

**City of Philadelphia**  
**Municipal Retirement System**

**July 1, 1998**  
**Actuarial Valuation Report**

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April 9, 1999

Board of Pensions and Retirement  
City of Philadelphia  
Two Penn Center, 20th Floor  
Philadelphia, PA 19102

Dear Ladies and Gentlemen:

Enclosed are 16 bound and ten additional copies of our July 1, 1998 actuarial valuation of the City of Philadelphia Municipal Retirement System.

The employee data and the financial information used in this report were provided by the City and the Board of Pensions and Retirement. The actuarial valuation report may be used to support contributions to the Retirement System for the fiscal year ending June 30, 2000.

A summary of the results from the actuarial valuation is as shown in the table below:

**Summary of actuarial valuation results as of June 1, 1998 (dollars in thousands)**

Actuarial accrued liability as of July 1, 1998	\$ 5,586,134
Assets as of July 1, 1998 for valuation purposes	\$ 2,921,358
Unfunded actuarial accrued liability as of July 1, 1998	\$ 2,664,776

City normal cost as a percent of payroll for the year, assuming payment is made at the beginning of year:

**1967 Plan**

Municipal division	4.687%
Police division	7.306%
Fire division	7.128%

**Plan 87**

Municipal division (Plan M)	5.014%
Municipal division (Plan Y)	5.060%
Elected officials	5.464%
Police division	5.594%
Fire division	6.018%

**Combined plans** 5.380%

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Board of Pensions and Retirement  
April 9, 1999  
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The actuarial assumptions underlying the results are our best estimate of anticipated future experience of the Retirement System.

The City's funding policy provides for payment of the normal cost in accordance with the calculations made by the actuary **plus** level dollar payments toward amortization of the Dombrowski unfunded actuarial accrued liabilities **plus** payments increasing 5.0% per year toward amortization of the unfunded actuarial accrued liability established on July 1, 1985 **plus** level dollar payments toward amortization of any plan changes or actuarial gains and losses which occur after July 1, 1985.

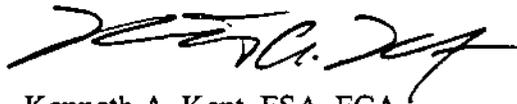
For the year beginning July 1, 1999 and ending June 30, 2000, policy requirements call for an amortization payment of \$198,415,000, assuming payment is made at the beginning of the year. This payment is reduced to \$105,342,000 after the effects of the pension obligation bond are applied.

The calculation and amortization schedule for determining the City's minimum municipal obligation for the fiscal year ending June 30, 2000 are in Tables 45 and 46 of this report.

Disclosure requirements for the Governmental Accounting Standard Board Statement Numbers 25 and 27 have been incorporated at the end of this report.

Supporting data and background material pertinent determining the normal cost and accrued liabilities of the Retirement System is also in the report.

Sincerely,



Kenneth A. Kent, FSA, FCA

KAK:rk

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Enclosures

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This report presents the actuarial valuation and the costs and liabilities for the City of Philadelphia Municipal Retirement System as of July 1, 1998 for the fiscal year ending June 30, 2000. 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, 1998.

During the plan year the System received \$1.250 billion in proceeds from the Pension Obligation Bond (P.O.B.). Because the report valuation date precedes the receipt of these proceeds, the results do not reflect their impact. We have, however, added a section at the back of the report to identify the P.O.B. impact on the Minimum Municipal Obligation to contribute and the City's funding policy contribution. Our understanding of Act 205 is that the City may reduce its obligation as a reflection of the P.O.B. for the fiscal year covered by this report (fiscal year ending June 30, 2000).

#### Findings summary

Table 1 shows actuarial valuation results for all divisions as of July 1, 1998.

#### 1. July 1, 1998 actuarial valuation (dollars in thousands)

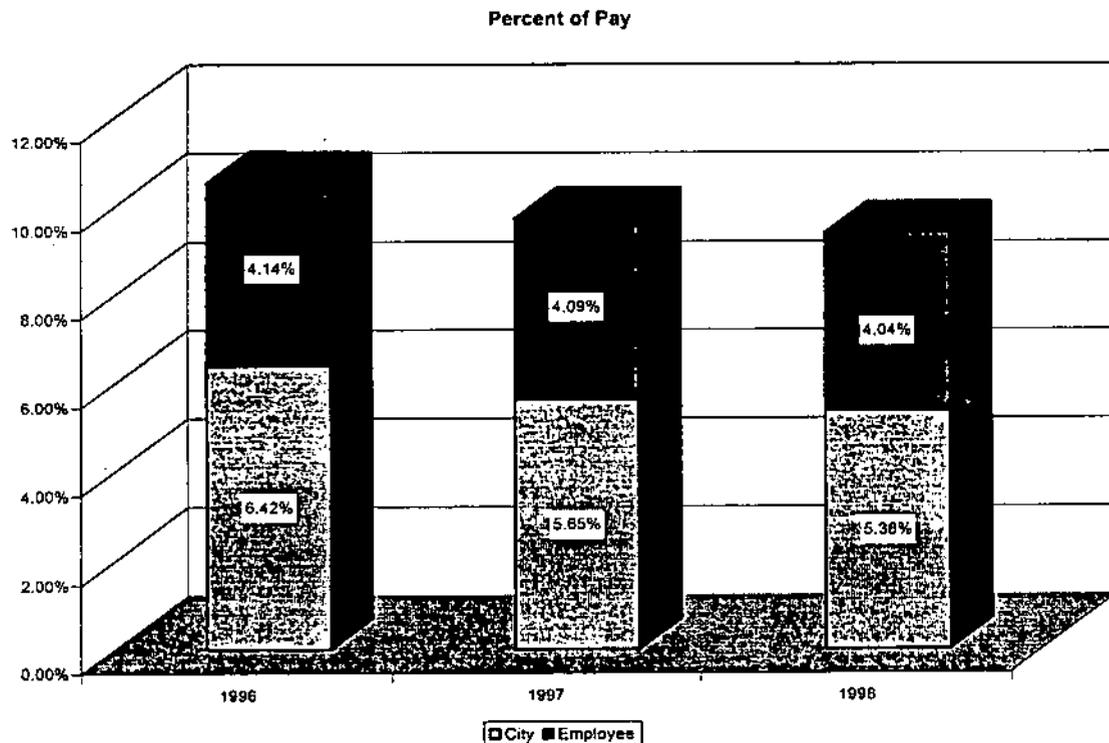
Participants	
Active	30,935
Retired	18,182
Beneficiaries	8,500
Disabled	5,016
Terminated vested	<u>789</u>
Total	63,422
Total annual salaries	\$ 1,128,225
Net actuarial accrued liability	\$ 5,586,134
Unfunded actuarial accrued liability	\$ 2,664,776
Assets for valuation purposes	\$ 2,921,358
City normal cost as percent of payroll (beginning-of-year payment)	5.380%
Fiscal 2000 funding requirements (beginning-of-year payments) (Before bond impact)	
City's funding policy	\$ 259,119 <sup>a, b</sup>
Minimum municipal obligation (July 1, 1998 valuation)	\$ 194,138 <sup>a</sup>

- a. The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal 1999, these totaled \$35,679 (thousands).
- b. Based on July 1, 1998 payroll. Final contribution will be based on actual fiscal 2000 payroll.

### Normal cost

The total normal cost is the cost of benefits accruing during the year. The City's normal cost equals the total normal cost *less* expected employee contributions. The System experience has resulted in a decline in the normal cost rate. The following graph is a three-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 June 30, 1997 through June 30, 1998, the unfunded actuarial accrued liability increased \$7,545,000, from \$2,657,231,000 to \$2,664,776,000 because:

- The June 30, 1985 unfunded liability is being amortized with payments increasing 5.0% per year. Because the payments in earlier years are less than the interest, the amortization schedule causes increases in this unfunded liability each year through 2002; after then it will decrease.

- Salary increases were more than anticipated, resulting in a loss.
- Investment return on an adjusted market basis was 13.1%. Because this is more than the assumed 9% rate, the gain reduced the unfunded actuarial accrued liability.
- Other non-economic plan experience resulted in a net loss.

These factors are illustrated in Table 3(A).

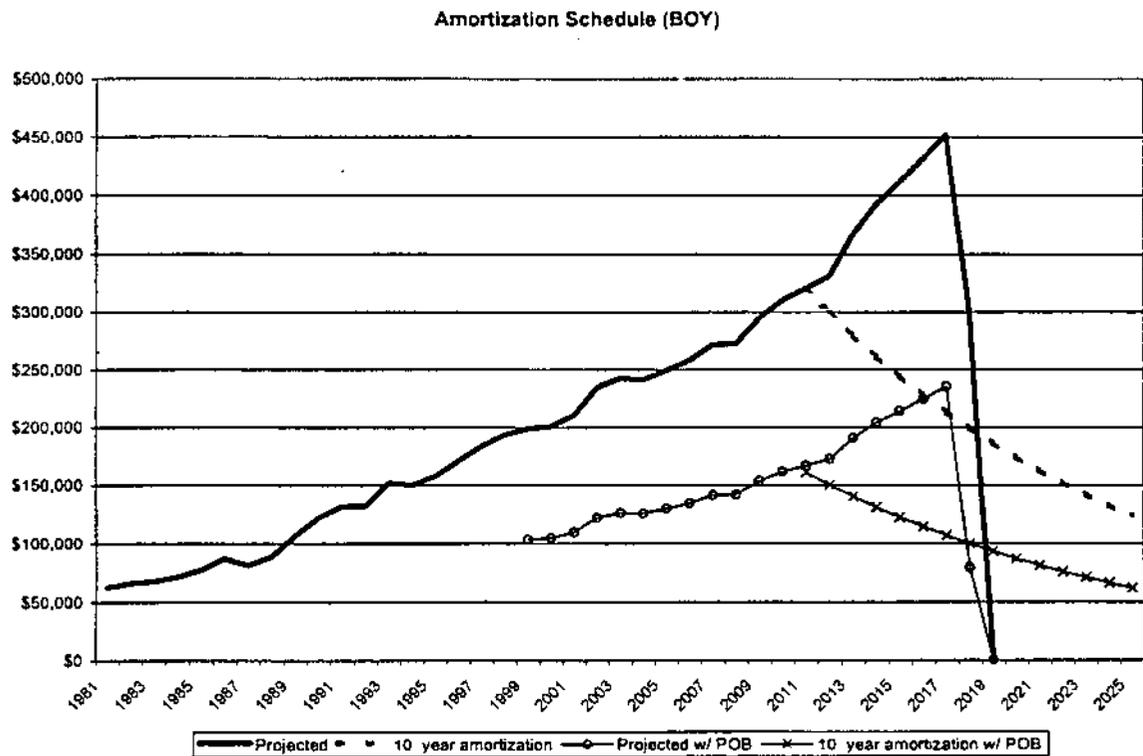
**3(A). Unfunded liability (thousands)**

1997 unfunded liability	\$2,657,231
Change due to:	
Payment schedule	38,883
Salary increases	4,818
Change in assumptions	0
Investment return	(103,861)
Other actuarial experience	<u>67,705</u>
1998 unfunded liability	<u>\$2,664,776</u>

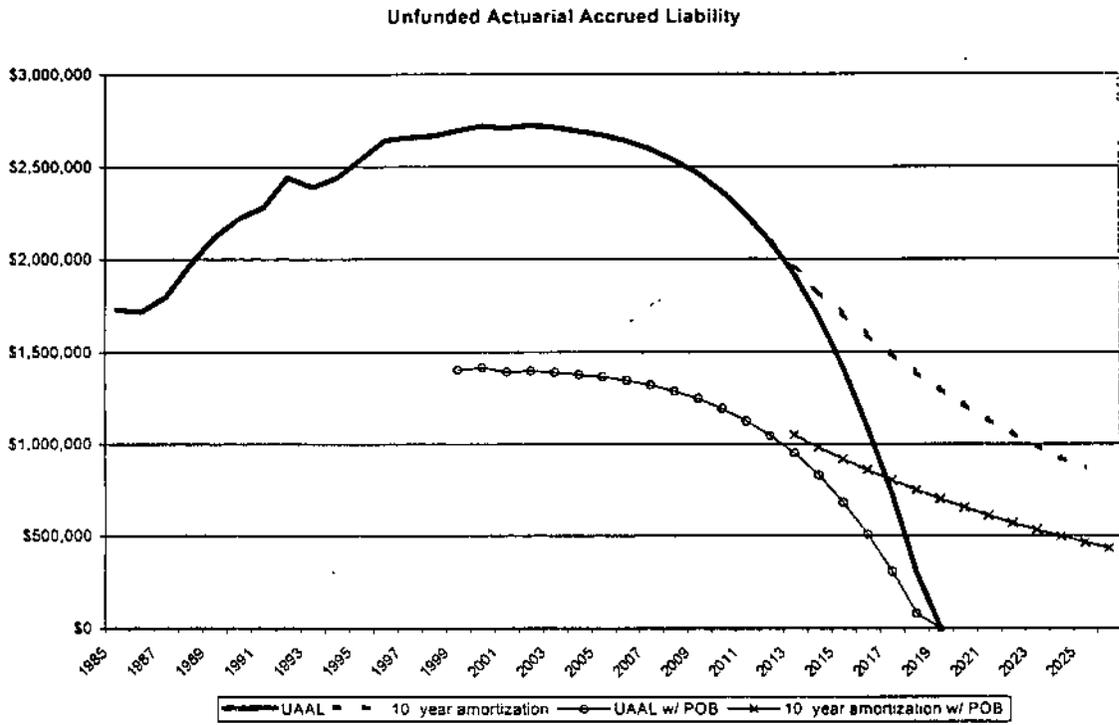
Because the June 30, 1985 unfunded liability is being amortized with payments increasing 5.0% per year, the amortization payment is scheduled to increase until 2019 and then drop to zero. The total unfunded liability is scheduled to increase each year until 2002, and then decrease to zero by 2019. With the 1997 change in Act 205, once the funding ratio reaches 70% the City may shift to a 10 year rolling level amortization schedule. Assuming no future gains or losses, and before recognition of the P.O.B. the fund is projected to first be 70% funded in 2011. The alternative amortization schedule will first be beneficial in 2012.

Graph 3(B) illustrates changes in the amortization payment through 2019. Graph 3(C) tracks the unfunded liability through 2019. The **bold and circle-marked** lines (before and after the P.O.B., respectively) indicate actual changes in the amortization payment or unfunded liability and includes scheduled increases and changes because of plan amendments, assumption changes, and gains and losses. The **dotted and x-marked** lines (before and after the P.O.B., respectively) reflect projected changes under the 10 year amortization schedule assuming no future gains or losses.

3(B). Amortization schedule



3(C). 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, 1999). If paid after July 1 the City's funding policy has been to pay interest at 9% from July 1, 1999 to the date paid.

The resulting estimated City contributions for fiscal years 1999 and 2000 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

	Fiscal 1999	Pre-POB Fiscal 2000	Post-POB Fiscal 2000
Normal cost	\$ 60,293	\$ 60,704 <sup>a</sup>	\$ 60,704 <sup>a</sup>
Amortization payment	<u>193,595</u>	<u>198,415</u>	<u>105,342</u>
Total City cost	\$ 253,888	\$259,119 <sup>b</sup>	\$166,046 <sup>b</sup>

- a. Based on July 1, 1998 payroll. Actual normal cost will be based on actual fiscal 2000 payroll.
- b. The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal 1999, they totaled \$35,679 (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, 1999 employee contribution rates.

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

	Municipal	Elected	Police	Fire
1967 Plan	3.75% <sup>a</sup>	N/A	6.00%	6.00%
Plan 87	2.15% (Plan M)	8.23%	5.00%	5.00%
	2.17% (Plan Y)			

a. 6.00% on wages over the Social Security maximum taxable wage base — \$72,600 in 1999.

**Quasi agency funding**

Table 4(C) shows the quasi agencies funding rate for fiscal years 1999 and 2000 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 1999	Fiscal 2000
Valuation date	July 1, 1997	July 1, 1998
Normal cost rate	5.602% <sup>a</sup>	5.109% <sup>a</sup>
Amortization rate	19.628%	20.637% <sup>b</sup>
Total, year-end rate	25.230%	25.746%
Total, adjusted for quarterly payments	24.611% <sup>c</sup>	25.114% <sup>c</sup>
Parking Authority special amortization payment		
Annual year-end payment	\$78,000	\$78,000
Quarterly payment	\$19,021 <sup>d</sup>	\$19,021 <sup>d</sup>

- a. Normal cost rate, page 12.  
 b.  $(\$110,410 - \$78) \div \$534,641$ , see pages 16 and 12.  
 c.  $.97546$  (quarterly adjustment factor)  $\times$  25.746%.  
 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 to comply with state auditors' recommendations. As a result, this July 1, 1998 valuation report determines the City's fiscal 2000 MMO contribution.
- The MMO reflects amortization of prior years' City contributions above past MMOs as actuarial gains.

Table 86 of this report summarizes the City's unfunded liability payment for its' fiscal 2000 MMO. These payments reflect the 40-year funding from July 1, 1985 with increasing payments at 5.0%.

The resulting fiscal 2000 MMO is summarized in Table 4(D).

**4(D). Fiscal 2000 minimum municipal obligation (thousands)**

	Pre-POB	Post-POB
Valuation report	July 1, 1998	July 1, 1998
Normal cost	\$ 103,847	\$ 103,847
Amortization payment	132,361	70,273
Expected administrative expense	<u>4,600</u>	<u>4,600</u>
Subtotal	\$ 240,808	\$ 178,720
Expected member contributions	<u>(46,670)</u>	<u>(46,670)</u>
Minimum municipal obligation	\$ 194,138	\$ 132,050
Interest	<u>0<sup>a</sup></u>	<u>0<sup>a</sup></u>
Total	\$ 194,138 <sup>b</sup>	\$ 132,050 <sup>b</sup>

- a. Assumes the MMO will be paid before December 31, 1999.
- b. The City may use general state aid and state COLA reimbursement, estimated at \$36 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, 1997 and July 1, 1998 is shown in Table 4(E).

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

	1997	1998
Actuarial value of assets	\$ 2,660,886	\$ 2,921,358
Actuarial accrued liability	\$ 5,318,117	\$ 5,586,134
Funding ratio	50.0%	52.3%

**Certification**

We have prepared an actuarial valuation of the City of Philadelphia Municipal Retirement System as of July 1, 1998 for fiscal year ending June 30, 2000. 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, actuarial cost method or plan provisions since the last valuation of the Plan as of July 1, 1997.

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>4/9/99</u> Date
 Thomas Skiavo	<u>4/9/99</u> Date
William M. Mercer, Incorporated 1120 20th Street, NW, Suite 800 Washington, DC 20036  (202) 785-9080	

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, 2000. 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, 1998, 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 results in 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, 2000.

Table 17 shows the annual payments needed to fund plan liabilities through fiscal year ending June 30, 2020.

## 5. July 1, 1998 derivation of normal cost (dollars in thousands)

	1967 Plan			Plan 87					
	Municipal	Police	Fire	Municipal (M)	Municipal (Y)	Elected	Police	Fire	Total
1. Number of active members									
a. Vested	10,012	3,247	1,592	202	152	14	10	7	15,236
b. Non-vested	4,266	53	8	687	6,244	11	3,623	807	15,699
c. Total	14,278	3,300	1,600	889	6,396	25	3,633	814	30,935
2. Total normal cost									
a. Service retirement	\$ 25,530	\$ 14,069	\$ 6,667	\$ 1,539	\$ 8,277	\$ 178	\$ 9,344	\$ 2,143	\$ 67,747
b. Preretirement death	3,363	1,041	534	209	1,214	16	666	177	7,219
c. Disability retirement	4,191	1,809	891	208	1,268	13	1,521	381	10,282
d. Vested termination	6,793	867	434	307	1,750	17	1,478	340	11,982
e. Refund of nonvested members' contributions	2,675	284	136	95	530	14	431	95	4,260
f. Health care benefit	0	58	29	0	0	0	50	14	150
g. Administrative expenses	2,468	920	350	67	465	3	268	60	4,600
h. Total	\$ 45,020	\$ 19,047	\$ 9,041	\$ 2,425	\$ 13,504	\$ 241	\$ 13,754	\$ 3,208	\$ 106,240
3. Expected employee contributions	\$ 19,960	\$ 8,580	\$ 4,126	\$ 728	\$ 4,051	\$ 145	\$ 6,491	\$ 1,456	\$ 45,536
4. City normal cost (2h) - (3)	\$ 25,060	\$ 10,467	\$ 4,915	\$ 1,698	\$ 9,453	\$ 96	\$ 7,262	\$ 1,752	\$ 60,704
5. Current total annual payroll	\$ 534,641	\$ 143,277	\$ 68,953	\$ 33,858	\$ 186,799	\$ 1,758	\$ 129,824	\$ 29,115	\$ 1,128,225
6. City normal cost as a percent of pay assuming beginning-of-year payment (4) ÷ (5)	4.687%	7.306%	7.128%	5.014%	5.060%	5.464%	5.594%	6.018%	5.380%
7. City normal cost as a percent of pay assuming end-of-year payment (6) × 1.09	5.109%	7.964%	7.770%	5.465%	5.515%	5.956%	6.097%	6.560%	5.864%

Note: Numbers may not add because of rounding.

6. Derivation of unfunded actuarial accrued liability as of July 1, 1998 (dollars in thousands)

	1967 Plan			Plan 87					Total
	Municipal	Police	Fire	Municipal (M)	Municipal (Y)	Elected	Police	Fire	
1. Number of members									
a. Active	14,278	3,300	1,600	889	6,396	25	3,633	814	30,935
b. Retired	11,519	5,004	1,630	17	5	7	0	0	18,182
c. Beneficiary	5,334	2,086	1,023	16	1	1	31	8	8,500
d. Disabled	2,166	2,255	563	2	2	0	26	2	5,016
e. Terminated vested	732	39	8	6	1	2	0	1	789
f. Total	34,029	12,684	4,824	930	6,405	35	3,690	825	63,422
2. Total annual benefits									
a. Retired	\$ 151,070	\$ 94,800	\$ 30,869	\$ 127	\$ 37	\$ 180	\$ 0	\$ 0	\$ 277,082
b. Beneficiary	25,087	12,378	5,540	47	1	4	154	39	43,248
c. Disabled	26,041	33,217	9,134	30	34	0	629	33	69,118
d. Terminated vested	9,392	472	80	77	41	51	0	8	10,126
e. Total	\$ 211,595	\$ 140,867	\$ 45,623	\$ 281	\$ 113	\$ 235	\$ 783	\$ 80	\$ 399,574
3. Present value of benefits									
a. Active members									
Service retirement	\$ 1,254,801	\$ 583,391	\$ 311,483	\$ 35,236	\$ 119,933	\$ 5,334	\$ 170,905	\$ 37,717	\$ 2,518,799
Preretirement death	122,188	32,906	19,055	4,273	17,336	359	10,704	2,709	209,530
Disability retirement	84,958	26,254	11,240	3,193	16,414	157	23,025	5,378	170,619
Vested termination	197,103	7,243	1,517	7,365	26,662	281	27,522	6,116	273,810
Refund of nonvested members' contributions	6,070	282	151	799	6,371	73	6,047	1,297	21,091
Health care benefit	0	528	289	0	0	0	385	101	1,303
Subtotal	\$ 1,665,120	\$ 650,603	\$ 343,734	\$ 50,866	\$ 186,717	\$ 6,205	\$ 238,588	\$ 53,319	\$ 3,195,152
b. Nonactive members									
Service retired	\$ 1,181,504	\$ 842,624	\$ 258,425	\$ 933	\$ 310	\$ 1,425	\$ 0	\$ 0	\$ 2,285,222
Beneficiary	188,246	97,526	39,184	429	7	33	1,465	356	327,247
Disabled	217,427	286,424	77,444	270	322	0	6,579	330	588,794
Terminated vested	59,223	3,628	717	425	200	378	0	37	64,608
Nonvested members' contributions	2,023	237	36	152	61	0	146	15	2,670
Health care benefit	0	3,968	2,402	0	0	0	290	0	6,660
Subtotal	\$ 1,648,423	\$ 1,234,407	\$ 378,208	\$ 2,210	\$ 899	\$ 1,836	\$ 8,480	\$ 738	\$ 3,275,201
c. Total	\$ 3,313,543	\$ 1,885,010	\$ 721,942	\$ 53,076	\$ 187,616	\$ 8,041	\$ 247,068	\$ 54,057	\$ 6,470,353

Note: Numbers may not add because of rounding.

## 6. Derivation of unfunded actuarial accrued liability as of July 1, 1998 (dollars in thousands) — (continued)

	1967 Plan			Plan 87					Total
	Municipal	Police	Fire	Municipal (M)	Municipal (Y)	Elected	Police	Fire	
4. Present value of future normal costs									
a. Service retirement	\$ 198,915	\$ 104,256	\$ 43,880	\$ 12,795	\$ 82,878	\$ 1,052	\$ 109,800	\$ 23,599	\$ 577,174
b. Preretirement death	27,414	7,679	3,513	1,880	12,584	110	7,867	1,952	63,000
c. Disability retirement	34,350	13,402	5,864	1,995	13,593	95	17,791	4,192	91,282
d. Vested termination	59,289	6,645	2,860	3,134	19,136	121	17,880	3,939	113,006
e. Refund of nonvested members' contributions	23,376	2,141	894	925	5,472	87	5,133	1,053	39,082
f. Health care benefit	<u>0</u>	<u>192</u>	<u>87</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>316</u>	<u>80</u>	<u>675</u>
g. Total	\$ 343,344	\$ 134,316	\$ 57,097	\$ 20,728	\$ 133,665	\$ 1,467	\$ 158,787	\$ 34,816	\$ 884,219
5. Actuarial accrued liability (3) - (4)									
a. Active members									
Service retirement	\$ 1,055,886	\$ 479,135	\$ 267,603	\$ 22,441	\$ 37,055	\$ 4,282	\$ 61,105	\$ 14,118	\$ 1,941,625
Preretirement death	94,774	25,227	15,542	2,393	4,752	249	2,837	757	146,530
Disability retirement	50,608	12,852	5,376	1,198	2,821	62	5,234	1,186	79,337
Vested termination	137,814	598	(1,343)	4,231	7,526	160	9,642	2,177	160,804
Refund of nonvested members' contributions	(17,306)	(1,859)	(743)	(126)	899	(14)	914	244	(17,991)
Health care benefit	<u>0</u>	<u>336</u>	<u>202</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>69</u>	<u>21</u>	<u>628</u>
Subtotal	\$ 1,321,776	\$ 516,287	\$ 286,637	\$ 30,138	\$ 53,052	\$ 4,738	\$ 79,801	\$ 18,503	\$ 2,310,933
b. Nonactive members									
Service retired	\$ 1,181,504	\$ 842,624	\$ 258,425	\$ 933	\$ 310	\$ 1,425	\$ 0	\$ 0	\$ 2,285,222
Beneficiary	188,246	97,526	39,184	429	7	33	1,465	356	327,247
Disabled	217,427	286,424	77,444	270	322	0	6,579	330	588,794
Terminated vested	59,223	3,628	717	425	200	378	0	37	64,608
Nonvested members' contributions	2,023	237	36	152	61	0	146	15	2,670
Health care benefit	<u>0</u>	<u>3,968</u>	<u>2,402</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>290</u>	<u>0</u>	<u>6,660</u>
Subtotal	\$ 1,648,423	\$ 1,234,407	\$ 378,208	\$ 2,210	\$ 899	\$ 1,836	\$ 8,480	\$ 738	\$ 3,275,201
c. Total	\$ 2,970,199	\$ 1,750,695	\$ 664,845	\$ 32,348	\$ 53,951	\$ 6,575	\$ 88,281	\$ 19,241	\$ 5,586,134
6. Assets for valuation purposes	\$ 1,543,430	\$ 804,203	\$ 354,069	\$ 42,654	\$ 48,598	\$ 4,963	\$ 99,126	\$ 24,314	\$ 2,921,358
7. Unfunded actuarial accrued liability (5c) - (6)	\$ 1,426,769	\$ 946,492	\$ 310,776	\$ (10,306)	\$ 5,353	\$ 1,612	\$ (10,845)	\$ (5,074)	\$ 2,664,776

Note: Numbers may not add because of rounding.  
William M. Mercer, Incorporated

7. Development of the expected unfunded actuarial accrued liability for fiscal year ending June 30, 2000 (thousands)

	1967 Plan			Plan 87					Total
	Municipal	Police	Fire	Municipal (M)	Municipal (Y)	Elected	Police	Fire	
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation	\$ 1,428,975	\$ 953,023	\$ 324,009	\$ (8,270)	\$ 6,533	\$ 2,143	\$ (6,934)	\$ (3,365)	\$ 2,696,115
2. Changes in July 1, 1998 unfunded actuarial accrued liability due to actuarial experience	\$ (2,206)	\$ (6,532)	\$ (13,233)	\$ (2,037)	\$ (1,181)	\$ (532)	\$ (3,910)	\$ (1,709)	\$ (31,338)
3. Actual unfunded actuarial accrued liability, July 1, 1998 (1) + (2)	\$ 1,426,769	\$ 946,492	\$ 310,776	\$ (10,306)	\$ 5,353	\$ 1,612	\$ (10,845)	\$ (5,074)	\$ 2,664,776
4. Expected changes in unfunded actuarial accrued liability from July 1, 1998 to July 1, 1999:									
a. Interest (2) x .09	\$ (199)	\$ (588)	\$ (1,191)	\$ (183)	\$ (106)	\$ (48)	\$ (352)	\$ (154)	\$ (2,821)
b. Increase in unfunded actuarial accrued liability from July 1, 1998 to July 1, 1999 according to amortization schedule per 1998 valuation report	22,899	2,700	5,097	482	(130)	(190)	571	202	31,633
c. Subtotal	\$ 22,700	\$ 2,112	\$ 3,906	\$ 299	\$ (236)	\$ (238)	\$ 219	\$ 48	\$ 28,812
5. Expected July 1, 1999 unfunded actuarial accrued liability (3) + (4c)	\$ 1,449,470	\$ 948,604	\$ 314,682	\$ (10,007)	\$ 5,117	\$ 1,374	\$ (10,625)	\$ (5,026)	\$ 2,693,588

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, 2000 (thousands)

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation					
a. Dombrowski	\$ 13,696	\$ 12,916	10	\$ 1,846	\$ 2,013
b. Remaining	<u>1,415,278</u>	<u>1,438,952</u>	—	<u>99,721<sup>b</sup></u>	<u>108,696<sup>b</sup></u>
c. Subtotal	\$ 1,428,975	\$ 1,451,874	—	\$101,568	\$ 110,709
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (2,206)	\$ (2,404)	15	\$ (274)	\$ (298)
b. Assumption change	<u>0</u>	<u>0</u>	—	<u>0</u>	<u>0</u>
c. Subtotal	\$ (2,206)	\$ (2,404)	—	\$ (274)	\$ (298)
3. Total (1c) + (2c)	\$ 1,426,769	\$ 1,449,470	—	\$101,294	\$ 110,410

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, 2000 (thousands)

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation					
a. Dombrowski	\$ 8,761	\$ 8,262	10	\$ 1,181	\$ 1,287
b. Remaining	<u>944,262</u>	<u>947,461</u>	—	<u>77,978<sup>b</sup></u>	<u>84,926<sup>b</sup></u>
c. Subtotal	\$ 953,023	\$ 955,723	—	\$ 79,159	\$ 86,283
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (6,532)	\$ (7,119)	15	\$ (810)	\$ (883)
b. Assumption change	<u>0</u>	<u>0</u>	—	<u>0</u>	<u>0</u>
c. Subtotal	\$ (6,532)	\$ (7,119)	—	\$ (810)	\$ (883)
3. Total (1c) + (2c)	\$ 946,492	\$ 948,604	—	\$ 78,349	\$ 85,400

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, 2000 (thousands)

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation					
a. Dombrowski	\$ 3,489	\$ 3,290	10	\$ 470	\$ 513
b. Remaining	<u>320,521</u>	<u>325,816</u>	—	<u>22,782<sup>b</sup></u>	<u>24,832<sup>b</sup></u>
c. Subtotal	\$ 324,009	\$ 329,106	—	\$ 23,252	\$ 25,345
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (13,233)	\$ (14,424)	15	\$ (1,642)	\$ (1,789)
b. Assumption change	<u>0</u>	<u>0</u>	—	<u>0</u>	<u>0</u>
c. Subtotal	\$ (13,233)	\$ (14,424)	—	\$ (1,642)	\$ (1,789)
3. Total (1c) + (2c)	\$ 310,776	\$ 314,682	—	\$ 21,610	\$ 23,555

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, 2000 (thousands)

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation	\$ (8,270)	\$ (7,787)	—	\$ (1,126)	\$ (1,227)
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (2,037)	\$ (2,220)	15	\$ (253)	\$ (275)
b. Assumption Change	—	—	—	—	—
c. Subtotal	\$ (2,037)	\$ (2,220)	—	\$ (253)	\$ (275)
3. Total (1) + (2c)	\$(10,306)	\$(10,007)	—	\$ (1,378)	\$ (1,502)

Note: Numbers may not add because of rounding.

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

**12. Development of Plan Y municipal division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2000 (thousands)**

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation	\$ 6,533	\$ 6,404	—	\$ 658	\$ 718
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (1,181)	\$ (1,287)	15	\$ (146)	\$ (160)
b. Assumption change	—	—	—	—	—
c. Subtotal	\$ (1,181)	\$ (1,287)	—	\$ (146)	\$ (160)
3. Total (1) + (2c)	\$ 5,353	\$ 5,117	—	\$ 512	\$ 558

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, 2000 (thousands)**

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation	\$ 2,143	\$ 1,954	—	\$ 351	\$ 382
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (532)	\$ (580)	15	\$ (66)	\$ (72)
b. Assumption change	—0	—0	—	—0	—0
c. Subtotal	\$ (532)	\$ (580)	—	\$ (66)	\$ (72)
3. Total (1) + (2c)	\$ 1,612	\$ 1,374	—	\$ 285	\$ 310

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, 2000 (thousands)

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation	\$ (6,934)	\$ (6,363)	—	\$ (1,097)	\$ (1,196)
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (3,910)	\$ (4,262)	15	\$ (485)	\$ (529)
b. Assumption change	—	—	—	—	—
c. Subtotal	\$ (3,910)	\$ (4,262)	—	\$ (485)	\$ (529)
3. Total (1) + (2c)	\$(10,845)	\$(10,625)	—	\$(1,582)	\$ (1,724)

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, 2000 (thousands)

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment*
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation	\$ (3,365)	\$ (3,164)	—	\$ (462)	\$ (504)
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (1,709)	\$ (1,862)	15	\$ (212)	\$ (231)
b. Assumption change	—	—	—	—	—
c. Subtotal	\$ (1,709)	\$ (1,862)	—	\$ (212)	\$ (231)
3. Total (1) + (2c)	\$ (5,074)	\$ (5,026)	—	\$ (674)	\$ (735)

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, 2000 (thousands)**

	<u>Fiscal Year Ending June 30, 2000</u>				
	Outstanding Balance July 1, 1998	Expected Balance July 1, 1999	Amortization Period Remaining	Annual Beginning-of-Year Payment	Annual End-of-Year Payment <sup>a</sup>
1. Expected July 1, 1998 unfunded actuarial accrued liability based on July 1, 1997 valuation					
a. Dombrowski	\$ 25,946	\$ 24,469	10	\$ 3,498	\$ 3,813
b. Remaining	<u>2,670,168</u>	<u>2,703,277</u>	—	<u>198,805<sup>b</sup></u>	<u>216,698<sup>b</sup></u>
c. Subtotal	\$ 2,696,115	\$ 2,727,746	—	\$ 202,303	\$ 220,511
2. Changes in unfunded actuarial accrued liability, July 1, 1998					
a. Experience (gains)/losses	\$ (31,338)	\$ (34,159)	15	\$ (3,888)	\$ (4,238)
b. Assumption change	<u>0</u>	<u>0</u>	—	<u>0</u>	<u>0</u>
c. Subtotal	\$ (31,338)	\$ (34,159)	—	\$ (3,888)	\$ (4,238)
3. Total (1c) + (2c)	\$ 2,664,776	\$ 2,693,588	—	\$ 198,415	\$ 216,273

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, 1998 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 (M)	Municipal (Y)	Plan 87 Elected	Police	Fire	Total			
1998	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,664,776	1,128,225	N/A
1999	101,294	78,349	21,610	(1,378)	512	285	(1,582)	(674)	198,415	2,693,588	1,184,636	16.7%
2000	106,110	76,672	20,920	(1,378)	512	285	(1,582)	(674)	200,865	2,719,738	1,243,868	16.1%
2001	111,168	79,920	22,215	(1,378)	512	285	(1,582)	(674)	210,466	2,745,572	1,306,061	16.1%
2002	124,705	87,019	25,528	(1,378)	512	285	(1,582)	(674)	234,415	2,763,266	1,371,365	17.1%
2003	130,235	88,603	26,546	(1,378)	512	285	(1,589)	(691)	242,522	2,756,448	1,439,933	16.8%
2004	129,922	86,828	27,374	(1,287)	512	149	(1,529)	(668)	241,302	2,741,791	1,511,929	16.0%
2005	136,685	87,432	27,850	(1,224)	512	159	(1,485)	(641)	249,289	2,723,776	1,587,526	15.7%
2006	148,937	83,178	27,843	(1,049)	512	160	(1,014)	(574)	257,994	2,697,191	1,666,902	15.5%
2007	154,193	88,947	30,039	(934)	512	73	(881)	(553)	271,395	2,658,725	1,750,247	15.5%
2008	148,871	93,525	31,848	(1,121)	512	(31)	(797)	(498)	272,308	2,602,190	1,837,760	14.8%
2009	160,368	101,084	34,893	(990)	514	(13)	(659)	(484)	294,712	2,539,571	1,929,648	15.3%
2010	168,327	105,680	37,825	(702)	620	(162)	(909)	(405)	310,274	2,446,896	2,026,130	15.3%
2011	172,221	109,665	40,028	(680)	475	(132)	(854)	(349)	320,374	2,328,918	2,127,437	15.1%
2012	177,059	113,130	42,038	(722)	607	(51)	(659)	(233)	331,170	2,189,313	2,233,808	14.8%
2013	196,531	122,230	47,082	( 43)	449	(52)	29	(119)	366,106	2,025,375	2,345,499	15.6%
2014	209,692	129,374	51,741	190	595	13	485	82	392,173	1,808,604	2,462,774	15.9%
2015	219,705	135,804	54,306	190	595	13	485	82	411,182	1,543,910	2,585,912	15.9%
2016	230,219	142,557	57,000	93	595	13	485	82	431,043	1,234,674	2,715,208	15.9%
2017	241,258	149,647	59,828	93	595	13	485	82	452,001	875,957	2,850,968	15.9%
2018	243,418	156,337	62,357	---	---	---	---	---	462,112	462,112	2,993,517	15.4%

Note: Numbers may not add because of rounding.

**Estimated pension fund progress**

Table 18 shows the pension fund's estimated progress for fiscal years 1999 through 2018. The July 1, 1998 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, 1997 valuation. Subsequent contributions are based on the July 1, 1998 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, 2018. 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, 1998 through June 30, 2018  
(dollars in thousands)**

<b>Fiscal Year Ending June 30</b>	<b>Fund at Beginning of Year</b>	<b>City Contributions<sup>a</sup></b>	<b>Employee Contributions<sup>a</sup></b>	<b>Benefit Payments<sup>a</sup></b>	<b>Investment Income</b>	<b>Net Increase</b>	<b>Fund at End of Year</b>
1999	2,921,358	245,743	45,737	410,662	268,617	149,436	3,070,794
2000	3,070,794	262,154	47,936	424,199	283,033	168,925	3,239,719
2001	3,239,719	267,790	50,333	440,075	298,137	176,186	3,415,905
2002	3,415,905	280,738	52,850	458,172	314,458	189,874	3,605,779
2003	3,605,779	308,201	55,492	479,577	333,174	217,290	3,823,069
2004	3,823,069	319,997	58,267	505,892	352,733	225,105	4,048,174
2005	4,048,174	322,650	61,180	536,115	372,002	219,718	4,267,892
2006	4,267,892	334,705	64,239	567,940	391,567	222,571	4,490,463
2007	4,490,463	347,680	67,451	602,726	411,345	223,751	4,714,214
2008	4,714,214	365,566	70,825	639,085	431,608	228,914	4,943,128
2009	4,943,128	371,188	74,365	676,277	451,202	220,478	5,163,606
2010	5,163,606	398,536	78,083	712,578	472,040	236,081	5,399,688
2011	5,399,688	419,289	81,987	750,268	493,635	244,644	5,644,331
2012	5,644,331	434,839	86,087	789,679	515,463	246,711	5,891,042
2013	5,891,042	451,359	90,391	828,792	537,588	250,545	6,141,587
2014	6,141,587	492,305	94,911	868,076	562,258	281,397	6,422,981
2015	6,422,981	524,681	99,656	906,622	588,976	306,691	6,729,672
2016	6,729,672	550,315	104,639	941,406	617,544	331,092	7,060,764
2017	7,060,764	577,134	109,871	972,598	648,588	362,995	7,423,759
2018	7,423,759	605,396	115,365	1,001,089	682,766	402,438	7,826,197

*Note:* Numbers may not add because of rounding.

a. City contributions are assumed to be made at the beginning of the year. Employee contributions and benefit payments are assumed to be made mid-year.

Data for active, retired, disabled, and terminated vested members as of July 1, 1998 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, 1998. 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, 1997 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, 1998.

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	+ 408	+ 1.3%
Retired	+ 152	+ 0.8%
Surviving spouses	+ 37	+ 0.5%
Other beneficiaries	+ 59	+ 5.0%
Disabled	- 81	- 1.6%
Terminated vested	<u>+ 50</u>	<u>+ 6.8%</u>
Total	+ 625	+ 1.0%

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
  - ▶ Returned to employment
  - ▶ 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 (M)	Municipal (Y)	Elected	Police	Fire	
<b>Active members</b>									
Active, July 1, 1997	15,188	3,511	1,646	958	5,339	25	3,086	774	30,527
New entrants and rehires	+ 107	+ 7	+ 2	+ 6	+ 1,573	+ 0	+ 573	+ 60	+ 2,328
Separations from active service									
Refunded contributions	- 150	- 0	- 0	- 24	- 265	- 0	- 26	- 3	- 468
Terminated vested	- 29	- 3	- 0	- 2	- 0	- 0	- 0	- 0	- 34
Became disabled	- 47	- 2	- 3	- 0	- 0	- 0	- 5	- 1	- 58
Retired	- 454	- 191	- 36	- 6	- 3	- 0	- 0	- 0	- 690
Net other terminations <sup>a</sup>	<u>- 337</u>	<u>- 22</u>	<u>- 9</u>	<u>- 43</u>	<u>- 248</u>	<u>- 0</u>	<u>+ 5</u>	<u>- 16</u>	<u>- 670</u>
Active, July 1, 1998	14,278	3,300	1,600	889	6,396	25	3,633	814	30,935
<b>Retired members</b>									
Retired, July 1, 1997	11,453	4,900	1,656	11	2	7	1	0	18,030
New retirees	+ 484	+ 201	+ 38	+ 6	+ 3	+ 0	+ 0	0	+ 732
Net other terminations	<u>- 418</u>	<u>- 97</u>	<u>- 64</u>	<u>- 0</u>	<u>- 0</u>	<u>- 0</u>	<u>- 1</u>	<u>- 0</u>	<u>- 580</u>
Retired, July 1, 1998	11,519	5,004	1,630	17	5	7	0	0	18,182
<b>Surviving spouses</b>									
Receiving benefit, July 1, 1997	4,325	1,930	959	5	0	1	5	2	7,227
New spouses	+ 249	+ 92	+ 61	+ 2	+ 1	+ 0	+ 2	+ 0	+ 407
Net other terminations	<u>- 216</u>	<u>- 99</u>	<u>- 55</u>	<u>- 0</u>	<u>- 0</u>	<u>- 0</u>	<u>- 0</u>	<u>- 0</u>	<u>- 370</u>
Receiving benefit, July 1, 1998	4,358	1,923	965	7	1	1	7	2	7,264

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 (M)	Municipal (Y)	Elected	Police	Fire	
<b>Other beneficiaries</b>									
Receiving benefit, July 1, 1997	934	164	48	9	0	0	17	5	1,177
New beneficiaries	+ 57	+ 6	+ 11	+ 0	+ 0	+ 0	+ 7	+ 1	+ 82
Net other terminations	- 15	- 7	- 1	- 0	- 0	- 0	- 0	- 0	- 23
Receiving benefit, July 1, 1998	976	163	58	9	0	0	24	6	1,236
<b>Disabled members</b>									
Disabled, July 1, 1997	2,191	2,303	580	2	2	0	18	1	5,097
New disabilities	+ 47	+ 2	+ 4	+ 0	+ 0	+ 0	+ 5	+ 1	+ 59
Net other terminations	- 72	- 50	- 21	- 0	- 0	- 0	+ 3	- 0	- 140
Disabled, July 1, 1998	2,166	2,255	563	2	2	0	26	2	5,016
<b>Terminated vested members</b>									
Terminated vested, July 1, 1997	678	46	7	5	0	2	0	1	739
New vested terminations	+ 29	+ 3	+ 0	+ 2	+ 0	+ 0	+ 0	+ 0	+ 34
Net other terminations	+ 25	- 10	+ 1	- 1	+ 1	- 0	- 0	- 0	+ 16
Terminated vested, July 1, 1998	732	39	8	6	1	2	0	1	789

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

	1967 Plan			Plan 87					Total
	Municipal	Police	Fire	Municipal (M)	Municipal (Y)	Elected	Police	Fire	
<b>Active members</b>									
Active as of July 1, 1997	\$ 538,161	\$ 146,260	\$ 68,080	\$ 34,082	\$ 147,939	\$ 1,740	\$ 105,445	\$ 25,942	\$ 1,067,649
New entrants and pay increases	<u>(3,519)</u>	<u>(2,984)</u>	<u>873</u>	<u>(224)</u>	<u>38,860</u>	<u>18</u>	<u>24,379</u>	<u>3,174</u>	<u>60,576</u>
Active as of July 1, 1998	\$ 534,641	\$ 143,277	\$ 68,953	\$ 33,858	\$ 186,799	\$ 1,758	\$ 129,824	\$ 29,115	\$ 1,128,225
<b>Retired members</b>									
Retired as of July 1, 1997	\$ 144,649	\$ 90,520	\$ 30,680	\$ 85	\$ 10	\$ 179	\$ 7	\$ 0	\$ 266,131
Net new retirees	<u>6,421</u>	<u>4,280</u>	<u>189</u>	<u>42</u>	<u>27</u>	<u>0</u>	<u>(7)</u>	<u>0</u>	<u>10,951</u>
Retired as of July 1, 1998	\$ 151,070	\$ 94,800	\$ 30,869	\$ 127	\$ 37	\$ 179	\$ 0	\$ 0	\$ 277,082
<b>Surviving spouses</b>									
Receiving benefit as of July 1, 1997	\$ 19,825	\$ 11,182	\$ 4,950	\$ 6	\$ 0	\$ 4	\$ 29	\$ 11	\$ 36,007
Net new spouses	<u>931</u>	<u>331</u>	<u>243</u>	<u>13</u>	<u>1</u>	<u>0</u>	<u>10</u>	<u>0</u>	<u>1,528</u>
Receiving benefit as of July 1, 1998	\$ 20,756	\$ 11,513	\$ 5,193	\$ 19	\$ 1	\$ 4	\$ 39	\$ 11	\$ 37,535
<b>Other beneficiaries</b>									
Receiving benefit as of July 1, 1997	\$ 3,998	\$ 852	\$ 272	\$ 28	\$ 0	\$ 0	\$ 80	\$ 23	\$ 5,253
Net new beneficiaries	<u>333</u>	<u>13</u>	<u>75</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>35</u>	<u>5</u>	<u>460</u>
Receiving benefit as of July 1, 1998	\$ 4,331	\$ 865	\$ 347	\$ 28	\$ 0	\$ 0	\$ 115	\$ 28	\$ 5,713

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 (M)	Municipal (Y)	Elected	Police	Fire	
<b>Disabled members</b>									
Disabled as of July 1, 1997	\$ 25,840	\$ 33,644	\$ 9,285	\$ 30	\$ 34	\$ 0	\$ 437	\$ 6	\$ 69,277
Net new disabilities	<u>201</u>	<u>(427)</u>	<u>(152)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>192</u>	<u>26</u>	<u>(152)</u>
Disabled as of July 1, 1998	\$ 26,041	\$ 33,217	\$ 9,134	\$ 30	\$ 34	\$ 0	\$ 629	\$ 33	\$ 69,118
<b>Terminated vested members</b>									
Terminated vested as of July 1, 1997	\$ 7,854	\$ 479	\$ 53	\$ 44	\$ 0	\$ 51	\$ 0	\$ 8	\$ 8,489
Net new vested terminations	<u>1,543</u>	<u>(7)</u>	<u>27</u>	<u>33</u>	<u>41</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,637</u>
Terminated vested as of July 1, 1998	\$ 9,397	\$ 472	\$ 80	\$ 77	\$ 41	\$ 51	\$ 0	\$ 8	\$ 10,126

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, 1998 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	2 26,193	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 26,193
20-24	5 26,306	2 32,536	0 0	0 0	0 0	0 0	0 0	0 0	0 0	7 28,086
25-29	25 28,553	148 32,664	14 31,959	0 0	0 0	0 0	0 0	0 0	0 0	187 32,049
30-34	30 30,106	484 33,609	287 34,007	33 36,080	0 0	0 0	0 0	0 0	0 0	834 33,718
35-39	32 28,047	619 32,567	844 37,568	326 38,608	23 39,038	0 0	0 0	0 0	0 0	1,844 35,926
40-44	28 35,437	609 32,000	855 37,527	676 41,508	446 39,489	56 38,648	0 0	0 0	0 0	2,670 37,603
45-49	18 45,102	461 31,924	699 34,953	521 39,397	794 42,403	639 40,769	75 41,172	1 37,759	0 0	3,208 38,445
50-54	18 33,030	309 31,488	494 35,162	405 39,666	538 39,981	808 42,734	398 41,690	46 41,647	0 0	3,016 39,226
55-59	7 38,032	194 31,631	272 34,303	220 36,012	221 36,999	249 41,379	225 42,169	108 40,067	11 35,263	1,507 37,385
60-64	2 28,300	126 29,671	135 35,286	116 35,863	99 40,244	92 37,289	55 41,440	38 42,983	39 41,010	702 36,532
65-69	3 41,547	45 26,040	46 31,887	27 38,229	25 30,528	22 43,304	11 33,169	4 47,515	18 43,654	201 34,089
70-74	0 0	9 17,649	19 27,545	14 29,579	10 39,060	4 17,789	3 45,683	2 46,932	7 42,932	68 30,725
75+	0 0	2 8,962	3 26,586	9 36,199	4 39,483	6 30,768	3 41,589	0 0	5 35,231	32 33,342
TOTAL	170 32,642	3,008 32,075	3,668 35,978	2,347 39,316	2,160 40,352	1,876 41,403	770 41,655	199 41,195	80 40,622	14,278 37,445

Note: Age represents attained age

William M. Mercer, Incorporated

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	2	1	1	0	0	0	0	0	0	4
	35,285	39,295	39,295	0	0	0	0	0	0	37,290
30-34	0	23	75	1	0	0	0	0	0	99
	0	39,073	41,584	39,995	0	0	0	0	0	40,985
35-39	2	11	335	190	0	0	0	0	0	538
	38,276	39,575	41,334	44,015	0	0	0	0	0	42,233
40-44	0	7	285	347	280	4	0	0	0	923
	0	39,933	40,811	43,522	44,919	45,172	0	0	0	43,088
45-49	0	3	157	143	345	265	1	0	0	914
	0	36,091	40,616	42,224	43,692	45,819	46,127	0	0	43,528
50-54	0	1	31	46	141	253	95	2	0	569
	0	39,295	40,341	40,557	42,228	44,742	47,819	64,293	0	44,114
55-59	0	0	0	0	33	58	89	25	0	205
	0	0	0	0	41,891	43,262	47,437	49,112	0	45,567
60-64	0	0	0	1	0	14	11	9	3	38
	0	0	0	37,688	0	41,154	42,283	57,904	73,292	47,894
65-69	0	0	0	0	0	0	2	0	4	6
	0	0	0	0	0	0	45,359	0	56,194	52,582
70-74	0	0	0	0	0	0	1	0	3	4
	0	0	0	0	0	0	40,745	0	58,237	53,864
75+	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>4</b>	<b>46</b>	<b>884</b>	<b>728</b>	<b>799</b>	<b>594</b>	<b>199</b>	<b>36</b>	<b>10</b>	<b>3,300</b>
	<b>36,781</b>	<b>39,139</b>	<b>41,022</b>	<b>43,195</b>	<b>43,789</b>	<b>44,996</b>	<b>47,273</b>	<b>52,154</b>	<b>61,936</b>	<b>43,417</b>

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	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
30-34	0	3	10	0	0	0	0	0	0	13
	0	36,988	40,574	0	0	0	0	0	0	39,746
35-39	0	4	123	7	0	0	0	0	0	134
	0	36,499	40,492	40,984	0	0	0	0	0	40,398
40-44	0	1	147	26	99	4	0	0	0	277
	0	34,682	40,620	42,267	44,545	43,052	0	0	0	42,191
45-49	0	2	57	44	317	116	6	0	0	542
	0	39,645	40,323	42,605	42,927	46,516	43,478	0	0	43,389
50-54	0	0	1	15	132	187	107	1	0	443
	0	0	45,027	40,693	41,978	43,440	46,198	59,258	0	43,617
55-59	0	0	0	0	3	58	68	35	0	164
	0	0	0	0	40,245	42,126	44,164	49,255	0	44,458
60-64	0	0	0	0	0	0	11	12	1	24
	0	0	0	0	0	0	43,260	45,521	46,127	44,510
65-69	0	0	0	0	0	0	0	2	0	2
	0	0	0	0	0	0	0	42,667	0	42,667
70-74	0	0	0	0	0	0	0	0	1	1
	0	0	0	0	0	0	0	0	52,263	52,263
75+	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	0	10	338	92	551	365	192	50	2	1,600
	0	37,093	40,535	42,074	42,975	44,204	45,225	48,295	49,195	43,026

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	4	0	0	0	0	0	0	0	0	4
	12,608	0	0	0	0	0	0	0	0	12,608
20-24	334	16	0	0	0	0	0	0	0	350
	24,495	26,268	0	0	0	0	0	0	0	24,576
25-29	1,176	102	4	0	0	0	0	0	0	1,282
	29,755	30,140	28,048	0	0	0	0	0	0	29,781
30-34	1,082	228	49	1	0	0	0	0	0	1,360
	29,927	36,575	31,738	32,641	0	0	0	0	0	31,117
35-39	948	209	71	4	0	0	0	0	0	1,232
	29,656	35,060	40,006	35,531	0	0	0	0	0	31,189
40-44	814	170	78	12	8	0	1	0	0	1,083
	28,978	36,822	38,809	32,000	32,823	0	26,001	0	0	30,977
45-49	577	148	49	3	8	12	0	0	0	797
	28,618	38,114	37,249	30,288	51,915	34,539	0	0	0	31,241
50-54	355	105	64	5	4	4	4	0	0	541
	29,927	36,490	33,718	66,570	32,246	45,510	40,832	0	0	32,166
55-59	204	65	28	4	5	2	1	3	0	312
	27,537	34,740	44,698	30,585	42,683	37,184	28,281	30,864	0	30,956
60-64	99	54	17	1	1	1	0	2	0	175
	23,875	35,887	34,521	33,480	26,440	9,209	0	28,940	0	28,660
65-69	47	28	7	0	0	2	0	0	2	86
	14,319	27,105	31,862	0	0	34,051	0	0	38,363	20,928
70-74	21	14	2	0	0	0	0	0	0	37
	10,542	11,985	20,063	0	0	0	0	0	0	11,603
75+	11	14	1	0	0	0	0	0	0	26
	6,440	15,900	29,182	0	0	0	0	0	0	12,408
TOTAL	5,672	1,153	370	30	26	21	6	5	2	7,285
	28,806	34,899	36,889	37,943	40,259	35,628	36,554	30,094	38,363	30,282

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	2	0	0	0	0	0	0	0	2
	0	65,000	0	0	0	0	0	0	0	65,000
40-44	0	1	1	0	0	0	0	0	0	2
	0	65,000	65,000	0	0	0	0	0	0	65,000
45-49	0	1	0	0	0	1	0	0	0	2
	0	85,000	0	0	0	67,000	0	0	0	76,000
50-54	1	1	0	3	1	1	0	0	0	7
	65,000	65,000	0	70,000	110,000	65,000	0	0	0	73,571
55-59	2	2	0	0	0	0	0	0	0	4
	65,000	86,686	0	0	0	0	0	0	0	75,843
60-64	0	1	1	1	0	0	0	0	0	3
	0	65,000	65,000	65,000	0	0	0	0	0	65,000
65-69	0	0	0	1	1	0	0	0	1	3
	0	0	0	67,000	67,500	0	0	0	68,000	67,500
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	1	1	0	0	0	0	0	2
	0	0	65,000	65,000	0	0	0	0	0	65,000
<b>TOTAL</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>25</b>
	65,000	72,922	65,000	67,833	88,750	66,000	0	0	68,000	70,315

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	9	0	0	0	0	0	0	0	0	9
	28,193	0	0	0	0	0	0	0	0	28,193
20-24	422	2	0	0	0	0	0	0	0	424
	30,756	31,525	0	0	0	0	0	0	0	30,760
25-29	788	300	2	0	0	0	0	0	0	1,090
	32,822	39,563	36,865	0	0	0	0	0	0	34,684
30-34	472	665	2	1	2	0	0	0	0	1,142
	33,598	39,723	34,088	39,295	38,101	0	0	0	0	37,178
35-39	212	365	4	3	0	0	0	0	0	584
	33,453	39,444	37,765	38,104	0	0	0	0	0	37,502
40-44	70	225	1	4	0	0	0	0	0	300
	32,857	39,444	39,645	39,948	0	0	0	0	0	37,914
45-49	37	38	1	0	0	0	0	0	0	76
	31,898	39,218	39,295	0	0	0	0	0	0	35,656
50-54	4	0	0	0	1	0	0	0	0	5
	33,255	0	0	0	40,245	0	0	0	0	34,653
55-59	2	1	0	0	0	0	0	0	0	3
	34,257	36,988	0	0	0	0	0	0	0	35,167
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
<b>TOTAL</b>	2,016	1,596	10	8	3	0	0	0	0	3,633
	32,603	39,663	37,190	39,176	38,816	0	0	0	0	35,735

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	31	0	0	0	0	0	0	0	0	31
	29,674	0	0	0	0	0	0	0	0	29,674
25-29	151	14	0	0	0	0	0	0	0	165
	31,991	40,044	0	0	0	0	0	0	0	32,674
30-34	158	102	1	0	0	0	0	0	0	261
	33,082	40,165	30,034	0	0	0	0	0	0	35,839
35-39	100	125	1	1	0	0	0	0	0	227
	33,982	40,301	39,295	39,295	0	0	0	0	0	37,508
40-44	25	70	0	0	0	0	0	0	0	95
	33,820	39,998	0	0	0	0	0	0	0	38,372
45-49	11	19	0	0	1	0	0	0	0	31
	31,790	39,504	0	0	39,645	0	0	0	0	36,771
50-54	1	1	0	0	0	0	1	0	0	3
	34,678	43,140	0	0	0	0	43,840	0	0	40,553
55-59	1	0	0	0	0	0	0	0	0	1
	28,834	0	0	0	0	0	0	0	0	28,834
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
<b>TOTAL</b>	478	331	2	1	1	0	1	0	0	814
	32,708	40,147	34,665	39,295	39,645	0	43,840	0	0	35,768

Note: Age represents attained age

29. Terminated vested (1967 Plan and Plan 87) members, July 1, 1998

Age	Municipal Members		Police Members		Fire Members	
	People	Monthly Pension	People	Monthly Pension	People	Monthly Pension
UNDER 40	18	\$ 14,896.42	11	\$10,975.08	2	\$ 1,386.67
40-44	120	110,450.50	24	25,599.58	5	4,248.00
45-49	266	300,195.50	2	1,106.83	1	1,205.83
50-54	282	329,175.42	0	0.00	0	0.00
55-59	34	27,372.75	1	594.00	0	0.00
60-64	8	4,440.58	0	0.00	1	502.32
OVER 64	13	10,623.17	1	1,069.58	0	0.00
TOTAL	741	\$797,154.17	39	\$39,345.00	9	\$7,342.75

Average Monthly Pension

Municipal	\$1,076
Police	\$1,009
Fire	\$ 816

Note: Numbers may not add because of rounding.

30. Disabled (1967 Plan and Plan 87) members, July 1, 1998

Age	Municipal Members		Police Members		Fire Members	
	People	Monthly Pension	People	Monthly Pension	People	Monthly Pension
UNDER 40	39	\$ 54,480.25	65	\$ 123,681.41	5	\$ 7,367.42
40-44	89	113,819.92	129	226,966.67	14	25,396.58
45-49	200	252,892.83	294	474,333.50	63	106,849.67
50-54	302	407,894.92	473	703,207.25	113	164,149.24
55-59	365	419,839.25	377	448,884.83	125	180,885.50
60-64	298	300,195.50	253	254,641.17	58	83,234.92
65-69	285	232,344.83	287	248,249.08	46	61,394.92
70-74	275	203,653.17	237	206,391.75	48	52,769.00
75-79	190	119,282.00	88	74,275.67	57	52,708.08
80-84	93	50,299.33	64	50,164.17	21	17,283.33
OVER 84	34	20,695.00	14	9,746.08	15	11,816.08
TOTAL	2,170	\$2,175,397.08	2,281	\$2,820,541.50	565	\$763,854.83

Average Monthly Pension	
Municipal	\$1,002
Police	\$1,237
Fire	\$1,352

Note: Numbers may not add because of rounding.

31. Retired (1967 Plan and Plan 87) members, July 1, 1998

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	7.00	0	0.00	0	0.00
45-49	4	24.25	405	735,143.83	62	103,138.83
50-54	4	4,216.50	968	1,808,537.67	241	475,624.50
55-59	1,189	2,016,536.17	1,139	1,925,685.33	311	613,917.08
60-64	1,878	2,820,686.33	889	1,360,707.33	262	475,649.67
65-69	2,454	3,018,085.92	732	1,047,635.50	151	239,285.17
70-74	2,335	2,399,899.08	456	639,034.33	167	239,356.17
75-79	1,805	1,364,108.75	143	163,376.42	191	207,783.08
80-84	1,093	639,508.00	164	142,610.75	154	142,705.58
OVER 84	785	354,678.75	108	77,273.33	91	74,967.67
TOTAL	11,548	\$12,617,750.67	5,004	\$7,900,004.33	1,630	\$2,572,427.75

Average Monthly Pension	
Municipal	\$1,093
Police	\$1,579
Fire	\$1,578

Note: Numbers may not add because of rounding.

32. Beneficiaries (1967 Plan and Plan 87) members, July 1, 1998

Age	Municipal Members		Police Members		Fire Members	
	People	Monthly Pension	People	Monthly Pension	People	Monthly Pension
UNDER 40	334	\$ 129,958.58	115	\$ 52,843.59	43	\$ 21,267.00
40-44	45	19,562.00	13	13,106.75	2	2,679.67
45-49	174	87,523.92	73	57,192.58	27	23,205.67
50-54	198	106,547.00	154	117,251.92	38	26,324.58
55-59	322	183,396.33	184	126,117.92	43	36,255.59
60-64	456	252,024.42	214	127,455.00	42	27,396.25
65-69	849	396,198.00	327	179,907.84	117	65,701.75
70-74	799	310,496.42	254	124,831.75	148	71,621.50
75-79	839	279,737.50	247	91,351.58	161	58,849.51
80-84	671	187,117.00	256	79,315.75	243	80,806.67
OVER 84	665	142,274.33	280	74,930.67	167	50,774.42
TOTAL	5,352	\$2,094,835.33	2,117	\$1,044,305.50	1,031	\$464,882.58

Average Monthly Pension	
Municipal	\$ 391
Police	\$ 493
Fire	\$ 451

Note: Numbers may not add because of rounding.

The July 1, 1998 Retirement System net assets are \$3,248,877,534 on a market value basis and \$2,840,546,660 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, 1998
- Table 36 summarizes 1998 fiscal year administrative expenses
- Table 37 shows July 1, 1998 adjusted market value of assets under the five-year spread gain asset valuation method
- Table 38 shows the July 1, 1998 allocation of adjusted assets among all divisions.

Table 34, showing the fund's receipts and disbursements during the fiscal year ending June 30, 1998, also notes that employee, City, and state contributions are approximately 45% of the yearly receipts 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, 1997	June 30, 1998
Cost value	13.3%	14.1%
Market value	18.3%	14.3%
Adjusted market value	12.2%	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, 1997 valuation assets. The noninvestment transactions (item 2), other than administrative expenses attributable to each division, were provided by the City of Philadelphia's Finance Department. Administrative expenses were allocated according to the member count of each division at the beginning of the fiscal year. Investment income (after investment expenses) was allocated in proportion to the fund balance of each division before investment income.

## 33. Statement of assets and liabilities (fiscal year ending June 30, 1998)

	Cost Value	Market Value
<b>Assets</b>		
Cash	\$ 182,667,881	\$ 182,667,881
Investment accounts	2,727,112,384	3,135,443,258
Accounts receivable	6,960,946	6,960,946
Interest and dividends receivable	19,661,551	19,661,551
Due from other funds	2,046,447	2,046,447
Due from other governmental units	1,085,505	1,085,505
Other assets	<u>11,220</u>	<u>11,220</u>
<b>Total assets</b>	<b>\$2,939,545,934</b>	<b>\$ 3,347,876,808</b>
<b>Liabilities</b>		
Vouchers payable	\$ 41,081	\$ 41,081
Accounts payable	3,006,765	3,006,765
Salaries and wages payable	96,797	96,797
Accrued expenses	463,398	463,398
Funds held in escrow	---	---
Deferred revenue	4,783,927	4,783,927
Other liabilities	<u>90,607,306</u>	<u>90,607,306</u>
<b>Total liabilities</b>	<b>\$ 98,999,274</b>	<b>\$ 98,999,274</b>
<b>Fund balance</b>	<b>\$ 2,840,546,660</b>	<b>\$ 3,248,877,534</b>

## 34. Statement of receipts and disbursements

	Cost Value	Market Value
Balance as of July 1, 1997	\$ 2,566,957,614	\$ 2,921,182,544
<b>Receipts</b>		
Contributions:		
Commonwealth of Pennsylvania <i>Supplemental State Assistance (Act 205)</i>	\$ 0	\$ 0
City of Philadelphia <sup>a</sup>	252,079,988	252,079,988
Employees	47,811,748	47,811,748
Quasi-public agencies	4,935,212	4,935,212
Interest and dividends	115,263,336	115,263,336
Gain from sale of investments	254,262,614	254,262,614
Miscellaneous operating revenues	<u>2,792,368</u>	<u>2,792,368</u>
Total receipts	\$ 677,145,266	\$ 677,145,266
<b>Disbursements</b>		
Withdrawals	\$ 3,193,824	\$ 3,193,824
Benefit payments	383,340,814	383,340,814
Administrative expenses	3,953,359	3,953,359
Investment manager fees	<u>13,068,223</u>	<u>13,068,223</u>
Total disbursements	\$ 403,556,220	\$ 403,556,220
Change in unrealized appreciation/(depreciation)	\$ ---	\$ 54,105,944
Balance as of July 1, 1998	\$ 2,840,546,660	\$ 3,248,877,534
Approximate return on investments during year	14.1%	14.3%

a. Includes Commonwealth of Pennsylvania general state assistance (\$32,877,029) and COLA reimbursement (\$3,579,560).

**35. Fiscal 1998 City contributions**

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<b>Date</b>	<b>Amount</b>
July 3, 1997	\$ 190,200,000
August 1, 1997	51,350,000
June 30, 1998	10,529,988
Various (Quasi-public agencies)	3,849,707
Accrued	<u>1,085,505<sup>a</sup></u>
<b>Total</b>	<b>\$257,015,200</b>

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- a. City-accrued contributions are \$0; quasi-public agencies accrued contributions are \$1,085,505.

**36. Statement of administrative expenses for  
year ending June 30, 1998**

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Personal services	\$ 2,216,764
Purchase of services	711,565
Materials and supplies	78,640
Employer's share of fringe benefits	857,017
Miscellaneous	<u>89,373</u>
Total	\$ 3,953,359

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37. Derivation of assets for valuation purposes as of July 1, 1998  
5-year spread gain method

July 1	Total Gain or (Loss)	Year of Recognition					Unrecognized Amount
		1998	1999	2000	2001	2002	
1994	\$(157,677,827)	\$(31,535,566)	—	—	—	—	\$ 0
1995	55,532,304	11,106,461	11,106,460	—	—	—	11,106,460
1996	138,209,192	27,641,838	27,641,839	27,641,839	—	—	55,283,678
1997	233,367,648	46,673,530	46,673,530	46,673,529	46,673,529	—	140,020,588
1998	151,386,333	30,277,267	30,277,267	30,277,267	30,277,266	30,277,266	121,109,066
Total		84,163,530	115,699,096	104,592,635	76,950,795	30,277,266	\$ 327,519,792
1.	July 1, 1998 market value			\$3,248,877,534			
2.	Unrecognized gain/(loss)			<u>327,519,792</u>			
3.	July 1, 1998 adjusted market (1) - (2)			\$2,921,357,742			
4.	Approximate return on investments during year			13.1%			

38. Allocation of assets for valuation purposes between divisions as of June 30, 1998 (thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Assets for valuation purposes as of June 30, 1997	\$ 1,420,000	\$ 753,007	\$ 325,346	\$ 65,617	\$ 3,948	\$ 74,508	\$ 18,459	\$ 2,660,886
2. Transactions during period July 1, 1997 - June 30, 1998:								
a. Contributions								
City and commonwealth	\$ 116,633	\$ 86,614	\$ 28,334	\$ 10,729	\$ 449	\$ 7,665	\$ 1,656	\$ 252,080
Employees	21,218	9,120	4,274	5,225	166	6,323	1,456	47,783
Quasi-public agencies	4,935	0	0	0	0	0	0	4,935
Employee contributions receivable <sup>a</sup>	28	0	0	0	0	0	0	28
b. Miscellaneous income and expenses	1,546	572	218	282	2	139	35	2,792
c. Pension benefits	198,386	138,584	45,333	201	183	603	51	383,341
d. Withdrawals	1,752	233	74	726	0	359	50	3,194
e. Administrative expenses <sup>b</sup>	2,189	809	308	398	2	197	49	3,953
f. Net transactions (a) + (b) - (c) - (d) - (e)	\$ (57,967)	\$ (43,320)	\$ (12,890)	\$ 14,910	\$ 432	\$ 12,968	\$ 2,998	\$ (82,869)
3. Total fund balance prior to allocation of realized and unrealized income (1) + (2f)	\$ 1,362,034	\$ 709,687	\$ 312,456	\$ 80,528	\$ 4,380	\$ 87,476	\$ 21,457	\$ 2,578,017
4. Realized and unrealized income for period July 1, 1997 - June 30, 1998 (allocated in proportion to (3))	181,396	94,516	41,613	10,725	583	11,650	2,858	343,341
5. Assets for valuation purposes as of June 30, 1998 (3) + (4)	\$ 1,543,430	\$ 804,203	\$ 354,069	\$ 91,253	\$ 4,963	\$ 99,126	\$ 24,314	\$ 2,921,358

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, 1997.

1967 PLAN

MUNICIPAL (PLAN J)

UNIFORMED (PLANS D AND X)

<b>Participation</b>	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.	Same as municipal.
<b>Credited service</b>	Credited service means the period of employment with the City during which the employee makes contributions to the Retirement System. Certain leaves of absence may also be credited.	Same as municipal.
<b>Total compensation</b>	<p>Total compensation means:</p> <ul style="list-style-type: none"> <li>■ For members represented by AFSCME District Council 33, AFL-CIO or District Council 47, AFL-CIO or employees of the Common Pleas Court, the base rate of pay, longevity payments, and overtime received during a 12-month period.</li> <li>■ For members who hold an elected office, exempt position or other position not represented by a union, the base rate of pay and longevity payments received during 12-month period.</li> </ul>	Total compensation means the base rate of pay and longevity payments received during a 12-month period.
<b>Final compensation</b>	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.	Same as municipal.

1967 PLAN

MUNICIPAL (PLAN J)

UNIFORMED (PLANS D AND X)

**Average final compensation**

Average final compensation means:

- For members represented by AFSCME District Council 33, AFL-CIO or District Council 47, AFL-CIO or employees of the Common Pleas Court, Municipal Court, or Traffic Court, the arithmetic average of the total compensation received during the three calendar or anniversary years that produces the highest average
- For members who hold an elected office, exempt position or other positions not represented by a union, the arithmetic average of the total compensation received during the three calendar or anniversary years that produces the highest average.

Average final compensation means the highest of:

- 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**

Each employee who participates in the Social Security System, contributes 3¼% of total compensation up to the taxable wage base (\$65,400 in 1997 and \$68,400 in 1998) and 6% of total compensation above the taxable wage base to the Retirement System.

Same as municipal.

Each employee who does not participate in the Social Security System contributes 6% of his total compensation to the Retirement System.

**Service retirement**

*Eligibility*

Each municipal employee is eligible to retire and receive a service pension at age 55 with one year of service.

Each uniformed employee is eligible to retire and receive a service pension at age 45.

1967 PLAN		
	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
<i>Benefit amount</i>	The service pension equals 2½% of the employee's average final compensation multiplied by years credited service to a maximum of 20 years plus 2% of the employee's average final compensation multiplied by years credited service above 20, to a maximum of 80% of the employee's average final compensation.	The service pension equals a 2½% of the employee's average final compensation multiplied by years credited service, subject to a maximum of 100% of average final compensation.
<b>Deferred vested retirement</b>		
<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>	
<b>Withdrawal benefit</b>	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>
<b>Service-connected disability</b>		
<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>
<b>Ordinary disability</b>		
<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.
<b>Service-connected disability periodic adjustment</b>		
<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		
	<i>MUNICIPAL (PLAN J)</i>	<i>UNIFORMED (PLANS D AND X)</i>
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>
<b>Minimum pension</b>	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.
<b>Waiver of benefit</b>	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.
<b>Service-connected health care benefit</b>	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).

**PLAN 87**

*MUNICIPAL (PLANS M AND Y)*

*UNIFORMED (PLANS A AND B)*

<b>Participation</b>	Full-time employees participate on their date of employment. Temporary employees participate after completing six months employment. Plan M participation is limited to employees hired on or after January 8, 1987 and before October 2, 1992. Municipal members hired on or after October 2, 1992 will participate in Plan Y. Any member of the 1967 Plan may irrevocably elect to participate in Plan 87.	Same as municipal.
<b>Credited service</b>	Credited service means the period of employment with the City during which the employee makes contributions to the Retirement System. Certain leaves of absence may also be credited.	Same as municipal.
<b>Total compensation</b>	Total compensation means the base rate of pay and longevity payments received during a 12-month period. For Plan Y municipal members, total compensation shall include overtime or holiday overtime.	Same as municipal.
<b>Final compensation</b>	Final compensation means the annual base rate of pay at the time of termination, including supplementary compensation received under Civil Service Regulation No. 32.	Same as municipal.
<b>Average final compensation</b>	Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years producing the highest average.	Average final compensation means the arithmetic average of the total compensation received during the two calendar or anniversary years producing the highest average.
<b>Employee contributions</b>	Total employee contributions equal 30% of the gross normal cost for all members in the municipal division.	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.

PLAN 87

MUNICIPAL (PLANS M AND Y)

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.

Each uniformed employee is eligible to retire and receive a service pension upon reaching age 50 and 10 or more 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 is eligible for a deferred vested retirement benefit if his or her contributions have not been withdrawn.

Same as municipal.

PLAN 87

MUNICIPAL (PLANS M AND Y)

UNIFORMED (PLANS A AND B)

<i>Benefit amount</i>	<p>The annual deferred vested benefit is determined the same as service pensions, based on average final compensation and credited service at termination. This benefit begins at the service retirement date. If a member dies before the deferred vested benefit begins, an ordinary death benefit is payable (see Ordinary Death below).</p> <p>As an alternative, the person terminating employment may request at any time before benefits begin a return of employee contributions (without interest) instead of the deferred vested benefit.</p>	
<b>Withdrawal benefit</b>	<p>Each terminating employee who has completed fewer than 10 years of credited service will receive a withdrawal benefit equal to employee contributions (without interest).</p>	Same as municipal.
<b>Service-connected death</b>		
<i>Eligibility</i>	<p>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.</p>	Same as municipal.
<i>Benefit amount</i>	<p>The death benefit equals the sum of the total employee contributions paid to the Retirement System (without interest), plus a yearly payment of 60% of the employee's final compensation reduced by any death benefits payable under the Workers' Compensation Act.</p> <p>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.</p>	Same as municipal.

PLAN 87

MUNICIPAL (PLANS M AND Y)

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 (PLANS M AND Y)

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 (PLANS M AND Y)

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 (PLANS M AND Y)

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 (PLANS M AND Y)

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).

## PLAN 87

*Elected Plan*

<b>Participation</b>	Any City employee elected on or after January 8, 1987, in any general, municipal, or special election, participates in this Plan.
<b>Credited service</b>	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.
<b>Total compensation</b>	Total compensation means the base rate of pay and longevity payments received during a 12-month period.
<b>Final compensation</b>	Final compensation means the annual base rate of pay at the time of termination, including supplementary compensation received under Civil Service Regulation No. 32.
<b>Average final compensation</b>	Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years that produce the highest average.
<b>Employee contributions</b>	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.
<b>Service retirement</b>	
<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.
<i>Benefit amount</i>	The service pension equals 3.5% of the employee's average final compensation multiplied by years credited service.
<b>Early retirement</b>	
<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.
<b>Deferred vested retirement</b>	
<i>Eligibility</i>	A person terminating employment and who has completed 10 or more years credited service is eligible for a deferred vested retirement benefit provided he or she has not withdrawn contributions.

## PLAN 87

*Elected Plan***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.

**Ordinary disability**

PLAN 87

*Elected Plan*

<i>Eligibility</i>	An active employee found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he or she has completed at least 10 years credited service.
<i>Benefit amount</i>	The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement.
<i>Benefit offset</i>	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.
<b>Service-connected disability periodic adjustment</b>	
<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.
<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 until the employee's 65th birthday.
<b>Survivor benefits</b>	<p>Service pensions, deferred vested benefits, service-connected disability benefits, and ordinary disability benefits are payable under three optional forms. Options 2 and 3 provide benefits actuarially equivalent to a lifetime only pension while option 1 has no reduction.</p> <p><i>Option 1</i> - A benefit is payable to the employee providing upon death, the beneficiary will receive a lump sum equal to the excess, if any, of the employee's contributions over the sum of the payments received.</p> <p><i>Option 2</i> - A reduced benefit payable to the employee providing 100% of the reduced benefit will continue to be paid to the designated beneficiary for life after the death of the employee.</p> <p><i>Option 3</i> - Same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.</p>
<b>Service-connected health care benefit</b>	Not applicable.

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, 1998.

**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, 1998, 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	.006913
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 <sup>b</sup>	Full Benefits		Reduced Benefits <sup>b</sup>	Full Benefits	
		First Year Eligible <sup>a</sup>	Subsequent Years		First Year Eligible <sup>a</sup>	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 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		Age	Adjustment Factor	
	Unisex			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, 2000 is \$194,138,000. This amount is summarized by division in Table 45 and is based on the July 1, 1998 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 1999, the total state payments are \$35,679,000. Amounts received during fiscal 2000 may be used to meet the \$194,138,000 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%, but do not reflect the 15-year phase-in allowed in Act 205.

**45. MMO calculation for fiscal 2000 (July 1, 1998 valuation report)**

	Fiscal 2000 (dollars in thousands)			
	Non-Uniformed	Police	Fire	Total
Estimated FY 1999 payroll	\$ 771,109	\$ 278,978	\$ 99,568	\$ 1,149,655
Normal cost percent	7.686%	11.576%	12.072%	9.009%
Normal cost	\$ 59,391	\$ 32,410	\$ 12,046	\$ 103,847
Amortization payment <sup>a</sup>	66,573	54,554	11,234	132,361
Administrative expense	<u>3,003</u>	<u>1,187</u>	<u>410</u>	<u>4,600</u>
Subtotal	\$ 128,967	\$ 88,151	\$ 23,690	\$ 240,808
Expected member contributions	<u>(25,542)</u>	<u>(15,446)</u>	<u>(5,682)</u>	<u>(46,670)</u>
MMO - (Pre-POB) <sup>b</sup>	\$ 103,425	\$ 72,705	\$ 18,008	\$ 194,138
MMO - (Post-POB) <sup>c</sup>	\$ 72,196	\$ 47,115	\$ 12,739	\$ 132,050

- 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.
- Includes general pension state aid and state cost-of-living adjustment reimbursement. For fiscal 1999, the total is \$35,679 (thousands). Also includes quasi agencies.
- The Pension Obligation Bond of \$1,250,000,000 reduces the \$2,664,776,245 July 1, 1998 actuarial accrued liability to \$1,414,776,246. The lower actuarial accrued liability results in the amortization payments being reduced by 46.91% (the amount of the P.O.B. relative to the unreduced actuarial accrued liability.)

**MINIMUM MUNICIPAL OBLIGATION**

**46. Unfunded liability payments toward MMO for fiscal 2000 (thousands) — July 1, 1996 valuation report**

	Municipal				Police				Fire			
	July 1, 1998 Remaining Balance	Years Remaining	Amortization Payment									
Original July 1, 1985 unfunded actuarial accrued liability	\$1,524,412	27	\$88,016*	\$978,586	27	\$56,501*	\$190,241	27	\$22,523*			
July 1, 1986 additional amounts												
Active	\$ 2,901	9	\$ 444	\$ 252	9	\$ 39	\$ 125	9	\$ 19			
(Gain)/loss	<u>(32,249)</u>	4	<u>(9,274)</u>	<u>(15,348)</u>	4	<u>(4,146)</u>	<u>(7,814)</u>	4	<u>(2,213)</u>			
Subtotal†	\$ (29,847)		\$ (9,830)	\$ (15,096)		\$ (4,308)	\$ (7,689)		\$ (2,194)			
July 1, 1987 additional amounts												
(Gain)/loss	\$ (3,256)	5	\$ (768)	\$ 6,343	5	\$ 1,496	\$ 971	5	\$ 227			
July 1, 1988 additional amount												
(Gain)/loss	\$ 24,886	6	\$ 5,090	\$ 23,476	6	\$ 4,801	\$ 1,852	6	\$ 379			
July 1, 1989 additional amounts												
Active	\$ 29,875	12	\$ 5,303	\$ 8,354	12	\$ 1,483	\$ 3,884	12	\$ 689			
(Gain)/loss	<u>(6,198)</u>	7	<u>(1,870)</u>	<u>8,433</u>	7	<u>2,544</u>	<u>2,557</u>	7	<u>772</u>			
Assumption change	<u>(32,602)</u>	12	<u>(5,789)</u>	<u>(9,484)</u>	12	<u>(1,684)</u>	<u>(3,803)</u>	12	<u>(625)</u>			
Subtotal†	\$ (8,932)		\$ (2,356)	\$ 7,302		\$ 2,344	\$ 2,638		\$ 786			
July 1, 1990 additional amount												
(Gain)/loss	\$ (30,856)	8	\$ (7,637)	\$ 32,447	8	\$ 8,031	\$ 6,538	8	\$ 1,618			
July 1, 1991 additional amount												
(Gain)/loss	\$ (7,100)	9	\$ (1,509)	\$ (6,597)	9	\$ (1,478)	\$ (3,153)	9	\$ (670)			
July 1, 1992 additional amounts												
Active	\$ 843	15	\$ 119	\$ 0		\$ 0	\$ 0		\$ 0			
(Gain)/loss	<u>(52,171)</u>	10	<u>(10,750)</u>	<u>(6,247)</u>	10	<u>(1,262)</u>	<u>(2,288)</u>	10	<u>(524)</u>			
Subtotal†	\$ 58,014		\$ 10,869	\$ (6,747)		\$ (1,269)	\$ (2,788)		\$ (524)			

**MINIMUM MUNICIPAL OBLIGATION**

	Municipal			Police			Fire		
	July 1, 1998 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1998 Remaining Balance	Years Remaining	Amortization Payment	July 1, 1998 Remaining Balance	Years Remaining	Amortization Payment
<b>July 1, 1993 additional amounts</b>									
Nonactive	\$ 240	6	\$ 72	\$ 0		\$ 0	\$ 0		\$ 0
Active	(2,311)	16	(307)	(1,537)	16	(204)	0		0
(Gain)/loss	(37,445)	11	(6,369)	(29,510)	11	(5,020)	(11,894)	11	(2,023)
Assumption change	(22,746)	16	(3,024)	183	16	24	(4,238)	16	(563)
Subtotal <sup>a</sup>	\$ (62,262)		\$ (9,629)	\$ (30,864)		\$ (5,199)	\$ (16,132)		\$ (2,587)
<b>July 1, 1994 additional amount</b>									
(Gain)/loss	\$ (17,717)	12	\$ (2,771)	\$ (2,710)	12	\$ (424)	\$ (10,505)	12	\$ (1,643)
<b>July 1, 1995 additional amounts</b>									
Active	\$ 835	17	\$ 90	\$ 0	12	\$ 0	\$ 0	12	\$ 0
(Gain)/loss	(13,725)	12	(1,758)	922		118	(5,957)		(763)
Subtotal	\$ 14,560		\$ 1,848	\$ 922		\$ 118	\$ (5,957)		\$ (763)
<b>July 1, 1996 additional amounts</b>									
(Gain)/loss	\$ 9,946	13	\$ 1,219	\$ 4,881	13	\$ 598	\$ (4,244)	13	\$ (520)
<b>July 1, 1997 additional amounts</b>									
Assumption change	\$ 90,698	19	\$ 9,297	\$ 11,099	19	\$ 1,138	\$ 4,675	19	\$ 479
(Gain)/loss	(107,579)	14	(12,676)	(41,289)	14	(4,865)	(22,601)	14	(3,252)
Subtotal <sup>a</sup>	\$ (16,881)		\$ (3,379)	\$ (30,190)		\$ (3,727)	\$ (22,927)		\$ (2,773)
<b>July 1, 1998 additional amounts</b>									
(Gain)/loss	\$ (31,540)	15	\$ (3,590)	\$ (25,746)	15	\$ (2,930)	\$ (23,143)	15	\$ (2,614)
<b>Total unfunded actuarial accrued liability<sup>b</sup></b>	\$ 1,423,427	—	\$ 66,574	\$ 935,647	—	\$ 54,544	\$ 305,702	—	\$ 11,234

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.

47. Estimated FY 2000 City contributions post Pension Obligation Bond (thousands)

	1967 Plan			Plan 87					
	Municipal	Police	Fire	Municipal (M)	Municipal (Y)	Elected	Police	Fire	Total
Normal cost									
Percentage (beginning of year payment)	4.687%	7.306%	7.128%	5.014%	5.060%	5.464%	5.594%	6.018%	5.380%
Estimated cost*	\$ 25,060	\$ 10,467	\$ 4,915	\$ 1,698	\$ 9,453	\$ 96	\$ 7,262	\$ 1,752	\$ 60,704
Amortization payment	\$ 53,779	\$ 41,597	\$ 11,473	\$ (732)	\$ 272	\$ 151	\$ (840)	\$ (358)	\$ 105,342
Total	\$ 78,839	\$ 52,064	\$ 16,388	\$ 966	\$ 9,725	\$ 247	\$ 6,422	\$ 1,394	\$ 166,046

a. Based on July 1, 1998 payroll. Actual normal cost will be based on actual fiscal 2000 payroll.

Note: Numbers may not add due to rounding.

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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 48 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 49.

#### 48. 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%

## 49. Schedule of contributions from the employer and other contributing entities

Fiscal Year	Annual Required Contributions <sup>a</sup>	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%

- 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.

**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 new 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, 1998. 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.

