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February 16, 1988

Foster Higgins

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

Ladies and Gentlemen:

We respectfully present the results of our actuarial valuation as of July 1, 1987 of the City of Philadelphia Municipal Retirement System.

The employee data and the financial information used in this report were provided by the City and the Board of Pensions and Retirement. The actuarial valuation report may be used to support contributions to the Retirement System for the fiscal year ending June 30, 1989.

The valuation reflects the adoption of Plan 87 on January 8, 1987.

A summary of the determinations made in this actuarial valuation is as follows (\$000 omitted in numbers shown):

Net Actuarial Accrued Liability as of July 1, 1987	\$3,277,607
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Assets as of July 1, 1987 for Valuation Purposes	\$1,479,083
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Unfunded Actuarial Accrued Liability as of July 1, 1987	\$1,798,524
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City Normal Cost as a Percent of Payroll
for the Year, Assuming Payment is Made at
End of Year (Before Deduction of Contri-
butions from Commonwealth of Pennsylvania):

1967 Plan

Municipal Division	7.179%
Police Division	10.000
Fire Division	9.882

Plan 87

Municipal Division	5.561%
Police Division	8.387
Fire Division	7.703

<u>Combined Plans</u>	8.072%
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Board of Pensions and Retirement
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The actuarial assumptions underlying these calculations represent, in the aggregate, the actuary's best estimate of anticipated future experience of the Retirement System. There have been no changes in actuarial assumptions from those used in the July 1, 1986 valuation except for those new assumptions required for Plan 87.

The City's funding policy provides for (i) payment of the normal cost in accordance with the calculations made by the actuary plus (ii) level dollar payments toward amortization of the Bogen and Dombrowski unfunded actuarial accrued liabilities plus (iii) payments increasing 6.0% per annum toward the amortization of the unfunded actuarial accrued liability established on July 1, 1985 plus (iv) level dollar payments toward amortization of any plan changes or actuarial gains and losses which occur after July 1, 1985.

For the year beginning July 1, 1988 and ending June 30, 1989, these requirements provide for the following payments:


Annual Payment Toward
Unfunded Actuarial Accrued Liability
(\$000 Omitted)

Dombrowski Liability	\$ 3,813
Bogen Liability	5,034
Initial July 1, 1985 Unfunded Liability	98,650
Changes Effective July 1, 1986	(13,380)
Changes Effective July 1, 1987	2,702
Total Payment	\$ 96,819

This report contains supporting data and background material pertinent to the determination of the normal cost and accrued liabilities of the Retirement System.

Respectfully submitted by:

A. FOSTER HIGGINS & CO. INC.


Albert Pike, 3rd, F.C.A., A.S.A.
Vice President

AP/KSM/sdt
PCYA/VAL/88/1A (PCYA/P)

CITY OF PHILADELPHIA
MUNICIPAL RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT

AS OF

JULY 1, 1987

Prepared by:

A. FOSTER HIGGINS & CO., INC.

K Scot Martin

K. Scot Martin, A.S.A., M.A.A.A.
Assistant Actuary

Albert Pike 3rd

Albert Pike, 3rd, F.C.A., A.S.A.
Vice President

February 16, 1988
Washington, D.C.

Foster Higgins

CITY OF PHILADELPHIA
MUNICIPAL RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT
AS OF
JULY 1, 1987

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PART I
SUMMARY AND ANALYSIS OF FINDINGS

This part presents a summary and analysis of the findings of the actuarial valuation as of July 1, 1987 of the City of Philadelphia Municipal Retirement System.

A. Summary of Findings

A summary of the findings of the actuarial valuation for all divisions combined is presented in the following table. The results, determined as of July 1, 1987, are the basis upon which the City contributions for the fiscal year beginning July 1, 1988 and ending June 30, 1989 will be calculated. The valuation reflects the funding requirements of the Municipal Pension Plan Funding Standard and Recovery Act (Act 205) enacted December 18, 1984.

July 1, 1987 Actuarial Valuation
(\$000 Omitted)

1. Participants

a. Active	31,841
b. Retired and Beneficiaries	20,886
c. Disabled	4,350
d. Terminated Vested	472
e. Total	<u>57,549</u>

2. Total Annual Salaries	\$ 836,181
3. Net Actuarial Accrued Liability	\$3,277,607
4. Assets for Valuation Purposes	\$1,479,083
5. Unfunded Actuarial Accrued Liability	\$1,798,524
6. City Normal Cost as of Percent of Payroll (Before Deduction of Contributions from Commonwealth)	
a. Assuming Beginning of Year Payment	7.406%
b. Assuming End of Year Payment	8.072%

Part II presents further detail with respect to these determinations. In addition, it includes a comparison between official funding policies with funding standards specified under generally accepted accounting principles (GAAP) and the estimated progress of the fund for the 20-year period of July 1, 1987 through June 30, 2007.

B. Analysis of Findings

A comparison of the current, July 1, 1987, valuation with the prior, July 1, 1986, valuation is as follows:

	Valuation (\$000 Omitted)		Change
	July 1, 1986	July 1, 1987	
City Normal Cost Rate Assuming Payment at End of Year			
<u>1967 Plan:</u>			
Municipal Division	7.125%	7.179%	+.054%
Police Division	9.862	10.000	+.138
Fire Division	9.807	9.882	+.075
All Divisions Combined	8.020%	8.093%	+.073%
<u>Plan 87:</u>			
Municipal Division	5.56% ^{1J}	5.561%	--%
Police Division	7.52 ^{1J}	8.387	+.87
Fire Division	7.42 ^{1J}	7.703	+.28
All Divisions Combined	N/A	6.723%	N/A
July 1, 1987 Unfunded Actuarial Accrued Liability	\$1,778,542 ^{2J}	\$1,798,524	\$19,982

^{1J} Initial cost estimate based on all active employees as of July 1, 1986.

^{2J} Expected July 1, 1987 value based on July 1, 1986 valuation.

The above changes are the result of actuarial experience during the year and benefit modifications adopted during the year.

Actuarial experience during the year was unfavorable in the aggregate. The primary source of loss was average salary increases above the assumed rate of 6%. These increases for continuing participants were 10.6% for municipal employees (including overtime), 9.5% for police employees, and 9.8% for firefighters. Somewhat offsetting these losses were gains attributable to investment experience of 15.1% on an adjusted market-value basis compared to an assumed rate of 9%.

The increased cost also reflects increases in minimum benefits granted to certain non-active police and fire beneficiaries from \$200 to \$250.

Finally, effective January 8, 1987, the City adopted a new plan ("Plan 87") which the City intended to cover employees hired on or after January 8, 1988, as well as members in the 1967 Plan who elected to transfer to Plan 87. Except for elected officials, Plan 87 provides for less costly benefits and reduced employee contributions. For elected officials, Plan 87 provided for better benefits with participating elected officials required to pay for the additional normal cost. District Council 33 has challenged Plan 87 in court and, as a result, their members continue to be covered by the 1967 Plan, pending final resolution of the dispute. Plan 1987 also has separate provisions for elected officials; however, as of July 1987, no elected official was eligible for Plan 87. The principal differences in plan provisions between the 1967 Plan and Plan 87 are as follows:

1. Plan 87 does not include overtime compensation for municipal employees.
2. Average final compensation for uniformed employees in Plan 87 is the average total compensation (excluding overtime) during the final 2 years, whereas the 1967 Plan uses the greater of the final rate of

pay or the total compensation (excluding overtime) during any 12-month period.

3. Employee contributions under the 1967 Plan is 3.75% of compensation covered by Social Security and 6% of compensation not covered by Social Security. The contribution rate for Plan 87 municipal employees is 30% of the gross normal cost rate. Uniformed employees contribute 5% of pay, but must be between 30% and 50% of the aggregate normal cost rate of each division.
4. Eligibility for service retirement for the 1967 Plan is age 55 for municipal employees and age 45 for uniformed employees. Plan 87 requires age 60 and 10 years of service for municipal employees; age 50 and 10 years of service for uniformed employees.
5. Service retirement benefit amounts:

	<u>Municipal</u>	<u>Uniformed</u>
<u>1967 Plan</u>	2.5% of final average compensation times years of service not in excess of 20 years	2.5% of final average compensation times years of service not in excess of 40 years
	<u>plus</u>	
	2% of final average compensation times service in excess of 20 years	
<u>Plan 87</u>	2% of final average compensation times year of service	2.2% of final average compensation times years of service not in excess of 20 years
		<u>plus</u>
		2% of final average compensation times service in excess of 20 years

6. Early retirement benefits are available to employees in Plan 87 who are within 10 years of the age requirement for service retirement. Benefits are reduced 6% for each year benefits commence early. Benefits for uniformed employees are not reduced if the employee has 25 or more years of service.
7. Normal form of annuities under Plan 87 are life only. The 1967 plan offers an unreduced joint and 50% survivor option.
8. Minimum pensions are provided for members and beneficiaries in the 1967 Plan. Plan 87 currently does not have any provision for minimum pensions.
9. Waiver of benefit option is offered to participants in the 1967 plan. This is not offered in Plan 87.

Part V of this report gives a more detailed description of the plans.

The original cost estimates for Plan 87 were based on the average age at hire for all active participants as of July 1, 1986. The costs shown in this report are based on the actual employees who joined Plan 87 between January 8, 1987 and June 30, 1987. A comparison of the City's normal cost rates (applied to payroll) are as follows:

City Normal Cost for Plan 87		
	<u>Original Estimate</u>	<u>July 1987</u>
Municipal	5.56%	5.561%
Police	7.52	8.387
Firefighters	7.42	7.703

For Plan 87, municipal employees are to contribute 30% of the gross normal cost. Police and firefighters are to contribute 5% of pay, but not less than 30% or more than 50% of gross normal cost. Based on the above, employee contributions to Plan 87 should be as follows:

	Fiscal Year Beginning:	
	<u>July 1, 1987</u>	<u>July 1, 1988</u>
Municipal	2.39%	2.28%
Police	5.00	5.00
Firefighters	5.00	5.00

Note that the 2.28% municipal rate is slightly less than the total municipal rate of 7.84% (5.56% plus 2.28%) due to the fact the employees contribute throughout the year while the City contributions are assumed to be paid at the end of the year.

Results of July 1, 1987 Actuarial Valuation

	<u>Normal Cost Rate (End of Year)</u>	<u>Unfunded Actuarial Accrued Liability (\$000 Omitted)</u>
1. Expected July 1, 1987 Results Based on July 1, 1986 Valuation Report (Including Benefit In- crease to Non-Active Members Not Previously Reported)	8.020%	\$1,778,542
2. Impact of Actuarial Experience		
a. Investment Return	--%	-78,662
b. Salary Increases	--	+72,788
c. Bond Immunization Adjustment	--	+10,061
d. Other Actuarial Experience	<u>+.073</u>	<u>+15,784</u>
e. Subtotal	+ .073%	\$ 19,971
3. Impact of Plan Amendments:		
a. Benefit Increase to Certain Non-Actives	--%	\$ +11
b. Creation of Plan 87	<u>-.021</u>	<u>--</u>
c. Subtotal	-.021%	\$ +11
4. July 1, 1987 Valuation Results: (1) + (2) + (3)	8.072%	\$1,798,524

Funding Method

Act 205 generally requires that the unfunded actuarial accrued liability be funded in annual level dollar payments. Because the City of Philadelphia has been classified as a Distress Level III municipality, it is exempted from this requirement with respect to unfunded liabilities as of July 1, 1985 and may amortize the unfunded actuarial accrued liability as follows:

1. The remaining July 1, 1985 unfunded actuarial accrued liability (net of the Bogen and Dombrowski class action obligations) is amortized over 40 years ending June 30, 2019 in annual payments increasing 6% per annum.
2. Changes in the actuarial accrued liability realized after July 1, 1985 are amortized in level dollar payments over the period of years shown as follows:
 - a. Changes in actuarial assumptions 20 years
 - b. Experience gains and losses 15 years
 - c. Benefit modifications for active members 20 years
 - d. Benefit modifications for non-active members 10 years

As mentioned previously, the results of this valuation determine the City's contribution requirements for the fiscal year ending June 30, 1989. Because of the one-year delay in the recognition of the report's findings, the unfunded actuarial accrued liability is adjusted from July 1, 1987 to July 1, 1988 to recognize the one-year delay. The following table summarizes the derivation of the unfunded actuarial accrued liability payment for the fiscal year ending June 30, 1989:

Total Annual Payment for
Fiscal Year Ending June 30, 1989
Toward the Unfunded Actuarial Accrued Liability
(\$000 Omitted)

1. Expected July 1, 1987 Payment Based on July 1, 1986 Actuarial Valuation:	
a. Dombrowski	\$ 3,813
b. Bogen	5,034
c. Remaining	<u>85,270</u>
d. Subtotal	\$ 94,117
2. Changes in Payment Based on July 1, 1987 Actuarial Valuation:	
a. Non-Active Benefit Changes (10-Year Amortization)	\$ 2
b. (Gains)/Losses (15-Year Amortization)	<u>2,701</u>
c. Subtotal	\$ 2,702
3. Total Annual Payment Based on July 1, 1987 Valuation: (1d) + (2c)	\$ 96,819

C. Other Report Sections

Part III presents various supporting tables including an employee age/service "scatter" along with salaries by age groupings and by service groupings. In addition, tables showing current pension amounts by age are presented.

Part IV summarizes certain financial information, including a statement of assets and a statement of receipts and disbursements for the fiscal year ending June 30, 1987.

Part V presents the salient features of the Retirement System on which valuation determinations are based, and Part VI presents the actuarial cost method, factors and assumptions used in determining costs.

Part VII of the report presents the actuarial present value of projected benefit obligation determined in accordance with Statement No. 5 of the Government Accounting Standards Board. This Part reflects a measurement of the accrued benefits for the Retirement System as of July 1, 1987 and relates the value of these accrued benefits to the cost value of funds on hand.

Reference to the first section of Part VII will show the actuarial present value of projected benefit obligations to be \$3,140,347,000. The vested accrued liability as of July 1, 1987 is \$2,537,554,000. This compares with the cost value of fund assets of \$1,390,907,000.

PART II
DERIVATION OF COSTS

The purpose of this part is to present the costs of the Retirement System. Cost estimates have been determined on the basis of the entry age actuarial cost method. The cost estimates derived in this July 1, 1987 actuarial valuation will be used as the basis for pension costs for the fiscal year ending June 30, 1989. Pension costs are made up of two components, the normal cost and the payment towards the unfunded actuarial accrued liability.

Derivation of Normal Cost

The normal cost is determined as the sum of the individual normal costs determined for each member based on the assumption that the plan had always been in existence and the actuarial assumptions underlying the cost determinations had been exactly realized. Benefits payable under all circumstances (i.e., retirement, death, disability and termination) are included in the calculations. From this result is subtracted the anticipated employee contributions to be made during the year to determine the City normal cost (before deducting contributions from the Commonwealth of Pennsylvania). The City normal cost is divided by total payroll to determine the normal cost as a percent of pay for each division and the entire System.

Derivation of the Unfunded Actuarial Accrued Liability

The actuarial accrued liability is determined as the sum of the actuarial present value of all normal costs which would have accumulated if the assumed normal cost had always been contributed in the past and the actuarial assumptions had been exactly realized.

The valuation assets which are compared to liabilities are determined at adjusted market value as of July 1, 1987. As such, the fixed income portion of the assets reflects current market value rates of return. The liabilities, on the other hand, have been determined assuming the valuation interest rate assumption of 9%. In order that both assets and liabilities be valued on the same basis, the portion of the fixed income portfolio which can be matched with expected future payments is determined based upon the valuation interest rate, 9%, and the difference between this value of assets and the market value of assets is subtracted from the accrued liability.

From the accrued liability is further subtracted the assets of the fund to determine the unfunded actuarial accrued liability as of the valuation date.

Experience gains and losses are determined as the difference between the expected unfunded actuarial accrued liability and the actual unfunded actuarial accrued liability (as determined in the preceding paragraphs) both calculated as of 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 portion of the unfunded actuarial accrued liability attributable to the Bogen class action suit is amortized in level dollar payments over 20 years ending June 30, 1992. The remaining July 1, 1985 unfunded actuarial accrued liability is amortized over 40 years ending June 30, 2019 in annual payments increasing 6.0% per annum. Changes in the actuarial accrued liability realized after July 1, 1985 are amortized in level dollar payments over the period of years shown on the following page.

- a. Changes in actuarial assumptions: 20 years
- b. Experience gains and losses: 15 years
- c. Benefit modifications applicable to active members: 20 years
- d. Benefit modifications applicable to non-active members: 10 years

A detailed analysis of the derivation of plan costs is presented in the following Tables 1 through 6.

TABLE 1

DERIVATION OF NORMAL COST AS OF JULY 1, 1987 1/
(\$000 OMITTED)

	1967 PLAN			PLAN 87			TOTAL
	MUNICIPAL	POLICE	FIRE	MUNICIPAL	POLICE	FIRE	
1. Number of Active Members	21,929	6,686	2,575	416	177	58	31,841
2. Total Normal Cost							
a. Service Retirement	\$ 36,654	\$ 21,190	\$ 8,179	\$ 294	\$ 335	\$ 103	\$ 66,755
b. Pre-Retirement Death	3,148	948	372	34	19	6	4,526
c. Disability Retirement	7,230	5,452	2,109	58	116	36	15,002
d. Vested Termination	5,649	568	230	110	48	16	6,621
e. Refund of Non-Vested Members' Contributions	2,207	456	189	0 2/	0 2/	0 2/	2,851
f. Health Care Benefit	0	42	16	0	1	0	61
g. Administrative Expenses	2,191	813	320	24	10	3	3,362
h. Total	\$ 57,078	\$ 29,470	\$ 11,414	\$ 520	\$ 530	\$ 166	\$ 99,178
3. Expected Employee Contributions	\$ 20,621	\$ 11,653	\$ 4,546	\$ 156	\$ 209	\$ 69	\$ 37,253
4. City Normal Cost: (2h) - (3)	\$ 36,457	\$ 17,817	\$ 6,869	\$ 364	\$ 321	\$ 97	\$ 61,925
5. Current Total Annual Payroll	\$553,539	\$194,201	\$75,762	\$7,132	\$4,173	\$1,373	\$836,181
6. City Normal Cost as a Percent of Pay Assuming Payment at Beginning of Year: (4) / (5)	6.586%	9.175%	9.066%	5.102%	7.694%	7.067%	7.406%
7. City Normal Cost as a Percent of Pay Assuming Payment at End of Year: (6) x 1.09	7.179%	10.000%	9.882%	5.561%	8.387%	7.703%	8.072%

1/ Numbers may not add due to rounding.

2/ Included in a through d.

TABLE 2

DERIVATION OF UNFUNDED ACTUARIAL
ACCRUED LIABILITY AS OF JULY 1, 1987 1/
(\$000 OMITTED)

	1967 PLAN			PLAN 87			TOTAL
	MUNICIPAL	POLICE	FIRE	MUNICIPAL	POLICE	FIRE	
1. Number of Members							
a. Active	21,929	6,686	2,575	416	177	58	31,841
b. Retired	13,237	5,238	2,411	0	0	0	20,886
c. Disabled	1,977	1,904	469	0	0	0	4,350
d. Terminated Vested	368	88	16	0	0	0	472
e. Total	37,511	13,916	5,471	416	177	58	57,549
2. Total Annual Benefits							
a. Retired	\$ 84,716	\$ 49,586	\$ 20,977	\$ 0	\$ 0	\$ 0	\$ 155,279
b. Disabled	15,146	18,020	4,945	0	0	0	38,111
c. Terminated Vested	2,730	669	118	0	0	0	3,517
d. Total	\$ 102,592	\$ 68,275	\$ 26,040	\$ 0	\$ 0	\$ 0	\$ 196,907
3. Present Value of Benefits							
a. Active Members							
(i) Service Retirement	\$1,081,579	\$ 641,279	\$265,170	\$3,565	\$4,717	\$1,584	\$1,997,894
(ii) Pre-Retirement Death	77,233	20,420	8,312	414	262	93	106,734
(iii) Disability Retirement	170,206	112,263	44,916	747	1,619	550	330,300
(iv) Vested Termination	122,723	8,399	2,980	1,405	681	253	136,440
(v) Refund of Non-Vested Members' Contributions	7,027	948	180	0	0	0	8,155
(vi) Health Care Benefit	0	708	277	0	12	7	1,011
(vii) Subtotal	\$1,458,768	\$ 784,017	\$321,834	\$6,131	\$7,299	\$2,486	\$2,580,535
b. Non-Active Members							
(i) Service Retired	\$ 671,906	\$ 435,391	\$169,599	\$ 0	\$ 0	\$ 0	\$1,276,896
(ii) Disabled	125,259	156,131	41,805	0	0	0	323,195
(iii) Terminated Vested	14,062	5,249	945	0	0	0	20,256
(iv) Non-Vested Members' Contributions	860	95	26	0	0	0	981
(v) Health Care Benefit	0	3,260	1,449	0	0	0	4,709
(vi) Subtotal	\$ 812,088	\$ 600,125	\$213,824	\$ 0	\$ 0	\$ 0	\$1,626,037
c. Total	\$2,270,856	\$1,384,142	\$535,659	\$6,131	\$7,299	\$2,486	\$4,206,572
4. Present Value of Future Normal Costs							
a. Service Retirement	\$ 348,444	\$ 194,125	\$ 71,253	\$3,475	\$4,624	\$1,456	\$ 623,377
b. Pre-Retirement Death	32,099	8,675	3,234	405	260	89	44,762
c. Disability Retirement	74,440	49,969	18,367	729	1,610	516	145,631
d. Vested Termination	63,204	5,318	1,938	1,370	679	237	72,747
e. Refund of Non-Vested Members' Contributions	22,436	4,012	1,538	0	0	0	27,987
f. Health Care Benefit	0	387	142	0	19	6	552
g. Total	\$ 540,624	\$ 262,487	\$ 96,472	\$5,979	\$7,193	\$2,303	\$ 915,058

1/ Numbers may not add due to rounding.

TABLE 2 (CONTINUED)

DERIVATION OF UNFUNDED ACTUARIAL
ACCURED LIABILITY AS OF JULY 1, 1987 1/
(\$000 OMITTED)

	1967 PLAN			PLAN 87			
	MUNICIPAL	POLICE	FIRE	MUNICIPAL	POLICE	FIRE	TOTAL
5. Actuarial Accrued Liability: (3) - (4)							
a. Active Members							
(i) Service Retirement	\$ 733,135	\$ 447,154	\$193,917	\$ 90	\$ 93	\$129	\$1,374,518
(ii) Pre-Retirement Death	45,134	11,745	5,078	9	2	5	61,972
(iii) Disability Retirement	95,766	62,294	26,548	18	9	34	184,669
(iv) Vested Termination	59,519	3,080	1,043	34	2	16	63,694
(v) Refund of Non-Vested Members' Contributions	(15,409)	(3,065)	(1,358)	0	0	0	(19,832)
(vi) Health Care Benefit	0	321	135	0	0	0	456
(vii) Subtotal	\$ 918,145	\$ 521,529	\$225,362	\$152	\$106	\$183	\$1,665,477
b. Non-Active Members							
(i) Service Retired	\$ 671,906	\$ 435,391	\$169,599	\$ 0	\$ 0	\$ 0	\$1,276,896
(ii) Disabled	125,259	156,131	41,805	0	0	0	323,195
(iii) Terminated Vested	14,062	5,249	945	0	0	0	20,256
(iv) Non-Vested Members' Contributions	860	95	26	0	0	0	981
(v) Health Care Benefit	0	3,260	1,449	0	0	0	4,709
(vi) Subtotal	\$ 812,088	\$ 600,125	\$213,824	\$ 0	\$ 0	\$ 0	\$1,626,037
c. Total	\$1,730,232	\$1,121,655	\$439,187	\$152	\$106	\$183	\$3,271,514
6. Rationalization of Retiree Li- ability to Market Return Basis	\$ (6,946)	\$ (5,133)	\$ (1,829)	\$ 0	\$ 0	\$ 0	\$ (13,907)
7. Net Actuarial Accrued Liability: (5) + (6)	\$1,723,286	\$1,116,522	\$437,358	\$152	\$106	\$183	\$3,277,607
8. Assets for Valuation Purposes	\$ 793,518	\$ 490,351	\$194,967	\$151	\$ 48	\$ 48	\$1,479,083
9. Unfunded Actuarial Accrued Liability: (7) - (8)	\$ 929,768	\$ 626,171	\$242,391	\$ 1	\$ 58	\$135	\$1,798,524

1/ Numbers may not add due to rounding.

TABLE 3
DEVELOPMENT OF THE EXPECTED UNFUNDED ACTUARIAL
ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
(\$000 OMITTED)

	1967 PLAN			PLAN 87			TOT.
	MUNICIPAL	POLICE	FIRE	MUNICIPAL	POLICE	FIRE	
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation	\$929,401	\$610,064	\$239,076	\$0	\$ 0	\$ 0	\$1,778,542
2. Change in July 1, 1987 Unfunded Actuarial Accrued Liability Due to Actuarial Experience	\$ 367	\$ 16,098	\$ 3,312	\$1	\$135	\$58	\$ 19,971
3. Changes in July 1, 1987 Unfunded Actuarial Accrued Liability Due to Plan Amendments; Benefit Increases to Certain Non-Active Participants	\$ 0	\$ 8	\$ 3	\$0	\$ 0	\$ 0	\$ 11
4. Actual Unfunded Actuarial Accrued Liability July 1, 1987: (1) + (2) + (3)	\$929,768	\$626,171	\$242,391	\$1	\$135	\$58	\$1,798,524
5. Expected Changes in Unfunded Actuarial Accrued Liability from July 1, 1987 to July 1, 1988:							
a. Interest: $.09 \times [(2) + (3)]$	\$ 33	\$ 1,450	\$ 298	\$0	\$ 12	\$ 5	\$ 1,798
b. Increase in Unfunded Actuarial Accrued Liability from July 1, 1987 to July 1, 1988 in Accordance with Amortization Schedule [\$1,850,078 - \$1,778,542] Per 1986 Valuation Report	<u>37,997</u>	<u>23,870</u>	<u>9,668</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>71,536</u>
c. Subtotal	\$ 38,030	\$ 25,320	\$ 9,967	\$0	\$ 12	\$ 5	\$ 73,334
6. Expected July 1, 1988 Unfunded Actuarial Accrued Liability: (4) + (5c)	\$967,798	\$651,490	\$252,358	\$1	\$148	\$63	\$1,871,858

1/ Numbers may not add due to rounding.

TABLE 4A

DEVELOPMENT OF MUNICIPAL DIVISION (1967 PLAN) ANNUAL PAYMENT TOWARD THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
(\$000 OMITTED)

	OUTSTANDING BALANCE JULY 1, 1987	FISCAL YEAR ENDING JUNE 30, 1989		
		EXPECTED BALANCE JULY 1, 1988	AMORTIZATION PERIOD REMAINING	ANNUAL PAYMENT
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation:				
a. Dombrowski	\$ 19,004	\$ 18,702	21	\$ 2,013
b. Bogen	10,336	8,609	4	2,657
c. Remaining	<u>900,062</u>	<u>940,088</u>	--	<u>43,920 2/</u>
d. Subtotal	\$929,401	\$967,399	--	\$48,590
2. Changes in Unfunded Actuarial Accrued Liability as of July 1, 1987:				
a. Non-Active Benefit Changes	\$ 0	\$ 0	10	\$ 0
b. (Gains)/Losses	<u>367</u>	<u>400</u>	15	<u>50</u>
c. Subtotal	\$ 367	\$ 400	--	\$ 50
3. Total: (1d) + (2c)	\$929,768	\$967,798	--	\$48,640

1/ Numbers may not add due to rounding.

2/ Payment increasing 6% per annum, all other payments are level dollar.

TABLE 4B

DEVELOPMENT OF POLICE DIVISION (1967 PLAN) ANNUAL PAYMENT TOWARD THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
(\$000 OMITTED)

	<u>OUTSTANDING BALANCE JULY 1, 1987</u>	<u>FISCAL YEAR ENDING JUNE 30, 1989</u>		
		<u>EXPECTED BALANCE JULY 1, 1988</u>	<u>AMORTIZATION PERIOD REMAINING</u>	<u>ANNUAL PAYMENT</u>
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation:				
a. Dombrowski	\$ 12,157	\$ 11,963	21	\$ 1,287
b. Bogen	6,612	5,507	4	1,700
c. Remaining	<u>591,296</u>	<u>616,464</u>	--	<u>29,937 2/</u>
d. Subtotal	\$610,064	\$633,935	--	\$32,924
2. Changes in Unfunded Actuarial Accrued Liability as of July 1, 1987:				
a. Non-Active Benefit Changes	\$ 8	\$ 9	10	\$ 1
b. (Gains)/Losses	<u>16,098</u>	<u>17,547</u>	15	<u>2,177</u>
c. Subtotal	\$ 16,106	\$ 17,556	--	\$ 2,178
3. Total: (1d) + (2c)	\$626,171	\$651,490	--	\$35,103

1/ Numbers may not add due to rounding.

2/ Payment increasing 6% per annum, all other payments are level dollar.

TABLE 4C

DEVELOPMENT OF FIRE DIVISION (1967 PLAN) ANNUAL PAYMENT TOWARD THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
 (\$000 OMITTED)

	OUTSTANDING BALANCE JULY 1, 1987	FISCAL YEAR ENDING JUNE 30, 1989		ANNUAL PAYMENT
		EXPECTED BALANCE JULY 1, 1988	AMORTIZATION PERIOD REMAINING	
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation:				
a. Dombrowski	\$ 4,841	\$ 4,764	21	\$ 513
b. Bogen	2,633	2,193	4	677
c. Remaining	<u>231,602</u>	<u>241,788</u>	--	<u>11,412 2/</u>
d. Subtotal	\$239,076	\$248,744	--	\$12,602
2. Changes in Unfunded Actuarial Accrued Liability as of July 1, 1987:				
a. Non-Active Benefit Changes	\$ 3	\$ 3	10	\$ 0
b. (Gains)/Losses	<u>3,312</u>	<u>3,610</u>	15	<u>448</u>
c. Subtotal	\$ 3,315	\$ 3,613	--	\$ 448
3. Total: (1d) + (2c)	\$242,391	\$252,358	--	\$13,050

1/ Numbers may not add due to rounding.

2/ Payment increasing 6% per annum, all other payments are level dollar.

TABLE 40

DEVELOPMENT OF MUNICIPAL DIVISION (PLAN 87) ANNUAL PAYMENT TOWARD THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
(\$000 OMITTED)

	OUTSTANDING BALANCE JULY 1, 1987	FISCAL YEAR ENDING JUNE 30, 1989		
		EXPECTED BALANCE JULY 1, 1988	AMORTIZATION PERIOD REMAINING	ANNUAL PAYMENT
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation	\$0	\$0	--	\$0
2. Changes in Unfunded Actuarial Accrued Liability as of July 1, 1987:				
a. Non-Active Benefit Changes	\$0	\$0	10	\$0
b. (Gains)/Losses	<u>1</u>	<u>1</u>	15	<u>0</u>
c. Subtotal	\$1	\$1	--	\$0
3. Total: (1) + (2c)	\$1	\$1	--	\$0

1/ Numbers may not add due to rounding.

TABLE 4E

DEVELOPMENT OF POLICE DIVISION (PLAN 87) ANNUAL PAYMENT TOWARD THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
(\$000 OMITTED)

	OUTSTANDING BALANCE JULY 1, 1987	FISCAL YEAR ENDING JUNE 30, 1989		
		EXPECTED BALANCE JULY 1, 1988	AMORTIZATION PERIOD REMAINING	ANNUAL PAYMENT
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation	\$ 0	\$ 0	--	\$0
2. Changes in Unfunded Actuarial Accrued Liability as of July 1, 1987:				
a. Non-Active Benefit Changes	\$ 0	\$ 0	10	\$0
b. (Gains)/Losses	<u>58</u>	<u>63</u>	15	<u>8</u>
c. Subtotal	\$58	\$63	--	\$8
3. Total: (1) + (2c)	\$58	\$63	--	\$8

1/ Numbers may not add due to rounding.

TABLE 4F
DEVELOPMENT OF FIRE DIVISION (PLAN 87) ANNUAL PAYMENT TOWARD THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
(\$000 OMITTED)

	OUTSTANDING BALANCE JULY 1, 1987	FISCAL YEAR ENDING JUNE 30, 1989		
		EXPECTED BALANCE JULY 1, 1988	AMORTIZATION PERIOD REMAINING	ANNUAL PAYMENT
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation	\$ 0	\$ 0	--	\$ 0
2. Changes in Unfunded Actuarial Accrued Liability as of July 1, 1987:				
a. Non-Active Benefit Changes	\$ 0	\$ 0	10	\$ 0
b. (Gains)/Losses	<u>135</u>	<u>148</u>	15	<u>18</u>
c. Subtotal	\$135	\$148	--	\$18
3. Total: (1) + (2c)	\$135	\$148	--	\$18

1/ Numbers may not add due to rounding.

TABLE 4G

DEVELOPMENT OF TOTAL ANNUAL PAYMENT TOWARD THE
UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR FISCAL YEAR ENDING JUNE 30, 1989 1/
 (\$000 OMITTED)

	OUTSTANDING BALANCE JULY 1, 1987	FISCAL YEAR ENDING JUNE 30, 1989		
		EXPECTED BALANCE JULY 1, 1988	AMORTIZATION PERIOD REMAINING	ANNUAL PAYMENT
1. Expected July 1, 1987 Unfunded Actuarial Accrued Liability Based on July 1, 1986 Valuation:				
a. Dombrowski	\$ 36,002	\$ 35,429	21	\$ 3,813
b. Bogen	19,580	16,308	4	5,034
c. Remaining	<u>1,722,960</u>	<u>1,798,340</u>	--	<u>85,270 2/</u>
d. Subtotal	\$1,778,542	\$1,850,078	--	\$ 94,117
2. Changes in Unfunded Actuarial Accrued Liability as of July 1, 1987:				
a. Non-Active Benefit Changes	\$ 11	\$ 12	10	\$ 2
b. (Gains)/Losses	<u>19,971</u>	<u>21,769</u>	15	<u>2,701</u>
c. Subtotal	\$ 19,982	\$ 21,781	--	\$ 2,702
3. Total: (1d) + (2c)	\$1,798,524	\$1,871,858	--	\$ 96,819

1/ Numbers may not add due to rounding.

2/ Payment increasing 6% per annum, all other payments are level dollar.

TABLE 5

**SCHEDULE OF ANNUAL PAYMENTS TO FUND THE
ANTICIPATED JULY 1, 1987 UNFUNDED ACTUARIAL ACCRUED LIABILITY 1/
(\$000 OMITTED)**

FISCAL YEAR ENDING JUNE 30	ANNUAL PAYMENT (MADE AT END OF YEAR) TOWARD:						TOTAL	PROGRESS OF UNFUNDED ACTU- ARIAL ACCRUED LIABILITY	ESTIMATED ANNUAL PAYROLL	ANNUAL PERCENT AS A PERCENT OF PAYROLL
	1967 PLAN			PLAN 87						
	MUNICIPAL	POLICE	FIRE	MUNICIPAL	POLICE	FIRE				
	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ N/A				
1988	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ 96,819	\$1,871,858	\$ 836,181	N/A%
1989	48,640	35,103	13,050	0	8	18	102,738	1,943,506	886,352	10.9
1990	51,758	37,105	13,849	0	8	18	109,012	2,015,684	939,533	10.9
1991	55,062	39,228	14,696	0	8	18	115,663	2,088,083	995,905	10.9
1992	58,566	41,478	15,593	0	8	18		2,160,348	1,055,659	11.0
							117,679	2,237,101	1,118,999	10.5
1993	59,622	42,163	15,868	0	8	18	125,151	2,313,288	1,186,139	10.6
1994	63,558	44,691	16,876	0	8	18	133,072	2,388,412	1,257,307	10.6
1995	67,730	47,371	17,945	0	8	18	141,468	2,461,901	1,332,746	10.6
1996	72,153	50,211	19,078	0	8	18	150,368	2,533,104	1,412,710	10.6
1997	76,841	53,222	20,279	0	8	18				
				0	8	18	158,612	2,602,471	1,497,473	10.6
1998	81,371	55,872	21,343	0	8	18	168,610	2,668,083	1,587,321	10.6
1999	86,638	59,254	22,692	0	8	18	179,210	2,729,000	1,682,561	10.7
2000	92,222	62,840	24,122	0	8	18	190,446	2,784,163	1,783,514	10.7
2001	98,140	66,641	25,639	0	8	18	202,357	2,832,381	1,890,525	10.7
2002	104,414	70,671	27,246	0	8	18				
				0	8	18	230,098	2,857,197	2,003,957	11.5
2003	120,032	78,962	31,078	0	0	0	240,780	2,873,565	2,124,194	11.3
2004	127,032	81,313	32,436	0	0	0	254,965	2,877,221	2,251,646	11.3
2005	134,504	86,112	34,350	0	0	0	270,001	2,866,170	2,386,744	11.3
2006	142,424	91,199	36,379	0	0	0	285,940	2,838,185	2,529,949	11.3
2007	150,820	96,591	38,529	0	0	0				
				0	0	0	302,288	2,791,334	2,681,746	11.3
2008	159,235	102,264	40,788	0	0	0	320,196	2,722,357	2,842,651	11.3
2009	168,668	108,323	43,205	0	0	0	335,367	2,632,003	3,013,210	11.1
2010	176,655	113,458	45,254	0	0	0	355,489	2,513,394	3,194,002	11.1
2011	187,255	120,265	47,969	0	0	0	376,818	2,362,782	3,385,642	11.1
2012	198,490	127,481	50,847	0	0	0				
				0	0	0	399,427	2,176,005	3,588,781	11.1
2013	210,399	135,130	53,898	0	0	0	423,393	1,948,453	3,804,108	11.1
2014	223,023	143,238	57,132	0	0	0	448,796	1,675,017	4,032,354	11.1
2015	236,405	151,832	60,560	0	0	0	475,724	1,350,044	4,274,296	11.1
2016	250,589	160,942	64,193	0	0	0	504,268	967,281	4,530,753	11.1
2017	265,624	170,599	68,045	0	0	0	534,524	519,812	4,802,599	11.1
2018	281,562	180,834	72,128	0	0	0	566,595	0	5,090,754	11.1
2019	298,455	191,685	76,455	0	0	0				

1/ Numbers may not add due to rounding.

Comparison of Funding with Requirements of GAAP

The funding policy adopted by the City provides that the Bogen unfunded actuarial accrued liability be amortized in level dollar payments over 20 years ending June 30, 1992 and the Dombrowski unfunded actuarial accrued liability be amortized in level dollar payments over 40 years ending June 30, 2009, as ordered by the Court of Common Pleas of Philadelphia County. The remaining unfunded actuarial accrued liability as of July 1, 1985 is amortized over 40 years ending June 30, 2019 with payments increasing 6.0% per annum. Changes in the actuarial accrued liability realized after July 1, 1985 are amortized in level dollar payments as follows:

- | | |
|--|----------|
| a. Changes in actuarial assumptions: | 20 years |
| b. Experience gains and losses: | 15 years |
| c. Benefit modifications applicable to active members: | 20 years |
| d. Benefit modifications applicable to non-active members: | 10 years |

Table 6 compares this funding policy to amortize the unfunded actuarial accrued liability with the funding standards specified under generally accepted accounting principles (GAAP). The standards specified by GAAP require that the unfunded actuarial accrued liability be funded over 40 years in level dollar payments.

For purposes of this table, the anticipated July 1, 1981 unfunded actuarial accrued liability was used as the starting point. Adjustments resulting from benefit modifications, changes in assumptions, funding method, and/or actuarial experience recognized in subsequent valuations have been reflected in the table. Under GAAP standards, adjustments determined under subsequent valuations are amortized over a 40-year period from when first recognized.

The table shows the annual and accumulated "deficit" between the funding policies of the City and those under GAAP (Columns (9) and (10), respectively). It is important to note that because the funding policies of the City result in the complete amortization of the unfunded actuarial accrued liability, the accumulated deficit between the City's funding policy and GAAP decreases to 0 at the end of the last 40-year GAAP amortization period.

TABLE 6
COMPARISON OF OFFICIAL UNFUNDED ACCRUED LIABILITY FUNDING
WITH FUNDING UNDER THE PROVISIONS OF APB NO. 8 1/
(\$000 OMITTED)

SCHEDULE OF ANNUAL PAYMENTS TO FUND THE ANTICIPATED JULY 1, 1988 UNFUNDED ACCRUED LIABILITY							REFLECTION OF COMPARISON BETWEEN OFFICIAL SCHEDULE AND 40-YEAR AMORTIZATION UNDER GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
ANNUAL PAYMENT (MADE AT END OF YEAR) TOWARD:										
1967 PLAN				PLAN 87						
FISCAL YEAR ENDING JUNE 30	MUNICIPAL UNFUNDED ACCRUED LIABILITY	POLICE UNFUNDED ACCRUED LIABILITY	FIRE UNFUNDED ACCRUED LIABILITY	MUNICIPAL UNFUNDED ACCRUED LIABILITY	POLICE UNFUNDED ACCRUED LIABILITY	FIRE UNFUNDED ACCRUED LIABILITY	TOTAL (1)+(2)+(3) +(4)+(5)+(6)	GAAP 40-YEAR AMORTIZATION (PER APB NO. 8)	GAAP "DEFICIT" (8)-(7)	ACCUMULATED "DEFICIT" (Prior Year) x 1.09 + (9)
1982	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ 68,257	\$136,206	\$ 67,950	\$ 67,950
1983	N/A	N/A	N/A	N/A	N/A	N/A	72,118	136,206	64,088	138,153
1984	N/A	N/A	N/A	N/A	N/A	N/A	73,696	130,870	57,173	207,761
1985	N/A	N/A	N/A	N/A	N/A	N/A	77,912	130,870	52,958	279,417
1986	N/A	N/A	N/A	N/A	N/A	N/A	84,717	125,707	40,989	345,554
1987	N/A	N/A	N/A	N/A	N/A	N/A	95,276	136,909	41,633	418,287
1988	N/A	N/A	N/A	N/A	N/A	N/A	88,533	129,411	40,878	496,810
1989	48,640	35,103	13,050	0	8	18	96,819	131,435	34,616	576,139
1990	51,758	37,105	13,849	0	8	18	102,738	131,435	28,697	656,689
1991	55,062	39,228	14,696	0	8	18	109,012	131,435	22,423	738,214
1992	58,566	41,478	15,593	0	8	18	115,663	131,435	15,772	820,426
1993	59,622	42,163	15,868	0	8	18	117,679	131,435	13,757	908,021
1994	63,558	44,691	16,876	0	8	18	125,151	131,435	6,284	996,027
1995	67,730	47,371	17,945	0	8	18	133,072	131,435	(1,637)	1,084,032
1996	72,153	50,211	19,078	0	8	18	141,468	131,435	(10,033)	1,171,562
1997	76,841	53,222	20,279	0	8	18	150,368	131,435	(18,933)	1,258,070
1998	81,371	55,872	21,343	0	8	18	158,612	131,435	(27,177)	1,344,119
1999	86,638	59,254	22,692	0	8	18	168,610	131,435	(37,175)	1,427,915
2000	92,222	62,840	24,122	0	8	18	179,210	131,435	(47,775)	1,508,652
2001	98,140	66,641	25,639	0	8	18	190,446	131,435	(59,011)	1,585,419
2002	104,414	70,671	27,246	0	8	18	202,357	131,435	(70,921)	1,657,185
2003	120,032	78,962	31,078	0	8	18	230,098	131,435	(98,663)	1,707,669
2004	127,032	81,313	32,436	0	0	0	240,780	131,435	(109,345)	1,752,015
2005	134,504	86,112	34,350	0	0	0	254,965	131,435	(123,530)	1,786,166
2006	142,424	91,199	36,379	0	0	0	270,001	131,435	(138,566)	1,808,355

201/ Numbers may not add due to rounding.

Foster Higgins

TABLE 6 (CONTINUED)

**COMPARISON OF OFFICIAL UNFUNDED ACCRUED LIABILITY FUNDING
WITH FUNDING UNDER THE PROVISIONS OF APB NO. 8 1/
(\$000 OMITTED)**

SCHEDULE OF ANNUAL PAYMENTS TO FUND THE ANTICIPATED JULY 1, 1988 UNFUNDED ACCRUED LIABILITY							REFLECTION OF COMPARISON BETWEEN OFFICIAL SCHEDULE AND 40-YEAR AMORTIZATION UNDER GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
ANNUAL PAYMENT (MADE AT END OF YEAR) TOWARD:										
	1967 PLAN			PLAN 87						
FISCAL YEAR ENDING JUNE 30	MUNICIPAL UNFUNDED ACCRUED LIABILITY	POLICE UNFUNDED ACCRUED LIABILITY	FIRE UNFUNDED ACCRUED LIABILITY	MUNICIPAL UNFUNDED ACCRUED LIABILITY	POLICE UNFUNDED ACCRUED LIABILITY	FIRE UNFUNDED ACCRUED LIABILITY	TOTAL (1)+(2)+(3) +(4)+(5)+(6)	GAAP 40-YEAR AMORTIZATION (PER APB NO. 8)	GAAP "DEFICIT" (8)-(7)	ACCUMULATED "DEFICIT" (Prior Year) x 1.09 + (9)
2007	\$150,820	\$ 96,591	\$ 38,529	\$ 0	\$ 0	\$ 0	\$285,940	\$131,435	\$(154,505)	\$1,816,613
2008	159,235	102,264	40,788	0	0	0	302,288	131,435	(170,853)	1,809,244
2009	168,668	108,323	43,205	0	0	0	320,196	131,435	(188,761)	1,783,315
2010	176,655	113,458	45,254	0	0	0	335,367	131,435	(203,931)	1,739,882
2011	187,255	120,265	47,969	0	0	0	355,489	131,435	(224,054)	1,672,418
2012	198,490	127,481	50,847	0	0	0	376,818	131,435	(245,383)	1,577,552
2013	210,399	135,130	53,898	0	0	0	399,427	131,435	(267,992)	1,451,540
2014	223,023	143,238	57,132	0	0	0	423,393	131,435	(291,958)	1,290,221
2015	236,405	151,832	60,560	0	0	0	448,796	131,435	(317,361)	1,088,980
2016	250,589	160,942	64,193	0	0	0	475,724	131,435	(344,289)	842,699
2017	265,624	170,599	68,045	0	0	0	504,268	131,435	(372,832)	545,710
2018	281,562	180,834	72,128	0	0	0	534,524	131,435	(403,088)	191,735
2019	298,455	191,685	76,455	0	0	0	566,595	131,435	(435,160)	(226,168)
2020	0	0	0	0	0	0	0	131,435	131,435	(115,088)
2021	0	0	0	0	0	0	0	131,435	131,435	5,989
2022	0	0	0	0	0	0	0	(4,771)	(4,771)	1,757
2023	0	0	0	0	0	0	0	(4,771)	(4,771)	(2,856)
2024	0	0	0	0	0	0	0	565	565	(2,547)
2025	0	0	0	0	0	0	0	565	565	(2,211)
2026	0	0	0	0	0	0	0	5,729	5,729	3,318
2027	0	0	0	0	0	0	0	(5,474)	(5,474)	(1,857)
2028	0	0	0	0	0	0	0	2,025	2,025	0

1/ Numbers may not add due to rounding.

Estimated Progress of Pension Fund

The estimated progress of the pension fund for the fiscal years 1988 through 2007 is presented in Table 7. The adjusted market value of fund assets as of July 1, 1987 is used as the starting point. This projection is useful in showing the emerging benefit payments of the fund and the concurrent fund growth. The projection is based upon the same assumptions as used to determine the annual cost and related liabilities of the System.

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 based upon the July 1, 1986 valuation. Subsequent contributions are based upon the July 1, 1987 valuation. The normal cost component of the contribution increases annually by 6.0%, reflecting anticipated increases in salary. The employee contributions shown in the projection also increase annually, reflecting assumed salary increases.

~~The projection of the fund is limited to the period ending with the fiscal year ending June 30, 2007. Fluctuations from the figures shown within this 20-year period are to be expected.~~

The underlying trend of fund growth will tend to follow that shown in the table even though the actual numbers will vary. The projection shows that the contributions to the fund, City and employee combined will exceed the benefits being paid for at least the next 20 years. However, expected contributions, while exceeding expected benefit payments, are not anticipated to add substantial amounts to existing assets. The majority of the growth in assets over this period will be derived from income on investments.

TABLE 7
ESTIMATED PROGRESS OF CITY OF PHILADELPHIA MUNICIPAL RETIREMENT
SYSTEM FUND FOR THE PERIOD JULY 1, 1987 THROUGH JUNE 30, 2007 1/
(\$000 OMITTED)

<u>FISCAL YEAR</u> <u>ENDING JUNE 30</u>	<u>FUND AT</u> <u>BEGINNING</u> <u>OF YEAR</u>	<u>CITY</u> <u>CONTRIBUTIONS 2/</u>	<u>EMPLOYEE</u> <u>CONTRIBUTIONS 2/</u>	<u>BENEFIT</u> <u>PAYMENTS 2/</u>	<u>INVESTMENT</u> <u>INCOME</u>	<u>NET</u> <u>INCREASE</u>	<u>FUND AT END</u> <u>OF YEAR</u>
1988	\$1,479,083	\$155,364	\$37,253	\$203,043	\$125,657	\$115,231	\$1,594,314
1989	1,594,314	168,367	39,488	213,422	135,661	130,095	1,724,409
1990	1,724,409	178,579	41,858	224,758	146,966	142,644	1,867,053
1991	1,867,053	189,403	44,369	237,391	159,349	155,730	2,022,784
1992	2,022,784	200,877	47,031	250,780	172,882	170,011	2,192,794
1993	2,192,794	208,006	49,853	265,984	187,626	179,501	2,372,295
1994	2,372,295	220,898	52,844	281,972	203,196	194,967	2,567,262
1995	2,567,262	234,564	56,015	299,014	220,119	211,684	2,778,945
1996	2,778,945	249,050	59,376	317,197	238,503	229,732	3,008,677
1997	3,008,677	264,405	62,939	336,244	258,482	249,581	3,258,259
1998	3,258,259	279,491	66,715	356,366	280,209	270,049	3,528,307
1999	3,528,307	296,742	70,718	377,435	303,745	293,770	3,822,077
2000	3,822,077	315,030	74,961	399,130	329,399	320,260	4,142,337
2001	4,142,337	334,415	79,459	421,092	357,437	350,218	4,492,555
2002	4,492,555	354,963	84,226	444,175	388,132	383,146	4,875,701
2003	4,875,701	391,861	89,280	468,388	421,753	434,506	5,310,207
2004	5,310,207	412,248	94,636	493,344	459,977	473,518	5,783,725
2005	5,783,725	436,722	100,315	518,536	501,715	520,215	6,303,940
2006	6,303,940	462,663	106,333	543,783	547,669	572,884	6,876,824
2007	6,876,824	490,162	112,713	568,488	598,404	632,791	7,509,614

1/ Numbers may not add due to rounding.

2/ City contributions are assumed to be made at end of year. Employee contributions and benefit payments are assumed to be made mid-year.

PART III
PLAN MEMBERSHIP

Data with respect to active, retired, disabled and terminated vested members as of July 1, 1987 was provided by the Philadelphia Board of Pensions and Retirement for use in the determination of benefit liabilities and annual costs.

The active member data, supplied on tape and on listing, contained information for all employees who were members of the Retirement System as of July 1, 1987. 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. The data was reviewed for consistency and completeness.

The non-active member data, also supplied on tape and on listing, contained information for all retired, disabled and terminated vested members as of July 1, 1987. However, no information was available regarding the beneficiaries of current non-active members.

The "Reconciliation of Included Members," shown as follows, summarizes the changes in plan membership for the period between valuations. Based upon the information provided, changes in status due to retirement, disablement, death and new entrants could be identified. However, information regarding transfers, return to employment, and data corrections was not available. As a result, the term "Net Other Terminations" includes the following:

<u>Active:</u>	Terminated and left member contributions on deposit Died without a spouse or beneficiary Returned to work Transferred from one division to another
<u>Retired or Disabled:</u>	Died during the period Returned to employment
<u>Terminated Vested:</u>	Retired or died during the period Returned to employment

The "Summary of Annual Payroll and Annual Benefits" provides a breakdown of payroll for active members and benefit payments for non-active members.

As the following tables illustrate, plan membership remained relatively stable during the period. The net change in the number of members and the percentage change is as follows:

	<u>Number of Members</u>	<u>Percentage Increase (Decrease)</u>
Active	-129	-0.4%
Retired	+625	4.7
Surviving Spouses	+173	2.9
Other Beneficiaries	+42	6.0
Disabled	+87	2.0
Terminated Vested	+23	5.1

A distribution of the active employees for each division by present age and salary, by service as of July 1, 1987 and salary, and by service and age are presented in Tables 9a, b and c through 14a, b, and c.

A distribution of terminated vested members by age and monthly pension is shown in Table 15. Tables 16a, b and c present distributions of the municipal division retired and disabled members by number of members, total monthly pensions and the average monthly pension. This information is shown separately for members retiring before and after July 1, 1986. Similarly, Tables 17a, b and c and 18a, b and c show this information for retired and disabled police members and fire members respectively.

TABLE 8A
RECONCILIATION OF INCLUDED MEMBERS

	1967 PLAN			PLAN 87			TOTAL
	MUNICIPAL	POLICE	FIRE	MUNICIPAL	POLICE	FIRE	
A. Active Members							
1. Active as of July 1, 1986	22,395	6,860	2,715	0	0	0	31,970
2. New Entrants	+1,520	+172	+1	+378	+174	+50	2,295
3. Separations from Active Service							
a. Refunded Contributions	-709	-45	-8	-12	0	0	-774
b. Terminated Vested	-17	-7	-2	0	0	0	-26
c. Became Disabled	-80	-60	-24	0	0	0	-164
d. Died	-48	-9	-7	0	0	0	-64
e. Retired	-659	-314	-72	0	0	0	-1,045
f. Net Other Terminations 1/	-473	+89	-28	+50	+3	+8	-351
4. Active as of July 1, 1987	21,929	6,686	2,575	416	177	58	31,841
B. Retired Members							
1. Retired as of July 1, 1986	8,668	3,163	1,507	0	0	0	13,338
2. New Retirees	+659	+314	+72	0	0	0	+1,045
3. Terminations							
a. Death	-194	-88	-52	0	0	0	-334
b. Other	-76	+5	-15	0	0	0	-86
4. Retired as of July 1, 1987	9,057	3,394	1,512	0	0	0	13,963
C. Surviving Spouses							
1. Receiving Benefit as of July 1, 1986	3,454	1,719	837	0	0	0	6,010
2. New Spouses	+215	+89	+55	0	0	0	+359
3. Net Other Terminations	-89	-71	-26	0	0	0	-186
4. Receiving Benefit as of July 1, 1987	3,580	1,737	866	0	0	0	6,183
D. Other Beneficiaries							
1. Receiving Benefit as of July 1, 1986	564	105	29	0	0	0	698
2. New Beneficiaries	+27	+8	+4	0	0	0	+39
3. Net Other Terminations	+9	-6	0	0	0	0	+3
4. Receiving Benefit as of July 1, 1987	600	107	33	0	0	0	740

1/ Includes transfers.

TABLE 8A (CONTINUED)
RECONCILIATION OF INCLUDED MEMBERS

	<u>1967 PLAN</u>			<u>PLAN 87</u>			<u>TOTAL</u>
	<u>MUNICIPAL</u>	<u>POLICE</u>	<u>FIRE</u>	<u>MUNICIPAL</u>	<u>POLICE</u>	<u>FIRE</u>	
E. Disabled Members							
1. Disabled as of July 1, 1986	1,960	1,851	452	0	0	0	4,263
2. New Disabilities	+80	+60	+24	0	0	0	+164
3. Net Other Terminations	-63	-7	-7	0	0	0	-77
4. Disabled as of July 1, 1987	<u>1,977</u>	<u>1,904</u>	<u>469</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4,350</u>
F. Terminated Vested Members							
1. Terminated Vested as of July 1, 1986	352	84	13	0	0	0	449
2. New Vested Terminations	+17	+7	+2	0	0	0	+26
3. Net Other Terminations	-1	-3	+1	0	0	0	-3
4. Terminated Vested as of July 1, 1987	<u>368</u>	<u>88</u>	<u>16</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>472</u>

TABLE 8B
SUMMARY OF ANNUAL PAYROLL AND ANNUAL BENEFITS
 (\$000 OMITTED)

	MUNICIPAL	1967 PLAN POLICE	FIRE	MUNICIPAL	PLAN 87 POLICE	FIRE	TOTAL
A. Active Members							
1. Active as of July 1, 1986	\$521,192	\$182,863	\$72,660	\$ 0	\$ 0	\$ 0	\$776,715
2. New Entrants and Pay Increases	32,347	11,338	3,102	7,132	4,173	1,373	59,466
3. Active as of July 1, 1987	\$553,539	\$194,201	\$75,762	\$7,132	\$4,173	\$1,373	\$836,181
B. Retired Members							
1. Retired as of July 1, 1986	\$ 64,999	\$ 37,000	\$16,425	\$ 0	\$ 0	\$ 0	\$118,424
2. Net New Retirees	7,313	4,978	842	0	0	0	13,133
3. Retired as of July 1, 1987	\$ 72,312	\$ 41,978	\$17,267	\$ 0	\$ 0	\$ 0	\$131,557
C. Surviving Spouses							
1. Receiving Benefit as of July 1, 1986	\$ 9,903	\$ 5,609	\$ 2,920	\$ 0	\$ 0	\$ 0	\$ 18,432
2. Net New Spouses	820	1,658	648	0	0	0	3,125
3. Receiving Benefit as of July 1, 1987	\$ 10,723	\$ 7,267	\$ 3,568	\$ 0	\$ 0	\$ 0	\$ 21,557
D. Other Beneficiaries							
1. Receiving Benefit as of July 1, 1986	\$ 1,526	\$ 346	\$ 107	\$ 0	\$ 0	\$ 0	\$ 1,979
2. Net New Beneficiaries	155	-5	35	0	0	0	185
3. Receiving Benefit as of July 1, 1987	\$ 1,681	\$ 341	\$ 142	\$ 0	\$ 0	\$ 0	\$ 2,164
E. Disabled Members							
1. Disabled as of July 1, 1986	\$ 14,643	\$ 16,788	\$ 4,559	\$ 0	\$ 0	\$ 0	\$ 35,990
2. Net New Disabilities	503	1,232	386	0	0	0	2,121
3. Disabled as of July 1, 1987	\$ 15,146	\$ 18,020	\$ 4,945	\$ 0	\$ 0	\$ 0	\$ 38,111
F. Terminated Vested Members							
1. Terminated Vested as of July 1, 1986	\$ 2,445	\$ 621	\$ 94	\$ 0	\$ 0	\$ 0	\$ 3,160
2. New Vested Terminations	286	48	24	0	0	0	358
3. Terminated Vested as of July 1, 1987	\$ 2,730	\$ 669	\$ 118	\$ 0	\$ 0	\$ 0	\$ 3,518

TABLE 9A

MUNICIPAL (1967 PLAN) ANNUAL EARNINGS BY AGE GROUPS

AGE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	7	107746	15392	10	136688	13669	17	244434	14378
20-24	312	6014752	19278	324	5720092	17655	636	11734844	18451
25-29	1317	30467084	23134	829	17537134	21155	2146	48004218	22369
30-34	1931	49694798	25735	1091	25105493	23011	3022	74800291	24752
35-39	2574	70283440	27305	1272	30450586	23939	3846	100734026	26192
40-44	2142	61730652	28819	1176	28256743	24028	3318	89987395	27121
45-49	1624	45375218	27940	1001	23311680	23288	2625	68686898	26166
50-54	1666	47452963	28483	858	19953336	23256	2524	67406299	26706
55-59	1344	37084292	27592	716	15956356	22285	2060	53040648	25748
60-64	699	18673857	26715	448	8949898	19977	1147	27623755	24083
65-69	215	5297346	24639	168	2529314	15055	383	7826660	20435
70-74	78	1930959	24756	74	835306	11288	152	2766265	18199
75-79	20	335113	16756	22	153468	6976	42	488581	11633
80-84	6	147134	24522	4	27799	6950	10	174933	17493
85+	1	19832	19832	0	0	0	1	19832	19832
TOTAL	13936	374615186	26881	7993	178923893	22385	21929	553539079	25242

TABLE 9B
MUNICIPAL (1967 PLAN) ANNUAL EARNINGS BY SERVICE GROUPS

SERVICE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0	858	16554462	19294	662	11632954	17572	1520	28187416	18544
1	777	16761901	21573	593	11324639	19097	1370	28086540	20501
2	613	14294938	23320	524	10841732	20690	1137	25136670	22108
3	853	20942777	24552	560	11815846	21100	1413	32758623	23184
4	544	13722714	25226	403	8875193	22023	947	22597907	23863
5	702	18879962	26895	424	9686116	22845	1126	28566078	25370
6-10	2597	69911816	26920	1360	31692279	23303	3957	101604095	25677
11-15	2922	82353470	28184	1265	30312928	23963	4187	112666398	26909
16-20	1992	57716814	28974	1069	25245612	23616	3061	82962426	27103
21-25	1073	32351327	30150	579	14042528	24253	1652	46393855	28083
26-30	666	20160127	30270	377	8977531	23813	1043	29137658	27936
31+	339	10964878	32345	177	4476535	25291	516	15441413	29925
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
TOTAL	13936	374615186	26881	7993	178923893	22385	21929	553539079	25242

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TABLE 10A

POLICE (1967 PLAN) ANNUAL EARNINGS BY AGE GROUPS

AGE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	0	0	0	0	0	0	0	0	0
20-24	57	1435487	25184	24	594984	24791	81	2030471	25068
25-29	455	12210576	26836	140	3723520	26597	595	15934096	26780
30-34	903	25191950	27898	206	5540840	26897	1109	30732790	27712
35-39	1463	42424120	28998	188	5128530	27279	1651	47552650	28802
40-44	1755	52242957	29768	82	2337807	28510	1837	54580764	29712
45-49	873	26463526	30313	16	462003	28875	889	26925529	30287
50-54	349	10763693	30842	2	56854	28427	351	10820547	30828
55-59	133	4311415	32417	0	0	0	133	4311415	32417
60-64	38	1247034	32817	0	0	0	38	1247034	32817
65-69	1	37068	37068	0	0	0	1	37068	37068
70-74	0	0	0	0	0	0	0	0	0
75-79	1	29052	29052	0	0	0	1	29052	29052
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	6028	176356878	29256	658	17844538	27119	6686	194201416	29046

TABLE 10B

POLICE (1967 PLAN) ANNUAL EARNINGS BY SERVICE GROUPS

SERVICE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0	104	2446600	23525	68	1601817	23556	172	4048417	23537
1	184	4741735	25770	95	2427522	25553	279	7169257	25696
2	110	2879289	26175	48	1256258	26172	158	4135547	26174
3	84	2280968	27154	39	1065460	27319	123	3346428	27207
4	13	347991	26769	11	296449	26950	24	644440	26852
5	295	8184648	27745	100	2759921	27599	395	10944569	27708
6-10	918	25873558	28185	161	4495243	27921	1079	30368801	28145
11-15	1078	31130322	28878	101	2919014	28901	1179	34049336	28880
16-20	1896	56106998	29592	25	724321	28973	1921	56831319	29584
21-25	1060	32565624	30722	8	240929	30116	1068	32806553	30718
26-30	214	7324736	34228	2	57604	28802	216	7382340	34178
31+	72	2474409	34367	0	0	0	72	2474409	34367
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
TOTAL	6028	176356878	29256	658	17844538	27119	6686	194201416	29046

TABLE 10C
POLICE (1967 PLAN) SERVICE GROUPS BY AGE GROUPS

AGE GROUP	0	1	S	E	R	V	I	C	E	4	G	R	O	5	U	P	6-10	11-15	OVER	TOTAL
				2			3													
							M	A	L	E										
0-19	0	0		0			0		0				0				0	0	0	0
20-24	20	21		10			2		0				4				0	0	0	57
25-29	47	78		42			29		5				147				107	0	0	455
30-34	22	65		38			23		4				109				455	186	1	903
35-39	14	19		18			28		3				30				256	541	554	1463
40-44	1	0		2			2		1				4				95	270	1380	1755
45-49	0	1		0			0		0				1				5	75	791	873
50-54	0	0		0			0		0				0				0	6	343	349
55-59	0	0		0			0		0				0				0	0	133	133
60-64	0	0		0			0		0				0				0	0	38	38
65-69	0	0		0			0		0				0				0	0	1	1
70-74	0	0		0			0		0				0				0	0	0	0
75-79	0	0		0			0		0				0				0	0	1	1
80-84	0	0		0			0		0				0				0	0	0	0
85+	0	0		0			0		0				0				0	0	0	0
TOTAL	104	184		110			84		13				295				918	1078	3242	6028

				F	E	M	A	L	E											
0-19	0	0		0			0		0				0				0	0	0	0
20-24	10	10		2			1		1				0				0	0	0	24
25-29	14	24		28			13		6				27				28	0	0	140
30-34	23	37		8			14		1				36				60	27	0	206
35-39	20	24		9			10		2				30				45	36	12	188
40-44	1	0		1			1		1				7				27	30	14	82
45-49	0	0		0			0		0				0				1	8	7	16
50-54	0	0		0			0		0				0				0	0	0	0
55-59	0	0		0			0		0				0				0	0	0	0
60-64	0	0		0			0		0				0				0	0	0	0
65-69	0	0		0			0		0				0				0	0	0	0
70-74	0	0		0			0		0				0				0	0	0	0
75-79	0	0		0			0		0				0				0	0	0	0
80-84	0	0		0			0		0				0				0	0	0	0
85+	0	0		0			0		0				0				0	0	0	0
TOTAL	68	95		48			39		11				100				161	101	35	658

TABLE 11A
FIRE (1967 PLAN) ANNUAL EARNINGS BY AGE GROUPS

AGE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	0	0	0	0	0	0	0	0	0
20-24	6	157221	26204	0	0	0	6	157221	26204
25-29	111	2951378	26589	1	26195	26195	112	2977573	26585
30-34	327	9156776	28002	2	52390	26195	329	9209166	27991
35-39	762	21921260	28768	0	0	0	762	21921260	28768
40-44	747	22331702	29895	0	0	0	747	22331702	29895
45-49	408	12510879	30664	0	0	0	408	12510879	30664
50-54	155	4852616	31307	0	0	0	155	4852616	31307
55-59	42	1355687	32278	0	0	0	42	1355687	32278
60-64	11	355178	32289	0	0	0	11	355178	32289
65-69	3	90633	30211	0	0	0	3	90633	30211
70-74	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	2572	75683330	29426	3	78585	26195	2575	75761915	29422

TABLE 11B
FIRE (1967 PLAN) ANNUAL EARNINGS BY SERVICE GROUPS

SERVICE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0	1	23525	23525	0	0	0	1	23525	23525
1	48	1232370	25674	0	0	0	48	1232370	25674
2	118	3091363	26198	3	78585	26195	121	3169948	26198
3	108	2957197	27381	0	0	0	108	2957197	27381
4	4	107741	26935	0	0	0	4	107741	26935
5	33	918156	27823	0	0	0	33	918156	27823
6-10	297	8368991	28178	0	0	0	297	8368991	28178
11-15	680	19682841	28945	0	0	0	680	19682841	28945
16-20	647	19181822	29647	0	0	0	647	19181822	29647
21-25	418	13032079	31177	0	0	0	418	13032079	31177
26-30	181	5849226	32316	0	0	0	181	5849226	32316
31+	37	1238019	33460	0	0	0	37	1238019	33460
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
TOTAL	2572	75683330	29426	3	78585	26195	2575	75761915	29422

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TABLE 12A

MUNICIPAL (PLAN 87) ANNUAL EARNINGS BY AGE GROUPS

AGE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	3	42384	14128	4	48371	12093	7	90755	12965
20-24	32	485410	15169	33	519278	15736	65	1004688	15457
25-29	35	696692	19905	39	752221	19288	74	1448913	19580
30-34	26	645611	24831	32	661601	20675	58	1307212	22538
35-39	20	441523	22076	32	695461	21733	52	1136984	21865
40-44	13	409466	31497	24	468136	19506	37	877602	23719
45-49	12	340148	28346	9	208186	23132	21	548334	26111
50-54	4	85918	21480	7	140208	20030	11	226126	20557
55-59	6	77089	12848	22	102934	4679	28	180023	6429
60-64	7	94698	13528	27	77205	2859	34	171903	5056
65-69	4	26910	6728	20	65160	3258	24	92070	3836
70-74	1	37035	37035	3	8325	2775	4	45360	11340
75-79	0	0	0	1	2445	2445	1	2445	2445
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	163	3382884	20754	253	3749531	14820	416	7132415	17145

TABLE 128

MUNICIPAL (PLAN 87) ANNUAL EARNINGS BY SERVICE GROUPS

SERVICE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0	148	3081386	20820	230	3322250	14445	378	6403636	16941
1	10	173095	17310	8	114338	14292	18	287433	15969
2	1	19568	19568	3	74018	24673	4	93586	23397
3	1	19996	19996	6	108309	18052	7	128305	18329
4	1	33500	33500	1	20385	20385	2	53885	26943
5	0	0	0	2	47646	23823	2	47646	23823
6-10	1	24768	24768	2	41669	20835	3	66437	22146
11-15	1	30571	30571	0	0	0	1	30571	30571
16-20	0	0	0	1	20916	20916	1	20916	20916
21-25	0	0	0	0	0	0	0	0	0
26-30	0	0	0	0	0	0	0	0	0
31+	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
TOTAL	163	3382884	20754	253	3749531	14820	416	7132415	17145

TABLE 13B

POLICE (PLAN 87) ANNUAL EARNINGS BY SERVICE GROUPS

SERVICE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0	111	2611275	23525	63	1482075	23525	174	4093350	23525
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	1	26795	26795	1	26795	26795
5	0	0	0	1	24401	24401	1	24401	24401
6-10	0	0	0	0	0	0	0	0	0
11-15	0	0	0	0	0	0	0	0	0
16-20	1	28606	28606	0	0	0	1	28606	28606
21-25	0	0	0	0	0	0	0	0	0
26-30	0	0	0	0	0	0	0	0	0
31+	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
TOTAL	112	2639881	23570	65	1533271	23589	177	4173152	23577

TABLE 13C
POLICE (PLAN 87) SERVICE GROUPS BY AGE GROUPS

AGE GROUP	0	1	S 2	E 3	R 4	V 5	I 6-10	C 11-15	E OVER	TOTAL
0-19	0	0	0	0	0	0	0	0	0	0
20-24	15	0	0	0	0	0	0	0	0	15
25-29	60	0	0	0	0	0	0	0	0	60
30-34	26	0	0	0	0	0	0	0	0	26
35-39	10	0	0	0	0	0	0	0	0	10
40-44	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	1	112
TOTAL	111	0	0	0	0	0	0	0	0	111
0-19	0	0	0	0	0	0	0	0	0	0
20-24	5	0	0	0	0	0	0	0	0	5
25-29	18	0	0	0	0	0	0	0	0	18
30-34	23	0	0	0	0	0	0	0	0	23
35-39	16	0	0	0	0	0	0	0	0	16
40-44	1	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0	0
TOTAL	63	0	0	0	0	0	0	0	0	63

TABLE 14A
FIRE (PLAN 87) ANNUAL EARNINGS BY AGE GROUPS

AGE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	0	0	0	0	0	0	0	0	0
20-24	6	141150	23525	0	0	0	6	141150	23525
25-29	26	612250	23548	0	0	0	26	612250	23548
30-34	19	447825	23570	1	23525	23525	20	471350	23568
35-39	6	148327	24721	0	0	0	6	148327	24721
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	57	1349552	23676	1	23525	23525	58	1373077	23674

TABLE 14B
FIRE (PLAN 87) ANNUAL EARNINGS BY SERVICE GROUPS

SERVICE GROUP	M A L E			F E M A L E			A L L		
	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0	50	1176250	23525	0	0	0	50	1176250	23525
1	1	23525	23525	1	23525	23525	2	47050	23525
2	1	23525	23525	0	0	0	1	23525	23525
3	0	0	0	0	0	0	0	0	0
4	1	24125	24125	0	0	0	1	24125	24125
5	0	0	0	0	0	0	0	0	0
6-10	2	49100	24550	0	0	0	2	49100	24550
11-15	2	53027	26514	0	0	0	2	53027	26514
16-20	0	0	0	0	0	0	0	0	0
21-25	0	0	0	0	0	0	0	0	0
26-30	0	0	0	0	0	0	0	0	0
31+	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
TOTAL	57	1349552	23676	1	23525	23525	58	1373077	23674

TABLE 14C

FIRE (PLAN 87) SERVICE GROUPS BY AGE GROUPS

AGE GROUP	0	1	S 2	E 3	R 4	V 5	I 6	C 7	E 8	G 9	R 10	O 11	U 12	P 13-15	11-15	OVER	TOTAL
							M 16	A 17	L 18	E 19							
0-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
25-29	25	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	26
30-34	17	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	19
35-39	3	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	6
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	50	1	1	0	0	0	1	0	0	0	2	2	2	2	0	0	57

TABLE 16A

NUMBER OF DISABLED AND RETIRED MUNICIPAL (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	-----NUMBER OF LIVES-----			-----NUMBER OF LIVES-----			-----NUMBER OF LIVES-----		
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	81	19	100	402	24	426	483	43	526
45-49	113	22	135	131	8	139	244	30	274
50-54	226	24	250	189	19	208	415	43	458
55-59	381	9	390	1013	325	1338	1394	334	1728
60-64	442	4	446	1968	260	2228	2410	264	2674
65-69	356	2	358	2637	144	2781	2993	146	3139
70-74	180	0	180	2300	59	2359	2480	59	2539
75-79	82	0	82	1815	41	1856	1897	41	1938
80-84	19	0	19	1153	12	1165	1172	12	1184
OVER 84	17	0	17	728	9	737	745	9	754
TOTAL	1897	80	1977	12336	901	13237	14233	981	15214

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 16B

TOTAL MONTHLY PENSIONS OF DISABLED AND RETIRED MUNICIPAL (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	TOTAL MONTHLY PENSION AMOUNTS								
	DISABLED			RETIRED					
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	49924.77	13150.91	63075.68	86390.74	11447.00	97837.74	136315.51	24597.91	160913.42
45-49	71552.92	17749.81	89302.73	44179.61	3387.66	47567.27	115732.53	21137.47	136870.00
50-54	148008.06	25732.71	173740.77	73090.28	14121.41	87211.69	221098.34	39854.12	260952.46
55-59	271933.38	9575.43	281508.81	854069.89	357830.08	1211899.97	1126003.27	367405.51	1493408.78
60-64	283337.94	3403.73	286741.67	1471291.03	244628.01	1715919.04	1754628.97	248031.74	2002660.71
65-69	212185.95	1626.43	213812.38	1555954.24	108460.22	1664414.46	1768140.19	110086.65	1878226.84
70-74	98459.70	0.00	98459.70	1019914.65	23074.37	1042989.02	1118374.35	23074.37	1141448.72
75-79	41859.29	0.00	41859.29	648583.13	12910.35	661493.48	690442.42	12910.35	703352.77
80-84	7714.36	0.00	7714.36	354210.80	2543.06	356753.86	361925.16	2543.06	364468.22
OVER 84	5950.10	0.00	5950.10	171948.48	1609.41	173557.89	177898.58	1609.41	179507.99
TOTAL	1190926.47	71239.02	1262165.49	6279632.85	780011.57	7059644.42	7470559.32	851250.59	8321809.91

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 16C

AVERAGE MONTHLY PENSION OF DISABLED AND RETIRED MUNICIPAL (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	-----DISABLED-----			-----AVERAGE MONTHLY PENSION AMOUNTS-----					
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	616.36	692.15	630.76	214.90	476.96	229.67	282.23	572.04	305.92
45-49	633.21	806.81	661.50	337.25	423.46	342.21	474.31	704.58	499.53
50-54	654.90	1072.20	694.96	386.72	743.23	419.29	532.77	926.84	569.77
55-59	713.74	1063.94	721.82	843.11	1101.02	905.75	807.75	1100.02	864.24
60-64	641.04	850.93	642.92	747.61	940.88	770.16	728.06	939.51	748.94
65-69	596.03	813.21	597.24	590.05	753.20	598.49	590.76	754.02	598.35
70-74	547.00	0.00	547.00	443.44	391.09	442.13	450.96	391.09	449.57
75-79	510.48	0.00	510.48	357.35	314.89	356.41	363.97	314.89	362.93
80-84	406.02	0.00	406.02	307.21	211.92	306.23	308.81	211.92	307.83
OVER 84	350.01	0.00	350.01	236.19	178.82	235.49	238.79	178.82	238.07
TOTAL	627.79	890.49	638.42	509.05	865.72	533.33	524.88	867.74	546.98

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 17A
NUMBER OF DISABLED AND RETIRED POLICE (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	-----DISABLED-----			-----NUMBER OF LIVES-----			-----RETIRED-----			-----TOTAL-----		
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	303	42	345	154	14	168	457	56	513			
45-49	263	14	277	385	185	570	648	199	847			
50-54	283	2	285	657	79	736	940	81	1021			
55-59	365	2	367	823	55	878	1188	57	1245			
60-64	323	0	323	606	23	629	929	23	952			
65-69	135	0	135	410	22	432	545	22	567			
70-74	108	0	108	583	13	596	691	13	704			
75-79	35	0	35	470	9	479	505	9	514			
80-84	23	0	23	433	9	442	456	9	465			
OVER 84	6	0	6	306	2	308	312	2	314			
TOTAL	1844	60	1904	4827	411	5238	6671	471	7142			

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 17B

TOTAL MONTHLY PENSIONS OF DISABLED AND RETIRED POLICE (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	-----TOTAL MONTHLY PENSION AMOUNTS-----								
	-----DISABLED-----			-----RETIRED-----			-----TOTAL-----		
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	266049.93	56880.11	322930.04	68716.50	6497.71	75214.21	334766.43	63377.82	398144.25
45-49	222439.70	18547.10	240986.80	400424.29	242969.91	643394.20	622863.99	261517.01	884381.00
50-54	218690.37	3240.18	221930.55	693862.71	108134.13	801996.84	912553.08	111374.31	1023927.39
55-59	266298.02	5037.19	271335.21	849176.41	85779.95	934956.36	1115474.43	90817.14	1206291.57
60-64	239442.20	0.00	239442.20	592766.80	37942.33	630709.13	832209.00	37942.33	870151.33
65-69	96811.97	0.00	96811.97	268664.60	12301.87	280966.47	365476.57	12301.87	377778.44
70-74	71187.39	0.00	71187.39	291623.28	3575.00	295198.28	362810.67	3575.00	366385.67
75-79	21075.86	0.00	21075.86	187191.78	2734.40	189926.18	208267.64	2734.40	211002.04
80-84	12650.00	0.00	12650.00	166137.95	2577.78	168715.73	178787.95	2577.78	181365.73
OVER 84	3300.00	0.00	3300.00	110501.39	550.00	111051.39	113801.39	550.00	114351.39
TOTAL	1417945.44	83704.58	1501650.02	3629065.71	503063.08	4132128.79	5047011.15	586767.66	5633778.81

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 17C
AVERAGE MONTHLY PENSION OF DISABLED AND RETIRED POLICE (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	DISABLED			AVERAGE MONTHLY PENSION AMOUNTS			RETIRED		
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	878.05	1354.29	936.03	446.21	464.12	447.70	732.53	1131.75	776.11
45-49	845.78	1324.79	869.99	1040.06	1313.35	1128.76	961.21	1314.16	1044.13
50-54	772.76	1620.09	778.70	1056.11	1368.79	1089.67	970.80	1374.99	1002.87
55-59	729.58	2518.60	739.33	1031.81	1559.64	1064.87	938.95	1593.28	968.91
60-64	741.31	0.00	741.31	978.16	1649.67	1002.72	895.81	1649.67	914.02
65-69	717.13	0.00	717.13	655.28	559.18	650.39	670.60	559.18	666.28
70-74	659.14	0.00	659.14	500.21	275.00	495.30	525.05	275.00	520.43
75-79	602.17	0.00	602.17	398.28	303.82	396.51	412.41	303.82	410.51
80-84	550.00	0.00	550.00	383.69	286.42	381.71	392.08	286.42	390.03
OVER 84	550.00	0.00	550.00	361.12	275.00	360.56	364.75	275.00	364.18
TOTAL	768.95	1395.08	788.68	751.83	1224.00	788.88	756.56	1245.79	788.82

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 18A

NUMBER OF DISABLED AND RETIRED FIRE (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	-----DISABLED-----			-----NUMBER OF LIVES-----			-----TOTAL-----		
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	57	7	64	47	4	51	104	11	115
45-49	51	12	63	49	37	86	100	49	149
50-54	38	5	43	151	17	168	189	22	211
55-59	50	0	50	173	15	188	223	15	238
60-64	77	0	77	314	18	332	391	18	409
65-69	94	0	94	436	14	450	530	14	544
70-74	41	0	41	494	16	510	535	16	551
75-79	32	0	32	359	7	366	391	7	398
80-84	5	0	5	154	3	157	159	3	162
OVER 84	0	0	0	103	0	103	103	0	103
TOTAL	445	24	469	2280	131	2411	2725	155	2880

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 188

TOTAL MONTHLY PENSIONS OF DISABLED AND RETIRED FIRE (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	TOTAL MONTHLY PENSION AMOUNTS								
	PRIOR	DISABLED-NEW	TOTAL	PRIOR	RETIRED-NEW	TOTAL	PRIOR	TOTAL-NEW	TOTAL
UNDER 45	52651.99	9334.44	61986.43	20816.45	2332.02	23148.47	73468.44	11666.46	85134.90
45-49	49642.27	16886.14	66528.41	52476.86	52799.36	105276.22	102119.13	69685.50	171804.63
50-54	40115.54	8380.78	48496.32	169993.43	24188.40	194181.83	210108.97	32569.18	242678.15
55-59	44476.76	0.00	44476.76	173150.86	23861.82	197012.68	217627.62	23861.82	241489.44
60-64	63464.78	0.00	63464.78	307769.15	23531.17	331300.32	371233.93	23531.17	394765.10
65-69	75789.73	0.00	75789.73	320642.45	8552.79	329195.24	396432.18	8552.79	404984.97
70-74	28786.12	0.00	28786.12	284473.72	4824.32	289298.04	313259.84	4824.32	318084.16
75-79	19807.20	0.00	19807.20	180424.27	1925.00	182349.27	200231.47	1925.00	202156.47
80-84	2750.00	0.00	2750.00	60550.82	825.00	61375.82	63300.82	825.00	64125.82
OVER 84	0.00	0.00	0.00	34908.06	0.00	34908.06	34908.06	0.00	34908.06
TOTAL	377484.39	34601.36	412085.75	1605206.07	142839.88	1748045.95	1982690.46	177441.24	2160131.70

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

TABLE 18C

AVERAGE MONTHLY PENSION OF DISABLED AND RETIRED FIRE (1967 PLAN) MEMBERS AS OF JULY 1, 1987

ATTAINED AGE	AVERAGE MONTHLY PENSION AMOUNTS								
	DISABLED			RETIRED			TOTAL		
	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL	PRIOR	NEW	TOTAL
UNDER 45	923.72	1333.49	968.54	442.90	583.00	453.89	706.43	1060.59	740.30
45-49	973.38	1407.18	1056.01	1070.96	1427.01	1224.14	1021.19	1422.15	1153.05
50-54	1055.67	1676.16	1127.82	1125.78	1422.85	1155.84	1111.69	1480.42	1150.13
55-59	889.54	0.00	889.54	1000.87	1590.79	1047.94	975.91	1590.79	1014.66
60-64	824.22	0.00	824.22	980.16	1307.29	997.89	949.45	1307.29	965.20
65-69	806.27	0.00	806.27	735.42	610.91	731.54	747.99	610.91	744.46
70-74	702.10	0.00	702.10	575.86	301.52	567.25	585.53	301.52	577.29
75-79	618.97	0.00	618.97	502.57	275.00	498.22	512.10	275.00	507.93
80-84	550.00	0.00	550.00	393.19	275.00	390.93	398.12	275.00	395.84
OVER 84	0.00	0.00	0.00	338.91	0.00	338.91	338.91	0.00	338.91
TOTAL	848.28	1441.72	878.65	704.04	1090.38	725.03	727.59	1144.78	750.05

NOTE - 'PRIOR' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED MORE THAN ONE YEAR BEFORE THE VALUATION DATE,
 'NEW' INDICATES LIVES WHOSE BENEFIT PAYMENTS COMMENCED IN THE YEAR PRECEDING THE VALUATION DATE.

PART IV
FINANCIAL EXPERIENCE OF FUND

The assets of the Retirement System as of July 1, 1987 are \$1,497,884,498 on a market value basis and \$1,390,906,779 on a cost value basis. A summary of the asset holdings is shown on Table 19 and the receipts and disbursements statement is shown on Table 20. Table 21 provides a statement of fund equity as of June 30, 1987 and Table 22 provides a summary of administrative expenses for the 1987 fiscal year. Table 23 summarizes the derivation of adjusted market value of assets used for valuation purposes and Table 24 shows the allocation of these assets between all divisions as of June 30, 1987.

Table 20 shows the funds received and disbursed during the fiscal year ending June 30, 1987. The table shows that employee and employer contributions constitute approximately 53% of the receipts for the year. On the disbursement side, benefit payments were approximately 95% of all disbursements, on a market value basis.

In addition to showing the receipts and disbursements, Table 20 indicates the approximate rates of return for the year. The approximate rates of return and a comparison with the prior year is presented in the table below:

	<u>Fiscal Year Ending</u>	
	<u>June 30, 1986</u>	<u>June 30, 1987</u>
Cost Value	10.0%	13.1%
Market Value	23.1%	10.7%

Table 23 shows the derivation of adjusted market value of assets used in the cost calculations. All assets other than equities are valued at market. Equity funds are valued as the product of (i) the 3-year average of the ratio

of market value to book value (but not before July 1, 1985) and (ii) the cost value of the equity funds as of the valuation date. Also shown on the table is the approximate rate of return on an adjusted market value basis of 15.1% (as compared to the prior year of 18.6%).

Table 24 shows the allocation of the assets used for valuation purposes as of July 1, 1987 between all divisions. As required under Act 205, experience gains and losses and changes in the unfunded actuarial accrued liability due to plan amendments and/or changes in actuarial assumptions must be reported separately for each of the participating divisions. This requires, for valuation purposes only, that assets be allocated between the divisions. It should be noted that this allocation does not constitute a legal separation of the assets.

The starting point of the table is valuation assets as of July 1, 1985. These assets were allocated based on the actuarial accrued liability as of that date. The non-investment transactions (item 2 of the table), other than administrative expenses attributable to each division, was provided by the Finance Department of the City of Philadelphia. Administrative expenses were allocated based on the member count of each division as of the beginning of the fiscal year. Investment income (net of investment expenses) were allocated in proportion to the mean fund balance as of the valuation date prior to recognition of fund earnings.

TABLE 19
CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM

STATEMENT OF ASSETS AND LIABILITIES
(FISCAL YEAR ENDING JUNE 30, 1987)

	<u>COST VALUE</u>	<u>MARKET VALUE</u>
<u>Assets:</u>		
Cash	\$ 5,212,830	\$ 5,212,830
Investment Accounts:		
Custody	69,907,119	70,765,067
Atalanta	106,171,052	120,602,268
Delaware	107,204,105	124,176,873
Eaton Vance	90,507,502	106,928,564
Kemper	91,115,905	113,901,644
Miller Anderson	93,697,764	119,609,040
Provident	98,306,934	111,408,244
Criterion	179,231,672	178,679,903
Drexel Burnham	170,601,531	167,706,057
Lehman	195,107,278	195,647,224
Wentworth Hauser	147,191,168	146,594,865
Due From Other Funds	18,725,179	18,725,179
Accounts Receivable	3,911,991	3,911,991
Interest and Dividends Receivable	16,976,812	16,976,812
Due From Other Governmental Units	1,240,760	1,240,760
Other Assets	9,014	9,014
Total Assets	\$1,395,118,616	\$1,502,096,335
<u>Liabilities:</u>		
Vouchers Payable	\$ 116,167	\$ 116,167
Accounts Payable	493,911	493,911
Salaries and Wages Payable	51,508	51,508
Accrued Expenses	943,311	943,311
Funds Held in Escrow	3,066	3,066
Deferred Revenue	2,352,315	2,352,315
Other Liabilities	251,559	251,559
Total Liabilities	\$ 4,211,837	\$ 4,211,837
<u>Fund Balance:</u>	\$1,390,906,779	\$1,497,884,498

TABLE 20
CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
STATEMENT OF RECEIPTS AND DISBURSEMENTS

	<u>COST VALUE</u>	<u>MARKET VALUE</u>
<u>Balance as of July 1, 1986</u>	\$1,234,432,116	\$1,356,692,623
<u>Receipts:</u>		
Contributions:		
Commonwealth of Pennsylvania	\$ 19,628,563	\$ 19,628,563
City of Philadelphia	129,453,234	129,453,234
Employees	38,426,253	38,426,253
Quasi-Public Agencies	3,246,292	3,246,292
Interest and Dividends	91,515,469	91,515,469
Gain from Sale of Investments	72,113,591	72,113,591
Miscellaneous Operating Revenues	167,829	167,829
Adjustments to Members' Accounts	266	266
Total Receipts	\$ 354,551,497	\$ 354,551,497
<u>Disbursements:</u>		
Withdrawals	\$ 3,950,939	\$ 3,950,939
Benefit Payments	187,260,945	187,260,945
Administrative Expenses	3,673,876	3,673,876
Investment Manager Fees	2,740,160	2,740,160
Adjustments	450,914	450,914
Total Disbursements	\$ 198,076,834	\$ 198,076,834
<u>Change in Unrealized Appreciation/ Depreciation</u>	\$ --	\$ (15,282,789)
<u>Balance as of July 1, 1987</u>	\$1,390,906,779	\$1,497,884,497
<u>Approximate Return on Investments During Year</u>	13.1%	10.7%

TABLE 21
CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
STATEMENT OF FUND EQUITY
(COST VALUE)

Members' Pension Contributions	\$ 327,802,336
Designated for Pension Benefits	<u>1,063,104,443</u>
Total as of June 30, 1987	\$1,390,906,779

TABLE 22
CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
STATEMENT OF ADMINISTRATIVE EXPENSES
FOR YEAR ENDING JUNE 30, 1987

Personal Services	\$ 927,126
Purchase of Services	2,136,130
Materials and Supplies	41,363
Employer's Share of Fringe Benefits	<u>569,257</u>
Total	\$3,673,876

TABLE 23
CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
DERIVATION OF ASSETS FOR VALUATION PURPOSES

1. Cash		\$ 5,212,830
2. Equity Securities:		
a. Market Value as of July 1, 1985	\$383,136,691	
b. Cost Value as of July 1, 1985	\$361,928,769	
c. July 1, 1985 Ratio: $[a \div b]$	1.05859695	
d. Market Value as of July 1, 1986	\$606,965,947	
e. Cost Value as of July 1, 1986	\$497,996,154	
f. July 1, 1986 Ratio: $[d \div e]$	1.218816535	
g. Market Value as of July 1, 1987	\$696,626,633	
h. Cost Value as of July 1, 1987	\$587,003,262	
i. July 1, 1987 Ratio: $[g \div h]$	1.186750872	
j. Average of Ratio of Market Value to Cost Value: $[c + f + i] \div 3$	1.154721452	
k. Adjusted Market Value: $(h) \times (j)$		\$ 677,825,259
3. Debt Securities		\$ 759,393,116
4. Other Assets		\$ 9,014
5. Receivables		\$ 40,854,742
6. Liabilities		\$ 4,211,837
7. Assets for Valuation Purposes: $(1) + (2k) + (3) + (4) + (5) - (6)$		\$1,479,083,124
8. Approximate Return on Investments During Year on Adjusted Asset Basis		15.1%

PART V
SALIENT FEATURES OF THE RETIREMENT SYSTEM

	<u>MUNICIPAL (PLAN J)</u>	<u>1967 PLAN</u> <u>UNIFORMED (PLANS D AND X)</u>
1. <u>Participation:</u>	Full-time employees commence participation on their date of employment. Temporary employees commence participation after the completion of 6 months of employment. Participation is limited to employees hired before January 8, 1988. District Council 33 members continue to be participants of this Plan regardless of hire date.	Same as municipal
2. <u>Credited Service:</u>	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
3. <u>Total Compensation:</u>	Total compensation means: (a) for members represented by AFSCME District Council 33, AFL-CIO or District Council 47, AFL-CIO or employees of the Common Pleas Court, Municipal Court or Traffic Court, the base rate of pay, longevity payments and overtime received during a 12-month period (b) for members who hold an elected office, exempt position or other position not represented by a union, the base rate of pay and longevity payments received during a 12-month period.	Total compensation means the base rate of pay and longevity payments received during a 12-month period.
4. <u>Final Compensation:</u>	Final compensation means the greater of the annual base rate of pay at the time of termination and the total compensation received during the 12-month period immediately preceding termination.	Same as municipal
5. <u>Average Final Compensation:</u>	Average final compensation means: (a) for members represented by AFSCME District Council 33, AFL-CIO or District Council 47, AFL-CIO or employees of the Common Pleas Court, Municipal Court or Traffic Court, the arithmetic average of the total compensation received during the three calendar or anniversary years which produces the highest average	Average final compensation means the highest of (a), (b) and (c) below: (a) the total compensation received during the 12-month period which produces the highest figure; or (b) the annual base rate of pay, excluding longevity payments, calculated from the final pay period; or

MUNICIPAL (PLAN J)	1967 PLAN	UNIFORMED (PLANS D AND X)
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(b) for members who hold an elected office, exempt position or other positions not represented by a union, the arithmetic average of the total compensation received during the three calendar or anniversary years which produces the highest average.

(c) the arithmetic average of the total compensation received during the five calendar years of employment which produces the highest average.

6. Employee Contributions:

Each employee who participates in the Social Security System, contributes 3-3/4% of his total compensation up to the taxable wage base (\$39,600 in 1985 and \$42,000 in 1986) and 6% of his total compensation above the taxable wage base to the Retirement System.

Same as municipal

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

7. Service Retirement:

a. Eligibility:

Each municipal employee is eligible to retire and receive a service pension upon the attainment of age 55.

Each uniformed employee is eligible to retire and receive a service pension upon the attainment of age 45.

b. Benefit Amount:

The service pension equals the sum of:
2-1/2% of the employee's average final compensation multiplied by his years of credited service to a maximum of 20 years;

The service pension equals 2-1/2% of the employee's average final compensation multiplied by his years of credited service, subject to a maximum of 100% of average final compensation.

plus

2% of the employee's average final compensation multiplied by his years of credited service in excess of 20;

such sum limited to 80% of the employee's average final compensation.

8. Deferred Vested Retirement:

a. Eligibility:

A terminating employee who has completed 10 or more years of credited service is eligible for a deferred vested retirement benefit.

Same as municipal

MUNICIPAL (PLAN J)

1967 PLAN

UNIFORMED (PLANS D AND X)

b. Benefit Amount:

The annual deferred vested benefit is determined in the same manner as service pensions, based on average final compensation and credited service at the time of termination. This benefit commences at his service retirement date. If the member dies prior to the commencement of his deferred vested benefit, an ordinary death benefit is payable (see item 11 below).

Same as municipal

Alternatively, the terminating employee may request at any time prior to benefit commencement to receive a return of employee contributions (without interest) in lieu of the deferred vested benefit.

9. Withdrawal Benefit:

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

Same as municipal

10. Service-Connected Death:

a. 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

b. Benefit Amount:

The death benefit equals the sum of:
the 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 provisions of the Workers' Compensation Act.

Same as municipal

This benefit is payable to the spouse until her 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.

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 yearly payment of 15% of final compensation for the remainder of his lifetime.

11. Ordinary Death:

a. Eligibility:

The beneficiary of an active employee (or a terminated vested employee who did not withdraw his employee contributions) who dies after completion of 10 years of credited service or who has attained age 55 is eligible for an immediate death benefit equal to an annual pension or a lump sum payment, whichever the beneficiary chooses.

The beneficiary of an active employee who dies before completion of 10 years of credited service and attainment of age 55 is eligible for a lump sum payment.

The beneficiary may be any relative by blood or marriage.

b. Annual Pension:

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received had he been eligible to retire on the day before he died and had elected option 2, joint and 100% contingent annuitant (see item 14 below).

c. Lump Sum Payment:

The lump sum payment is equal to:

10% of the deceased employee's average final compensation multiplied by his 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 life insurance which was paid for by the City.

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

The beneficiary may be any relative by blood or marriage.

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received (based upon a minimum of 10 years of service) had he been eligible to retire on the day before he died and had elected option 2, joint and 100% contingent annuitant (see item 14 below).

Same as municipal

	1967 PLAN	
	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)

12. Service-Connected Disability:

a. Eligibility:

An active employee who is 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.

Same as municipal

b. Benefit Amount:

The service-connected disability benefit is equal to:

Same as municipal

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 provisions of the Workers' Compensation Act.

If the employee leaves his employee contributions with the Retirement System, he may choose a survivor benefit option (see item 14 below) in order to provide for continuation of benefit payments after his death. If he elects to receive his employee contributions, the benefit is payable for his lifetime only.

13. Ordinary Disability:

a. Eligibility:

An active employee who is found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he has completed at least 10 years of credited service.

An active employee who is found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he has completed at least 5 years of credited service and is a fireman. If the disability is permanent and partial and the employee is a policeman, he must have completed at least 10 years of credited service. If the disability is permanent and total and the employee is a policeman, there is no service requirement.

1967 PLAN

	MUNICIPAL (PLAN J)	UNIFORMED (PLANS D AND X)
b. <u>Benefit Amount:</u>	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 that each eligible employee is automatically credited with a minimum of 10 years of service for purposes of calculating the annual benefit.
14. <u>Survivor Benefits:</u>	<p>Service pensions, deferred vested benefits, service-connected disability benefits (if employee contributions are left on deposit), and ordinary disability benefits are payable under 4 optional forms. Options 1, 2, and 3 provide benefits actuarially equivalent to a lifetime only pension while option 4 has no reduction.</p> <p><u>Option 1</u> provides that a reduced benefit is payable to the employee with the provision that upon 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.</p> <p><u>Option 2</u> provides a reduced benefit payable to the employee with the provision that 100% of the reduced benefit will continue to be paid to the designated beneficiary for life after the death of the employee.</p> <p><u>Option 3</u> is the same as option 2 except that only 50% of the reduced benefit is continued to the designated beneficiary.</p> <p><u>Option 4</u> provides that upon the employee's death, 50% of the benefit will continue to be paid to the surviving spouse for the remainder of her lifetime, provided that the employee and his spouse were married for 2 years prior to retirement. 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

MUNICIPAL (PLAN J)

1967 PLAN

UNIFORMED (PLANS D AND X)

15. 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 maximum of 10 years.

The monthly minimum pension to pensioners receiving service-connected disability benefits is equal to \$500. The monthly minimum pension to all other pensioners is equal to \$440 with the provision that such pension will increase to \$500 at the time the pensioner attains age 60.

16. Waiver of Benefit:

Any employee at service retirement age with less than 3 years, but more than 1 year of credited service, may waive his right to receive a monthly benefit and in lieu thereof, receive a lump sum payment of twice his employee contributions without interest.

Same as municipal

17. Service-Connected Health Care Benefit:

Not applicable.

In the event of the death of a uniformed employee resulting from the performance of his 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 as 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).

	MUNICIPAL (PLAN M)	PLAN 87	UNIFORMED (PLANS A AND B)
1. <u>Participation:</u>	Full-time employees commence participation on their date of employment. Temporary employees commence participation after the completion of 6 months of employment. Participation is limited to employees hired on or after January 8, 1988. Any members of the 1967 Plan may irrevocably elect to participate in Plan 87. District Council 33 members do not participate in this Plan.		Same as municipal
2. <u>Credited Service:</u>	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
3. <u>Total Compensation:</u>	Total compensation means the base rate of pay and longevity payments received during a 12-month period.		Same as municipal
4. <u>Final Compensation:</u>	Final compensation means the annual base rate of pay at the time of termination, including supplementary compensation received under Civil Service Regulation No. 32.		Same as municipal
5. <u>Average Final Compensation:</u>	Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years which produces the highest average.		Average final compensation means the arithmetic average of the total compensation received during the two calendar or anniversary years which produces the highest average.
6. <u>Employee Contributions:</u>	Total employee contributions equal 30% of the gross normal cost for all members in the municipal division.		Total employee contributions equal 5% of total compensation, but not less than 30% or greater than 50% of total normal cost for members in the division.
7. <u>Service Retirement:</u>			
a. <u>Eligibility:</u>	Each municipal employee is eligible to retire and receive a service pension upon the attainment of age 60 and has 10 or more years of credited service.		Each uniformed employee is eligible to retire and receive a service pension upon the attainment of age 50 and has 10 or more years of credited service.
b. <u>Benefit Amount:</u>	The service pension equals the sum of 2% of the employee's average final compensation multiplied by his years of credited service.		The service pension equals 2.2% of the employee's average final compensation multiplied by his years of credited service to a maximum of 20 years
			plus
			2% of the employee's average final compensation multiplied by his years of credited service in excess of 20.

	PLAN 87	
MUNICIPAL (PLAN M)		UNIFORMED (PLANS A AND B)

8. Early Retirement:

a. Eligibility:

Each municipal employee is eligible to retire and receive a reduced service pension upon the attainment of age 52 and has 10 or more years of credited service.

Each municipal employee is eligible to retire and receive a reduced service pension upon the attainment of age 40. Alternatively, a member may have 25 years of credited service, regardless of age.

b. Benefit Amount:

The annual amount is calculated the same as for service retirement, reduced by 1/2 of 1% for each month the employee is younger than his minimum retirement age.

The annual amount is calculated the same as for 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.

9. Deferred Vested Retirement:

a. Eligibility:

A terminating employee who has completed 10 or more years of credited service is eligible for a deferred vested retirement benefit.

Same as municipal

b. Benefit Amount:

The annual deferred vested benefit is determined in the same manner as service pensions, based on average final compensation and credited service at the time of termination. This benefit commences at his service retirement date. If the member dies prior to the commencement of his deferred vested benefit, an ordinary death benefit is payable (see item 12 below).

Same as municipal

Alternatively, the terminating employee may request at any time prior to benefit commencement to receive a return of employee contributions (without interest) in lieu of the deferred vested benefit.

10. Withdrawal Benefit:

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

Same as municipal

PLAN 87

11. Service-Connected Death:

MUNICIPAL (PLAN M)

UNIFORMED (PLANS A AND B)

a. 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

b. Benefit Amount:

The death benefit equals the sum of:

Same as municipal

the 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 provisions of the Workers' Compensation Act.

This benefit is payable to the spouse until her 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.

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 yearly payment of 15% of final compensation for the remainder of his lifetime.

12. Ordinary Death:

a. Eligibility:

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

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

The beneficiary of an active employee who dies before completion of 10 years of credited service and attainment of age 60 is eligible for a lump sum payment.

The beneficiary may be any relative by blood or marriage.

The beneficiary may be any relative by blood or marriage.

	PLAN 87	
	MUNICIPAL (PLAN M)	UNIFORMED (PLANS A AND B)
b. <u>Annual Pension:</u>	The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received had he been eligible to retire on the day before he died and had elected option 2, joint and 100% contingent annuitant (see item 14 below).	The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received (based upon a minimum of 10 years of service) had he been eligible to retire on the day before he died and had elected option 2, joint and 100% contingent annuitant (see item 14 below).
c. <u>Lump Sum Payment:</u>	<p>The lump sum payment is equal to:</p> <p>10% of the deceased employee's average final compensation multiplied by his years of credited service to a maximum of 10; plus</p> <p>the deceased employee's contributions to the Retirement System; minus</p> <p>the total amount of the deceased employee's life insurance which was paid for by the City.</p>	Same as municipal
13. <u>Service-Connected Disability:</u>		
a. <u>Eligibility:</u>	An active employee who is 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.	Same as municipal
b. <u>Benefit Amount:</u>	<p>The service-connected disability benefit is equal to:</p> <p>the employee's contributions to the Retirement System; plus</p> <p>a yearly benefit of 70% of the employee's final compensation; reduced by any disability benefits payable under the provisions of the Workers' Compensation Act.</p>	Same as municipal

14. Ordinary Disability:a. Eligibility:

An active employee who is found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he has completed at least 10 years of credited service.

b. 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.

15. Survivor Benefits:

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

Option 1 provides that a reduced benefit is payable to the employee with the provision that upon 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 provides a reduced benefit payable to the employee with the provision that 100% of the reduced benefit will continue to be paid to the designated beneficiary for life after the death of the employee.

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

MUNICIPAL (PLAN M)

PLAN 87

UNIFORMED (PLANS A AND B)

An active employee who is found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he has completed at least 5 years of credited service and is a fireman. If the disability is permanent and partial and the employee is a policeman, he must have completed at least 10 years of credited service. If the disability is permanent and total and the employee is a policeman, there is no service requirement.

Same as municipal, except that each eligible employee is automatically credited with a minimum of 10 years of service for purposes of calculating the annual benefit.

Same as municipal

16. Service-Connected Health
Care Benefit:

MUNICIPAL (PLAN M)

PLAN 87

UNIFORMED (PLANS A AND B)

Not applicable.

In the event of the death of a uniformed employee resulting from the performance of his 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 as 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).

PART VI
ACTUARIAL COST METHOD, FACTORS AND
ASSUMPTIONS USED IN COST DETERMINATIONS

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

1. Member Data: The member data used in the determination of cost estimates consists of pertinent information with respect to the active, retired, disabled and deferred vested municipal and uniformed members of the City of Philadelphia Municipal Retirement System as supplied by the Philadelphia Board of Pensions and Retirement to the actuary.
2. Valuation Date: July 1, 1987.
3. Actuarial Cost Method: The costs of the System have been determined in accordance with the individual entry age actuarial cost method. The Bogen unfunded actuarial accrued liability is amortized in level dollar payments over 20 years ending June 30, 1992 and 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. The remaining unfunded actuarial accrued liability as of July 1, 1985 is amortized over 40 years ending June 30, 2019 with payments increasing 6.0% per annum. Changes in the actuarial accrued liability realized after July 1, 1985 are amortized in level dollar payments as follows:
 - a. Changes in actuarial assumptions: 20 years
 - b. Experience gains and losses: 15 years
 - c. Benefit modifications applicable to active members: 20 years
 - d. Benefit modifications applicable to non-active members: 10 years

4. Annual Rate of Withdrawal Prior to Retirement: The assumed annual rates of withdrawal may best be illustrated by the following probabilities at quinquennial ages:

<u>Attained Age</u>	<u>Municipal</u>		<u>Uniformed</u>
	<u>Males</u>	<u>Females</u>	<u>Unisex</u>
20	.120022	.109707	.021000
25	.090326	.100505	.020300
30	.055510	.073123	.016544
35	.032213	.049504	.009848
40	.023083	.035723	.005592
45	.018176	.028560	.000000
50	.014635	.023075	.000000
55	.000000	.000000	.000000

In addition, it is assumed that a terminating employee who is vested (10 years of service) will elect a refund of employee contributions unless his age plus years of service at termination sum to 55 or more (rule of 55), in which event he will be assumed to elect a deferred pension commencing at service retirement age.

5. Annual Rate of Disability Prior to Retirement: The assumed annual rates of disability may best be illustrated by the following probabilities at quinquennial ages:

<u>Attained Age</u>	<u>Municipal</u>		<u>Uniformed</u>
	<u>Males</u>	<u>Females</u>	<u>Unisex</u>
20	.000010	.000012	.000994
25	.000028	.000054	.001220
30	.000339	.000230	.002265
35	.001137	.000602	.004608
40	.002661	.001423	.008668
45	.005740	.003288	.016239
50	.010706	.007249	.020000
55	.014193	.010450	.020000
60	.015000	.011250	.020000
65	.000000	.000000	.000000

In addition, it is assumed that 90% of all disabilities among municipal members are ordinary (10% are service-connected) and that 80% of all disabilities among uniformed members are ordinary (20% are service-connected).

6. Annual Rate of Mortality Prior to Retirement: It is assumed that deaths among active municipal male members may be represented by 55% of the UP-84 Mortality Table with ages set forward one year. Deaths among municipal female members are assumed to be represented by 50% of the UP-84 Mortality Table with ages set back four years. In addition, it is assumed that 95% of all deaths among active municipal members are ordinary (5% are service-connected).

It is assumed that deaths among active uniformed members may be represented by 55% of the UP-84 Mortality Table with ages set forward one year. In addition, it is assumed that 90% of all deaths among active uniformed members are ordinary (10% are service-connected).

7. Service Retirement: It is assumed that active members in the 1967 Plan will retire in accordance with the following rates:

<u>Attained Age</u>	<u>Municipal Unisex</u>	<u>Uniformed Unisex</u>
45	--	.150
46	--	.090
47	--	.100
48	--	.105
49	--	.115
50	--	.120
51	--	.125
52	--	.145
53	--	.150
54	--	.170

(Illustration continued on following page)

<u>Attained Age</u>	<u>Municipal Unisex</u>	<u>Uniformed Unisex</u>
55	.175	.180
56	.090	.200
57	.090	.225
58	.090	.225
59	.090	.225
60	.115	.230
61	.115	.230
62	.300	.300
63	.180	.300
64	.180	.300
65	.300	.300
66	.225	.300
67	.200	.300
68	.200	.300
69	.200	.300
70+	1.000	1.000

The corresponding rates for members under Plan 1987 are as follows:

<u>Age</u>	<u>Municipal</u>			<u>Police and Fire</u>		
	<u>Reduced Benefits</u>	<u>Full Benefits</u>		<u>Reduced Benefits</u>	<u>Full Benefits</u>	
		<u>First Year Eligible</u>	<u>Subsequent Years</u>		<u>First Year Eligible</u>	<u>Subsequent Years</u>
40	--	--	--			
41	--	--	--	.040	.500	.125
42	--	--	--	.040	.500	.125
43	--	--	--	.040	.500	.125
44	--	--	--	.040	.500	.125
45	--	--	--	.040	.500	.125
46	--	--	--	.040	.500	.125
47	--	--	--	.040	.480	.125
48	--	--	--	.040	.460	.125
49	--	--	--	.040	.440	.125
				.040	.420	.125

(Illustration continued on following page)

Age	Municipal			Police and Fire		
	Reduced Benefits	Full Benefits		Reduced Benefits	Full Benefits	
		First Year Eligible	Subsequent Years		First Year Eligible	Subsequent Years
50	--	--	--			
51	--	--	--	.040	.400	.125
52	.033	.450	.060	.040	.400	.125
53	.033	.420	.060	.040	.400	.140
54	.033	.390	.060	.040	.400	.150
				.040	.400	.170
55	.033	.360	.060			
56	.033	.330	.060	.040	.400	.190
57	.033	.300	.060	.040	.400	.215
58	.033	.300	.060	.040	.400	.225
59	.033	.300	.080	.040	.400	.225
				.040	.400	.230
60	.033	.300	.100			
61	.033	.350	.150	.040	.400	.230
62	.033	.430	.300	.040	.400	.245
63	.033	.500	.187	.040	.400	.295
64	.033	.500	.199	.040	.400	.265
				.040	.400	.260
65	.033	.600	.309	1.000	.400	1.000
66	.033	.600	.232	--	--	--
67	.033	.600	.214	--	--	--
68	.033	.600	.214	--	--	--
69	.033	.600	.238	--	--	--
70	1.000	.600	1.000	--	--	--

8. Annual Rate of Mortality After Retirement: Post-retirement mortality has been assumed to follow the UP-84 Mortality Table with ages set forward one year for males and to follow 94% of the UP-84 Mortality Table with ages set back four years for females. Post-disablement mortality has been assumed to follow the above mentioned table with the following adjustment factors applied at each age.

Attained Age	Adjustment Factor		Attained Age	Adjustment Factor	
	Male	Female		Male	Female
47 & Before	5.40	6.90	62	1.57	2.00
48	4.59	5.87	63	1.51	1.93
49	4.10	5.24	64	1.46	1.86
50	3.78	4.83	65	1.40	1.79
51	3.46	4.42	66	1.35	1.73

(Illustration continued on following page)

<u>Attained Age</u>	<u>Adjustment Factor</u>		<u>Attained Age</u>	<u>Adjustment Factor</u>	
	<u>Male</u>	<u>Female</u>		<u>Male</u>	<u>Female</u>
52	3.19	4.07	67	1.32	1.68
53	2.86	3.66	68	1.30	1.66
54	2.59	3.31	69	1.30	1.66
55	2.38	3.04	70	1.24	1.59
56	2.16	2.76	71	1.19	1.52
57	1.94	2.48	72	1.19	1.52
58	1.84	2.35	73	1.13	1.45
59	1.73	2.21	74	1.10	1.41
60	1.67	2.14	75 & Later	1.08	1.38
61	1.62	2.07			

9. Salary Scale: It is assumed that salaries, including longevity and overtime, will increase at a compound annual rate of 6.0% per annum.
10. Rate of Investment Return: It is assumed that the assets of the fund will accumulate at a compound annual rate of 9% per annum, net of the annual expenses incurred in the investment of the fund's assets by the equity and debt money managers contracted by the Board of Pensions and Retirement.
11. Expenses: The administrative expenses of servicing the Retirement System are estimated based upon the estimated operating budget of the Board of Pensions and Retirement for fiscal year 1987 excluding the costs of the money managers contracted to invest the fund's assets.
12. Value of Investments: Assets held by the fund exclusive of equity securities are valued at market value as reported by the City. Equity securities are determined based on the product of (i) the average of the ratio of the market value of the equity securities to their cost value as of the valuation date and the two immediately preceding July 1

dates (but not prior to July 1, 1984) and (ii) the corresponding cost value of the equity securities as of the valuation date.

13. Family Composition: It is assumed that 70% of all active members and 60% of all non-active members will be survived by a spouse and that female (male) spouses are four years younger (older) than members.
14. Form of Annuity: It is assumed that all members will elect Option 4 unless otherwise indicated in the participant's data.
15. Capitalized Value of Bonds: In order that both current assets and non-active liabilities be valued on the same basis, the portion of the fixed income portfolio which can be matched with expected future payments is determined based on the valuation interest rate and the difference between this value of assets and the market value of assets is subtracted from the accrued liability.
16. Rate of Covered Payroll Growth: It is assumed that the annual rate of growth of total covered payroll is 6% per annum. This is supported by the actuarial experience study for the 5-year period ending July 1, 1985 which showed that the rate of growth of covered payroll averaged 7.5% for the period of the study.

PART VII

STATEMENT OF ACTUARIAL PRESENT VALUE OF ACCRUED BENEFITS UNDER GASB STATEMENT NO. 5

The Governmental Accounting Standards Board (GASB) Statement No. 5 relates to the disclosure of pension liabilities on a public employer's financial statements. Beginning in 1987, GASB Statement No. 5 must be followed by any public employee retirement system that follows generally accepted accounting principles (GAAP).

The disclosures required by GASB Statement No. 5 are intended to provide users with information needed to assess the funding status of retirement systems on a going-concern basis, progress made in accumulating assets to pay benefits when due, and whether employers are making actuarially determined contributions to plans.

Footnote disclosures required by GASB Statement No. 5 include a description of the plan, a summary of significant accounting policies and actuarial assumptions, funding status of the plan using a standardized measure of pension obligation, and contributions required and contributions made during the period. The standardized measure of the pension obligation is the actuarial present value of credited projected benefits prorated on service. Ten-year historical trend information is to be included as required supplementary information. This historical information need not be supplied retroactively if information is not available.

It has been our interpretation of GASB No. 5 that vested liabilities do not include liabilities for future salary increases. Therefore, all liabilities for salary increases for vested members are included in non-vested liabilities.

Pension liabilities under GASB No. 5 are presented on the following page.

GASB STATEMENT NO. 5, DISCLOSURE INFORMATION
AS OF JULY 1, 1987
(\$000 OMITTED)

Current Employees

Employee Contributions	\$ 305,302
Employer-Financed Vested	\$ 606,216
Employer-Financed Non-Vested	\$ 602,792

Non-Active Participants

Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits	\$1,626,037
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<u>Total Pension Benefit Obligation</u>	\$3,140,347
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<u>Assets at Cost Value</u> (Market Value = \$1,497,884)	\$1,390,907
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<u>Unfunded Pension Benefit Obligation</u>	\$1,749,440
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