Charles G. Hall F.C.A., M.A.A.A., A.S.A. Enrolled Actuary 1624 LaSalle Parc Drive Baton Rouge, La. 70806 (225) 928-7866

October 22, 2007

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, 2007.

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.

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

			Prior	Years
		June 30, 2007	June 30, 2006	June 30, 2005
I.	Membership Census			
	1) Retirees	3,834	3,739	3,652
	2) Actives	5,840	5,769	6,000
	3) DROP	217	227	239
	4) Vested Deferred	108	99	88
II.	Annual Benefits	\$ 81,976,596	\$ 77,538,204	\$ 73,587,564
III.	Total Payroll	229,145,048	223,213,661	215,638,892
IV.	Valuation Assets	1,531,297,284	1,371,981,645	1,233,572,172
v.	Investment Yield			
	Market Value	16.46%	8.72%	9.34%
	5 year avg.	10.18%	5.69%	3.23%
	10 year avg.	6.80%	6.56%	6.79%
	Actuarial Value	13.58%	13.20%	9.43%
	5 year avg.	7.18%	3.61%	1.41%
	10 year avg.	6.48%	6.50%	6.39%
	DROP Accounts	13.08%	12.70%	8.93%
VI.	Cost to Fund Annual			
	Pension Accruals	39,837,614	38,555,196	37,062,200
	(Normal Costs)	17.39%	17.27%	17.18%
VII.	Unfunded Actuarial			
	Accrued Liability	188,239,087	279,073,905	318,760,111
VIII.	Funded Percentage	89.05%	83.10%	79.47%
IX.	Funding Requirements to Pay (Mid-year Payments)			
	1) Employee Rate	7.50%	7.50%	7.50%
	2) Employer Rate <sup>1</sup> (Current Year)	10.50%	15.50%	16.50%
	Premium Tax Allocation <sup>1</sup>	13,200,000(est)	12,817,414	11,914,460
	<ol> <li>Projected Employer Rate<sup>1</sup></li> <li>(Next Year)</li> </ol>	10.00%(est)	13.75%	15.50%

Funding requirement measures the cost of benefits in effect on June 30, 2007.

<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.

# Changes in Unfunded Actuarial Liability

The Actuarial Valuation for the plan year ending June 30, 2007 discloses a decrease 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) decreased from \$279.0 million to \$188.2 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 6/30/2006

\$ 279,073,905

INCREASES

Interest on Unfunded Liability	20,930,543
Retiree COLA	0
Incurred Increases	20,930,543
DECREASES Amortization Payment	22,023,351
Employer Contribution Variance	4,778,013
Experience Gain	2,339,951

Investment Gain

Incurred Decreases 111,765,361

82,624,046

UNFUNDED LIABILITY 6/30/2007

\$ 188,239,087

## 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  $4/10^{th}$  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.

# 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%.

Year End	Employee	Employer	IPT	Insurance	Unfunded	Funded	Market
6/30/YY	Rate	Rate	Rate	Premium	Liability	Percent	Yield
1991	7.00%	9.00%	1.63%	1,538,104	2,361,789	99.6%	8.20%
1992	8.00%	9.00%	12.55%	12,153,985	4,252,517	99.3%	12.63%
1993	8.00%	9.00%	3.49%	3,418,553	-7,285,866	101.1%	13.14%
1994	7.50%	9.00%	2.88%	2,822,166	-3,640,164	100.5%	0.32%
1995	7.50%	9.00%	2.74%	2,751,785	6,618,618	99.1%	12.09%
1996	7.50%	9.00%	3.41%	3,569,803	-27,156,135	103.3%	11.07%
1997	7.50%	9.00%	4.05%	5,005,376	-18,182,503	102.0%	13.86%
1998	7.50%	9.00%	1.14%	1,498,487	-68,156,543	107.2%	14.80%
1999	7.50%	9.00%	2.12%	3,041,136	-110,425,877	110.6%	9.26%
2000	7.50%	9.00%	0.00%	0	-110,301,247	109.5%	3.66%
2001	7.50%	9.00%	0.00%	0	-14,071,173	101.1%	-3.35%
2002	7.50%	9.00%	0.00%	0	195,180,068	85.9%	-5.41%
2003	7.50%	15.25%	2.44%	4,806,272	379,484,302	73.9%	3.90%
2004	7.50%	21.50%	4.16%	8,689,205	423,352,255	72.9%	12.87%
2005	7.50%	20.25%	4.70%	10,135,228	318,760,111	79.5%	9.34%
2006	7.50%	16.50%	5.19%	11,539,000	279,073,905	83.1%	8.72%
2007	7.50%	13.75%	5.66%	12,817,388	188,239,087	89.1%	16.46%

### Tax Revenue as a Percentage of Contributions

### 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.

# Legislative Changes

Act 232 grants to retirees and survivors a one time supplemental lump sum COLA funded from excess interest equal to 3.0% or \$300, whichever is the greater.

The distribution of the COLA is estimated to cost \$2,013,683 and will be expensed in the June 30, 2008 annual actuarial valuation.

## 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, 2007 the funding target is .95317, which is greater than the current .89053 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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# 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.

		June 30	June 30, 2007		, 2006
		Dollar Amount	% of <u>Salary</u>	Dollar Amount	% of Salary
I.	Normal Costs				
	(to fund annual pension accruals)				
	Active Members with Complete Data				
	a) Retirement Benefits	\$ 29,949,257	13.07%	\$ 28,991,617	12.98%
	b) Disability Benefits	2,575,620	1.13%	2,495,474	1.12%
	c) Survivor Benefits	1,245,857	.55%	1,293,247	.58%
	d) Voluntary Termination	5,002,880	2.18%	4,881,858	2.19%
	e) Expenses	1,064,000	.46%	936,000	.43%
	TOTAL NORMAL COST	39,837,614	17.39%	38,555,196	17.27%
II.	Actuarial Accrued Liability				
	a) Active Members				
	1) Retirement Benefits	634,105,691		622,289,486	
	2) Disability Benefits	10,019,922		10,010,094	
	3) Survivor Benefits	10,011,043		9,976,373	
	4) Voluntary Termination	17,532,326		17,153,326	
		671,668,982		659,429,279	
	b) Retired and Inactive Members				
	1) Regular Retirees	665,513,409		626,579,041	
	2) Disabled Retirees	32,650,137		33,439,427	
	3) Survivors	104,125,361		100,555,535	
	4) Vested Deferred & Transfers	9,277,591		8,337,269	
	5) Contributions Refunded	3,915,829		3,520,082	
	6) DROP Deferred Benefits	158,513,499		154,033,075	
	7) DROP Account Balance	73,871,563		65,161,842	
		1,047,867,389		991,626,271	
	TOTAL ACCRUED LIABILITY	1,719,536,371		1,651,055,550	

# Exhibit 1 (Continued) Costs, Liabilities & Contributions

		June 30, 2007	Prior Year June 30, 2006
II.	Actuarial Accrued Liability TOTAL (Preceding page)	\$ 1,719,536,371	\$ 1,651,055,550
III.	Valuation Assets	1,531,297,284	1,371,981,645
IV.	Unfunded Actuarial Accrued Liabilities - (Surplus)	188,239,087	279,073,905
	a) Change over prior year b) Funded Percentage	-90,834,818 89.05%	-39,686,206 83.10%
v.	Employer Contributions To Fund current Plan Year		
	<ul><li>a) Employer Portion of Normal Cost</li><li>b) Amortization Payments</li><li>c) Employer Shortfall Credit</li></ul>	23,485,819 13,403,545 431,841	22,617,414 20,342,061 899,145
	TOTAL Required Contribution Estimated Premium Tax Offset	37,321,205 13,000,000 (est)	43,858,620 12,817,388
	Net Employer Contribution	24,321,205 10.50%	31,041,232 13.75%
VI.	Projected Employer Contributions To Fund Next Plan Year		
	a) Employer Portion of Normal Cost b) Amortization Payments c) Employer Shortfall Credit	24,532,866 13,403,545 _445,286	23,592,321 20,342,061 953,905
	TOTAL Projected Contribution Estimated Premium Tax Offset	37,491,125 13,200,000 (est)	44,888,287 12,800,000 (est
	Net Employer Contribution	24,291,125 10.00%	32,088,287 13.50% <sup>2</sup>
VII.	Current Payroll Projected Payroll - Mid Year Projected Payroll - Next Year	229,145,048 232,675,127 243,048,266	223,213,661 226,591,385 236,358,437

1 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% <sup>2</sup>
PERSAC approved a rate of 13.75% which overstated the rate by .25%. The excess employer contribution is

amortized as an employer credit

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

			Prior	Years
		June 30, 2007	June 30, 2006	June 30, 2005
OPERA	FING REVENUES:			
1.	Contribution Income			
	Member	\$ 17,157,738	\$ 16,878,085	\$ 16,136,038
	Employer	35,867,002	37,221,473	46,680,522
2.	Other Income			
	General Fund/Premium Tax	12.817.388	12,217,914	11,539,000
	Merger Interest	96.467	107.023	116.779
	Transfers	343 337	0	0
	Miscellaneous	681	319 768	104 964
	TOTAL CONTRIBUTIONS	66,282,613	66,744,263	74,577,303
3	Investment Income			
5.	Investments	238 130 897	118 890 181	117 903 758
	Less Manager fees	-5 173 962	_4 019 378	-3 866 481
	TOTAL INTERTMENT INCOME	232 956 935	11/ 870 803	
	TOTAL INVESTMENT INCOME	232,930,933	114,070,005	114,037,277
4.	Total Revenues	299,239,548	181,615,066	188,614,580
OPERA	TING EXPENSES:			
1.	General Administration	1,063,168	892,225	935,506
	Other Expenses	94,428	561,868	106,441
2.	Benefits Paid			
	a) Pension Benefits	87,910,584	82,988,328	82,297,800
	b)Return of Contrib.	3,843,112	4,660,819	2,565,141
	c) Transfers	0	511,951	300,161
	TOTAL BENEFITS PAID	91,753,696	88,161,098	85,163,102
3.	Total Expenses	92,911,292	89,615,191	86,205,049
NET II	NCOME :	206,328,256	91,999,875	102,409,531

# EXHIBIT 2 (Continued) Financial Summary

FINANCIAL SUMMARY STATEMENT OF ASSETS FOR FISCAL YEAR ENDING

		Prior	Years
	June 30, 2007	June 30, 2006	<u>June 30, 2005</u>
ASSETS			
1. Short Term Assets			
Cash in Banks	\$ 9,295,570	\$ 10,882,724	\$ 14,876,236
Cash Equivalents	35,964,735	29,054,919	59,189,250
2. Bonas	102 700 005	206 770 007	
Domestic and Foreign	183,/98,885	200,779,897	228,570,291
United States Agencies	/1,//2,589	203,729,874	207,212,339
Mutual Funds - Domestic	133,418,423	146,959,606	76,769,789
- Foreign	56,682,712	n/a	n/a
3. Equities, Insurance Agreement	S		
Domestic Stock	634,416,607	568,232,813	522,357,497
Foreign Stocks	342,868,811	228,978,543	190,003,968
4. Other Investments	98,553,462	1,779,569	1,957,346
5. Other Assets			
Property/Equipment	2,574,618	2,639,998	2,939,934
Real Estate	19,994,127	83,753,228	64,114,983
Receivables (-) Pavables	36,443,184	-63,536,182	-40,888,668
Receivables from Mergers	1,336,889	1,537,367	1,689,516
TOTAL ASSETS			
Market Value	1,627,120,612	1,420,792,356	1.328.792.481
Valued at Cost	1,349,537,379	1,247,655,333	1,166,750,890
INVESTMENT YIELD:			
To Actuarial Value	13.57%	13.20%	9.43%
-Net of Mergers	13.58%	13.20%	9.43%
DROP Account Yield	13.08%	12.70%	8.93%
Market Value	16.46%	8.72%	9.34%
TOTAL Aggets logg	1 607 100 610	1 400 700 256	1 220 702 401
Change in Unrealized (C(I)	1,02/,120,012	⊥,4∠∪,/9∠,350	1,320,/92,481
Change in Unrealized (G/L)	47 000 000		104 455 000
Plan Year - 2 (Wt. $1/4$ )	47,900,892	66,360,372	104,457,820
Plan Year - 1 (wt. $2/4$ )	104 446 896	4/,900,892	66,360,371
Plan Year (wt. 3/4)	104,446,210	11,026,896	47,900,892
Valuation Assets	1,531,297,284	1,371,981,645	1,233,572,172

# 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	Actuarial	Unfunded			UAAL as a
Actuarial	Value of	Accrued	AAL	Funded	Covered	Percentage of
Valuation	Assets	Liability(AAL)	(UAAL)	Ratio	Payroll	Payroll
Date	<u>(a)</u>	<u>(b)</u>	(b-a)	(a/b)	<u>(c)</u>	<u>((b-a)/c)</u>
1998	1,018,384	950,228	-49,974	107.2	131,640	-38.0
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

The total actuarial accrued liability determined using the Individual Entry Age Normal cost method increased by \$68,480,821 from June 30, 2006 to June 30, 2007. There was a net experience gain of \$2,339,951.

# EXHIBIT 3 (Continued) Pension Accounting & Financial Disclosure

# SUPPLEMENTARY INFORMATION

### SCHEDULE OF EMPLOYER CONTRIBUTIONS

	Actuarial		Annual		Percentage	Net
Fiscal	Required	Percent	Pension	Actual	of APC	Pension
Year	Contribution	Contributed	Cost (APC)	Contribution <sup>1</sup>	Contributed	Obligation
1998	15,340,965	101.2	15,344,190	15,517,638	101.1	-36,962
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

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	\$45,699,034
(2)	Interest on Net Pension Obligation	557,719
(3)	Amortization of Net Pension Obligation	932,253
(4)	Accrued Pension Cost(1)+(2)-(3)	45,324,500
(5)	Employer Contribution	50,477,050
(6)	Increase (-decrease) in Net Pension Obligation	-5,152,550
(7)	Net Pension Obligation Beginning of Year	7,436,248
(8)	Net Pension Obligation End of Year (6) + (7)	2,283,698

<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

Fiscal	Members	Employer	Investment	
Year End	Contribution	Contribution	Income	Total
1998	9,824,612	15,160,629	90,074,934	115,060,175
1999	10,930,972	43,841,701	99,479,917	154,252,590
2000	12,376,419	87,844,851	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

### Expenses by Type

Fiscal			Administrative	
Year End	Benefits	Refunds	Expenses	<u>Total</u>
1998	46,854,583	1,529,407	1,489,663	49,873,653
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

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

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

### 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 24 records (18 disability and 6 survivor records) purged 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:

	2007	2006	2005
	Census	Census	Census
Active Members	5,645	5,575	5,827
DROP to Active	195	194	173
Regular Retirees	2,613	2,517	2,437
Disability Retirees	201	208	209
Survivors	1,020	1,014	1,006
Vested & Reciprocals	108	99	88
Due Refunds	993	926	602
DROP Participants	217	227	239
TOTAL	10,992	10,760	10,581

MEMBERSH CATEGORI	IP PROFILE ZED BY AGE	AND YEARS H	EMPLOYED					MUN ACT	IICIPAL POLI IVE MEMBERS	CE SYSTEM
CELLS DE	PICT -	MEMBER COUN TOTAL SALAF	41 11					VAI	JUATION DATE	6/30/2007
: : Age	: : (0-1)	[1-5)	[5-10)	YE [10-15)	EARS EMPLOY [15-20)	(ED [20-25)	[25-30)	[30-35)	[35-)	: Total
:	:	• • • • • • • • • • • • • •		••••••		•••••	•••••			:
: :[ 0-19)	: 4 · 91076	50190	0	0	0	0	0	0	0	: 7 : 141266
:	:	00190	0	0	0	0	Ū	0	0	: :
:[20-24) : :	: 181 : 4265497 :	179 5495548	3 94721	0 0	0 0	0 0	0 0	0 0	0 0	: 363 : : 9855766 :
: :[25-29) : :	: 169 : 4314827 :	500 16624126	181 6679619	1 30565	0 0	0 0	0 0	0 0	0 0	: 851 : 27649137 :
: :[30-34) :	: : 97 : 2398176	322 10837535	438 17013861	136 5623262	3 153609	0 0	0 0	0 0	0 0	: 996 : 36026443
: :[35-39) :	: 104 : 2504292	206 6682064	340 12957371	353 15478086	167 7914808	6 343374	0 0	0 0	0 0	: 1176 : 45879995 :
: : :[40-44) :	: : 43 : 1088476	127 4010695	169 6297841	215 8992674	294 13727486	139 7783670	5 346652	0 0	0 0	: 992 : 42247494
: : :[45-49) :	: : 21 : 564335	60 1777313	93 3167047	91 3773332	158 7352913	224 11996801	99 5968351	0 0	0 0	: 746 : 34600092
: : :[50-54) :	: : 8 : 175212	33 1030329	57 1845248	55 2123822	72 3097856	74 3871356	75 4575581	10 626357	0 0	: 384 : 17345761
: :[55-59) :	: 1 : 35717 :	2 62010	20 615979	20 716331	20 834316	23 1243434	9 531956	1 52515	1 65480	: 97 : : 4157738 :
: :[60-64) :	: 2 : 53081 :	0 0	3 87591	5 145383	11 374642	6 242737	1 52896	1 62845	0 0	: 29 : 29 : 1019175 :
: :[65-69) :	: 0 : 0 :	0 0	0 0	2 37508	0 0	2 78433	0 0	0 0	0 0	: 4 : : 115941 :
: :[70-74) :	: : 0 : 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	: 0 : : 0 :
:TOTALS										: : :
: :count :salary	: 630 : 15480689	1432 46579810	1304 48759278	878 36920963	725 33455630	474 25559805	189 11475436	12 741717	1 65480	: 5645 :219038808
	AVERAGES	Attair Servic Active	ned Age ce Years e Salary	37.79 9.44 38,802						

MEMBERSHI CATEGORIZ	P PROFILE ED BY AGE	AND YEARS EN	IPLOYED					MUN ACT	NICIPAL POLI CIVE AFTER D	CE SYSTEM ROP
CELLS DEP	ICT -	MEMBER COUNT TOTAL SALARY DROP BENEFIT	TS					VAI	JUATION DATE	6/30/2007
						•••••				
· · · · · · · · · · · · · · · · · · ·	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	: Total :
: : :	•••••		• • • • • • • • • •			•••••				: : : : : : : : : : : : : : : : : : : :
:[ 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 :
:[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 :
:[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 :
:[45-49):	4	2	0	0	0	0	0	0	0	: 6:
: :	181179	117114	0	0	0	0	0	0	0	: 298293 :
: :	130380	75204	0	0	0	0	0	0	0	: 205584 :
:[50-54):	26	15	15	5	8	3	0	0	0	: 72 :
: :	971751	876688	823082	291148	485178	151857	0	0	0	: 3599704 :
: :	828420	473256	513540	167304	287232	80832	0	0	0	: 2350584 :
:[55-59):	13	11	9	12	16	16	3	0	0	: 80 :
: :	440124	550431	523412	621014	989864	983598	188953	0	0	: 4297396 :
: :	319716	317100	270360	362784	495300	457464	81888	0	0	: 2304612 :
:[60-64):	5	3	7	2	1	8	8	2	1	: 37 :
: :	244340	150521	300853	107294	53126	425719	438984	130062	59948	: 1910847 :
: :	121344	94020	90108	57828	29040	195108	185112	75600	25848	: 874008 :
:[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 :
:[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 :
:TOTALS :										: :
: :	10	21	2.1	1.0	0.5	0.7		2	1	: : :
:count :	1027204	31 1604754	31	1010456	1520160	1561174	11	120060	E0049	· 10106040
:benefit:	1399860	959580	874008	587916	811572	733404	267000	75600	25848	: 5734788 :
						•••••				
	AVERAGES	Attaine	ed Age	56.34						
		Post Dr	op Years	3.52						
		Active Annual	Sa⊥ary Benefit	51,827 29,409						

MEMBERSHI CATEGORIZ	P PROFILE ED BY AGE A	ND YEARS R	ETIRED					MUN REC	NICIPAL POLI GULAR RETIRE	CE SYSTEM ES
CELLS DEP:	ICT - M I	IEMBER COUN COTAL BENEF	T ITS					VAI	JUATION DATE	6/30/2007
: : : Age :	(0-1)	[1-2)	[2-3)	YE [3-4)	ARS RETIRE [4-5)	D[5-10]	[10-15)	[15-20)	[20-)	: : Total
:										:
: :	0	0	0	0	0	0	0	0	0	:
: ( 0-39):	0	0	0	0	0	0	0	0	0	: 0
: :										:
:[40-44):	3	3	0	0	0	0	0	0	0	: 6
: :	67668	74244	U	U	0	U	0	U	0	: 141912
: : :[45-49):	16	17	16	9	10	1	0	0	0	: : 69
: :	610008	646044	611832	303468	331248	7788	0	0	0	: 2510388 :
: :	10	2.4	26	5.6		110	10	0	0	:
: [50-54):	582084	34 1274184	36 1200900	56 1913580	76 2536500	3856068	209952	0	0	: 350 : 11573268
: :										:
:[55-59):	10	19	16	37	65	300	138	12	3	: 600
: :	221730	431772	333924	1119012	1009090	9091200	2020000	200000	42270	: 1/101104
: : :[60-64):	2	2	4	10	17	212	301	60	47	: : 655
: :	57408	23268	104064	207192	516552	4894992	8098524	1778904	659772	: 16340676
: :			_		_					:
: [65-69):	0	⊥ 30900	1 4800	4 73032	112020	31 646032	91 2070108	157 4448724	87 1353996	: 379 : 8739612
: :										:
:[70-74):	0	0	0	0	2	7	26	47	163	: 245
: :	U	U	U	U	41508	120996	443916	1181148	3460764	: 5248332 :
: : :[75-79):	0	0	0	0	1	3	7	18	139	: : 168
: :	0	0	0	0	12780	42060	144948	386676	2691012	: 3277476
: :										:
:[80-84): : :	0 0	0 0	0 0	0 0	0 0	1 6240	1 35004	8 170796	92 1754376	: 102 : 1966416
: :										:
 :[85-89):	0	0	0	0	0	0	0	0	31	: 31
: :	0	0	0	0	0	0	0	0	572664	: 572664 :
: : : : : : : : : : : : : : : : : : :	0	0	0	0	0	0	0	0	8	: 8
: :	Ő	0	0	0	0	0	0	0	78768	: 78768
· · · · · · · · · · · · · · · · · · ·										: 
:TOTALS : : :										:
:count :	48	76	73	116	178	674	576	302	570	: 2613
·DeneIlt:	1038904 	248U412	225552U	3010284	5300304	Δ0053/6	14853132	822/056	10013078	• 0\0T00T0
i	AVERAGES -	Attain Years 1	ed Age Retired	63.39 13.23						
		Annual	Benefit	25,875						

MEMBERSHI CATEGORIZ	P PROFILE ED BY AGE	AND YEARS R	ETIRED					MUN DIS	NICIPAL POLI SABILITY RET	CE SYSTEM IREES
CELLS DEP	ICT -	MEMBER COUN TOTAL BENEF	T ITS					VAI	LUATION DATE	6/30/2007
: : : Age :	(0-1)	[1-2)	[2-3)	YE	ARS RETIRE [4-5)	[5-10)	[10-15)	[15-20)	[20-)	: : Total
: :							•••••	•••••		:
: : :[ 0-39):	3	1	2	1	1	5	0	0	0	: 13
: :	40860	35400	27228	12576	19140	58416	0	0	0	: 193620
: :										:
:[40-44):	0	1 34308	2 18924	4 52032	1 12396	9 111216	б 46584	1 27984	0	: 24 : 303444
: :	0	54500	10924	52052	12390	111210	10201	27904	0	: 303111
: : :[45-49):	1	1	2	2	5	15	8	3	0	: : 37
: :	23196	12792	37776	27840	83964	236304	87780	25188	0	: 534840 :
: :	2	2	0	0	0	0	10	0	2	:
:[50-54):	3 52980	3 58572	2 28992	0	0	8 156264	165888	8 100728	3 41052	: 39 : 604476
: :										:
:[55-59):	0	0	0	0	2	4	7	9	9	: 31
: :	0	U	U	U	22596	43080	111960	120276	94644	: 392556
: : :[60-64):	0	0	0	0	0	2	4	3	12	: 21
: :	0	0	0	0	0	28440	40920	30876	157308	: 257544
: :										:
:[65-69): : :	0	0	0	0	0	0	4 32076	2 35388	10 159576	: 16 : 227040
: :	Ũ	0	0	Ŭ	Ū	Ū	52070	55566	2000,0	:
: : :[70-74):	0	0	0	0	0	0	0	0	9	: 9
: :	0	0	0	0	0	0	0	0	115848	: 115848 :
: :	0	0	0	0	0	0	0	0	0	:
: :	0	0	0	0	0	0	0	0	8 76968	· 76968
: :										:
:[80-84):	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	3	: 3
: :	0	0	0	0	0	0	0	0	32988	: 32988
: :										:
:[90-99): : :	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	: 0 : 0
: :										:
:TOTALS :							•••••	•••••		:
: : :count :	7	б	8	7	9	43	41	26	54	: : 201
:benefit:	117036	141072	112920	92448	138096	633720	485208	340440	678384	: 2739324
	AVERAGES	Attain Years Annual	ed Age Retired Benefit	54.88 14.72 13,628						

MEMBERSHIP CATEGORIZE	PROFILE D BY AGE	AND YEARS RI	ETIRED					MUN SUR	NICIPAL POLIC	E SYSTEM TS
CELLS DEPI	CT -	MEMBER COUN TOTAL BENEF	r ITS					VAL	UATION DATE	6/30/2007
: : :			•••••	YE <i>I</i>	ARS RETIRE	 D	•••••			
: Age :	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-):	Total
: :									:	
:[ 0-39): : : :	9 88632	1 21588	8 90924	1 9420	9 67848	23 132828	19 93792	13 55860	9 : 29484 : :	92 590376
: [40-44): : : : :	7 52128	2 28872	0 0	1 11940	0 0	1 16980	15 102708	4 45024	: 2 : 31980 : :	32 289632
: : :[45-49): : : :	1 30636	0 0	3 47244	0 0	1 15108	5 70536	14 124320	3 37092	: 4 : 27096 : :	31 352032
: : :[50-54): : :	2 94140	1 16272	6 98928	6 145320	5 80328	15 170076	17 126816	7 70992	: 13 : 129456 : :	72 932328
: : :[55-59): : : :	0 0	1 12804	2 55044	1 16992	3 74808	21 347244	24 272736	9 109932	: 13 : 134580 :	74 1024140
: : :[60-64): : : :	0 0	2 35712	0 0	3 32556	0 0	19 259476	31 590136	12 192048	: 36 : 355488 : :	103 1465416
: : :[65-69): : : :	0 0	0 0	0 0	0 0	0 0	5 49164	14 250980	28 480708	: 48 : 502488 : :	95 1283340
: : :[70-74): : :	0 0	0 0	0 0	0 0	1 3864	6 82140	11 102756	10 192948	: 103 : 1131312 : :	131 1513020
: : :[75-79): : : : :	0 0	0 0	0 0	0 0	0 0	4 34824	7 108312	14 262164	: 113 : 1153620 : :	138 1558920
: : :[80-84): : : : :	0 0	0 0	0 0	0 0	0 0	1 4800	1 27600	3 33564	: 124 : 1408176 : :	129 1474140
: : :[85-89): : :	0 0	0 0	0 0	0 0	0 0	1 5436	0 0	1 15036	: 76 : 731136 : :	78 751608
: : :[90-99): : : :	0 0	0 0	1 12456	0 0	0 0	0 0	1 6516	0 0	43 : 372732 :	45 391704
:TOTALS :			•••••							
: : :count : :benefit:	19 265536	7 115248	20 304596	12 216228	19 241956	101 1173504	154 1806672	104 1495368	: 584 : 6007548 :	1020 11626656
A	VERAGES	Attaine Years 1	ed Age Retired	66.98 22.51						

Annual Benefit 11,399

MEMBERSHI CATEGORIZ	P PROFILE ED BY AGE A	AND YEARS R	ETIRED					MUN DRC	NICIPAL OP PARTI	POLIC CIPAN	E SYSTEM ITS
CELLS DEP	PICT - N	MEMBER COUN FOTAL BENEF	T ITS					VAI	LUATION	DATE	6/30/2007
: Age :	(0-1)	[1-2)	[2-3)	YEARS [3-4)	PATICIPAT [4-5)	ED [5-10)	[10-15)	[15-20)	[20-	) :	Total
: : :	•••••					• • • • • • • • • •				· · · · · · :	
:[ 0-39): : : :	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0		0 :	0 0
: : : : : : : : : : : : : : : : : : :	1 41448	0 0	0 0	0 0	0 0	0 0	0 0	0 0		: 0 : 0 :	1 41448
: : : : : : : : : : : : : : : : : : :	22 873228	21 800040	11 384576	0 0	0 0	0 0	0 0	0 0		0 : 0 :	54 2057844
: : : : : : : : : : : : : : : : : : :	36 1527024	38 1698840	34 1132680	0 0	0 0	0 0	0 0	0 0		: 0 : 0 :	108 4358544
: : : : : : : : : : : : : : : : : : :	15 555468	14 393252	16 609636	0 0	0 0	0 0	0 0	0 0		: 0 : 0 :	45 1558356
: : : : : : : : : : : : : : : : : : :	1 28332	3 128532	5 104796	0 0	0 0	0 0	0 0	0 0		: 0 : 0 :	9 261660
: : : :[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 0	0 0		: 0 : 0 :	0 0
: : : :[75-79): : : :	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 0	0 0		: 0 : 0 :	0 0
: [85-89): : : :	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0		: 0 : 0 :	0 0
: [90-99): : : : :	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0		: 0 : 0 :	0 0
:TOTALS :	•••••									· · · · · · :	
: : :count : :benefit:	75 3025500	76 3020664	66 2231688	0 0	0 0	0 0	0 0	0 0		: 0 : 0 :	217 8277852
	AVERAGES -	Attain Years Annual	ed Age Retired Benefit	52.74 1.40 38,147							

MEMBERSHIF CATEGORIZE	PROFILE D BY AGE AN	ND YEARS E	MPLOYED					MUI TEI	NICIPAL POLIC RM-VESTED/REC	CE SYSTEM CIPROCAL
CELLS DEPI	CT – MI TC	EMBER COUN DTAL BENEF	T ITS					VA	LUATION DATE	6/30/2007
: Age :	(0-1)	[1-5)	[5-10)	YE [10-15)	ARS EMPLOY [15-20)	[20-25)	[25-30)	[30-35)	[35-)	Total
:										
:[ 0-19): : : :	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0	0
: [20-24): : [20-24]: : :	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 =	0
: : :[25-29): : :	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 =	0
: : : : : : : : : : : : : : : : : : :	0 0	0 0	0 0	1 8280	0 0	0 0	0 0	0 0	0	1 : 8280 :
: : :[35-39): : : : :	0 0	0 0	0 0	12 145272	4 64548	0 0	0 0	0 0	0 = 0 =	16 209820
: : : : : : : : : : : : : : : : : : :	0 0	0 0	0 0	11 107496	7 103692	4 57708	0 0	0 0	0 =	22 268896
: : :[45-49): : : : :	0 0	0 0	0 0	9 113724	8 111072	18 360348	0 0	0 0	0 = 0 =	35 : 585144 :
: : :[50-54): : :	0 0	0 0	0 0	11 113460	18 226620	1 37524	0 0	0 0	0 = 0 =	30 = 377604 =
: : :[55-59): : : : :	0 0	0 0	0 0	0 0	2 14724	0 0	0 0	0 0	0 =	2 14724
: : :[60-64): : :	0 0	0 0	1 5172	0 0	0 0	0 0	0 0	0 0	0 = 0 =	1 5172
: : :[65-69): : :	0 0	0 0	1 1656	0 0	0 0	0 0	0 0	0 0	0 = 0 =	1 : 1656 :
: : :[70-74): : :	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 =	0
TOTALS : : : :	0		2					0		108
fit:  <i>P</i>	0 	0 Attain Servic	6828  ed Age e Years	488232  46.86 16.12	520656	455580	0	0	0 :	: 1471296 :

Annual Benefit 13,623

# 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).

# 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.

## 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.

#### 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:

- 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.

### 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.
- 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.

### 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.

### 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 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 fiveyear 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:

Age at	Number of	Years for Youngest
Death	Minor Chn.	Child to Attain Majority
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 \$1,064,000 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

	- Death	Rates -	Disability	Termination	Retirement	DROP		Salary
Age	Male	Female	Rates	Rates	Rates	Rates	Dur	Scale
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	00010	00025	0010	0950	0000	000	9	1 0550
20	00051	00027	0010	.0950	.0000	.000	10	1 0550
27	00051	.00020	.0010	.0950	.0000	.000	11	1 0550
20	00054	.00030	.0015	.0950	.0000	.000	12	1 0500
29	.00057	.00032	.0015	.0750	.0000	.000	12	1.0500
21	.00061	.00034	.0015	.0750	.0000	.000	1.5	1.0500
31	.00065	.00036	.0015	.0650	.0000	.000	14	1.0500
3∠ 22	.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	1/	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	40	1 0400
65	01559	00706	0000	0500	5000	000	48	1 0400
66	01758	00782	.0000	.0500	5000	.000	40	1 0400
67	01020	00902	.0000	0000	5000	000	50	1 0/00
60	.01900	.00000	.0000	.0000	. 5000	.000	50	1 0400
60	.04443	.00970	.0000	.0000	. 9900	.000	2 T	1 0400
09 70	.U2402 02752	.01092	.0000	.0000	. 9900	.000	52	1 0400
70 71	.04/53	.UIZ30	.0000	.0000	.9900	.000	53 E 4	1 0400
/1	.03035	.01413	.0000	.0000	.9900	.000	54	1.0400
12	.0333/	.01010	.0000	.0000	.9900	.000	55	1.0400
/3	.03668	.01848	.0000	.0000	.9900	.000	56	1.0400
'/4	.04039	.02109	.0000	.0000	.9900	.000	57	1.0400

.93194

# EXHIBIT 7 DEVELOPMENT OF TARGET RATIO

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

Number of ye 1/30 <sup>th</sup> of the	ars elapsed since t difference between 1	he 1986 fiscal year end multiplied by 00% and the Initial Funded Ratio	.04764
Changes in Fu	unded Ratio after the	1986 fiscal year end:	
	Date of Change	Change in funded Ratio	
	6/30/87 6/30/88 6/30/91 6/30/93 6/30/96 6/30/99 6/30/00 6/30/04 6/30/05	- <u>.08841</u> <u>.12270</u> - <u>.00911</u> - <u>.01350</u> - <u>.01671</u> - <u>.00572</u> - <u>.05719</u> - <u>.00961</u> <u>.03942</u>	
Total Change	in Funded Ratio		03813
1/30 <sup>th</sup> of the	amount of opposite a	Amortization of Change	
	6/30/87 6/30/88 6/30/91 6/30/93 6/30/99 6/30/99 6/30/00 6/30/04 6/30/05	<u>.05894</u> - <u>.07771</u> .00486 .00630 .00613 .00153 .01334 .00096 .00263	
Total Amortiz	.01172		
Target Ratio	.95317		
Actual Funded	.89419		
This system current benef	<u>has not</u> met the tar it recipients.	rget ratio required to grant a cost-of	-living increase to

# EXHIBIT A

# AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY VALUATION RATE 7.50%

# JUNE 30, 2007

DATE		AMTZ.	AMTZ.	INITIAL	YEARS	REMAINING	MID-YEAR
6/30	DESCRIPTION	METHOD	PERIOD	LIABILITY	REMAING	BALANCE	PAYMENT
1996	Change in Liability	L	15	-27,209,779	4	-10,161,034	-2,926,013
1997	Change in Liability	L	15	7,807,987	5	3,529,132	841,299
1998	Change in Liability	L	15	-50,648,475	6	-26,610,154	-5,467,821
1999	Change in Liability	L	15	-45,292,161	7	-26,902,113	-4,898,745
2000	Change in Liability	L	15	-4,827,975	8	-3,177,021	-523,140
2001	Change in Liability	L	15	90,820,890	9	65,201,370	9,858,426
2002	Change in Liability	L	301	207,093,231	25	194,896,970	16,863,393
2003	Change in Liability	L	30	184,314,964	26	176,009,541	15,023,577
2004	Change in Liability	L	30	31,940,093	27	30,913,558	2,605,951
2005	Change in Liability	L	30	-99,765,418	28	-97,763,344	-8,147,262
2006	Change in Liability	L	30	-35,359,493	29	-35,017,523	-2,887,604
2007	Change in Liability	L	30	-84,963,993	30	-84,963,993	-6,938,516
	TOTAL OUTSTANDING BAI	LANCE				185,955,389	13,403,545

## EMPLOYER'S CONTRIBUTION VARIANCE

1993	Contribution Variance	L	15	191,419	1	19,729	20,456
1994	Contribution Variance	L	15	-228,116	2	-45,480	-24,430
1995	Contribution Variance	L	15	303,610	3	87,852	32,582
1996	Contribution Variance	L	15	227,328	4	84,892	24,446
1997	Contribution Variance	L	15	76,966	5	34,788	8,293
1998	Contribution Variance	L	15	-176,672	6	-92,821	-19,073
1999	Contribution Variance	L	15	89,574	7	53,204	9,688
2000	Contribution Variance	L	15	15,208	8	10,008	1,648
2001	Contribution Variance	L	15	-65,357	9	-46,920	-7,094
2002	Contribution Variance	L	15	-88,166	10	-68,227	-9,587
2003	Contribution Variance	L	15	-225,280	11	-186,106	-24,537
2004	Contribution Variance	L	15	13,640,571	12	11,934,610	1,488,086
2005	Contribution Variance	L	15	-2,113,182	13	-1,945,298	-230,895
2006	Contribution Variance	L	15	-2,889,137	14	-2,778,520	-315,678
2007	Contribution Variance	L	15	-4,778,013	15	-4,778,013	-522,064
	TOTAL EMPLOYER CREDIT					2,283,698	431,841

TOTAL UNFUNDED ACTUARIAL ACCRUED LIABILITY

188,239,087

 $^1\mbox{Act}$  1079 of 2003 changed amortization period effective June 30, 2002