	114,154,056	188,614,580
2006	16,878,085	49,759,155	114,977,826	181,615,066
2007	17,157,738	49,124,875	232,956,935	299,239,548
2008	18,637,104	50,670,640	-122,903,195	-53,595,451

## Expenses by Type

<u>Fiscal</u> <u>Year End</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative</u> <u>Expenses</u> <sup>2</sup>	<u>Total</u>
1999	50,777,251	1,752,904	714,756	53,244,911
2000	54,814,794	2,027,856	701,576	57,544,226
2001	59,414,407	2,689,175	784,496	62,888,078
2002	67,241,501	2,767,657	860,049	70,869,207
2003	71,862,749	2,491,874	983,765	75,338,388
2004	76,534,487	2,143,792	946,014	79,624,293
2005	82,597,961	2,565,141	1,041,947	86,205,049
2006	83,500,279	4,660,819	1,454,093	89,615,191
2007	87,910,584	3,843,112	1,157,596	92,911,292
2008	92,841,073	2,842,220	1,189,407	96,872,700

<sup>1</sup> Includes merger contract prepayments of \$30,248,342 in 1999 and \$72,283,023 in 2000.

<sup>2</sup> Includes other expenses incurred not directly related to the administration of daily operation.  
(See Exhibit 2).

## EXHIBIT 4

## CENSUS DATA

The data contained in this valuation is summarized on the following pages with exceptions noted below. The profile depicted in the cellular graphs represents "error-free data", which serves as the basis for determining costs and liabilities. Active members are allocated to cells based upon attained age and years of service. Retirees and Survivors are allocated to cells based upon attained age and years elapsed since retirement or commencement of benefits.

The validity of the results of any actuarial valuation is dependent upon the accuracy of the data base. Prior to processing, suspicious data and data containing errors were purged from the data base and processed separately based on the following error types:

- missing sex code
- missing or invalid date of birth
- missing or invalid date of employment
- missing or invalid salary
- invalid retirement dates

There were no records purged this year from the data base containing errors or categorized as suspicious data which is a significant reduction when compared to previous years. Suspicious data are not necessarily errors, but data which falls outside the parameters of the editing process for further checking.

Salary data contained in the profiles and valuation report exceed the sums reported by internal audit due to salary annualization. In the valuation process, membership data with fractional service annualizes the salary in the first year of employment.

The following is a summary by participant status of the data submitted for valuation:

	---2008---	---2007---	---2006---
	<u>Census</u>	<u>Census</u>	<u>Census</u>
Active Members	5,705	5,645	5,575
DROP to Active	203	195	194
Regular Retirees	2,671	2,613	2,517
Disability Retirees	200	201	208
Survivors	1,025	1,020	1,014
Vested & Reciprocals	114	108	99
Due Refunds	1,095	993	926
DROP Participants	<u>213</u>	<u>217</u>	<u>227</u>
TOTAL	11,226	10,992	10,760

MEMBERSHIP PROFILE  
CATEGORIZED BY AGE AND YEARS EMPLOYED

MUNICIPAL POLICE SYSTEM  
ACTIVE MEMBERS

CELLS DEPICT - MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2008

Age	YEARS EMPLOYED									Total	
	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35- )		
[ 0-19)	10	2	0	0	0	0	0	0	0	0	12
	218720	55986	0	0	0	0	0	0	0	0	274706
[20-24)	190	164	3	0	0	0	0	0	0	0	357
	5151464	5298583	95449	0	0	0	0	0	0	0	10545496
[25-29)	171	547	180	0	0	0	0	0	0	0	898
	4848593	19446395	7299702	0	0	0	0	0	0	0	31594690
[30-34)	124	324	416	143	2	0	0	0	0	0	1009
	3475999	11813067	17706844	6610435	97340	0	0	0	0	0	39703685
[35-39)	78	195	324	375	140	2	0	0	0	0	1114
	1942241	6886462	13329060	17801898	7013630	106344	0	0	0	0	47079635
[40-44)	39	149	155	220	308	136	3	0	0	0	1010
	1095268	4958796	6294377	10235985	15758569	8110326	190876	0	0	0	46644197
[45-49)	17	66	94	109	159	226	99	0	0	0	770
	485863	2238385	3529684	5049080	8041974	13143065	6398696	0	0	0	38886747
[50-54)	3	29	49	71	70	78	91	8	0	0	399
	80587	951707	1663753	2995414	3296836	4340618	5806935	634328	0	0	19770178
[55-59)	0	0	27	25	21	20	12	2	1	0	108
	0	0	881525	1031948	953687	1174122	787904	125744	60916	0	5015846
[60-64)	0	2	3	3	7	7	1	1	0	0	24
	0	54185	94963	103783	247322	295883	37418	68890	0	0	902444
[65-69)	0	0	0	2	1	1	0	0	0	0	4
	0	0	0	58279	45356	37352	0	0	0	0	140987
[70-74)	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
TOTALS	632	1478	1251	948	708	470	206	11	1	0	5705
salary	17298735	51703566	50895357	43886822	35454714	27207710	13221829	828962	60916	0	240558611

AVERAGES --- Attained Age 37.82  
Service Years 9.50  
Active Salary 42,166

MEMBERSHIP PROFILE  
CATEGORIZED BY AGE AND YEARS EMPLOYED

MUNICIPAL POLICE SYSTEM  
ACTIVE AFTER DROP

CELLS DEPICT - MEMBER COUNT  
TOTAL SALARY  
DROP BENEFITS

VALUATION DATE 6/30/2008

Age	YEARS EMPLOYED									Total	
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20- )		
[ 0-34):	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
[35-39):	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
[40-44):	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
[45-49):	5	0	0	0	0	0	0	0	0	0	5
:	195888	0	0	0	0	0	0	0	0	0	195888
:	179928	0	0	0	0	0	0	0	0	0	179928
[50-54):	20	19	11	8	4	5	0	0	0	0	67
:	808790	1064712	745717	470656	256419	469739	0	0	0	0	3816033
:	609756	590028	365448	260100	131952	174816	0	0	0	0	2132100
[55-59):	11	11	13	9	12	27	3	0	0	0	86
:	468503	679319	717639	644711	761175	1861012	215913	0	0	0	5348272
:	308820	364068	378312	306924	364200	820212	86304	0	0	0	2628840
[60-64):	4	6	5	5	2	8	12	2	1	1	45
:	169263	331849	311677	200748	109739	463301	840698	147473	68468	0	2643216
:	64392	169980	150264	63036	57828	193128	303048	75600	25848	0	1103124
[65-69):	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
[70-74):	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0	0
TOTALS :											
count :	40	36	29	22	18	40	15	2	1	1	203
salary :	1642444	2075880	1775033	1316115	1127333	2794052	1056611	147473	68468	0	12003409
benefit :	1162896	1124076	894024	630060	553980	1188156	389352	75600	25848	0	6043992

AVERAGES --- Attained Age 56.66  
Post Drop Years 3.88  
Active Salary 59,130  
Annual Benefit 29,773

MEMBERSHIP PROFILE  
CATEGORIZED BY AGE AND YEARS RETIRED

MUNICIPAL POLICE SYSTEM  
REGULAR RETIREES

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

VALUATION DATE 6/30/2008

Age	YEARS RETIRED										Total	
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20- )			
[ 0-39)	0	0	0	0	0	0	0	0	0	0	0	0
[40-44)	0	2	0	0	0	0	0	0	0	0	0	2
[45-49)	13	12	13	11	4	2	0	0	0	0	0	55
[50-54)	13	24	44	53	56	130	11	0	0	0	0	331
[55-59)	12	15	22	29	45	354	119	14	1	1	1	611
[60-64)	4	3	3	10	13	213	294	74	34	34	34	648
[65-69)	2	1	1	1	6	56	113	182	82	82	82	444
[70-74)	0	0	0	0	0	11	28	51	171	171	171	261
[75-79)	0	0	0	0	0	4	4	19	137	137	137	164
[80-84)	0	0	0	0	0	1	2	9	98	98	98	110
[85-89)	0	0	0	0	0	1	0	1	37	37	37	39
[90-99)	0	0	0	0	0	0	0	0	6	6	6	6
TOTALS	44	57	83	104	124	772	571	350	566	566	566	2671
benefit	1421460	1961592	2802960	3346572	3887796	22340532	14755380	9439632	10893408	10893408	10893408	70849332

AVERAGES --- Attained Age 63.74  
Years Retired 13.52  
Annual Benefit 26,525

MEMBERSHIP PROFILE  
CATEGORIZED BY AGE AND YEARS RETIRED

MUNICIPAL POLICE SYSTEM  
DISABILITY RETIREES

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

VALUATION DATE 6/30/2008

Age	YEARS RETIRED									Total
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20- )	
[ 0-39)	5	3	1	2	1	3	0	0	0	15
	75732	40932	35400	23724	12576	36648	0	0	0	225012
[40-44)	2	2	1	2	2	9	4	0	0	22
	53712	77448	34308	18924	25644	121704	41172	0	0	372912
[45-49)	0	1	1	2	4	12	7	3	1	31
	0	12564	12792	37776	54228	168048	78804	40440	11844	416496
[50-54)	0	5	3	2	0	7	13	8	3	41
	0	85260	58572	28992	0	131712	196824	101196	41052	643608
[55-59)	0	1	0	0	0	5	7	11	8	32
	0	14244	0	0	0	63756	92364	139176	80808	390348
[60-64)	1	0	0	0	0	3	5	2	12	23
	13164	0	0	0	0	31248	86832	22308	158592	312144
[65-69)	0	0	0	0	0	0	3	2	14	19
	0	0	0	0	0	0	26832	20880	215160	262872
[70-74)	0	0	0	0	0	0	0	0	8	8
	0	0	0	0	0	0	0	0	106236	106236
[75-79)	0	0	0	0	0	0	0	0	7	7
	0	0	0	0	0	0	0	0	63636	63636
[80-84)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[85-89)	0	0	0	0	0	0	0	0	2	2
	0	0	0	0	0	0	0	0	27732	27732
[90-99)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
TOTALS	8	12	6	8	7	39	39	26	55	200
benefit	142608	230448	141072	109416	92448	553116	522828	324000	705060	2820996

AVERAGES --- Attained Age 55.05  
Years Retired 14.68  
Annual Benefit 14,105

MEMBERSHIP PROFILE  
CATEGORIZED BY AGE AND YEARS RETIRED

MUNICIPAL POLICE SYSTEM  
SURVIVOR BENEFITS

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

VALUATION DATE 6/30/2008

Age	YEARS RETIRED									Total	
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20- )		
[ 0-39)	6	9	1	7	1	24	16	11	8	83	
	102648	88632	21588	75924	9420	145092	96576	56628	39696	636204	
[40-44)	8	8	0	1	0	4	5	7	4	37	
	98592	52116	0	14280	0	48804	34980	53436	54432	356640	
[45-49)	4	1	2	3	1	4	16	3	3	37	
	55284	41928	28872	47244	11940	68628	95700	51372	26604	427572	
[50-54)	1	4	1	4	5	13	23	7	13	71	
	52992	159744	16272	76764	101580	166416	194568	72396	110508	951240	
[55-59)	0	1	1	4	2	14	18	12	16	68	
	0	22860	12804	77208	60732	283812	278244	148488	197064	1081212	
[60-64)	0	0	1	0	2	15	30	9	26	83	
	0	0	4020	0	41880	217032	567708	155388	256740	1242768	
[65-69)	1	0	1	0	2	5	20	29	47	105	
	28692	0	31692	0	14628	86436	324756	481068	518172	1485444	
[70-74)	0	0	0	0	0	6	13	14	94	127	
	0	0	0	0	0	47376	146448	187128	1088940	1469892	
[75-79)	0	0	0	0	0	2	4	11	130	147	
	0	0	0	0	0	9792	43092	179784	1513920	1746588	
[80-84)	0	0	0	0	0	1	1	5	120	127	
	0	0	0	0	0	4896	19068	69180	1358400	1451544	
[85-89)	0	0	0	0	0	0	0	1	85	86	
	0	0	0	0	0	0	0	15300	838116	853416	
[90-99)	0	0	0	1	0	0	2	0	51	54	
	0	0	0	12456	0	0	12168	0	450588	475212	
TOTALS	count	20	23	7	20	13	88	148	109	597	1025
	benefit	338208	365280	115248	303876	240180	1078284	1813308	1470168	6453180	12177732

AVERAGES --- Attained Age 67.67  
Years Retired 23.08  
Annual Benefit 11,881

MEMBERSHIP PROFILE  
CATEGORIZED BY AGE AND YEARS RETIRED

MUNICIPAL POLICE SYSTEM  
DROP PARTICIPANTS

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

VALUATION DATE 6/30/2008

Age	YEARS PARTICIPATED									Total
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20- )	
[ 0-39)	0	0	0	0	0	0	0	0	0	0
[40-44)	0	1	0	0	0	0	0	0	0	1
[45-49)	14	17	13	0	0	0	0	0	0	44
[50-54)	34	38	35	0	0	0	0	0	0	107
[55-59)	15	16	13	0	0	0	0	0	0	44
[60-64)	9	2	6	0	0	0	0	0	0	17
[65-69)	0	0	0	0	0	0	0	0	0	0
[70-74)	0	0	0	0	0	0	0	0	0	0
[75-79)	0	0	0	0	0	0	0	0	0	0
[80-84)	0	0	0	0	0	0	0	0	0	0
[85-89)	0	0	0	0	0	0	0	0	0	0
[90-99)	0	0	0	0	0	0	0	0	0	0
TOTALS	72	74	67	0	0	0	0	0	0	213
benefit	2911020	2843484	2637372	0	0	0	0	0	0	8391876

AVERAGES --- Attained Age 53.33  
Years Retired 1.43  
Annual Benefit 39,398

MEMBERSHIP PROFILE  
CATEGORIZED BY AGE AND YEARS EMPLOYED

MUNICIPAL POLICE SYSTEM  
TERM-VESTED/RECIPROCAL

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

VALUATION DATE 6/30/2008

Age	YEARS EMPLOYED									Total
	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35- )	
[ 0-19)	0	0	0	0	0	0	0	0	0	0
[ 20-24)	0	0	0	0	0	0	0	0	0	0
[ 25-29)	0	0	0	0	0	0	0	0	0	0
[ 30-34)	0	0	0	2	0	0	0	0	0	2
[ 35-39)	0	0	0	18120	0	0	0	0	0	18120
[ 40-44)	0	0	0	11	4	0	0	0	0	15
[ 45-49)	0	0	0	137880	48252	0	0	0	0	186132
[ 50-54)	0	0	0	15	12	4	0	0	0	31
[ 55-59)	0	0	0	143736	179208	64908	0	0	0	387852
[ 60-64)	0	0	0	9	10	16	0	0	0	35
[ 65-69)	0	0	0	117216	133608	289380	0	0	0	540204
[ 70-74)	0	0	0	11	17	0	0	0	0	28
[ 75-79)	0	0	0	118452	205428	0	0	0	0	323880
[ 80-84)	0	0	0	0	1	0	0	0	0	1
[ 85-89)	0	0	0	0	7692	0	0	0	0	7692
[ 90-94)	0	0	1	0	0	0	0	0	0	1
[ 95-99)	0	0	5172	0	0	0	0	0	0	5172
[ 100-104)	0	0	1	0	0	0	0	0	0	1
[ 105-109)	0	0	1656	0	0	0	0	0	0	1656
[ 110-114)	0	0	0	0	0	0	0	0	0	0
[ 115-119)	0	0	0	0	0	0	0	0	0	0
TOTALS	0	0	2	48	44	20	0	0	0	114
count	0	0	6828	535404	574188	354288	0	0	0	1470708
benefit	0	0								

AVERAGES --- Attained Age 46.47  
Service Years 15.90  
Annual Benefit 12,901

**EXHIBIT 5**

**SUMMARY OF THE MUNICIPAL POLICE EMPLOYEES'  
RETIREMENT SYSTEM PLAN PROVISIONS**

**EFFECTIVE DATE:**

July 1, 1973

**EMPLOYEE:**

Any full-time police officer empowered to make arrests, employed by a municipality of the State and engaged in law enforcement, earning at least \$375/month excluding state supplemental pay, or an elected Chief of Police whose salary is at least \$100.00 per month, and any employee of this System. City or Ward Marshals, elected Councilmen and Mayors excluded.

**EMPLOYER:**

Any municipality in the State which employs a full-time police officer, empowered to make arrests, or which has an elected Chief of Police whose salary is at least \$100.00 per month; and Municipal Police Employees' Retirement System.

**MEMBERSHIP:**

1. Persons who were members on 9/7/77 must remain members and persons hired on or after 9/9/77 must become members as a condition of employment, if under age 50; providing they do not have to pay social security (Act 141 of 1983).
2. Persons who transferred from another police retirement system in 1973 and 1974 under R.S. 42:697 as it read at that time (Act 46 of 1972).
3. Persons who transferred from another police retirement system in 1975 and 1976 under R.S. 42:697 as it read at that time (Act 548 of 1975).
4. Persons who became members under R.S. 42:697 and are having credit/or will have credit "recognized" between this system and another system or systems (Act 416 of 1976 AMENDED by Act 344 of 1978 and Act 103 of 1979).
5. Persons who became members because of a merger agreement entered into between a local police pension fund and this retirement system.
6. Employees, employed by any municipality or parish of this state which has its employees covered under the federal Social Security program, may elect not to be or become a member. Any member who elects not to be a member shall be refunded his employee contributions received by the system, without interest (Act 32 of 1984).

**EXHIBIT 5 (Continued)**  
**Plan Provisions**

**CREDITABLE SERVICE:**

As follows:

1. Prior Service - service credit which was not credited in any other retirement system and for which a prior service certificate was issued.
2. Membership Service - service as a member for which the system received contribution. Qualifying cadet service may be purchased per Act 215 of 1992.

**NOTE:** a. No prior service credit to be given for employee who becomes member after July 31, 1976; extended to 1/1/77 for employee who is required to pay Social Security contributions.

- b. Credit for military service up to July 1, 1973 given, not to exceed 4 years, provided employee pays employee and employer contributions that would have been required based on rate of pay when first hired as police officer, plus 6% compound interest.

**EMPLOYEE CONTRIBUTIONS:**

7% of earnable compensation (Over 30 years of service, no contributions required).  
8.0% effective July 1, 1989; 7.5% effective July 1, 1994.

**EMPLOYER CONTRIBUTIONS:**

Municipality Rate set at 9%; balance to be determined by the Actuarial Forecast Committee and to be funded from dedicated Insurance Premium Tax.

**EARNABLE COMPENSATION:**

Full amount of regular salary earned by an employee for a given month, including State supplemental pay, but excluding overtime pay.

**AVERAGE FINAL COMPENSATION:**

Average annual earned compensation of an employee for any period of highest 36 successive or joined month's earnable compensation.

**NORMAL RETIREMENT:**

The average compensation of a member for purposes of computing benefits cannot increase more than 25% per year. (Effective 1/1/87 Act 367 of 1986)

**ELIGIBILITY:**

20 years of service and age 50 or 12 years of service and age 55 or 25 years of service at any age; member of the System for one year.

**EXHIBIT 5 (Continued)**  
**Plan Provisions**

BENEFIT:

3 1/3% of average final compensation times years of creditable service.  
(not to exceed 100% of final salary).

ANNUITY FORM:

An annuity payable for the lifetime of the member.

**EARLY RETIREMENT:**

ELIGIBILITY:

20 years of service regardless of attained age.

BENEFIT:

3 1/3% of Average Final Compensation multiplied by creditable service actuarially reduced for retirement prior to age 50.

**EARLY REDUCED RETIREMENT:**

ELIGIBILITY:

20 years of Service Credit regardless of attained age.

BENEFIT:

Normal retirement benefit, based upon service accrued to date, actuarially reduced from the earliest date member would be eligible if employment had continued to the earliest normal retirement date.

**DISABILITY BENEFITS:**

ELIGIBILITY:

Any member may retire due to total and permanent disability, with at least five (5) years of creditable service, unless injuries were sustained in the performance of official duty.

BENEFIT:

3% of Average Final Compensation multiplied by years of creditable service, but not less than 40% nor more than 60% of Average Final Compensation. 100% of Average Final Compensation if in a coma, is paraplegic or loses the use of a limb

**NOTE:** Upon reaching age, disability pensioner receives greater of the disability benefit or the accrued benefit earned to date of disability.

**EXHIBIT 5 (Continued)**  
**Plan Provisions**

**DEATH BENEFITS:**

ELIGIBILITY:

1. Death of active contributing member or disability retiree.
2. Death of member eligible for retirement, except for the one year of membership requirement.
3. Death of member while in the line of duty.

BENEFIT:

1. Surviving spouse receives the retirement benefit the member had earned to his date of death, but not less than 40% and not more than 60% of the member's Average Final Compensation. Benefit ceases upon widow's death or remarriage, unless member was killed in the line of duty or the spouse attains age 55.
2. Automatic Option 2 for widow or shall be paid benefits as provided above in (1), whichever is greater.
3. Surviving spouse receives 100% of member's Average Final Compensation

**NOTE:**

Surviving minor children with surviving spouse receive benefits equal to the greater of 10% of average compensation or \$200 per month per child payable to age 18, except for retarded children and those who go directly to college after high school (maximum extension, four years).

Surviving minor children with no surviving spouse receive benefits equal to 30% of average compensation with an aggregate limit of 60% of average compensation. If only one surviving minor child, benefits equal 40% of average compensation.

**VESTING:**

ELIGIBILITY:

1. Member who terminates employment after one year as member of the System before attaining age 50 with 20 years of creditable service.
2. Member who terminates employment after one year as member of the System before attaining age 55, with 12 years of creditable service.
3. Member who terminates receives refund and returns, must complete 3 additional years service in order to repay refund with 5% compound interest.

**EXHIBIT 5 (Continued)**  
**Plan Provisions**

**BENEFIT:**

1. Deferred retirement benefit payable at age 50.
2. Deferred retirement benefit payable at age 55.

**NOTE:** Terminated vested member shall be covered by survivor benefit provision.

**OPTIONAL FORMS OF BENEFIT:**

1. Balance of value of annuity to beneficiary if death before receiving value of annuity at time of retirement.
2. 100% survivor's benefits - reduced retirement benefit continued to beneficiary at member's death.
3. 50% survivor's benefits - 50% of reduced retirement benefit continued to beneficiary at member's death.
4. Initial Benefit Option - maximum benefit actuarially reduced for partial lump sum equal to not more than 36 months of maximum monthly pension.
5. Other benefits of equal actuarial value, upon approval of Board.

**COST OF LIVING INCREASE:**

The Board of Trustees is authorized to provide a cost of living increase for retirees not to exceed 3% of the original benefit for each year of retirement and an additional 2% for retirees age 65 and over, provided the system has reached its Funding Target.

**DEFERRED RETIREMENT OPTION PLAN:**

(Act 475 of 1984)

Instead of terminating employees and accepting a service retirement allowance, any member who has met the following eligibility requirements may elect to participate in the Deferred Retirement Option Plan (DROP) and defer receipt of benefits.

**ELIGIBILITY:**

Twenty (20) years of creditable service (including reciprocal service) and eligible to receive a normal service retirement allowance.

**BENEFIT:**

Duration of participation is specified not exceed three years, effective July 1, 1992.

**EXHIBIT 5 (Continued)**  
**Plan Provisions**

BENEFIT:

Upon termination of employment at the end of or prior to the end of the specified period of participation, a participant will receive, at his option:

1. Lump sum payment (equal to the account balance)
- 2 a true annuity based upon his account; or
3. any other method of payment if approved by the board of trustees. Monthly benefits being paid into the fund during participation will begin being paid to the retiree.

If a participant dies during the period of participation in the program, a lump sum payment equal to his account balance shall be paid to the beneficiary, or if none, to his estate; in addition, normal survivor benefits payable to survivors of retirees shall be payable.

If employment is not terminated at the end of the specified period of participation, then:

1. payment into account shall cease;
2. payment from account is suspended until employment is terminated; and
3. participant shall resume active contributions to the system.

Then, upon termination of employment, the benefit payments indicated above shall be paid. The participant shall receive an additional retirement benefit based on additional service rendered since termination of participation in the fund, usually the normal method of computation of benefit subject to the following:

1. If additional service was less than 36 months, average compensation figure used to calculate additional benefit shall be that used to calculate original benefit.
2. If additional service was 36 or more months, the average compensation figure used to calculate the additional benefit shall be based on compensation during the period of additional service.

**NOTE:** DROP Accounts shall earn interest following termination of DROP at a rate .5% below the actuarial rate of the System's investment portfolio.

Effective 1/1/2004 new DROP accounts are credited with Money Market rates or self directed accounts approved by the Board of Trustees.

**EXHIBIT 6****ACTUARIAL COST METHODS AND ASSUMPTIONS****COST METHOD:**

The individual "Entry Age Normal" cost method was used to calculate the funding requirements of the retirement system. Under this cost method, the actuarial present value of projected benefits of each individual included in the valuation is allocated on a level basis as percentage of payroll for each participant between entry age and assumed retirement age(s). That portion of the actuarial present value attributable to current year benefit accruals is called the Normal Cost. The actuarial present value of future benefits in excess of the actuarial present value of future normal costs is called the actuarial accrued liability.

**ASSET VALUATION:**

For the Plan Year ending prior to June 30, 1999 equities are valued at a four year weighted average. The computation of the actuarial value of assets is the sum of the bonds at amortized cost, less a weighted average of unrealized losses or (gains) in the market value of equities, plus the market value of equities.

Effective June 30, 1999 the Board of Trustees approved a change in the Asset Valuation Method. The Actuarial Value of Assets is the market value of assets adjusted for a four year weighted average in the unrealized gain or loss in the value of all assets. This value is determined in accordance with Reg.1.412(c)(2)-1-(6) & (7) of the Internal Revenue Service Code and is subject to the Corridor Limits defined therein.

As a result of the change in the Asset Valuation Method, the reporting of realized income has been changed to realized, plus unrealized income for valuations beginning on June 30, 1999 and thereafter.

**ACCOUNTING DISCLOSURE:**

The Governmental Accounting Standards Board Statement No. 25 requires disclosure of certain Actuarial Liabilities for Public Employee Retirement Systems. The disclosures illustrated in Exhibit 3 were developed using the Entry Age Normal cost method. The statement of assets provided by the independent auditors was a copy of the final draft prior to publication. Should the statement of assets received differ from the final audit report, a revised actuarial statement will be issued, but only to the extent that any difference in reporting affects the employer's Premium Tax Allocation or the yield to the Actuarial Value of Assets.

**ACTUARIAL ASSUMPTIONS:**

The Retirement System is required to conduct an experience study every five years, but the scope of such a study is not necessarily limited to a five year period. The current five-year observation period (1999-2003) was chosen to coincide with the most recent period of data reporting following the restructuring of the Deferred Retirement Option Program.

**EXHIBIT 6 (Continued)****Cost Methods & Assumptions****MORTALITY ASSUMPTIONS:**

Pre-retirement deaths and post-retirement life expectancies were projected in accordance with the experience of the 1983 Sex Distinct Group Annuity Mortality Table for the current valuation; 1971 GAM in valuations prior to June 30, 2005.

**DISABILITY ASSUMPTION:**

Rates of total and permanent disability were projected by age in accordance with the Eleventh Actuarial Valuation of the Railroad Retirement System. For mortality after disability, rates were on the Eleventh Actuarial Valuation of the Railroad Retirement System for occupational disabilities. As an approximation of the Railroad Retirement tables, an age set-up of the 1971 GAM table was used equal to 1/2 the rate at disability and the rate at age 82.

**RETIREMENT/DROP ASSUMPTION:**

Retirement without reduction in benefits can occur at any given age after satisfying the service eligibility requirements. Absent from the plan is a traditional "Normal Retirement Age". Since the age and service requirements are varied, the frequency of retirements will depend on the exposure plus intangibles such as health, economy, Social Security and other work patterns.

DROP is viewed as an alternative form of benefit accrual since mandatory terminate is not required following participation. Therefore, at eligibility, the probability of DROP accrual is determined in conjunction with regular benefit accrual. Retirement rates were projected based on the 1999-2003 Experience Study for the Municipal and State Police Retirement Plan.

**TERMINATION ASSUMPTIONS:**

Voluntary termination or withdrawal rates are the same as those used in prior valuations. During the first five years of employment, the probability of voluntarily terminating is a multiple of the attained age rate as follows:

1st year	1.25x
2nd year	1.00x
3rd year	1.00x
4th year	1.00x
5th year	1.00x

Furthermore, for members terminating with twelve (12) or more years of service it is assumed that 20% will not withdraw their accumulated employee contributions.

**EXHIBIT 6 (Continued)**  
**Cost Methods & Assumptions**

**SALARY GROWTH:**

The rates of annual salary growth are base upon the members years of service and are illustrated in the rate tables at the end of this exhibit.

**FAMILY STATISTICS:**

The composition of the Family was based on Age-Specific Fertility Rates from the 1983 Vital Statistics of the United States. 80% of the membership was assumed to be married with the wife assumed to be three (3) years younger than the husband. Sample rates are as follows:

<u>Age at Death</u>	<u>Number of Minor Chn.</u>	<u>Years for Youngest Child to Attain Majority</u>
25	1.3	17
30	1.8	15
35	2.2	13
40	2.1	10
45	1.7	8
50	1.2	4

**REMARRIAGE:**

Annuities payable to the spouse which cease upon death or remarriage were taken from "A Technical Note for the Construction of Widow's Annuities. "The Remarriage and Mortality rates used to develop these annuities were based on the graduated rates from "Mortality and Remarriage Experience for Widow's Beneficiaries under OASDI.

**ASSUMPTION FOR INCOMPLETE DATA:**

Records identified as containing suspicious data or errors in data were assumed to possess the same characteristics of "good data" in the same cohort.

**INVESTMENT EARNINGS:**

The actuarial discount rate for valuation purposes was 7%, net expenses, prior to July 1, 2005. Effective July 1, 2005, Board approved an increase in the rate to 7.5%.

**ADMINISTRATIVE EXPENSES:**

These expenses are included in Normal Cost and are assumed to be \$1,094,000 per year. Investment Expenses are not included in Normal Cost but are treated as a direct offset to investment income. The Employer portion of the Normal Cost includes an allocation for administrative expenses.

ACTUARIAL TABLES AND RATES  
NEW RATES 6/30/2004

<u>Age</u>	<u>- Death Rates -</u>		<u>Disability</u>	<u>Termination</u>	<u>Retirement</u>	<u>DROP</u>	<u>Dur</u>	<u>Salary</u>
	<u>Male</u>	<u>Female</u>	<u>Rates</u>	<u>Rates</u>	<u>Rates</u>	<u>Rates</u>		<u>Scale</u>
18	.00035	.00017	.0001	.1100	.0000	.000	1	1.1500
19	.00036	.00018	.0001	.1100	.0000	.000	2	1.1000
20	.00038	.00019	.0001	.1000	.0000	.000	3	1.0600
21	.00039	.00020	.0001	.1000	.0000	.000	4	1.0600
22	.00041	.00021	.0001	.1000	.0000	.000	5	1.0600
23	.00042	.00023	.0001	.0950	.0000	.000	6	1.0600
24	.00044	.00024	.0001	.0950	.0000	.000	7	1.060
25	.00046	.00025	.0001	.0950	.0000	.000	8	1.0550
26	.00049	.00027	.0010	.0950	.0000	.000	9	1.0550
27	.00051	.00028	.0010	.0950	.0000	.000	10	1.0550
28	.00054	.00030	.0010	.0950	.0000	.000	11	1.0550
29	.00057	.00032	.0015	.0750	.0000	.000	12	1.0500
30	.00061	.00034	.0015	.0750	.0000	.000	13	1.0500
31	.00065	.00036	.0015	.0650	.0000	.000	14	1.0500
32	.00069	.00039	.0015	.0650	.0000	.000	15	1.0500
33	.00073	.00041	.0015	.0650	.0000	.000	16	1.0500
34	.00078	.00044	.0015	.0650	.0000	.000	17	1.0440
35	.00086	.00048	.0015	.0650	.0000	.000	18	1.0440
36	.00091	.00050	.0015	.0400	.0000	.000	19	1.0440
37	.00097	.00054	.0035	.0400	.0000	.000	20	1.0440
38	.00104	.00057	.0035	.0400	.0000	.000	21	1.0440
39	.00113	.00062	.0035	.0400	.0000	.000	22	1.0440
40	.00124	.00066	.0035	.0400	.0000	.000	23	1.0440
41	.00137	.00072	.0035	.0400	.0000	.000	24	1.0440
42	.00153	.00078	.0035	.0400	.0000	.000	25	1.0400
43	.00172	.00084	.0035	.0400	.2500	.000	26	1.0400
44	.00193	.00092	.0035	.0400	.2500	.150	27	1.0400
45	.00218	.00101	.0035	.0400	.2500	.150	28	1.0400
46	.00247	.00112	.0035	.0400	.2500	.350	29	1.0400
47	.00279	.00124	.0035	.0400	.2500	.350	30	1.0400
48	.00314	.00137	.0035	.0400	.1500	.400	31	1.0400
49	.00351	.00151	.0035	.0400	.1500	.150	32	1.0400
50	.00391	.00165	.0035	.1000	.3000	.400	33	1.0400
51	.00432	.00179	.0035	.0500	.2500	.400	34	1.0400
52	.00475	.00195	.0035	.0500	.2500	.200	35	1.0400
53	.00520	.00212	.0035	.0500	.3000	.150	36	1.0400
54	.00566	.00231	.0060	.0500	.3500	.150	37	1.0400
55	.00613	.00254	.0060	.0500	.5000	.200	38	1.0400
56	.00662	.00280	.0100	.0500	.2500	.300	39	1.0400
57	.00714	.00310	.0010	.0500	.2000	.200	40	1.0400
58	.00772	.00344	.0010	.0500	.2000	.150	41	1.0400
59	.00838	.00382	.0010	.0500	.2000	.150	42	1.0400
60	.00916	.00424	.0010	.0500	.5000	.150	43	1.0400
61	.01006	.00470	.0010	.0500	.5000	.000	44	1.0400
62	.01113	.00521	.0010	.0500	.1500	.000	45	1.0400
63	.01239	.00577	.0000	.0500	.1500	.000	46	1.0400
64	.01387	.00639	.0000	.0500	.5000	.000	47	1.0400
65	.01559	.00706	.0000	.0500	.5000	.000	48	1.0400
66	.01758	.00782	.0000	.0500	.5000	.000	49	1.0400
67	.01980	.00868	.0000	.0000	.5000	.000	50	1.0400
68	.02223	.00970	.0000	.0000	.9900	.000	51	1.0400
69	.02482	.01092	.0000	.0000	.9900	.000	52	1.0400
70	.02753	.01238	.0000	.0000	.9900	.000	53	1.0400
71	.03035	.01413	.0000	.0000	.9900	.000	54	1.0400
72	.03337	.01616	.0000	.0000	.9900	.000	55	1.0400
73	.03668	.01848	.0000	.0000	.9900	.000	56	1.0400
74	.04039	.02109	.0000	.0000	.9900	.000	57	1.0400

**EXHIBIT 7**  
**DEVELOPMENT OF TARGET RATIO**

Funded Ratio of the System as of the 1986 fiscal year end .93194

Number of years elapsed since the 1986 fiscal year end multiplied by  
1/30<sup>th</sup> of the difference between 100% and the Initial Funded Ratio .04991

Changes in Funded Ratio after the 1986 fiscal year end:

<u>Date of Change</u>	<u>Change in funded Ratio</u>
<u>6/30/87</u>	<u>-.08841</u>
<u>6/30/88</u>	<u>.12270</u>
<u>6/30/91</u>	<u>-.00911</u>
<u>6/30/93</u>	<u>-.01350</u>
<u>6/30/96</u>	<u>-.01671</u>
<u>6/30/99</u>	<u>-.00572</u>
<u>6/30/00</u>	<u>-.05719</u>
<u>6/30/04</u>	<u>-.00961</u>
<u>6/30/05</u>	<u>.03942</u>

Total Change in Funded Ratio -.03813

Number of years elapsed since the date of each change multiplied by  
1/30<sup>th</sup> of the amount of opposite arithmetic sign of such change:

<u>Date of Change</u>	<u>Amortization of Change</u>
<u>6/30/87</u>	<u>.06189</u>
<u>6/30/88</u>	<u>-.08180</u>
<u>6/30/91</u>	<u>.00516</u>
<u>6/30/93</u>	<u>.00675</u>
<u>6/30/96</u>	<u>.00668</u>
<u>6/30/99</u>	<u>.00172</u>
<u>6/30/00</u>	<u>.01525</u>
<u>6/30/04</u>	<u>.00128</u>
<u>6/30/05</u>	<u>-.00394</u>

Total Amortization of Changes .01299

Target Ratio as of the end of the just completed fiscal year .95671

Actual Funded Ratio of the system as of the just completed fiscal year .86949

This system has not met the target ratio required to grant a cost-of-living increase to current benefit recipients.

## EXHIBIT A

**AMORTIZATION OF UNFUNDED  
ACTUARIAL ACCRUED LIABILITY  
VALUATION RATE 7.50%**

JUNE 30, 2008

<u>DATE</u> <u>6/30</u>	<u>DESCRIPTION</u>	<u>AMTZ.</u> <u>METHOD</u>	<u>AMTZ.</u> <u>PERIOD</u>	<u>INITIAL</u> <u>LIABILITY</u>	<u>YEARS</u> <u>REMAING</u>	<u>REMAINING</u> <u>BALANCE</u>	<u>MID-YEAR</u> <u>PAYMENT</u>
1996	Change in Liability	L	15	-27,209,779	3	-7,889,357	-2,926,013
1997	Change in Liability	L	15	7,807,987	4	2,921,540	841,299
1998	Change in Liability	L	15	-50,648,475	5	-22,936,758	-5,467,821
1999	Change in Liability	L	15	-45,292,161	6	-23,840,644	-4,898,745
2000	Change in Liability	L	15	-4,827,975	7	-2,872,894	-523,140
2001	Change in Liability	L	15	90,820,890	8	59,870,039	9,858,426
2002	Change in Liability	L	30 <sup>1</sup>	207,093,231	24	192,029,905	16,863,393
2003	Change in Liability	L	30	184,314,964	25	173,633,481	15,023,577
2004	Change in Liability	L	30	31,940,093	26	30,530,167	2,605,951
2005	Change in Liability	L	30	-99,765,418	27	-96,648,334	-8,147,262
2006	Change in Liability	L	30	-35,359,493	28	-34,649,905	-2,887,604
2007	Change in Liability	L	30	-84,963,993	29	-84,142,286	-6,938,516
2008	Change in Liability	L	30	63,387,672	30	<u>63,387,672</u>	<u>5,176,503</u>
TOTAL OUTSTANDING BALANCE						249,392,626	18,580,048

**EMPLOYER'S CONTRIBUTION VARIANCE**

1994	Contribution Variance	L	15	-228,116	1	-23,562	-24,430
1995	Contribution Variance	L	15	303,610	2	60,658	32,582
1996	Contribution Variance	L	15	227,328	3	65,913	24,446
1997	Contribution Variance	L	15	76,966	4	28,799	8,293
1998	Contribution Variance	L	15	-176,672	5	-80,008	-19,073
1999	Contribution Variance	L	15	89,574	6	47,150	9,688
2000	Contribution Variance	L	15	15,208	7	9,050	1,648
2001	Contribution Variance	L	15	-65,357	8	-43,084	-7,094
2002	Contribution Variance	L	15	-88,166	9	-63,404	-9,587
2003	Contribution Variance	L	15	-225,280	10	-174,624	-24,537
2004	Contribution Variance	L	15	13,640,571	11	11,286,825	1,488,086
2005	Contribution Variance	L	15	-2,113,182	12	-1,851,799	-230,895
2006	Contribution Variance	L	15	-2,889,137	13	-2,659,607	-315,678
2007	Contribution Variance	L	15	-4,778,013	14	-4,595,076	-522,064
2008	Contribution Variance	L	15	-11,106,672	15	<u>-11,106,672</u>	<u>-1,213,558</u>
TOTAL EMPLOYER CREDIT						-9,099,441	-802,173

**TOTAL UNFUNDED ACTUARIAL  
ACCRUED LIABILITY**

240,293,185

<sup>1</sup>Act 1079 of 2003 changed amortization period effective June 30, 2002