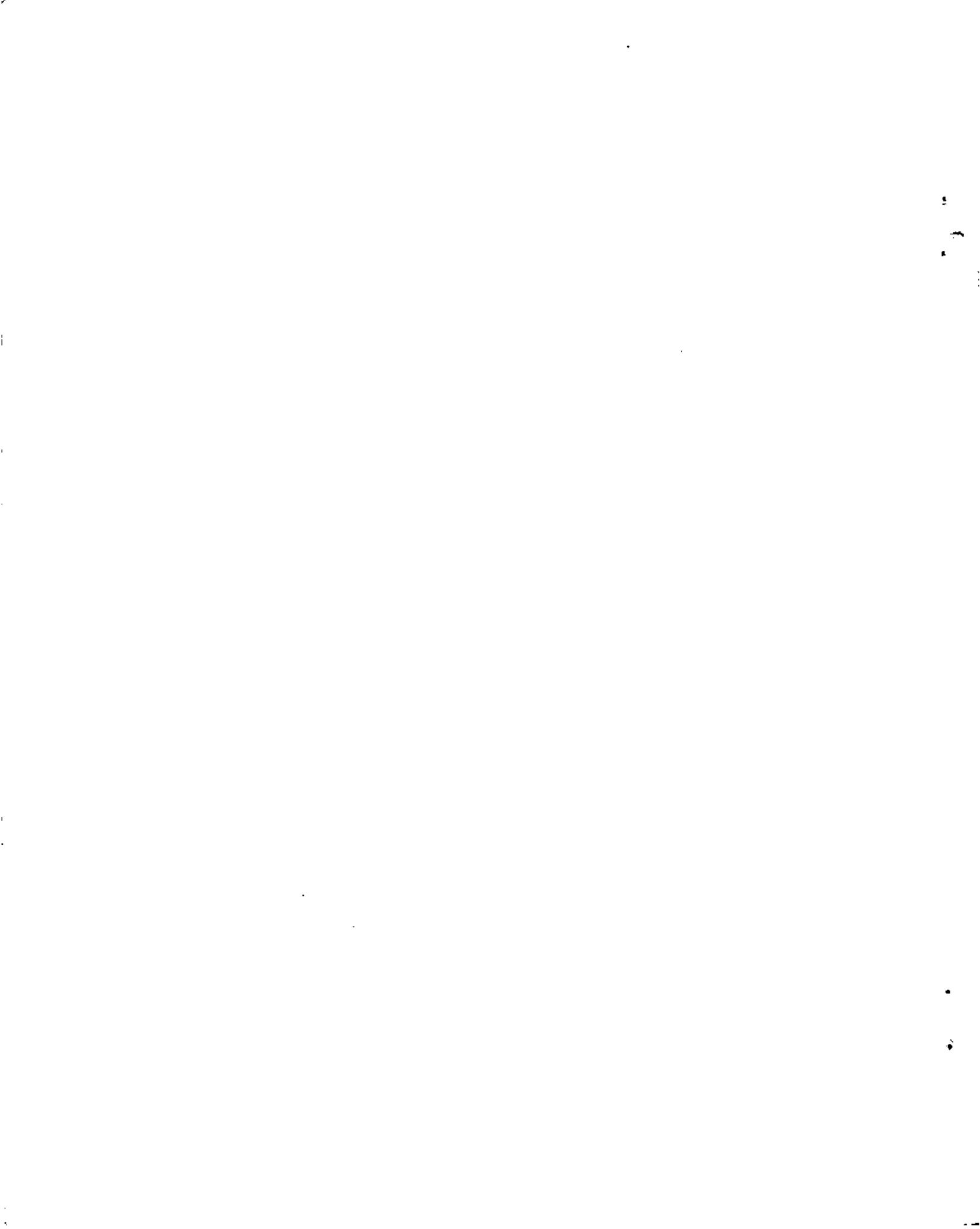


**City of Philadelphia
Municipal Retirement System**

**July 1, 1999
Actuarial Valuation Report**

April 2000



CONTENTS

Executive summary 1

Cost derivation 10

Plan membership 27

Financial experience of fund 45

Major features of the Retirement System 53

Actuarial cost method, factors, and assumptions 75

Minimum municipal obligation 83

Governmental Accounting Standards Board (GASB) 94

This report presents the actuarial valuation of the costs and liabilities for the City of Philadelphia Municipal Retirement System as of July 1, 1999 for the fiscal year ending June 30, 2001. This section summarizes the valuation results and discusses changes in the System's costs and liability arising from experience for the year ending June 30, 1999.

On February 2, 1999 the System received \$1.250 billion in proceeds from the Pension Obligation Bond (P.O.B.). Our understanding of Act 205 is that the City may first reduce its obligation, as a reflection of the P.O.B., for fiscal year 2000 (covered by last year's report). We included additional tables in the "Minimum Municipal Obligation" section to support the information now needed in the State of Pennsylvania's Act 205 filings.

Findings summary

Table 1 shows actuarial valuation results for all divisions as of July 1, 1999.

1. July 1, 1999 actuarial valuation (dollars in thousands)

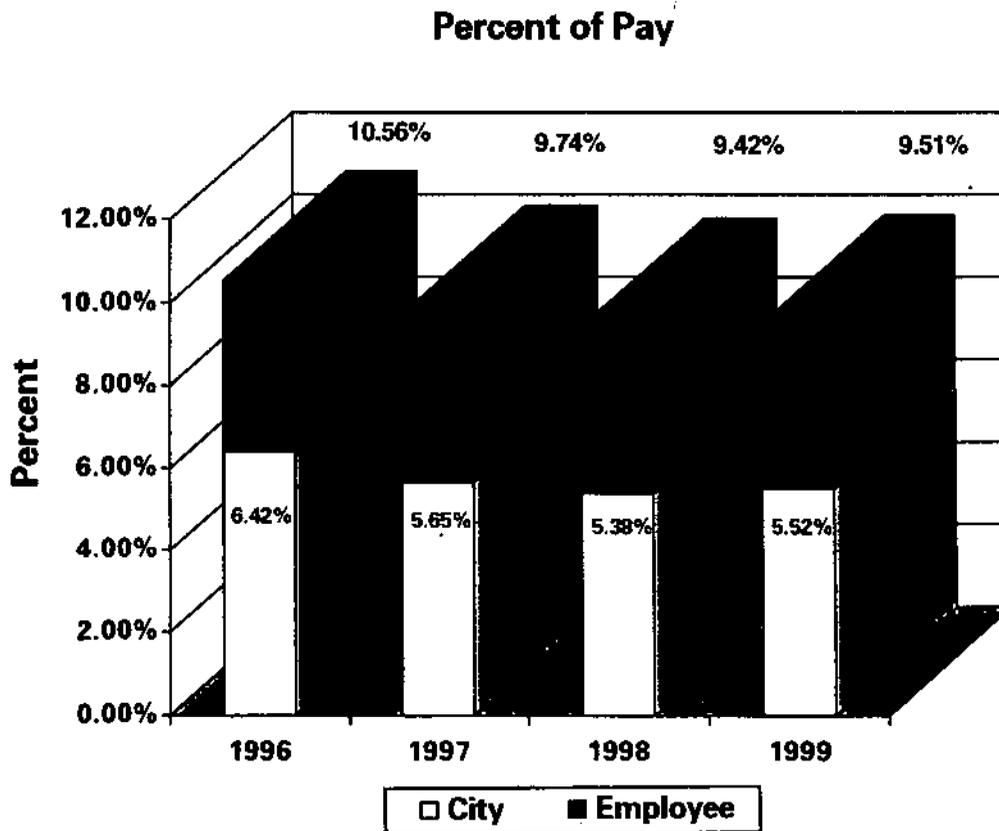
Participants	
Active	30,985
Retired	18,383
Beneficiaries	8,568
Disabled	4,940
Terminated vested	<u>814</u>
Total	63,690
Total annual salaries	\$ 1,178,601
Net actuarial accrued liability	\$ 5,862,083
Unfunded actuarial accrued liability	\$ 1,365,315
Assets for valuation purposes	\$ 4,496,768
Funding percent	76.7%
City normal cost as percent of payroll (beginning-of-year payment)	5.520%
Fiscal 2001 funding requirements (beginning-of-year payments)	
City's funding policy	\$ 165,684 ^{a, b}
Minimum municipal obligation	\$ 132,174 ^a

- a. The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal 2000, these totaled \$34,407 (thousands).
- b. Based on July 1, 1999 payroll. Final contribution will be based on actual fiscal 2001 payroll.

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 System experience has resulted in a slight increase in the normal cost rate. 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, 1998 through June 30, 1999, the unfunded actuarial accrued liability decreased \$1,299,461,000 from \$2,664,776,000 to \$1,365,315,000 because:

- The \$1.25 billion Pension Obligation Bond reduced the unfunded liability approximately 47%. This reduction is responsible for the majority of the decrease in the UAAL.

- Salary increases were less than anticipated, resulting in a gain.
- Investment return on an adjusted market basis was 10.0%. Because this is more than the assumed 9% rate, the gain reduced the unfunded actuarial accrued liability.

Offsetting the above causes for the unfunded decrease are:

- The June 30, 1985 unfunded liability, which is amortized with payments increasing 5.0% per year, continues to increase the unfunded liability each year through fiscal year 2003; after then it will decrease.
- Other non-economic plan experience resulted in a net loss.
- The plan was amended during the year to include overtime for all Municipal employees. The plan also provided two ad hoc COLA payments to pensioners in pay status for more than 10 years. Both changes increased the unfunded liability.

These factors are illustrated in Table 3.

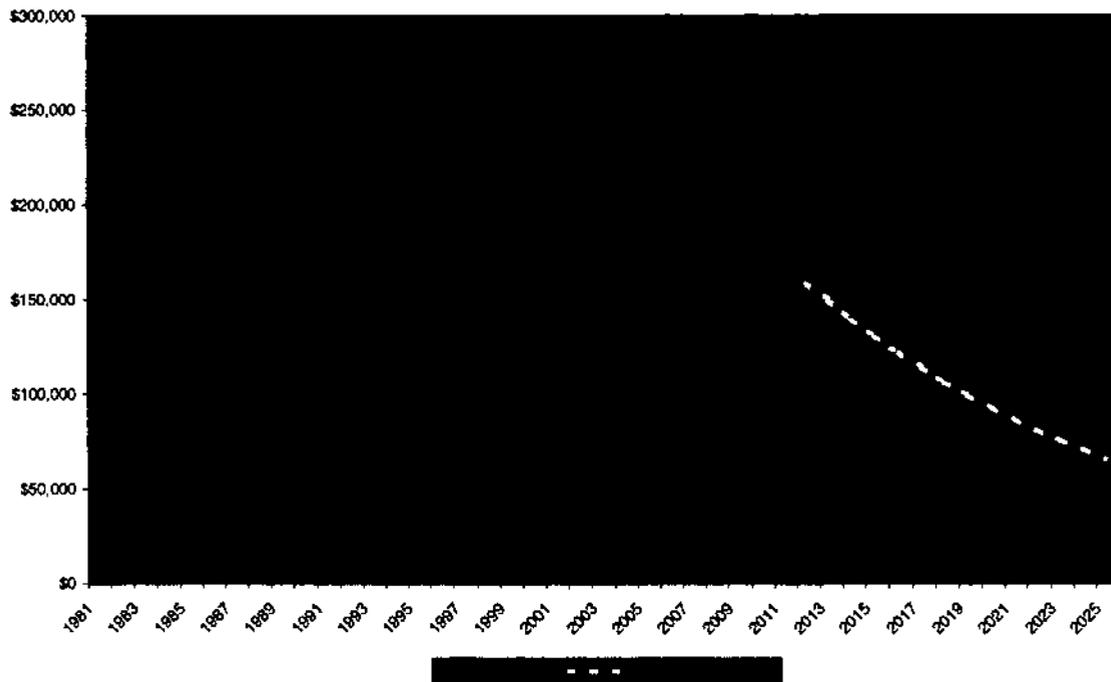
3. Unfunded liability (millions)

1998 unfunded liability		\$ 2,664.8
Change due to:		
Plan changes	85.5	
Payment schedule	28.8	
Salary increases	(15.1)	
Investment return	(155.6)	
Other actuarial experience	20.4	
POB	(1,263.5)	
Total of all changes		\$ (1,299.5)
1999 unfunded liability		\$ 1,365.3

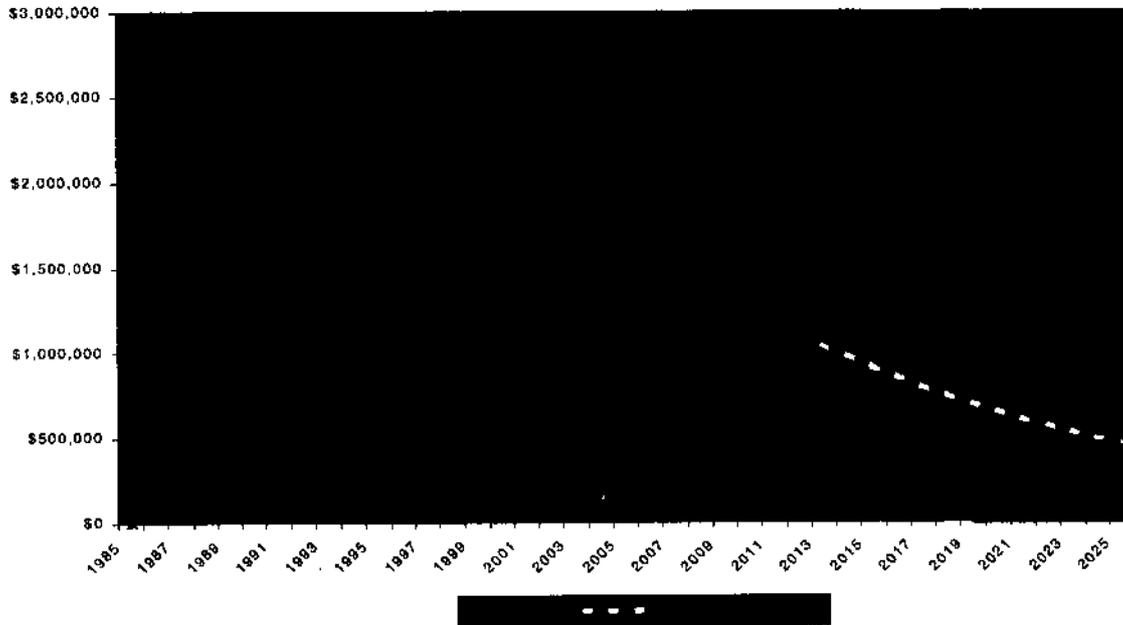
Because the July 30, 1985 unfunded liability is being amortized with payments increasing 5.0% per year, the amortization payment is scheduled to increase until 2019 and then drop to zero. The total unfunded liability is scheduled to increase each year until fiscal year 2003, and then decrease to zero by 2019. 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 76.7% funded; however, the alternative amortization schedule will not result in lower cost to the City until fiscal year 2014.

Graph 3(A) illustrates changes in the amortization payment through 2019. Graph 3(B) tracks the unfunded liability through 2019. The **bold** lines indicate actual changes in the amortization payment or unfunded liability and includes scheduled increases and changes because of previous plan amendments, assumption changes, gains and losses and the impact of the P.O.B. The **dotted** lines reflect projected changes under the 10 year amortization schedule. In both cases, we assume no future gains or losses.

3(A). Amortization schedule



3(B). Unfunded actuarial accrued liability



City funding policy

The report shows the recommended City contributions, assuming they're paid at the beginning of the fiscal year (July 1, 2000). If paid after July 1 the City's funding policy has been to pay interest at 9% from July 1, 2000 to the date paid.

The resulting estimated City contributions for fiscal years 2000 and 2001 are shown in Table 4(A). We also demonstrate the estimated City obligation reflecting the P.O.B., which the City can adopt for fiscal 2000.

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

	Pre-POB Fiscal 2000	Post-POB Fiscal 2000	Fiscal 2001
Normal cost	\$ 60,704	\$ 60,704	\$ 65,055 ^a
Amortization payment	<u>198,415</u>	<u>105,342</u>	<u>100,629</u>
Total City cost	\$ 259,119	\$ 166,046	\$165,684 ^b

- a. Based on July 1, 1999 payroll. Actual normal cost will be based on actual fiscal 2001 payroll.
- b. The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal 2000, they totaled \$34,407 (thousands).

The P.O.B.'s impact on the City's funding policy mirrors the required application of these additional assets in the calculation of the Minimum Municipal Obligation (MMO). The bond proceeds are ratioed over the unfunded actuarial accrued liability at the beginning of the plan year in which the bonds are sold (July 1, 1998). This ratio is applied to reduce all past service amortization bases reflecting a pro-rata retirement of these bases by the proceeds.

Table 4(B) shows July 1, 2000 employee contribution rates.

4(B). Employee contribution rates effective July 1, 1999

	Municipal	Elected	Police	Fire
1967 Plan	3.75% ^a	N/A	6.00%	6.00%
Plan 87	2.21%	7.94%	5.00%	5.00%

a. 6.00% on wages over the Social Security maximum taxable wage base — \$76,200 in 2000.

Quasi agency funding

Table 4(C) shows the quasi agencies funding rate for fiscal years 2000 and 2001 and the Parking Authority's additional contribution for their early retirement window. This special amortization charge must be made through fiscal 2004.

4(C). Quasi agency funding rate

	Fiscal 2000	Fiscal 2001
Valuation date	July 1, 1998	July 1, 1999
Normal cost rate	5.109% ^a	5.443% ^a
Amortization rate	<u>20.637%</u>	<u>11.939%</u> ^b
Total, year-end rate	25.746%	17.382%
Total, adjusted for quarterly payments	25.114%	16.995% ^c
Parking Authority special amortization payment		
Annual year-end payment	\$78,000	\$78,000
Quarterly payment	\$19,021 ^d	\$19,021 ^d

a. Normal cost rate, page 12.

b. $(\$63,346 - \$78) \div \$529,921$, see pages 16 and 12.

c. $.97546$ (quarterly adjustment factor) x 17.382%.

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 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, 1999 valuation report determines the City's fiscal 2001 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 2001 MMO. These payments reflect the 40-year funding from July 1, 1985 with increasing payments at 5.0%.

The resulting fiscal 2001 MMO is summarized in Table 4(D).

4(D). Fiscal 2001 minimum municipal obligation (thousands)

Valuation report	July 1, 1999
Normal cost	\$ 111,115
Amortization payment	65,156
Expected administrative expense	<u>4,800</u>
Subtotal	\$ 181,071
Expected member contributions	<u>(48,897)</u>
Minimum municipal obligation	\$ 132,174
Interest	<u>0^a</u>
Total	\$ 132,174 ^b

- a. Assumes the MMO will be paid before December 31, 2000.
- b. The City may use general state aid and state COLA reimbursement, estimated at \$34 million, to meet this commitment.

Funding status

The plan's funding status is measured by the ratio of the actuarial value of assets to the actuarial accrued liability. A comparison of this ratio as of July 1, 1998 and July 1, 1999 is shown in Table 4(E).

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

	1998	1999
Actuarial value of assets	\$ 2,291,358	\$ 4,496,768
Actuarial accrued liability	\$ 5,586,134	\$ 5,862,083
Funding ratio	52.3%	76.7%

Certification

William M. Mercer, Incorporated has prepared the actuarial valuation of the City of Philadelphia Municipal Retirement System as of July 1, 1999 for fiscal year ending June 30, 2001. The valuation is based on employee and financial data which were provided by the City and trustee, respectively, and which are summarized in this report.

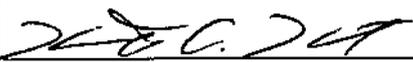
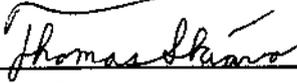
All costs, liabilities and other factors under the Plan were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the provisions of current state statutes and regulations issued thereunder. In our opinion, the actuarial assumptions are reasonable and 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, actuarial assumptions or actuarial cost methods since the last valuation of the Plan as of July 1, 1998.

There have been four changes in plan provisions since July 1, 1998.

- Overtime pay is now included in the definition of total compensation for everyone in the Municipal Plan. Previously, only Plan Y and union employees had overtime included.
- Non-exempt, Municipal '87 employees may elect to purchase 100% vesting after five years of service (eight years for elected employees). At July 1, 1999 all new employees are required to purchase this vesting schedule.
- Two ad-hoc COLAs for those participants over 60 and who have been receiving benefits for 10 or more years will take effect July 1, 1999 and July 1, 2000.
- As of June 24, 1999, those eligible participants may elect to participate in a Deferred Retirement Option Plan (DROP).

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.

 Kenneth A. Kent, FSA, FCA	<u>4/7/2000</u> Date
 Thomas Skiavo	<u>4/7/2000</u> Date
William M. Mercer, Incorporated 1255 23rd Street, NW, Suite 500 Washington, DC 20037 202.331.5200	

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, 2001. 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, 1999, 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 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 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 5.0% 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:

- 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 16.

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, 2001.

Table 17 shows the annual payments needed to fund plan liabilities through fiscal year ending June 30, 2021.

5. July 1, 1999 derivation of normal cost (dollars in thousands)

	1967 Plan			Plan 87				
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	Total
1. Number of active members								
a. Vested	10,213	3,036	1,528	366	14	75	36	15,268
b. Non-vested	<u>3,239</u>	<u>35</u>	<u>6</u>	<u>7,824</u>	<u>10</u>	<u>3,748</u>	<u>855</u>	<u>15,717</u>
c. Total	13,452	3,071	1,534	8,190	24	3,823	891	30,985
2. Total normal costs								
a. Service retirement	\$ 26,128	\$ 13,657	\$ 6,610	\$ 11,818	\$ 161	\$ 10,394	\$ 2,453	\$ 71,221
b. Preretirement death	3,439	1,036	529	1,710	16	740	207	7,677
c. Disability retirement	4,311	1,756	883	1,782	13	1,692	436	10,872
d. Vested termination	7,057	835	427	2,471	17	1,634	387	12,828
e. Refund of nonvested members' contributions	2,778	274	134	738	14	479	109	4,526
f. Health care benefit	0	60	29	0	0	63	16	168
g. Administrative expenses	<u>2,510</u>	<u>945</u>	<u>358</u>	<u>623</u>	<u>3</u>	<u>293</u>	<u>68</u>	<u>4,800</u>
h. Total	\$ 46,224	\$ 18,562	\$ 8,970	\$ 19,142	\$ 223	\$ 15,295	\$ 3,676	\$ 112,092
3. Expected employee contributions	\$ 19,762	\$ 8,342	\$ 4,083	\$ 5,743	\$ 134	\$ 7,304	\$ 1,670	\$ 47,038
4. City normal cost (2h) - (3)	\$ 26,462	\$ 10,220	\$ 4,887	\$ 13,399	\$ 91	\$ 7,991	\$ 2,006	\$ 65,055
5. Current total annual payroll	\$ 529,921	\$ 139,252	\$ 68,242	\$ 260,010	\$ 1,692	\$ 146,077	\$ 33,408	\$ 1,178,601
6. City normal cost as a percent of pay assuming beginning-of-year payment (4) ÷ (5)	4.994%	7.339%	7.161%	5.153%	5.378%	5.470%	6.002%	5.520%
7. City normal cost as a percent of pay assuming end-of-year payment (6) x 1.09	5.443%	8.000%	7.808%	5.617%	5.862%	5.962%	6.542%	6.016%

Note: Numbers may not add because of rounding.

6. Derivation of unfunded actuarial accrued liability as of July 1, 1999 (dollars in thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Number of members								
a. Active	13,452	3,071	1,534	8,190	24	3,823	891	30,985
b. Retired	11,594	5,100	1,640	40	8	1	0	18,383
c. Beneficiary	5,372	2,113	1,017	21	1	32	12	8,568
d. Disabled	2,145	2,206	545	5	0	34	5	4,940
e. Terminated vested	742	44	10	14	2	1	1	814
f. Total	33,305	12,534	4,746	8,270	35	3,891	909	63,690
2. Total annual benefits								
a. Retired	\$ 157,917	\$ 99,506	\$ 32,174	\$ 332	\$ 233	\$ 5	\$ 0	\$ 290,167
b. Beneficiary	26,325	12,936	5,745	59	4	162	59	45,289
c. Disabled	26,511	32,863	8,938	80	0	855	96	69,342
d. Terminated vested	9,682	570	105	188	51	10	8	10,614
e. Total	\$ 220,435	\$ 145,875	\$ 46,962	\$ 659	\$ 288	\$ 1,032	\$ 163	\$ 415,412
3. Present value of benefits								
a. Active members								
Service retirement	\$ 1,312,579	\$ 577,658	\$ 315,605	\$ 190,642	\$ 5,138	\$ 196,967	\$ 47,417	\$ 2,646,005
Preretirement death	125,619	32,509	19,521	26,568	371	12,086	3,204	219,879
Disability retirement	83,532	24,627	10,321	23,924	170	25,744	6,157	174,476
Vested termination	195,926	6,235	1,246	41,909	315	31,613	7,177	284,420
Refund of nonvested members' contributions	4,818	270	155	8,389	60	6,498	1,431	21,622
Health care benefit	0	534	283	0	0	460	113	1,390
Subtotal	\$ 1,722,474	\$ 641,833	\$ 347,130	\$ 291,432	\$ 6,054	\$ 273,367	\$ 65,502	\$ 3,347,792
b. Nonactive members								
Service retired	\$ 1,231,081	\$ 881,529	\$ 268,858	\$ 2,550	\$ 1,882	\$ 40	\$ 0	\$ 2,385,940
Beneficiary	204,445	104,058	41,861	602	33	1,599	545	353,143
Disabled	221,109	280,964	75,115	761	0	8,894	941	587,785
Terminated vested	64,008	4,613	947	814	385	18	26	70,810
Nonvested members' contributions	1,928	153	50	227	0	184	5	2,548
Health care benefit	0	3,968	2,409	0	0	290	0	6,668
Future COLA payment	20,773	9,246	3,432	0	0	0	0	33,450
Subtotal	\$ 1,743,344	\$ 1,284,531	\$ 392,672	\$ 4,954	\$ 2,299	\$ 11,025	\$ 1,517	\$ 3,440,344
c. Total	\$ 3,465,820	\$ 1,926,363	\$ 739,803	\$ 296,386	\$ 8,354	\$ 284,391	\$ 67,019	\$ 6,788,136

Note: Numbers may not add because of rounding.

6. Derivation of unfunded actuarial accrued liability as of July 1, 1999 (dollars in thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
4. Present value of future normal costs								
a. Service retirement	\$ 198,123	\$ 98,057	42,016	\$ 116,864	\$ 920	\$ 119,508	\$ 29,496	\$ 604,983
b. Preretirement death	27,017	7,203	3,365	17,612	105	8,547	2,243	66,091
c. Disability retirement	33,692	12,624	5,615	18,853	89	19,360	4,711	94,944
d. Vested termination	58,983	6,231	2,727	27,126	120	19,442	4,424	119,053
e. Refund of nonvested members' contribution	22,964	2,008	854	7,574	85	5,589	1,189	40,263
f. Health care benefit	0	186	81	0	0	362	88	717
g. Total	\$ 340,779	\$ 126,308	\$ 54,658	\$ 188,029	\$ 1,318	\$ 172,809	\$ 42,151	\$ 926,052
5. Actuarial accrued liability (3) - (4)								
a. Active members								
Service retirement	\$ 1,114,456	\$ 479,601	\$ 273,589	\$ 73,778	\$ 4,218	\$ 77,459	\$ 17,921	\$ 2,041,022
Preretirement death	98,602	25,306	16,156	8,957	266	3,539	961	153,788
Disability retirement	49,840	12,003	4,706	5,071	81	6,383	1,446	79,531
Vested termination	136,943	4	(1,481)	14,783	195	12,170	2,753	165,368
Refund of nonvested members' contributions	(18,146)	(1,738)	(699)	814	(25)	908	244	(18,641)
Health care benefit	0	348	202	0	0	98	25	673
Subtotal	\$ 1,381,695	\$ 515,525	\$ 292,472	\$ 103,403	\$ 4,736	\$ 100,558	\$ 23,351	\$ 2,421,740
b. Nonactive members								
Service retirement	\$ 1,231,081	\$ 881,529	\$ 268,858	\$ 2,550	\$ 1,882	\$ 40	\$ 0	\$ 2,385,940
Beneficiary	204,445	104,058	41,861	602	33	1,599	545	353,143
Disabled	221,109	280,964	75,115	761	0	8,894	941	587,785
Terminated vested	64,008	4,613	947	814	385	18	26	70,810
Nonvested members' contributions	1,928	153	50	227	0	184	5	2,548
Health care benefit	0	3,968	2,409	0	0	290	0	6,668
Future COLA payment	20,773	9,246	3,432	0	0	0	0	33,450
Subtotal	\$ 1,743,346	\$ 1,284,531	\$ 392,672	\$ 4,954	\$ 2,299	\$ 11,025	\$ 1,517	\$ 3,440,343
c. Total	\$ 3,125,042	\$ 1,800,056	\$ 685,145	\$ 108,356	\$ 7,034	\$ 111,583	\$ 24,868	\$ 5,862,083
6. Assets for valuation purposes	\$ 2,350,618	\$ 1,201,585	\$ 538,468	\$ 174,137	\$ 8,647	\$ 179,689	\$ 43,625	\$ 4,496,768
7. Unfunded actuarial accrued liability (5c) - (6)	\$ 774,424	\$ 598,471	\$ 146,677	\$(65,781)	\$ (1,613)	\$ (68,106)	\$ (18,757)	\$ 1,365,315

Note: Numbers may not add because of rounding.

7. Development of the expected unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	1967 Plan			Plan 87				
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	Total
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation	\$ 1,449,470	\$ 948,604	\$ 314,682	\$ (4,890)	\$ 1,374	\$ (10,625)	\$ (5,026)	\$ 2,693,589
2. Changes in July 1, 1999 unfunded actuarial accrued liability due to actuarial experience	\$ (53,636)	\$ 75,371	\$ (27,620)	\$(63,451)	\$ (2,342)	\$ (62,465)	\$ (16,088)	\$ (150,232)
3. Changes in July 1, 1999 unfunded actuarial accrued liability due to plan changes	\$ 58,512	\$ 19,469	\$ 7,227	\$ 266	\$ 0	\$ 0	\$ 0	\$ 85,474
4. Changes due to P.O.B.	\$ (679,921)	\$ (444,974)	\$(147,612)	\$ 2,294	\$ (645)	\$ 4,984	\$ 2,357	\$ (1,263,515)
5. Actual unfunded actuarial accrued liability, July 1, 1999 (1) + (2) + (3) + (4)	\$ 774,424	\$ 598,471	\$ 146,677	\$(65,781)	\$ (1,613)	\$ (68,106)	\$ (18,757)	\$ 1,365,315
6. Expected changes in unfunded actuarial accrued liability from July 1, 1999 to July 1, 2000:								
a. Interest (2 + 3 + 4) x .09	\$ (60,754)	\$ (31,512)	\$ (15,120)	\$ (5,480)	\$ (269)	\$ (5,173)	\$ (1,236)	\$ (119,545)
b. Increase in unfunded actuarial accrued liability from July 1, 1999 to July 1, 2000 according to amortization schedule per 1999 valuation report	70,889	40,033	15,815	61	(41)	(41)	(62)	126,656
c. Subtotal	\$ 10,135	\$ 8,521	\$ 695	\$ (5,419)	\$ (310)	\$ (5,214)	\$ (1,298)	\$ 7,111
7. Expected July 1, 2000 unfunded actuarial accrued liability (5) + (6c)	\$ 784,559	\$ 606,992	\$ 147,372	\$(71,200)	\$ (1,923)	\$ (73,320)	\$ (20,055)	\$ 1,372,426

Note: Numbers may not add because of rounding.

8. Development of municipal division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment ^a
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)					
a. Dombrowski	\$ 6,858	\$ 5,462	9	\$ 980	\$ 1,069
b. Remaining	<u>762,691</u>	<u>773,783</u>	—	<u>55,356^b</u>	<u>60,338^b</u>
c. Subtotal	\$ 769,549	\$ 779,245	—	\$ 56,336	\$ 61,406
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$ (53,636)	\$ (58,464)	15	\$ (6,654)	\$ (7,253)
b. Assumption change	0	0	20	0	0
c. Plan change	14,769	16,098	20	1,618	1,764
d. Inactive plan change	<u>\$ 43,742</u>	<u>\$ 47,679</u>	10	<u>\$ 6,816</u>	<u>\$ 7,429</u>
e. Subtotal	\$ 4,875	\$ 5,314	—	\$ 1,780	\$ 1,940
3. Total (1c) + (2e)	\$ 774,424	\$ 784,559	—	\$ 58,116	\$ 63,346

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 5.0% per year. All other payments are level dollar amounts.

9. Development of police division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment ^a
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)					
a. Dombrowski	\$ 4,387	\$ 4,098	9	\$ 627	\$ 684
b. Remaining	<u>499,244</u>	<u>499,519</u>	—	<u>40,080^b</u>	<u>43,687^b</u>
c. Subtotal	\$ 503,630	\$ 503,617	—	\$ 40,707	\$ 44,370
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$ 75,371	\$ 82,154	15	\$ 9,350	\$ 10,192
b. Assumption change	0	0	20	0	0
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>19,469</u>	<u>21,222</u>	10	<u>3,034</u>	<u>3,307</u>
e. Subtotal	\$ 94,840	\$ 103,376	—	\$ 12,384	\$ 13,499
3. Total (1c) + (2e)	\$ 598,471	\$ 606,992	—	\$ 53,091	\$ 57,869

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 5.0% per year. All other payments are level dollar amounts.

10. Development of fire division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment ^a
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)					
a. Dornbrowski	\$ 1,747	\$ 1,632	9	\$ 250	\$ 272
b. Remaining	<u>165,323</u>	<u>167,969</u>	—	<u>10,857^b</u>	<u>11,834^b</u>
c. Subtotal	\$ 167,070	\$ 169,600	—	\$ 11,107	\$ 12,106
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$ (27,620)	\$ (30,106)	15	\$ (3,427)	\$ (3,735)
b. Assumption change	0	0	20	0	0
c. Plan change	0	0	20	0	0
d. Inactive plan changes	<u>7,227</u>	<u>7,877</u>	10	<u>1,126</u>	<u>1,227</u>
e. Subtotal	\$ (20,393)	\$ (22,229)	—	\$ (2,300)	\$ (2,507)
3. Total (1c) + (2e)	\$ 146,677	\$ 147,372	—	\$ 8,806	\$ 9,599

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 5.0% per year. All other payments are level dollar amounts.

11. Development of municipal division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment*
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)	\$ (2,596)	\$ (2,329)	—	\$ (460)	\$ (501)
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$ (63,451)	\$ (69,161)	15	\$ (7,872)	\$ (8,580)
b. Assumption Change	0	0	20	0	0
c. Plan change	266	290	20	29	32
d. Inactive plan changes	0	0	10	0	0
e. Subtotal	\$ (63,185)	\$ (68,871)	—	\$ (7,842)	\$ (8,548)
3. Total (1) + (2e)	\$ (65,781)	\$ (71,200)	—	\$ (8,302)	\$ (9,050)

Note: Numbers may not add because of rounding.

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

13. Development of elected division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment*
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)	\$ 730	\$ 630	—	\$ 151	\$ 165
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$ (2,342)	\$ (2,553)	15	\$ (291)	\$ (317)
b. Assumption change	0	0	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	\$ (2,342)	\$ (2,553)	—	\$ (291)	\$ (317)
3. Total (1) + (2e)	\$ (1,613)	\$ (1,923)	—	\$ (139)	\$ (152)

Note: Numbers may not add because of rounding.

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

14. Development of police division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment ^a
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)	\$ (5,641)	\$ (5,233)	—	\$ (840)	\$ (915)
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$(62,465)	\$(68,087)	15	\$(7,749)	\$ (8,447)
b. Assumption change	0	0	20	0	0
c. Plan change	0	0	20	0	0
d. Inactive plan change	0	0	10	0	0
e. Subtotal	\$(62,465)	\$(68,087)	—	\$(7,749)	\$ (8,447)
3. Total (1) + (2e)	\$(68,106)	\$(73,320)	—	\$(8,589)	\$ (9,362)

Note: Numbers may not add because of rounding.

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

15. Development of fire division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment ^a
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)	\$ (2,669)	\$ (2,518)	—	\$ (358)	\$ (390)
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$ (16,088)	\$ (17,536)	15	\$ (1,996)	\$ (2,176)
b. Assumption change	0	0	20	0	0
c. Plan change	0	0	20	0	0
d. Inactive plan change	0	0	10	0	0
e. Subtotal	\$ (16,088)	\$ (17,536)	—	\$ (1,996)	\$ (2,176)
3. Total (1) + (2e)	\$ (18,757)	\$ (20,055)	—	\$ (2,354)	\$ (2,566)

Note: Numbers may not add because of rounding.

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

16. Development of total division annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2001 (thousands)

	<u>Fiscal Year Ending June 30, 2001</u>				
	Outstanding Balance July 1, 1999	Expected Balance July 1, 2000	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment ^a
1. Expected July 1, 1999 unfunded actuarial accrued liability based on July 1, 1998 valuation (post P.O.B.)					
a. Dombrowski	\$ 12,991	\$ 11,192	9	\$ 1,857	\$ 2,024
b. Remaining	<u>1,417,082</u>	<u>1,431,820</u>	—	<u>104,785^b</u>	<u>114,216^b</u>
c. Subtotal	\$ 1,430,073	\$ 1,443,012	—	\$ 106,643	\$ 116,240
2. Changes in unfunded actuarial accrued liability, July 1, 1999					
a. Experience (gains)/losses	\$ (150,232)	\$ (163,753)	15	\$ (18,638)	\$ (20,315)
b. Assumption change	0	0	20	0	0
c. Plan change	15,035	16,388	20	1,647	1,795
d. Inactive plan change	<u>70,439</u>	<u>76,778</u>	10	<u>10,976</u>	<u>11,964</u>
e. Subtotal	\$ (64,758)	\$ (70,586)	—	\$ (6,015)	\$ (6,556)
3. Total (1c) + (2e)	\$ 1,365,315	\$ 1,372,426	—	\$ 100,628	\$ 109,684

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 5.0% per year. All other payments are level dollar amounts.

17. Schedule of annual payments to fund the anticipated July 1, 1999 unfunded actuarial accrued liability (dollars in thousands)

Plan Year Beginning July 1	Annual Beginning-of-Year Payment								Progress of Unfunded Actuarial Accrued Liability	Estimated Annual Payroll	Annual Payment as a Percent of Payroll
	Municipal	1967 Plan Police	Fire	Municipal	Plan 87 Elected	Police	Fire	Total			
1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,796,940	1,178,601	N/A
2000	58,116	53,091	8,806	(8,302)	(139)	(8,589)	(2,354)	100,628	1,372,426	1,237,531	8.1%
2001	60,801	54,815	9,494	(8,302)	(139)	(8,589)	(2,354)	105,725	1,386,260	1,299,408	8.1%
2002	67,988	58,584	11,253	(8,302)	(139)	(8,589)	(2,354)	118,440	1,395,783	1,364,378	8.7%
2003	70,924	59,425	11,793	(8,302)	(139)	(8,593)	(2,363)	122,745	1,392,304	1,432,597	8.6%
2004	70,758	58,483	12,233	(8,254)	(212)	(8,561)	(2,350)	122,096	1,383,820	1,504,227	8.1%
2005	74,348	58,803	12,486	(8,220)	(206)	(8,537)	(2,336)	126,337	1,375,279	1,579,438	8.0%
2006	80,853	56,545	12,482	(8,128)	(205)	(8,288)	(2,301)	130,958	1,361,347	1,658,410	7.9%
2007	83,644	59,608	13,648	(8,067)	(252)	(8,217)	(2,290)	138,074	1,341,123	1,741,330	7.9%
2008	80,818	62,038	14,608	(8,166)	(307)	(8,173)	(2,260)	138,558	1,311,324	1,828,397	7.6%
2009	86,922	66,051	16,225	(8,096)	(297)	(8,099)	(2,253)	150,453	1,278,315	1,919,817	7.8%
2010	84,332	65,458	16,655	(7,886)	(377)	(8,232)	(2,211)	147,739	1,229,370	2,015,808	7.3%
2011	86,399	67,573	17,825	(7,951)	(361)	(8,203)	(2,181)	153,101	1,178,977	2,116,598	7.2%
2012	88,968	69,413	18,892	(7,903)	(318)	(8,099)	(2,120)	158,833	1,118,204	2,222,428	7.1%
2013	99,305	74,244	21,570	(7,627)	(318)	(7,734)	(2,059)	177,382	1,045,714	2,333,549	7.6%
2014	106,293	78,037	24,044	(7,425)	284	(7,492)	(1,953)	191,221	946,482	2,450,227	7.8%
2015	118,263	72,101	28,832	446	7	258	43	219,950	823,235	2,572,738	8.5%
2016	123,845	75,686	30,262	394	7	258	43	230,495	657,580	2,701,375	8.5%
2017	129,706	79,450	31,764	394	7	258	43	241,622	465,522	2,836,444	8.5%
2018	130,853	83,002	33,106	---	---	---	---	246,961	246,961	2,978,266	8.3%
2019	---	---	---	---	---	---	---	---	---	---	---
2020	---	---	---	---	---	---	---	---	---	---	---
2021	---	---	---	---	---	---	---	---	---	---	---
2022	---	---	---	---	---	---	---	---	---	---	---
2023	---	---	---	---	---	---	---	---	---	---	---
2024	---	---	---	---	---	---	---	---	---	---	---
2025	---	---	---	---	---	---	---	---	---	---	---
2026	---	---	---	---	---	---	---	---	---	---	---
2027	---	---	---	---	---	---	---	---	---	---	---

Note: Numbers may not add because of rounding.

Estimated pension fund progress

Table 18 shows the pension fund's estimated progress for fiscal years 2000 through 2019. The July 1, 1999 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, 1998 valuation. Subsequent contributions are based on the July 1, 1999 valuation. The contribution's normal cost component increases 5.0% annually, reflecting anticipated increases in covered payroll. The projected employee contributions also increase annually, reflecting assumed salary increases at 5.0%.

The fund projection is limited to the period with the fiscal year ending June 30, 2019. 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 18, even though the actual numbers vary. While the projection shows that City and employee combined fund contributions do not exceed the benefits paid, when combined with expected investment earnings, the cash flow requirements meet benefit payments and allow for continued fund growth.

18. Estimated progress of City of Philadelphia Municipal Retirement System Fund for July 1, 1999 through June 30, 2019
(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 ^b
2000	4,496,688	169,743	47,075	428,348	387,545	176,014	4,672,703
2001	4,672,703	184,139	49,531	444,017	402,791	192,445	4,865,148
2002	4,865,148	193,418	52,008	462,347	419,398	202,477	5,067,625
2003	5,067,625	211,187	54,608	482,936	436,812	219,671	5,287,296
2004	5,287,296	219,983	57,339	507,090	455,618	225,850	5,513,145
2005	5,513,145	223,586	60,206	536,610	474,745	221,927	5,735,072
2006	5,735,072	232,733	63,216	570,465	493,330	218,814	5,953,886
2007	5,953,886	242,522	66,377	606,206	511,557	214,250	6,168,136
2008	6,168,136	255,266	69,696	645,168	529,236	209,029	6,377,165
2009	6,377,165	261,033	73,180	685,961	546,370	194,621	6,571,787
2010	6,571,787	279,498	76,839	727,833	562,166	190,670	6,762,457
2011	6,762,457	282,315	80,681	768,745	577,658	171,910	6,934,367
2012	6,934,367	294,224	84,715	811,257	591,399	159,081	7,093,448
2013	7,093,448	306,839	88,951	855,799	603,902	143,893	7,237,342
2014	7,237,342	333,742	93,399	900,048	615,062	142,155	7,379,496
2015	7,379,496	355,847	98,069	972,937	624,786	105,763	7,485,259
2016	7,485,259	394,533	102,972	988,392	633,829	142,942	7,628,202
2017	7,628,202	413,766	108,121	1,028,059	645,141	138,969	7,767,171
2018	7,767,171	434,021	113,527	1,063,815	656,282	140,014	7,907,185
2019	7,907,185	445,197	119,203	1,096,625	667,663	135,438	8,042,624

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 did not switch to the 10-year amortization.

Data for active, retired, disabled, and terminated vested members as of July 1, 1999 was provided by the Philadelphia Board of Pensions and Retirement.

The active member data, supplied on tape and list, contained information for all Retirement System members as of July 1, 1999. 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, 1998 data for continued active member coverage.

The nonactive member data, also supplied on tape and list, contained information for all retired, beneficiary, disabled, and terminated vested members as of July 1, 1999.

Table 19 illustrates a net increase in total plan membership during the period.

19. Total plan membership net change

	Number of Members	Percentage Increase (Decrease)
Active	+ 50	+ 0.2%
Retired	+ 201	+ 1.1%
Surviving spouses	- 6	- 0.5%
Other beneficiaries	+ 74	+ 1.0%
Disabled	- 76	- 1.5%
Terminated vested	<u>+ 25</u>	<u>+ 3.2%</u>
Total	+ 268	+ 0.4%

Table 20 summarizes the changes in plan membership between valuations. Using the information provided, we identified changes in status due to retirement, 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

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

Table 21 breaks down active members' payroll and nonactive members' benefit payments.

20. Reconciliation of included members

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Active members								
Active, July 1, 1998	14,278	3,300	1,600	7,285	25	3,633	814	30,935
New entrants and rehires	+ 83	+ 9	+ 0	+ 1,840	+ 0	+ 291	+ 88	+ 2,311
Separations from active service								
Refunded contributions	- 86	- 5	- 2	- 367	- 0	- 49	- 10	- 519
Terminated vested	- 21	- 5	- 0	- 3	- 0	- 1	- 0	- 30
Became disabled	- 59	- 7	- 3	- 1	- 0	- 8	- 2	- 80
Retired	- 449	- 211	- 57	- 17	- 1	- 1	- 0	- 736
Net other terminations ^a	- 294	- 10	- 4	- 547	- 0	- 42	+ 1	- 896
Active, July 1, 1999	13,452	3,071	1,534	8,190	24	3,823	891	30,985
Retired members								
Retired, July 1, 1998	11,519	5,004	1,630	22	7	0	0	18,182
New retirees	+ 568	+ 224	+ 58	+ 18	+ 1	+ 1	0	+ 870
Net other terminations	- 493	- 128	- 48	- 0	- 0	- 0	- 0	- 669
Retired, July 1, 1999	11,594	5,100	1,640	40	8	1	0	18,383
Surviving spouses								
Receiving benefit, July 1, 1998	4,358	1,923	965	8	1	7	2	7,264
New spouses	+ 251	+ 112	+ 39	+ 2	+ 0	+ 1	+ 2	+ 411
Net other terminations	- 237	- 87	- 49	- 0	- 0	- 0	- 0	- 377
Receiving benefit, July 1, 1999	4,372	1,948	955	10	1	8	4	7,298

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

20. Reconciliation of included members (continued)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Other beneficiaries								
Receiving benefit, July 1, 1998	976	163	58	9	0	24	6	1,236
New beneficiaries	+ 43	+ 9	+ 7	+ 2	+ 0	+ 0	+ 2	+ 63
Net other terminations	- 19	- 7	- 3	- 0	- 0	- 0	- 0	- 29
Receiving benefit, July 1, 1999	1,000	165	62	11	0	24	8	1,270
Disabled members								
Disabled, July 1, 1998	2,166	2,255	563	4	0	26	2	5,016
New disabilities	+ 81	+ 14	+ 3	+ 1	+ 0	+ 8	+ 3	+ 110
Net other terminations	- 102	- 63	- 21	- 0	- 0	- 0	- 0	- 186
Disabled, July 1, 1999	2,145	2,206	545	5	0	34	5	4,940
Terminated vested members								
Terminated vested, July 1, 1998	732	39	8	7	2	0	1	789
New vested terminations	+ 81	+ 13	+ 3	+ 7	+ 0	+ 1	+ 0	+ 105
Net other terminations	- 71	- 8	- 1	- 0	+ 0	- 0	- 0	- 80
Terminated vested, July 1, 1999	742	44	10	14	2	1	1	814

21. 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, 1998	\$ 534,641	\$ 143,277	\$ 68,953	\$ 220,657	\$ 1,758	\$ 129,824	\$ 29,115	\$ 1,128,225
New entrants and pay increases	<u>(4,720)</u>	<u>(4,025)</u>	<u>(711)</u>	<u>39,353</u>	<u>(66)</u>	<u>16,253</u>	<u>4,293</u>	<u>50,376</u>
Active as of July 1, 1999	\$ 529,921	\$ 139,252	\$ 68,242	\$ 260,010	\$ 1,692	\$ 146,077	\$ 33,408	\$ 1,178,601
Retired members								
Retired as of July 1, 1998	\$ 151,070	\$ 94,800	\$ 30,869	\$ 164	\$ 179	\$ 0	\$ 0	\$ 277,082
Net new retirees	<u>6,847</u>	<u>4,706</u>	<u>1,305</u>	<u>168</u>	<u>54</u>	<u>5</u>	<u>0</u>	<u>13,085</u>
Retired as of July 1, 1999	\$ 157,917	\$ 99,506	\$ 32,174	\$ 332	\$ 233	\$ 5	\$ 0	\$ 290,167
Surviving spouses								
Receiving benefit as of July 1, 1998	\$ 20,756	\$ 11,513	\$ 5,193	\$ 20	\$ 4	\$ 39	\$ 11	\$ 37,535
Net new spouses	<u>996</u>	<u>507</u>	<u>129</u>	<u>5</u>	<u>0</u>	<u>8</u>	<u>14</u>	<u>1,660</u>
Receiving benefit as of July 1, 1999	\$ 21,752	\$ 12,020	\$ 5,322	\$ 25	\$ 4	\$ 47	\$ 25	\$ 39,195
Other beneficiaries								
Receiving benefit as of July 1, 1998	\$ 4,331	\$ 865	\$ 347	\$ 28	\$ 0	\$ 115	\$ 28	\$ 5,713
Net new beneficiaries	<u>242</u>	<u>51</u>	<u>76</u>	<u>6</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>382</u>
Receiving benefit as of July 1, 1999	\$ 4,573	\$ 916	\$ 423	\$ 34	\$ 0	\$ 115	\$ 34	\$ 6,095

Note: Numbers may not add because of rounding.

21. Summary of annual payroll and annual benefits (thousands) - (continued)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Disabled members								
Disabled as of July 1, 1998	\$ 26,041	\$ 33,217	\$ 9,134	\$ 64	\$ 0	\$ 629	\$ 33	\$ 69,118
Net new disabilities	<u>470</u>	<u>(354)</u>	<u>(196)</u>	<u>16</u>	<u>0</u>	<u>226</u>	<u>63</u>	<u>224</u>
Disabled as of July 1, 1999	\$ 26,511	\$ 32,863	\$ 8,938	\$ 80	\$ 0	\$ 855	\$ 96	\$ 69,342
Terminated vested members								
Terminated vested as of July 1, 1998	\$ 9,397	\$ 472	\$ 80	\$ 118	\$ 51	\$ 0	\$ 8	\$ 10,126
Net new vested terminations	<u>285</u>	<u>98</u>	<u>25</u>	<u>70</u>	<u>0</u>	<u>10</u>	<u>0</u>	<u>488</u>
Terminated vested as of July 1, 1999	\$ 9,682	\$ 570	\$ 105	\$ 188	\$ 51	\$ 10	\$ 8	\$ 10,614

Note: Numbers may not add because of rounding.

A distribution of the active employees' annual earnings for each division by age and service group as of July 1, 1999 appears in Tables 22 through 28.

A distribution of inactive members by age and monthly pension is shown in Tables 29-32.

22. 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	7	2	0	0	0	0	0	0	0	9
	28,373	34,655	0	0	0	0	0	0	0	29,769
25-29	20	141	13	0	0	0	0	0	0	174
	32,243	35,556	33,057	0	0	0	0	0	0	34,989
30-34	25	460	270	32	0	0	0	0	0	787
	32,887	35,727	35,682	39,235	0	0	0	0	0	35,764
35-39	30	607	813	323	21	0	0	0	0	1,794
	31,313	34,891	39,505	40,134	40,702	0	0	0	0	37,934
40-44	25	587	827	654	436	56	0	0	0	2,585
	39,986	34,091	39,335	43,913	41,532	40,181	0	0	0	39,697
45-49	19	449	683	491	763	628	76	0	0	3,109
	52,870	33,801	36,933	41,377	44,502	42,714	42,149	0	0	40,433
50-54	17	302	487	388	513	757	371	37	0	2,872
	33,626	33,782	37,084	41,889	42,063	44,699	43,300	42,780	0	41,138
55-59	7	191	249	201	196	216	187	87	11	1,345
	40,576	33,423	35,387	37,485	38,837	43,250	43,547	41,932	36,553	38,782
60-64	3	110	102	90	73	64	43	24	33	542
	28,141	31,076	35,164	36,869	42,392	39,733	43,094	45,994	44,422	37,764
65-69	3	33	40	23	21	10	7	4	16	157
	43,349	29,350	32,116	40,655	32,538	50,949	33,597	48,980	45,484	36,114
70-74	0	6	13	10	10	5	3	2	6	55
	0	16,918	27,182	28,863	39,997	20,302	46,757	48,198	54,616	32,897
75+	0	2	2	8	1	4	2	0	4	23
	0	10,636	20,583	36,820	47,873	33,031	45,172	0	39,229	34,098
TOTAL	156	2,890	3,499	2,220	2,034	1,740	689	154	70	13,452
	36,406	34,249	37,746	41,386	42,445	43,413	43,149	43,033	44,005	39,393

Note: Age represents attained age

23. 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	1	0	1	0	0	0	0	0	0	2
	38,718	0	41,298	0	0	0	0	0	0	40,008
30-34	1	14	33	3	0	0	0	0	0	51
	40,698	40,911	42,777	46,136	0	0	0	0	0	42,421
35-39	2	9	299	134	1	0	0	0	0	445
	41,042	40,332	43,424	46,397	47,442	0	0	0	0	44,255
40-44	0	0	266	391	191	2	0	0	0	850
	0	0	42,470	45,346	46,655	44,128	0	0	0	44,737
45-49	0	3	147	176	279	249	3	0	0	857
	0	38,704	42,235	44,607	46,279	47,519	44,866	0	0	45,571
50-54	0	0	40	73	128	249	92	1	0	583
	0	0	42,245	43,265	44,256	46,450	48,655	69,680	0	45,669
55-59	0	0	0	1	38	64	93	33	0	229
	0	0	0	41,648	43,439	45,261	48,689	54,956	0	47,732
60-64	0	0	0	1	0	13	18	12	1	45
	0	0	0	41,648	0	44,566	43,880	56,998	69,680	48,100
65-69	0	0	0	0	0	0	1	1	4	6
	0	0	0	0	0	0	46,358	42,398	60,997	55,457
70-74	0	0	0	0	0	0	0	0	3	3
	0	0	0	0	0	0	0	0	60,416	60,416
75+	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
TOTAL	4	26	786	779	637	577	207	47	8	3,071
	40,375	40,456	42,789	45,158	45,158	46,729	48,189	55,524	61,864	45,344

Note: Age represents attained age

24. 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	1	0	0	0	0	0	0	1
	0	0	29,711	0	0	0	0	0	0	29,711
30-34	0	2	9	0	0	0	0	0	0	11
	0	34,905	40,736	0	0	0	0	0	0	39,676
35-39	0	1	75	22	0	0	0	0	0	98
	0	35,697	41,878	42,693	0	0	0	0	0	41,998
40-44	0	1	98	85	39	2	0	0	0	225
	0	29,361	41,678	42,813	46,271	46,254	0	0	0	42,889
45-49	0	0	51	54	257	123	4	0	0	489
	0	0	41,417	43,311	44,541	46,698	49,444	0	0	44,662
50-54	0	1	4	19	125	199	129	6	0	483
	0	29,361	42,184	43,859	43,233	45,221	47,037	45,723	0	45,086
55-59	0	0	0	0	4	53	90	41	0	188
	0	0	0	0	42,784	44,115	44,661	50,743	0	45,794
60-64	0	0	0	0	0	1	16	18	1	36
	0	0	0	0	0	41,648	43,994	47,204	47,442	45,630
65-69	0	0	0	0	0	0	0	2	0	2
	0	0	0	0	0	0	0	43,878	0	43,878
70-74	0	0	0	0	0	0	0	0	1	1
	0	0	0	0	0	0	0	0	53,762	53,762
75+	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
TOTAL	0	5	238	180	425	378	239	67	2	1,534
	0	32,846	41,608	43,058	44,298	45,543	45,979	49,138	50,602	44,486

Note: Age represents attained age

25. Municipal Plans M & Y (Plan 87) 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	35 22,117	1 24,000	0 0	0 0	0 0	0 0	0 0	0 0	0 0	36 22,170
20-24	551 26,764	16 30,917	0 0	0 0	0 0	0 0	0 0	0 0	0 0	567 26,881
25-29	1,361 31,848	98 33,298	6 27,662	0 0	0 0	0 0	0 0	0 0	0 0	1,465 31,928
30-34	1,226 31,900	209 38,996	45 34,359	1 37,168	0 0	0 0	0 0	0 0	0 0	1,481 32,980
35-39	1,088 31,144	189 38,601	71 42,696	6 30,128	0 0	0 0	0 0	0 0	0 0	1,354 32,787
40-44	910 30,704	158 38,698	76 40,872	14 36,900	12 32,172	0 0	1 25,245	0 0	0 0	1,171 32,527
45-49	677 30,647	130 41,551	45 39,006	4 30,963	8 52,929	12 36,572	0 0	0 0	0 0	876 32,981
50-54	433 30,280	97 38,009	54 35,620	7 54,880	5 31,106	4 48,904	2 60,291	0 0	0 0	602 32,521
55-59	229 28,402	60 36,916	27 47,114	3 30,119	4 33,765	4 28,683	2 35,944	3 28,772	0 0	332 31,111
60-64	111 21,832	44 38,799	13 40,366	1 29,220	1 16,253	1 11,376	0 0	2 29,904	0 0	173 27,583
65-69	50 13,169	23 28,754	5 39,139	0 0	0 0	2 35,782	0 0	0 0	0 0	80 19,838
70-74	21 7,050	9 10,419	2 20,740	0 0	0 0	0 0	0 0	0 0	0 0	32 8,853
75+	12 12,421	8 14,621	1 4,409	0 0	0 0	0 0	0 0	0 0	0 0	21 12,878
TOTAL	6,704 30,362	1,042 37,643	345 39,325	36 37,837	30 37,211	23 36,180	5 43,543	5 29,224	0 0	8,190 31,747

Note: Age represents attained age

26. Elected (Plan 87) 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	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
40-44	0	2	2	0	0	0	0	0	0	4
	0	65,000	65,000	0	0	0	0	0	0	65,000
45-49	0	1	0	1	0	1	0	0	0	3
	0	85,000	0	65,000	0	67,000	0	0	0	72,333
50-54	1	1	0	2	0	0	1	0	0	5
	65,000	65,000	0	65,000	0	0	65,000	0	0	65,000
55-59	2	1	0	0	1	0	0	0	0	4
	65,000	110,133	0	0	110,000	0	0	0	0	87,533
60-64	0	1	0	1	0	0	0	0	0	2
	0	65,000	0	65,000	0	0	0	0	0	65,000
65-69	0	0	0	2	1	0	0	0	1	4
	0	0	0	66,000	67,500	0	0	0	80,000	69,875
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	2	0	0	0	0	0	2
	0	0	0	65,000	0	0	0	0	0	65,000
TOTAL	3	6	2	8	2	1	1	0	1	24
	65,000	75,856	65,000	65,250	88,750	67,000	65,000	0	80,000	70,485

Note: Age represents attained age

27. Police (Plan 87) 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	2	0	0	0	0	0	0	0	0	2
	28,511	0	0	0	0	0	0	0	0	28,511
20-24	383	0	0	0	0	0	0	0	0	383
	33,133	0	0	0	0	0	0	0	0	33,133
25-29	776	251	8	0	0	0	0	0	0	1,035
	35,471	41,201	39,135	0	0	0	0	0	0	36,889
30-34	485	606	135	2	2	0	0	0	0	1,230
	35,938	41,432	42,574	37,582	40,867	0	0	0	0	39,384
35-39	214	379	111	2	0	0	0	0	0	706
	36,076	41,473	42,274	38,945	0	0	0	0	0	39,956
40-44	85	191	58	4	0	0	0	0	0	338
	35,491	41,271	42,048	40,483	0	0	0	0	0	39,942
45-49	45	41	25	1	1	0	0	0	0	113
	35,056	41,293	41,642	41,298	40,948	0	0	0	0	38,884
50-54	9	0	1	0	1	1	0	0	0	12
	37,191	0	36,942	0	41,898	42,148	0	0	0	37,976
55-59	3	1	0	0	0	0	0	0	0	4
	36,043	40,948	0	0	0	0	0	0	0	37,270
60-64	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
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	2,002	1,469	338	9	4	1	0	0	0	3,823
	35,195	41,378	42,218	39,587	41,145	42,148	0	0	0	38,210

Note: Age represents attained age

28. Fire (Plan 87) 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	22	0	0	0	0	0	0	0	0	22
	31,817	0	0	0	0	0	0	0	0	31,817
25-29	169	15	0	0	0	0	0	0	0	184
	33,515	40,122	0	0	0	0	0	0	0	34,054
30-34	147	117	10	0	0	0	0	0	0	274
	34,511	41,093	40,673	0	0	0	0	0	0	37,546
35-39	78	130	34	1	0	0	0	0	0	243
	34,373	41,417	42,259	40,448	0	0	0	0	0	39,270
40-44	24	72	26	0	0	0	0	0	0	122
	38,826	41,011	41,202	0	0	0	0	0	0	39,442
45-49	12	8	19	0	1	0	0	0	0	40
	34,460	40,943	40,975	0	40,798	0	0	0	0	39,010
50-54	2	1	1	0	0	0	1	0	0	5
	38,377	40,448	44,759	0	0	0	45,359	0	0	41,464
55-59	1	0	0	0	0	0	0	0	0	1
	32,471	0	0	0	0	0	0	0	0	32,471
60-64	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
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	455	343	90	1	1	0	1	0	0	891
	33,909	41,151	41,534	40,448	40,798	0	45,359	0	0	37,495

Note: Age represents attained age

29. Terminated vested (1967 Plan and Plan 87) members, July 1, 1999

Age	Municipal Members		Police Members		Fire Members	
	People	Monthly Pension	People	Monthly Pension	People	Monthly Pension
UNDER 40	35	\$ 30,040.35	12	\$13,148.54	4	\$ 3,209.65
40-44	107	108,860.32	29	32,419.35	3	2,664.96
45-49	250	268,003.49	2	1,078.29	3	3,052.46
50-54	275	319,280.24	0	0.00	0	0.00
55-59	68	84,340.38	1	594.00	0	0.00
60-64	9	5,868.18	0	0.00	0	0.00
OVER 64	14	10,331.48	1	1,069.58	1	502.32
TOTAL	758	\$826,724.44	45	\$48,309.75	11	\$9,429.39

Average Monthly Pension

Municipal	\$1,091
Police	\$1,074
Fire	\$ 857

Note: Numbers may not add because of rounding.

30. Disabled (1967 Plan and Plan 87) members, July 1, 1999

Age	<u>Municipal Members</u>		<u>Police Members</u>		<u>Fire Members</u>	
	People	Monthly Pension	People	Monthly Pension	People	Monthly Pension
UNDER 40	45	\$ 61,361.03	70	\$ 135,540.81	5	\$ 7,367.44
40-44	92	121,936.63	125	222,188.98	11	21,030.04
45-49	209	267,560.83	279	457,487.07	63	105,230.38
50-54	311	432,069.80	463	702,661.82	109	162,589.66
55-59	370	433,977.54	386	461,326.17	124	177,560.66
60-64	293	303,057.88	254	261,924.84	63	92,348.94
65-69	274	223,504.47	276	243,558.69	46	61,899.49
70-74	255	189,581.62	231	200,334.49	28	32,243.05
75-79	188	117,972.92	81	66,506.47	66	64,394.82
80-84	65	36,578.93	50	39,709.90	18	14,218.38
OVER 84	<u>48</u>	<u>28,300.79</u>	<u>25</u>	<u>18,575.52</u>	<u>17</u>	<u>13,912.68</u>
TOTAL	2,150	\$2,215,902.44	2,240	\$2,809,814.76	550	\$752,795.54

Average Monthly Pension	
Municipal	\$1,031
Police	\$1,254
Fire	\$1,369

Note: Numbers may not add because of rounding.

31. Retired (1967 Plan and Plan 87) members, July 1, 1999

Age	Municipal Members		Police Members		Fire Members	
	People	Monthly Pension	People	Monthly Pension	People	Monthly Pension
UNDER 40	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
40-44	1	6.98	0	0.00	0	0.00
45-49	5	1,342.37	454	858,198.86	71	127,878.27
50-54	4	5,311.86	977	1,893,195.70	244	496,989.51
55-59	1,343	2,341,933.60	1,196	2,063,895.62	322	645,569.96
60-64	1,993	3,066,931.63	887	1,383,953.21	269	505,262.66
65-69	2,395	3,015,350.89	727	1,054,838.01	158	253,226.85
70-74	2,316	2,427,301.03	483	677,638.13	161	237,373.48
75-79	1,781	1,381,780.82	139	164,479.70	189	211,192.44
80-84	916	548,928.36	123	110,838.24	115	110,522.23
OVER 84	<u>888</u>	<u>417,911.31</u>	<u>115</u>	<u>85,540.84</u>	<u>111</u>	<u>93,188.10</u>
TOTAL	11,642	\$13,206,798.85	5,101	\$8,292,578.31	1,640	\$2,681,203.50

Average Monthly Pension	
Municipal	\$1,134
Police	\$1,626
Fire	\$1,635

Note: Numbers may not add because of rounding.

32. Beneficiaries (1967 Plan and Plan 87) members, July 1, 1999

Age	Municipal Members		Police Members		Fire Members	
	People	Monthly Pension	People	Monthly Pension	People	Monthly Pension
UNDER 40	427	\$ 164,407.02	129	\$ 61,105.79	48	\$ 25,340.51
40-44	154	66,234.35	43	28,862.62	15	14,438.60
45-49	173	86,380.22	76	62,176.25	27	25,174.65
50-54	212	124,999.66	152	121,959.21	39	28,818.93
55-59	327	198,647.32	190	134,161.75	52	43,939.26
60-64	457	256,120.63	223	131,372.76	40	25,511.51
65-69	673	347,669.05	300	171,879.33	66	40,121.09
70-74	804	325,788.21	261	131,953.09	140	70,858.75
75-79	858	292,959.81	244	93,541.83	199	79,094.30
80-84	543	160,763.65	203	64,640.10	196	66,646.70
OVER 84	<u>766</u>	<u>175,026.80</u>	<u>324</u>	<u>89,815.41</u>	<u>207</u>	<u>63,704.58</u>
TOTAL	5,394	\$2,198,996.71	2,145	\$1,091,468.14	1,029	\$483,648.86

Average Monthly Pension

Municipal	\$ 408
Police	\$ 509
Fire	\$ 470

Note: Numbers may not add because of rounding.

The July 1, 1999 Retirement System net assets are \$4,750,436,982 on a market value basis and \$4,434,021,139 on a cost value basis. 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, 1999
- Table 36 summarizes 1999 fiscal year administrative expenses
- Table 37 shows July 1, 1999 adjusted market value of assets under the five-year spread gain asset valuation method
- Table 38 shows the July 1, 1999 allocation of adjusted assets among all divisions.

Table 34, showing the fund's receipts and disbursements during the fiscal year ending June 30, 1999, also notes that employee, City, and state contributions are approximately 39% of the yearly receipts (excluding the Pension Obligation Bond) on a market value basis. On the disbursement side, benefit payments were approximately 96% of all disbursements.

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

Rates of return comparison

	<u>Fiscal Year Ending</u>	
	June 30, 1998	June 30, 1999
Cost value	14.1%	13.9%
Market value	14.3%	10.0%
Adjusted market value	13.1%	13.1%

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.

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). This allocation does not constitute a legal separation of the assets, however.

Table 38 begins with July 1, 1998 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.

The P.O.B., demonstrated in Table 38, was allocated between each participating division in proportion to the total fund balance by division as of June 30, 1999 prior to allocation of realized and unrealized income.

33. Statement of assets and liabilities (fiscal year ending June 30, 1999)

	Cost Value	Market Value
Assets		
Cash	\$ 17,891,219	\$ 17,891,219
Investment accounts	4,617,204,070	4,933,619,913
Accounts receivable	7,319,981	7,319,981
Interest and dividends receivable	20,591,649	20,591,649
Due from other funds	0	0
Due from other governmental units	1,602,412	1,602,412
Other assets	<u>11,220</u>	<u>11,220</u>
Total assets	\$ 4,644,620,551	\$ 4,981,036,394
Liabilities		
Vouchers payable	\$ 23,833	\$ 23,833
Accounts payable	2,556,651	2,556,651
Salaries and wages payable	104,646	104,646
Accrued expenses	498,483	498,483
Funds held in escrow	(1)	(1)
Deferred revenue	4,852,076	4,852,076
Other liabilities (including amounts due to brokers)	<u>222,563,724</u>	<u>222,563,724</u>
Total liabilities	\$ 230,599,412	\$ 230,599,412
Fund balance	\$ 4,414,021,139	\$ 4,750,436,982

35. Fiscal 1999 City contributions

Date	Amount
July 1, 1998	\$ 177,390,000
August 3, 1998	73,900,000
June 30, 1999	5,413,816
February 2, 1999 (Pension Obligation Bond)	1,250,000,000
Various (Quasi-public agencies)	3,328,610
Accrued	<u>1,602,411^a</u>
Total	\$ 1,511,634,837

a. City-accrued contributions are \$0; quasi-public agencies accrued contributions are \$1,602,411.

34. Statement of receipts and disbursements

	Cost Value	Market Value
Balance as of July 1, 1998	\$ 2,840,546,660	\$ 3,248,877,534
Receipts		
Contributions:		
Commonwealth of Pennsylvania		
<i>Supplemental State Assistance (Act 205)</i>	\$ 0	\$ 0
City of Philadelphia ^a	256,703,816	256,703,816
Employees	49,281,466	49,281,466
Quasi-public agencies	4,931,021	4,931,021
Interest and dividends	119,281,570	119,281,570
Gain from sale of investments	365,768,388	356,768,388
Miscellaneous operating revenues	1,773,830	1,773,830
Pension Obligation Bond	<u>1,250,000,000</u>	<u>1,250,000,000</u>
Total receipts	\$ 2,047,740,091	\$ 2,047,740,091
Disbursements		
Withdrawals	\$ 4,204,945	\$ 4,204,945
Benefit payments	434,035,548	434,035,548
Administrative expenses	4,436,116	4,436,116
Investment manager fees	<u>11,589,003</u>	<u>11,589,003</u>
Total disbursements	\$ 454,265,612	\$ 454,265,612
Change in unrealized appreciation/(depreciation)	\$ ---	\$ (91,915,031)
Balance as of July 1, 1999	\$ 4,434,021,139	\$ 4,750,436,982
Approximate return on investments during year	13.9%	10.0%

a. Includes Commonwealth of Pennsylvania general state assistance (\$31,222,014) and COLA reimbursement (\$3,185,260).

**36. Statement of administrative expenses for
year ending June 30, 1999**

Personal services	\$ 2,250,256
Purchase of services	979,991
Materials and supplies	134,751
Employer's share of fringe benefits	931,449
Miscellaneous	<u>139,669</u>
Total	\$ 4,436,116

37. Derivation of assets for valuation purposes as of July 1, 1999
5-year spread gain method

July 1	Total Gain or (Loss)	Year of Recognition					Unrecognized Amount
		1999	2000	2001	2002	2003	
1995	55,532,304	11,106,460	—	—	—	—	0
1996	138,209,192	27,641,839	27,641,839	—	—	—	27,641,839
1997	233,367,648	46,673,530	46,673,529	46,673,529	—	—	93,347,058
1998	151,386,333	30,277,267	30,277,267	30,277,266	30,277,266	—	90,831,799
1999	52,310,273	<u>10,462,055</u>	<u>10,462,055</u>	<u>10,462,055</u>	<u>10,462,054</u>	<u>10,462,054</u>	<u>41,848,218</u>
Total		126,161,151	115,054,690	87,412,850	40,739,320	10,462,054	\$ 253,668,914

1. July 1, 1999 market value \$4,750,436,982
2. Unrecognized gain/(loss) 253,668,914
3. July 1, 1999 adjusted market (1) - (2) \$4,496,768,068
4. Approximate actuarial value return on investments during year 13.1%

38. Allocation of assets for valuation purposes between divisions as of June 30, 1999 (thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Assets for valuation purposes as of June 30, 1998	\$ 1,543,430	\$ 804,203	\$ 354,069	\$ 91,253	\$ 4,963	\$ 99,126	\$ 24,314	\$ 2,921,358
2. Transactions during period July 1, 1998 - June 30, 1999:								
a. Contributions								
City and commonwealth	\$ 121,100	\$ 87,189	\$ 27,212	\$ 12,391	\$ 455	\$ 6,921	\$ 1,435	\$ 256,704
Employees	20,970	9,035	4,292	6,005	162	7,166	1,632	49,261
Quasi-public agencies	4,931	0	0	0	0	0	0	4,931
Employee contributions receivable ^a	20	0	0	0	0	0	0	20
b. Miscellaneous income and expenses	952	355	135	205	1	103	23	1,774
c. Pension benefits	227,967	153,606	50,967	258	211	905	121	434,036
d. Withdrawals	1,908	404	150	987	0	612	145	4,205
e. Administrative expenses ^b	<u>2,380</u>	<u>882</u>	<u>337</u>	<u>513</u>	<u>2</u>	<u>258</u>	<u>58</u>	<u>4,436</u>
f. Net transactions (a) + (b) - (c) - (d) - (e)	\$ (84,282)	\$ (58,319)	\$ (19,814)	\$ 16,843	\$ 405	\$ 12,416	\$ 2,766	\$ (129,986)
3. Total fund balance prior to allocation of realized and unrealized income (1) + (2)	\$ 1,459,147	\$ 745,885	\$ 334,254	\$ 108,096	\$ 5,368	\$ 111,542	\$ 27,080	\$ 2,791,371
4. Realized and unrealized income for period July 1, 1998 - June 30, 1999 (allocated in proportion to (3))	238,052	121,687	54,532	17,635	876	18,197	4,418	455,397
5. Pension Obligation Bond (allocated in proportion to (4))	<u>653,419</u>	<u>334,013</u>	<u>149,682</u>	<u>48,406</u>	<u>2,404</u>	<u>49,949</u>	<u>12,127</u>	<u>1,250,000</u>
6. Assets for valuation purposes as of June 30, 1999 (3) + (4) + (5)	\$ 2,350,618	\$ 1,201,585	\$ 538,468	\$ 174,137	\$ 8,647	\$ 179,689	\$ 43,625	\$ 4,496,768

Note: Numbers may not add because of rounding.

a. Due to plan amendment changing District Council 47 employees' plan status.
 b. Allocated in proportion to the number of active and nonactive members in each division as of July 1, 1998.

1967 PLAN

MUNICIPAL (PLAN J)

UNIFORMED (PLANS D AND X)

Participation	<p>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 33 members continue to be Plan participants regardless of hire date. Current District Council 47 members hired after January 8, 1987 were switched from Plan 87 to 1967 Plan effective on their hire dates.</p>	<p>Same as municipal.</p>
Credited service	<p>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.</p>	<p>Same as municipal.</p>
Total compensation	<p>Total compensation means:</p> <ul style="list-style-type: none"> ■ The base rate of pay, longevity payments, and overtime received during a 12-month period. 	<p>Total compensation means the base rate of pay and longevity payments received during a 12-month period.</p>
Final compensation	<p>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.</p>	<p>Same as municipal.</p>

1967 PLAN		
	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
Average final compensation	<p>Average final compensation means:</p> <p>The arithmetic average of the total compensation received during the three calendar or anniversary years that produces the highest average.</p>	<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 3½% of total compensation up to the taxable wage base (\$68,400 in 1998 and \$72,600 in 1999) 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>	<p>Same as municipal.</p>
Service retirement		
<i>Eligibility</i>	<p>Each municipal employee is eligible to retire and receive a service pension at age 55 with one year of service.</p>	<p>Each uniformed employee is eligible to retire and receive a service pension at age 45.</p>
<i>Benefit amount</i>	<p>The service pension equals 2¼% 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.</p>	<p>The service pension equals a 2¼% of the employee's average final compensation multiplied by years credited service, subject to a maximum of 100% of average final compensation.</p>

1967 PLAN

	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
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 ½ 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.

1967 PLAN

MUNICIPAL (PLAN J)

UNIFORMED (PLANS D AND X)

Service-connected death

Eligibility

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.

Benefit amount

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 Workers' Compensation Act.

Same as municipal.

This benefit is payable to the spouse until his or her death or remarriage. 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.

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 a 15% of final compensation for life.

Ordinary death

Eligibility

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.

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.

1967 PLAN		
	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
	<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 may be any relative by blood or marriage.</p>
<i>Annual pension</i>	<p>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).</p>	<p>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).</p>
<i>Lump sum payment</i>	<p>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.</p>	<p>Same as municipal.</p>
Service-connected disability		
<i>Eligibility</i>	<p>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.</p>	<p>Same as municipal.</p>

1967 PLAN

	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
<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 Workers' 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>	<p>Same as municipal.</p>
<i>Benefit offset</i>	<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>	<p>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.</p>

1967 PLAN		
	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
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.	Same as municipal.
<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 for purposes of calculating the annual benefit.
<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.
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.	Not applicable.
<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 60th birthday.	Not applicable.

1967 PLAN

	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
Survivor benefit	<p>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.</p> <p><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.</p> <p><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.</p> <p><i>Option 3</i> - Same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.</p> <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.

1967 PLAN		
	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
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 test DROP plan is being tested for four years as of 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. 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.

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

Participation	<p>Full-time employees participate on their date of employment. Temporary employees participate after completing six months of employment. Participation is limited to employees hired on or after January 8, 1987. Any member of the 1967 Plan may irrevocably elect to participate in Plan 87.</p>	<p>Same as municipal.</p>
Credited service	<p>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.</p>	<p>Same as municipal.</p>
Total compensation	<p>Total compensation means the base rate of pay and longevity payments received during a 12-month period. Total compensation shall include overtime or holiday overtime.</p>	<p>Total compensation means the base rate of pay and longevity payments received during a 12-month period.</p>
Final compensation	<p>Final compensation means the annual base rate of pay at the time of termination, including supplementary compensation received under Civil Service Regulation No. 32.</p>	<p>Same as municipal.</p>
Average final compensation	<p>Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years producing the highest average.</p>	<p>Average final compensation means the arithmetic average of the total compensation received during the two calendar or anniversary years producing the highest average.</p>
Employee contributions	<p>Total employee contributions equal 30% of the gross normal cost for all members in the municipal division. Exempt and non-represented 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 five years.</p>	<p>Total employee contributions equal 5% of total compensation, but not less than 30% or greater than 50% of gross normal cost for members in the uniformed division. Exempt and non-represented 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 five years.</p>

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

Service retirement

Eligibility

Each municipal employee is eligible to retire and receive a service pension at age 60 and if he or she has 10 or more years of credited service or, if the employee made additional contributions to become vested in five years, five years of credited service.

Each uniformed employee is eligible to retire and receive a service pension upon reaching age 50 and 10 or more years of credited service, or, if the employee made additional contributions to become vested in five years, five years of credited service.

Benefit amount

The service pension equals 2.2% of the employee's average final compensation for the first 10 years of credited service, plus 2% of the employee's average final compensation multiplied by years of service over 10.

The service pension equals 2.2% of the employee's average final compensation multiplied by years of credited service to a maximum of 20 years, plus 2% of the employee's average final compensation multiplied by years of credited service over 20.

Early retirement

Eligibility

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.

Benefit amount

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

Eligibility

A 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 benefit if his or her contributions have not been withdrawn.

Same as municipal.

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

Benefit amount

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).

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.

Withdrawal benefit

Each terminating employee who has completed fewer than 10 years of credited service will receive a withdrawal benefit equal to employee contributions (without interest).

Same as municipal.

Service-connected death

Eligibility

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.

Benefit amount

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.

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

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

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 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 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 of an active employee who dies before completing 10 years credited service or reaching age 60 is eligible for a lump sum payment.

The beneficiary may be any relative by blood or marriage.

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 Ordinary Disability 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 he been eligible to retire on the day before death and had elected option 2, joint and 100% contingent annuitant (see Ordinary Disability below).

Lump sum payment

The lump sum payment is equal to 10% of the deceased employee's average final compensation multiplied by years credited service to a maximum of 10, plus the deceased employee's contributions to the Retirement System (without interest), minus the total amount of the deceased employee's life insurance which was paid by the City.

Same as municipal.

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

Service-connected disability

Eligibility

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

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.

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.

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.

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

Ordinary disability

Eligibility

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.

The application for benefits must be made within one year after termination.

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 has completed at least five years of credited service and is a fireman. If the disability is permanent and partial and the employee is a policeman, he or she must have completed at least 10 years credited service. If the disability is permanent and total and the employee is a policeman, there is no service requirement. The application for benefits must be made within one year after termination.

Benefit amount

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.

Benefit Offset

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.

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

Service-connected disability periodic adjustment

Eligibility

An employee who is receiving a service-connected disability benefit who is *totally disabled* and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.

Not applicable.

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.

Not applicable.

Survivor benefits

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.

Same as municipal.

Option 1 - 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.

Option 2 - 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.

Option 3 - The same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.

PLAN 87

MUNICIPAL

UNIFORMED (PLANS A AND B)

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 test 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. 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.

PLAN 87

Elected Plan

Participation	Any City employee elected 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 the annual base rate of pay at the time of 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 produce 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, 1994 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.
Early retirement	
<i>Eligibility</i>	Each elected official is eligible to retire if he or she has 33 years credited service, regardless of age.
<i>Benefit amount</i>	Benefits are not reduced if the employee has 33 or more years credited service.

PLAN 87

Elected Plan

Deferred vested retirement

Eligibility

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, full full terms or eight years of credited service is eligible for a deferred vested retirement benefit provided he or she has not withdrawn contributions.

Benefit amount

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 the 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 before beginning benefits to receive a return of employee contributions (without interest) in lieu of the deferred vested benefit.

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

Eligibility

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.

Benefit amount

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.

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.

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.

PLAN 87

Elected Plan

Ordinary death

Eligibility

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 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 reaching age 55 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 services 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 10% of the deceased employee's average final compensation multiplied by years credited service to a maximum of 10, plus the deceased employee's contributions 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

Eligibility

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.

Benefit amount

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.

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.

PLAN 87

*Elected Plan***Ordinary disability***Eligibility*

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.

Benefit amount

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.

Benefit offset

If the employee collects his or her disability benefit and subsequently becomes employed, their disability benefit will be reduced \$1 for every \$2 earned in outside wages. The offset will continue until age 60.

**Service-connected disability
periodic adjustment***Eligibility*

An employee who is receiving a service-connected disability benefit who is *totally disabled* and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.

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.

Survivor benefits

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.

Option 1 - 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 sum of the payments received.

Option 2 - 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.

Option 3 - Same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.

Service-connected health care benefit

Not applicable.

PLAN 87

Elected Plan

Deferred Retirement Option Plan (DROP)

A test 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. 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.

The actuarial cost method, factors, and assumptions used in determining cost estimates are described below.

Member data

The member data used to determine cost estimates is pertinent information on active, retired, disabled, and deferred vested municipal and uniformed members of the City of Philadelphia Municipal Retirement System as supplied by the Philadelphia Board of Pensions and Retirement to the actuary. Data that was missing or inconsistent was replaced with each plan's average.

Valuation date

The plans were valued as of July 1, 1999.

Actuarial cost method

Costs were determined according to the individual entry age actuarial cost method. The Dombrowski unfunded actuarial accrued liability is amortized in level dollar payments over 40 years ending June 30, 2009, as ordered by the Court of Common Pleas of Philadelphia County. Effective July 1, 1999, the remaining July 1, 1985 unfunded actuarial accrued liability is amortized over 34 years ending June 30, 2019, with payments increasing 5.0% per year. Changes in the actuarial accrued liability realized after July 1, 1985 are amortized in level dollar payments:

- 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 Act 205's MMO the July 1, 1985 unfunded actuarial accrued liability is amortized over 40 years ending June 30, 2025, with payments increasing 5.0% per year.

Annual rate of withdrawal prior to retirement

The assumed annual rates of withdrawal are shown in Table 39.

39. Withdrawal probabilities at 5-year intervals

Attained Age	Municipal and Elected Officials		Uniformed
	Males	Females	Males and Females
20	.100818	.105319	.022050
25	.085911	.096000	.021148
30	.045189	.071562	.017159
35	.038436	.056170	.014063
40	.034679	.043754	.010593
45	.031105	.035597	.000000
50	.028145	.032000	.000000
55	.000000	.000000	.000000

In addition, we assumed that a vested employee terminating employment (with 10 years of service) will elect an employee contributions 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 on 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	.002250
40	.003274	.001314	.003321
45	.005485	.002359	.004895
50	.009550	.003571	.006918
55	.000000	.000000	.000000

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).

Annual rate of mortality prior to retirement

We assumed that deaths of active municipal and elected male members would be at 80% of the UP-84 Mortality Table with ages set forward one year and deaths of municipal and elected female members at 80% of the UP-84 Mortality Table with ages set back four years. 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 80% of the UP-84 Mortality Table with ages set forward one year and deaths of uniformed female members would be at 80% of the UP-84 Mortality Table with ages set back four years. In addition, we assumed that 95% of all deaths of active uniformed members are ordinary (5% are service-connected).

Service retirement

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

41. 1967 plan service retirement rates

Age	Municipal and Elected Officials		Uniformed
	Males	Females	Males and Females
45	—	—	.150
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
68	.154	.161	.245
69	.154	.175	.245
70+	1.000	1.000	1.000

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

42. Plan 87 service retirement rates

Age	Municipal and Elected Officials			Uniformed		
	Reduced Benefits ^b	Full Benefits		Reduced Benefits ^b	Full Benefits	
		First Year Eligible ^a	Subsequent Years		First Year Eligible ^a	Subsequent Years
40	--	--	--	.028	.500	.125
41	--	--	--	.028	.500	.125
42	--	--	--	.028	.500	.125
43	--	--	--	.028	.500	.125
44	--	--	--	.028	.500	.125
45	--	--	--	.028	.500	.125
46	--	--	--	.028	.480	.125
47	--	--	--	.028	.460	.125
48	--	--	--	.028	.440	.125
49	--	--	--	.028	.420	.125
50	--	--	--	.028	.400	.125
51	--	--	--	.028	.400	.125
52	.0264	.450	.060	.028	.400	.140
53	.0264	.420	.060	.028	.400	.150
54	.0264	.390	.060	.028	.400	.170
55	.0264	.360	.060	.028	.400	.190
56	.0264	.330	.060	.028	.400	.215
57	.0264	.300	.060	.028	.400	.225
58	.0264	.300	.060	.028	.400	.225
59	.0264	.300	.080	.028	.400	.230
60	.0264	.300	.100	.028	.400	.230
61	.0264	.350	.150	.028	.400	.245
62	.0264	.430	.300	.028	.400	.295
63	.0264	.500	.187	.028	.400	.265
64	.0264	.500	.199	.028	.400	.260
65	.0264	.600	.309	1.000	.400	1.000
66	.0264	.600	.232	--	--	--
67	.0264	.600	.214	--	--	--
68	.0264	.600	.214	--	--	--
69	.0264	.600	.238	--	--	--
70	1.000	.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.

b. We assume the participant defers receipt of the benefit until their service retirement age.

Annual rate of mortality after retirement

We assumed that postretirement mortality will be 95% of the UP-84 Mortality Table with ages set forward one year for males and 95% of the UP-84 Mortality Table with ages set back four years for females. We assumed that post-disablement mortality will follow 100% of the UP-84 Mortality Table (set forward one year for males, set back four years for females) with the adjustment factors as multipliers in Table 43 applied at each age for municipal and the adjustment factors in Table 44 for police and fire.

43. Post-disablement mortality adjustment factors (municipal)

Age	<u>Adjustment Factor</u>		Age	<u>Adjustment Factor</u>	
	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

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 and June 30, 1997.

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.

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 5.0% per year. This is supported by the actuarial experience studies for the five-year periods ending June 30, 1993 and June 30, 1997, which showed that the adjusted growth rate of covered payroll averaged 4.7% and 3.2%, respectively.

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, 2001 is \$132,174,000. This amount is summarized by division in Table 45 and is based on the July 1, 1999 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 2000, the total state payments are \$34,407,000. Amounts received during fiscal 2001 may be used to meet the \$132,174,000 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.

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 5.0% — pre-1999 balances were adjusted to reflect the Pension Obligation Bond.

45. MMO calculation for fiscal 2001 (July 1, 1999 valuation report)

	Fiscal 2001 (dollars in thousands)			
	Non-Uniformed	Police	Fire	Total
Estimated FY 2000 payroll	\$ 816,242	\$ 295,780	\$ 104,359	\$ 1,216,381
Normal cost percent	7.889%	11.432%	12.022%	9.103%
Normal cost	\$ 64,593	\$ 33,938	\$ 12,584	\$ 111,115
Amortization payment ^a	29,858	33,361	1,937	65,156
Administrative expense	<u>3,136</u>	<u>1,238</u>	<u>426</u>	<u>4,800</u>
Subtotal	\$ 97,587	\$ 68,537	\$ 14,947	\$ 181,071
Expected member contributions	<u>(26,699)</u>	<u>(16,271)</u>	<u>(5,927)</u>	<u>(48,897)</u>
MMO - (Post-POB) ^b	\$ 70,888	\$ 52,266	\$ 9,020	\$ 132,174
Pre-POB Amortization Payment ^a	\$ 69,597	\$ 55,504	\$ 10,214	\$ 135,316
MMO - (Pre-POB) ^c	\$ 110,628	\$ 74,409	\$ 17,297	\$ 202,334

- 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 5.0% 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 2000, the total is \$34,407 (thousands). Also includes quasi agencies.
- c. During fiscal year 1999, the Pension Obligation Bond of \$1,250,000 reduced the July 1, 1998 July 1, 1998 actuarial liability. The lower actuarial accrued liability resulted in the amortization payments as of July 1, 1998 being reduced by 46.91% (the amount of the P.O.B. relative to the unreduced actuarial accrued liability).

46. Unfunded liability payments toward MMO for fiscal 2001 (thousands) — July 1, 1999 valuation report

	Municipal			Police			Fire		
	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment
Original July 1, 1985 unfunded actuarial accrued liability	\$ 831,242	26	\$49,066*	\$533,610	26	\$31,497*	\$212,793	26	\$12,561*
July 1, 1986 additional amounts									
Active	\$ 1,422	8	\$ 236	\$ 123	8	\$ 20	\$ 61	8	\$ 10
(Gain)/loss	<u>(13,585)</u>	3	<u>(4,924)</u>	<u>(6,367)</u>	3	<u>(2,308)</u>	<u>(3,241)</u>	4	<u>(1,175)</u>
Subtotal ^b	\$ (12,163)		\$ (4,688)	\$ (6,243)		\$ (2,287)	\$ (3,180)		\$ (1,165)
July 1, 1987 additional amounts									
(Gain)/loss	\$ (1,440)	4	\$ (408)	\$ 2,805	4	\$ 794	\$ 431	4	\$ 121
July 1, 1988 additional amount	\$ 11,456	5	\$ 2,702	\$ 10,807	5	\$ 2,549	\$ 852	5	\$ 201
July 1, 1989 additional amounts									
Active	\$ 14,220	11	\$ 2,816	\$ 3,976	11	\$ 787	\$ 1,849	11	\$ 366
(Gain)/loss	<u>(2,505)</u>	6	<u>(993)</u>	<u>3,407</u>	6	<u>1,351</u>	<u>1,033</u>	6	<u>410</u>
Assumption change	<u>(15,521)</u>	11	<u>(3,073)</u>	<u>(4,514)</u>	11	<u>(894)</u>	<u>(1,810)</u>	11	<u>(358)</u>
Subtotal ^b	\$ (3,806)		\$ (1,251)	\$ 2,869		\$ 1,244	\$ 1,072		\$ 417
July 1, 1990 additional amount									
(Gain)/loss	\$ (13,437)	7	\$ (4,055)	\$ 14,130	7	\$ 4,264	\$ 2,847	7	\$ 859
July 1, 1991 additional amount									
(Gain)/loss	\$ (3,236)	8	\$ (801)	\$ (3,171)	8	\$ (785)	\$ (1,437)	8	\$ (356)
July 1, 1992 additional amounts									
Active	\$ 419	14	\$ 63	\$ 0		\$ 0	\$ 0		\$ 0
(Gain)/loss	<u>26,864</u>	9	<u>5,707</u>	<u>(3,170)</u>	9	<u>(674)</u>	<u>(1,310)</u>	9	<u>(278)</u>
Subtotal ^b	\$ 27,283		\$ 5,770	\$ (3,170)		\$ (674)	\$ (1,310)		\$ (278)

	Municipal			Police			Fire		
	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment
July 1, 1993 additional amounts									
Nonactive	\$ 97	5	\$ 38	\$ 0		\$ 0	\$ 0		\$ 0
Active	(1,160)	15	(163)	(771)	15	(108)	0		0
(Gain)/loss	(17,983)	10	(3,381)	(14,173)	10	(2,665)	(5,712)	10	(1,074)
Assumption change	<u>(11,413)</u>	15	<u>(1,605)</u>	<u>92</u>	15	<u>13</u>	<u>(2,126)</u>	15	<u>(299)</u>
Subtotal ^a	\$ (30,459)		\$ (5,112)	\$ (14,852)		\$ (2,760)	\$ (7,839)		\$ (1,373)
July 1, 1994 additional amount									
(Gain)/loss	\$ (8,649)	11	\$ (1,471)	\$ (1,323)	11	\$ (255)	\$ (5,128)	11	\$ (872)
July 1, 1995 additional amounts									
Active	\$ 432	16	\$ 48	\$ 0		\$ 0	\$ 0		\$ 0
(Gain)/loss	<u>6,925</u>	11	<u>934</u>	<u>465</u>	11	<u>63</u>	<u>(3,005)</u>	11	<u>(405)</u>
Subtotal ^a	\$ 7,356		\$ 981	\$ 465		\$ 63	\$ (3,005)		\$ (405)
July 1, 1996 additional amounts									
(Gain)/loss	\$ 5,051	12	\$ 647	\$ 2,479	12	\$ 318	\$ (2,155)	12	\$ (276)
July 1, 1997 additional amounts									
Assumption change	\$ 47,107	18	\$ 4,936	\$ 5,765	18	\$ 604	\$ 2,428	18	\$ 254
(Gain)/loss	<u>(54,920)</u>	13	<u>(6,730)</u>	<u>(21,079)</u>	13	<u>(2,583)</u>	<u>(14,091)</u>	13	<u>(1,727)</u>
Subtotal ^a	\$ (7,813)		\$ (1,794)	\$ (15,314)		\$ (1,979)	\$ (11,663)		\$ (1,472)
July 1, 1998 additional amounts									
(Gain)/loss	\$ (16,175)	14	\$ (1,906)	\$ (13,204)	14	\$ (1,556)	\$ (11,868)	14	\$ (1,398)
July 1, 1999 additional amounts									
(Gain)/loss	\$ (136,958)	15	\$ (15,588)	\$ 1,007	15	\$ 115	\$ (49,716)	15	\$ (5,658)
Active	15,035	20	1,511	0		0	0		0
Nonactive	<u>43,742</u>	10	<u>6,253</u>	<u>19,469</u>	10	<u>2,783</u>	<u>7,227</u>	10	<u>1,033</u>
Subtotal ^a	\$ (78,180)		\$ (7,824)	\$ 20,477		\$ 2,898	\$ (42,489)		\$ (4,625)
Total unfunded actuarial accrued liability^b	\$ 707,030	—	\$ 29,858	\$ 530,365	—	\$ 33,361	\$ 127,920	—	\$ 1,937

a. Level dollar amortization payment (26 years remaining).

- Municipal — \$82,595
- Police — \$53,022
- Fire — \$21,144

b. Numbers may not add because of rounding.

MINIMUM MUNICIPAL OBLIGATION

The following tables are maintained to support Exhibit I 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.
- Table 49 - Is used to identify and allocate total debt service requirements for debt issued to finance pension plan contributions.
- Table 50 - This is similar to Table 34 - statement of receipts and disbursements, but excluding assets due to the issuance of a bond.

47. Summary of Modified Actuarial Data

	Municipal	Police	Fire	Total
Actuarial accrued liability	3,240,432,000	1,911,638,000	710,013,000	5,862,083,000
Market value of assets ^a	1,883,255,000	1,029,630,000	433,373,000	3,346,258,000
Actuarial value of assets ^a	1,783,004,000	972,700,000	409,750,000	3,165,454,000
Unfunded actuarial accrued liability	1,457,428,000	938,938,000	300,262,000	2,696,628,000
Amortization contributions				
1/1/85 initial liability				
Remaining amortization period	26	26	26	26
Level dollar contribution	82,595,000	53,022,000	21,144,000	156,761,000
Payroll-based contribution	92,417,000	59,326,000	23,658,000	175,401,000
Post-1/1/85 liability				
Remaining amortization period	6	N/A	12	10
Amortization contribution	(22,820,000)	(3,822,000)	(13,444,000)	(40,086,000)
Total amortization contribution	69,597,000	55,504,000	10,214,000	135,315,000

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 reduced contributions.

48. Modified Unfunded Actuarial Accrued Liability and Amortization Contributions (thousands)

	Municipal			Police			Fire		
	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1999 Remaining Balance	Years Remaining	Amortization Payment
Original July 1, 1985 unfunded actuarial accrued liability	\$ 1,565,672	26	\$ 92,417	\$1,005,072	26	\$ 59,326	\$ 400,803	26	\$ 23,658
All changes prior to July 1, 1999	\$ (86,702)	5	\$ (21,442)	\$ (44,680)	N/A	\$ (1,948)	\$ (79,832)	11	\$ (11,298)
July 1, 1999 additional amounts									
Active	\$ 15,035	20	\$ 1,511	---	--	---	\$ ---	---	\$ ---
(Gain)/loss	(80,320)	15	(9,142)	(40,922)	15	(4,658)	(27,935)	15	(3,179)
Inactive	<u>43,742</u>	10	<u>6,251</u>	<u>(19,469)</u>	10	<u>2,783</u>	<u>7,227</u>	10	<u>1,031</u>
Subtotal ^h	\$ (21,542)		\$ (1,377)	\$ (21,453)		\$ (1,874)	\$ (20,708)		\$ (2,146)
All changes including July 1, 1999 addition	\$ (108,244)	6	\$ (22,820)	\$ (66,134)	N/A	\$ (3,822)	\$ (100,541)	12	\$ (13,444)

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	28,738,336.25	—	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	—	—

49. 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	10,583,073.35	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	—	—

49. 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	—	—

50. Statement of Receipts and Disbursements *Excluding Bond Issue Assets*

	Municipal	Police	Fire
Assets at July 1, 1998	\$ 1,822,579,076	\$ 1,005,316,303	\$ 420,982,155
Receipts			
Employer contributions	120,923,792	81,496,422	24,807,349
Employee contributions	27,157,306	16,200,402	5,923,758
State aid	17,953,473	12,614,095	3,839,706
Supplemental state assistance	0	0	0
Investment income (includes investment expenses)	179,447,027	98,491,357	41,343,607
Net change in market value	(51,736,629)	(28,274,315)	(11,904,088)
Other receipts	<u>1,157,876</u>	<u>457,959</u>	<u>157,995</u>
Total receipts	\$ 294,902,845	\$ 180,985,920	\$ 64,168,327
Disbursements			
Benefit payments	\$ 228,436,791	\$ 154,510,881	\$ 51,087,876
Refund of contribution	2,894,757	1,015,644	294,544
Administrative expenses	2,895,695	1,145,296	395,125
Other disbursements	<u>0</u>	<u>0</u>	<u>0</u>
Total disbursements	\$ 234,227,243	\$ 156,671,821	\$ 51,777,545
Assets at July 1, 1999	\$ 1,883,254,678	\$ 1,029,630,402	\$ 433,372,937

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 51 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 52.

51. 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%

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

Fiscal Year	Annual Required Contributions*	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

- a. Dollars in thousands. For each fiscal 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 5% per year.
- b. On February 2, 1999, the City deposited a Pension Obligation Bond worth \$1,250,000,000.

Statement No. 27 disclosure

Under the 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 19 years from July 1, 1999. Assets are valued as a five-year smoothing of gains and losses on the market value. All assumptions used in the calculation are the valuation reflect our long term expectations.

- **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 53 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 1999.

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

	Fiscal Year Ending					
	1994	1995	1996	1997	1998	1999
ARC	\$ 223,750	\$ 212,838	\$222,482	\$ 237,016	\$ 252,080	\$ 256,704
Interest on NPO	--	(900)	(869)	(840)	(811)	(783)
Adjustment to ARC	<u>--</u>	<u>1,241</u>	<u>1,198</u>	<u>1,158</u>	<u>1,118</u>	<u>1,080</u>
Annual pension cost	\$ 223,750	\$ 213,179	\$222,811	\$ 237,334	\$ 252,387	\$ 257,001
Contributions made	<u>233,750</u>	<u>212,838</u>	<u>222,482</u>	<u>237,016</u>	<u>252,080</u>	<u>1,506,704</u>
Increase in NPO	(10,000)	341	329	318	307	(1,249,703)
NPO at beginning of year	<u>--</u>	<u>(10,000)</u>	<u>(9,659)</u>	<u>(9,330)</u>	<u>(9,012)</u>	<u>(8,705)</u>
NPO at end of year	(10,000)	(9,659)	(9,330)	(9,012) ^a	(8,705)	(1,258,408)
Interest rate	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

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



