

March 2003

**City of Philadelphia Municipal
Retirement System**

July 1, 2002

Actuarial Valuation Report

MERCER

Human Resource Consulting



Marsh & McLennan Companies

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EXECUTIVE SUMMARY

This report presents the actuarial valuation of the costs and liabilities for the City of Philadelphia Municipal Retirement System as of July 1, 2002 and City contributions for the fiscal year ending June 30, 2004. This section summarizes the valuation results and discusses changes in the System's costs and liability arising from changes in assumptions and experience for the year ending June 30, 2002.

Findings summary

Table 1 shows actuarial valuation results for all divisions as of July 1, 2002.

1. July 1, 2002 actuarial valuation (dollars in thousands)

Participants	
Active	29,298
Retired	17,989
Beneficiaries	8,580
Disabled	4,683
Terminated vested	730
DROP	<u>2,829^c</u>
Total	64,109
Total annual salaries	\$ 1,207,302
Net actuarial accrued liability	\$ 6,727,215
Unfunded actuarial accrued liability	\$ 1,835,875
Assets for valuation purposes	\$ 4,891,340
Funding percent	72.7%
City normal cost as percent of payroll (beginning-of-year payment)	5.400%
Fiscal 2004 funding requirements (beginning-of-year payments)	
City's funding policy	\$ 248,218 ^{a, b}
Minimum municipal obligation	\$ 195,776 ^a

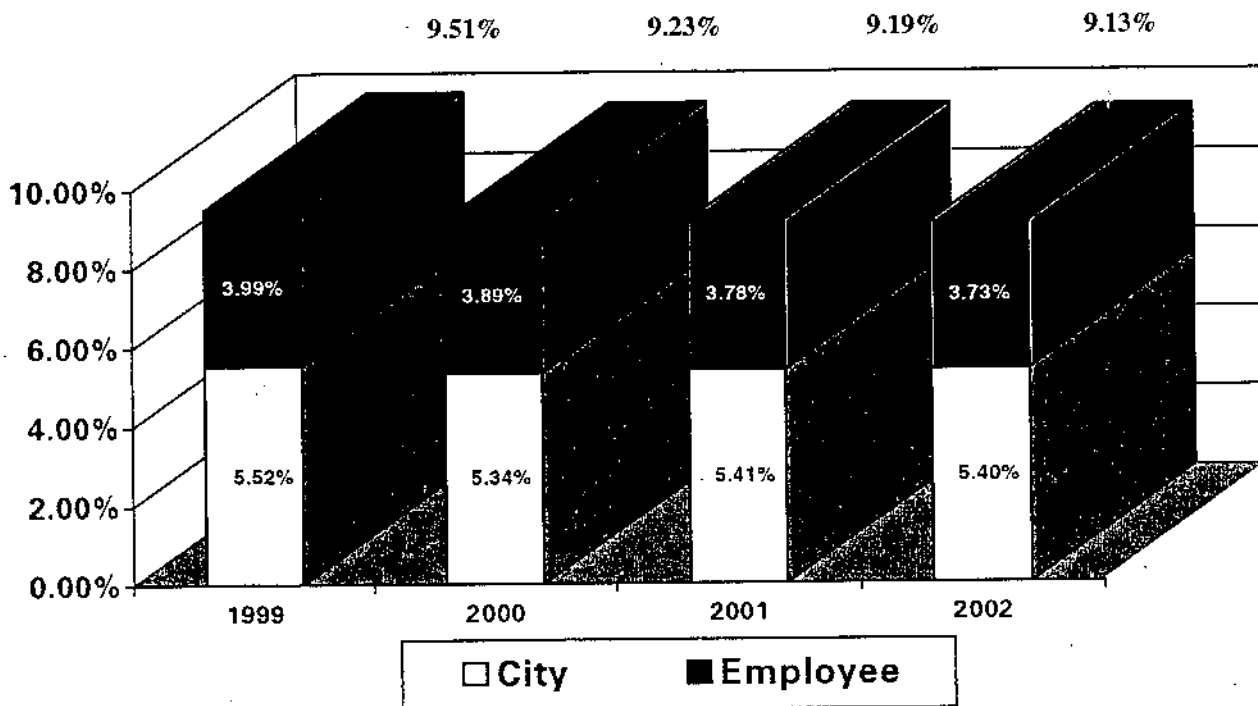
- a. The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal 2002, these totaled \$40,272,432.
- b. Based on estimated July 1, 2003 payroll. Final contribution will be based on actual fiscal 2004 payroll.
- c. While still active employees, the Deferred Retirement Option Plan (DROP) participants are treated as retired for valuation purposes since they no longer accrue benefits.

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Normal cost

The total normal cost is the cost of one year's accrual of projected benefits. The City's normal cost equals the total normal cost *less* expected employee contributions. The total normal cost percentage declined again this year for the fourth year in a row. This continued trend is primarily from a larger portion of active members in Plan 87 over Plan 67. The following graph is a four-year history of the total normal cost with employee and City components as a percent of pay.

2. Total normal cost - percent of pay



Unfunded actuarial accrued liability

From July 1, 2001 through June 30, 2002, the unfunded actuarial accrued liability increased \$399,506,000 from \$1,436,369,000 to \$1,835,875,000 because:

- The valuation assets had a return of 3.4% during the year. We assume the valuation assets will have a 9% return. This was the primary cause for the increase in unfunded liability.
- Salary increases were greater than our 5% assumption resulting in a loss.

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- The assumption for the form of payment for DROP participants was changed. Previously, DROP participants were assumed to have a life annuity, but now we assume that 60% will elect Option 4 (50% joint and survivor annuity).
- The interest on the June 30, 1985 unfunded liability (which is amortized with payments increasing 4.5% per year) is more than the current payment. This will continue to increase the unfunded liability each year through fiscal year 2003; after then it will decrease.
- Other non-economic experience, mostly due to less than expected mortality, resulted in a loss.

These factors are illustrated in Table 3.

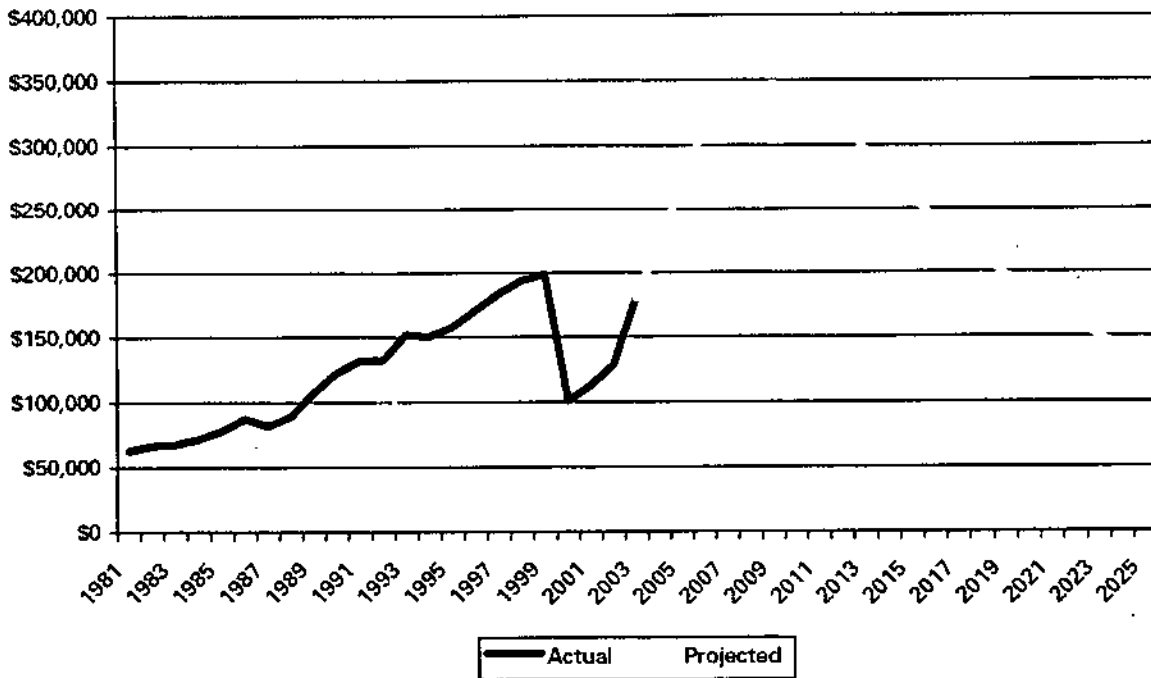
3. Unfunded liability (dollars in millions)		
2001 Unfunded liability		\$ 1,436
Change due to:		
Plan changes	0	
Payment schedule	7	
Salary increases	6	
Investment return	276	
Assumption changes	35	
Other actuarial experience	76	
Total of all changes		\$ 400
2002 unfunded liability		\$ 1,836

Because the July 30, 1985 unfunded liability is being amortized with payments increasing 4.5% per year and due to the recognition of asset losses, the amortization payment is scheduled to increase each year, reaching a maximum in 2008, and then decreasing. The total unfunded liability is scheduled to increase each year until fiscal year 2007, and then gradually decrease. With the 1997 change in Act 205, once the funding ratio reaches 70% the City may shift to a 10 year rolling level amortization schedule. The plan is currently 72.7% funded; however, the alternative amortization schedule is not expected to result in lower cost to the City until fiscal year 2012.

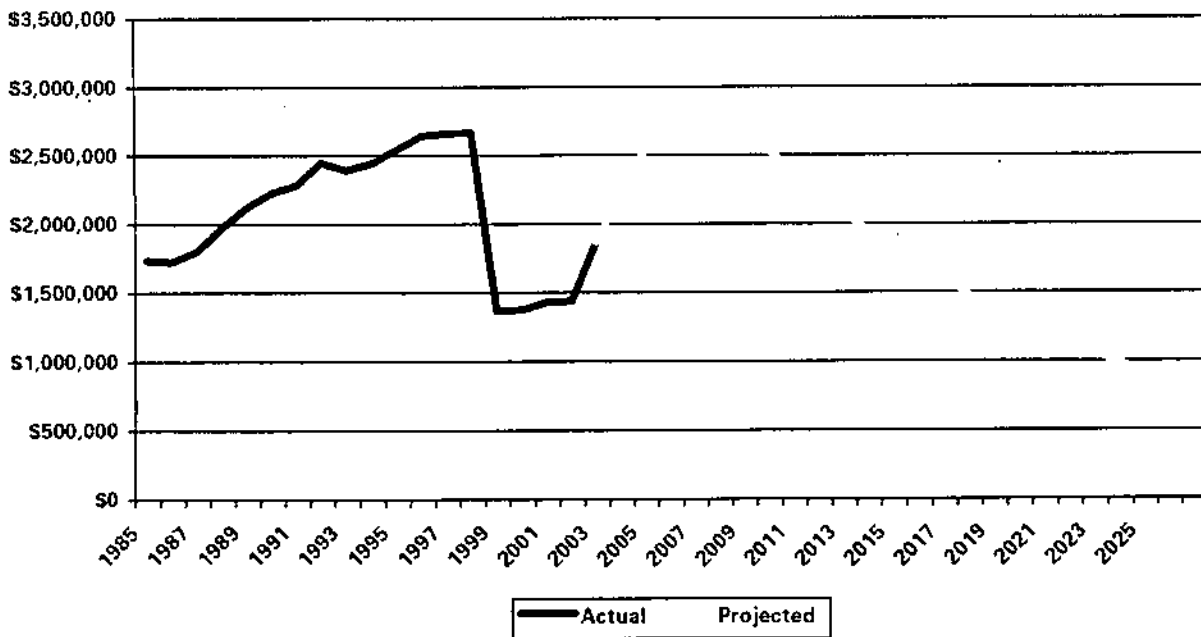
Graph 3(A) illustrates changes in the amortization payment through 2025. Graph 3(B) tracks the unfunded liability through 2025. The red lines indicate actual past changes in the amortization payment or unfunded liability and include scheduled increases and changes because of previous plan amendments, assumption changes, gains and losses and the impact of the Pension Obligation Bond (POB) of 1999. The yellow lines reflect projected changes, including the future schedule of the initial July 30, 1985 unfunded liability and known asset losses for the next four years due to the adjusted asset smoothing method. Also included in the projected changes detailed by the yellow lines, is the switch to the 10 year rolling amortization schedule, anticipated to be beneficial in 2012.

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3(A). Amortization schedule



3(B). Unfunded actuarial accrued liability



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City funding policy

The report shows the recommended City contributions, assuming they're paid at the beginning of the fiscal year (July 1, 2003). If paid after July 1 the City's funding policy has been to pay interest at 9% from July 1, 2003 to the date paid.

The resulting estimated City contributions for fiscal years 2003 and 2004 are shown in Table 4(A).

4(A). Estimated City contributions (thousands) — beginning-of-year payment

	Fiscal 2003	Fiscal 2004
Normal cost	\$ 63,818	\$ 68,125 ^a
Amortization payment	<u>127,934</u>	<u>180,093</u>
Total City cost	\$ 191,752	\$ 248,218 ^b

- Based on estimated July 1, 2003 payroll. Actual normal cost will be based on actual fiscal 2004 payroll. This payroll does not include DROP participants.
- The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal year 2002, they totaled \$40.2 million.

To the extent the City elects to contribute less than the funding policy, an experience loss will be created equal to the shortfall in contributions. That shortfall will be amortized over 15 years.

Table 4(B) shows July 1, 2003 employee contribution rates.

4(B). Employee contribution rates effective July 1, 2003 (based on July 1, 2002 results)

	Municipal	Elected	Police	Fire
1967 Plan	3.75% ^a	N/A	6.00%	6.00%
Plan 87	2.01%	7.64%	5.00%	5.00%

- 6.00% on wages over the Social Security maximum taxable wage base — \$87,000 in 2003.

Quasi agency funding

Table 4(C) shows the quasi agencies funding rate as a percent of payroll for fiscal years 2003 and 2004 and the Parking Authority's additional contribution for their early retirement window. This special amortization charge must be made through fiscal 2004.

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4(C). Quasi agency funding rate as a percent of payroll

	Fiscal 2003	Fiscal 2004
Valuation date	July 1, 2001	July 1, 2002
Normal cost	5.160%	5.140% ^a
Amortization rate	<u>16.835%</u>	<u>24.500%</u> ^b
Total, year-end rate	21.995%	29.640%
Total, adjusted for quarterly payments	21.455%	28.913% ^c
Parking authority special amortization payment		
Annual year-end payment	\$ 78,000	\$ 78,000
Quarterly payment	\$ 19,021 ^d	\$ 19,021 ^d

- a. End of year normal cost rate, page 11, Municipal 1967 Plan.
 b. $(\$105,704 - \$78) \div \$431,131$, see pages 15 and 11.
 c. $.97546$ (quarterly adjustment factor) \times 29.640%.
 d. $\$78,000 \div 4 \times .97546$.

Minimum municipal obligation

The minimum municipal obligation (MMO) is the minimum required City contribution under state law (Acts 205 and 189).

The City's funding policy differs from the MMO. The most significant differences are:

- The City uses a 34-year increasing amortization of its July 1, 1985 unfunded actuarial accrued liability, while Act 205 allows a 40-year increasing amortization schedule.
- The City applies the normal cost rates to the fiscal year's actual payroll. The MMO is based on the prior year's estimated payroll.
- No interest accumulates on the MMO if the payment is made by calendar year-end.
- The City's funding policy uses a one-year delay in applying actuarial valuation results to fiscal years. The MMO also reflects a one-year delay, however, no interest is applied to the MMO for the one-year delay. As a result, this July 1, 2002 valuation report determines the City's fiscal 2004 MMO and funding contribution.
- The MMO reflects amortization of prior years' City contributions above past MMOs as actuarial gains.

Table 46 of this report summarizes the City's unfunded liability payment for its fiscal 2004 MMO. These payments reflect the 40-year funding from July 1, 1985 with increasing payments at 4.5%.

The resulting fiscal 2004 MMO is summarized in Table 4(D).

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4(D). Fiscal 2004 minimum municipal obligation (dollars in thousands)

Valuation report	July 1, 2002
Normal cost	\$ 109,444
Amortization payment	127,899
Expected administrative expense	<u>5,500</u>
Subtotal	\$ 242,843
Expected member contributions	<u>(47,067)</u>
Minimum municipal obligation	\$ 195,776
Interest	<u>0^a</u>
Total	<u>\$ 195,776^b</u>

a. Assumes the MMO will be paid before December 31, 2003.

b. The City may use general state aid and state COLA reimbursement, estimated at \$40.2 million, to meet this commitment.

Funding status

The plan's funding status is measured by the ratio of actuarial value of assets to the actuarial accrued liability. A comparison of this ratio as of July 1, 2001 and July 1, 2002 is shown in Table 4(E).

4(E). Funding status comparison (dollars in thousands)

	2001	2002
Actuarial value of assets	\$ 4,943,450	\$ 4,891,340
Actuarial accrued liability	\$ 6,379,819	\$ 6,727,215
Funding ratio	77.5%	72.7%

EXECUTIVE SUMMARY

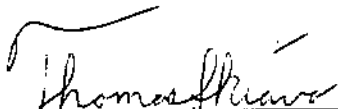
Certification

Mercer Human Resource Consulting has prepared the actuarial valuation of the City of Philadelphia Municipal Retirement System as of July 1, 2002 for fiscal year contributions ending June 30, 2004. The valuation is based on employee and financial data which were provided by the City of Philadelphia Board of Pensions and Retirement and trustee, respectively, and which are summarized in this report.

All costs, liabilities and other factors under the Plan were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the provisions of current state statutes and regulations issued thereunder. In our opinion, the actuarial assumptions are reasonable and represent our best estimate of the anticipated experience under the Plan. This report fully and fairly discloses the actuarial present position of the Plan on an ongoing basis.

There have been no changes in valuation procedures, or actuarial cost methods since the last valuation of the Plan as of July 1, 2001. Actuarial assumptions have changed and are summarized in this report.

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.



Thomas Skiavo

3/28/03
Date

As a Fellow of the Conference of Consulting Actuaries and the Society of Actuaries, I meet the Qualification Standards to provide the statements of actuarial opinion contained in this report.



Kenneth A. Kent, FSA, FCA, EA

3/28/03
Date

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COST DERIVATION

This section explains the Retirement System's costs. Costs are determined using the entry age actuarial cost method. The cost estimates derived in this actuarial valuation will be the basis for determining pension costs for the fiscal year ending June 30, 2004. Pension costs consist of the normal cost and the unfunded liability amortization payment.

Derivation of normal cost

The normal cost is the total of the individual normal costs for all members assuming the plan always existed and the underlying actuarial assumptions are exactly realized. Benefits payable under every circumstance (retirement, death, disability, and termination) are included in the calculations. Employee contributions expected to be made during the year are subtracted from the total normal cost to determine the City's normal cost. The City's normal cost is divided by total payroll to determine the normal cost as a percent of pay for each division and the entire Retirement System.

Derivation of the unfunded actuarial accrued liability

The actuarial accrued liability is the total of the actuarial present value of all accumulated past normal costs assuming the normal cost had always been contributed and actuarial assumptions had been exactly realized.

The valuation assets are determined as of July 1, 2002, using an actuarial asset method that spreads investment experience over a five-year period to minimize the impact of investment volatility on the Retirement System's costs. The method measures the market assets' gains or losses against the assumed 9% investment yield, recognizing one-fifth of the gain or loss over the current and each of the next four years. The Pension Adjustment Fund (PAF), if any, is subtracted from the market value to determine the assets to use for the valuation.

The unfunded actuarial accrued liability is the accrued liability less the fund's assets on the valuation date.

Experience gains and losses are the difference between the expected and actual unfunded actuarial accrued liability (see the preceding paragraphs) on the valuation date.

The portion of the unfunded actuarial accrued liability attributable to the Dombrowski class action suit is amortized in level dollar payments over 40 years ending June 30, 2009. The remaining July 1, 1985 unfunded actuarial accrued liability is amortized over 34 years ending June 30, 2019 in annual payments increasing 4.5% per year. Changes in the actuarial accrued liability realized after July 1, 1985 are amortized in level dollar payments over the following years according to Act 205:

COST DERIVATION

- Changes in actuarial assumptions — 20 years
- Experience gains and losses — 15 years
- Active members' benefit modifications — 20 years
- Nonactive members' benefit modifications — 10 years.

For a detailed analysis of the derivation of plan costs, see Tables 5 through 15.

The resulting contribution reflects the City's funding policy which calls for a larger contribution than the MMO determined under Act 205.

Table 46 shows the annual unfunded liability payments needed to satisfy the City's MMO for fiscal year ending June 30, 2004.

Table 16 shows the annual payments needed to fund plan liabilities through fiscal year ending June 30, 2022 if the City did not move to the 10-year rolling amortization of the unfunded.

COST DERIVATION

5. July 1, 2002 derivation of normal cost (dollars in thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Number of active members								
a. Vested	9,684	1,975	917	1,208	18	1,333	295	15,430
b. Non-vested	181	6	1	10,075	6	2,889	710	13,868
c. Total	9,865	1,981	918	11,283	24	4,222	1,005	29,298
2. Total normal costs								
a. Service retirement	\$ 20,773	\$ 10,694	\$ 4,750	\$ 15,449	\$ 187	\$ 17,280	\$ 4,168	\$ 73,301
b. Preretirement death	2,289	721	360	1,801	18	962	268	6,420
c. Disability retirement	2,943	1,014	472	2,057	11	1,802	453	8,751
d. Vested termination	5,240	710	327	3,938	21	605	126	10,968
e. Refund of nonvested members' contributions	2,615	228	103	1,412	22	638	123	5,139
f. Health care benefit	0	41	20	0	0	72	21	154
g. Administrative expenses	2,638	1,028	381	988	3	372	89	5,500
h. Total	\$ 36,499	\$ 14,436	\$ 6,413	\$ 25,645	\$ 260	\$ 21,730	\$ 5,248	\$ 110,231
3. Expected employee contributions	\$ 16,167	\$ 6,208	\$ 2,795	\$ 7,693	\$ 160	\$ 9,759	\$ 2,258	\$ 45,041
4. City normal cost (2h) - (3)	\$ 20,331	\$ 8,228	\$ 3,619	\$ 17,951	\$ 100	\$ 11,971	\$ 2,990	\$ 65,191
5. Current total annual payroll	\$ 431,131	\$ 103,502	\$ 46,673	\$ 383,568	\$ 2,097	\$ 195,178	\$ 45,155	\$1,207,302
6. City normal cost as a percent of pay assuming beginning-of-year payment (4) ÷ (5)	4.716%	7.950%	7.753%	4.680%	4.783%	6.133%	6.622%	5.400%
7. City normal cost as a percent of pay assuming end-of-year payment (6) x 1.09	5.140%	8.666%	8.451%	5.101%	5.213%	6.685%	7.218%	5.886%

Note: Numbers may not add because of rounding.

COST DERIVATION

6. Derivation of unfunded actuarial accrued liability as of July 1, 2002 (dollars in thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Number of members								
a. Active	9,865	1,981	918	11,283	24	4,222	1,005	29,298
b. Retired	11,234	5,068	1,568	104	7	3	5	17,989
c. Beneficiary	5,388	2,130	970	38	2	39	13	8,580
d. Disabled	2,037	2,056	502	14	0	66	8	4,683
e. Terminated vested	649	28	4	39	2	6	2	730
f. DROP	1,581	722	482	42	0	1	1	2,829
g. Total	30,754	11,985	4,444	11,520	35	4,337	1,034	64,109
2. Total annual benefits								
a. Retired	\$ 168,025	\$ 103,299	\$ 33,215	\$ 907	\$ 213	\$ 22	\$ 54	\$ 305,735
b. Beneficiary	29,413	14,263	6,112	166	24	204	71	50,254
c. Disabled	27,451	31,678	8,589	253	0	1,740	169	69,880
d. Terminated vested	8,514	381	39	498	51	75	19	9,577
e. DROP	43,141	24,836	17,481	411	0	12	21	85,902
f. Total	\$ 276,545	\$ 174,458	\$ 65,436	\$ 2,235	\$ 287	\$ 2,052	\$ 334	\$ 521,348
3. Present value of benefits								
a. Active members								
Service retirement	\$ 1,230,261	\$ 460,020	\$ 226,423	\$ 271,635	\$ 7,270	\$ 379,842	\$ 86,361	\$ 2,661,812
Preretirement death	98,718	22,573	12,973	29,352	390	16,883	4,439	185,326
Disability retirement	56,201	10,743	3,678	25,442	112	26,870	6,225	129,270
Vested termination	156,701	4,092	823	72,968	441	13,551	2,672	251,246
Refund of nonvested members' contributions	2,133	179	101	13,785	57	7,372	1,368	24,995
Health care benefit	0	314	187	0	0	470	142	1,113
Subtotal	\$ 1,544,013	\$ 497,921	\$ 244,186	\$ 413,181	\$ 8,269	\$ 444,988	\$ 101,206	\$ 3,253,763
b. Nonactive members								
Service retired	\$ 1,254,208	\$ 869,812	\$ 263,986	\$ 7,089	\$ 1,940	\$ 220	\$ 549	\$ 2,397,804
Beneficiary	215,240	109,264	41,586	1,572	132	2,145	710	370,649
Disabled	219,077	269,097	71,093	2,421	0	18,441	1,702	581,830
Terminated vested	57,923	3,276	352	1,927	417	274	106	64,274
Nonvested members' contributions	2,205	240	55	600	0	316	68	3,483
Health care benefit	0	4,640	2,979	0	0	516	331	8,466
DROP participant	392,896	234,131	161,329	3,202	0	114	189	791,860
DROP account	76,318	52,687	37,480	529	0	6	22	167,042
Subtotal	\$ 2,217,867	\$ 1,543,147	\$ 578,859	\$ 17,340	\$ 2,489	\$ 22,031	\$ 3,676	\$ 4,385,408
c. Total	\$ 3,761,879	\$ 2,041,068	\$ 823,045	\$ 430,521	\$ 10,757	\$ 467,018	\$ 104,882	\$ 7,639,171

Note: Numbers may not add because of rounding.

COST DERIVATION

6. Derivation of unfunded actuarial accrued liability as of July 1, 2002 (dollars in thousands) – (continued)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
4. Present value of future normal costs								
a. Service retirement	\$ 160,973	\$ 76,634	\$ 30,338	\$ 128,132	\$ 898	\$ 193,865	\$ 44,806	\$ 635,646
b. Preretirement death	18,284	5,164	2,306	15,216	102	10,887	2,887	54,844
c. Disability retirement	23,773	7,307	3,016	18,300	67	20,415	4,935	77,812
d. Vested termination	44,579	5,338	2,117	36,002	145	7,206	1,469	96,854
e. Refund of nonvested members' contribution	22,478	1,680	658	12,233	127	7,569	1,411	46,157
f. Health care benefit	0	117	57	0	0	361	108	643
g. Total	\$ 270,086	\$ 96,239	\$ 38,492	\$ 209,882	\$ 1,338	\$ 240,304	\$ 55,616	\$ 911,956
5. Actuarial accrued liability (3c) - (4g)								
a. Active members								
Service retirement	\$ 1,069,288	\$ 383,386	\$ 196,085	\$ 143,503	\$ 6,372	\$ 185,977	\$ 41,555	\$ 2,026,166
Preretirement death	80,434	17,409	10,667	14,136	288	5,996	1,552	130,482
Disability retirement	32,428	3,436	662	7,142	45	6,455	1,290	51,458
Vested termination	112,122	(1,246)	(1,294)	36,966	296	6,345	1,203	154,392
Refund of nonvested members' contribution	(20,345)	(1,501)	(557)	1,552	(70)	(197)	(43)	(21,162)
Health care benefit	0	197	130	0	0	109	34	470
Subtotal	\$ 1,273,927	\$ 401,682	\$ 205,694	\$ 203,299	\$ 6,931	\$ 204,684	\$ 45,590	\$ 2,341,807
b. Nonactive members								
Service retirement	\$ 1,254,208	\$ 869,812	\$ 263,986	\$ 7,089	\$ 1,940	\$ 220	\$ 549	\$ 2,397,804
Beneficiary	215,240	109,264	41,586	1,572	132	2,145	710	370,649
Disabled	219,077	269,097	71,093	2,421	0	18,441	1,702	581,830
Terminated vested	57,923	3,276	352	1,927	417	274	106	64,274
Nonvested members' contribution	2,205	240	55	600	0	316	68	3,483
Health care benefit	0	4,640	2,979	0	0	516	331	8,466
DROP participant	392,896	234,131	161,329	3,202	0	114	189	791,860
DROP account	76,318	52,687	37,480	529	0	6	22	167,042
Subtotal	\$ 2,217,867	\$ 1,543,147	\$ 578,859	\$ 17,340	\$ 2,489	\$ 22,031	\$ 3,676	\$ 4,385,408
c. Total	\$ 3,491,794	\$ 1,944,829	\$ 784,553	\$ 220,639	\$ 9,420	\$ 226,715	\$ 49,266	\$ 6,727,215
6. Assets for valuation purposes	\$ 2,496,712	\$ 1,217,384	\$ 566,277	\$ 275,848	\$ 10,826	\$ 260,806	\$ 63,487	\$ 4,891,340
7. Unfunded actuarial accrued liability (5c) - (6)	\$ 995,082	\$ 727,444	\$ 218,277	\$ (55,209)	\$ (1,407)	\$ (34,091)	\$ (14,221)	\$ 1,835,875

Note: Numbers may not add because of rounding.

COST DERIVATION

7. Development of the expected unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (dollars in thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation	\$ 802,465	\$ 613,957	\$ 175,514	\$ (73,093)	\$ (1,781)	\$ (57,192)	\$ (16,912)	\$ 1,442,958
2. Changes in July 1, 2002 unfunded actuarial accrued liability due to actuarial experience	\$ 176,684	\$ 103,016	\$ 34,512	\$ 18,013	\$ 376	\$ 23,094	\$ 2,694	\$ 358,390
3. Changes in July 1, 2002 unfunded actuarial accrued liability due to assumption changes	\$ 15,933	\$ 10,471	\$ 8,251	\$ (129)	\$ (2)	\$ 7	\$ (3)	\$ 34,527
4. Actual unfunded actuarial accrued liability, July 1, 2002 (1) + (2) + (3)	\$ 995,082	\$ 727,444	\$ 218,277	\$ (55,209)	\$ (1,407)	\$ (34,091)	\$ (14,221)	\$ 1,835,875
5. Expected changes in unfunded actuarial accrued liability from July 1, 2002 to July 1, 2003:								
a. Interest (2 + 3) x .09	\$ 17,336	\$ 10,214	\$ 3,849	\$ 1,610	\$ 34	\$ 2,079	\$ 242	\$ 35,363
b. Increase in unfunded actuarial accrued liability from July 1, 2002 to July 1, 2003 according to amortization schedule per 2001 valuation report	(4,710)	(12,371)	159	3,382	(29)	3,099	888	(9,582)
c. Subtotal	\$ 12,626	\$ (2,157)	\$ 4,008	\$ 4,992	\$ 5	\$ 5,178	\$ 1,130	\$ 25,781
6. Expected July 1, 2003 unfunded actuarial accrued liability (4) + (5c)	\$ 1,007,707	\$ 725,287	\$ 222,284	\$ (50,218)	\$ (1,402)	\$ (28,912)	\$ (13,090)	\$ 1,861,656

Note: Numbers may not add because of rounding.

COST DERIVATION

8. Development of municipal division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (thousands)

	<u>Fiscal Year Ending June 30, 2004</u>				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment ^a
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation					
a. Dombrowski	\$ 5,378	\$ 4,793	6	\$ 980	\$ 1,069
b. Remaining	<u>797,087</u>	<u>792,961</u>	—	<u>72,331^b</u>	<u>78,841^b</u>
c. Subtotal	\$ 802,465	\$ 797,754	—	\$ 73,311	\$ 79,909
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 176,684	\$ 192,586	15	\$ 21,919	\$ 23,892
b. Assumption change	15,933	17,367	20	1,745	1,902
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 192,617	\$ 209,952	—	\$ 23,665	\$ 25,794
3. Total (1c) + (2e)	\$ 995,082	\$ 1,007,707	—	\$ 96,976	\$ 105,704

Note: Numbers may not add because of rounding.

a. Includes interest at 9% to year-end.

b. Payments toward unfunded liability as of July 1, 1985, increasing at 4.5% per year. All other payments are level dollar amounts.

COST DERIVATION

9. Development of police division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (thousands)

	<u>Fiscal Year Ending June 30, 2004</u>				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment ^a
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation					
a. Dombrowski	\$ 3,440	\$ 3,066	6	\$ 627	\$ 684
b. Remaining	<u>610,517</u>	<u>598,520</u>	—	<u>62,126^b</u>	<u>67,717^b</u>
c. Subtotal	\$ 613,957	\$ 601,586	—	\$ 62,753	\$ 68,401
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 103,016	\$ 112,288	15	\$ 12,780	\$ 13,930
b. Assumption change	10,471	11,413	20	1,147	1,250
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 113,487	\$ 123,701	—	\$ 13,927	\$ 15,181
3. Total (1c) + (2e)	\$ 727,444	\$ 725,287	—	\$ 76,680	\$ 83,581

Note: Numbers may not add because of rounding.

- a. Includes interest at 9% to year-end.
- b. Payments toward unfunded liability as of July 1, 1985, increasing at 4.5% per year. All other payments are level dollar amounts.

COST DERIVATION

10. Development of fire division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (thousands)

	Fiscal Year Ending June 30, 2004				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment ^a
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation					
a. Dombrowski	\$ 1,370	\$ 1,221	6	\$ 250	\$ 272
b. Remaining	<u>174,144</u>	<u>174,452</u>	—	<u>14,584^b</u>	<u>15,897^b</u>
c. Subtotal	\$ 175,514	\$ 175,673	—	\$ 14,834	\$ 16,169
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 34,512	\$ 37,618	15	\$ 4,281	\$ 4,667
b. Assumption change	8,251	8,993	20	904	985
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 42,763	\$ 46,611	—	\$ 5,185	\$ 5,652
3. Total (1c) + (2e)	\$ 218,277	\$ 222,284	—	\$ 20,019	\$ 21,821

Note: Numbers may not add because of rounding.

- a. Includes interest at 9% to year-end.
- b. Payments toward unfunded liability as of July 1, 1985, increasing at 4.5% per year. All other payments are level dollar amounts.

COST DERIVATION

11. Development of municipal division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (thousands)

	<u>Fiscal Year Ending June 30, 2004</u>				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment ^a
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation	\$ (73,093)	\$ (69,711)	—	\$ (9,138)	\$ (9,961)
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 18,013	\$ 19,634	15	\$ 2,235	\$ 2,436
b. Assumption change	(129)	(141)	20	(14)	(15)
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 17,884	\$ 19,493	—	\$ 2,221	\$ 2,420
3. Total (1) + (2e)	\$ (55,209)	\$ (50,218)	—	\$ (6,918)	\$ (7,540)

Note: Numbers may not add because of rounding.

a. Includes interest at 9% to year-end.

COST DERIVATION

12. Development of elected division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (thousands)

	<u>Fiscal Year Ending June 30, 2004</u>				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment ^a
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation	\$ (1,781)	\$ (1,810)	—	\$ (121)	\$ (132)
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 376	\$ 410	15	\$ 47	\$ 51
b. Assumption change	(2)	(2)	20	0	0
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 374	\$ 408	—	\$ 46	\$ 51
3. Total (1) + (2e)	\$ (1,407)	\$ (1,402)	—	\$ (74)	\$ (81)

Note: Numbers may not add because of rounding.

a. Includes interest at 9% to year-end.

COST DERIVATION

13. Development of police division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (thousands)

	<u>Fiscal Year Ending June 30, 2004</u>				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment*
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation	\$ (57,192)	\$ (54,093)	—	\$ (7,569)	\$ (8,251)
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 23,094	\$ 25,172	15	\$ 2,865	\$ 3,123
b. Assumption change	7	8	20	1	1
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 23,101	\$ 25,180	—	\$ 2,866	\$ 3,124
3. Total (1) + (2e)	\$ (34,091)	\$ (28,912)	—	\$ (4,703)	\$ (5,127)

Note: Numbers may not add because of rounding.

a. Includes interest at 9% to year-end.

COST DERIVATION

14. Development of fire division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004 (thousands)

	Fiscal Year Ending June 30, 2004				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment ^a
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation	\$ (16,912)	\$ (16,024)	—	\$ (2,220)	\$ (2,420)
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 2,694	\$ 2,937	15	\$ 334	\$ 364
b. Assumption change	(3)	(3)	20	0	0
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 2,691	\$ 2,933	—	\$ 334	\$ 364
3. Total (1) + (2e)	\$ (14,221)	\$ (13,090)	—	\$ (1,886)	\$ (2,056)

Note: Numbers may not add because of rounding.

a. Includes interest at 9% to year-end.

COST DERIVATION

**15. Development of total division annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2004
(thousands)**

	<u>Fiscal Year Ending June 30, 2004</u>				
	Outstanding Balance July 1, 2002	Expected Balance July 1, 2003	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment ^a
1. Expected July 1, 2002 unfunded actuarial accrued liability based on July 1, 2001 valuation					
a. Dombrowski	\$ 10,188	\$ 9,081	6	\$ 1,857	\$ 2,024
b. Remaining	<u>1,432,770</u>	<u>1,424,296</u>	—	<u>129,992^h</u>	<u>141,692^h</u>
c. Subtotal	\$ 1,442,958	\$ 1,433,376	—	\$ 131,850	\$ 143,716
2. Changes in unfunded actuarial accrued liability, July 1, 2002					
a. Experience (gains)/losses	\$ 358,390	\$ 390,645	15	\$ 44,461	\$ 48,463
b. Assumption change	34,527	37,635	20	3,782	4,123
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 392,917	\$ 428,280	—	\$ 48,244	\$ 52,586
3. Total (1c) + (2e)	\$ 1,835,875	\$ 1,861,656	—	\$ 180,093	\$ 196,302

Note: Numbers may not add because of rounding.

- a. Includes interest at 9% to year-end.
- b. Payment towards unfunded liability as of July 1, 1985, increasing at 4.5% per year. All other payments are level dollar amounts.

COST DERIVATION

16. Schedule of annual payments to fund the anticipated July 1, 2002 unfunded actuarial accrued liability (dollars in thousands)

Plan Year Beginning July 1	Annual Beginning-of-Year Payment ^a									Progress of Unfunded Actuarial Accrued Liability ^a	Estimated Annual Payroll	Annual Payment as a Percent of Payroll
	1967 Plan			Plan 87								
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	Total				
2002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,835,875	1,207,302	N/A	
2003	96,976	76,680	20,019	(6,918)	(74)	(4,703)	(1,886)	180,093	1,861,656	1,261,631	14.3%	
2004	118,744	86,397	25,427	(4,421)	(50)	(2,356)	(1,310)	222,432	2,214,403	1,318,404	16.9%	
2005	143,420	96,960	30,455	(2,029)	48	(104)	(753)	267,996	2,538,579	1,377,732	19.5%	
2006	169,653	104,277	34,917	275	135	2,237	(209)	311,284	2,819,375	1,439,730	21.6%	
2007	181,377	111,647	38,100	1,357	128	3,273	37	335,919	2,892,959	1,504,518	22.3%	
2008	178,207	113,857	38,972	1,258	73	3,317	66	335,750	2,787,173	1,572,221	21.4%	
2009	183,932	117,627	40,492	1,328	83	3,391	74	346,926	2,672,051	1,642,971	21.1%	
2010	180,926	116,766	40,816	1,538	4	3,258	116	343,423	2,534,386	1,716,905	20.0%	
2011	182,538	118,589	41,869	1,472	20	3,287	145	347,921	2,388,149	1,794,166	19.4%	
2012	184,610	120,110	42,809	1,520	63	3,391	207	352,709	2,223,848	1,874,903	18.8%	
2013	194,404	124,592	45,348	1,797	62	3,756	267	370,227	2,039,542	1,959,274	18.9%	
2014	200,801	128,005	47,670	1,998	97	3,998	374	382,943	1,819,553	2,047,441	18.7%	
2015	212,127	121,656	52,293	9,870	388	11,748	2,370	410,452	1,565,905	2,139,576	19.2%	
2016	216,901	118,928	52,064	10,064	383	11,985	2,514	412,841	1,259,444	2,235,857	18.5%	
2017	221,201	124,549	51,472	10,529	389	11,829	2,448	422,417	922,797	2,336,470	18.1%	
2018	199,607	114,793	48,322	7,929	336	8,706	2,070	381,764	545,415	2,441,612	15.6%	
2019	53,612	24,454	11,573	5,481	240	6,391	1,507	103,257	178,380	2,551,484	4.0%	
2020	30,653	14,049	6,733	3,094	147	4,162	964	59,803	81,884	2,666,301	2.2%	
2021	10,643	4,292	2,195	883	60	2,072	455	20,600	24,069	2,786,284	0.7%	
2022	1,745	1,147	904	(14)	-	1	-	3,782	3,781	2,911,667	0.1%	
2023	-	-	-	-	-	-	-	-	0	3,042,692	0.0%	
2024	-	-	-	-	-	-	-	-	-	3,179,613	0.0%	
2025	-	-	-	-	-	-	-	-	-	3,322,696	0.0%	

a. These amounts do not reflect the election of the 10 year rolling amortization at any point

Note: Numbers may not add because of rounding.

COST DERIVATION

Estimated progress of fund

Table 17 shows the pension fund's estimated progress for fiscal years 2003 through 2022. The July 1, 2002 adjusted market value of fund assets is the starting point. This projection shows the emerging benefit payments of the fund and the concurrent fund growth. The projection is based on the same assumptions used to determine the Retirement System's annual cost and related liabilities.

The City contribution of normal cost plus the scheduled payments toward amortizing the unfunded actuarial accrued liability is used in the projection. The first year of the projection reflects the anticipated City contribution as of the July 1, 2001 valuation. Subsequent contributions are based on the July 1, 2002 valuation. The contribution's normal cost component increases 4.5% annually, reflecting anticipated increases in covered payroll. The projected employee contributions also increase annually, reflecting assumed payroll increases at 4.5%.

The fund projection is taken out to the period with the fiscal year ending June 30, 2022. Fluctuations from the figures shown in this 20-year period are to be expected.

The fund's underlying growth trend tends to follow that shown in Table 17, even though the actual numbers vary. The projection shows that City and employee combined fund contributions do not exceed the benefits paid. However, the contributions combined with expected investment earnings meet benefit payments and allow for continued fund growth.

COST DERIVATION

17. Estimated progress of City of Philadelphia Municipal Retirement System Fund for July 1, 2002 through July 1, 2021
(dollars in thousands)

Fiscal Year Ending June 30	Fund at Beginning of Year	City Contributions ^a	Employee Contributions ^a	Benefit Payments ^a	Investment Income	Net Increase	Fund at End of Year
2003	3,957,858	210,589	45,028	536,650	334,084	53,052	4,010,910
2004	4,010,910	270,558	47,076	545,031	338,574	111,177	4,122,088
2005	4,122,088	320,048	49,195	554,940	348,229	162,532	4,284,620
2006	4,284,620	373,205	51,408	566,684	362,428	220,358	4,504,977
2007	4,504,977	424,038	53,722	579,972	381,767	279,554	4,784,532
2008	4,784,532	454,703	56,139	594,137	406,398	323,104	5,107,636
2009	5,107,636	458,504	58,666	609,696	434,891	342,364	5,450,000
2010	5,450,000	474,850	61,306	627,347	465,028	373,836	5,823,835
2011	5,823,835	475,383	64,064	646,710	497,926	390,663	6,214,499
2012	6,214,499	477,721	66,947	667,767	532,268	409,169	6,623,667
2013	6,623,667	457,980	69,960	690,092	568,224	406,071	7,029,739
2014	7,029,739	440,065	73,108	714,503	603,814	402,483	7,432,222
2015	7,432,222	423,879	76,398	741,337	638,978	397,917	7,830,139
2016	7,830,139	409,334	79,836	768,742	673,712	394,140	8,224,279
2017	8,224,279	396,347	83,428	792,762	708,265	395,278	8,619,557
2018	8,619,557	384,843	87,183	841,344	741,823	372,504	8,992,061
2019	8,992,061	374,752	91,106	892,056	773,243	347,044	9,339,105
2020	9,339,105	366,011	95,206	940,942	802,461	322,737	9,661,842
2021	9,661,842	358,562	99,490	990,625	829,465	296,892	9,958,734
2022	9,958,734	352,353	103,967	1,040,867	854,126	269,579	10,228,313

Note: Numbers may not add because of rounding.

- a. City contributions are assumed to be made at the end of the year. Employee contributions and benefit payments are assumed to be made mid-year.
- b. We assumed that the City switches to the 10-year amortization of the unfunded liability when advantageous.

PLAN MEMBERSHIP

Data for active, retired, disabled, and terminated vested members as of July 1, 2002 was provided by the Philadelphia Board of Pensions and Retirement.

The active member data, supplied via electronic mail, contained information for all Retirement System members as of July 1, 2002. The data contained basic identifying information on each employee in addition to the annual rate of base compensation, overtime pay, longevity payments, and employee contribution totals. We reviewed the data for consistency and completeness and verified it against the July 1, 2001 data for continued active member coverage.

The nonactive member data, also supplied via electronic mail, contained information for all retired, DROP, beneficiary, disabled, and terminated vested members as of July 1, 2002.

Table 18 illustrates a net increase in total plan membership during the period.

18. Total plan membership net change

	Number of Members	Percentage Increase (Decrease)
Active	- 24	- 0.1%
Retired	- 92	- 0.5%
Surviving spouses	- 61	- 0.8%
Other beneficiaries	+ 64	+ 4.8%
Disabled	- 84	- 1.8%
Terminated vested	+ 21	+ 3.0%
DROP Participants	+ <u>508</u>	+ <u>21.9%</u>
Total	+ 332	+ 0.5%

Table 19 summarizes the changes in plan membership between valuations. Using the information provided, we identified changes in status due to retirement, entrance into the DROP, disablement, death, and new entrants. However, no information regarding transfers, return to employment, and data corrections was available. *Net Other Terminations* consists of:

- Actives
 - Terminated and left member contributions on deposit
 - Died during the period
 - Transferred from one division to another
- Retired or disabled
 - Died during the period
 - Returned to employment

PLAN MEMBERSHIP

- Terminated vested
 - Retired or died during the period
 - Returned to employment

Table 20 breaks down active members' payroll and nonactive members' benefit payments.

PLAN MEMBERSHIP

19. Reconciliation of included members

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Active members								
Active, July 1, 2001	10,843	2,211	1,012	10,045	24	4,188	999	29,322
New entrants and rehires	+ 207	+ 9	+ 8	+ 2,097	+ 2	+ 152	+ 41	+ 2,516
Separations from active service								
Refunded contributions	- 40	- 1	- 0	- 350	- 0	- 42	- 9	- 442
Terminated vested	- 40	- 1	- 0	- 16	- 0	- 3	- 0	- 60
Became disabled	- 46	- 9	- 3	- 3	- 0	- 7	- 1	- 69
Retired	- 194	- 59	- 10	- 17	- 0	- 1	- 3	- 284
DROP participants	- 471	- 140	- 72	- 16	- 0	- 0	- 1	- 700
Net other terminations ^a	- 394	- 29	- 17	- 457	- 2	- 65	- 21	- 985
Active, July 1, 2002	9,865	1,981	918	11,283	24	4,222	1,005	29,298
Retired members								
Retired, July 1, 2001	11,334	5,069	1,591	76	7	2	2	18,081
New retirees	+ 510	+ 128	+ 49	+ 28	+ 0	+ 1	+ 3	+ 719
Net other terminations	- 610	- 129	- 72	- 0	- 0	- 0	- 0	- 811
Retired, July 1, 2002	11,234	5,068	1,568	104	7	3	5	17,989
Surviving spouses								
Receiving benefit, July 1, 2001	4,309	1,967	929	17	2	9	5	7,238
New spouses	+ 245	+ 91	+ 39	+ 6	+ 0	+ 2	+ 0	+ 383
Net other terminations	- 288	- 95	- 61	- 0	- 0	- 0	- 0	- 444
Receiving benefit, July 1, 2002	4,266	1,963	907	23	2	11	5	7,177

a. Includes terminated employees who left contributions on deposit, deaths, and transfers among plans.

PLAN MEMBERSHIP

19. Reconciliation of Included members (continued)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Other beneficiaries								
Receiving benefit, July 1, 2001	1,068	163	62	12	0	26	8	1,339
New beneficiaries	+ 71	+ 10	+ 1	+ 3	+ 0	+ 3	+ 0	+ 88
Net other terminations	- 17	- 6	- 0	- 0	- 0	- 1	- 0	- 24
Receiving benefit, July 1, 2002	1,122	167	63	15	0	28	8	1,403
Disabled members								
Disabled, July 1, 2001	2,078	2,102	517	11	0	52	7	4,767
New disabilities	+ 69	+ 14	+ 4	+ 3	+ 0	+ 14	+ 1	+ 105
Net other terminations	- 110	- 60	- 19	- 0	- 0	- 0	- 0	- 189
Disabled, July 1, 2002	2,037	2,056	502	14	0	66	8	4,683
Terminated vested members								
Terminated vested, July 1, 2001	654	32	6	13	2	1	1	709
New vested terminations	+ 65	+ 3	+ 0	+ 26	+ 0	+ 5	+ 1	+ 100
Net other terminations	- 70	- 7	- 2	- 0	- 0	- 0	- 0	- 79
Terminated vested, July 1, 2002	649	28	4	39	2	6	2	730
DROP participants								
DROP participants, July 1, 2001	1,236	615	440	29	0	1	0	2,321
New DROP participants	+ 571	+ 163	+ 80	+ 18	+ 0	+ 1	+ 1	+ 834
Net other terminations	- 226	- 56	- 38	- 5	- 0	- 1	- 0	- 326
DROP participants, July 1, 2002	1,581	722	482	42	0	1	1	2,829

PLAN MEMBERSHIP

20. Summary of annual active member payroll and nonactive member annual benefits (thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Active members								
Active as of July 1, 2001	\$ 456,491	\$ 107,652	\$ 49,277	\$ 344,275	\$ 2,055	\$ 178,284	\$ 42,365	\$ 1,180,398
Net new entrants and pay increases	<u>(25,360)</u>	<u>(4,150)</u>	<u>(2,604)</u>	<u>39,293</u>	<u>42</u>	<u>16,894</u>	<u>2,790</u>	<u>26,904</u>
Active as of July 1, 2002	\$ 431,131	\$ 103,502	\$ 46,673	\$ 383,568	\$ 2,097	\$ 195,178	\$ 45,155	\$ 1,207,302
Retired members								
Retired as of July 1, 2001	\$ 164,079	\$ 101,612	\$ 32,692	\$ 688	\$ 213	\$ 10	\$ 22	\$ 299,316
Net new entrants	<u>3,946</u>	<u>1,687</u>	<u>523</u>	<u>219</u>	<u>0</u>	<u>12</u>	<u>32</u>	<u>6,419</u>
Retired as of July 1, 2002	\$ 168,025	\$ 103,299	\$ 33,215	\$ 907	\$ 213	\$ 22	\$ 54	\$ 305,735
Surviving spouses								
Receiving benefit as of July 1, 2001	\$ 23,314	\$ 12,901	\$ 5,593	\$ 70	\$ 24	\$ 55	\$ 37	\$ 41,994
Net new spouses	<u>619</u>	<u>350</u>	<u>83</u>	<u>41</u>	<u>0</u>	<u>20</u>	<u>0</u>	<u>1,113</u>
Receiving benefit as of July 1, 2002	\$ 23,933	\$ 13,251	\$ 5,676	\$ 111	\$ 24	\$ 75	\$ 37	\$ 43,107
Other beneficiaries								
Receiving benefits as of July 1, 2001	\$ 5,110	\$ 932	\$ 432	\$ 41	\$ 0	\$ 125	\$ 34	\$ 6,675
Net new beneficiaries	<u>371</u>	<u>80</u>	<u>4</u>	<u>15</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>472</u>
Receiving benefit as of July 1, 2002	\$ 5,481	\$ 1,012	\$ 436	\$ 56	\$ 0	\$ 129	\$ 34	\$ 7,147

Note: Numbers may not add because of rounding.

PLAN MEMBERSHIP

20. Summary of annual active member payroll and nonactive member annual benefits (thousands) - (continued)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Disabled members								
Disabled as of July 1, 2001	\$ 27,211	\$ 31,906	\$ 8,690	\$ 198	\$ 0	\$ 1,322	\$ 137	\$ 69,464
Net new disabilities	<u>240</u>	<u>(228)</u>	<u>(101)</u>	<u>55</u>	<u>0</u>	<u>418</u>	<u>32</u>	<u>416</u>
Disabled as of July 1, 2002	\$ 27,451	\$ 31,678	\$ 8,589	\$ 253	\$ 0	\$ 1,740	\$ 169	\$ 69,880
Terminated vested members								
Terminated vested as of July 1, 2001	\$ 8,364	\$ 406	\$ 63	\$ 181	\$ 51	\$ 10	\$ 8	\$ 9,083
Net new vested terminations	<u>150</u>	<u>(25)</u>	<u>(24)</u>	<u>317</u>	<u>0</u>	<u>65</u>	<u>11</u>	<u>494</u>
Terminated vested as of July 1, 2002	\$ 8,514	\$ 381	\$ 39	\$ 498	\$ 51	\$ 75	\$ 19	\$ 9,577
DROP Participants (doesn't include account balance)								
DROP participants as of July 1, 2001	\$ 33,174	\$ 21,065	\$ 15,812	\$ 278	\$ 0	\$ 10	\$ 0	\$ 70,338
Net new DROP participants	<u>9,967</u>	<u>3,771</u>	<u>1,669</u>	<u>133</u>	<u>0</u>	<u>2</u>	<u>21</u>	<u>15,564</u>
DROP participants as of July 1, 2002	\$ 43,141	\$ 24,836	\$ 17,481	\$ 411	\$ 0	\$ 12	\$ 21	\$ 85,902

Note: Numbers may not add because of rounding.

PLAN MEMBERSHIP

A distribution of the active employees' annual earnings for each division by age and service group as of July 1, 2002 appears in Tables 21 through 27.

A distribution of inactive members by age and annual pension is shown in Tables 28-32.

PLAN MEMBERSHIP

21. Municipal (1967 Plan) annual average earnings and counts: service groups by age groups

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
25-29	1	9	6	0	0	0	0	0	0	16
	28,924	32,140	38,427	0	0	0	0	0	0	34,297
30-34	3	12	192	9	0	0	0	0	0	216
	42,117	43,546	40,467	39,053	0	0	0	0	0	40,602
35-39	6	25	569	242	43	0	0	0	0	885
	41,668	38,721	41,073	40,999	43,646	0	0	0	0	41,116
40-44	7	25	743	700	335	30	1	0	0	1,841
	32,669	35,851	40,043	45,424	45,427	46,320	29,903	0	0	43,080
45-49	11	27	667	624	573	432	56	1	0	2,391
	52,045	41,484	38,776	45,842	49,389	46,320	44,644	36,631	0	44,754
50-54	9	18	512	556	479	752	621	65	0	3,012
	42,420	45,929	38,101	42,471	47,614	49,295	46,618	44,456	0	45,168
55-59	1	15	270	240	165	135	174	45	4	1,049
	38,955	37,827	37,336	41,167	44,804	47,910	52,367	45,896	42,386	43,636
60-64	1	5	104	77	39	33	18	8	14	299
	37,964	43,315	35,567	41,017	38,925	40,248	47,837	38,346	38,914	39,033
65-69	0	1	38	21	10	12	5	3	3	93
	0	29,303	33,395	36,995	46,860	30,675	47,672	53,671	38,433	36,845
70-74	0	1	12	7	6	7	1	1	6	41
	0	32,397	31,379	21,963	44,602	36,091	12,845	12,416	52,308	34,684
75+	0	0	3	4	3	4	2	2	4	22
	0	0	19,927	28,321	29,663	31,780	35,491	63,986	44,322	34,792
Total	39	138	3,116	2,480	1,653	1,405	878	125	31	9,865
	42,696	39,627	39,146	43,698	47,149	47,697	47,580	44,798	42,605	43,703

Note: Age represents attained age.

PLAN MEMBERSHIP

22. Police (1967 Plan) annual average earnings and counts: service groups by age groups

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	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
30-34	0	2	4	3	0	0	0	0	0	9
	0	46,787	47,137	47,254	0	0	0	0	0	47,098
35-39	1	2	52	94	6	1	0	0	0	156
	34,986	46,787	49,204	51,519	54,192	59,169	0	0	0	50,733
40-44	0	0	62	288	255	1	0	0	0	606
	0	0	48,350	50,464	54,135	47,737	0	0	0	51,788
45-49	1	0	31	196	298	130	0	0	0	656
	57,819	0	47,478	50,087	53,346	55,465	0	0	0	52,522
50-54	0	0	23	93	103	155	72	0	0	446
	0	0	47,532	49,553	52,094	53,741	57,243	0	0	52,732
55-59	0	0	1	7	12	30	33	11	0	94
	0	0	47,137	48,396	49,079	51,884	55,936	57,752	0	53,325
60-64	0	0	0	0	1	2	3	7	0	13
	0	0	0	0	47,737	57,066	55,924	56,330	0	55,689
65-69	0	0	0	0	0	0	0	0	1	1
	0	0	0	0	0	0	0	0	71,299	71,299
70-74	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
75+	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
Total	2	4	173	681	675	319	108	18	1	1,981
	46,403	46,787	48,306	50,341	53,377	54,288	56,807	57,199	71,299	52,248

Note: Age represents attained age.

PLAN MEMBERSHIP

23. Fire (1967 Plan) annual average earnings and counts: service groups by age groups

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	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
30-34	0	0	1	0	0	0	0	0	0	1
	0	0	41,903	0	0	0	0	0	0	41,903
35-39	0	0	14	12	0	0	0	0	0	26
	0	0	46,856	48,034	0	0	0	0	0	47,400
40-44	0	0	17	134	7	0	0	0	0	158
	0	0	46,972	48,854	48,426	0	0	0	0	48,632
45-49	0	1	11	106	36	100	2	0	0	256
	0	41,553	46,314	48,090	50,917	52,807	47,289	0	0	50,222
50-54	0	0	5	35	67	217	47	2	0	373
	0	0	45,287	47,915	50,739	51,927	55,219	57,111	0	51,691
55-59	0	0	1	0	12	48	26	11	0	98
	0	0	41,903	0	49,632	50,806	55,132	65,679	0	53,389
60-64	0	0	0	0	0	0	3	3	0	6
	0	0	0	0	0	0	49,473	65,444	0	57,458
65-69	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
75+	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
Total	0	1	49	287	122	365	78	16	0	918
	0	41,553	46,412	48,423	50,550	52,021	54,766	64,564	0	50,842

Note: Age represents attained age.

PLAN MEMBERSHIP

24. Municipal Plans M & Y (Plan 87) annual average earnings and counts: service groups by age groups

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	65 8,950	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	65 8,950
20-24	496 26,075	29 33,297	0 0	0 0	0 0	0 0	0 0	0 0	0 0	525 26,474
25-29	1,082 32,574	228 36,036	12 37,948	0 0	0 0	0 0	0 0	0 0	0 0	1,322 33,220
30-34	1,123 33,880	723 41,286	78 38,224	9 38,942	0 0	0 0	0 0	0 0	0 0	1,933 36,849
35-39	941 30,957	716 38,661	156 45,781	21 43,067	1 29,640	0 0	0 0	0 0	0 0	1,835 35,361
40-44	892 28,828	667 37,925	138 42,990	40 45,336	10 38,720	1 34,195	0 0	0 0	0 0	1,748 33,854
45-49	747 30,651	544 37,436	130 44,580	36 42,861	22 37,905	15 37,706	4 31,712	1 30,717	0 0	1,499 34,794
50-54	560 31,513	434 36,158	104 44,981	18 39,954	8 36,873	6 47,433	14 49,326	1 28,322	0 0	1,145 34,966
55-59	327 30,345	228 36,283	83 43,174	25 42,120	3 52,002	4 45,705	6 48,161	3 34,410	1 26,020	680 34,689
60-64	117 26,504	132 34,358	32 42,557	4 46,365	2 42,421	1 31,372	2 31,788	6 40,891	1 32,713	297 32,463
65-69	62 14,254	53 27,289	10 45,113	1 26,982	1 33,175	1 12,240	1 31,068	0 0	0 0	129 22,362
70-74	26 7,725	30 17,898	7 30,347	0 0	1 140,000	0 0	1 47,904	0 0	0 0	65 17,510
75+	16 17,590	19 6,534	4 4,626	1 5,398	0 0	0 0	0 0	0 0	0 0	40 10,737
Total	6,454 30,460	3,803 37,597	754 43,252	155 42,589	48 41,066	28 39,326	28 44,605	11 37,056	2 29,367	11,283 33,995

Note: Age represents attained age.

PLAN MEMBERSHIP

25. Elected (Plan 87) annual average earnings and counts: service groups by age groups

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	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
30-34	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
35-39	1	0	0	0	0	0	0	0	0	1
	82,088	0	0	0	0	0	0	0	0	82,088
40-44	0	0	1	0	0	0	0	0	0	1
	0	0	82,088	0	0	0	0	0	0	82,088
45-49	0	0	1	1	2	0	0	0	0	4
	0	0	82,088	82,088	82,088	0	0	0	0	82,088
50-54	0	0	1	0	1	0	1	0	0	3
	0	0	90,366	0	82,088	0	85,679	0	0	86,044
55-59	1	3	0	0	1	0	1	0	0	6
	135,000	82,088	0	0	87,219	0	80,000	0	0	91,414
60-64	0	1	1	1	0	0	0	0	0	3
	0	80,000	118,315	85,679	0	0	0	0	0	94,665
65-69	0	0	1	0	1	1	0	0	0	3
	0	0	80,000	0	82,088	85,000	0	0	0	82,363
70-74	0	0	0	0	0	0	0	0	1	1
	0	0	0	0	0	0	0	0	102,610	102,610
75+	0	0	0	1	1	0	0	0	0	2
	0	0	0	82,088	82,088	0	0	0	0	82,088
Total	2	4	5	3	6	1	2	0	1	24
	108,544	81,566	90,571	83,285	82,943	85,000	82,840	0	102,610	87,376

Note: Age represents attained age.

PLAN MEMBERSHIP

26. Police (Plan 87) annual average earnings and counts: service groups by age groups

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	246	9	0	0	0	0	0	0	0	255
	40,525	46,950	0	0	0	0	0	0	0	40,752
25-29	423	390	2	0	0	0	0	0	0	815
	42,213	46,807	46,962	0	0	0	0	0	0	44,423
30-34	297	685	335	1	0	0	0	0	0	1,318
	42,656	47,271	48,856	47,137	0	0	0	0	0	46,634
35-39	113	383	514	4	1	0	0	0	0	1,015
	43,271	47,125	48,862	48,012	50,288	0	0	0	0	47,582
40-44	44	163	285	2	3	1	0	0	0	498
	43,216	47,022	48,559	52,419	47,137	53,499	0	0	0	47,601
45-49	27	67	164	0	3	1	0	0	0	262
	43,361	47,100	47,919	0	46,732	46,787	0	0	0	47,222
50-54	10	23	14	0	0	0	0	0	0	47
	45,271	46,568	47,617	0	0	0	0	0	0	46,604
55-59	1	5	0	0	0	2	0	0	0	8
	44,721	47,557	0	0	0	47,987	0	0	0	47,310
60-64	1	1	1	0	0	0	0	0	0	3
	44,721	46,787	47,137	0	0	0	0	0	0	46,215
65-69	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
75+	1	0	0	0	0	0	0	0	0	1
	36,326	0	0	0	0	0	0	0	0	36,326
Total	1,163	1,726	1,315	7	7	4	0	0	0	4,222
	42,162	47,093	48,660	49,146	47,414	49,065	0	0	0	46,229

Note: Age represents attained age.

PLAN MEMBERSHIP

27. Fire (Plan 87) annual average earnings and counts: service groups by age groups

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	19	1	0	0	0	0	0	0	0	20
	35,972	45,964	0	0	0	0	0	0	0	36,471
25-29	96	32	1	0	0	0	0	0	0	129
	39,368	46,951	37,056	0	0	0	0	0	0	41,231
30-34	115	143	22	0	0	0	0	0	0	280
	40,266	46,883	47,568	0	0	0	0	0	0	44,219
35-39	42	134	105	0	0	0	0	0	0	281
	39,655	46,638	48,189	0	0	0	0	0	0	46,174
40-44	15	73	104	1	0	0	0	0	0	193
	41,818	46,720	47,631	46,314	0	0	0	0	0	46,828
45-49	9	20	53	0	0	1	0	0	0	83
	40,404	46,484	47,278	0	0	46,314	0	0	0	46,329
50-54	0	7	8	0	0	0	0	0	0	15
	0	46,064	46,314	0	0	0	0	0	0	46,197
55-59	0	1	0	0	0	0	0	0	0	1
	0	50,375	0	0	0	0	0	0	0	50,375
60-64	2	1	0	0	0	0	0	0	0	3
	38,909	45,964	0	0	0	0	0	0	0	41,261
65-69	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
75+	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
Total	298	412	293	1	0	1	0	0	0	1,005
	39,690	46,750	47,691	46,314	0	46,314	0	0	0	44,930

Note: Age represents attained age.

PLAN MEMBERSHIP

28. Terminated vested (1967 Plan and Plan 87) members, July 1, 2002

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
Under 40	29	\$ 311,341	7	\$ 103,774	0	\$ 0
40-44	59	733,589	22	308,474	4	37,221
45-49	185	2,333,963	2	15,269	1	14,470
50-54	328	4,717,028	1	8,491	0	0
55-59	50	610,462	0	0	0	0
60-64	15	104,898	1	7,128	0	0
Over 64	24	251,285	1	13,113	1	6,028
Total	690	\$ 9,062,565	34	\$ 456,250	6	\$ 57,719

Average Annual Pension

Municipal	\$ 13,134
Police	\$ 13,419
Fire	\$ 9,620

Note: Numbers may not add because of rounding.

PLAN MEMBERSHIP

29. Disabled (1967 Plan and Plan 87) members, July 1, 2002

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	22	\$ 359,932	47	\$ 1,246,269	4	\$ 73,213
40-44	70	1,155,707	77	1,812,242	5	107,231
45-49	162	2,600,898	169	3,668,848	26	578,600
50-54	309	5,159,868	331	6,487,540	82	1,689,558
55-59	340	5,971,179	482	8,371,556	117	2,031,153
60-64	322	4,430,952	300	4,178,732	99	1,719,882
65-69	254	3,020,341	230	2,662,282	52	933,059
70-74	216	2,073,299	242	2,551,064	33	548,133
75-79	196	1,683,028	161	1,613,553	39	503,144
80-84	113	917,003	49	490,290	40	448,661
OVER 84	47	332,007	34	335,562	13	125,477
TOTAL	2,051	\$ 27,704,213	2,122	\$ 33,417,937	510	\$ 8,758,110

Average Annual Pension

Municipal	\$ 13,508
Police	\$ 15,748
Fire	\$ 17,173

Note: Numbers may not add because of rounding.

PLAN MEMBERSHIP

30. Retired (1967 Plan and Plan 87) members, July 1, 2002

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	0	\$ 0	0	\$ 0	0	\$ 0
40-44	0	0	1	5,118	1	4,958
45-49	5	30,945	217	5,131,296	40	862,877
50-54	48	956,006	722	17,180,013	154	3,643,665
55-59	1,093	24,230,382	1,159	26,918,989	322	8,241,752
60-64	1,743	34,825,397	1,064	21,736,236	302	7,707,236
65-69	2,139	37,544,932	776	14,325,623	233	5,022,221
70-74	2,318	33,488,789	626	10,652,593	126	2,341,574
75-79	1,845	21,409,185	305	5,176,198	148	2,418,877
80-84	1,284	11,088,621	95	1,188,056	142	1,829,816
OVER 84	870	5,570,343	106	1,006,476	105	1,196,670
TOTAL	11,345	\$ 169,144,600	5,071	\$ 103,320,597	1,573	\$ 33,269,646

Average Annual Pension

Municipal	\$ 14,909
Police	\$ 20,375
Fire	\$ 21,150

Note: Numbers may not add because of rounding.

PLAN MEMBERSHIP

31. Beneficiaries (1967 Plan and Plan 87) of members, July 1, 2002

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	438	\$ 2,327,178	134	\$ 893,061	43	\$ 296,048
40-44	178	808,392	37	229,547	15	151,799
45-49	201	1,277,898	63	614,278	19	257,014
50-54	230	1,700,885	113	1,233,548	43	463,169
55-59	288	2,297,486	211	1,978,617	55	557,007
60-64	408	3,000,813	238	1,958,422	54	594,864
65-69	572	3,994,353	258	1,876,637	54	398,486
70-74	760	4,518,993	336	2,200,577	94	623,789
75-79	846	4,113,824	249	1,402,679	167	988,995
80-84	746	3,165,987	232	1,031,874	194	898,822
OVER 84	<u>761</u>	<u>2,397,817</u>	<u>298</u>	<u>1,047,641</u>	<u>245</u>	<u>953,063</u>
TOTAL	5,428	\$ 29,603,625	2,169	\$ 14,466,881	983	\$ 6,183,057

Average Annual Pension

Municipal	\$ 5,454
Police	\$ 6,670
Fire	\$ 6,290

Note: Numbers may not add because of rounding.

PLAN MEMBERSHIP

32. DROP (1967 Plan and Plan 87) members, July 1, 2002

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	0	\$ 0	0	\$ 0	0	\$ 0
40-44	0	0	0	0	0	0
45-49	0	0	125	3,476,644	21	632,703
50-54	0	0	234	7,504,740	142	4,718,783
55-59	920	26,729,118	254	9,223,627	223	8,071,260
60-64	474	11,768,762	93	3,807,925	84	3,481,200
65-69	170	3,572,612	11	484,649	12	544,195
70-74	40	925,363	5	292,770	0	0
75-79	16	497,015	1	57,791	1	53,976
80-84	2	52,272	0	0	0	0
OVER 84	1	6,946	0	0	0	0
TOTAL	1,623	\$ 43,552,087	723	\$24,848,147	483	\$17,502,117

Average Annual Pension

Municipal	\$ 26,834
Police	\$ 34,368
Fire	\$ 36,236

Note: Numbers may not add because of rounding.

FINANCIAL EXPERIENCE OF FUND

The July 1, 2002 Retirement System net assets are \$3,958,541,875 on a market value basis and \$4,170,338,182 on a cost value basis. These values include the Pension Adjustment Fund (PAF), which is also shown in Table 34. Financial experience is reported through the following tables:

- Table 33 contains a summary of assets and liabilities
- Table 34 shows receipts and disbursements
- Table 35 itemizes City contributions for the year ending June 30, 2002
- Table 36 summarizes 2002 fiscal year administrative expenses
- Table 37 shows July 1, 2002 adjusted market value of assets under the five-year spread gain asset valuation method
- Table 38 shows the July 1, 2002 allocation of adjusted assets among all divisions.

Table 34, showing the fund's receipts and disbursements during the fiscal year ending June 30, 2002, also notes that employee, City, and state contributions make up over 100% of the yearly receipts on a market value basis (net of PAF) due to investment losses. On the disbursement side, benefit payments were approximately 95% of all disbursements (net of PAF).

Below is a summary of the approximate rates of return for this fiscal year compared to last year.

Rates of return comparison

	Fiscal Year Ending	
	June 30, 2001	June 30, 2002
Cost value	3.8%	-0.3%
Market value	-6.0%	-5.8%
Adjusted market value	8.3%	3.4%

Table 37 shows the adjusted market value of assets used in the cost calculations. All assets are valued each year at market value and compared to the expected value of assets based on a 9% return assumption. The difference is spread equally over the current year and the next four years. The value of the Pension Adjustment Fund (PAF) is then subtracted from the initial adjusted market value of assets.

As required under Act 205, amortization payments, such as experience gains/losses, must be reported separately for each participating division. For the valuation, assets must be allocated among divisions (Table 38). However, this allocation does not constitute a legal separation of the assets.

FINANCIAL EXPERIENCE OF FUND

Table 38 begins with July 1, 2001 valuation assets. The noninvestment transactions (item 2), other than administrative expenses attributable to each division, were provided by the City of Philadelphia's Finance Department. Administrative expenses were allocated according to the member count of each division at the beginning of the fiscal year. Investment income (after investment expenses) was allocated in proportion to the fund balance of each division before investment income.

33. Statement of assets and liabilities (fiscal year ending June 30, 2002)

	Cash Value	Market Value
Assets		
Cash	\$ 22,423,257	\$ 22,423,257
Investment accounts	4,204,467,205	3,992,670,898
Accounts receivable	6,258,067	6,258,067
Interest and dividends receivable	11,742,632	11,742,632
Due from other funds	0	0
Due from other governmental units	1,151,719	1,151,719
Other assets	<u>11,220</u>	<u>11,220</u>
Total assets	\$ 4,246,054,100	\$ 4,034,257,793
Liabilities		
Vouchers payable	\$ 12,317	\$ 12,317
Accounts payable	1,853,599	1,853,599
Salaries and wages payable	50,088	50,088
Accrued expenses	941,424	941,424
Funds held in escrow	0	0
Deferred revenue	4,948,079	4,948,079
Other liabilities (including amounts due to brokers)	<u>67,910,411</u>	<u>67,910,411</u>
Total liabilities	\$ 75,715,918	\$ 75,715,918
Fund balance	\$ 4,170,338,182	\$ 3,958,541,875

FINANCIAL EXPERIENCE OF FUND

34. Statement of receipts and disbursements

	Market Value (Net of PAF)	PAF	Total Market Value
Balance as of July 1, 2001	\$4,425,599,008	\$ 14,562,024	\$4,440,161,032
Receipts			
Contributions:			
Commonwealth of Pennsylvania <i>Supplemental State Assistance</i> <i>(Act 205)</i>	\$ 0	\$ 0	\$ 0
City of Philadelphia ^a	174,166,994	0	174,166,994
Employees	49,997,191	0	49,997,191
Quasi-public agencies	4,072,434	0	4,072,434
Interest and dividends	109,918,584	(651,351)	109,267,233
Gain from sale of investments	(112,343,430)	0	(112,343,430)
Miscellaneous operating revenues	(63,881)	0	(63,881)
Total receipts	\$ 225,747,892	\$ (651,351)	\$ 225,096,541
Disbursements			
Withdrawals	\$ 4,195,321	\$ 0	\$ 4,195,321
Benefit payments	436,994,498	13,227,183	450,221,681
Administrative expenses	5,112,794	0	5,112,794
Investment manager fees	11,922,586	0	11,922,586
Total disbursements	\$ 458,225,199	\$ 13,227,183	\$ 471,452,382
Change in unrealized appreciation/(depreciation)	\$ (235,263,316)	\$ 0	\$ (235,263,316)
Balance as of July 1, 2002	\$3,957,858,385	\$ 683,490	\$3,958,541,875
Approximate return on investments during year			-5.8%

- a. Includes Commonwealth of Pennsylvania general state assistance (\$37,647,763) and COLA reimbursement (\$2,624,669).

FINANCIAL EXPERIENCE OF FUND

35. Fiscal 2001 City contributions

Date	Amount
July 2, 2001	\$ 170,220,000
June 30, 2002	3,946,994
Various (Quasi-public agencies)	2,920,715
Accrued	<u>1,151,719^a</u>
Total	\$ 178,239,428

a. City-accrued contributions are \$0; quasi-public agencies accrued contributions are \$1,151,719.

**36. Statement of administrative expenses for year ending
June 30, 2002**

Personal services	\$ 2,725,000
Purchase of services	1,022,000
Materials and supplies	85,000
Employer's share of fringe benefits	1,055,000
Miscellaneous	<u>225,794</u>
Total	\$ 5,112,794

FINANCIAL EXPERIENCE OF FUND

37. Derivation of assets for valuation purposes as of July 1, 2002 — 5 year spread gain method

July 1	Total Gain or (Loss)	Year of Recognition					Total Unrecognized Amount
		2002	2003	2004	2005	2006	
1998	151,386,333	30,277,266	—	—	—	—	0
1999	52,310,273	10,462,054	10,462,054	—	—	—	10,462,054
2000	19,379,479	3,875,896	3,875,896	3,875,895	—	—	7,751,791
2001	(725,849,800)	(145,169,960)	(145,169,960)	(145,169,960)	(145,169,960)	—	(435,509,880)
2002	(645,231,661)	<u>(129,046,332)</u>	<u>(129,046,332)</u>	<u>(129,046,332)</u>	<u>(129,046,332)</u>	<u>(129,046,333)</u>	<u>(516,185,329)</u>
Recognized Total		(229,601,076)					
Unrecognized Total			(259,878,342)	(270,340,397)	(274,216,292)	(129,046,333)	(933,481,364)
1. July 1, 2002 market value				\$ 3,958,541,875			
2. Pension Adjustment Fund (PAF)				683,490			
3. July 1, 2002 market value net of PAF (1) – (2)				3,957,858,385			
4. Unrecognized gain/(loss)				<u>(933,481,364)</u>			
5. July 1, 2002 adjusted market (3) – (4)				\$ 4,891,339,749			
6. Approximate actuarial value return on investments during year					3.4%		

FINANCIAL EXPERIENCE OF FUND

38. Allocation of assets for valuation purposes between divisions as of June 30, 2002 (thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Assets for valuation purposes as of June 30, 2001	\$ 2,547,791	\$ 1,253,659	\$ 579,022	\$ 249,844	\$ 10,595	\$ 243,464	\$ 59,076	\$ 4,943,450
2. Transactions during period July 1, 2001 - June 30, 2002:								
a. Contributions								
City and commonwealth	\$ 78,298	\$ 69,103	\$ 14,690	\$ 10,060	\$ (49)	\$ 1,851	\$ 214	\$ 174,167
Employees	18,120	6,767	3,900	8,849	193	9,622	2,514	49,965
Quasi-public agencies	4,072	0	0	0	0	0	0	4,072
Employee contributions receivable ^a	0	0	0	32	0	0	0	32
b. Miscellaneous income and (expenses)	(32)	(12)	(5)	(10)	0	(4)	(1)	(64)
c. Pension benefits ^b	232,278	152,036	50,070	242	232	1,890	245	436,994
d. Withdrawals	1,474	441	115	1,229	46	747	143	4,195
e. Administrative expenses ^c	2,527	975	365	818	3	343	82	5,113
f. Net transactions (a) + (b) - (c) - (d) - (e)	\$ (135,821)	\$ (77,595)	\$ (31,965)	\$ 16,642	\$ (136)	\$ 8,489	\$ 2,256	\$ (218,130)
3. Total fund balance prior to allocation of realized and unrealized income (1) + (2)	\$ 2,411,970	\$ 1,176,064	\$ 547,057	\$ 266,486	\$ 10,459	\$ 251,953	\$ 61,332	\$ 4,725,320
4. Realized and unrealized income for period July 1, 2001 - June 30, 2002 (allocated in proportion to (3))	84,742	41,320	19,220	9,363	367	8,852	2,155	166,020
5. Assets for valuation purposes as of June 30, 2002 (3) + (4)	\$ 2,496,712	\$ 1,217,384	\$ 566,277	\$ 275,848	\$ 10,826	\$ 260,806	\$ 63,487	\$ 4,891,340

Note: Numbers may not add because of rounding.

- a. Due to employees who elected to buy five-year vesting.
- b. Excludes \$13,227,183 of benefits paid from the Pension Adjustment Fund (PAF).
- c. Allocated in proportion to the number of active and nonactive members in each division as of July 1, 2001.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan		
	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
Participation	Full-time employees participate on their date of employment. Temporary employees participate after completing six months employment. Participation is limited to employees hired before January 8, 1987. District Council 47 (Local 2186 or 2187) and 33 members hired between January 8, 1987 and October 1, 1992 were switched from Plan 87 to 1967 Plan effective on their hire dates, provided such employee contributed the difference between what they paid to the Plan and the amount they would have paid under Plan J.	Same as municipal.
Credited service	Credited service means the period of employment with the City during which the employee makes contributions to the Retirement System. Certain leaves of absence may also be credited.	Same as municipal.
Total compensation	Total compensation means the base rate of pay, longevity payments, and overtime received during a 12-month period.	Total compensation means the base rate of pay and longevity payments received during a 12-month period.
Final compensation	Final compensation means whichever is greater: annual base rate of pay at the time of termination or the total compensation received during the 12 months immediately preceding termination, including supplementary compensation received under Civil Service Regulation No. 32.	Same as municipal.
Average final compensation	Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years that produces the highest average.	<p>Average final compensation means the highest of:</p> <ul style="list-style-type: none"> • The total compensation received during the 12-month period; or • The annual base rate of pay, excluding longevity payments, calculated from the final pay period; or • The arithmetic average of the total compensation received during five calendar years of employment.
Employee contributions	<p>Each employee who participates in the Social Security System, contributes 3 3/4% of total compensation up to the taxable wage base (\$84,900 in 2002 and \$87,000 in 2003) and 6% of total compensation above the taxable wage base to the Retirement System.</p> <p>Each employee who does not participate in the Social Security System contributes 6% of his total compensation to the Retirement System.</p>	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan		
	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
Service retirement		
<i>Eligibility</i>	Each municipal employee is eligible to retire and receive a service pension at age 55 with one year of service.	Each uniformed employee is eligible to retire and receive a service pension at age 45.
<i>Benefit amount</i>	The service pension equals 2 1/2% of the employee's average final compensation multiplied by years credited service to a maximum of 20 years plus 2% of the employee's average final compensation multiplied by years credited service above 20, to a maximum of 80% of the employee's average final compensation.	The service pension equals 2 1/2% of the employee's average final compensation multiplied by years credited service, subject to a maximum of 100% of average final compensation.
Early retirement		
<i>Eligibility</i>	Each municipal employee is eligible to retire and receive a reduced service pension at age 52 if he has 10 or more years credited service.	Each uniformed employee is eligible to retire and receive a reduced service pension at age 40 if he or she has 10 or more years of credited service.
<i>Benefit amount</i>	The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age.	Same as municipal.
Deferred vested retirement		
<i>Eligibility</i>	A terminating employee who has completed 10 or more years credited service is eligible for a deferred vested retirement benefit.	Same as municipal.
<i>Benefit amount</i>	<p>The annual deferred vested benefit is determined the same as service pensions, using average final compensation and credited service at termination. This benefit begins at service retirement date. If the member dies before the deferred vested benefit begins, an ordinary death benefit is payable (see Ordinary Death below).</p> <p>As an alternative before benefits begin, a plan member who is terminating employment may ask to have employee contributions returned (without interest) instead of receiving the deferred vested benefit.</p>	
Withdrawal benefit	Each employee terminating who has completed less than 10 years credited service will receive a withdrawal benefit equal to his or her employee contributions (without interest).	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan

	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
Service-connected death		
<i>Eligibility</i>	The beneficiary of each active employee who dies solely from the performance of duties of the employee's position with the City is eligible for an immediate death benefit.	Same as municipal.
<i>Benefit amount</i>	<p>The death benefit equals total employee contributions paid to the Retirement System, plus a yearly payment of 60% of the employee's final compensation reduced by any death benefits payable under the Worker's Compensation Act.</p> <p>This benefit is payable to the spouse until his or her death or remarriage. Dependent children are entitled to an additional yearly payment of 10% of final compensation for each dependent child (up to two children) until the child reaches age 18.</p> <p>If there is no spouse, or if the spouse dies or remarries, each dependent child (up to three children) is entitled to receive a yearly payment of 25% of final compensation until the child reaches age 18. If there is no spouse or dependent children, each dependent parent is entitled to receive a yearly payment of 15% of final compensation for life.</p>	Same as municipal.
Ordinary death		
<i>Eligibility</i>	<p>The beneficiary of an active employee (or a terminated vested employee who did not withdraw employee contributions) who dies after completing 10 years credited service or reaching age 55 is eligible for an immediate death benefit equal to a yearly pension or a lump sum payment.</p> <p>The beneficiary of an active employee who dies before completing 10 years credited service and reaching age 55 is eligible for a lump sum payment.</p> <p>The beneficiary may be any relative by blood or marriage.</p>	<p>The beneficiary of any employee who dies while actively employed (or a terminated vested employee who did not withdraw employee contributions) is eligible for a death benefit equal to a yearly pension or a lump sum payment.</p> <p>The beneficiary may be any relative by blood or marriage.</p>
<i>Annual pension</i>	The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received if eligible to retire on the day before he died and had elected option 2, joint and 100% contingent annuitant (see Survivor Benefits below).	The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received (based on a minimum of 10 years service) had the person been eligible to retire on the day before dying and had elected option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan		
	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
<i>Lump sum payment</i>	The lump sum payment is equal to 10% of the deceased employee's average final compensation multiplied by years of credited service to a maximum of 10, plus the deceased employee's contributions to the Retirement System, minus the total amount of the deceased employee's City-paid life insurance.	Same as municipal.
Service-connected disability		
<i>Eligibility</i>	An active employee found by the Board of Pensions and Retirement to be mentally or physically permanently incapacitated (unable to perform duties) solely as the result of accident or injury during the performance of duties is eligible for an immediate service-connected disability pension.	Same as municipal.
<i>Benefit amount</i>	<p>The service-connected disability benefit is equal to the employee's Retirement System contributions, plus a yearly benefit of 70% of the employee's final compensation, reduced by any disability benefits payable under the Worker's Compensation Act.</p> <p>If he or she withdraws contributions, the benefit is payable for his or her lifetime only.</p> <p>If the employee leaves employee contributions with the Retirement System, he or she may choose a survivor benefit option (see Survivor Benefit below) and the beneficiary will continue receiving benefit payments after his or her death.</p>	Same as municipal.
<i>Benefit offset</i>	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$3 earned in outside wages until age 65.	Same as municipal, but the earned income offset does not apply to fire employees or police employees granted heroic status.
Service-connected disability periodic adjustment		
<i>Eligibility</i>	An employee who is receiving a service-connected disability benefit who is <i>totally disabled</i> and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.	Same as municipal, but only applies to police employees.
<i>Benefit amount</i>	The disabled employee's pension will be increased in the eighth year after separation by the percentage raise given in the previous year to active employees in his or her job class. The adjustment will continue each year thereafter until the employee's 65th birthday.	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan

	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
Ordinary disability		
<i>Eligibility</i>	An active employee found by the board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit after completing 10 years credited service.	Same as municipal, except that fire employees only need five years credited service and police employees have no service requirement if the disability is permanent and total. Police employees with permanent and partial disability need 10 years of credited service.
<i>Benefit amount</i>	The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement. If the employee is eligible for or receiving workers' compensation, no benefit is payable. Such employee may apply for benefits at retirement age.	Same as municipal, except police employees that have no service requirement are credited with a minimum of 10 years credited service. Same as municipal.
<i>Benefit offset</i>	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 55.	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 45. The earned income offset does not apply to fire employees.
Survivor benefit	Service pensions, deferred vested benefits, service-connected disability benefits (if employee contributions are left on deposit), and ordinary disability benefits are payable under 4 optional forms. Options 1, 2, and 3 provide benefits actuarially equivalent to a lifetime only pension while option 4 has no reduction. <i>Option 1</i> – A benefit is payable to the employee with the provision that upon death, the beneficiary will receive a lump sum equal to the excess, if any, of the employee's contributions over the sum of the payments received. <i>Option 2</i> – A reduced benefit payable to the employee with the provision that 100% of the reduced benefit will be paid to the designated beneficiary for life after the death of the employee. <i>Option 3</i> – Same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan		
	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
Survivor benefit (continued)	<p><i>Option 4</i> - Upon the employee's death, 50% of the benefit will continue to be paid to the surviving spouse for life, provided the employee and spouse were married for two years before retirement and at death. If there is no eligible spouse at the time the employee dies, or the spouse dies before the full amount of the contributions have been returned, 50% of the benefit is continued to dependent children until age 18, or if no dependent children, payments are given to dependent parents for the remainder of their lives. In addition, option 4 provides for a guaranteed return of employee contributions as described in option 1 above.</p>	Same as municipal.
Minimum pension	The monthly minimum pension to a pensioner is equal to \$25 multiplied by the number of the pensioner's completed years of credited service, to a 10 year maximum.	The monthly minimum pension to pensioners is \$500. The monthly minimum pension to all other pensioners is \$440 providing such pension will increase to \$500 at the time the pensioner reaches age 60.
Waiver of benefit	Any employee at service retirement age with less than three but more than one year credited service, may waive the right to receive a monthly benefit and in lieu thereof, receive a lump sum payment of twice his or her employee contributions without interest.	Same as municipal.
Service-connected health care benefit	Not applicable.	If a uniformed employee dies during the performance of duties, a service-connected health care benefit may be payable to the surviving spouse and dependent children. Regular payments will be made of the appropriate cost of maintaining medical, dental, optical, and prescription drug benefits that were in force at the time of the employee's death. Payments to the spouse cease upon remarriage and to dependent children at age 18 (age 22 if full-time student).
Deferred Retirement Option Plan (DROP)	A DROP plan is being tested for four years beginning June 24, 1999 for cost neutrality. Employees that have ten years of service and reached the minimum retirement age may elect to participate in the DROP. During this time, their accrued benefit will go in a DROP account and will earn interest at a specified rate (4.5% as of July 1, 2000). The benefit is calculated as of the date they entered the DROP. At the end of the DROP, the employees' accrued monthly benefit will commence, plus they will receive the accumulated amount of the accrued benefit paid to the DROP, as well as the interest earned on such benefit.	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

	MUNICIPAL	UNIFORMED (PLANS A AND B)
Early retirement		
<i>Eligibility</i>	Each municipal employee is eligible to retire and receive a reduced service pension at age 52 if he has 10 or more years credited service. As an alternative, a member is eligible if he or she has 33 years credited service, regardless of age.	Each uniformed employee is eligible to retire and receive a reduced service pension at age 40 if he or she has 10 or more years of credited service. Alternatively, a member is eligible if he has 25 years credited service, regardless of age.
<i>Benefit amount</i>	The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age. Benefits are not reduced if the employee has 33 or more years of credited service.	The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than his minimum retirement age. Benefits are not reduced if the employee has 25 or more years of credited service.
Deferred vested retirement		
<i>Eligibility</i>	An employee terminating employment and who completed 10 or more years credited service or, if the employee made additional contributions to become vested in five years, five years of credited service, is eligible for a deferred vested retirement if his or her contributions have not been withdrawn.	Same as municipal.
<i>Benefit amount</i>	<p>The annual deferred vested benefit is determined the same as service pensions, based on average final compensation and credited service at termination. This benefit begins at the service retirement date. If a member dies before the deferred vested benefit begins, an ordinary death benefit is payable (see Ordinary Death below).</p> <p>As an alternative, the person terminating employment may request at any time before benefits begin a return of employee contributions (without interest) instead of the deferred vested benefit.</p>	
Withdrawal benefit	Each terminating employee who has completed fewer than 10 years of credited service (or, if the employee made additional contributions to become vested in five years, fewer than five years of credited service) will receive a withdrawal benefit equal to employee contributions (without interest).	Same as municipal.
Service-connected death		
<i>Eligibility</i>	The beneficiary of each active employee who dies solely from the performance of duties of the employee's position with the City is eligible for an immediate death benefit.	Same as municipal.
<i>Benefit amount</i>	The death benefit equals the sum of the total employee contributions paid to the Retirement System (without interest), plus a yearly payment of 60% of the employee's final compensation reduced by any death benefits payable under the Workers' Compensation Act.	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

This benefit is payable to the spouse until his or her death or remarriage, whichever occurs first. Dependent children are entitled to an additional 10% of final compensation yearly payment for each dependent child (up to two children) until the child reaches 18. This total benefit shall not exceed 80% of final compensation.

If there is no spouse, or if the spouse dies or remarries, each dependent child (up to three children) is eligible for a yearly payment of 25% of final compensation until the child reaches age 18. If there is no spouse or dependent children, each dependent parent is entitled to a 15% of final compensation yearly payment for life.

Ordinary death

Eligibility

The beneficiary of an active employee (or a terminated vested employee who did not withdraw his employee contributions) who dies after completing 10 years credited service (or five years credited service if additional contributions were made) or who has reached 60 is eligible for an immediate death benefit equal to an annual pension or a lump sum payment, whichever the beneficiary chooses.

The beneficiary of an active employee who dies before completing 10 years credited service (or five years credited service if additional contributions were made) or reaching age 60 is eligible for a lump sum payment.

The beneficiary may be any relative by blood or marriage.

Annual pension

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received had he or she been eligible to retire on the day before death and had elected option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

Lump sum payment

The lump sum payment is equal to the deceased employee's average final compensation multiplied by years credited service (not to exceed the service in the denominator) and divided by the number of years of credited service needed to become vested, plus the deceased employee's contribution to the Retirement System (without interest) minus the total amount of the deceased employee's life insurance which was paid by the City.

The beneficiary of any employee who dies while actively employed (or a terminated vested employee who did not withdraw employee contributions) is eligible for a death benefit equal to an annual pension or a lump sum payment, whichever the beneficiary chooses.

The beneficiary may be any relative by blood or marriage.

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received (based on a minimum of 10 years service) had he been eligible to retire on the day before death and had elected option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

	MUNICIPAL	UNIFORMED (PLANS A AND B)
Service-connected disability	An active employee found by the Board of Pensions and Retirement to be mentally or physically permanently incapacitated from any further performance of duties due solely to the result of the performance of duties is eligible for an immediate service-connected disability pension. The application for benefit must be made within one year after termination of employment.	Same as municipal.
Benefit amount	<p>The service-connected disability benefit is equal to the employee's contributions to the Retirement System, plus a yearly benefit of 70% of the employee's final compensation, reduced by any disability benefits payable under the Worker's Compensation Act.</p> <p>If he or she withdraws contributions, the benefit is payable for his or her lifetime only.</p> <p>If the employee leaves employee contributions with the Retirement System, he or she may choose a survivor benefit option (see Survivor benefit below) and the beneficiary will continue receiving benefit payments after his or her death.</p>	Same as municipal.
Benefit offset	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$3 earned in outside wages until age 65.	Same as municipal, but the earned income offset does not apply to fire employees, or police employees granted heroic status.
Service-connected disability periodic adjustment		
Eligibility	An employee who is receiving a service-connected disability benefit who is <i>totally disabled</i> and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.	Same as municipal, but only applies to police employees.
Benefit amount	The disabled employee's pension will be increased in the eighth year after separation by the percentage raise given in the previous year to active employees in his or her job class. The adjustment will continue each year until the employee's 65th birthday.	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

	MUNICIPAL	UNIFORMED (PLANS A AND B)
Ordinary disability		
<i>Eligibility</i>	An active employee found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he or she has at least 10 years credited service (or five years credited service, if additional contributions were made).	Same as municipal, except that fire employees only need five years credited service and police employees have no service requirement if the disability is permanent and total. Police employees with permanent and partial disability need 10 years credited service (or five years credited service, if additional contributions were made).
	The application for benefits must be made within one year after termination.	
<i>Benefit amount</i>	The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement.	Same as municipal, except each eligible employee is automatically credited with a minimum of 10 years service to calculate the annual benefit.
	If the employee is eligible for or receiving workers compensation, no benefit is payable. Such employee may apply for benefits at retirement age.	Same as municipal.
<i>Benefit offset</i>	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 60.	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 50. The earned income offset does not apply to fire employees.
Survivor benefits	Service pension, deferred vested benefits, service-connected disability benefits, and ordinary disability benefits are payable under three optional forms. Options 2 and 3 provide benefits actuarially equivalent to a lifetime only pension while option 1 has no reduction. <i>Option 1</i> - A benefit is payable to the employee providing on his death, the beneficiary will receive a lump sum equal to the excess, if any, of the employee's contributions over the sum of the payments received. <i>Option 2</i> - A reduced benefit payable to the employee providing 100% of the reduced benefit will continue to be paid to the designated beneficiary for life after the death of the employee. <i>Option 3</i> - The same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

	<i>MUNICIPAL</i>	<i>UNIFORMED (PLANS A AND B)</i>
Service-connected health care benefit	Not applicable.	In the event of the death of a uniformed employee during the performance of his or her duties, a service-connected health care benefit may be payable to the surviving spouse and dependent children. Regular payments will be made of the appropriate cost of maintaining medical, dental, optical and pharmaceutical prescription benefits in force at the time of the employee's death. Payments to the spouse cease upon remarriage and to dependent children at age 18 (age 22 if a full-time student).
Deferred Retirement Option Plan (DROP)	A DROP plan is being tested for four years beginning June 24, 1999, for cost neutrality. Employees that have ten years of service and reached the minimum retirement age may elect to participate in the DROP. During this time, their accrued benefit will go in a DROP account and will earn interest at a specified rate (4.5% as of July 1, 2000). The benefit is calculated as of the date they entered the DROP. At the end of the DROP, the employees' accrued monthly benefit will commence, plus they will receive the accumulated amount of the accrued benefit paid to the DROP, as well as the interest earned on such benefit.	Same as municipal.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

Elected Plan

Participation	Any City employee on or after January 8, 1987, in any general, municipal, or special election, participates in this Plan.
Credited service	Credited service means the period of employment with the City during which the employee makes contributions to the Retirement Systems. Certain leaves of absence may also be credited.
Total compensation	Total compensation means the base rate of pay and longevity payments received during a 12-month period.
Final compensation	Final compensation means whichever is greater: annual base rate of pay at the time of termination or the total compensation received during the 12 months immediately preceding termination, including supplementary compensation received under Civil Service Regulation No. 32.
Average final compensation	Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years that produces the highest average.
Employee contributions	Total employee contributions equal 30% of the gross normal cost for all members in the elected division calculated under the municipal plan plus 100% of the gross normal cost that exceeds the cost for the municipal plan. Employees hired after January 13, 1999 (and current employees as of January 13, 1999 that elect to do so) will contribute an additional amount to become vested in the lesser of two full terms or eight years.
Service retirement	
<i>Eligibility</i>	Each elected official is eligible to retire and receive a service pension at age 55 if he or she has 10 or more years credited service, or, if the employee made additional contributions to become vested in the lesser of two full terms or eight years, the lesser of two full terms or eight years of credited service.
<i>Benefit amount</i>	The service pension equals 3.5% of the employee's average final compensation multiplied by years credited service, subject to a maximum of 100% of average final compensation.
Early retirement	
<i>Eligibility</i>	Each elected official is eligible to retire and receive a reduced service pension at age 52 if he has 10 or more years credited service.
<i>Benefit amount</i>	The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age.
Deferred vested retirement	
<i>Eligibility</i>	A person terminating employment and who has completed 10 or more years credited service, or, if the employee made additional contributions to become vested in the lesser of two full terms or eight years, two full terms or eight years of credited service is eligible for a deferred vested retirement benefit provided he or she has not withdrawn contributions.
<i>Benefit amount</i>	The annual deferred vested benefit is determined in the same manner as service pensions, based on average final compensation and credited service at the time of termination. This benefit begins at the service retirement date. If a member dies before beginning his or her deferred vested benefit, an ordinary death benefit is payable (see Ordinary Death below). As an alternative, the person terminating employment may request at any time beginning benefits to receive a return of employee contributions (without interest) in lieu of the deferred vested benefit.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

Elected Plan

Withdrawal benefit	Each terminating employee who completed fewer than 10 years credited service will receive a withdrawal benefit equal to employee contributions (without interest).
Service-connected death	
<i>Eligibility</i>	The beneficiary of each active employee who dies solely from performing duties of the employee's position with the City is eligible for an immediate death benefit.
<i>Benefit amount</i>	<p>The death benefit equals the sum of the total employee contributions paid to the Retirement System (without interest), plus a yearly payment of 60% of the employee's final compensation reduced by any death benefits payable under the Worker's Compensation Act.</p> <p>This benefit is payable to the spouse until death or remarriage, whichever occurs first. The spouse is entitled to an additional yearly payment of 10% of final compensation for each dependent child (up to two children) until the child reaches age 18. This total benefit shall not exceed 80% of final compensation.</p> <p>If there is no spouse, or if the spouse dies or remarries each dependent child (up to three children) is eligible for a 25% of final compensation yearly payment until the child reaches age 18. If there is no spouse or dependent children, each dependent parent is entitled to a 15% of final compensation yearly payment for the remainder of his lifetime.</p>
Ordinary death	
<i>Eligibility</i>	<p>The beneficiary of an active employee (or a terminated vested employee who did not withdraw contributions) who dies after completing 10 years credited service or reaching age 55 is eligible for an immediate death benefit equal to an annual pension or a lump sum payment, whichever the beneficiary chooses.</p> <p>The beneficiary of an active employee who dies before completing 10 years credited service or reaching age 55 is eligible for a lump sum payment.</p> <p>The beneficiary may be any relative by blood or marriage.</p>
<i>Annual pension</i>	The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received had he or she been eligible to retire on the day before death and had elected option 2, joint and 100% contingent annuitant (see Survivor Benefits below).
<i>Lump sum payment</i>	The lump sum payment is equal to the deceased employee's average final compensation multiplied by years credited service (not to exceed the service in the denominator), divided by the number of years of credited service needed to become vested, plus the deceased employee's contribution to the Retirement System (without interest), minus the total amount of the deceased employee's life insurance which was paid by the City.
Service-connected disability	
<i>Eligibility</i>	An active employee found by the Board of Pensions and Retirement to be mentally or physically permanently incapacitated from any further performance of duties due solely to the result of the performance of duties is eligible for an immediate service-connected disability pension.
<i>Benefit amount</i>	The service-connected disability benefit is equal to the employee's contributions to the Retirement System, plus a yearly benefit of 70% of the employee's final compensation, reduced by any disability benefits payable under the Workers' Compensation Act.

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

Elected Plan

	<p>If he or she withdraws contributions, the benefit is payable for his or her lifetime only.</p> <p>If the employee leaves employee contributions with the Retirement System, he or she may choose a survivor benefit option (see Survivor Benefit below) and the beneficiary will continue receiving benefit payments after his or her death.</p> <p>If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$3 earned in outside wages until age 65.</p>
Benefit offset	
Service-connected disability	
Periodic adjustment	
<i>Eligibility</i>	<p>An employee who is receiving a service-connected disability benefit who is <i>totally disabled</i> and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.</p>
<i>Benefit amount</i>	<p>The disabled employee's pension will be increased in the eighth year after separation by the percentage raise given in the previous year to active employees in his or her job class. The adjustment will continue each year until the employee's 65th birthday.</p>
Ordinary disability	
<i>Eligibility</i>	<p>An active employee found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he or she has completed at least 10 years credited service, or 8 years if additional contributions were made.</p>
<i>Benefit amount</i>	<p>The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement.</p>
<i>Benefit offset</i>	<p>If the employee collects his or her disability benefit and subsequently becomes employed, their disability benefits will be reduced \$1 for every \$2 earned in outside wages. The offset will continue until age 55.</p>
Survivor benefits	<p>Service pensions, deferred vested benefits, service-connected disability benefits, and ordinary disability benefits are payable under three optional forms. Options 2 and 3 provide benefits actuarially equivalent to a lifetime only pension while option 1 has no reduction.</p> <p><i>Option 1</i> - A benefit is payable to the employee providing upon death, the beneficiary will receive a lump sum equal to the excess, if any, of the employee's contributions over the lump sum of the payments received.</p> <p><i>Option 2</i> - A reduced benefit payable to the employee providing 100% of the reduced benefit will continue to be paid to the designated beneficiary for life after the death of the employee.</p> <p><i>Option 3</i> - Same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.</p>
Service-connected health care benefit	<p>Not applicable.</p>

MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

Elected Plan

Deferred Retirement Option Plan (DROP)

A DROP plan is being tested for four years beginning June 24, 1999, for cost neutrality. Employees that have ten years of service and reached the minimum retirement age may elect to participate in the DROP. During this time, their accrued benefit will go in a DROP account and will earn interest at a specified rate (4.5% as of July 1, 2000). The benefit is calculated as of the date they entered the DROP. At the end of the DROP, the employees' accrued monthly benefit will commence, plus they will receive the accumulated amount of the accrued benefit paid to the DROP, as well as the interest earned on such benefit.

ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

39. Withdrawal probabilities at 5-year intervals

Attained Age	1967 Plan			1987 Plan		
	Municipal		Uniformed	Municipal and Elected Officials		Uniformed
	Males	Females	Unisex	Males	Females	Unisex
20	0.100000	0.105319	0.022050	0.150000	0.150000	0.030000
25	0.086000	0.096000	0.021148	0.125000	0.125000	0.027000
30	0.072000	0.071562	0.019148	0.100000	0.100000	0.023000
35	0.045000	0.056170	0.016148	0.080000	0.080000	0.018000
40	0.035000	0.043754	0.012148	0.065000	0.065000	0.011000
45	0.030000	0.035597	0.007148	0.050000	0.050000	0.008000
50	0.020000	0.032000	0.000000	0.035000	0.035000	0.000000
55	0.000000	0.000000		0.000000	0.000000	

a. These numbers reflect the July 1, 2001 experience study.

In addition, we assumed that a vested employee terminating employment (with 10 years of service) will elect an employee contribution refund unless his or her age plus years of service at termination equal 55 or more (rule of 55) [rule of 45 for 1967 Police and Fire]. Otherwise, we assumed the person would elect a deferred pension beginning at service retirement age.

Annual rate of disability prior to retirement

The assumed annual disability rates appear in Table 40.

40. Disability probabilities at 5-year intervals

Attained Age	Municipal and Elected Officials		Uniformed
	Males	Females	Males and Females
20	.000025	.000043	.000795
25	.000070	.000061	.000870
30	.000557	.000263	.001418
35	.001514	.000620	.001918
40	.003000	.001314	.002418
45	.004800	.002359	.002918
50	.007600	.003571	.003418
55	.000000	.000000	.000000

a. These numbers reflect the July 1, 2001 actuarial study.

In addition, we assumed that 70% of all disabilities among municipal and elected members are ordinary (30% are service-connected) and 50% of all disabilities among uniformed members are ordinary (50% are service-connected).

ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

Annual rate of mortality prior to retirement

We assumed that deaths of active municipal and elected male members would be at 150% of the GAR-94 Mortality Table for males and deaths of municipal and elected female members at 120% of the GAR-94 Mortality Table for females. In addition, we assumed that 97.5% of all deaths of active municipal and elected members are ordinary (2.5% are service-connected)

We assumed that deaths of active uniformed male members would be at 150% of the GAR-94 Mortality Table for males and deaths of uniformed female members would be at 150% of the GAR-94 Mortality Table for females. In addition, we assumed that 95% of all deaths of active uniformed members are ordinary (5% are service-connected).

The active mortality table reflects the July 1, 2001 experience study.

Service retirement

We assumed that active members in the 1967 Plan will retire according to the rates in Table 41.

ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

41. 1967 plan service retirement rates

Attained Age	Municipal and Elected Officials		Uniformed
	Males	Females	Males and Females
45	—	—	.090
46	—	—	.077
47	—	—	.077
48	—	—	.084
49	—	—	.084
50	—	—	.084
51	—	—	.088
52	—	—	.102
53	—	—	.112
54	—	—	.112
55	.270	.226	.119
56	.092	.076	.140
57	.092	.077	.140
58	.077	.077	.140
59	.085	.070	.168
60	.085	.081	.168
61	.100	.081	.168
62	.231	.175	.196
63	.139	.126	.196
64	.162	.126	.224
65	.246	.196	.245
66	.154	.161	.245
67	.193	.161	.245
69	.154	.161	.245
69	.154	.175	.245
70+	1.000	1.000	1.000

a. These numbers were updated to reflect the July 1, 2001 experience study.

The corresponding rates for members under Plan 87 are in Table 42.

ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

42. Plan 87 service retirement rates

Age	Municipal and Elected Officials		Uniformed	
	First Year Eligible ^a	Subsequent Years	First Year Eligible ^a	Subsequent Years
40	—	—	.500	.125
41	—	—	.500	.125
42	—	—	.500	.125
43	—	—	.500	.125
44	—	—	.500	.125
45	—	—	.500	.125
46	—	—	.480	.125
47	—	—	.460	.125
48	—	—	.440	.125
49	—	—	.420	.125
50	—	—	.400	.125
51	—	—	.400	.125
52	.450	.060	.400	.140
53	.420	.060	.400	.150
54	.390	.060	.400	.170
55	.360	.060	.400	.190
56	.330	.060	.400	.215
57	.300	.060	.400	.225
58	.300	.060	.400	.225
59	.300	.080	.400	.230
60	.300	.100	.400	.230
61	.350	.150	.400	.245
62	.430	.300	.400	.295
63	.500	.187	.400	.265
64	.500	.199	.400	.260
65	.600	.309	.400	1.000
66	.600	.232	—	—
67	.600	.214	—	—
68	.600	.214	—	—
69	.600	.238	—	—
70	.600	1.000	—	—

a. Earlier of age 60 and 10 years of service or 33 years of service for municipal; earlier of age 50 and 10 years of service or 25 years of service for police and fire; and 33 years of service for elected officials.

ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

Annual rate of mortality after retirement

We assumed that postretirement mortality will be as follows:

- Municipal members (male) – 150% of the GAR-94 Mortality Table for males
- Municipal members (female) – 175% of the GAR-94 Mortality Table for females
- Uniformed members – 175% of the GAR-94 Mortality Table (for males and females as appropriate)

We assumed that post-disability mortality will follow the adjustment factors in Tables 43 and 44 applied to:

- Municipal members – 200% of the GAR-94 Mortality Table (for males and females as appropriate)
- Uniformed members – 150% of the GAR-94 Mortality Table (for males and females as appropriate).

43. Post-disablement mortality adjustment factors (municipal)

Age	Adjustment Factor		Age	Adjustment Factor	
	Male	Female		Male	Female
47 and earlier	4.86	6.52	62	1.47	1.89
48	4.38	5.85	63	1.41	1.80
49	3.93	5.30	64	1.35	1.75
50	3.60	4.82	65	1.29	1.70
51	3.28	4.30	66	1.24	1.65
52	3.01	3.84	67	1.21	1.58
53	2.75	3.49	68	1.16	1.51
54	2.51	3.20	69	1.11	1.47
55	2.30	2.90	70	1.08	1.42
56	2.10	2.61	71	1.04	1.37
57	1.94	2.34	72	1.00	1.31
58	1.81	2.23	73	1.00	1.28
59	1.71	2.13	74	1.00	1.24
60	1.61	2.05	75	1.00	1.21
61	1.52	1.96	76	1.00	1.17
			77	1.00	1.14
			78	1.00	1.11
			79	1.00	1.08
			80 and later	1.00	1.05

ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

44. Post-disablement mortality adjustment factors (uniformed)

Age	Adjustment Factor Unisex	Age	Adjustment Factor Unisex
42 and earlier	3.68	62	1.37
43	3.44	63	1.34
44	3.23	64	1.31
45	3.03	65	1.27
46	2.83	66	1.24
47	2.63	67	1.21
48	2.45	68	1.19
49	2.29	69	1.17
50	2.15	70	1.14
51	2.02	71	1.12
52	1.89	72	1.09
53	1.80	73	1.06
54	1.72	74	1.03
55	1.66	75	1.02
56	1.62	76 and later	1.00
57	1.57		
58	1.53		
59	1.49		
60	1.44		
61	1.41		

Salary scale

We assumed that salaries, including longevity and overtime, will increase at a compound annual rate of 5.0% per year (3.5% due to inflation and 1.5% based on seniority/merit).

Rate of investment return

We assumed that assets of the fund will accumulate at a compound annual rate of 9% per year, after annual expenses incurred in the investment of the fund's assets by the equity and debt money managers under contract with the Board of Pensions and Retirement. This rate is supported by the experience studies for the five-year periods ending June 30, 1993, June 30, 1997, and June 30, 2001.

ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

Expenses

The administrative expenses of operating the Retirement System are based on the previous year's actual expenses increased by the average salary increase for continuing actives. Administrative expenses exclude the fees of the money managers hired to invest the fund's assets.

Value of investments

Assets held by the fund are valued at market value as reported by the City. The actuarial value of assets is the difference between the market value of the assets reported and last year's assets projected forward at the rate of investment return. One-fifth of this difference is recognized immediately and four-fifths is deferred and recognized over the next four years, one-fifth at a time. Also, the market or actuarial value doesn't include assets held in the Pension Adjustment Fund (PAF).

Family composition

We assumed that 70% of all active members and 60% of all nonactive members will be survived by a spouse and that female (male) spouses are four years younger (older) than members.

Form of annuity

We assumed that all Plan '67 members will elect Option 4 and Plan '87 members will elect Option 1 unless otherwise indicated in the participant's data.

Rate of covered payroll growth

We assume that the annual rate of growth of total covered payroll is 4.5% per year. This is supported by the actuarial experience studies for the five-year periods ending June 30, 1993, June 30, 1997, and June 30, 2001 which showed that the adjusted growth rate of covered payroll averaged 4.7%, 3.2%, and 2.1% respectively.

MINIMUM MUNICIPAL OBLIGATION

The minimum municipal obligation (MMO) is the minimum required City contribution under state law (Acts 205 and 189). The City's MMO for the year ending June 30, 2004 is \$195,776,124. This amount is summarized by division in Table 45 and is based on the July 1, 2002 actuarial valuation report.

The City receives general pension state aid and cost-of-living adjustment reimbursement from the state. The MMO includes these amounts. For fiscal 2003, the total state payments are \$40,272,432. Amounts received during fiscal 2004 may be used to meet the \$195,776,124 obligation. Supplemental State Assistance (SSA), if any, may not be used to offset this commitment.

The City's funding policy differs from the MMO. The most significant differences are:

- The City uses a 34-year increasing amortization of its July 1, 1985 unfunded actuarial accrued liability, while Act 205 allows a 40-year increasing amortization schedule. The City chose to amortize the July 1, 1985 unfunded actuarial accrued liability over the 34 years remaining in their then-existing schedule, rather than adopting the 40-year phased-in schedule permitted under Act 205. The City's more aggressive funding policy has resulted in larger contributions than Act 205 requires.
- The City applies the normal cost rates to the fiscal year's actual payroll. The MMO uses the prior year's estimated payroll.
- The City's actual contribution includes interest at 9% from July 1 to the payment date. However, no interest accumulates on the MMO if the payment is made by year-end (December 31).
- The MMO reflects amortization of prior years' City contributions above past MMOs as actuarial gains.

MINIMUM MUNICIPAL OBLIGATION

The City's unfunded liability payments towards the MMO are summarized in Table 46. These payments reflect the 40-year funding of the July 1, 1985 unfunded actuarial accrued liability with increasing payments at 4.5% — pre-1999 balances were adjusted to reflect the Pension Obligation Bond.

45. MMO calculation for fiscal 2004 (July 1, 2002 valuation report)

	Fiscal 2003 (dollars in thousands)			
	Non-Uniformed	Police	Fire	Total
Estimated FY 2003 payroll	\$ 853,551	\$ 312,121	\$ 95,959	\$1,261,631
Normal cost percent	7.196%	11.640%	12.187%	8.675%
Normal cost	\$ 61,419	\$ 36,330	\$ 11,695	\$ 109,444
Amortization payment ^a	62,587	54,791	10,521	127,899
Administrative expense	<u>3,630</u>	<u>1,400</u>	<u>470</u>	<u>5,500</u>
Subtotal	\$ 127,636	\$ 92,521	\$ 22,686	\$ 242,843
Expected member contributions	<u>(25,102)</u>	<u>(16,686)</u>	<u>(5,280)</u>	<u>(47,067)</u>
MMO ^b	\$ 102,534	\$ 75,836	\$ 17,406	\$ 195,776

- a. The portion of the unfunded actuarial accrued liability attributable to the Dombrowski class action suit is included in the initial unfunded liability that was established July 1, 1985. For MMO calculations, it is amortized over 40 years ending June 30, 2025 in annual payments increasing 4.5% per year. The City's funding policy, however, amortizes the original Dombrowski liability in level dollar payments over 40 years ending June 30, 2009.
- b. Includes general pension state aid and state cost-of-living adjustment reimbursement. For fiscal 2003, the total is \$40,272 (thousands). Also includes quasi agencies.

MINIMUM MUNICIPAL OBLIGATION

46. Unfunded liability payments toward MMO for fiscal 2004 (thousands) — July 1, 2002 valuation report

	Municipal			Police			Fire		
	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment
Original July 1, 1985 unfunded actuarial accrued liability	\$ 889,996	23	\$ 59,186 ^a	\$ 571,327	23	\$ 37,994 ^a	\$ 227,834	23	\$ 15,151 ^a
July 1, 1986 additional amounts Active	\$ 999	5	\$ 236	\$ 87	5	\$ 20	\$ 43	5	\$ 10
July 1, 1987 additional amounts (Gain)/loss	\$ (408)	1	\$ (408)	\$ 794	1	\$ 794	\$ 126	2	\$ 121
July 1, 1998 additional amounts	\$ 5,181	2	\$ 2,702	\$ 4,888	2	\$ 2,549	\$ 386	2	\$ 201
July 1, 1989 additional amounts Active	\$ 8,354	8	\$ 2,816	\$ 2,336	8	\$ 787	\$ 1,086	8	\$ 366
Assumption change	(9,119)	8	(3,073)	(2,652)	8	(894)	(1,063)	8	(358)
Subtotal ^b	\$ (764)		\$ (258)	\$ (316)		\$ (107)	\$ 23		\$ 8
July 1, 1990 additional amount (Gain)/loss	\$ (2,914)	1	\$ (2,914)	\$ 3,064	1	\$ 3,064	\$ 617	1	\$ 617
July 1, 1991 additional amount (Gain)/loss	\$ (1,329)	5	\$ (801)	\$ (1,302)	5	\$ (785)	\$ (590)	5	\$ (356)
July 1, 1992 additional amounts Active	\$ 318	11	\$ 63	\$ 0		\$ 0	\$ 0		\$ 0
(Gain)/loss	14,396	6	5,707	(1,699)	6	(674)	(702)	6	(278)
Subtotal ^b	\$ 14,714		\$ 5,770	\$ (1,699)		\$ (674)	\$ (702)		\$ (278)
July 1, 1993 additional amounts Active	\$ (919)	12	\$ (163)	\$ (611)	12	\$ (108)	\$ 0		\$ 0
(Gain)/loss	(11,206)	7	(3,381)	(8,832)	7	(2,665)	(3,556)	7	(1,074)
Assumption change	(9,044)	12	(1,605)	73	12	13	(1,685)	12	(299)
Subtotal ^b	\$ (21,169)		\$ (5,150)	\$ (9,370)		\$ (2,760)	\$ (5,245)		\$ (1,373)

MINIMUM MUNICIPAL OBLIGATION

	Municipal			Police			Fire		
	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment
July 1, 1994 additional amounts (Gain)/loss	\$ (5,944)	8	\$ (1,471)	\$ (909)	8	\$ (225)	\$ (3,525)	8	\$ (872)
July 1, 1995 additional amounts									
Active	\$ 389	13	\$ 48	\$ 0		\$ 0	\$ 0		\$ 0
(Gain)/loss	<u>5,632</u>	8	<u>934</u>	<u>378</u>	8	<u>63</u>	<u>(2,444)</u>	8	<u>(405)</u>
Subtotal ^b	\$ 6,021		\$ 981	\$ 378		\$ 63	\$ (2,444)		\$ (405)
July 1, 1996 additional amount (Gain)/loss	\$ 4,228	9	\$ 647	\$ 2,075	9	\$ 318	\$ (1,804)	9	\$ (276)
July 1, 1997 additional amount									
Assumption change	\$ 43,368	15	\$ 4,936	\$ 5,307	15	\$ 604	\$ 2,235	15	\$ 254
(Gain)/loss	<u>(47,077)</u>	10	<u>(6,730)</u>	<u>(18,068)</u>	10	<u>(2,583)</u>	<u>(12,078)</u>	10	<u>(1,727)</u>
Subtotal ^b	\$ (3,709)		\$ (1,794)	\$ (12,761)		\$ (1,979)	\$ (9,843)		\$ (1,472)
July 1, 1998 additional amounts (Gain)/loss	\$ (14,137)	11	\$ (1,906)	\$ (11,540)	11	\$ (1,556)	\$ (10,373)	11	\$ (1,398)
July 1, 1999 additional amounts									
(Gain)/loss	\$ (121,666)	12	\$ (15,588)	\$ 895	12	\$ 115	\$ (44,165)	12	\$ (5,658)
Active	14,072	17	1,511	0		0	0		0
Nonactive	<u>34,304</u>	7	<u>6,253</u>	<u>15,268</u>	7	<u>2,783</u>	<u>5,668</u>	7	<u>1,033</u>
Subtotal ^b	\$ (73,290)		\$ (7,824)	\$ 16,163		\$ 2,898	\$ (38,498)		\$ (4,625)
July 1, 2000 additional amounts (Gain)/loss	\$ (24,903)	13	\$ (3,052)	\$ 34,637	13	\$ 4,244	\$ 709	13	\$ 87
July 1, 2001 additional amounts									
Assumption change	\$ (4,042)	19	\$ (414)	\$ (2,305)	19	\$ (236)	\$ (5,243)	19	\$ (537)
(Gain)/loss	<u>(18,902)</u>	14	<u>(2,227)</u>	<u>(22,635)</u>	14	<u>(2,667)</u>	<u>11,310</u>	14	<u>1,333</u>
Subtotal	\$ (22,944)		\$ (2,642)	(24,940)		(2,903)	\$ 6,067		\$ 795
July 1, 2002 additional amounts									
Assumption change	\$ 15,802	20	\$ 1,588	\$ 10,478	20	\$ 1,053	\$ 8,248	20	\$ 829
(Gain)/loss	<u>173,035</u>	15	<u>19,694</u>	<u>112,300</u>	15	<u>12,782</u>	<u>33,027</u>	15	<u>3,759</u>
Subtotal	\$ 188,837		\$ 21,282	122,778		13,835	\$ 41,275		\$ 4,588
Total unfunded actuarial accrued liability^b	\$ 938,466		\$ 62,587	\$ 693,354		\$ 54,791	\$ 204,056		\$ 10,521

- a. Level dollar amortization payment (23 years remaining).
 - Municipal — \$43,851
 - Police — \$28,150
 - Fire — \$11,226.
- b. Numbers may not add because of rounding.

MINIMUM MUNICIPAL OBLIGATION

The following tables are maintained to support Exhibit 1 of the Act 205 filings. Exhibit I of Act 205 develops the City's MMO based on the assumption that the Pension Obligation Bond was never contributed.

- Table 47 — Corresponds to Section A of Exhibit I and presents a Summary of Modified Actuarial Data.
- Table 48 — Presents various Modified Unfunded Actuarial Accrued Liabilities and Amortization Contributions.
- Tables 49 through 51 — Are used to identify and allocate total debt service requirements for debt issued to finance pension plan contributions.
- Table 52 — This is similar to Table 34 —statement of receipts and disbursements, but excluding assets due to the issuance of a bond.

MINIMUM MUNICIPAL OBLIGATION

47. Summary of modified actuarial data

	Municipal	Police	Fire	Total
Actuarial accrued liability	\$3,721,852,000	\$2,171,544,000	\$ 833,819,000	\$6,727,215,000
Market value of assets ^a	\$1,601,806,000	\$ 879,997,000	\$ 352,922,000	\$2,834,725,000
Actuarial value of assets ^a	\$1,998,513,000	\$1,097,135,000	\$ 439,492,000	\$3,535,140,000
Unfunded actuarial accrued liability	\$1,723,339,000	\$1,074,409,000	\$ 394,327,000	\$3,192,075,000
Amortization Contributions				
<i>1/1/85 initial liability</i>				
Remaining amortization period	23	23	23	23
Level dollar contribution	\$ 82,595,000	\$ 53,022,000	\$ 21,144,000	\$ 156,761,000
Payroll-based contribution	\$ 111,479,000	\$ 71,563,000	\$ 28,538,000	\$ 211,580,000
<i>Post-1/1/85 liability</i>				
Remaining amortization period	N/A	N/A	7	N/A
Amortization contribution	\$ 2,094,000	\$ 3,606,000	\$ (7,065,000)	\$ (1,365,000)
Total amortization contribution	\$ 113,573,000	\$ 75,169,000	\$ 21,473,000	\$ 210,215,000

a. Must equal the total fund assets that would have existed had the bond issue proceeds not been contributed to the pension fund including adjustments for investment income on the P.O.B. and contributions.

MINIMUM MUNICIPAL OBLIGATION

48. Modified unfunded actuarial accrued liability and amortization contributions (thousands)

	Municipal			Police			Fire		
	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2002 Remaining Balance	Years Remaining	Amortization Payment
Original July 1, 1985 unfunded actuarial accrued liability	\$ 1,676,337	23	\$ 111,479	\$ 1,076,113	23	\$ 71,563	\$ 429,133	23	\$ 28,538
All changes prior to July 1, 2002	\$ (101,700)		\$ (14,621)	\$ (85,484)		\$ (5,790)	\$ (70,444)		\$ (11,011)
July 1, 2002 additional amounts (Gain)/loss	132,900	15	15,126	73,302	15	8,343	27,391	15	3,117
Assumption change	<u>15,802</u>	20	<u>1,588</u>	<u>10,478</u>	20	<u>1,053</u>	<u>8,248</u>	20	<u>829</u>
Subtotal	148,702		16,714	83,780		9,396	35,638		3,946
All changes including July 1, 2002 addition	\$ 47,002		\$ 2,094	\$ (1,704)		\$ 3,606	\$ (34,806)		\$ (7,065)

MINIMUM MUNICIPAL OBLIGATION

49. Total debt service requirements (municipal)

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ —	\$ 7,041,525.30	—	\$ 727,185,593.15
2000	9,917,857.50	29,825,175.27	—	717,267,735.65
2001	4,567,730.63	29,324,323.46	—	712,700,005.02
2002	—	29,087,715.02	—	712,700,005.02
2003	6,422,403.75	29,087,715.02	—	706,277,601.27
2004	8,884,981.88	28,728,336.25	—	697,392,619.39
2005	15,161,038.13	28,250,550.75	—	682,231,581.26
2006	18,743,737.50	27,403,048.72	—	663,487,843.76
2007	22,526,257.50	26,345,901.92	—	640,961,586.26
2008	26,486,083.13	25,064,157.87	—	614,475,503.13
2009	30,870,879.38	23,543,856.70	—	583,604,623.75
2010	40,000,711.88	21,756,432.78	—	543,603,911.87
2011	45,151,018.13	19,420,391.21	—	498,452,893.74
2012	22,154,721.72	45,234,066.39	—	476,298,172.02
2013	21,786,233.75	48,416,929.37	—	454,511,938.27
2014	20,545,516.84	50,378,126.28	—	433,966,421.43
2015	20,088,811.07	53,652,021.42	—	413,877,610.36
2016	19,364,886.72	56,464,212.02	—	394,512,723.64
2017	18,085,471.62	57,743,627.12	—	376,427,252.02
2018	16,915,332.51	58,913,766.23	—	359,511,919.51
2019	15,787,131.76	60,041,966.99	—	343,724,787.75
2020	14,758,165.41	61,070,933.33	—	328,966,622.34
2021	13,823,708.03	62,005,390.71	—	315,142,914.31
2022	12,919,375.38	62,909,723.36	—	302,223,538.93
2023	12,071,748.11	63,757,350.63	—	290,151,790.82
2024	11,250,110.80	64,578,987.94	—	278,901,680.02
2025	10,560,195.36	65,268,903.38	—	268,341,484.66
2026	17,271,090.90	58,558,007.84	—	251,070,393.76
2027	60,297,984.38	16,196,263.75	—	190,772,409.38
2028	64,125,534.38	12,367,341.75	—	126,646,875.00
2029	126,646,875.00	4,147,685.16	—	—

MINIMUM MUNICIPAL OBLIGATION

50. Total debt service requirements (police)

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ —	\$ 3,848,228.76	—	\$ 397,410,560.15
2000	5,420,158.68	16,299,607.13	—	391,990,401.47
2001	2,496,287.61	16,025,889.30	—	389,494,113.86
2002	—	15,896,581.60	—	389,494,113.86
2003	3,509,875.74	15,896,581.60	—	385,984,238.12
2004	4,855,686.99	15,705,644.36	—	381,128,551.13
2005	8,285,583.09	15,439,067.14	—	372,842,968.04
2006	10,243,546.20	14,975,903.05	—	362,599,421.84
2007	12,310,712.28	14,398,167.04	—	350,288,709.56
2008	14,474,776.77	13,697,687.51	—	335,813,923.79
2009	16,871,089.83	12,866,835.33	—	318,942,842.96
2010	21,860,588.91	11,889,999.22	—	297,082,254.05
2011	24,675,257.01	10,613,340.83	—	272,406,997.04
2012	12,107,666.12	24,720,643.30	—	260,299,330.92
2013	11,906,285.60	26,460,093.82	—	248,393,045.32
2014	11,228,227.61	27,531,897.73	—	237,164,817.71
2015	10,978,635.63	29,321,097.79	—	226,186,182.08
2016	10,583,077.35	30,857,974.00	—	215,603,174.73
2017	9,883,800.61	31,557,180.75	—	205,719,374.12
2018	9,244,313.74	32,196,667.62	—	196,475,060.38
2019	8,627,746.39	32,813,234.97	—	187,847,313.99
2020	8,065,411.14	33,375,570.22	—	179,781,902.85
2021	7,554,725.51	33,886,255.84	—	172,227,177.34
2022	7,060,503.20	34,380,478.16	—	165,166,674.14
2023	6,597,270.66	34,843,710.70	—	158,569,403.48
2024	6,148,241.77	35,292,739.59	—	152,421,161.71
2025	5,771,199.53	35,669,781.82	—	146,649,962.18
2026	9,438,737.48	32,002,243.88	—	137,211,224.70
2027	32,953,149.75	8,851,339.07	—	104,258,074.95
2028	35,044,924.95	6,758,814.06	—	69,213,150.00
2029	69,213,150.00	2,266,730.66	—	—

MINIMUM MUNICIPAL OBLIGATION

51. Total debt service requirements (fire)

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ —	\$1,620,185.70	—	\$167,318,251.01
2000	2,282,001.44	6,862,479.41	—	165,036,249.57
2001	1,050,989.88	6,747,238.34	—	163,985,259.69
2002	—	6,692,797.06	—	163,985,259.69
2003	1,477,731.92	6,692,797.06	—	162,507,527.77
2004	2,044,346.92	6,612,408.45	—	160,463,180.85
2005	3,488,405.72	6,500,173.80	—	156,974,775.13
2006	4,312,749.60	6,305,171.92	—	152,662,025.53
2007	5,183,070.24	6,061,932.84	—	147,478,955.29
2008	6,094,187.16	5,767,016.15	—	141,384,768.13
2009	7,103,085.64	5,417,209.80	—	134,281,682.49
2010	9,203,770.28	5,005,941.15	—	125,077,912.21
2011	10,388,805.08	4,468,440.96	—	114,689,107.13
2012	5,097,583.51	10,407,913.67	—	109,591,523.62
2013	5,012,798.05	11,140,259.13	—	104,578,725.57
2014	4,727,321.30	11,591,511.24	—	99,851,404.27
2015	4,622,237.80	12,344,802.31	—	95,229,166.47
2016	4,455,669.93	12,991,859.70	—	90,773,496.54
2017	4,161,289.10	13,286,240.52	—	86,612,207.44
2018	3,892,051.60	13,555,478.02	—	82,720,155.84
2019	3,632,463.70	13,815,065.92	—	79,087,692.14
2020	3,395,708.67	14,051,820.95	—	75,691,983.47
2021	3,180,699.22	14,266,830.40	—	72,511,284.25
2022	2,972,621.18	14,474,908.45	—	69,538,663.07
2023	2,777,590.48	14,669,939.14	—	66,761,072.59
2024	2,588,539.82	14,858,989.80	—	64,172,532.77
2025	2,429,797.06	15,017,732.56	—	61,742,735.71
2026	3,973,908.11	13,473,621.52	—	57,768,827.60
2027	13,873,973.00	3,726,600.95	—	43,894,854.60
2028	14,754,654.60	2,845,603.67	—	29,140,200.00
2029	29,140,200.00	954,341.55	—	—

MINIMUM MUNICIPAL OBLIGATION

52. Statement of receipts and disbursements excluding bond issue assets

	Municipal	Police	Fire
Assets at July 1, 2001	\$ 1,821,056,214	\$ 989,344,914	\$ 408,518,443
Receipts			
Employer contributions	118,222,660	95,389,530	17,766,283
Employee contributions	27,194,127	16,389,032	6,414,032
State aid	20,419,596	16,406,578	3,446,258
Supplemental state assistance	0	0	0
Investment income (includes investment expenses)	(6,210,842)	(3,392,704)	(1,381,155)
Net change in market value	(132,939,530)	(73,032,460)	(29,291,327)
Other receipts	<u>(41,828)</u>	<u>(16,465)</u>	<u>(5,588)</u>
Total receipts	\$ 26,644,183	\$ 51,743,511	\$ (3,051,497)
Disbursements			
Benefit payments	\$ 239,797,652	\$ 158,585,602	\$ 51,838,427
Refund of contribution	2,748,712	1,187,790	258,819
Administrative expenses	3,347,763	1,317,781	447,250
Other disbursements	<u>0</u>	<u>0</u>	<u>0</u>
Total disbursements	\$ 245,894,127	\$ 161,091,173	\$ 52,544,496
Assets at July 1, 2002	\$ 1,601,806,270	\$ 879,997,252	\$ 352,922,450

GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)

Statement Number 25 of the Governmental Accounting Standards Board (GASB 25) is effective for plan years beginning after June 15, 1996 and supersedes Statement Number 5 (GASB 5).

The objective of GASB 25 is to provide a standard for disclosing pension information for the financial reports of governmental pension plans. The financial report should include two financial statements and two required schedules of historical information. The financial statements and required schedules are:

- *A statement of plan net assets* including information about plan assets and liabilities at the reporting date. This information is shown in the Financial Experience of the Fund section of the report.
- *A statement of changes in plan net assets* including receipts and disbursements. This information is also contained in the Financial Experience of the Fund section of the report.
- *A schedule of funding progress* including historical information about the actuarially determined funded status of the plan and the progress made in accumulating sufficient assets. This information should be provided for each of the past six plan years. For the transition year and the following five years the schedules should show information for the current year and as many prior years as available. This schedule is shown in Table 53 below.
- *A schedule of employer contributions* including historical trend information about the Annual Required Contributions (ARC) and the contributions made by the employer in relation to the ARC. This information is shown in Table 54.

53. Schedule of funding progress (dollars in millions)

Actuarial Valuation Date	Actuarial Value Of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
7/1/92	\$1,981.8	\$4,425.5	\$2,443.7	44.78%	\$ 993.3	246.02%
7/1/93	2,113.9	4,502.1	2,388.2	46.95%	975.0	244.94%
7/1/94	2,225.2	4,662.6	2,437.4	47.72%	974.3	250.17%
7/1/95	2,312.1	4,850.8	2,538.7	47.66%	1,006.4	252.26%
7/1/96	2,457.2	5,098.1	2,640.9	48.20%	1,068.3	247.21%
7/1/97	2,660.9	5,318.1	2,657.2	50.03%	1,067.7	248.87%
7/1/98	2,921.3	5,586.1	2,664.8	52.30%	1,128.2	236.19%
7/1/99	4,496.8	5,862.1	1,365.3	76.71%	1,178.6	115.84%
7/1/00	4,765.0	6,193.4	1,428.4	76.94%	1,142.8	124.99%
7/1/01	4,943.4	6,379.8	1,436.4	77.49%	1,180.4	121.69%
7/1/02	4,891.3	6,727.2	1,835.9	72.71%	1,207.3	152.06%

GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)

54. Schedule of contributions from the employer and other contributing entities

Fiscal Year	Annual Required Contributions ^a	Percentage Contributed
1993	\$ 209,352	100.0%
1994	\$ 223,750	104.5%
1995	\$ 212,838	100.0%
1996	\$ 222,482	100.0%
1997	\$ 237,016	100.0%
1998	\$ 252,080	100.0%
1999	\$ 256,704	586.9% ^b
2000	\$ 168,928	108.9%
2001	\$ 167,616	100.0%
2002	\$ 178,239	100.0%

- a. Dollars in thousands. For each year, the actuarial valuation provides the City of Philadelphia with the unfunded actuarial accrued liability amortization payment as a dollar amount and the normal cost as a percentage of payroll. The City of Philadelphia then multiplies their actual fiscal year payroll with that percentage to get the normal cost payment. We determined the annual required contribution as the greater of (i) the resulting amount or (ii) the normal cost plus a 40-year amortization of the unfunded actuarial accrued liability with amortization payments increasing 4.5% per year.
- b. On February 2, 1999, the City deposited the proceeds of a Pension Obligation Bond worth \$1,250,000,000.

Statement No. 27 disclosure

Under Government Accounting Standards Board (GASB) Statement No. 27 for the period beginning after June 15, 1997 financial statements must include new standard reporting for pension expenditures/expenses. This section summarizes our valuation as we understand Statement No. 27. Because these are financial statement disclosures, our interpretation of the statements are subject to your auditor's review.

The reporting elements are:

- **Annual required contributions or ARC** — this is the anticipated required contribution based on statement specific valuation methods, valuation assumptions and unfunded liability amortization over a period, not to exceed forty years as a level payment or level percent of pay, and amortization of contribution deficiencies or excesses.

Your valuation method conforms to the entry age cost method as defined in Section B of Statement 27. Unfunded actuarial accrued liabilities are funded on average over 16 years from July 1, 2002. Assets are valued as a five-year smoothing of gains and losses on the market value. All assumptions used in the calculation of the valuation reflect our long term expectations.

GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)

- **Net Pension Obligation or NPO** — is made up of a transition liability or asset equal to the accumulated value of contribution deficiencies or excesses over required contributions from July 1, 1987 to Statement effective date (July 1, 1997) between the annual pension cost (discussed below) and the employer's contribution.

During the 1994 fiscal year, the City contributed \$10,000,000 more than the ARC. Therefore, the initial NPO value at the effective date is \$(9,012,000) as shown in Table 55 below.

- **Annual pension cost** — is equal to the ARC plus one year's interest on NPO and ARC adjustment to avoid double counting of NPO and interest on NPO.

The following table summarizes the GASB Statement disclosure for fiscal years 1994 through 2002.

55. Calculation of annual pension cost (dollars in thousands)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
ARC	\$ 223,750	\$ 212,838	\$ 222,482	\$ 237,016	\$ 252,080	\$ 256,704	\$ 168,928	\$ 167,616	\$ 178,239
Interest on NPO	—	(900)	(869)	(840)	(811)	(783)	(113,257)	(110,748)	(106,975)
Adjustment to ARC	—	1,241	1,198	1,158	1,118	1,080	156,130	152,672	147,470
Annual pension cost	\$ 223,750	\$ 213,179	\$ 222,811	\$ 237,334	\$ 252,387	\$ 257,001	\$ 211,801	\$ 209,540	\$ 218,734
Contributions made	233,750	212,838	222,482	237,016	252,080	1,506,704	183,928	167,616	178,239
Increase in NPO	(10,000)	341	329	318	307	(1,249,703)	27,873	41,924	40,495
NPO at beginning of year	—	(10,000)	(9,659)	(9,330)	(9,012)	(8,705)	(1,258,408)	(1,230,535)	(1,188,611)
NPO at end of year	(10,000)	(9,659)	(9,330)	(9,012) ^a	(8,705)	(1,258,408)	(1,230,535)	(1,188,611)	(1,148,116)
Interest rate	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
15-year amortization factor (EOY)	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06

a. \$(9,012,000) is the NPO at transition date.

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