

**City of Philadelphia Municipal  
Retirement System**

**July 1, 2001  
Actuarial Valuation Report**

March 2002

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Actuarial Valuation Report**

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## EXECUTIVE SUMMARY

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This report presents the actuarial valuation of the costs and liabilities for the City of Philadelphia Municipal Retirement System as of July 1, 2001 and City contributions for the fiscal year ending June 30, 2003. This section summarizes the valuation results and discusses changes in the System's costs and liability arising from plan changes, changes in assumptions to reflect this year's experience study results and experience for the year ending June 30, 2001.

### Findings summary

Table 1 shows actuarial valuation results for all divisions as of July 1, 2001.

#### 1. July 1, 2001 actuarial valuation (dollars in thousands)

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Participants	
Active	29,322
Retired	18,081
Beneficiaries	8,577
Disabled	4,767
Terminated vested	709
DROP	<u>2,321<sup>c</sup></u>
Total	63,777
Total annual salaries	\$ 1,180,398
Net actuarial accrued liability	\$ 6,379,819
Unfunded actuarial accrued liability	\$ 1,436,369
Assets for valuation purposes	\$ 4,943,450
Funding percent	77.5%
City normal cost as percent of payroll (beginning-of-year payment)	5.406%
Fiscal 2003 funding requirements (beginning-of-year payments)	
City's funding policy	\$ 191,752 <sup>a, b</sup>
Minimum municipal obligation	\$ 142,400 <sup>a</sup>

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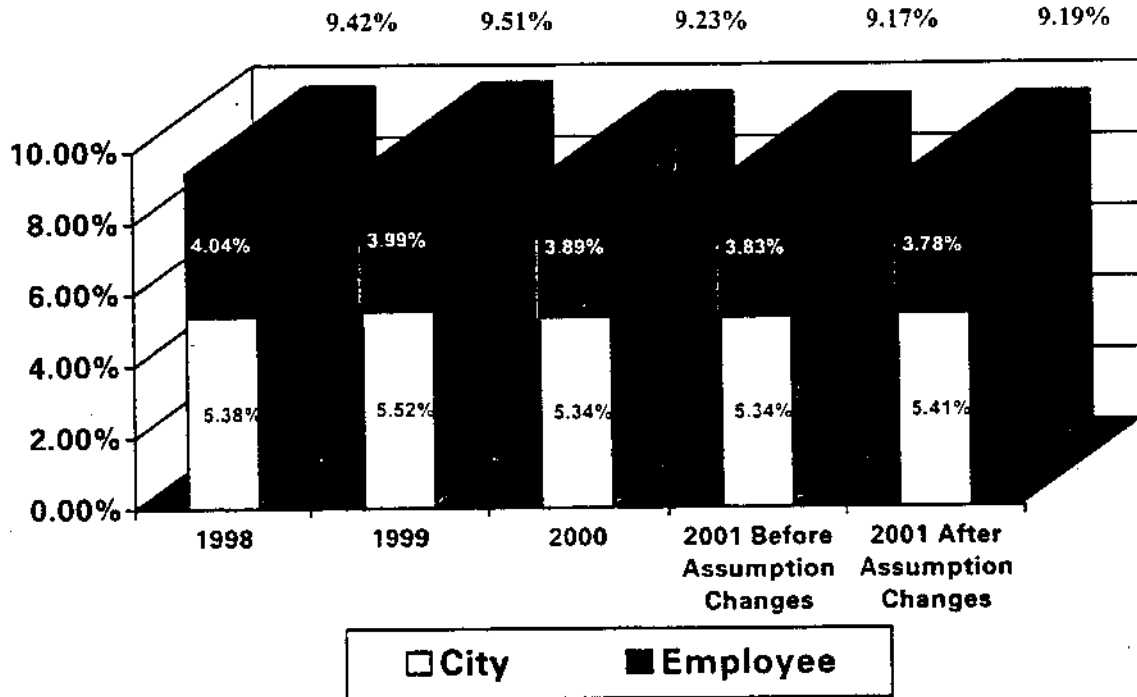
- a. The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal 2001, these totaled \$36,426,000.
- b. Based on July 1, 2001 payroll. Final contribution will be based on actual fiscal 2003 payroll.
- c. While still active employees, the Deferred Retirement Option Plan (DROP) participants are treated as retired for valuation purposes since they no longer accrue benefits.

## EXECUTIVE SUMMARY

### Normal cost

The total normal cost is the cost of one year's accrual of projected benefits. The City's normal cost equals the total normal cost *less* expected employee contributions. The total normal cost percentage declined this year. The change in actuarial assumptions has resulted in a slight increase in the normal cost rate. The following graph is a four-year history of the total normal cost with employee and City components as a percent of pay.

#### 2. Total normal cost - percent of pay



### Unfunded actuarial accrued liability

From July 1, 2000 through June 30, 2001, the unfunded actuarial accrued liability increased \$7,953,000 from \$1,428,416,000 to \$1,436,369,000 because:

- The valuation assets had a return of 8.3% during the year. We assume the valuation assets will have a 9% return. This was the primary cause for the increase in unfunded liability.
- While upgrading the valuation software, we made additional changes to the programming to more appropriately value the timing of benefit accruals. This change resulted in increasing the liability. (Note that this change was included as an assumption change for amortization purposes.)

## EXECUTIVE SUMMARY

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- The June 30, 1985 unfunded liability, which is amortized with payments increasing 4.5% per year, continues to increase the unfunded liability each year through fiscal year 2003; after then it will decrease.

Offsetting the above causes for the unfunded increase are:

- Assumption changes as a result of the quadrennial experience study. Please note that the unfunded liability increased for the Uniform '87 groups because we increased the likelihood that these employees will reach retirement.
- Salary increases less than the anticipated 5% resulting in a gain.
- Other non-economic plan experience resulted in a small gain.

These factors are illustrated in Table 3.

### 3. Unfunded liability (millions)

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2000 Unfunded liability		\$ 1,428.4
Change due to:		
Plan changes	0.0	
Payment schedule	18.9	
Salary increases	(33.3)	
Investment return	40.0	
Assumption changes	(114.1)	
Programming upgrade	102.3	
Other actuarial experience	(5.8)	
Total of all changes		\$ 8.0
2001 unfunded liability		\$ 1,436.4

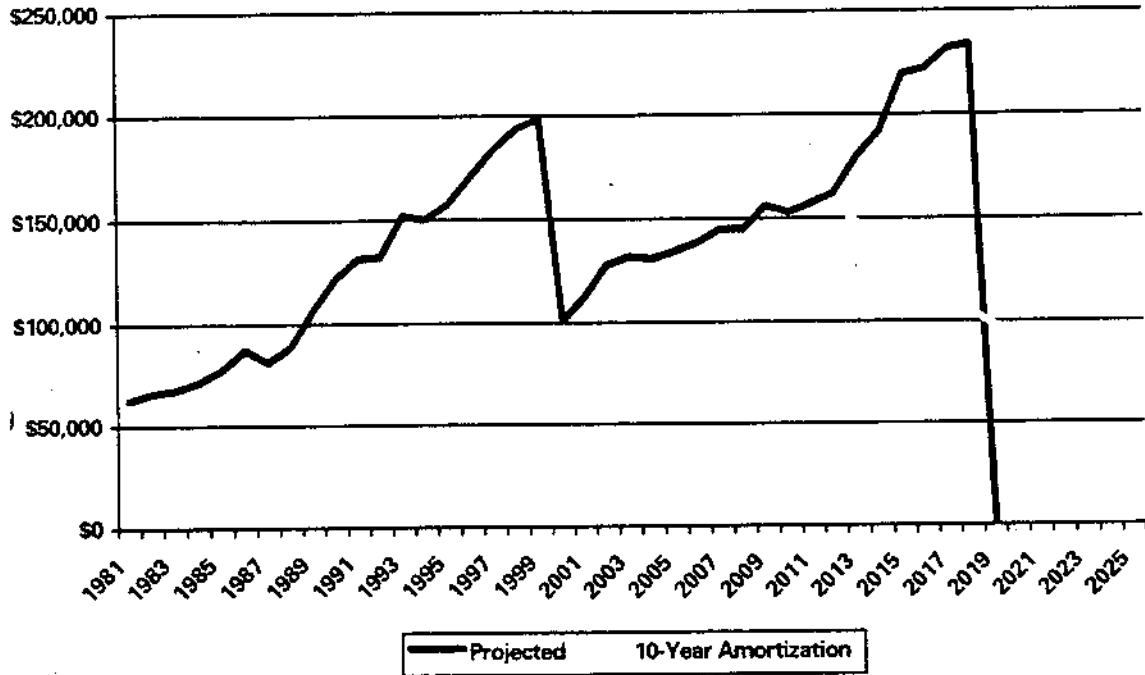
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Because the July 30, 1985 unfunded liability is being amortized with payments increasing 4.5% per year, the amortization payment is scheduled to increase until 2019 and then to drop to zero. This is a change over last year when payments were increased at 5% resulting in a large payment schedule adjustment. The total unfunded liability is scheduled to increase each year until fiscal year 2003, and then decrease to zero by 2019. With the 1997 change in Act 205, once the funding ratio reaches 70% the City may shift to a 10 year rolling level amortization schedule. The plan is currently 77.5% funded; however, the alternative amortization schedule is not expected to result in lower cost to the City until fiscal year 2013.

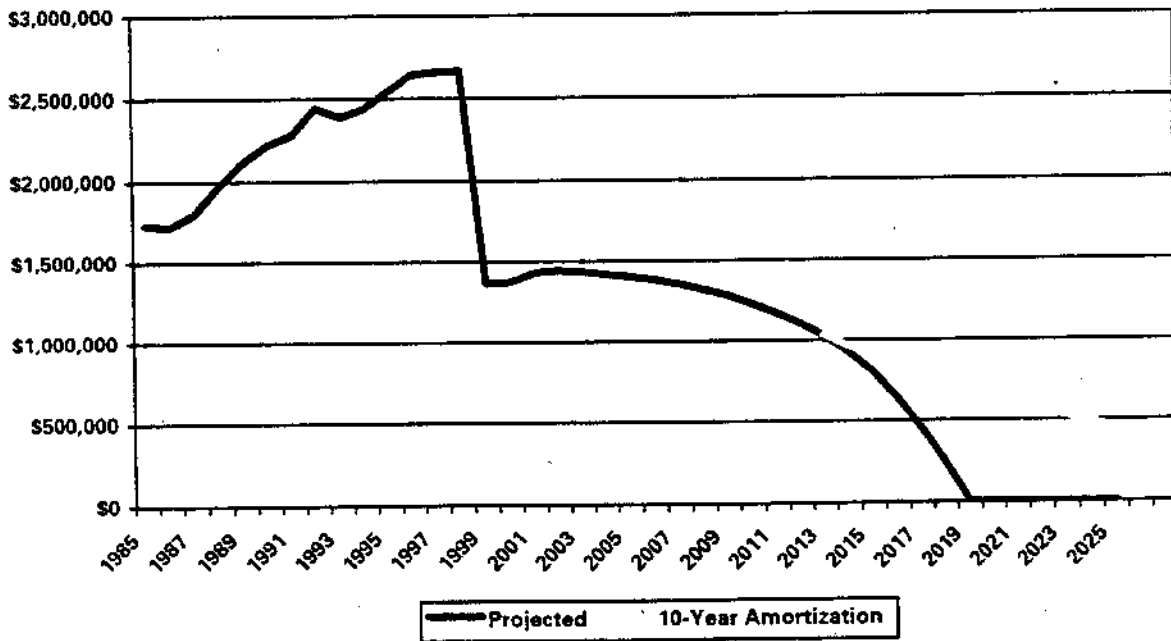
Graph 3(A) illustrates changes in the amortization payment through 2019. Graph 3(B) tracks the unfunded liability through 2019. The red lines indicate actual changes in the amortization payment or unfunded liability and includes scheduled increases and changes because of previous plan amendments, assumption changes, gains and losses and the impact of the Pension Obligation Bond (POB) of 1999. The yellow lines reflect projected changes under the 10 year amortization schedule. In both cases, we assume no future gains or losses.

**EXECUTIVE SUMMARY**

**3(A). Amortization schedule**



**3(B). Unfunded actuarial accrued liability**



## EXECUTIVE SUMMARY

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### City funding policy

The report shows the recommended City contributions, assuming they're paid at the beginning of the fiscal year (July 1, 2002). If paid after July 1 the City's funding policy has been to pay interest at 9% from July 1, 2002 to the date paid.

The resulting estimated City contributions for fiscal years 2002 and 2003 are shown in Table 4(A).

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

	Fiscal 2002	Fiscal 2003
Normal cost	\$ 61,015	\$ 63,818 <sup>a</sup>
Amortization payment	<u>112,554</u>	<u>127,934</u>
Total City cost	\$ 173,569	\$ 191,752 <sup>b</sup>

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- Based on July 1, 2001 payroll. Actual normal cost will be based on actual fiscal 2003 payroll. This payroll does not include DROP participants.
- The City may use general state aid and state cost-of-living reimbursements to meet this commitment. For fiscal year 2001, they totaled \$36,426,000.

Table 4(B) shows July 1, 2002 employee contribution rates.

#### 4(B). Employee contribution rates effective July 1, 2002 (based on July 1, 2001 results)

	Municipal	Elected	Police	Fire
1967 Plan	3.75% <sup>a</sup>	N/A	6.00%	6.00%
Plan 87	2.00%	7.57%	5.00%	5.00%

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- 6.00% on wages over the Social Security maximum taxable wage base — \$84,900 in 2002.

### Quasi agency funding

Table 4(C) shows the quasi agencies funding rate for fiscal years 2002 and 2003 and the Parking Authority's additional contribution for their early retirement window. This special amortization charge must be made through fiscal 2004.



## EXECUTIVE SUMMARY

### 4(C). Quasi agency funding rate

	Fiscal 2002	Fiscal 2003
Valuation date	July 1, 2000	July 1, 2001
Normal cost	5.029% <sup>a</sup>	5.160% <sup>a</sup>
Amortization rate	13.664%	16.835% <sup>b</sup>
Total, year-end rate	18.693%	21.995%
Total, adjusted for quarterly payments	18.234%	21.455% <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 11, Municipal 1967 Plan.  
b.  $(\$76,932 - \$78) \div \$456,491$ , see pages 15 and 11.  
c.  $.97546$  (quarterly adjustment factor)  $\times$  21.995%.  
d.  $\$78,000 \div 4 \times .97546$ .

### Minimum municipal obligation

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

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

- The City uses a 34-year increasing amortization of its July 1, 1985 unfunded actuarial accrued liability, while Act 205 allows a 40-year increasing amortization schedule.
- The City applies the normal cost rates to the fiscal year's actual payroll. The MMO is based on the prior year's estimated payroll.
- No interest accumulates on the MMO if the payment is made by year-end.
- The City's funding policy uses a one-year delay in applying actuarial valuation results to fiscal years. The MMO also reflects a one-year delay, however, no interest is applied to the MMO for the one-year delay. As a result, this July 1, 2001 valuation report determines the City's fiscal 2003 MMO and funding contribution.
- The MMO reflects amortization of prior years' City contributions above past MMOs as actuarial gains.

Table 46 of this report summarizes the City's unfunded liability payment for its fiscal 2003 MMO. These payments reflect the 40-year funding from July 1, 1985 with increasing payments at 4.5%.

The resulting fiscal 2003 MMO is summarized in Table 4(D).

## EXECUTIVE SUMMARY

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### 4(D). Fiscal 2003 minimum municipal obligation (thousands)

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Valuation report	July 1, 2001
Normal cost	\$ 107,877
Amortization payment	76,057
Expected administrative expense	<u>5,500</u>
Subtotal	\$ 189,434
Expected member contributions	<u>(47,035)</u>
Minimum municipal obligation	\$ 142,400
Interest	<u>0<sup>a</sup></u>
Total	<u>\$ 142,400<sup>b</sup></u>

a. Assumes the MMO will be paid before December 31, 2002.

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 actuarial value of assets to the actuarial accrued liability. A comparison of this ratio as of July 1, 2000 and July 1, 2001 is shown in Table 4(E).

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

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	2000	2001
Actuarial value of assets	\$ 4,764,990	\$ 4,943,450
Actuarial accrued liability	\$ 6,193,407	\$ 6,379,819
Funding ratio	76.9%	77.5%

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**EXECUTIVE SUMMARY**

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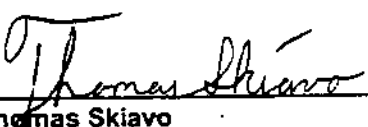

**Certification**

William M. Mercer, Incorporated has prepared the actuarial valuation of the City of Philadelphia Municipal Retirement System as of July 1, 2001 for fiscal year contributions ending June 30, 2003. 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, or actuarial cost methods since the last valuation of the Plan as of July 1, 2000. Actuarial assumptions have changed and are summarized in this report.

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

 Thomas Skiavo	<u>3/26/2002</u> Date
<p>As a Fellow of the Conference of Consulting Actuaries and the Society of Actuaries, I meet the Qualification Standards to provide the statements of actuarial opinion contained in this report.</p>	
 Kenneth A. Kent, FSA, FCA	<u>3/26/2002</u> Date
<p>William M. Mercer, Incorporated 1255 23rd Street, NW, Suite 500 Washington, DC 20037 202 331 5200</p>	

## **COST DERIVATION**

This section explains the Retirement System's costs. Costs are determined using the entry age actuarial cost method. The cost estimates derived in this actuarial valuation will be the basis for determining pension costs for the fiscal year ending June 30, 2003. 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, 2001, 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 Pension Adjustment Fund (PAF), if any, is subtracted from the market value to determine the assets to use for the valuation.

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

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

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

## COST DERIVATION

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

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

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

Table 45 shows the annual unfunded liability payments needed to satisfy the City's MMO for fiscal year ending June 30, 2003.

Table 16 shows the annual payments needed to fund plan liabilities through fiscal year ending June 30, 2020.

## COST DERIVATION

### 5. July 1, 2001 derivation of normal cost (dollars in thousands)

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Number of active members								
a. Vested	10,264	2,202	1,011	1,274	15	1,152	178	16,096
b. Non-vested	<u>579</u>	<u>9</u>	<u>1</u>	<u>8,771</u>	<u>9</u>	<u>3,036</u>	<u>821</u>	<u>13,226</u>
c. Total	10,843	2,211	1,012	10,045	24	4,188	999	29,322
2. Total normal costs								
a. Service retirement	\$ 22,235	\$ 11,087	\$ 5,011	\$ 13,682	\$ 179	\$ 15,761	\$ 3,898	\$ 71,853
b. Preretirement death	2,439	749	380	1,606	17	880	252	6,324
c. Disability retirement	3,112	1,049	496	1,836	10	1,637	422	8,562
d. Vested termination	5,506	741	345	3,551	20	554	119	10,836
e. Refund of nonvested members' contributions	2,695	238	109	1,407	23	582	115	5,169
f. Health care benefit	0	42	21	0	0	66	20	149
g. Administrative expenses	<u>2,716</u>	<u>1,049</u>	<u>390</u>	<u>883</u>	<u>3</u>	<u>371</u>	<u>88</u>	<u>5,500</u>
h. Total	\$ 38,702	\$ 14,956	\$ 6,753	\$ 22,964	\$ 253	\$ 19,850	\$ 4,915	\$ 108,393
3. Expected employee contributions	\$ 17,091	\$ 6,452	\$ 2,955	\$ 6,889	\$ 156	\$ 8,914	\$ 2,118	\$ 44,576
4. City normal cost (2h) - (3)	\$ 21,611	\$ 8,504	\$ 3,798	\$ 16,075	\$ 97	\$ 10,936	\$ 2,797	\$ 63,818
5. Current total annual payroll	\$ 456,491	\$ 107,652	\$ 49,277	\$ 344,275	\$ 2,055	\$ 178,284	\$ 42,365	\$1,180,398
6. City normal cost as a percent of pay assuming beginning-of-year payment (4) ÷ (5)	4.734%	7.900%	7.707%	4.669%	4.722%	6.134%	6.601%	5.406%
7. City normal cost as a percent of pay assuming end-of-year payment (6) x 1.09	5.160%	8.611%	8.401%	5.089%	5.147%	6.686%	7.195%	5.893%

Note: Numbers may not add because of rounding.

**COST DERIVATION**

**6. Derivation of unfunded actuarial accrued liability as of July 1, 2001 (dollars in thousands)**

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>1. Number of members</b>								
a. Active	10,843	2,211	1,012	10,045	24	4,188	999	29,322
b. Retired	11,334	5,069	1,591	76	7	2	2	18,081
c. Beneficiary	5,377	2,130	991	29	2	35	13	8,577
d. Disabled	2,078	2,102	517	11	0	52	7	4,767
e. Terminated vested	654	32	6	13	2	1	1	709
f. DROP	1,236	615	440	29	0	1	0	2,321
g. Total	31,522	12,159	4,557	10,203	35	4,279	1,022	63,777
<b>2. Total annual benefits</b>								
a. Retired	\$ 164,079	\$ 101,612	\$ 32,692	\$ 688	\$ 213	\$ 10	\$ 22	\$ 299,316
b. Beneficiary	28,424	13,833	6,025	112	24	181	71	48,670
c. Disabled	27,211	31,906	8,690	198	0	1,322	137	69,464
d. Terminated vested	8,364	406	63	181	51	10	8	9,083
e. DROP	33,174	21,065	15,812	278	0	10	0	70,338
f. Total	\$ 261,253	\$ 168,821	\$ 63,282	\$ 1,457	\$ 287	\$ 1,532	\$ 238	\$ 496,871
<b>3. Present value of benefits</b>								
<b>a. Active members</b>								
Service retirement	\$ 1,258,671	\$ 468,806	\$ 234,650	\$ 228,266	\$ 6,647	\$ 330,682	\$ 77,854	\$ 2,605,577
Preretirement death	102,361	23,009	13,265	25,070	377	15,125	4,115	183,323
Disability retirement	60,405	11,634	4,201	22,341	121	24,462	5,841	129,006
Vested termination	166,514	5,065	1,033	62,468	487	11,938	2,428	249,933
Refund of nonvested members' contributions	2,875	186	103	13,634	73	7,218	1,355	25,144
Health care benefit	0	346	217	0	0	466	152	1,181
Subtotal	\$ 1,590,826	\$ 509,046	\$ 253,470	\$ 351,780	\$ 7,705	\$ 389,892	\$ 91,746	\$ 3,194,464
<b>b. Nonactive members</b>								
Service retired	\$ 1,228,288	\$ 863,591	\$ 261,391	\$ 5,354	\$ 1,970	\$ 106	\$ 238	\$ 2,360,938
Beneficiary	208,843	106,343	40,919	1,084	137	1,883	716	359,926
Disabled	218,141	273,496	72,590	1,884	0	14,053	1,380	581,544
Terminated vested	58,014	3,555	595	881	407	33	49	63,534
Nonvested members' contributions	1,893	176	55	308	0	280	11	2,722
Health care benefit	0	4,228	2,951	0	0	412	236	7,828
DROP participant	287,403	189,142	138,703	2,232	0	91	0	617,571
DROP account	42,547	30,895	22,181	196	0	8	0	95,827
Subtotal	\$ 2,045,130	\$ 1,471,425	\$ 539,385	\$ 11,938	\$ 2,514	\$ 16,866	\$ 2,630	\$ 4,089,889
<b>c. Total</b>	<b>\$ 3,635,956</b>	<b>\$ 1,980,471</b>	<b>\$ 792,855</b>	<b>\$ 363,717</b>	<b>\$ 10,219</b>	<b>\$ 406,758</b>	<b>\$ 94,376</b>	<b>\$ 7,284,352</b>

Note: Numbers may not add because of rounding.

**COST DERIVATION**

**6. Derivation of unfunded actuarial accrued liability as of July 1, 2001 (dollars in thousands)**

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>4. Present value of future normal costs</b>								
a. Service retirement	\$ 174,592	\$ 81,874	\$ 32,974	\$ 114,511	\$ 928	\$ 181,234	\$ 42,941	\$ 629,055
b. Preretirement death	19,792	5,531	2,506	13,702	106	10,200	2,787	54,624
c. Disability retirement	25,588	7,792	3,269	16,454	68	19,009	4,708	76,889
d. Vested termination	47,619	5,734	2,300	32,576	149	6,726	1,405	96,509
e. Refund of nonvested members' contribution	23,459	1,804	718	12,237	143	7,051	1,354	46,465
f. Health care benefit	<u>0</u>	<u>133</u>	<u>70</u>	<u>0</u>	<u>0</u>	<u>368</u>	<u>119</u>	<u>691</u>
g. Total	\$ 291,050	\$ 102,870	\$ 41,837	\$ 189,481	\$ 1,393	\$ 224,589	\$ 53,314	\$ 904,534
<b>5. Actuarial accrued liability (3) - (4)</b>								
a. Active members								
Service retirement	\$ 1,084,079	\$ 386,932	\$ 201,676	\$ 113,755	\$ 5,719	\$ 149,448	\$ 34,913	\$ 1,976,522
Preretirement death	82,569	17,478	10,759	11,368	271	4,925	1,328	128,699
Disability retirement	34,817	3,842	932	5,887	53	5,453	1,133	52,117
Vested termination	118,895	(669)	(1,267)	29,892	338	5,212	1,023	153,424
Refund of nonvested members' contribution	(20,584)	(1,618)	(615)	1,397	(70)	167	1	(21,321)
Health care benefit	<u>0</u>	<u>213</u>	<u>147</u>	<u>0</u>	<u>0</u>	<u>98</u>	<u>33</u>	<u>490</u>
Subtotal	\$ 1,299,776	\$ 406,176	\$ 211,633	\$ 162,299	\$ 6,312	\$ 165,303	\$ 38,432	\$ 2,289,930
b. Nonactive members								
Service retirement	\$ 1,228,288	\$ 863,591	\$ 261,391	\$ 5,354	\$ 1,970	\$ 106	\$ 238	\$ 2,360,938
Beneficiary	208,843	106,343	40,919	1,084	137	1,883	716	359,926
Disabled	218,141	273,496	72,590	1,884	0	14,053	1,380	581,544
Terminated vested	58,014	3,555	595	881	407	33	49	63,534
Nonvested members' contribution	1,893	176	55	308	0	280	11	2,722
Health care benefit	0	4,228	2,951	0	0	412	236	7,828
DROP participant	287,403	189,142	138,703	2,232	0	91	0	617,571
DROP account	<u>42,547</u>	<u>30,895</u>	<u>22,181</u>	<u>196</u>	<u>0</u>	<u>8</u>	<u>0</u>	<u>95,827</u>
Subtotal	\$ 2,045,130	\$ 1,471,425	\$ 539,385	\$ 11,938	\$ 2,514	\$ 16,866	\$ 2,630	\$ 4,089,889
c. Total	\$ 3,344,906	\$ 1,877,602	\$ 751,018	\$ 174,237	\$ 8,826	\$ 182,168	\$ 41,062	\$ 6,379,819
6. Assets for valuation purposes	\$ 2,547,791	\$ 1,253,659	\$ 579,022	\$ 249,844	\$ 10,595	\$ 243,464	\$ 59,076	\$ 4,943,450
7. Unfunded actuarial accrued liability (5c) - (6)	\$ 797,116	\$ 623,943	\$ 171,996	\$ (75,607)	\$ (1,769)	\$ (61,296)	\$ (18,014)	\$ 1,436,369

Note: Numbers may not add because of rounding.



**COST DERIVATION**

**7. Development of the expected unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)**

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation	\$ 793,811	\$ 655,274	\$ 164,040	\$ (70,725)	\$ (1,907)	\$ (72,644)	\$ (20,561)	\$ 1,447,290
2. Changes in July 1, 2001 unfunded actuarial accrued liability due to actuarial experience	\$ 6,478	\$ (18,890)	\$ 15,315	\$ (3,745)	\$ (50)	\$ 1,258	\$ 535	\$ 901
3. Changes in July 1, 2001 unfunded actuarial accrued liability due to assumption changes	\$ (3,173)	\$ (12,441)	\$ (7,359)	\$ (1,136)	\$ 187	\$ 10,090	\$ 2,012	\$ (11,812)
4. Actual unfunded actuarial accrued liability, July 1, 2001 (1) + (2) + (3)	\$ 797,116	\$ 623,943	\$ 171,996	\$ (75,607)	\$ (1,769)	\$ (61,296)	\$ (18,014)	\$ 1,436,369
5. Expected changes in unfunded actuarial accrued liability from July 1, 2001 to July 1, 2002:								
a. Interest (2 + 3) x .09	\$ 297	\$ (2,820)	\$ 716	\$ (439)	\$ 12	\$ 1,021	\$ 229	\$ (983)
b. Increase in unfunded actuarial accrued liability from July 1, 2001 to July 1, 2002 according to amortization schedule per 2000 valuation report	5,052	(7,166)	2,802	2,953	(24)	3,083	873	7,572
c. Subtotal	\$ 5,349	\$ (9,986)	\$ 3,518	\$ 2,514	\$ (12)	\$ 4,104	\$ 1,102	\$ 6,589
6. Expected July 1, 2002 unfunded actuarial accrued liability (4) + (5c)	\$ 802,465	\$ 613,957	\$ 175,514	\$ (73,093)	\$ (1,781)	\$ (57,192)	\$ (16,912)	\$ 1,442,958

Note: Numbers may not add because of rounding.

## COST DERIVATION

### 8. Development of municipal division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)

	Fiscal Year Ending June 30, 2003				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment <sup>a</sup>
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation					
a. Dombrowski	\$ 5,914	\$ 5,378	7	\$ 980	\$ 1,069
b. Remaining	<u>787,897</u>	<u>793,484</u>	—	<u>62,144<sup>b</sup></u>	<u>75,367<sup>b</sup></u>
c. Subtotal	\$ 793,811	\$ 798,862	—	\$ 70,124	\$ 76,435
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ 6,478	\$ 7,061	15	\$ 804	\$ 876
b. Assumption change	(3,173)	(3,459)	20	(348)	(379)
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 3,305	\$ 3,602	—	\$ 456	\$ 497
3. Total (1c) + (2e)	\$ 797,116	\$ 802,465	—	\$ 70,580	\$ 76,932

Note: Numbers may not add because of rounding.

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

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

**COST DERIVATION**

**9. Development of police division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)**

	<u>Fiscal Year Ending June 30, 2003</u>				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment <sup>a</sup>
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation					
a. Dombrowski	\$ 3,783	\$ 3,440	7	\$ 627	\$ 684
b. Remaining	<u>651,491</u>	<u>644,668</u>	—	<u>65,123<sup>b</sup></u>	<u>70,984</u>
c. Subtotal	\$ 655,274	\$ 648,109	—	\$ 65,750	\$ 71,668
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ (18,890)	\$ (20,591)	15	\$ (2,344)	\$ (2,554)
b. Assumption change	(12,441)	(13,561)	20	(1,363)	(1,486)
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ (31,331)	\$ (34,151)	—	\$ (3,706)	\$ (4,040)
3. Total (1c) + (2e)	\$ 623,943	\$ 613,957	—	\$ 62,044	\$ 67,628

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

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

**COST DERIVATION**

**10. Development of fire division (1967 Plan) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)**

	<u>Fiscal Year Ending June 30, 2003</u>				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment*
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation					
a. Dombrowski	\$ 1,506	\$ 1,370	7	\$ 250	\$ 272
b. Remaining	<u>162,533</u>	<u>165,472</u>	—	<u>13,002<sup>b</sup></u>	<u>14,173<sup>b</sup></u>
c. Subtotal	\$ 164,040	\$ 166,842	—	\$ 13,252	\$ 14,445
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ 15,315	\$ 16,694	15	\$ 1,900	\$ 2,071
b. Assumption change	(7,359)	(8,022)	20	(806)	(879)
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 7,956	\$ 8,672	—	\$ 1,094	\$ 1,192
3. Total (1c) + (2e)	\$ 171,996	\$ 175,514	—	\$ 14,346	\$ 15,637

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

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

**COST DERIVATION**

**11. Development of municipal division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)**

	Fiscal Year Ending June 30, 2003				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment*
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation	\$ (70,725)	\$ (67,772)	—	\$ (8,549)	\$ (9,318)
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ (3,745)	\$ (4,083)	15	\$ (465)	\$ (506)
b. Assumption change	(1,136)	(1,239)	20	(124)	(136)
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ (4,882)	\$ (5,321)	—	\$ (589)	\$ (642)
3. Total (1) + (2e)	\$ (75,607)	\$ (73,093)	—	\$ (9,138)	\$ (9,961)

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

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

## COST DERIVATION

### 12. Development of elected division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)

	Fiscal Year Ending June 30, 2003				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment <sup>a</sup>
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation	\$ (1,907)	\$ (1,931)	—	\$ (135)	\$ (147)
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ (50)	\$ (54)	15	\$ (6)	\$ (7)
b. Assumption change	187	204	20	21	22
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 137	\$ 150	—	\$ 14	\$ 16
3. Total (1) + (2e)	\$ (1,769)	\$ (1,781)	—	\$ (121)	\$ (132)

Note: Numbers may not add because of rounding.

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

**COST DERIVATION**

**13. Development of police division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)**

	Fiscal Year Ending June 30, 2003				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment <sup>a</sup>
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation	\$ (72,644)	\$ (69,560)	—	\$ (8,827)	\$ (9,621)
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ 1,258	\$ 1,371	15	\$ 156	\$ 170
b. Assumption change	10,090	10,998	20	1,105	1,205
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ 11,347	\$ 12,369	—	\$ 1,261	\$ 1,375
3. Total (1) + (2e)	\$ (61,296)	\$ (57,192)	—	\$ (7,565)	\$ (8,246)

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

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

**COST DERIVATION**

**14. Development of fire division (Plan 87) annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003 (thousands)**

	<u>Fiscal Year Ending June 30, 2003</u>				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment*
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation	\$ (20,561)	\$ (19,688)	—	\$ (2,498)	\$ (2,723)
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ 535	\$ 583	15	\$ 66	\$ 72
b. Assumption change	2,012	2,193	20	220	240
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
c. Subtotal	\$ 2,547	\$ 2,776	—	\$ 287	\$ 313
3. Total (1) + (2e)	\$ (18,014)	\$ (16,912)	—	\$ (2,211)	\$ (2,410)

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

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



**COST DERIVATION**

**15. Development of total division annual payment toward the unfunded actuarial accrued liability for fiscal year ending June 30, 2003  
(thousands)**

	Fiscal Year Ending June 30, 2003				
	Outstanding Balance July 1, 2001	Expected Balance July 1, 2002	Amortization Period Remaining	Annual Beginning- of-Year Payment	Annual End-of- Year Payment*
1. Expected July 1, 2001 unfunded actuarial accrued liability based on July 1, 2000 valuation					
a. Dombrowski	\$ 11,204	\$ 10,188	7	\$ 1,857	\$ 2,024
b. Remaining	<u>1,436,086</u>	<u>1,444,674</u>	—	<u>127,260<sup>b</sup></u>	<u>138,714<sup>b</sup></u>
c. Subtotal	\$ 1,447,290	\$ 1,454,862	—	\$ 129,117	\$ 140,738
2. Changes in unfunded actuarial accrued liability, July 1, 2001					
a. Experience (gains)/losses	\$ 901	\$ 982	15	\$ 112	\$ 122
b. Assumption change	(11,821)	(12,885)	20	(1,295)	(1,412)
c. Plan change	0	0	20	0	0
d. Inactive plan change	<u>0</u>	<u>0</u>	10	<u>0</u>	<u>0</u>
e. Subtotal	\$ (10,920)	\$ (11,903)	—	\$ (1,183)	\$ (1,290)
3. Total (1c) + (2e)	\$ 1,436,369	\$ 1,442,958	—	\$ 127,934	\$ 139,448

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

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

**COST DERIVATION**

**16. Schedule of annual payments to fund the anticipated July 1, 2001 unfunded actuarial accrued liability (dollars in thousands)**

Plan Year Beginning July 1	Annual Beginning-of-Year Payment								Progress of Unfunded Actuarial Accrued Liability	Estimated Annual Payroll	Annual Payment as a Percent of Payroll
	Municipal	1967 Plan Police	Fire	Municipal	Plan 87 Elected	Police	Fire	Total			
2001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,436,369	1,180,398	N/A
2002	70,580	62,044	14,346	(9,138)	(121)	(7,565)	(2,211)	127,934	1,442,958	1,233,516	10.1%
2003	73,311	62,753	14,834	(9,138)	(121)	(7,569)	(2,220)	131,850	1,433,376	1,289,024	10.0%
2004	72,916	61,664	15,215	(9,090)	(193)	(7,537)	(2,208)	130,767	1,418,664	1,347,030	9.5%
2005	76,252	61,821	15,402	(9,056)	(188)	(7,514)	(2,194)	134,524	1,403,808	1,407,647	9.4%
2006	82,475	59,381	15,326	(8,963)	(187)	(7,264)	(2,158)	138,610	1,383,519	1,470,991	9.3%
2007	84,953	62,243	16,412	(8,902)	(233)	(7,193)	(2,147)	145,132	1,356,951	1,537,185	9.3%
2008	81,783	64,452	17,284	(9,002)	(289)	(7,149)	(2,118)	144,963	1,320,883	1,606,359	9.0%
2009	87,508	68,222	18,804	(8,931)	(279)	(7,076)	(2,110)	156,139	1,281,753	1,678,645	9.3%
2010	84,502	67,362	19,128	(8,722)	(358)	(7,208)	(2,068)	152,636	1,226,920	1,754,184	8.7%
2011	86,114	69,185	20,181	(8,787)	(342)	(7,179)	(2,039)	157,134	1,170,970	1,833,122	8.7%
2012	88,186	70,706	21,121	(8,739)	(299)	(7,075)	(1,977)	161,921	1,105,081	1,915,612	8.6%
2013	97,980	75,188	23,660	(8,463)	(300)	(6,710)	(1,917)	179,439	1,028,044	2,001,815	9.1%
2014	104,377	78,601	25,982	(8,261)	(265)	(6,468)	(1,810)	192,156	924,979	2,091,897	9.4%
2015	115,703	72,252	30,606	(389)	26	1,281	186	219,664	798,777	2,186,032	10.3%
2016	120,478	69,524	30,377	(195)	21	1,519	330	222,054	631,233	2,284,404	10.1%
2017	124,777	75,145	29,784	270	27	1,363	264	231,629	446,005	2,387,202	10.1%
2018	125,102	78,169	30,916	(95)	21	1,105	220	235,438	233,670	2,494,626	9.9%
2019	1,270	(1,363)	(806)	(95)	21	1,105	220	352	(1,927)	2,606,884	0.0%
2020	(348)	(1,363)	(806)	(124)	21	1,105	220	(1,295)	(2,484)	2,724,194	0.0%
2021	(348)	(1,363)	(806)	(124)	21	1,105	220	(1,295)	(1,295)	2,846,782	0.0%
2022	—	—	—	—	—	—	—	—	—	2,974,888	0.0%
2023	—	—	—	—	—	—	—	—	—	3,108,758	0.0%
2024	—	—	—	—	—	—	—	—	—	3,248,652	0.0%
2025	—	—	—	—	—	—	—	—	—	3,394,841	0.0%
2026	—	—	—	—	—	—	—	—	—	3,547,609	0.0%
2027	—	—	—	—	—	—	—	—	—	3,707,251	0.0%
2028	—	—	—	—	—	—	—	—	—	3,874,078	0.0%
2029	—	—	—	—	—	—	—	—	—	4,048,411	0.0%
2030	—	—	—	—	—	—	—	—	—	4,230,590	0.0%

Note: Numbers may not add because of rounding.

## **COST DERIVATION**

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### **Estimated progress of fund**

Table 17 shows the pension fund's estimated progress for fiscal years 2002 through 2021. The July 1, 2001 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, 2000 valuation. Subsequent contributions are based on the July 1, 2001 valuation. The contribution's normal cost component increases 4.5% annually, reflecting anticipated increases in covered payroll. The projected employee contributions also increase annually, reflecting assumed payroll increases at 4.5%.

This projection includes the following changes from last year:

- Investment losses are realized over the next four years
- Benefit payments are projected on an open group basis
- The changes in assumptions are reflected
- The City will contribute the lesser of the amortization schedule or the 10-year amortization of the unfunded liability.

The fund projection is limited to the period with the fiscal year ending June 30, 2021. Fluctuations from the figures shown in this 20-year period are to be expected.

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

**COST DERIVATION**

**17. Estimated progress of City of Philadelphia Municipal Retirement System Fund for July 1, 2001 through July 1, 2020**  
 (dollars in thousands)

Fiscal Year Ending June 30	Fund at Beginning of Year	City Contributions <sup>a</sup>	Employee Contributions <sup>a</sup>	Benefit Payments <sup>a</sup>	Investment Income	Net Increase	Fund at End of Year <sup>b</sup>
2002	4,943,450	191,377	45,213	511,687	263,772	(11,325)	4,932,125
2003	4,932,125	212,140	44,611	519,823	248,810	(14,263)	4,917,862
2004	4,917,862	239,032	46,619	529,673	252,522	8,499	4,926,361
2005	4,926,361	262,732	48,716	541,339	266,763	36,873	4,963,234
2006	4,963,234	291,738	50,909	554,514	424,029	212,161	5,175,395
2007	5,175,395	319,773	53,200	569,007	442,574	246,540	5,421,935
2008	5,421,935	330,783	55,593	584,494	464,174	266,056	5,687,992
2009	5,687,922	334,675	58,095	601,551	487,464	278,684	5,966,676
2010	5,996,676	351,117	60,709	620,437	511,813	303,203	6,269,878
2011	6,269,878	351,751	63,441	640,910	538,303	312,585	6,582,463
2012	6,582,463	361,305	66,296	662,885	565,575	330,292	6,912,754
2013	6,912,754	352,386	69,280	685,770	594,406	330,302	7,243,056
2014	7,243,056	341,702	72,397	710,552	623,158	326,705	7,569,761
2015	7,569,761	332,285	75,655	737,479	651,496	321,957	7,891,718
2016	7,891,718	324,075	79,060	764,673	679,402	317,864	8,209,582
2017	8,209,582	317,021	82,617	812,388	706,023	293,272	8,502,854
2018	8,502,854	311,073	86,335	860,939	730,400	266,869	8,769,723
2019	8,769,723	306,188	90,220	910,784	752,350	237,974	9,007,698
2020	9,007,698	302,326	94,280	958,446	771,805	209,966	9,217,663
2021	9,217,663	299,452	98,523	1,006,542	788,729	180,161	9,397,824

Note: Numbers may not add because of rounding.

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

## PLAN MEMBERSHIP

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Data for active, retired, disabled, and terminated vested members as of July 1, 2001 was provided by the Philadelphia Board of Pensions and Retirement.

The active member data, supplied on disk and list, contained information for all Retirement System members as of July 1, 2001. 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, 2000 data for continued active member coverage.

The nonactive member data, also supplied on disk and list, contained information for all retired, DROP, beneficiary, disabled, and terminated vested members as of July 1, 2001.

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

### 18. Total plan membership net change

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	Number of Members	Percentage Increase (Decrease)
Active	+ 526	+ 1.8%
Retired	- 120	- 0.7%
Surviving spouses	- 35	- 0.5%
Other beneficiaries	+ 43	+ 3.3%
Disabled	- 83	- 1.7%
Terminated vested	- 46	- 6.1%
DROP Participants	+ 496	+27.2%
Total	+ 781	+ 1.2%

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

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

## **PLAN MEMBERSHIP**

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

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

**PLAN MEMBERSHIP**

**19. Reconciliation of included members**

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>Active members</b>								
Active, July 1, 2000	11,788	2,443	1,149	8,586	24	3,902	904	28,796
New entrants and rehires	+ 172	+ 21	+ 8	+ 2,223	+ 3	+ 380	+ 108	+ 2,915
Separations from active service								
Refunded contributions	- 43	- 0	- 0	- 283	- 0	- 37	- 5	- 368
Terminated vested	- 2	- 0	- 0	- 0	- 0	- 0	- 0	- 2
Became disabled	- 56	- 4	- 0	- 3	- 0	- 8	- 2	- 73
Retired	- 228	- 62	- 17	- 13	- 0	- 1	- 2	- 323
DROP participants	- 418	- 146	- 115	- 18	- 0	- 1	- 0	- 698
Net other terminations <sup>a</sup>	- 370	- 41	- 13	- 447	- 3	- 47	- 4	- 925
Active, July 1, 2001	10,843	2,211	1,012	10,045	24	4,188	999	29,322
<b>Retired members</b>								
Retired, July 1, 2000	11,439	5,077	1,620	56	8	1	0	18,201
New retirees	+ 456	+ 114	+ 36	+ 22	+ 0	+ 1	+ 2	+ 631
Net other terminations	- 561	- 122	- 65	- 2	- 1	- 0	- 0	- 751
Retired, July 1, 2001	11,334	5,069	1,591	76	7	2	2	18,081
<b>Surviving spouses</b>								
Receiving benefit, July 1, 2000	4,327	1,974	943	14	1	9	5	7,273
New spouses	+ 247	+ 95	+ 47	+ 3	+ 1	+ 1	+ 0	+ 394
Net other terminations	- 265	- 102	- 61	- 0	- 0	- 1	- 0	- 429
Receiving benefit, July 1, 2001	4,309	1,967	929	17	2	9	5	7,238

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

**PLAN MEMBERSHIP**

**19. Reconciliation of included members (continued)**

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>Other beneficiaries</b>								
Receiving benefit, July 1, 2000	1,029	161	62	11	0	25	8	1,296
New beneficiaries	+ 61	+ 8	+ 1	+ 1	+ 0	+ 1	+ 0	+ 72
Net other terminations	- 22	- 6	- 1	- 0	- 0	- 0	- 0	- 29
Receiving benefit, July 1, 2001	1,068	163	62	12	0	26	8	1,339
<b>Disabled members</b>								
Disabled, July 1, 2000	2,112	2,157	530	6	0	40	5	4,850
New disabilities	+ 83	+ 10	+ 1	+ 6	+ 0	+ 12	+ 2	+ 114
Net other terminations	- 117	- 65	- 14	- 1	- 0	- 0	- 0	- 197
Disabled, July 1, 2001	2,078	2,102	517	11	0	52	7	4,767
<b>Terminated vested members</b>								
Terminated vested, July 1, 2000	694	38	7	12	2	1	1	755
New vested terminations	+ 8	+ 1	+ 0	+ 2	+ 0	+ 0	+ 0	+ 11
Net other terminations	- 48	- 7	- 1	- 1	- 0	- 0	- 0	- 57
Terminated vested, July 1, 2001	654	32	6	13	2	1	1	709
<b>DROP participants</b>								
DROP participants, July 1, 2000	958	503	342	22	0	0	0	1,825
New DROP participants	+ 418	+ 146	+ 115	+ 18	+ 0	+ 1	+ 0	+ 698
Net other terminations	- 140	- 34	- 17	- 11	- 0	- 0	- 0	- 202
DROP participants, July 1, 2001	1,236	615	440	29	0	1	0	2,321



**PLAN MEMBERSHIP**

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

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>Active members</b>								
Active as of July 1, 2000	\$ 485,323	\$ 115,099	\$ 53,250	\$ 290,816	\$ 1,996	\$ 160,047	\$ 36,242	\$ 1,142,773
Net new entrants and pay increases	<u>(28,832)</u>	<u>(7,447)</u>	<u>(3,973)</u>	<u>53,459</u>	<u>959</u>	<u>18,237</u>	<u>6,123</u>	<u>37,625</u>
Active as of July 1, 2001	\$ 456,491	\$ 107,652	\$ 49,277	\$ 344,275	\$ 2,055	\$ 178,284	\$ 42,365	\$ 1,180,398
<b>Retired members</b>								
Retired as of July 1, 2000	\$ 160,629	\$ 100,443	\$ 32,419	\$ 503	\$ 253	\$ 5	\$ 0	\$ 294,251
Net new entrants	<u>3,450</u>	<u>1,169</u>	<u>273</u>	<u>185</u>	<u>(40)</u>	<u>5</u>	<u>22</u>	<u>5,065</u>
Retired as of July 1, 2001	\$ 164,079	\$ 101,612	\$ 32,692	\$ 688	\$ 213	\$ 10	\$ 22	\$ 299,316
<b>Surviving spouses</b>								
Receiving benefit as of July 1, 2000	\$ 22,483	\$ 12,553	\$ 5,433	\$ 49	\$ 4	\$ 55	\$ 37	\$ 40,614
Net new spouses	<u>831</u>	<u>348</u>	<u>160</u>	<u>21</u>	<u>20</u>	<u>0</u>	<u>0</u>	<u>1,380</u>
Receiving benefit as of July 1, 2001	\$ 23,314	\$ 12,901	\$ 5,593	\$ 70	\$ 24	\$ 55	\$ 37	\$ 41,994
<b>Other beneficiaries</b>								
Receiving benefits as of July 1, 2000	\$ 4,820	\$ 907	\$ 432	\$ 34	\$ 0	\$ 117	\$ 34	\$ 6,345
Net new beneficiaries	<u>290</u>	<u>25</u>	<u>0</u>	<u>7</u>	<u>0</u>	<u>8</u>	<u>0</u>	<u>330</u>
Receiving benefit as of July 1, 2001	\$ 5,110	\$ 932	\$ 432	\$ 41	\$ 0	\$ 125	\$ 34	\$ 6,675

Note: Numbers may not add because of rounding.

**PLAN MEMBERSHIP**

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

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>Disabled members</b>								
Disabled as of July 1, 2000	\$ 26,787	\$ 32,386	\$ 8,827	\$ 102	\$ 0	\$ 1,001	\$ 117	\$ 69,220
Net new disabilities	<u>424</u>	<u>(480)</u>	<u>(137)</u>	<u>96</u>	<u>0</u>	<u>321</u>	<u>20</u>	<u>244</u>
Disabled as of July 1, 2001	\$ 27,211	\$ 31,906	\$ 8,690	\$ 198	\$ 0	\$ 1,322	\$ 137	\$ 69,464
<b>Terminated vested members</b>								
Terminated vested as of July 1, 2000	\$ 8,872	\$ 497	\$ 73	\$ 166	\$ 51	\$ 10	\$ 8	\$ 9,677
Net new vested terminations	<u>(508)</u>	<u>(91)</u>	<u>(10)</u>	<u>15</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(594)</u>
Terminated vested as of July 1, 2001	\$ 8,364	\$ 406	\$ 63	\$ 181	\$ 51	\$ 10	\$ 8	\$ 9,083
<b>DROP Participants (doesn't include account balance)</b>								
DROP participants as of July 1, 2000	\$ 25,681	\$ 20,553	\$ 12,123	\$ 195	\$ 0	\$ 0	\$ 0	\$ 58,552
Net new DROP participants	<u>7,493</u>	<u>512</u>	<u>3,689</u>	<u>83</u>	<u>0</u>	<u>10</u>	<u>0</u>	<u>11,786</u>
DROP participants as of July 1, 2001	\$ 33,174	\$ 21,065	\$ 15,812	\$ 278	\$ 0	\$ 10	\$ 0	\$ 70,338

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

**PLAN MEMBERSHIP**

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A distribution of the active employees' annual earnings for each division by age and service group as of July 1, 2001 appears in Tables 21 through 27.

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

**PLAN MEMBERSHIP**

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

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
25-29	2	16	5	0	0	0	0	0	0	23
	30,741	36,205	32,419	0	0	0	0	0	0	34,906
30-34	3	94	226	9	0	0	0	0	0	332
	28,746	41,175	37,376	38,737	0	0	0	0	0	38,411
35-39	8	120	679	241	32	0	0	0	0	1,080
	37,127	37,794	39,651	40,885	41,644	0	0	0	0	39,760
40-44	10	155	869	694	331	38	2	0	0	2,099
	31,145	34,857	39,185	45,638	44,753	40,230	34,501	0	0	41,853
45-49	6	104	721	605	555	519	57	0	0	2,567
	46,187	40,558	36,778	45,700	47,240	45,378	41,110	0	0	43,153
50-54	6	97	562	539	491	901	551	50	0	3,197
	50,758	35,261	37,361	42,369	45,064	48,179	45,693	42,735	0	43,918
55-59	4	51	292	218	146	167	125	38	3	1,044
	45,077	40,446	35,312	40,343	44,456	43,259	49,076	46,908	38,914	41,281
60-64	1	28	121	66	43	27	23	8	14	331
	36,858	35,359	34,322	37,298	37,016	39,377	44,511	48,826	36,016	36,903
65-69	1	17	27	18	10	11	7	3	5	99
	33,214	36,533	34,676	35,115	40,102	25,712	35,594	48,761	34,727	35,106
70-74	0	7	18	2	6	6	2	2	4	47
	0	29,866	24,657	8,672	32,520	31,796	26,602	40,643	56,918	30,176
75+	0	0	5	5	3	3	3	1	4	24
	0	0	17,257	28,863	32,578	25,099	42,207	66,328	40,202	31,558
<b>Total</b>	41	689	3,525	2,397	1,617	1,672	770	102	30	10,843
	38,737	37,604	37,738	43,559	45,310	46,253	45,684	45,135	39,436	42,100

Note: Age represents attained age.

**PLAN MEMBERSHIP**

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

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
30-34	0	4	15	2	1	0	0	0	0	22
	0	43,767	45,797	44,117	54,186	0	0	0	0	45,657
35-39	0	5	130	105	4	0	0	0	0	244
	0	43,378	46,877	48,597	56,805	0	0	0	0	47,708
40-44	0	0	149	355	181	4	0	0	0	689
	0	0	45,484	48,168	50,130	49,629	0	0	0	48,112
45-49	1	1	100	193	293	116	14	0	0	718
	53,977	43,767	45,069	47,337	50,802	51,313	53,983	0	0	49,211
50-54	0	1	34	87	114	135	67	1	0	439
	0	42,071	44,256	46,550	48,841	49,480	52,835	44,467	0	48,813
55-59	0	0	0	2	22	17	30	17	0	88
	0	0	0	44,467	47,198	48,778	53,193	58,656	0	51,698
60-64	0	0	0	0	0	1	3	5	0	9
	0	0	0	0	0	49,209	45,217	47,253	0	46,792
65-69	0	0	0	0	0	0	0	1	0	1
	0	0	0	0	0	0	0	66,745	0	66,745
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	1	1
	0	0	0	0	0	0	0	0	57,925	57,925
<b>Total</b>	<b>1</b>	<b>11</b>	<b>428</b>	<b>744</b>	<b>615</b>	<b>273</b>	<b>114</b>	<b>24</b>	<b>1</b>	<b>2,211</b>
	53,997	43,436	45,723	47,803	50,156	50,216	52,870	56,026	57,925	48,689

Note: Age represents attained age.

**PLAN MEMBERSHIP**

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

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
30-34	0	0	2	0	0	0	0	0	0	2
	0	0	41,089	0	0	0	0	0	0	41,089
35-39	0	0	30	14	0	0	0	0	0	44
	0	0	45,016	45,986	0	0	0	0	0	45,324
40-44	0	0	36	132	2	0	0	0	0	170
	0	0	44,165	47,019	47,936	0	0	0	0	46,425
45-49	0	1	19	108	98	107	1	0	0	334
	0	37,481	44,706	46,403	48,524	51,109	58,425	0	0	48,446
50-54	0	0	6	29	101	201	53	5	0	395
	0	0	42,314	46,864	48,061	49,818	53,728	63,743	0	49,739
55-59	0	0	0	0	3	29	24	9	0	65
	0	0	0	0	45,217	49,542	52,307	59,254	0	51,708
60-64	0	0	0	0	0	0	1	1	0	2
	0	0	0	0	0	0	51,655	67,245	0	59,450
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>	0	1	93	283	204	337	79	15	0	1,012
	0	37,481	44,365	46,717	48,241	50,204	53,330	61,283	0	48,692

Note: Age represents attained age.

**PLAN MEMBERSHIP**

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

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	21	0	0	0	0	0	0	0	0	21
	23,420	0	0	0	0	0	0	0	0	23,420
20-24	443	18	0	0	0	0	0	0	0	461
	27,817	34,590	0	0	0	0	0	0	0	28,081
25-29	1,030	255	9	0	0	0	0	0	0	1,294
	32,874	36,496	32,072	0	0	0	0	0	0	33,582
30-34	1,075	622	83	6	0	0	0	0	0	1,786
	33,152	39,965	37,588	27,885	0	0	0	0	0	35,714
35-39	933	585	161	7	0	0	0	0	0	1,686
	32,298	39,147	44,659	38,515	0	0	0	0	0	35,880
40-44	852	544	128	21	13	2	0	0	0	1,560
	31,003	37,872	43,139	40,666	39,295	38,372	0	0	0	34,603
45-49	713	418	134	20	8	13	8	0	0	1,314
	31,852	38,042	43,618	31,994	36,662	40,996	41,218	0	0	35,200
50-54	522	292	103	11	8	5	8	0	0	949
	32,009	36,741	40,648	39,289	38,730	42,309	43,324	0	0	34,693
55-59	252	195	66	5	4	5	3	4	2	536
	29,666	36,446	45,512	34,955	41,809	40,112	52,221	36,776	28,217	34,495
60-64	123	89	25	2	1	0	2	2	0	244
	25,298	35,881	39,393	30,339	21,976	0	22,584	52,512	0	30,831
65-69	47	44	12	0	2	1	0	0	0	106
	13,665	32,454	31,890	0	85,660	11,687	0	0	0	24,867
70-74	32	20	4	0	0	0	1	0	0	57
	7,827	17,895	47,891	0	0	0	46,460	0	0	14,849
75+	13	14	4	0	0	0	0	0	0	31
	23,421	9,025	5,189	0	0	0	0	0	0	14,567
<b>Total</b>	<b>6,056</b>	<b>3,096</b>	<b>729</b>	<b>72</b>	<b>36</b>	<b>26</b>	<b>22</b>	<b>6</b>	<b>2</b>	<b>10,045</b>
	<b>31,385</b>	<b>37,834</b>	<b>42,161</b>	<b>36,089</b>	<b>40,958</b>	<b>39,749</b>	<b>42,029</b>	<b>42,021</b>	<b>28,217</b>	<b>34,273</b>

Note: Age represents attained age.

**PLAN MEMBERSHIP**

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

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
35-39	1	0	0	0	0	0	0	0	0	1
	80,000	0	0	0	0	0	0	0	0	80,000
40-44	0	1	0	1	0	0	0	0	0	2
	0	80,000	0	80,000	0	0	0	0	0	80,000
45-49	0	1	0	0	2	0	0	0	0	3
	0	80,000	0	0	80,000	0	0	0	0	80,000
50-54	0	1	1	0	1	1	1	0	0	5
	0	80,000	88,067	0	80,000	83,500	80,000	0	0	82,313
55-59	1	2	0	0	1	0	0	0	0	4
	135,000	80,000	0	0	85,000	0	0	0	0	95,000
60-64	0	1	1	1	0	0	0	0	0	3
	0	80,000	115,065	83,500	0	0	0	0	0	92,855
65-69	0	1	0	0	1	1	0	0	0	3
	0	80,000	0	0	80,000	85,000	0	0	0	81,667
70-74	0	0	0	0	0	0	0	0	1	1
	0	0	0	0	0	0	0	0	100,000	100,000
75+	0	0	0	1	1	0	0	0	0	2
	0	0	0	80,000	80,000	0	0	0	0	80,000
<b>Total</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>24</b>
	107,500	80,000	101,566	81,167	80,833	84,250	80,000	0	100,000	85,631

Note: Age represents attained age.



**PLAN MEMBERSHIP**

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

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	315	10	0	0	0	0	0	0	0	325
	37,109	42,506	0	0	0	0	0	0	0	37,275
25-29	568	343	5	0	0	0	0	0	0	916
	39,310	43,655	43,907	0	0	0	0	0	0	40,962
30-34	368	615	354	0	0	0	0	0	0	1,337
	39,711	44,173	45,494	0	0	0	0	0	0	43,295
35-39	155	339	417	5	4	0	0	0	0	920
	40,139	44,129	45,595	42,862	45,940	0	0	0	0	44,122
40-44	77	128	235	2	1	0	0	0	0	443
	40,091	44,065	44,949	47,436	43,767	0	0	0	0	43,858
45-49	33	54	122	0	3	0	0	0	0	212
	40,254	43,848	44,571	0	42,903	0	0	0	0	43,691
50-54	12	13	1	0	0	0	0	0	0	26
	40,747	43,207	42,417	0	0	0	0	0	0	42,041
55-59	3	3	0	0	0	1	0	0	0	7
	39,956	44,568	0	0	0	44,967	0	0	0	42,649
60-64	0	1	1	0	0	0	0	0	0	2
	0	43,767	44,117	0	0	0	0	0	0	43,942
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>	<b>1,531</b>	<b>1,506</b>	<b>1,135</b>	<b>7</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,188</b>
	<b>39,110</b>	<b>44,005</b>	<b>45,308</b>	<b>44,169</b>	<b>44,530</b>	<b>44,967</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42,570</b>

Note: Age represents attained age.

**PLAN MEMBERSHIP**

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

Age Group	Service Group									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	23	0	0	0	0	0	0	0	0	23
	34,487	0	0	0	0	0	0	0	0	34,487
25-29	120	29	1	0	0	0	0	0	0	150
	37,133	45,393	30,541	0	0	0	0	0	0	38,686
30-34	140	145	13	0	0	0	0	0	0	298
	38,171	45,183	47,358	0	0	0	0	0	0	41,983
35-39	55	164	53	1	0	0	0	0	0	273
	38,123	44,490	47,539	44,617	0	0	0	0	0	43,800
40-44	27	83	67	0	0	0	0	0	0	177
	39,512	44,910	45,691	0	0	0	0	0	0	44,382
45-49	8	19	33	0	0	1	0	0	0	61
	38,594	44,356	45,542	0	0	44,617	0	0	0	44,247
50-54	1	4	8	0	0	0	0	0	0	13
	42,321	45,503	45,147	0	0	0	0	0	0	45,039
55-59	1	0	0	0	0	0	1	0	0	2
	35,928	0	0	0	0	0	49,459	0	0	42,694
60-64	2	0	0	0	0	0	0	0	0	2
	37,491	0	0	0	0	0	0	0	0	37,491
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>	377	444	175	1	0	1	1	0	0	999
	37,715	44,857	46,235	44,617	0	44,617	49,459	0	0	42,407

Note: Age represents attained age.

**PLAN MEMBERSHIP**

**28. Terminated vested (1967 Plan and Plan 87) members, July 1, 2001**

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	19	\$ 212,295	3	\$ 30,743	1	\$ 7,982
40-44	57	642,095	25	340,901	3	33,786
45-49	170	2,002,144	2	15,269	2	23,269
50-54	346	4,847,760	1	8,491	0	0
55-59	41	570,324	0	0	0	0
60-64	12	83,450	1	7,128	0	0
OVER 64	<u>24</u>	<u>238,063</u>	<u>1</u>	<u>12,790</u>	<u>1</u>	<u>6,028</u>
TOTAL	669	\$ 8,596,133	33	\$ 415,322	7	\$ 71,065

**Average Annual Pension**

Municipal	\$ 12,849
Police	\$ 12,586
Fire	\$ 10,152

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

**PLAN MEMBERSHIP**

**29. Disabled (1967 Plan and Plan 87) members, July 1, 2001**

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	21	\$ 314,133	46	\$ 1,150,985	2	\$ 18,838
40-44	82	1,371,917	91	2,038,956	8	169,093
45-49	169	2,743,168	189	3,960,234	36	774,498
50-54	325	5,313,380	376	7,241,052	96	1,840,973
55-59	341	5,659,117	465	7,641,415	111	1,938,214
60-64	308	4,145,761	270	3,606,177	99	1,725,243
65-69	266	2,949,038	254	2,838,887	47	850,992
70-74	226	2,180,440	252	2,658,952	31	444,601
75-79	203	1,639,466	130	1,288,015	49	592,173
80-84	103	761,686	51	513,964	30	329,397
OVER 84	45	330,604	30	289,681	15	142,723
<b>TOTAL</b>	<b>2,089</b>	<b>\$ 27,408,711</b>	<b>2,154</b>	<b>\$ 33,228,317</b>	<b>524</b>	<b>\$ 8,826,745</b>

**Average Annual Pension**

Municipal	\$ 13,120
Police	\$ 15,426
Fire	\$ 16,845

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

**PLAN MEMBERSHIP**

**30. Retired (1967 Plan and Plan 87) members, July 1, 2001**

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	0	\$ 0	0	\$ 0	0	\$ 0
40-44	0	0	4	55,015	1	15,214
45-49	5	39,477	257	6,038,537	46	1,025,512
50-54	50	993,465	840	19,786,786	189	4,624,007
55-59	1,048	22,809,637	1,132	25,241,145	318	7,799,810
60-64	1,769	34,992,631	999	20,064,885	292	7,099,393
65-69	2,256	38,055,306	763	13,676,863	205	4,351,462
70-74	2,319	32,342,474	608	10,407,410	127	2,317,327
75-79	1,848	20,073,192	252	4,057,749	163	2,512,478
80-84	1,261	10,596,777	109	1,249,407	149	1,895,823
OVER 84	<u>861</u>	<u>5,076,794</u>	<u>107</u>	<u>1,044,163</u>	<u>103</u>	<u>1,073,183</u>
TOTAL	11,417	\$ 164,979,753	5,071	\$ 101,621,960	1,593	\$ 32,714,208

**Average Annual Pension**

Municipal	\$ 14,450
Police	\$ 20,040
Fire	\$ 20,536

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

**PLAN MEMBERSHIP**

**31. Beneficiaries (1967 Plan and Plan 87) of members, July 1, 2001**

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	424	\$ 2,179,632	128	\$ 774,683	44	\$ 299,989
40-44	159	750,660	39	226,204	16	189,984
45-49	193	1,155,017	70	710,301	22	266,832
50-54	243	1,740,778	135	1,346,201	40	414,379
55-59	286	2,143,294	200	1,888,163	51	504,916
60-64	414	3,125,670	228	1,834,502	53	522,142
65-69	597	3,953,046	263	1,818,558	56	402,264
70-74	774	4,439,447	324	2,131,660	107	697,051
75-79	865	4,007,584	238	1,264,795	172	963,849
80-84	715	2,851,108	236	977,335	215	966,115
OVER 84	<u>738</u>	<u>2,213,973</u>	<u>304</u>	<u>1,040,906</u>	<u>228</u>	<u>869,259</u>
TOTAL	5,408	\$ 28,560,211	2,165	\$ 14,013,307	1,004	\$ 6,096,781

**Average Annual Pension**

Municipal	\$ 5,281
Police	\$ 6,473
Fire	\$ 6,072

Note: Numbers may not add because of rounding.

**PLAN MEMBERSHIP**

**32. DROP (1967 Plan and Plan 87) members, July 1, 2001**

Age	Municipal Members		Police Members		Fire Members	
	People	Annual Pension	People	Annual Pension	People	Annual Pension
UNDER 40	0	\$ 0	0	\$ 0	0	\$ 0
40-44	0	0	0	0	0	0
45-49	2	84,359	104	2,871,638	22	663,288
50-54	2	44,634	216	6,970,909	159	5,195,579
55-59	684	19,538,732	214	7,784,109	183	6,760,466
60-64	408	10,028,983	70	2,829,368	69	2,854,626
65-69	117	2,470,780	8	380,098	6	283,676
70-74	39	874,416	4	238,416	1	53,976
75-79	10	307,145	0	0	0	0
80-84	1	33,252	0	0	0	0
OVER 84	2	69,568	0	0	0	0
<b>TOTAL</b>	<b>1,265</b>	<b>\$ 33,451,870</b>	<b>616</b>	<b>\$21,074,539</b>	<b>440</b>	<b>\$15,811,610</b>

**Average Annual Pension**

Municipal	\$ 26,444
Police	\$ 34,212
Fire	\$ 35,935

Note: Numbers may not add because of rounding.

## FINANCIAL EXPERIENCE OF FUND

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The July 1, 2001 Retirement System net assets are \$4,440,161,032 on a market value basis and \$4,416,694,024 on a cost value basis. These values include the Pension Adjustment Fund (PAF), which is also shown in Table 34. Financial experience is reported through the following tables:

- Table 33 contains a summary of assets and liabilities
- Table 34 shows receipts and disbursements
- Table 35 itemizes City contributions for the year ending June 30, 2001
- Table 36 summarizes 2001 fiscal year administrative expenses
- Table 37 shows July 1, 2001 adjusted market value of assets under the five-year spread gain asset valuation method
- Table 38 shows the July 1, 2001 allocation of adjusted assets among all divisions.

Table 34, showing the fund's receipts and disbursements during the fiscal year ending June 30, 2001, also notes that employee, City, and state contributions are approximately 54% of the yearly receipts on a market value basis (net of PAF). On the disbursement side, benefit payments were approximately 95% of all disbursements (net of PAF).

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

### Rates of return comparison

	Fiscal Year Ending	
	June 30, 2000	June 30, 2001
Cost value	6.6%	3.8%
Market value	9.6%	-6.0%
Adjusted market value	11.1%	8.3%

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

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



## FINANCIAL EXPERIENCE OF FUND

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Table 38 begins with July 1, 2000 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, 2001)

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	Cash Value	Market Value
<b>Assets</b>		
Cash	\$ 15,832,938	\$ 15,832,938
Investment accounts	4,486,580,964	4,510,047,972
Accounts receivable	7,741,899	7,741,899
Interest and dividends receivable	23,125,438	23,125,438
Due from other funds	0	0
Due from other governmental units	841,916	841,916
Other assets	<u>11,220</u>	<u>11,220</u>
Total assets	\$ 4,534,134,375	\$ 4,557,601,383
<b>Liabilities</b>		
Vouchers payable	\$ 372,991	\$ 372,991
Accounts payable	2,791,110	2,791,110
Salaries and wages payable	46,993	46,993
Accrued expenses	692,732	692,732
Funds held in escrow	0	0
Deferred revenue	6,387,068	6,387,068
Other liabilities (including amounts due to brokers)	<u>107,149,457</u>	<u>107,149,457</u>
Total liabilities	\$ 117,440,351	\$ 117,440,351
Fund balance	\$ 4,416,694,024	\$ 4,440,161,032

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**FINANCIAL EXPERIENCE OF FUND**

**34. Statement of receipts and disbursements**

	Market Value (Net of PAF)	PAF	Total Market Value
<b>Balance as of July 1, 2000</b>	\$4,919,108,146	\$ 57,386,282	\$4,976,494,428
<b>Receipts</b>			
Contributions:			
Commonwealth of Pennsylvania <i>Supplemental State Assistance (Act 205)</i>	\$ 0	\$ 0	\$ 0
City of Philadelphia <sup>a</sup>	163,464,441	0	163,464,441
Employees	49,243,515	0	49,243,515
Quasi-public agencies	4,151,390	0	4,151,390
Interest and dividends	136,611,462	(2,824,258)	133,787,204
Gain from sale of investments	42,651,806	0	42,651,806
Miscellaneous operating revenues	<u>2,715,256</u>	<u>0</u>	<u>2,715,256</u>
<b>Total receipts</b>	<b>\$ 398,837,870</b>	<b>\$ (2,824,258)</b>	<b>\$ 396,013,612</b>
<b>Disbursements</b>			
Withdrawals	\$ 4,718,952	\$ 0	\$ 4,718,952
Benefit payments	416,741,689	40,000,000	456,741,689
Administrative expenses	5,208,014	0	5,208,014
Investment manager fees	<u>14,204,566</u>	<u>0</u>	<u>14,204,566</u>
<b>Total disbursements</b>	<b>\$ 440,873,220</b>	<b>\$ 40,000,000</b>	<b>\$ 480,873,220</b>
<b>Change in unrealized appreciation/(depreciation)</b>	<b>\$(451,473,788)</b>	<b>\$ 0</b>	<b>\$(451,473,788)</b>
<b>Balance as of July 1, 2001</b>	<b>\$4,425,599,008</b>	<b>\$ 14,562,024</b>	<b>\$4,440,161,032</b>
<b>Approximate return on investments during year</b>			<b>-6.0%</b>

a. Includes Commonwealth of Pennsylvania general state assistance (\$33,617,159) and COLA reimbursement (\$2,808,713).

**FINANCIAL EXPERIENCE OF FUND**

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**35. Fiscal 2000 City contributions**

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Date	Amount
July 3, 2000	\$ 16,200,000
July 14, 2000	143,000,000
June 30, 2001	4,264,441
Various (Quasi-public agencies)	3,309,474
Accrued	<u>841,915<sup>a</sup></u>
Total	\$ 167,615,831

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a. City-accrued contributions are \$0; quasi-public agencies accrued contributions are \$841,915.

**36. Statement of administrative expenses for year ending  
June 30, 2001**

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Personal services	\$ 2,600,679
Purchase of services	1,403,417
Materials and supplies	80,138
Employer's share of fringe benefits	996,638
Miscellaneous	<u>127,142</u>
Total	\$ 5,208,014

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**FINANCIAL EXPERIENCE OF FUND**

**37. Derivation of assets for valuation purposes as of July 1, 2001 — 5 year spread gain method**

July 1	Total Gain or (Loss)	Year of Recognition					Unrecognized Amount
		2001	2002	2003	2004	2005	
1997	233,367,648	46,673,529	—	—	—	—	0
1998	151,386,333	30,277,267	30,277,266	—	—	—	30,277,266
1999	52,310,273	10,462,055	10,462,054	10,462,054	—	—	20,924,108
2000	19,379,479	3,875,896	3,875,896	3,875,896	3,875,895	—	11,627,687
2001	(725,849,800)	<u>(145,169,960)</u>	<u>(145,169,960)</u>	<u>(145,169,960)</u>	<u>(145,169,960)</u>	<u>(145,169,960)</u>	<u>(580,679,840)</u>
<b>Recognized Total</b>		<b>(53,881,214)</b>					
<b>Unrecognized Total</b>			<b>(100,554,744)</b>	<b>(130,832,010)</b>	<b>(141,294,065)</b>	<b>(145,169,960)</b>	<b>(517,850,779)</b>
1. July 1, 2001 market value				\$ 4,440,161,032			
2. Pension Adjustment Fund (PAF)				14,562,024			
3. July 1, 2001 market value net of PAF (1) - (2)				4,425,599,008			
4. Unrecognized gain/(loss)				<u>(517,850,779)</u>			
5. July 1, 2001 adjusted market (3) - (4)				\$ 4,943,449,787			
6. Approximate actuarial value return on investments during year					8.3%		

**FINANCIAL EXPERIENCE OF FUND**

**38. Allocation of assets for valuation purposes between divisions as of June 30, 2001 (thousands)**

	1967 Plan			Plan 87				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Assets for valuation purposes as of June 30, 2000	\$ 2,471,218	\$ 1,234,421	\$ 565,600	\$ 215,200	\$ 9,828	\$ 216,272	\$ 52,451	\$ 4,764,990
2. Transactions during period July 1, 2000 - June 30, 2001:								
a. Contributions								
City and commonwealth Employees	\$ 78,856	\$ 62,037	\$ 12,716	\$ 8,575	\$ (26)	\$ 1,210	\$ 96	\$ 163,464
Quasi-public agencies	18,832	7,190	3,520	8,164	199	9,058	2,233	49,196
Employee contributions receivable <sup>a</sup>	4,151	0	0	0	0	0	0	4,151
b. Miscellaneous income and (expenses)	0	0	0	48	0	0	0	48
c. Pension benefits <sup>b</sup>	1,394	532	201	375	2	171	40	2,715
d. Withdrawals	220,561	146,735	47,571	225	230	1,229	190	416,742
e. Administrative expenses <sup>c</sup>	2,135	542	220	1,059	0	678	86	4,719
f. Net transactions	2,674	1,021	385	720	3	322	76	5,208
(a) + (b) - (c) - (d) - (e)	\$ (122,136)	\$ (78,538)	\$ (31,738)	\$ 15,158	\$ (59)	\$ 8,203	\$ 2,017	\$ (207,094)
3. Total fund balance prior to allocation of realized and unrealized income (1) + (2)	\$ 2,349,081	\$ 1,155,883	\$ 533,862	\$ 230,358	\$ 9,769	\$ 224,476	\$ 54,468	\$ 4,557,896
4. Realized and unrealized income for period July 1, 2000 - June 30, 2001 (allocated in proportion to (3))	198,709	97,776	45,160	19,486	826	18,988	4,607	385,554
5. Assets for valuation purposes as of June 30, 2001 (3) + (4)	\$ 2,547,791	\$ 1,253,659	\$ 579,022	\$ 249,844	\$ 10,595	\$ 243,464	\$ 59,076	\$ 4,943,450

Note: Numbers may not add because of rounding.

- a. Due to employees who elected to buy five-year vesting.
- b. Excludes \$40,000,000 of benefits paid from the Pension Adjustment Fund (PAF).
- c. Allocated in proportion to the number of active and nonactive members in each division as of July 1, 1999.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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 47 (Local 2186 or 2187) and 33 members hired between January 8, 1987 and October 1, 1992 were switched from Plan 87 to 1967 Plan effective on their hire dates, provided such employee contributed the difference between what they paid to the Plan and the amount they would have paid under Plan J.	Same as municipal.
<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, longevity payments, and overtime received during a 12-month period.	Total compensation means the base rate of pay and longevity payments received during a 12-month period.
<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, 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 that produces the highest average.	<p>Average final compensation means the highest of:</p> <ul style="list-style-type: none"> <li>▪ The total compensation received during the 12-month period; or</li> <li>▪ The annual base rate of pay, excluding longevity payments, calculated from the final pay period; or</li> <li>▪ The arithmetic average of the total compensation received during five calendar years of employment.</li> </ul>
<b>Employee contributions</b>	<p>Each employee who participates in the Social Security System, contributes 3 3/4% of total compensation up to the taxable wage base (\$80,400 in 2000 and \$84,900 in 2001) and 6% of total compensation above the taxable wage base to the Retirement System.</p> <p>Each employee who does not participate in the Social Security System contributes 6% of his total compensation to the Retirement System.</p>	Same as municipal.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan		
	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
<b>Service retirement</b>		
<i>Eligibility</i>	Each municipal employee is eligible to retire and receive a service pension at age 55 with one year of service.	Each uniformed employee is eligible to retire and receive a service pension at age 45.
<i>Benefit amount</i>	The service pension equals 2 1/2% of the employee's average final compensation multiplied by years credited service to a maximum of 20 years plus 2% of the employee's average final compensation multiplied by years credited service above 20, to a maximum of 80% of the employee's average final compensation.	The service pension equals 2 1/2% of the employee's average final compensation multiplied by years credited service, subject to a maximum of 100% of average final compensation.
<b>Early retirement</b>		
<i>Eligibility</i>	Each municipal employee is eligible to retire and receive a reduced service pension at age 52 if he has 10 or more years credited service.	Each uniformed employee is eligible to retire and receive a reduced service pension at age 40 if he or she has 10 or more years of credited service.
<i>Benefit amount</i>	The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age.	Same as municipal.
<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>	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).  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.	
<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.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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 Worker's Compensation Act.

Same as municipal.

This benefit is payable to the spouse until his or her death or remarriage. Dependent children are entitled to an additional yearly payment of 10% of final compensation for each dependent child (up to two children) until the child reaches age 18.

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

### 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.

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.

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 if eligible to retire on the day before he died and had elected option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

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



## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

1967 Plan		
	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
<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 after completing 10 years credited service.	Same as municipal, except that fire employees only need five years credited service and police employees have no service requirement if the disability is permanent and total. Police employees with permanent and partial disability need 10 years of credited service.
<i>Benefit amount</i>	The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement.  If the employee is eligible for or receiving workers' compensation, no benefit is payable. Such employee may apply for benefits at retirement age.	Same as municipal, except police employees that have no service requirement are credited with a minimum of 10 years credited service.  Same as municipal.
<i>Benefit offset</i>	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 55.	If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 45. The earned income offset does not apply to fire employees.
<i>Survivor benefit</i>	Service pensions, deferred vested benefits, service-connected disability benefits (if employee contributions are left on deposit), and ordinary disability benefits are payable under 4 optional forms. Options 1, 2, and 3 provide benefits actuarially equivalent to a lifetime only pension while option 4 has no reduction.  <i>Option 1</i> - A benefit is payable to the employee with the provision that upon death, the beneficiary will receive a lump sum equal to the excess, if any, of the employee's contributions over the sum of the payments received.  <i>Option 2</i> - A reduced benefit payable to the employee with the provision that 100% of the reduced benefit will be paid to the designated beneficiary for life after the death of the employee.  <i>Option 3</i> - Same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.	Same as municipal.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87		
	<i>MUNICIPAL</i>	<i>UNIFORMED (PLANS A AND B)</i>
<b>Participation</b>	Full-time employees participate on their date of employment. Temporary employees participate after completing six months of employment. Participation is limited to employees hired on or after January 8, 1987. Any member of the 1967 Plan may irrevocably elect to participate in Plan 87.	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, overtime, and longevity payments received during a 12-month period.	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, 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. Exempt and non-represented employees hired after January 13, 1999 (and current employees as of January 13, 1999 that elect to do so) will contribute an additional amount to become vested in five years.	Total employee contributions equal 5% of total compensation, but not less than 30% or greater than 50% of gross normal cost for members in the uniformed division. Exempt and non-represented employees hired after January 13, 1999 (and current employees as of January 13, 1999 that elect to do so) will contribute an additional amount to become vested in five years.
<b>Service retirement</b>		
<i>Eligibility</i>	Each municipal employee is eligible to retire and receive a service pension at age 60 and if he or she has 10 or more years of credited service or, if the employee made additional contributions to become vested in five years, five years of credited service.	Each uniformed employee is eligible to retire and receive a service pension upon reaching age 50 and 10 or more years of credited service, or, if the employee made additional contributions to become vested in five years, five years of credited service.
<i>Benefit amount</i>	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, subject to a maximum of 100% of average final compensation.	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, subject to a maximum of 100% of average final compensation.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

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

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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Plan 87

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MUNICIPAL

UNIFORMED (PLANS A AND B)

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

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

### Ordinary death

#### *Eligibility*

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

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

The beneficiary may be any relative by blood or marriage.

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

The beneficiary may be any relative by blood or marriage.

#### *Annual pension*

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

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

#### *Lump sum payment*

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

Same as municipal.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

Plan 87

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

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

### Plan 87

#### MUNICIPAL

#### UNIFORMED (PLANS A AND B)

#### Ordinary disability

##### 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 at least 10 years credited service (or five years credited service, if additional contributions were made).

Same as municipal, except that fire employees only need five years credited service and police employees have no service requirement if the disability is permanent and total. Police employees with permanent and partial disability need 10 years credited service (or five years credited service, if additional contributions were made).

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

##### 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.

If the employee is eligible for or receiving workers compensation, no benefit is payable. Such employee may apply for benefits at retirement age.

Same as municipal.

##### 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.

#### Survivor benefits

Service pension, deferred vested benefits, service-connected disability benefits, and ordinary disability benefits are payable under three optional forms. Options 2 and 3 provide benefits actuarially equivalent to a lifetime only pension while option 1 has no reduction.

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.



## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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Plan 87

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### MUNICIPAL

### UNIFORMED (PLANS A AND B)

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Service-connected health care benefit

Not applicable.

In the event of the death of a uniformed employee during the performance of his or her duties, a service-connected health care benefit may be payable to the surviving spouse and dependent children. Regular payments will be made of the appropriate cost of maintaining medical, dental, optical and pharmaceutical prescription benefits in force at the time of the employee's death. Payments to the spouse cease upon remarriage and to dependent children at age 18 (age 22 if a full-time student).

Deferred Retirement Option Plan (DROP)

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

Same as municipal.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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### Plan 87

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#### *Elected Plan*

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<b>Participation</b>	Any City employee 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 whichever is greater: annual base rate of pay at the time of termination or the total compensation received during the 12 months immediately preceding termination, including supplementary compensation received under Civil Service Regulation No. 32.
<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 produces 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. Employees hired after January 13, 1999 (and current employees as of January 13, 1999 that elect to do so) will contribute an additional amount to become vested in the lesser of two full terms or eight years.
<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, or, if the employee made additional contributions to become vested in the lesser of two full terms or eight years, the lesser of two full terms or eight years of credited service.
<i>Benefit amount</i>	The service pension equals 3.5% of the employee's average final compensation multiplied by years credited service, subject to a maximum of 100% of average final compensation.
<b>Early retirement</b>	
<i>Eligibility</i>	Each elected official is eligible to retire and receive a reduced service pension at age 52 if he has 10 or more years credited service.
<i>Benefit amount</i>	The annual amount is calculated the same as service retirement, reduced by 1/3 of 1% for each month the employee is younger than minimum retirement age.
<b>Deferred vested retirement</b>	
<i>Eligibility</i>	A person terminating employment and who has completed 10 or more years credited service, or, if the employee made additional contributions to become vested in the lesser of two full terms or eight years, two full terms or eight years of credited service is eligible for a deferred vested retirement benefit provided he or she has not withdrawn contributions.
<i>Benefit amount</i>	The annual deferred vested benefit is determined in the same manner as service pensions, based on average final compensation and credited service at the time of termination. This benefit begins at the service retirement date. If a member dies before beginning his or her deferred vested benefit, an ordinary death benefit is payable (see Ordinary Death below).  As an alternative, the person terminating employment may request at any time beginning benefits to receive a return of employee contributions (without interest) in lieu of the deferred vested benefit.

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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### Plan 87

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#### *Elected Plan*

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

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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### Plan 87

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#### *Elected Plan*

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	<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>
<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>
<b>Service-connected disability</b>	
<b>Periodic adjustment</b>	
<i>Eligibility</i>	<p>An employee who is receiving a service-connected disability benefit who is <i>totally disabled</i> and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.</p>
<i>Benefit amount</i>	<p>The disabled employee's pension will be increased in the eighth year after separation by the percentage raise given in the previous year to active employees in his or her job class. The adjustment will continue each year until the employee's 65th birthday.</p>
<b>Ordinary disability</b>	
<i>Eligibility</i>	<p>An active employee found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he or she has completed at least 10 years credited service, or 8 years if additional contributions were made..</p>
<i>Benefit amount</i>	<p>The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement.</p>
<i>Benefit offset</i>	<p>If the employee collects his or her disability benefit and subsequently becomes employed, their disability benefits will be reduced \$1 for every \$2 earned in outside wages. The offset will continue until age 55.</p>
<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 lump sum of the payments received.</p> <p><i>Option 2</i> - A reduced benefit payable to the employee providing 100% of the reduced benefit will continue to be paid to the designated beneficiary for life after the death of the employee.</p> <p><i>Option 3</i> - Same as option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.</p>
<b>Service-connected health care benefit</b>	<p>Not applicable.</p>

## MAJOR FEATURES OF THE RETIREMENT SYSTEM

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### Plan 87

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#### *Elected Plan*

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

## **ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS**

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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, DROP, 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, 2001.

### **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, 2001, the remaining July 1, 1985 unfunded actuarial accrued liability is amortized over 34 years ending June 30, 2019, with payments increasing 4.5% 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 4.5% per year.

### **Annual rate of withdrawal prior to retirement**

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

**ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS**

**39. Withdrawal probabilities at 5-year intervals**

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

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

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

**Annual rate of disability prior to retirement**

The assumed annual disability rates appear in Table 40.

**40. Disability probabilities at 5-year intervals**

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

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

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

## **ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS**

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### **Annual rate of mortality prior to retirement**

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

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

The active mortality table was changed from the UP84 table to reflect the July 1, 2001 experience study.

### **Service retirement**

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



**ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS**

**41. 1967 plan service retirement rates**

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

a. This number was updated to reflect the July 1, 2001 experience study.

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

**ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS**

**42. Plan 87 service retirement rates**

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

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

## ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

### Annual rate of mortality after retirement

We assumed that postretirement mortality will be as follows:

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

The GAR 94 base table was updated from UP84 to reflect the July 1, 2001 experience study.

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

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

### 43. Post-disablement mortality adjustment factors (municipal)

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

## ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS

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### 44. Post-disablement mortality adjustment factors (uniformed)

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

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#### Salary scale

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

#### Rate of investment return

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

## **ACTUARIAL COST METHOD, FACTORS, AND ASSUMPTIONS**

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### **Expenses**

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

### **Value of investments**

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

### **Family composition**

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

### **Form of annuity**

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

### **Rate of covered payroll growth**

We assume that the annual rate of growth of total covered payroll is 4.5% per year. This is supported by the actuarial experience studies for the five-year periods ending June 30, 1993, June 30, 1997, and June 30, 2001 which showed that the adjusted growth rate of covered payroll averaged 4.7%, 3.2%, and 2.1% respectively. This represents a change from the 5.0% assumption used in the prior year's valuation.

## MINIMUM MUNICIPAL OBLIGATION

The minimum municipal obligation (MMO) is the minimum required City contribution under state law (Acts 205 and 189). The City's MMO for the year ending June 30, 2003 is \$142,399,527. This amount is summarized by division in Table 45 and is based on the July 1, 2001 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 2002, the total state payments are \$36,426,000. Amounts received during fiscal 2003 may be used to meet the \$142,399,527 obligation. Supplemental State Assistance (SSA), if any, may not be used to offset this commitment.

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

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

**MINIMUM MUNICIPAL OBLIGATION**

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

**45. MMO calculation for fiscal 2003 (July 1, 2001 valuation report)**

	Fiscal 2003 (dollars in thousands)			
	Non-Uniformed	Police	Fire	Total
Estimated FY 2002 payroll	\$ 821,663	\$ 306,528	\$ 97,889	\$1,226,080
Normal cost percent	7.264%	11.676%	12.210%	8.717%
Normal cost	\$ 59,992	\$ 35,890	\$ 11,995	\$ 107,877
Amortization payment <sup>a</sup>	31,737	39,563	4,757	76,057
Administrative expense	<u>3,602</u>	<u>1,420</u>	<u>478</u>	<u>5,500</u>
Subtotal	\$ 95,331	\$ 76,873	\$ 17,231	\$ 189,434
Expected member contributions	<u>(25,066)</u>	<u>(16,523)</u>	<u>(5,447)</u>	<u>(47,035)</u>
MMO <sup>b</sup>	\$ 70,265	\$ 60,350	\$ 11,784	\$ 142,400

- a. The portion of the unfunded actuarial accrued liability attributable to the Dombrowski class action suit is included in the initial unfunded liability that was established July 1, 1985. For MMO calculations, it is amortized over 40 years ending June 30, 2025 in annual payments increasing 4.5% per year. The City's funding policy, however, amortizes the original Dombrowski liability in level dollar payments over 40 years ending June 30, 2009.
- b. Includes general pension state aid and state cost-of-living adjustment reimbursement. For fiscal 2002, the total is \$36,426 (thousands). Also includes quasi agencies.

**MINIMUM MUNICIPAL OBLIGATION**

**46. Unfunded liability payments toward MMO for fiscal 2003 (thousands) — July 1, 2001 valuation report**

	Municipal			Police			Fire		
	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment
<b>Original July 1, 1985 unfunded actuarial accrued liability</b>	\$ 873,148	24	\$ 56,638*	\$ 560,511	24	\$ 36,358*	\$ 223,521	24	\$ 14,499*
<b>July 1, 1986 additional amounts</b>									
Active	\$ 1,153	6	\$ 236	\$ 100	6	\$ 20	\$ 50	6	\$ 10
(Gain)/loss	(4,924)	1	(4,924)	(2,308)	1	(2,308)	(1,175)	1	(1,175)
Subtotal <sup>b</sup>	\$ (3,771)		\$ (4,688)	\$ (2,208)		\$ (2,287)	\$ (1,125)		\$ (1,165)
<b>July 1, 1987 additional amounts</b>									
(Gain)/loss	\$ (782)	2	\$ (408)	\$ 1,523	2	\$ 794	\$ 237	2	\$ 121
<b>July 1, 1998 additional amounts</b>	\$ 7,456	3	\$ 2,702	\$ 7,033	3	\$ 2,549	\$ 555	3	\$ 201
<b>July 1, 1989 additional amounts</b>									
Active	\$ 10,480	9	\$ 2,816	\$ 2,930	9	\$ 787	\$ 1,362	9	\$ 366
(Gain)/loss	(714)	4	(993)	971	4	1,351	294	4	410
Assumption change	(11,439)	9	(3,073)	(3,327)	9	(894)	(1,334)	9	(358)
Subtotal <sup>b</sup>	\$ (1,672)		\$ (1,251)	\$ 574		\$ 1,244	\$ 323		\$ 417
<b>July 1, 1990 additional amount</b>	\$ (6,727)	5	\$ (4,055)	\$ 7,074	5	\$ 4,264	\$ 1,425	5	\$ 859
<b>July 1, 1991 additional amount</b>	\$ (2,020)	6	\$ (801)	\$ (1,979)	6	\$ (785)	\$ (897)	6	\$ (356)
<b>July 1, 1992 additional amounts</b>									
Active	\$ 355	12	\$ 63	\$ 0		\$ 0	\$ 0		\$ 0
(Gain)/loss	18,915	7	5,707	(2,232)	7	(674)	(922)	7	(278)
Subtotal <sup>b</sup>	\$ 19,269		\$ 5,770	\$ (2,232)		\$ (674)	\$ (922)		\$ (278)



**MINIMUM MUNICIPAL OBLIGATION**

	Municipal			Police			Fire		
	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment
<b>July 1, 1993 additional amounts</b>									
Nonactive	\$ 29	3	\$ 38	\$ 0		\$ 0	\$ 0		\$ 0
Active	(1,006)	13	(163)	(669)	13	(108)	0		0
(Gain)/loss	(13,663)	8	(3,381)	(10,767)	8	(2,665)	(4,340)	8	(1,074)
Assumption change	(9,903)	13	(1,605)	80	13	13	(1,845)	13	(299)
Subtotal <sup>a</sup>	\$ (24,542)		\$ (5,112)	\$ (11,357)		\$ (2,760)	\$ (6,185)		\$ (1,373)
<b>July 1, 1994 additional amounts</b>									
(Gain)/loss	\$ (6,924)	9	\$ (1,471)	\$ (1,059)	9	\$ (225)	\$ (4,106)	9	\$ (872)
<b>July 1, 1995 additional amounts</b>									
Active	\$ 404	14	\$ 48	\$ 0		\$ 0	\$ 0		\$ 0
(Gain)/loss	6,101	9	934	410	9	63	(2,648)	9	(405)
Subtotal <sup>a</sup>	\$ 6,505		\$ 981	\$ 410		\$ 63	\$ (2,648)		\$ (405)
<b>July 1, 1996 additional amount</b>									
(Gain)/loss	\$ 4,527	10	\$ 647	\$ 2,221	10	\$ 318	\$ (1,931)	10	\$ (276)
<b>July 1, 1997 additional amount</b>									
Assumption change	\$ 44,723	16	\$ 4,936	\$ 5,473	16	\$ 604	\$ 2,305	16	\$ 254
(Gain)/loss	(49,920)	11	(6,730)	(19,159)	11	(2,583)	(12,808)	11	(1,727)
Subtotal <sup>a</sup>	\$ (5,197)		\$ (1,794)	\$ (13,686)		\$ (1,979)	\$ (10,503)		\$ (1,472)
<b>July 1, 1998 additional amounts</b>									
(Gain)/loss	\$ (14,876)	12	\$ (1,906)	\$ (12,143)	12	\$ (1,556)	\$ (10,915)	12	\$ (1,398)
<b>July 1, 1999 additional amounts</b>									
(Gain)/loss	\$ (127,208)	13	\$ (15,588)	\$ 936	13	\$ 115	\$ (46,177)	13	\$ (5,658)
Active	14,421	18	1,511	0		0	0		0
Nonactive	37,725	8	6,253	16,791	8	2,783	6,233	8	1,033
Subtotal <sup>a</sup>	\$ (75,063)		\$ (7,824)	\$ 17,727		\$ 2,898	\$ 39,944		\$ (4,625)
<b>July 1, 2000 additional amounts</b>									
(Gain)/loss	\$ (25,898)	14	\$ (3,052)	\$ 36,021	14	\$ 4,244	\$ 738	14	\$ 87
<b>July 1, 2001 additional amounts</b>									
Assumption change	\$ (4,122)	20	\$ (414)	\$ (2,351)	20	\$ (236)	\$ (5,347)	20	\$ (537)
(Gain)/loss	(19,568)	15	(2,227)	(23,433)	15	(2,667)	11,208	15	1,333
Subtotal	\$ (23,691)		\$ (2,642)	(25,784)		(2,903)	\$ 6,361		\$ 795
<b>Total unfunded actuarial accrued liability<sup>b</sup></b>	\$ 719,740	—	\$ 31,737	\$ 562,647	—	\$ 39,563	\$ 153,982	—	\$ 4,257

- a. Level dollar amortization payment (24 years remaining):
- Municipal — \$43,851
  - Police — \$28,150
  - Fire — \$11,226.

b. Numbers may not add because of rounding.

## **MINIMUM MUNICIPAL OBLIGATION**

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

- Table 47 — Corresponds to Section A of Exhibit I and presents a Summary of Modified Actuarial Data.
- Table 48 — Presents various Modified Unfunded Actuarial Accrued Liabilities and Amortization Contributions.
- Table 49 — Is used to identify and allocate total debt service requirements for debt issued to finance pension plan contributions.
- Table 50 — This is similar to Table 34 —statement of receipts and disbursements, but excluding asset, due to the issuance of a bond.

**MINIMUM MUNICIPAL OBLIGATION**

**47. Summary of modified actuarial data**

	<b>Municipal</b>	<b>Police</b>	<b>Fire</b>	<b>Total</b>
Actuarial accrued liability	\$3,527,969,000	\$2,059,770,000	\$ 792,080,000	\$6,379,819,000
Market value of assets <sup>a</sup>	\$1,821,056,000	\$ 989,345,000	\$ 408,518,000	\$3,218,920,000
Actuarial value of assets <sup>a</sup>	\$2,004,001,000	\$1,088,503,000	\$ 447,913,000	\$3,540,417,000
Unfunded actuarial accrued liability	\$1,523,968,000	\$ 971,267,000	\$ 344,167,000	\$2,839,402,000
<b>Amortization Contributions</b>				
<b>1/1/85 initial liability</b>				
Remaining amortization period	24	24	24	24
Level dollar contribution	\$ 82,595,000	\$ 53,022,000	\$ 21,144,000	\$ 156,761,000
Payroll-based contribution	\$ 106,679,000	\$ 68,482,000	\$ 27,309,000	\$ 202,470,000
<b>Post-1/1/85 liability</b>				
Remaining amortization period	6	N/A	9	9
Amortization contribution	\$ (27,842,000)	\$ (5,333,000)	\$ (11,997,000)	\$ (45,172,000)
<b>Total amortization contribution</b>	<b>\$ 78,837,000</b>	<b>\$ 63,149,000</b>	<b>\$ 15,312,000</b>	<b>\$ 157,298,000</b>

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

**MINIMUM MUNICIPAL OBLIGATION**

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

	Municipal			Police			Fire		
	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment	July 1, 2001 Remaining Balance	Years Remaining	Amortization Payment
Original July 1, 1985 unfunded actuarial accrued liability	\$ 1,644,603	24	\$ 106,679	\$ 1,055,741	24	\$ 68,482	\$ 421,009	24	\$ 27,309
All changes prior to July 1, 2001	\$ (93,484)		\$ (24,807)	\$ (39,803)		\$ (280)	\$ (85,899)		\$ (13,099)
July 1, 2001 additional amounts (Gain)/loss	(23,029)	15	(2,621)	(42,320)	15	(4,817)	14,404	15	1,639
Assumption change	(4,122)	20	(414)	(2,351)	20	(236)	(5,347)	20	(537)
Subtotal	(27,151)		(3,035)	(44,671)		(5,053)	9,057		1,102
All changes including July 1, 2001 addition	\$ (120,635)		\$ (27,842)	\$ (84,474)		\$ (5,333)	\$ (76,842)		\$ (11,997)

**MINIMUM MUNICIPAL OBLIGATION**

**49. Total debt service requirements (municipal)**

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

**MINIMUM MUNICIPAL OBLIGATION**

**49. Total debt service requirements (police)**

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

**MINIMUM MUNICIPAL OBLIGATION**

**49. Total debt service requirements (fire)**

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

**MINIMUM MUNICIPAL OBLIGATION****50. Statement of receipts and disbursements *excluding* bond issue assets**

	<b>Municipal</b>	<b>Police</b>	<b>Fire</b>
Assets at July 1, 2000	\$ 2,085,053,726	\$ 1,132,183,012	\$ 477,235,185
<b>Receipts</b>			
Employer contributions	115,967,934	88,472,151	15,657,759
Employee contributions	27,242,213	16,248,220	5,753,082
State aid	19,477,061	14,093,826	2,854,985
Supplemental state assistance	0	0	0
Investment income (includes investment expenses)	75,791,389	41,151,718	17,164,496
Net change in market value	(255,426,045)	(138,771,626)	(57,276,116)
Other receipts	<u>1,771,020</u>	<u>703,899</u>	<u>240,338</u>
Total receipts	\$ (15,176,428)	\$ 21,898,188	\$ (15,605,456)
<b>Disbursements</b>			
Benefit payments	\$ 242,230,517	\$ 162,166,128	\$ 52,345,044
Refund of contribution	3,193,651	1,220,039	305,262
Administrative expenses	3,396,916	1,350,119	460,979
Other disbursements	<u>0</u>	<u>0</u>	<u>0</u>
Total disbursements	\$ 248,821,084	\$ 164,736,286	\$ 53,111,285
Assets at July 1, 2001	\$ 1,821,056,214	\$ 989,344,914	\$ 408,518,444



## GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)

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

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

- A *statement of plan net assets* including information about plan assets and liabilities at the reporting date. This information is shown in the Financial Experience of the Fund section of the report.
- A *statement of changes in plan net assets* including receipts and disbursements. This information is also contained in the Financial Experience of the Fund section of the report.
- A *schedule of funding progress* including historical information about the actuarially determined funded status of the plan and the progress made in accumulating sufficient assets. This information should be provided for each of the past six plan years. For the transition year and the following five years the schedules should show information for the current year and as many prior years as available. This schedule is shown in Table 51 below.
- A *schedule of employer contributions* including historical trend information about the Annual Required Contributions (ARC) and the contributions made by the employer in relation to the ARC. This information is shown in Table 52.

### 51. Schedule of funding progress (dollars in millions)

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

**GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)**

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

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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%
1999	\$ 256,704	586.9% <sup>b</sup>
2000	\$ 168,928	108.9%
2001	\$ 167,616	100.0%

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

**Statement No. 27 disclosure**

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

The reporting elements are:

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

*Your valuation method conforms to the entry age cost method as defined in Section B of Statement 27. Unfunded actuarial accrued liabilities are funded on average over 17 years from July 1, 2001. Assets are valued as a five-year smoothing of gains and losses on the market value. All assumptions used in the calculation of the valuation reflect our long term expectations.*

**GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)**

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

*During the 1994 fiscal year, the City contributed \$10,000,000 more than the ARC. Therefore, the initial NPO value at the effective date is \$(9,012,000) as shown in Table 54 below.*

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

The following table summarizes the GASB Statement disclosure for fiscal years 1994 through 2001.

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

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

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

