

**THE POLICE AND FIRE RETIREMENT SYSTEM OF THE
CITY OF DETROIT**

65TH ANNUAL ACTUARIAL VALUATION
JUNE 30, 2006

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June 19, 2007

Board of Trustees
The Police and Fire Retirement System of the City of Detroit

The results of the **65th Annual Actuarial Valuation** of the annuity and pension liabilities of the Police and Fire Retirement System of the City of Detroit are presented in this report. The purpose of the valuation was to measure the System's funding progress and to determine an appropriate contribution level for the next fiscal year.

The date of the valuation was **June 30, 2006**.

The actuarial assumptions used in the valuation are summarized in the appendix. Benefit provisions are summarized on pages 13-14. The statistical data concerning the active, inactive and retired persons covered by the System was furnished by the retirement system staff, together with needed financial information. Data was checked for year-to-year consistency, but was not otherwise audited by the actuary.

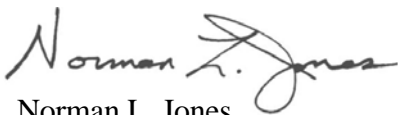
Your attention is directed particularly to the employer contribution rates on page 2 and the COMMENTS on page 12.

Benefit changes resulting from a recent DPOA arbitration award are not reflected in this valuation as details of the award have not been furnished to the actuary.

The valuation was completed using generally accepted actuarial principles and in accordance with standards of practice prescribed by the Actuarial Standards Board. To the best of our knowledge, this report is complete and accurate and the actuarial method and assumptions produce results which are reasonable.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY



Norman L. Jones

Judith A. Kermans

Kenneth G. Alberts

NLJ:mrh

VALUATION RESULTS

**EMPLOYER CONTRIBUTION RATES
COMPUTED PAYABLE LAST DAY OF FISCAL YEAR
EXPRESSED AS PERCENTS OF ACTIVE MEMBER PAYROLL
2007-2008 FISCAL YEAR**

Contributions for	Contributions Expressed as Percents of Payroll for the Fiscal Year Ending June 30,	
	2008+	2007*
Normal Cost		
Age & service allowances	22.71 %	22.74 %
Disability allowances	5.71 %	5.64 %
Death-in-service allowances	0.49 %	0.49 %
Total	28.91 %	28.87 %
Members current contributions: #	4.17 %	4.18 %
(Future refunds)	(0.35)%	(0.35)%
Available for monthly benefits	3.82 %	3.83 %
Employer Normal Cost	25.09 %	25.04 %
Actuarial Accrued Liabilities		
Total (\$ millions)	\$3,809.0	\$3,780.4
Funding Value of Assets	3,987.5	3,757.9
Unfunded Actuarial Accrued Liabilities		
- dollar (millions)	\$ (178.5)	22.5
- amortization percent	N/A	0.48 %
Computed Employer Rate ##	25.09 %	25.52 %

Member statutory contributions of 5% to the Annuity Savings Fund are not payable during all periods of covered employment. The rate shown is the equivalent rate if paid during all covered employment.

Accrued employer contributions were assumed to be charged with interest at 7.8% from the date accrued to the actual date paid.

* UAAL contribution for FY 2007 is based on a 30-year amortization period.

+ Based on the Board of Trustees funding policy to continue full normal cost contributions when valuation assets exceed accrued liabilities.

Benefit changes resulting from a recent DPOA arbitration award are not reflected in this valuation as details of the award have not been furnished to the actuary.

ACTUARIAL ACCRUED LIABILITIES AS OF JUNE 30, 2006

Present Value, June 30	Amount
Accrued Pension Liabilities	
Retirees and beneficiaries	\$2,645,716,711
Inactive members future deferred pensions	5,429,887
Active members	878,273,885
Total accrued pension liabilities	3,529,420,483
Pension fund balances	3,707,928,450
Unfunded accrued pension liabilities	\$ (178,507,967)
Accrued Annuity Liabilities	
Retirees and beneficiaries	
Future annuities	\$ 7,613,007
Contingency reserve	2,006,749 *
Total	\$ 9,619,756
Members annuities & future refunds	269,912,502
Total accrued annuity liabilities	279,532,258
Annuity fund balances	279,532,258
Unfunded accrued annuity liabilities	\$ 0
System Totals	
Actuarial accrued liabilities	\$3,808,952,741
Accrued assets	3,987,460,708
Unfunded actuarial accrued liabilities	\$ (178,507,967)

* See comment on page 12.

VALUATION RESULTS - COMPARATIVE STATEMENT
-- \$ IN MILLIONS --

June 30	Active Payroll		Actuarial Accrued Liabilities			Unfunded / Active Pays	Employer Contributions % of Pays
	Total	Average	Computed Total	Valuation Assets	Unfunded		
1975	\$ 121.5	\$16,670	\$1,107.2	\$ 369.8	\$ 737.4	6.1	53.82%
1976	128.6	19,753	1,240.3	416.0	824.3	6.4	57.49%
1977	134.6	20,012	1,257.9	461.6	796.3	5.9	57.09%
1978	165.0	22,467	1,426.7	531.5	895.2	5.4	56.43%
1979	175.2	25,136	1,557.7	603.2	954.5	5.5	57.54%
1980	178.0	27,992	1,809.0	689.7	1,119.3	6.3	60.35%
1981	155.8	28,429	1,777.8	771.0	1,006.8	6.5	60.95%
1982(a)*	155.4	28,332	1,841.1	864.1	914.8	6.1	58.25%
1983	153.3	28,450	1,810.5	979.7	830.8	5.4	56.95%
1984(a)	148.2	28,455	1,887.2	1,090.2	797.0	5.4	58.16%
1985(a)	171.4	30,302	2,076.4	1,208.3	868.1	5.1	54.66%
1986	185.3	29,220	2,171.5	1,378.5	793.0	4.3	50.21%
1987	202.3	30,906	2,238.2	1,557.0	681.2	3.4	44.69%
1988	206.1	33,120	2,386.0	1,705.4	680.6	3.3	45.71%
1989(a)	208.4	33,179	2,327.9	1,848.9	479.0	2.3	36.52%
1990*	221.5	36,874	2,453.6	2,037.4	416.2	1.9	35.98%
1991	213.1	39,182	2,517.2	2,085.5	431.7	2.0	36.19%
1992(a)*	205.7	39,095	2,345.9	2,163.8	182.1	0.9	27.83%
1993(a)	204.3	38,846	2,493.2	2,256.0	237.2	1.2	28.97%
1994	199.7	38,693	2,486.2	2,304.4	181.8	0.9	27.64%
1995(a)	209.7	39,692	2,574.2	2,443.0	131.2	0.6	25.90%
1996	212.7	39,965	2,633.4	2,628.6	4.8	0.0	21.81%
1997(b)	217.6	40,145	2,724.1	2,944.2	(220.1)	-	7.32%
1998*#	217.5	40,772	2,976.8	3,325.9	(349.1)	-	26.16%
1999#@	216.0	40,542	3,274.1	3,668.4	(394.3)	-	26.17%
2000*#	237.7	43,376	3,342.1	3,964.2	(622.1)	-	27.25%
2001#	253.3	45,353	3,463.2	3,900.0	(436.8)	-	27.22%
2002(a)#	248.7	46,203	3,632.0	3,635.1	(3.1)	-	23.39%
2003	248.7	47,305	3,721.6	3,205.5	516.1	2.1	43.89%
2004	258.7	51,126	3,857.5	3,074.5	783.0	3.0	54.36%
2005	250.5	52,197	3,780.4	3,757.9	22.5	0.1	25.98%
2006+	228.1	52,908	3,809.0	3,987.5	(178.5)	-	25.09%

(a) After changes in actuarial assumptions.

(b) After changes in actuarial assumptions and a temporary full funding credit.

* Plan amended.

Employer normal cost before full funding credit.

@ After \$55.4 million reserve for 1998-99 13th check and ASF distributions.

+ Based on the Board of Trustees funding policy to continue full normal cost contributions when valuation assets exceed accrued liabilities.

SOLVENCY TESTS

The Police and Fire Retirement System of the City of Detroit funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will pay all promised benefits when due -- the ultimate test of financial soundness. Testing for level contribution rates is *the long-term solvency test*.

A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's present assets (cash and investments) are compared with:

- 1) Active member contributions on deposit;
- 2) The liabilities for future benefits to present retired lives;
- 3) The liabilities for service already rendered by active members.

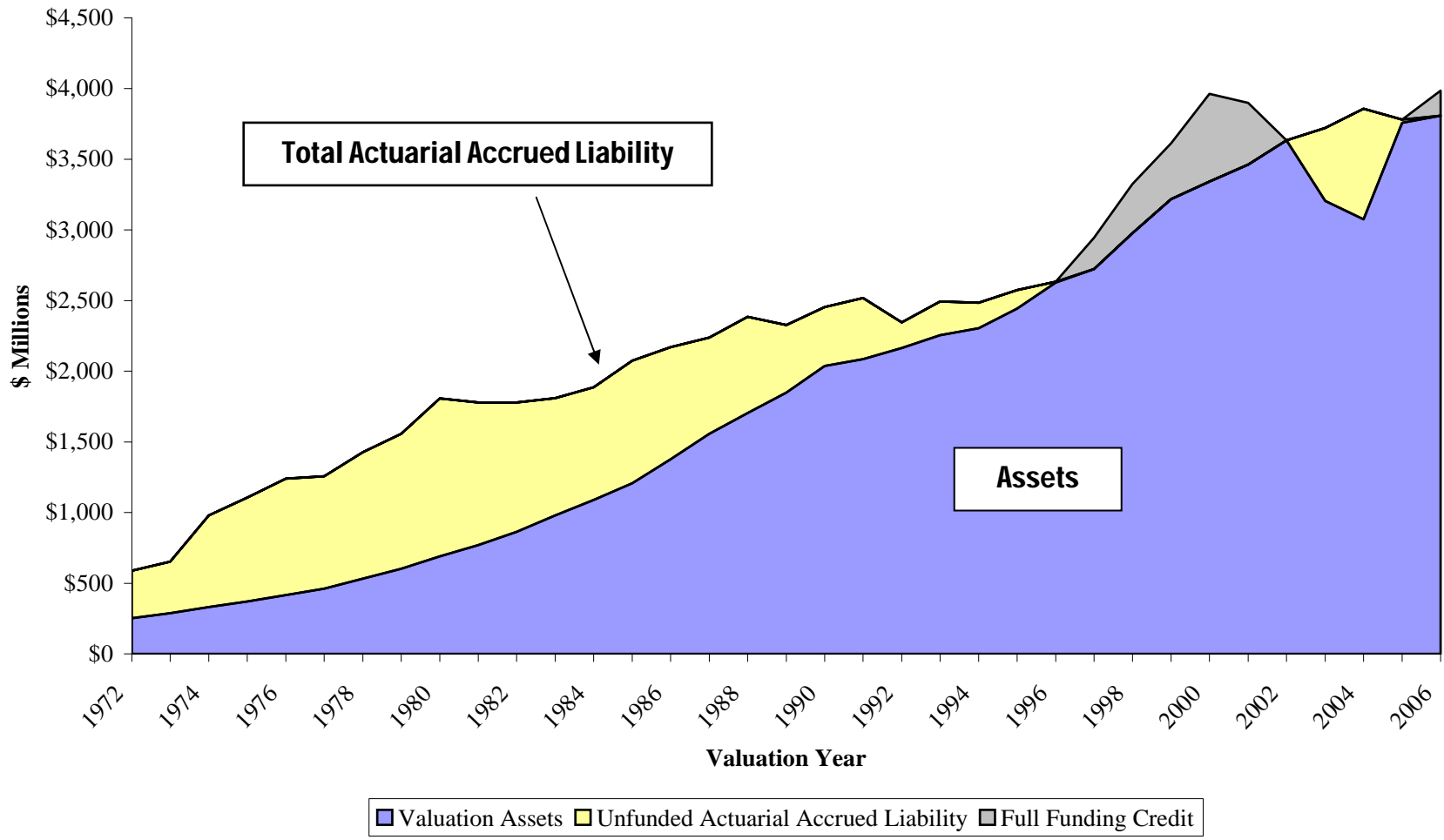
In a system that has been following the discipline of level percent-of-payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will often be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the System.

Short-Term Solvency Test 5 Year Comparative Statement (\$ millions)

June 30	Actuarial Accrued Liabilities			Assets	Portion of Accrued Liabilities Covered by Assets			
	(1) Active Member Contr.	(2) Retirees and Benef.	(3) Present Members (Employer Financed Portion)		(1)	(2)	(3)	Total
	-----\$ Millions-----							
2002(a)	\$391	\$2,299	\$ 942	\$3,635	100%	100%	100%	100%
2003	341	2,400	980	3,206	100%	100%	47%	86%
2004	303	2,516	1,038	3,075	100%	100%	25%	80%
2005	279	2,543	958	3,758	100%	100%	98%	99%
2006	270	2,655	884	3,987	100%	100%	120%	105%

(a) After changes in actuarial assumptions.

ASSETS AND ACCRUED LIABILITIES



DERIVATION OF EXPERIENCE GAIN (LOSS)
YEAR ENDED JUNE 30, 2006

Actual experience will never (except by coincidence) coincide exactly with assumed experience. Gains and losses will often cancel each other over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below.

(1) UAAL* at start of year	\$ 22,553,403
(2) Employer normal cost from last valuation	62,723,165
(3) Actual employer contributions, including POC proceeds	64,986,629
(4) Interest accrual: (1) x .078	1,759,165
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	22,049,104
(6) Change due to benefit provision modifications	0
(7) Change due to revised actuarial methods or assumptions	0
(8) Expected UAAL after changes: (5) + (6) + (7)	22,049,104
(9) Actual UAAL at end of year	(178,507,967)
(10) Experience gain (loss): (8) - (9)	200,557,071
(11) Experience gain (loss) as a % of beginning of year accrued liability	5.3 %

* *Unfunded actuarial accrued liability.*

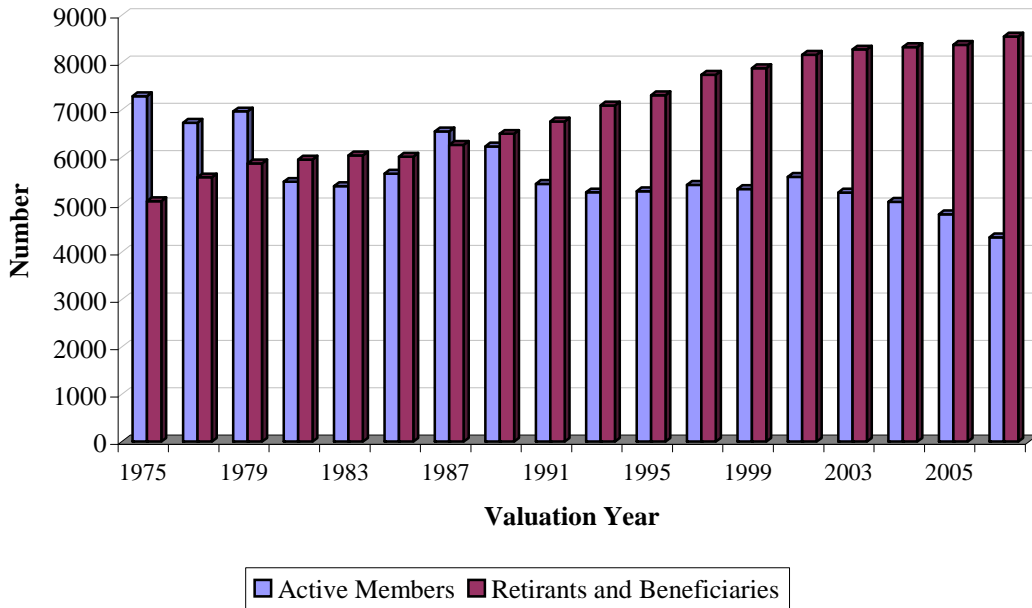
**COMPARATIVE STATEMENT OF ACTIVE MEMBERS
AND VALUATION PAYROLL**

June 30	No. Members		Total Members					
	1969 Plan	Pre- 1969	No.	% Change	Ratio of Active to Retired	Annual Payroll	Average Pay	
							\$	Change
1975	3,298	3,993	7,291	(1)%	1.4	\$121,540,470	\$16,670	8.6 %
1976	2,900	3,610	6,510	(11)%	1.2	128,594,291	19,753	18.5 %
1977	3,463	3,265	6,728	3 %	1.2	134,639,135	20,012	1.3 %
1978	4,432	2,911	7,343	9 %	1.3	164,975,236	22,467	12.3 %
1979	4,230	2,739	6,969	(5)%	1.2	175,174,674	25,136	11.9 %
1980	3,719	2,640	6,359	(9)%	1.1	178,004,349	27,993	11.4 %
1981	2,991	2,491	5,482	(14)%	0.9	155,849,804	28,429	1.6 %
1982	3,185	2,299	5,484	0 %	0.9	155,372,732	28,332	(0.3)%
1983	3,176	2,214	5,390	(2)%	0.9	153,347,716	28,450	0.4 %
1984	3,070	2,139	5,209	(3)%	0.9	148,223,416	28,455	0.0 %
1985	3,657	1,998	5,655	9 %	0.9	171,357,741	30,302	6.5 %
1986	4,463	1,879	6,342	12 %	1.0	185,312,563	29,220	(3.6)%
1987	4,918	1,627	6,545	3 %	1.0	202,277,028	30,906	5.8 %
1988	4,776	1,447	6,223	(5)%	1.0	206,107,980	33,120	7.2 %
1989	4,942	1,338	6,280	1 %	1.0	208,361,567	33,179	0.2 %
1990	4,834	1,174	6,008	(4)%	0.9	221,538,387	36,874	11.1 %
1991	4,372	1,066	5,438	(9)%	0.8	213,072,553	39,182	6.3 %
1992	4,411	850	5,261	(3)%	0.8	205,681,412	39,095	(0.2)%
1993	4,534	725	5,259	0 %	0.7	204,289,195	38,846	(0.6)%
1994	4,578	584	5,162	(2)%	0.7	199,734,550	38,693	(0.4)%
1995	4,779	505	5,284	2 %	0.7	209,733,734	39,692	2.6 %
1996	4,889	432	5,321	1 %	0.7	212,656,401	39,965	0.7 %
1997	5,049	371	5,420	2 %	0.7	217,585,229	40,145	0.5 %
1998	5,018	316	5,334	(2)%	0.7	217,479,443	40,772	1.6 %
1999	5,099	230	5,329	0 %	0.7	216,049,687	40,542	(0.6)%
2000	5,291	190	5,481	3 %	0.7	237,741,560	43,376	7.0 %
2001	5,453	132	5,585	2 %	0.7	253,297,027	45,353	4.6 %
2002	5,290	92	5,382	(4)%	0.7	248,663,133	46,203	1.9 %
2003	5,181	76	5,257	(2)%	0.6	248,681,461	47,305	2.4 %
2004	5,007	53	5,060	(4)%	0.6	258,699,581	51,126	8.1 %
2005	4,768	31	4,799	(5)%	0.6	250,491,872	52,197	2.1 %
2006	4,298	14	4,312	(10)%	0.5	228,140,160	52,908	1.4 %

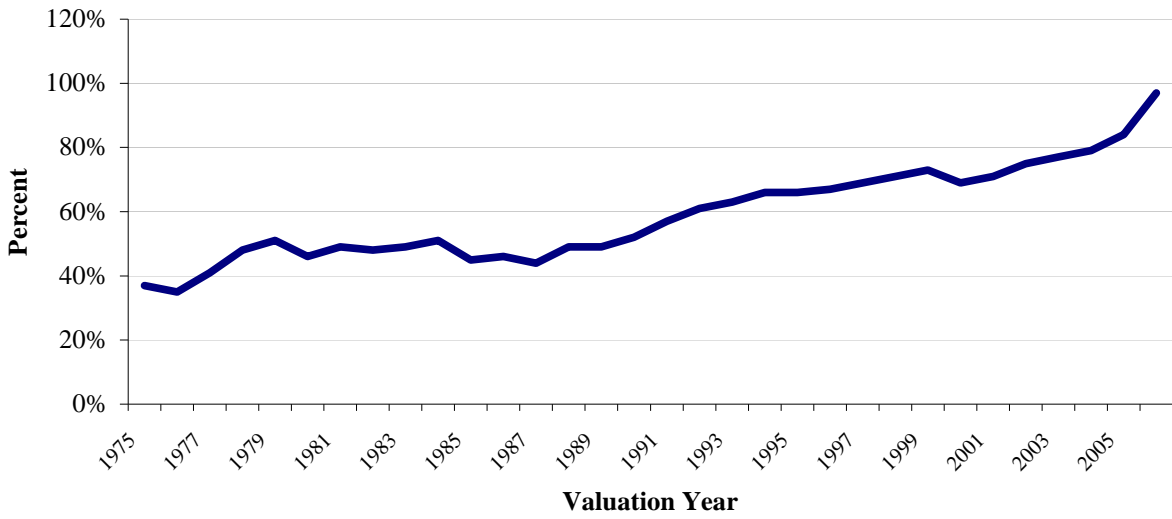
**COMPARATIVE STATEMENT OF ANNUAL RETIREMENT ALLOWANCES
BEING PAID RETIREES AND BENEFICIARIES**

June 30	No. Retired		% of Current Allowances			Current Allowances		Allowances as a % of Payroll
	Pre-69	Total	Annuities	Pensions	Escalators	Total	Average	
1975	5,075	5,075	4.0%	48.3%	47.7%	\$ 41,808,416	\$ 8,238	34%
1976	5,325	5,325	3.5%	48.1%	48.4%	47,479,044	8,916	37%
1977	5,576	5,576	3.2%	52.0%	44.8%	51,040,761	9,154	38%
1978	5,760	5,760	2.8%	44.2%	53.0%	58,117,007	10,090	35%
1979	5,869	5,869	2.6%	51.3%	46.1%	61,355,273	10,454	35%
1980	5,676	5,911	2.1%	45.3%	52.6%	72,671,386	12,294	41%
1981	5,691	5,951	2.0%	46.7%	51.3%	74,565,233	12,530	48%
1982	5,709	6,006	2.0%	49.0%	49.0%	75,348,490	12,545	48%
1983	5,705	6,038	2.0%	50.8%	47.2%	75,774,552	12,550	49%
1984	5,641	5,986	1.9%	51.7%	46.4%	76,126,476	12,717	51%
1985	5,581	6,011	1.9%	54.0%	44.1%	70,776,660	12,773	45%
1986	5,585	6,117	1.6%	52.5%	45.9%	85,409,280	13,962	46%
1987	5,486	6,264	1.5%	53.5%	45.0%	88,608,492	14,146	44%
1988	5,442	6,416	1.3%	53.9%	44.8%	100,659,780	15,689	49%
1989	5,415	6,496	1.3%	55.7%	43.0%	103,122,696	15,875	49%
1990	5,412	6,660	1.1%	54.3%	44.6%	114,650,196	17,215	52%
1991	5,361	6,754	1.1%	54.3%	44.6%	121,715,028	18,021	57%
1992	5,342	6,899	1.0%	57.0%	42.0%	124,835,208	18,095	61%
1993	5,349	7,091	1.0%	59.5%	39.5%	129,027,970	18,196	63%
1994	5,249	7,169	0.9%	61.7%	37.4%	131,595,379	18,356	66%
1995	5,161	7,311	0.9%	61.3%	37.8%	138,959,417	19,007	66%
1996	5,049	7,469	0.8%	62.6%	36.6%	143,536,485	19,218	67%
1997	5,012	7,743	0.8%	63.3%	35.9%	150,843,744	19,481	69%
1998	4,719	7,750	0.7%	65.8%	33.5%	154,226,437	19,900	71%
1999	4,573	7,883	0.7%	68.4%	30.9%	158,523,816	20,110	73%
2000	4,498	8,079	0.6%	70.0%	29.4%	164,279,376	20,334	69%
2001	4,394	8,166	0.6%	67.4%	32.0%	180,239,652	22,072	71%
2002	4,229	8,179	0.5%	68.4%	31.1%	185,658,396	22,699	75%
2003	4,104	8,277	0.5%	69.8%	29.7%	191,634,636	23,153	77%
2004	3,961	8,328	0.4%	68.5%	31.1%	203,083,524	24,386	79%
2005	3,791	8,376	0.4%	69.5%	30.1%	211,114,020	25,205	84%
2006	3,666	8,550	0.4%	70.9%	28.7%	222,357,372	26,007	97%

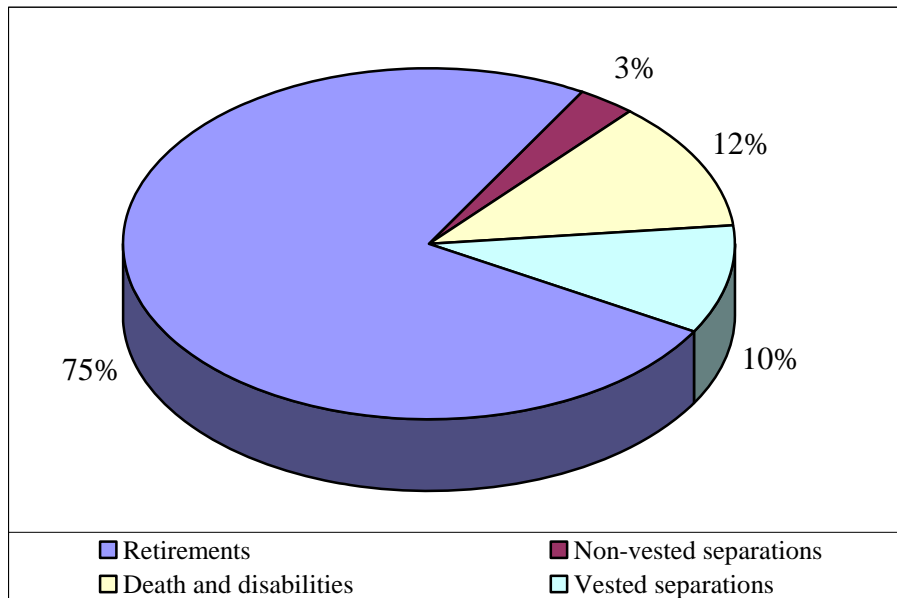
Active and Retired Members



Retirement Allowances as %s of Active Pays



EXPECTED TERMINATIONS FROM ACTIVE EMPLOYMENT FOR CURRENT ACTIVE MEMBERS



The chart shows the expected future development of the present population in simplified terms. The retirement system presently covers 4,312 active members. Eventually, 124 members are expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. 3,666 members are expected to receive monthly retirement benefits either by retiring directly from active service, or by retiring from vested deferred status. 522 members are expected to become eligible for death-in-service or disability benefits.

COMMENTS

Experience During the Past Year

Investment experience for the year ended June 30, 2006 was more favorable than expected with a market rate of return of 10.10%. Because of the favorable market return this year, the market value of assets now exceeds the funding value by \$55 million. If market returns average 7.8% or more in future years, the excess of \$55 million will ultimately be recognized and further increase the System's funded status.

Annuity Reserve Fund

The contingency reserve in the Annuity Reserve Fund is \$2.0 million and the ratio of the ARF balance to computed liabilities is 126% (see page 3). The Board approved a transfer of \$12 million from the Annuity Reserve Fund to the Pension Accumulation Fund in 2001 and \$5 million in 2005. If the size of the contingency reserve continues to increase, we will recommend another transfer in a future valuation.

Arbitration Award

Benefit changes resulting from a recent DPOA arbitration award are not reflected in this valuation as details of the award have not been furnished to the actuary.

Conclusion and Recommendation

The Retirement System is 105% funded as a result of the issuance of the Pension Obligation Certificates followed by favorable investment experience. Based upon the funding policy established by the Board, the data furnished by the Retirement System and the actuarial assumptions shown in the Appendix, the recommended employer contribution rate for the 2007-2008 fiscal year is 25.09% of covered payroll.

DATA FURNISHED FOR VALUATION

SUMMARY OF BENEFIT PROVISIONS (JULY 1, 2006)

Age and Service Retirement

Eligibility - 25 years of service regardless of age.

Annual Amount - An annuity equal to the actuarial equivalent of the member's accumulated contribution account plus a defined benefit, which, when added to the annuity will provide the following:

Pre-1969 Members - 2.5% of AFC times the first 25 years of service, with a maximum allowance of 15/22 of a police officer's or firefighter's annual rate of compensation.

1969 Plan Members - 2.5% of AFC times the first 25 years of service plus 2.1% of AFC times each of the next 10 years of service.

Members may elect to receive their accumulated contribution account in a lump sum after 25 years of service. The defined benefit at retirement is then reduced by the actuarial equivalent of the amount of principal withdrawn. No reduction is made with regard to the interest portion of the withdrawal.

Pre-1969 plan members may elect 1969 plan benefits at the time of retirement.

Type of Average Final Compensation (AFC) - Average of the current compensation for the ranks held in each of last 5 years (last 3 years for DPCOA, Executive Members and their Fire equivalents). Pension benefits for non-union employees may not be diminished due to a reduction in compensation because of fiscal emergency. AFC includes prior longevity distributions during the averaging period in accordance with the following schedule: 1% of compensation after 5 years of service, 2% after 11 years, 3% after 16 years and 4% after 21 years.

Deferred Retirement (vested benefit)

Eligibility - 10 years of service for DPOA and Fire equivalents, age 40 with 8 years of service for all others.

Annual Amount - Same as regular retirement but based on average final compensation and credited service at the time of termination.

Benefit Commencement - DPOA and Fire equivalent members hired after 6/30/85: Unreduced benefit begins at age 62. **All other members:** Unreduced benefit begins at the age when the member would have first been eligible for regular retirement had the member continued in City service. **All** members may elect a reduced benefit payable immediately.

Duty Disability Retirement

Eligibility - No age or service requirement.

Annual Amount - A basic benefit of 50% of final compensation and a supplemental benefit of 16-2/3% of final compensation is payable for 24 months. After 24 months, members disabled from any occupation continue to receive both benefits; otherwise, only the 50% benefit is then payable. Upon attaining 25 years of service, the disability benefit is 50% of final compensation. Members convert to regular retirement benefit at age 65. Worker's compensation payments are offset. Members who have already filed under old duty disability plan will receive 66-2/3% of final compensation payable to eligibility date for regular retirement.

SUMMARY OF BENEFIT PROVISIONS (CONTINUED)

Non-Duty Disability Retirement

Eligibility - 5 years of service.

Annual Amount - Computed as a regular retirement benefit, but based on average final compensation and credited service at the time of disability. Minimum benefit is 20% of average final compensation.

Duty Death Before Retirement

Eligibility - No age or service requirement.

Annual Amount – Surviving spouse receives 5/11 of police officer's or firefighter's compensation and each child under age 18 receives 1/10 of such compensation with a maximum total of 7/33 of such compensation. If there is no surviving spouse, each child receives 1/4 of such compensation with a maximum total of 1/2 of such compensation. If there is no surviving spouse or children, each dependent parent receives 1/6 of such compensation. Worker's compensation payments are offset.

Non-Duty Death Before Retirement

Eligibility - No age or service requirement.

Annual Amount - Same as a regular retirement benefit to a surviving spouse, but reduced in accordance with a 100% joint and survivor option election. Minimum benefit is 20% of average final compensation. Each child under 18 receives 1/7 of police officer's or firefighter's compensation with a maximum total of 2/7 of such compensation. If there is no spouse or children, each dependent parent receives 1/7 of such compensation.

Post-Retirement Cost-of-Living Adjustments

- Pre-1969 Members** - Allowances increase in proportion to active member compensation for the corresponding rank.
- 1969 Plan Members** - Police retired after July 1, 2001, certain Police classes retired after July 1, 1998 and all Fire members: Pensions increase by 2.25% of the **current** pension amount each July 1. All other members: Pensions increase by 2.25% of the **original** pension amount each July 1.

Member Contributions

5% of covered compensation payable until first eligible for regular retirement.

ASSET INFORMATION FURNISHED FOR VALUATION

*Reserve Accounts**

Funds	Fund Balances	
	June 30, 2006	June 30, 2005
Annuity Savings	\$ 269,912,502	\$ 279,366,941
Annuity Reserve	9,619,756	11,229,307
Total Annuity Funds	279,532,258	290,596,248
Pension Accumulation	437,791,894	324,383,582
Pension Reserve	2,645,716,712	2,532,219,411
Accrued Liability Fund Reserve	603,588,610	587,536,385
Survivor Benefit	20,824,839	23,158,385
Total Pension Funds	3,707,922,055	3,467,297,763
Total Fund Balances @	\$3,987,454,313	\$3,757,894,011

*Revenues and Expenditures**

	2005-2006	2004-2005
Balance - June 30	\$3,757,894,011	\$3,074,516,589
Revenues		
Employes' contributions	10,007,531	10,430,854
Employer contributions #	64,986,629	51,602,596
04/05 POC contributions	0	47,239,665
Balance of POC proceeds	0	583,589,524
Recognized investment income	397,627,662	236,792,398
Total	472,621,822	929,655,037
Expenditures		
Regular benefit payments	217,411,446	208,994,947
13th Check payments	0	0
Withdrawal of member contributions	22,244,391	33,557,578
Administrative expenses	3,399,288	3,725,090
Total	243,055,125	246,277,615
Balance - June 30 @	\$3,987,460,708	\$3,757,894,011
Ratio of Net Investment Income to Mean Assets	10.7%	7.1%

* Reported on an actuarial value basis. Excludes Market Stabilization Fund

Employer contributions for FY06 of \$64,986,629 are accrued.

@ Reported ending June 30, 2006 balances differ by \$6,395.

REPORTED FUNDING VALUE OF ASSETS

	2003	2004	2005	2006	2007	2008
A. Funding Value Beginning of Year	\$3,635,106,581	\$3,205,516,657	\$3,074,516,589	\$3,757,894,011		
B. Market Value End of Year	2,878,264,946	3,122,510,425	3,828,954,758	4,042,563,525		
C. Market Value Beginning of Year	2,988,906,988	2,878,264,946	3,122,510,425	3,828,954,758		
D. Contributions During Year						
D1. City Contributions (End of Year)	66,843,029	69,475,202	682,431,785	64,986,629		
D2. Member Contributions	10,143,948	10,318,299	10,430,854	10,007,531		
E. Benefits Paid During Year	262,710,933	247,511,932	242,552,524	239,655,837		
F. Investment Income						
F1. Market Total: B - C - D + E	75,081,914	411,963,910	256,134,218	378,270,444		
F2. Amount for Immediate Recognition (7.8% of mean Fund balances)	273,785,362	240,621,434	235,214,336	306,076,159		
F3. Amount for Phased-In Recognition: F1-F2	(198,703,448)	171,342,476	20,919,882	72,194,285		
G. Phased-In Recognition of Investment Income						
G1. Current Year: F3/3	(66,234,483)	57,114,159	6,973,294	24,064,762		
G2. 1st Prior Year:	(194,782,747)	(66,234,483)	57,114,159	6,973,294	\$24,064,762	
G3. 2nd Prior Year:	(256,634,100)	(194,782,747)	(66,234,482)	57,114,159	6,973,294	\$24,064,761
G4. Total Recognized Investment Gain	(517,651,329)	(203,903,071)	(2,147,029)	88,152,215	31,038,056	24,064,761
H. Total Interest Distributed - Current Year (F2 + G4)	(243,865,967)	36,718,363	233,067,307	394,228,374		
I. Funding Value End of Year: A + D - E + H	3,205,516,657	3,074,516,589	3,757,894,011	3,987,460,708		
J. Difference Between Market & Funding Value (B - I)	(327,251,711)	47,993,836	71,060,747	55,102,817		
K. Recognized Rate of Return: H / [1/2 (A + I - H)]	(6.9)%	1.2%	7.1%	10.7%		
L. Market Rate of Return: F1 / [C - 1/2 (E - D)]	2.6%	14.7%	7.7%	10.1%		

The Funding Value of Assets recognizes assumed investment income (line F2) fully each year. Differences between actual and assumed investment income (line F3) are phased in over a closed 3-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. The Funding Value of Assets is unbiased with respect to Market Value. At any time it may be either greater or less than Market Value. If assumed rates are exactly realized for 2 consecutive years, the Funding Value will become equal to Market Value.

Furnished by the Retirement System.

RETIREES AND BENEFICIARIES JUNE 30, 2006
TABULATED BY ATTAINED AGE

Attained Age	Age & Service		Disability		Death-in-Service		Totals	
	No.	Monthly Allowances	No.	Monthly Allowances	No.	Monthly Allowances	No.	Monthly Allowances
Under 20*	12	\$ 24,998			71	\$ 32,028	83	\$ 57,026
20-24	1	1,103					1	1,103
25-29	3	2,493	5	\$ 12,765	3	4,039	11	19,297
30-34	3	6,520	16	42,775	9	11,212	28	60,507
35-39	7	6,026	48	131,393	3	3,671	58	141,090
40-44	22	15,882	106	278,164	8	12,417	136	306,463
45-49	101	140,424	111	269,072	23	33,035	235	442,531
50-54	487	1,039,595	245	594,254	32	42,806	764	1,676,655
55-59	1,247	3,082,654	523	1,108,255	53	78,265	1,823	4,269,174
60-64	1,064	2,652,954	371	759,309	34	48,270	1,469	3,460,533
65-69	663	1,577,379	166	338,258	24	35,097	853	1,950,734
70-74	492	1,059,906	86	186,256	14	24,281	592	1,270,443
75-79	731	1,509,391	138	298,062	43	71,274	912	1,878,727
80-84	802	1,557,123	123	256,871	37	63,339	962	1,877,333
85-89	394	701,961	53	123,163	18	28,592	465	853,716
90-94	117	197,522	6	12,849	7	12,060	130	222,431
95 & Over	26	38,348			2	3,670	28	42,018
Totals	6,172	\$13,614,279	1,997	\$4,411,446	381	\$504,056	8,550	\$18,529,781

* May include records with defective birth dates.

INACTIVE VESTED MEMBERS JUNE 30, 2006
TABULATED BY ATTAINED AGE

Attained Age	No.	Estimated Annual Allowances
40-44	5	\$ 99,024
45-49	8	131,496
50-54	6	105,168
55-59	5	62,388
Totals	24	\$398,076

PRE 1969 RETIREES AND BENEFICIARIES JUNE 30, 2006
TABULATED BY ATTAINED AGE

Attained Age	Age & Service#		Disability#		Death-in-Service		Totals	
	No.	Monthly Allowances	No.	Monthly Allowances	No.	Monthly Allowances	No.	Monthly Allowances
Under 20*	5	\$ 5,885					5	\$ 5,885
20-24								
25-29			1	\$ 2,379			1	2,379
30-34								
35-39	1	942					1	942
40-44								
45-49	5	4,033					5	4,033
50-54	5	7,681			2	\$ 3,404	7	11,085
55-59	62	97,438	16	30,526	12	19,893	90	147,857
60-64	302	552,519	153	306,012	16	27,079	471	885,610
65-69	366	726,158	121	238,675	20	28,647	507	993,480
70-74	330	636,759	70	136,030	10	15,847	410	788,636
75-79	531	1,011,715	121	256,040	40	63,636	692	1,331,391
80-84	713	1,335,300	119	247,893	36	61,643	868	1,644,836
85-89	387	689,130	52	120,769	16	26,757	455	836,656
90-94	115	194,901	6	12,849	7	12,060	128	219,810
95 & Over	24	35,889			2	3,670	26	39,559
Totals	2,846	\$5,298,350	659	\$1,351,173	161	\$262,636	3,666	\$6,912,159

* May include records with defective birth dates.

Includes survivor beneficiaries of service and disability retirees.

ACTIVE MEMBERS JUNE 30, 2006
BY ATTAINED AGE AND YEARS OF SERVICE

Police Members

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24	35	3						38	\$ 1,415,318
25-29	80	254	2					336	15,547,224
30-34	42	437	138					617	30,013,211
35-39	32	337	254	58	2			683	34,698,729
40-44	8	131	116	180	117			552	29,460,892
45-49	9	45	39	105	198	6	1	403	22,390,368
50-54	4	6	13	59	190	42	29	343	19,708,814
55-59	1	4	4	14	58	26	72	179	10,386,340
60					2	1	7	10	596,584
61		1		1	2	1	6	11	577,115
62					2		3	5	279,147
63					1		5	6	335,454
64					1		3	4	201,595
65							3	3	176,891
66							1	1	47,763
67							5	5	271,399
71							1	1	47,763
Totals	211	1,218	566	417	573	76	136	3,197	\$166,154,607

Fire Members

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24	2							2	\$ 88,126
25-29	28	53						81	3,690,716
30-34	24	109	20	1				154	7,323,292
35-39	10	78	82	64	3			237	12,082,240
40-44	7	28	43	122	31			231	12,703,752
45-49	1	7	20	61	56	20		165	9,714,035
50-54		2	3	25	30	51	15	126	8,017,264
55-59				1	10	25	81	117	8,197,328
60							2	2	168,800
Totals	72	277	168	274	130	96	98	1,115	\$61,985,553

TOTAL ACTIVE MEMBERS JUNE 30, 2006
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24	37	3						40	\$ 1,503,444
25-29	108	307	2					417	19,237,940
30-34	66	546	158	1				771	37,336,503
35-39	42	415	336	122	5			920	46,780,969
40-44	15	159	159	302	148			783	42,164,644
45-49	10	52	59	166	254	26	1	568	32,104,403
50-54	4	8	16	84	220	93	44	469	27,726,078
55-59	1	4	4	15	68	51	153	296	18,583,668
60					2	1	9	12	765,384
61		1		1	2	1	6	11	577,115
62					2		3	5	279,147
63					1		5	6	335,454
64					1		3	4	201,595
65							3	3	176,891
66							1	1	47,763
67							5	5	271,399
68									
69									
70									
71							1	1	47,763
Totals	283	1,495	734	691	703	172	234	4,312	\$228,140,160

	Group Averages		
	Police	Fire	Total
Age:	40.0 years	41.9 years	40.5 years
Service:	13.4 years	16.0 years	14.1 years
Annual Pay:	\$51,972	\$55,592	\$52,908

**ACTUARIAL DISCLOSURES REQUIRED BY
STATEMENT NO. 25 OF THE
GOVERNMENTAL STANDARDS BOARD**

GASB STATEMENT NO. 25 REQUIRED SUPPLEMENTARY INFORMATION

Actuarial Valuation Date	Actuarial Value of Assets (a)	Schedule of Funding Progress			Covered Payroll (c)	UAAL as a % of Covered Payroll ((b - a) / c)
		Actuarial Accrued Liability (AAL) -- Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)		
1997#	\$2,944,208,105	\$2,820,330,323	\$(123,877,782)	104.4%	\$217,585,229	-
1998#*	3,325,929,721	2,976,770,662	(349,159,059)	111.7%	217,479,443	-
1999	3,668,362,979	3,274,050,127	(394,312,852)	112.0%	216,049,687	-
2000*	3,964,231,470	3,342,123,550	(622,107,920)	118.6%	237,741,560	-
2001	3,900,020,703	3,463,248,393	(436,772,310)	112.6%	253,297,027	-
2002#	3,635,106,581	3,631,971,448	(3,135,133)	100.1%	248,663,133	-
2003	3,205,516,657	3,721,593,210	516,076,553	86.1%	248,681,461	207.5 %
2004	3,074,516,589	3,857,493,282	782,976,693	79.7%	258,699,581	302.7 %
2005@	3,757,894,011	3,780,447,414	22,553,403	99.4%	250,491,872	9.0 %
2006	3,987,460,708	3,808,952,741	(178,507,967)	104.7%	228,140,160	-

* Plan amended.

After changes in actuarial assumptions.

@ After POC transfer.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended June 30	Reported City Contribution
1997	\$54,572,561
1998	48,120,578
1999	15,709,799
2000	19,972,058
2001	14,443,382
2002	8,449,645
2003	66,843,029
2004	69,475,202
2005#	682,431,785
2006	64,986,629

Includes POC proceeds.

GASB STATEMENT NO. 25 REQUIRED SUPPLEMENTARY INFORMATION

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

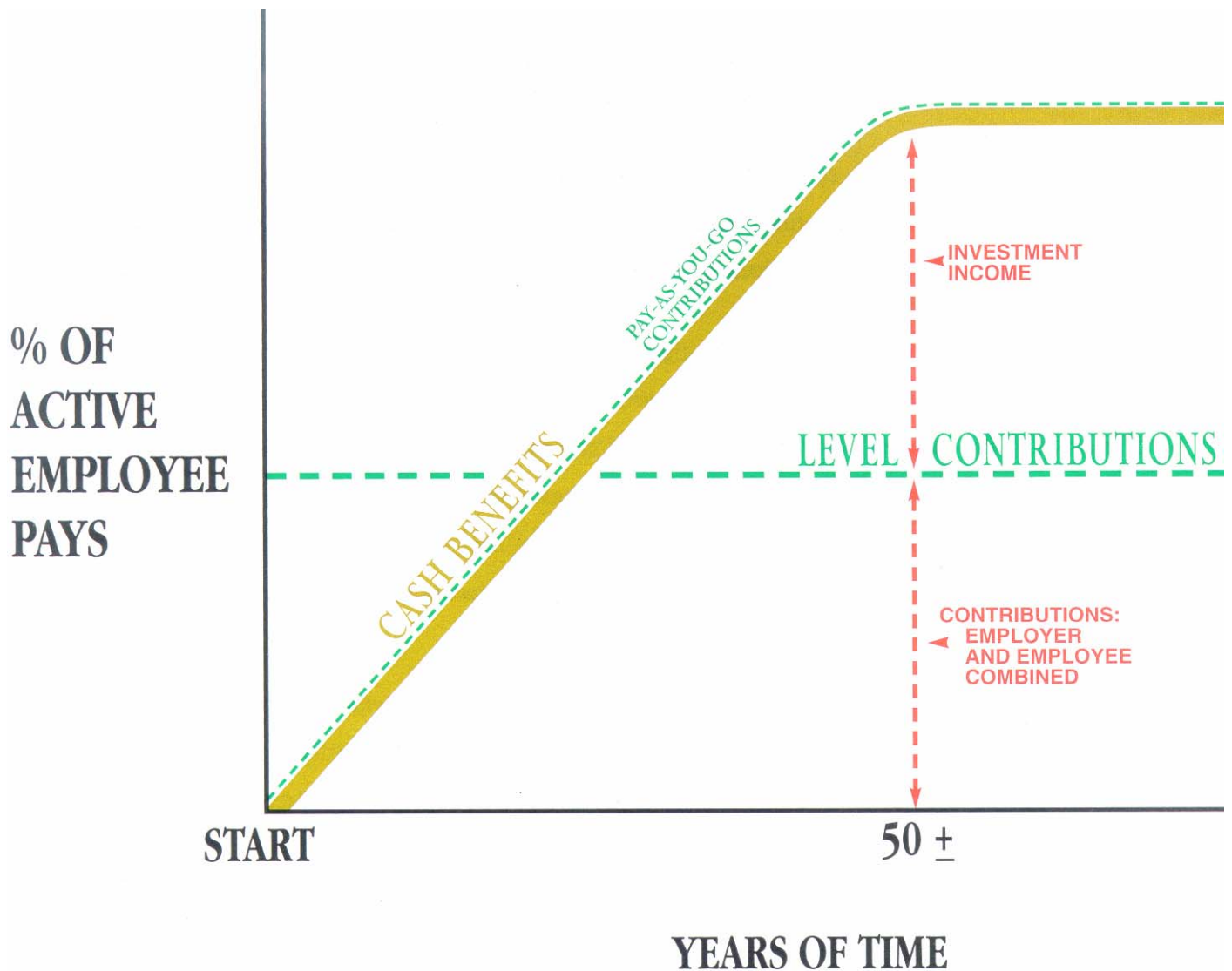
Valuation date:	June 30, 2006
Actuarial cost method	Entry Age
Amortization method	Level percent
Remaining amortization period	29 years closed #
Asset valuation method	3 year smoothed market
Actuarial assumptions:	
Investment rate of return	7.8%
Projected salary increases*	5.8% - 10.8%
*Includes inflation at	4.8%
Cost-of-living adjustments	Pre-1969 Plan Members: Allowances increase in proportion to active member compensation for corresponding rank.
	1969 Plan Members: Pensions increase by 2.25% of current pension amount each July 1.

Assets exceeded actuarial accrued liabilities as of June 30, 2006.

Membership of the plan consisted of the following at June 30, 2006, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits	8,550
Terminated plan members entitled to but not yet receiving benefits	24
Active plan members	4,312
Total	12,886

FINANCIAL PRINCIPLES



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

THE ACTUARIAL VALUATION PROCESS

The financing diagram on the opposite page shows the relationship between two different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (as in the Federal Social Security program) is an *increasing contribution method*; and the *level contribution method* which seeks to balance contributions between generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

A. *Member Census Data:*

- Retired lives now receiving benefits
- Former members with vested benefits
- Active members

B. *Benefit provisions* that establish eligibility and amounts of payments to members

C. *Asset Data* (cash & investments)

D. *Assumptions concerning future experience in various risk areas*, which are established by the Board of Trustees and the City Council after consulting with the actuary

E. *The funding method* for employer contributions (the long-term, planned pattern for employer contributions)

F. *Mathematically combining the assumptions, the funding method, and the data*

G. *Determination* of:

- Plan Financial position and
- New Employer Contribution Rate

BASIC FINANCIAL OBJECTIVE AND OPERATION OF THE RETIREMENT SYSTEM

Benefit Promises Made Which Must Be Paid For. A retirement program is an orderly means of handing out, keeping track of, and financing contingent pension promises to a group of employees. As each member of the retirement program acquires a unit of service credit they are, in effect, handed an “IOU” which reads: **“The Retirement System promises to pay you one unit of retirement benefits, payments in cash commencing when you retire.”**

The principal related financial question is: When shall the money required to cover the “IOU” be contributed? This year, when the benefit of the member’s service is received? Or, some future year when the “IOU” becomes a cash demand?

The **Constitution of the State of Michigan** is directed to the question:

“Financial benefits arising on account of service rendered in each fiscal year shall be funded during that year and such funding shall not be used for financing unfunded accrued liabilities.”

This retirement system meets this constitutional requirement by having the following *Financial Objective: To establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level* from year to year and will not have to be increased for future generations of taxpayers.

Translated into actuarial terminology, a level percent-of-payroll contribution objective means that the contribution rate must be at least:

Normal Cost (the value of benefits likely to be paid which is assigned to service being rendered in the current year)

. . . plus . . .

Interest on the Unfunded Actuarial Accrued Liability (the difference between the actuarial accrued liability and current system assets).

If contributions to the retirement program are less than the preceding amount, the difference, plus investment earnings not realized thereon, will have to be contributed at some later time, or, benefits will have to be reduced, to satisfy the fundamental fiscal equation under which all retirement programs must operate; that is:

$$\mathbf{B = C + I - E}$$

Benefit payments to any group of members and their beneficiaries cannot exceed the sum of:

Contributions received over time on behalf of the group

. . . plus . . .

Ivestment earnings on contributions received and not required for immediate payment of benefits

. . . minus . . .

Expenses incurred in operating the program.

There are retirement programs designed to defer the bulk of contributions far into the future. Contributions in early years are low, but the inevitable consequence is a relentlessly increasing contribution rate – to a level greatly in excess of the level percent of payroll rate. *This method of financing is prohibited in Michigan by the state constitution.*

A by-product of the level percent-of-payroll contribution objective is the accumulation of invested assets for varying periods of time. Investment income becomes the major contributor to the retirement program, and the amount is directly related to the amount of past contributions and investment performance.

Computed Contribution Rate Needed To Finance Benefits. From a given schedule of benefits and from the data furnished, the contribution rate is calculated *by means of an actuarial valuation* – the technique of assigning monetary values to the risks assumed in operating a retirement program.

APPENDIX

**SUMMARY OF ASSUMPTIONS USED FOR DPFERS ACTUARIAL VALUATION
ASSUMPTIONS ADOPTED BY BOARD OF TRUSTEES
AFTER CONSULTING WITH ACTUARY**

ECONOMIC ASSUMPTIONS

The investment return rate used in the valuation was 7.8% per year, compounded annually (net after administrative expenses). The real rate of return is the portion of total investment return which is more than the inflation rate. Considering other financial assumptions, the 7.8% total investment return rate translates to an assumed real rate of return of 4% over price inflation.

Pay increase assumptions for individual active members are shown on page 29. Part of the assumption for each age is for a merit and/or seniority increase, and the other 4.8% recognizes wage inflation.

Total active member payroll is assumed to increase 4.8% annually, which is the portion of the individual pay increase assumptions attributable to wage inflation.

NON-ECONOMIC ASSUMPTIONS

The number of active members is assumed to continue at the present number.

The mortality table used to measure retired life mortality was 90% of the 1983 Group Annuity Mortality Table. Related values are shown on page 29. This table was first used for the June 30, 1998 valuation. For disabled members, 110% of the 1983 Group Annuity Mortality Table was used to measure post-retirement mortality.

The probabilities of age/service retirement for members eligible to retire are shown on page 30. These probabilities were last revised for the June 30, 2003 valuation.

The probabilities of separation from service (including *death-in-service*) are shown for sample ages on page 30. These probabilities were last revised for the June 30, 2003 valuation.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

JUNE 30, 2006

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	End of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year beginning the day after the valuation date.
Decrement Timing:	Decrements are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and exact fractional service nearest the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and mortality decrements do not operate during the first 5 years of service. Disability also does not operate during retirement eligibility.
Incidence of Contributions:	Member contributions are assumed to be received continuously throughout the year. Employer contributions are assumed to be received on the last day of the fiscal year.
Longevity in AFC:	Longevity payments included in the computation of Average Final Compensation were assumed to increase age and service costs by 4% and disability and death-in-service costs by 2%.
Post-Retirement COLA:	Active members are assumed to receive a 1.9% COLA rather than 2.25% because the annuity portion is not subject to the COLA.
FAC Period:	1 year FAC period was used.
Disability Change Age:	The duty disability benefit is assumed to change at normal retirement age.

FUNDING METHODS

The entry age actuarial cost method was used in determining age and service liabilities and normal cost, vesting liabilities and normal cost, and casualty liabilities and normal cost.

Differences between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities, if any, are amortized over periods of future years to produce contribution amounts (principal & interest) which are level percent of payroll contributions.

Employer contribution dollars were assumed to be *paid in a single sum on the last day* of the employer fiscal year. (Adopted for the 6-30-79 actuarial valuation.)

Valuation assets recognize investment return above or below the actuarial assumed rate over a three year period. (Adopted for the 6-30-95 actuarial valuation.)

The effect of changes in eligibility for normal retirement due to service purchases was approximated by increasing computed actuarial accrued liabilities by 3%. In addition, active member accrued liabilities were increased by 2% to approximate the effect of incomplete service data.

The data about persons now covered and about present assets were furnished by the System’s administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).

SAMPLE SALARY ADJUSTMENT RATES

Service	Salary Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
5	6.00%	4.80%	10.80%
10	2.00%	4.80%	6.80%
15	1.00%	4.80%	5.80%
20	1.00%	4.80%	5.80%
25	1.00%	4.80%	5.80%
30	1.00%	4.80%	5.80%
35	1.00%	4.80%	5.80%
Ref			21 + 4.80%

SINGLE LIFE RETIREMENT VALUES BASED ON 1983 GROUP ANNUITY MORTALITY & 7.8% INTEREST

Sample Attained Ages	Present Value of \$1.00 Monthly Increasing "X"% Annually After Retirement						Future Life Expectancy (years)	
	4.8% Compound		2.25% Simple		2.25% Compound		Men	Women
	Men	Women	Men	Women	Men	Women		
45	\$251.08	\$276.66	\$173.68	\$183.84	\$180.93	\$192.80	34.78	40.65
50	229.39	257.20	164.33	176.80	170.22	184.37	30.19	35.86
55	206.16	235.52	153.16	167.82	157.74	173.98	25.79	31.15
60	181.12	211.60	139.67	156.56	143.05	161.34	21.55	26.56
65	154.72	185.69	123.81	142.81	126.15	146.31	17.54	22.13
70	128.80	158.13	106.82	126.42	108.33	128.82	13.96	17.93
75	104.33	130.47	89.48	108.30	90.39	109.81	10.84	14.10
80	82.29	104.80	72.72	90.12	73.24	91.01	8.23	10.84
Ref:	30 x 0.90	31 x 0.90	30 x 0.90	31 x 0.90	30 x 0.90	31 x 0.90		

PROBABILITIES OF SERVICE RETIREMENT

Service	Percent of Eligible Active Members Retiring Within Next Year			Retirement
	Police	Fire	Police & Fire	Ages
24	35%	20%	25%	60
25	25%	20%	25%	61
26	20%	15%	25%	62
27	20%	15%	22%	63
28	20%	15%	20%	64
29	18%	15%	18%	65
30	18%	15%	15%	66
31	18%	15%	15%	67
32	20%	15%	15%	68
33	25%	20%	15%	69
34	30%	25%	15%	70
35	30%	30%	15%	71
36	30%	30%	15%	72
37	30%	30%	15%	73
38	30%	30%	15%	74
39	30%	30%	40%	75
40	100%	100%	30%	76
			30%	77
			30%	78
			30%	79
			30%	80
			30%	81
			30%	82
			30%	83
			30%	84
			100%	85
Ref	823	824	537	

PROBABILITIES OF SEPARATION

Sample Ages	Years of Service	% of Active Members Separating Within Next Year			
		Withdrawal		Death	
		Police	Fire	Male	Female
ALL	0	7.00%	5.00%		
	1	5.50%	4.00%		
	2	4.00%	3.00%		
	3	4.00%	2.00%		
	4	3.50%	2.00%		
25	5 & Over	4.50%	2.30%	0.02%	0.01%
30		3.30%	1.90%	0.03%	0.02%
35		2.30%	1.30%	0.04%	0.02%
40		1.70%	0.90%	0.06%	0.03%
45		1.50%	0.70%	0.11%	0.05%
50		1.10%	0.60%	0.20%	0.08%
55		0.80%	0.60%	0.31%	0.13%
60		0.80%	0.60%	0.46%	0.21%
Ref		154 207	230 113	30 x .50	31 x .50

Sample Ages	% of Active Members Becoming Disabled Within Next Year			
	Police		Fire	
	Ordinary	Duty	Ordinary	Duty
25	0.08%	0.15%	0.08%	0.31%
30	0.09%	0.22%	0.09%	0.46%
35	0.11%	0.38%	0.11%	0.80%
40	0.14%	0.55%	0.14%	1.16%
45	0.21%	0.81%	0.21%	1.71%
50	0.62%	1.29%	0.62%	2.72%
55	0.97%	2.19%	0.97%	4.61%
60	1.10%	3.15%	1.10%	6.64%
Ref	105 x 1.00	90 x 0.95	105 x 1.00	90 x 2.00

MEANING OF “UNFUNDED ACTUARIAL ACCRUED LIABILITIES”

Actuarial accrued liabilities are *the portion of the present value of plan promises to pay benefits in the future not covered by future normal cost contributions*

--- a liability has been established (“accrued”) because the service has been rendered, but the resulting monthly cash benefit may not be payable until years in the future.

If actuarial accrued liabilities at any time exceed the plan’s accrued assets (cash & investments), the difference is *unfunded actuarial accrued liabilities*. If the plan’s assets equal the plan’s actuarial accrued liabilities, the plan would be termed “fully funded.”

Each time a plan adds a new benefit which applies to service already rendered, an actuarial accrued liability is created. If assets are insufficient to cover the value of the new benefit promises, an additional unfunded actuarial accrued liability is also created. Payment for such unfunded accrued liabilities is generally spread over a period of years, commonly in the 15-30 year range.

Unfunded actuarial accrued liabilities can occur in another way: if actual financial experience is less favorable than assumed financial experience, the difference is added to unfunded actuarial accrued liabilities. For example, during periods of high inflation, unfunded actuarial accrued liabilities generally increase because unexpected rates of pay increase will create additional liabilities which may not be matched by investment performance.

The existence of unfunded actuarial accrued liabilities is not bad, but the changes from year to year in the amount of unfunded actuarial accrued liabilities are important -- “bad” or “good” or somewhere in between.

Unfunded actuarial accrued liabilities do not represent a bill payable immediately, but it is important that policy-makers prevent the amount from becoming unreasonably high and *it is vital that there is a sound method in place for making payments toward them*, so that they are controlled.

GLOSSARY

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

Valuation Assets. The value of current plan assets recognized for valuation purposes.

June 19, 2007

Mr. Walter Stampor
Executive Secretary
The Police and Fire Retirement System of the
City of Detroit
2 Woodward Avenue – Suite 908
Detroit, Michigan 48226

Re: June 30, 2006 Actuarial Valuation

Dear Walter:

Enclosed are 20 copies of the report of the June 30, 2006 annual actuarial valuation.

Sincerely,

Judith A. Kermans

JAK:mrh
Enclosures

cc: Cynthia Thomas, City of Detroit Retirement Systems
Norman Jones, GRS
Kenneth Alberts, GRS