

Pennsylvania Municipal Retirement System

Actuarial Valuation as of January 1, 2006

Copyright © April 2007

**THE SEGAL GROUP, INC.,
THE PARENT OF THE SEGAL COMPANY
All rights reserved**



THE SEGAL COMPANY
1920 N Street, NW, Suite 500 Washington, DC 20056
T 202.833.6400 F 202.833.6490 www.segalco.com

April 30, 2007

Pennsylvania Municipal Retirement Board
Eastgate Center, Suite 301
1010 North Seventh Street
Harrisburg, Pennsylvania 17102-1400

Dear Board Members:

We are pleased to submit to you our Actuarial Report on the Pennsylvania Municipal Retirement System as of January 1, 2006. The participant and financial data upon which our calculations were based were supplied to us by the staff of the System, under the direction of Kristine Gibboney, whose assistance we gratefully acknowledge. The actuarial calculations were prepared by Kathleen Hierlihy and Brian Nichols, MAAA, EA, under my supervision.

Sincerely,

THE SEGAL COMPANY

By:

A handwritten signature in black ink, appearing to read "Eli Greenblum".

Eli Greenblum, FSA, MAAA, EA
Senior Vice President & Actuary

Enclosures

6069777v6/00448.001

SECTION 1

SECTION 2

SECTION 2 (Cont.)

SECTION 3

SECTION 4

SECTION 5

EXECUTIVE SUMMARY

Valuation Summary.....i

EMPLOYEE DATA

TABLE 1

Active Employees, Each of Last Ten Years, Participating in Defined Benefit Plans.....1

CHART A

Number of Active Employees2

TABLE 2

Distribution of Number of Municipalities by Active Employee Count as of January 1, 20062

CHART B

Distribution of Municipalities by Number of Active Employees3

TABLE 3

Selected Demographic Data, This Year and Two Preceding Years.....5

TABLE 4A

Number and Average Salaries of Employees in Active Service in Defined Benefit Plans as of January 1, 2006 by Age and by Years of Service.....6

TABLE 4B

Number and Average Salaries of Employees in Active Service in Defined Contribution Plans as of January 1, 2006 by Age and by Years of Service.....7

CHART C

Age Distribution of Active Employees in Defined Benefit Plans8

CHART D

Service Distribution of Active Employees in Defined Benefit Plans8

CHART E

Age Distribution of Active Employees in Defined Contribution8

CHART F

Service Distribution of Active Employees in Defined Contribution Plans8

TABLE 5A

Defined Benefit Plan Participants in Active Service as of January 1, 2006 by Annual Compensation.....9

TABLE 5B

Defined Contribution Plan Participants in Active Service as of January 1, 2006 by Annual Compensation.....10

RETIREE DATA

TABLE 6

Distribution of Number of Municipalities by Pensioners and Beneficiaries in Pay Status as of January 1, 2006.....11

CHART G

Distribution of Municipalities by Number of Pensioners and Beneficiaries11

TABLE 7

Pensioners Awarded in the Year Ended January 1, 2006 by Type and Monthly Amount13

TABLE 8

Pensioners Awarded in the Year Ended January 1, 2006 by Type and by Age on Effective Date14

TABLE 9

Pensioners in Payment Status on January 1, 2006 by Type and Monthly Amount15

TABLE 10

Pensioners Awarded in the Year Ended January 1, 2006 by Type and Monthly Amount16

TABLE 11

Pensioners Awarded, Each of the Last Ten Years, by Type and Monthly Amount17

TABLE 12

Beneficiaries as of January 1, 200618

ACTUARIAL ASSUMPTIONS AND METHODS

TABLE 13A

Average Salary Increases for 2005 - Combined Uniformed and Municipal Employees20

TABLE 13B

Average Salary Increases for 2005 Uniformed Employees21

TABLE 13C

Average Salary Increases for 2005 - Municipal Employees21

TABLE 14

Determination of Actuarial Asset Value as of December 31, 200525

FINANCIAL DATA

TABLE 15

Assets as of December 31, 2005 at Market Value 28

CHART H

Investment Portfolio, at Market Value, by Type of Security ... 29

TABLE 16

Investment Portfolio, at Market Values, by Type of Security 29

TABLE 17

Summary, Income and Expenses, Year Ended December 31, 2005 30

CHART I

Contributions and Net Investment Income vs. Benefit Payments 31

TABLE 18

Progress of the Fund Through December 31, 2005 32

TABLE 19

Investment Return, Last Ten Years 33

CHART J

Investment Return..... 34

SECTION 6

SECTION 7

SECTION 8

APPENDIX

ACTUARIAL EXPERIENCE 35

EXCESS INTEREST ALLOCATION

TABLE 20

PMRS Excess Interest Method, Last Ten Years38

CHART K

Excess Interest, New Surplus and Available Surplus Amount.....38

ACCOUNTING INFORMATION

A. Accounting Information 39

B. GASB Statement No. 25 39

C. GASB Parameters..... 40

TABLE 21

PMRS Excess Interest Method, Last Ten Years 41

D. GASB Statement No. 27 42

CERTIFICATE OF ACTUARIAL VALUATION

EXHIBIT I

Funded Status of Actuarial Liabilities - GASB Statement No. 25 Disclosure 44

EXHIBIT II

Actuarial Present Value of Accumulated Plan Benefits 46

EXHIBIT III

Actuarial Assumptions..... 47

EXHIBIT IV

Actuarial Methods 53

SECTION 1: Valuation Summary for the Pennsylvania Municipal Retirement System

Coverage

The System covered 684 defined benefit and 172 defined contribution plans as of January 1, 2006, compared to 678 and 169, respectively, as of January 1, 2005. In aggregate, there was a 1.1% increase in the number of plans since January 1, 2005. We received data on 8,374 active employees as of January 1, 2006 who were participating in defined benefit plans under PMRS, representing a 0.4% increase over the last year. Their average salary of \$39,807 represents a 2.3% increase over the 2005 figure. On average, these employees were age 46.2 and had 11.6 years of credited service, compared to age 45.9 and 11.5 years of credited service at January 1, 2005. The number of defined benefit inactive participants entitled to deferred pensions increased by 13.1% from 464 to 525. In addition, there were 896 active (and 150 inactive) employees participating in 172 defined contribution-only plans with an average salary of \$31,218.

Retiree Data

We received data on 2,941 pensioners and 436 beneficiaries as of January 1, 2006. Since January 1, 2005, 264 new pensions were awarded, a 6.9% increase above 2005 awards. The new pensioners' average monthly benefit was \$1,270 (12.8% higher than in the prior year) and the average pension in payment status as of January 1, 2006 is now \$976, an increase of 3.2% from 2005. The average age of the pensioners on the rolls decreased slightly from 69.9 to 69.8.

Financial Data

As of December 31, 2005, the System had assets at market value of \$1.322 billion. For purposes of the actuarial valuation, we are valuing assets using the method adopted by the Board in April 1986, with minor modifications approved July 1991. The actuarial asset value is \$1.290 billion, an increase of \$67.4 million since January 1, 2005. These assets are available as an offset to the actuarial liabilities for future benefits. The unallocated investment surplus increased to a surplus of \$32.9 million, from a \$15.4 million surplus last year. The surplus represents 2.5% of the market value of assets, versus a 1.2% margin at the beginning of 2005.

Actuarial Results

The actuarial valuation was prepared as of January 1, 2006, based on what we believe are reasonable assumptions of expected future experience, as adopted for the January 1, 2005 actuarial valuation. Revised minimum contribution amounts were developed and reported separately for 4 plans sponsored by counties to comply with applicable Commonwealth filing requirements.

As of the valuation date, there were margins in the Investment Reserve and Disability Reserve Accounts, but a slight deficit in the Retirement Reserve Account.

SECTION 1: Valuation Summary for the Pennsylvania Municipal Retirement System

Excess Investment Return

Investment performance during 2005 was above the 6.0% required “regular” rate of return for that year and was enough to permit the Board to award an “excess interest” amount of 7.44 million under the current policy equal to 0.58% of eligible December 31, 2005 reserve accounts, which was credited at the end of 2006.

Accounting Information

In accordance with GASB Statement No. 25 requirements, we have determined that the total actuarial accrued liability on January 1, 2006 is \$55.3 million for the 4 defined benefit plans sponsored by counties that are required to redetermine contribution requirements on that date. The actuarial value of assets, comprised of the municipal and member reserve accounts and retired member actuarial present value, associated with those 4 plans exceeds the liability by \$5.4 million. Section 8 contains a complete summary of the GASB standards applicable to PMRS and employer accounting.

* * * * *

This actuarial valuation report as of January 1, 2006 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected.

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

A. EMPLOYEE DATA

We received data on 8,374 active employees of 684 municipalities participating in PMRS defined benefit plans as of January 1, 2006. This includes 45 plans in which there were no active participants as of the valuation date. The member account balance provides a separate benefit in 73 of these plans.

There were 7 municipalities joining PMRS since the prior (1/1/2005) valuation date and 4 municipalities withdrawing. In addition, three new defined benefit plans were previously defined contribution only plans. This accounts for net defined benefit increase of 6 plans and 2 employees. The 7 new plans that provided data covered an average of 5.9 employees.

The total active data included age, service, sex, salary and member contribution account information for each participant. The average salary of these participants was \$39,807. On average, the active members were age 46.2 with 11.6 years of service.

The number of defined benefit plan active employees included in the last ten valuations and their average age, service and salary are shown in **Table 1**. Average service, average age and salary all increased.

TABLE 1
Active Employees, Each of Last Ten Years, Participating in Defined Benefit Plans

Valuation as of January 1:	Number	Percent change from preceding year	Average age	Average service	Average pay
1997	7,725	0.8%	43.5	10.8	\$30,228
1998	7,874	1.9	43.7	10.9	30,863
1999	7,933	0.7	44.1	11.1	31,821
2000	7,875	(0.7)	44.4	11.0	32,163
2001	7,911	0.5	44.8	11.3	33,415
2002	7,834	(1.0)	44.8	11.3	34,720
2003	8,142	3.9	45.2	11.3	36,034
2005	8,341	2.4*	45.9	11.5	38,931
2006	8,374	0.4	46.2	11.6	39,807

* 2 year change.

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

Chart A graphically shows the number of active employees over the last ten years.

We also received data on 1,039 participants (896 active with a \$31,218 average salary and 150 inactive) in 172 defined contribution-only arrangements. There was 1.8% annual growth in the number of these plans since 2005.

Table 2 provides a distribution of the number of municipalities by active employees for defined benefit and defined contribution plans. **Chart B** (page 3) is a graphical summary of this information.

CHART A
Number of Active Employees

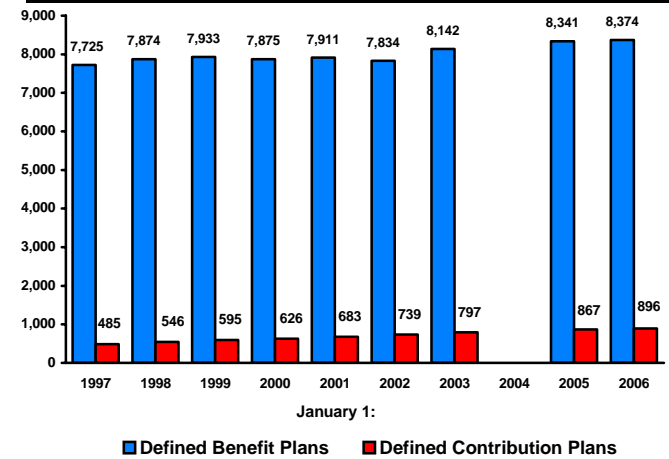


TABLE 2
Distribution of Number of Municipalities by Active Employee Count as of January 1, 2006

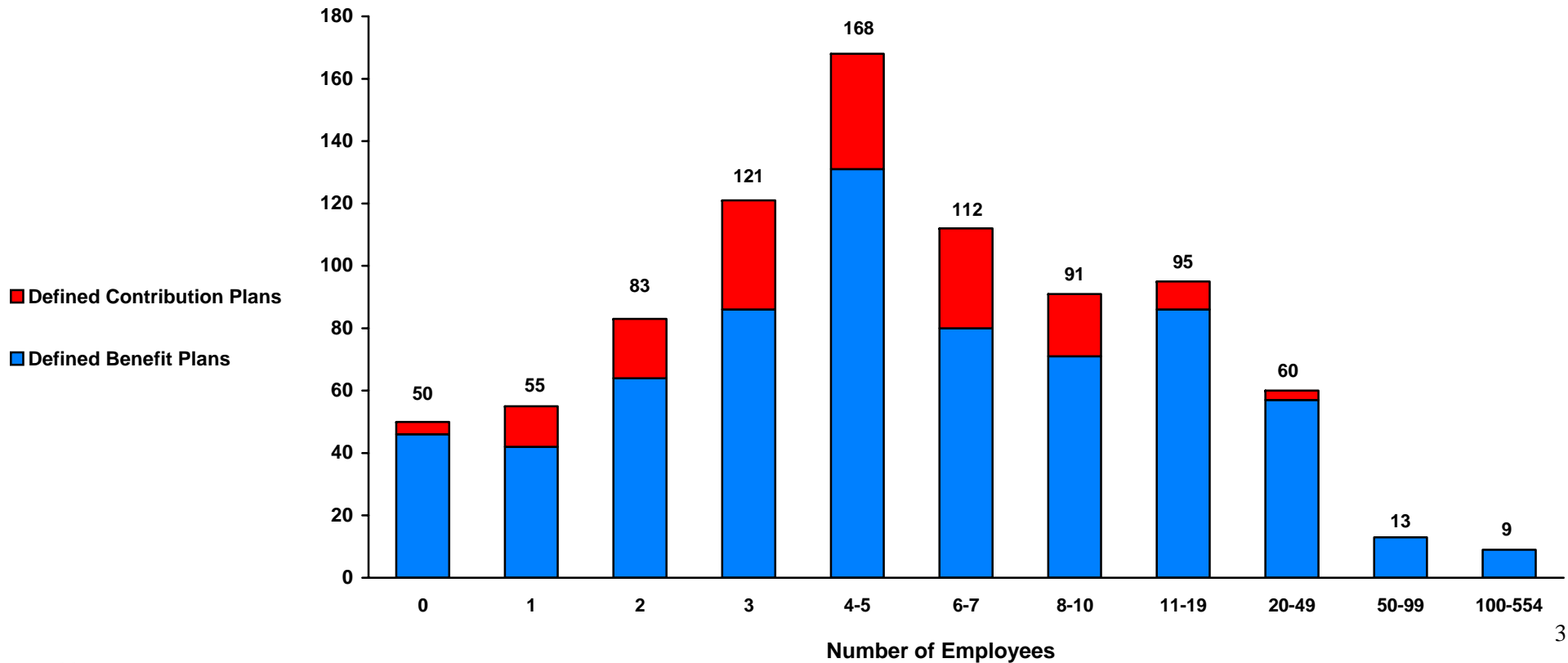
Number of employees	Defined benefit	Defined contribution
0	45	4
1	42	13
2	64	19
3	86	35
4 - 5	131	37
6 - 7	80	32
8 - 10	71	20
11 - 19	86	9
20 - 49	57	3
50 - 99	13	0
100 - 554	9	0
Total	684	172

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

Table 3 (page 5) compares detailed demographic statistics from this year's census to the prior two years. **Tables 4A and 4B** (pages 6 & 7) show distributions of active participants by age and service for defined benefit and defined contribution plans, respectively. **Charts C, D, E and F** (page 8) show the active employees by age and service graphically. **Tables 5A and 5B** (pages 9 & 10) show distributions of defined benefit and defined contribution active participants by salary range.

CHART B

Distribution of Municipalities by Number of Active Employees



SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

We also received data on all employees not active as of January 1, 2006 who have vested rights to a deferred pension. This year there were 525 such members in defined benefit plans, which is 61 more than for 2005. In addition, 66 non-vested inactive members from defined benefit plans were on leave without pay or had not yet requested the return of their member accounts.

All participant data was provided in computer-useable form. We appreciate the continuing efforts made by the Secretary of the System and the staff to ensure that the municipality and participant data is complete, consistent and correct prior to forwarding the information to us.

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

TABLE 3
Selected Demographic Data, This Year and Preceding Year

Category	Valuation as of January 1:		Percent change
	2006	2005	
Number of Plans:			
Defined Benefit	684	678	0.9%
Defined Contribution only	172	169	1.8
Active Employees in Defined Benefit Plans:			
Number	8,374	8,341	0.4
Average Age	46.2	45.9	--
Average Service	11.6	11.5	--
Total Payroll (\$ millions)	\$333.3	\$321.8	3.6
Average Pay	39,807	38,931	2.3
Average Salary Increase ¹	3.5%	4.5%	--
Active Employees in Defined Contribution Plans	896	867	3.3
Average Age	47.6	46.9	--
Average Service	9.8	9.4	--
Average Pay	\$31,218	\$30,973	--
Inactive Participants in Defined Benefit Plans with Rights to:			
Deferred Pension	525	464	13.1
Return of Contributions	66	165	(60.0)
Inactive Participants in Defined Contribution Plans	150	138	8.7
Pensioners:			
Number	2,941	2,768	6.3
Average Age	69.8	69.9	--
Average Monthly Benefit	\$976	\$946	3.2
Number of New Awards	264	247	6.9
Average New Benefit	\$1,270	\$1,126	12.8
Number Receiving Legislated COLA	149	103	44.6
Survivor Beneficiaries:			
Number	436	424	2.8
Average Age	75.5	75.1	--
Average Monthly Benefit	\$671	\$639	5.0

¹ For participants active during the past two years.

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

TABLE 4A

**Number and Average Salaries of Employees in Active Service in Defined Benefit Plans as of January 1, 2006
by Age and by Years of Service**

Age	Total	Years of service								
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 and Over
Total	8,374 \$39,807	2,691 \$34,151	1,687 \$38,652	1,172 \$41,052	1,200 \$43,647	643 \$44,482	556 \$47,266	320 \$49,344	87 \$48,351	18 \$48,452
Under 20	4 \$16,408	4 \$16,408	-	-	-	-	-	-	-	-
20 - 24	150 30,616	145 30,347	5 \$38,425	-	-	-	-	-	-	-
25 - 29	487 35,860	398 35,106	86 39,408	3 \$34,237	-	-	-	-	-	-
30 - 34	628 39,064	342 36,145	220 42,775	64 41,987	2 \$36,279	-	-	-	-	-
35 - 39	984 40,421	415 35,409	281 42,423	187 44,856	100 47,211	1 \$49,665	-	-	-	-
40 - 44	1,209 39,766	387 33,990	255 37,090	226 42,679	244 47,400	83 44,460	14 \$40,211	-	-	-
45 - 49	1,497 40,878	373 34,209	266 38,747	208 41,184	256 44,948	208 45,276	171 46,937	15 \$40,753	-	-
50 - 54	1,530 41,474	307 33,228	255 37,317	194 40,402	276 43,373	145 47,128	190 48,813	155 47,744	8 \$52,550	-
55 - 59	1,088 40,778	197 33,865	170 35,887	161 38,929	192 39,489	122 42,702	105 48,219	97 53,812	43 51,542	1 \$36,193
60 - 64	560 39,692	88 32,944	104 36,001	95 37,313	93 40,860	54 43,020	54 45,472	41 49,323	26 44,598	5 55,863
65 - 69	163 34,471	24 23,699	34 27,772	18 40,992	27 34,062	22 38,635	18 40,233	8 45,375	3 42,109	9 42,746
70 and over	74 26,738	11 13,725	11 20,322	16 20,945	10 23,779	8 28,553	4 43,387	4 43,334	7 40,564	3 57,303

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

TABLE 4B

**Number and Average Salaries of Employees in Active Service in Defined Contribution Plans as of January 1, 2006
by Age and by Years of Service**

Age	Years of service								
	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39
Total	896 \$31,218	307 \$26,849	216 \$29,970	155 \$33,603	127 \$37,080	39 \$37,228	35 \$34,859	13 \$41,610	4 \$31,111
Under 20	4 \$13,060	4 \$13,060	--	--	--	--	--	--	--
20 - 24	19 23,571	18 24,747	1 \$2,409	--	--	--	--	--	--
25 - 29	41 27,986	37 28,264	4 25,406	--	--	--	--	--	--
30 - 34	48 32,212	24 29,663	20 34,148	4 \$37,834	--	--	--	--	--
35 - 39	90 32,408	35 31,373	34 30,553	13 34,681	8 \$41,125	--	--	--	--
40 - 44	121 32,213	42 29,917	31 30,761	24 32,847	18 36,513	6 \$40,351	--	--	--
45 - 49	170 33,080	43 27,576	47 32,513	38 35,439	26 37,222	5 36,608	9 \$35,391	2 \$46,845	--
50 - 54	156 32,455	48 26,919	32 26,978	30 37,520	24 36,511	8 41,747	11 40,897	3 40,640	--
55 - 59	130 31,561	33 23,118	29 29,196	21 31,566	25 43,667	12 34,694	7 28,675	1 40,589	2 \$40,586
60 - 64	74 28,130	16 17,921	12 22,367	12 30,102	18 35,073	6 35,071	4 23,879	5 39,473	1 30,652
65 - 69	31 28,155	5 17,586	4 42,529	9 26,927	5 19,626	2 33,008	4 38,855	1 40,237	1 12,619
70 and over	12 18,245	2 8,646	2 8,738	4 19,804	3 19,273	--	--	1 47,130	--

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

CHART C

Age Distribution of Active Employees in Defined Benefit Plans

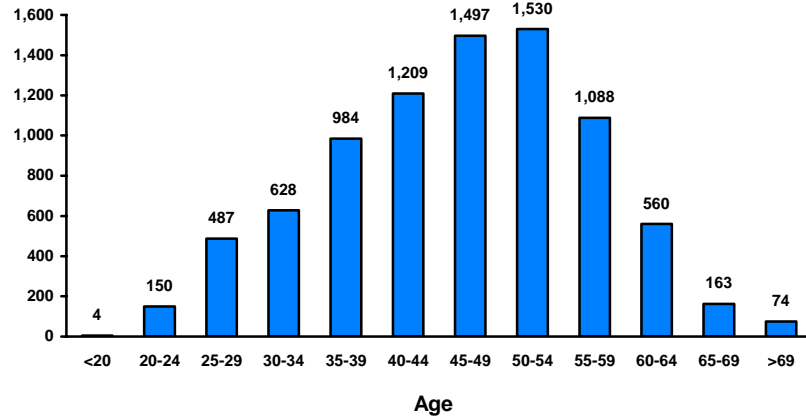


CHART D

Service Distribution of Active Employees in Defined Benefit Plans

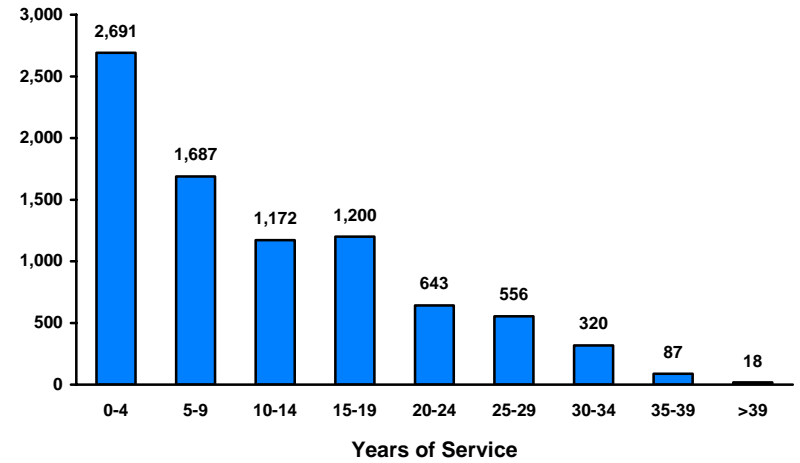


CHART E

Age Distribution of Active Employees in Defined Contribution Plans

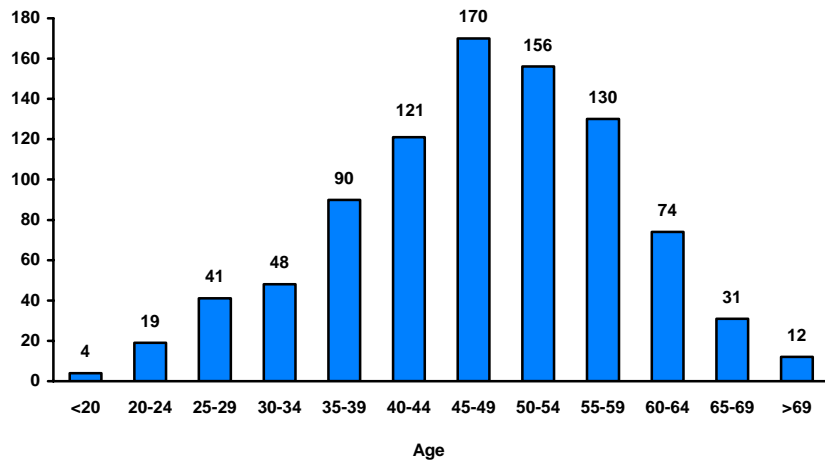
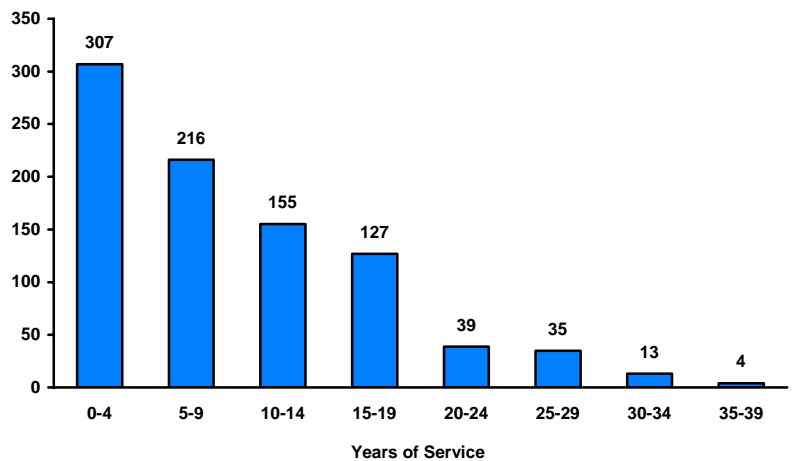


CHART F

Service Distribution of Active Employees in Defined Contribution Plans



SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

TABLE 5A

**Defined Benefit Plan Participants in Active Service as of January 1, 2006
by Annual Compensation**

Annual salary	Municipal	Uniformed	Total
Total	7,638	736	8,374
\$ 0 - \$ 4,999	66	--	66
5,000 - 9,999	95	1	96
10,000 - 14,999	140	--	140
15,000 - 19,999	273	1	274
20,000 - 24,999	492	15	507
25,000 - 29,999	825	33	858
30,000 - 34,999	1,211	52	1,263
35,000 - 39,999	1,358	73	1,431
40,000 - 44,999	1,077	84	1,161
45,000 - 49,999	730	101	831
50,000 - 54,999	569	79	648
55,000 - 59,999	309	88	397
60,000 - 64,999	160	78	238
65,000 - 69,999	111	51	162
70,000 - 74,999	77	33	110
75,000 - 79,999	60	23	83
80,000 - 89,999	46	18	64
90,000 - 99,999	17	4	21
100,000 - 109,999	8	2	10
110,000 - 119,999	6	--	6
120,000 - 130,000	4	--	4
130,000 - 140,000	--	--	--
140,000 - 150,000	2	--	2
150,000 and over	2	--	2

SECTION 2: Employee Data for the Pennsylvania Municipal Retirement System

TABLE 5B

**Defined Contribution Plan Participants in Active Service as of January 1, 2006
by Annual Compensation**

Annual salary	Municipal	Uniformed	Total
Total	889	7	896
\$ 0 - \$ 4,999	23	--	23
5,000 - 9,999	43	--	43
10,000 - 14,999	42	--	42
15,000 - 19,999	49	--	49
20,000 - 24,999	88	--	88
25,000 - 29,999	142	1	143
30,000 - 34,999	167	3	170
35,000 - 39,999	139	3	142
40,000 - 44,999	89	--	89
45,000 - 49,999	51	--	51
50,000 - 54,999	25	--	25
55,000 - 59,999	10	--	10
60,000 - 64,999	8	--	8
65,000 - 69,999	6	--	6
70,000 - 74,999	3	--	3
75,000 - 79,999	2	--	2
80,000 - 89,999	1	--	1
90,000 - 99,999	1	--	1
100,000 and over	--	--	--

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

A. RETIREE DATA

The data on retired members and beneficiaries included age, sex, monthly benefit, death benefit, retirement date, form and type of pension. **Table 3** (page 5) contains significant statistics on the pensioners and beneficiaries as of January 1, 2006 and prior years.

Table 6 shows a distribution of the number of municipalities by the number of pensioners and beneficiaries in pay status for defined benefit and defined contribution plans. **Chart G** is a graphical representation of this information.

CHART G

Distribution of Municipalities by Number of Pensioners and Beneficiaries

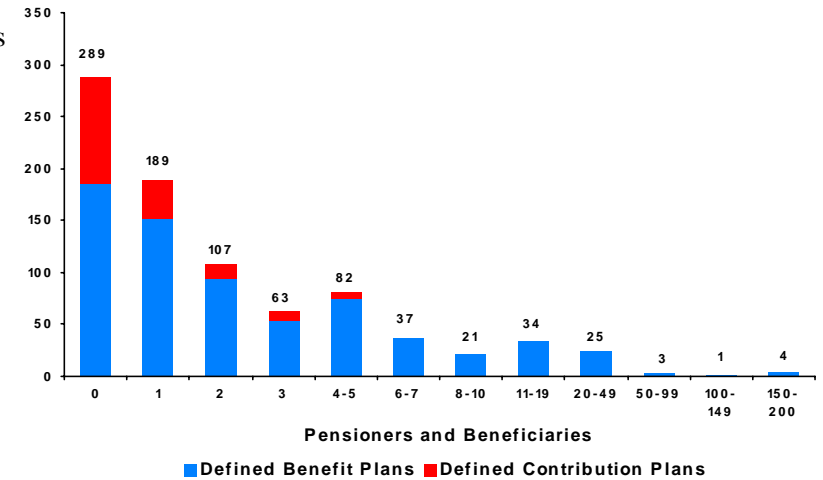


TABLE 6

Distribution of Number of Municipalities by Pensioners and Beneficiaries in Pay Status as of January 1, 2006

Number in pay status	Defined benefit municipalities	Defined contribution municipalities	Total municipalities
Total	684	172	856
0	185	104	289
1	152	37	189
2	94	13	107
3	53	10	63
4-5	75	7	82
6-7	37	--	37
8-10	21	--	21
11-19	34	--	34
20-49	25	--	25
50-99	3	--	3
100-149	1	--	1
150-200	4	--	4

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

Tables 7 through 10 (pages 13 through 16) provide detail with respect to the pensions awarded in the last year and pensions in payment status as of January 1, 2006. Since January 1, 2005, a total of 264 pensions were awarded as follows: 217 normal, 23 involuntary early, 11 voluntary early, 9 non-service disability, and 4 service disability. Of these new awards, 115 are being paid on a Joint and Survivor basis. **Table 11** (page 17) provides a historical overview of pension awards. The average new pension amount of \$1,270 is 13% more than the prior figure of \$1,126. **Table 12** (page 18) provides a distribution of beneficiaries in payment status as of January 1, 2006 by age.

Pension payments during 2005, as reported in the audited financial statements, totaled \$38,206,205, a 10.0% increase over the previous year. The monthly amounts of benefit being paid to the 2,941 pensioners and 436 survivors as of

January 1, 2006 are \$2,869,477 and \$292,454, respectively. Note that the average monthly pensioner benefit of \$976 grew 3.2% during the year, as a result of new awards, deaths, and Cost of Living Adjustments.

These amounts include legislated “Special Ad Hoc” adjustments that became effective January 1, 1989 for certain retired members of police and firefighter plans. The data provided indicates that 23 retirees and 15 beneficiaries in five plans sponsored by PMRS are still receiving an average monthly “Ad Hoc” benefit of \$53 and \$48, respectively. The “Ad Hoc” benefits are offset by any prospective regular benefit increase.

Another legislated increase was effective in 2003, currently covering 64 retirees and 11 beneficiaries, with average monthly increases granted of \$66 and \$80, respectively.

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

TABLE 7

Pensions Awarded in the Year Ended January 1, 2006 by Type and by Monthly Amount

Monthly amount	Total	Type of pension				
		Normal	Involuntary early	Voluntary early	Service disability	Non-service disability
Total	264	217	23	11	4	9
Under \$100	15	15	--	--	--	--
\$ 100 - \$ 199	13	11	1	--	1	--
200 - 299	15	11	1	3	--	--
300 - 399	16	13	1	2	--	--
400 - 499	12	10		2	--	--
500 - 599	9	8	--	--	--	1
600 - 699	12	9	1	1	--	1
700 - 799	13	11	1	--	--	1
800 - 899	14	10	2	--	1	1
900 - 999	13	11	1	1	--	--
1,000 - 1,199	16	14	1	--	--	1
1,200 - 1,399	16	11	3	1	--	1
1,400 - 1,599	23	17	6	--	--	--
1,600 - 1,799	12	12	--	--	--	--
1,800 - 1,999	11	7	3	1	--	--
2,000 - 2,199	9	7	--	--	2	--
2,200 - 2,399	7	5	2	--	--	--
2,400 - 2,599	6	6	--	--	--	--
2,600 - 2,799	14	12	--	--	--	2
3,000 - 3,499	7	6	--	--	--	1
3,500 - 3,999	5	5	--	--	--	--
4,000 and over	6	6	--	--	--	--

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

TABLE 8

Pensions Awarded in the Year Ended January 1, 2006 by Type and by Age on Effective Date

Age on effective date	Total	Type of pension				
		Normal	Involuntary early	Voluntary early	Service disability	Non-service disability
Total	264	217	23	11	4	9
Under 55	40	13	10	10	4	3
55 - 59	50	38	9	1	--	2
60 - 64	108	100	4	--	--	4
65 - 69	44	44	--	--	--	--
70 - 74	13	13	--	--	--	--
75 - 79	6	6	--	--	--	--
80 - 84	2	2	--	--	--	--
85 - 89	1	1	--	--	--	--

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

TABLE 9

Pensions in Payment Status on January 1, 2006 by Type and by Monthly Amount

Monthly amount	Total	Type of pension				
		Normal	Involuntary early	Voluntary early	Service disability	Non-service disability
Total	2,941	2,365	306	159	31	80
Under \$100	128	107	8	11	1	1
\$ 100 - \$ 199	190	137	18	32	3	--
200 - 299	225	168	25	29	--	3
300 - 399	200	162	19	17	--	2
400 - 499	177	133	23	13	3	5
500 - 599	210	164	26	11	--	9
600 - 699	182	139	21	13	--	9
700 - 799	164	122	26	4	--	12
800 - 899	167	125	22	5	3	12
900 - 999	153	124	15	6	3	5
1,000 - 1,199	282	218	39	7	5	13
1,200 - 1,399	187	156	20	4	4	3
1,400 - 1,599	166	146	13	3	4	--
1,600 - 1,799	117	109	4	2	2	--
1,800 - 1,999	91	78	9	1	--	3
2,000 - 2,199	68	60	6	--	2	--
2,200 - 2,399	50	47	3	--	--	--
2,400 - 2,599	48	44	4	--	--	--
2,600 - 2,799	42	39	0	1	--	2
2,800 - 2,999	22	21	1	--	--	--
3,000 - 3,499	34	29	3	--	1	1
3,500 - 3,999	21	20	1	--	--	--
4,000 and over	17	17	--	--	--	--

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

TABLE 10

Pensions in Payment Status on January 1, 2006 by Type and by Age

Age on January 1, 2006	Total	Type of pension				
		Normal	Involuntary early	Voluntary early	Service disability	Non-service disability
Total	2,941	2,365	306	159	31	80
Under 55	182	49	51	47	13	22
55 - 59	245	151	48	29	4	19
60 - 64	490	406	48	15	7	14
65 - 69	589	498	63	20	3	5
70 - 74	541	480	35	13	2	11
75 - 79	441	383	35	16	2	5
80 - 84	285	253	17	14	--	1
85 - 89	128	114	8	3	--	3
90 - 94	26	23	1	2	--	--
95 - 99	8	8	--	--	--	--

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

TABLE 11

Pensions Awarded, Each of the Last Ten Years, by Type and by Monthly Amount

Year ended: January 1:	Total		Type of pension							
			Normal		Involuntary early		Voluntary early		Disability	
	Number	Average monthly amount	Number	Average monthly amount	Number	Average monthly amount	Number	Average monthly amount	Number*	Average monthly amount
1996	182	727	141	757	19	648	12	395	10 (2)	855
1997	165	819	133	811	15	877	6	144	11 (4)	1,194
1998	169	782	142	831	10	594	9	337	8 (4)	647
1999	152	939	122	1,006	13	785	6	347	11 (2)	698
2000	179	869	152	912	22	647	3	345	2 (0)	850
2001	185	954	147	1,028	25	736	8	423	5 (1)	702
2002	246	1,277	206	1,346	30	957	6	945	4 (0)	655
2003	199	1,087	170	1,121	17	974	5	670	7 (2)	837
2004	214	1,199	171	1,226	26	1,206	8	609	9 (4)	1,199
2005	247	1,126	189	1,185	35	994	13	653	10 (1)	1,100
2006	264	1,270	217	1,290	23	1,257	11	639	13(4)	1,493

*Number of service-related disability pensions are shown in parentheses.

SECTION 3: Retiree Data for the Pennsylvania Municipal Retirement System

TABLE 12

Beneficiaries as of January 1, 2006

Age	Number	Total monthly benefits
Total	436	\$292,824
Under 50	4	2,025
50 - 54	3	2,764
55 - 59	13	9,887
60 - 64	18	15,645
65 - 69	41	42,733
70 - 74	67	46,089
75 - 79	81	56,989
80 - 84	78	49,245
85 - 89	64	27,146
90 - 94	28	9,503
95 - 99	3	734
100 - 104	3	701
Not applicable, period certain-only	33	29,365

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

A. ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions applied in our actuarial valuation of the Pennsylvania Municipal Retirement System as of January 1, 2006 are those most recently approved by the Board, based on the 5-year experience report presented to the Board in November 2004. Based on that report, assumption changes were adopted effective with the January 1, 2005 actuarial valuation. Each of the assumptions used in the current actuarial valuation is briefly described in this section.

Investment Yield

Funding a pension plan on an actuarial reserve basis involves the accumulation of substantial reserves to pay future benefits. These reserves are invested and the rate of long-term investment earnings is a major factor in determining the contributions required to support the ultimate cost of the plan. In projecting future actuarial investment earnings for PMRS, an added degree of conservatism is required to reflect the relationship between the guaranteed “regular” rate of interest (applied to all reserve accounts regardless of investment performance) and the actuarially assumed rate. These two rates are identical to conform with legal counsel's interpretation of the applicable Commonwealth Statute (Act 15).

This actuarial valuation as of January 1, 2006 is based on the assumption that the net effective rate of investment yield on the assets of the System will be 6.0% per year, after deduction of expenses payable from excess interest earnings. The Board initially approved this rate in November 2004 for use in the January 1, 2005 valuation. As discussed in Sections 5 and 7, actual investment performance during 2004 and 2005 was well above the assumed level.

Salary Increases

Because the retirement benefits provided by PMRS are generally based on an employee’s final average compensation, increases in salaries have a significant effect on benefit costs.

The salary increase assumption applied in an actuarial valuation projects annual rates of future salary increases. The assumption is a salary scale table that incorporates an inflation assumption of 3.0% per year with age-specific percentages reflecting merit and promotional increases. Plans that calculate benefits based on final rate of pay at time of retirement or on final year’s actual salary have an additional 6% increase applied at time of assumed retirement. Sample rates are as follows:

Salary Increase			
Age	Inflation	Merit	Total*
25	3.0%	4.8%	7.8%
30	3.0	2.9	5.9
35	3.0	2.1	5.1
40	3.0	1.5	4.5
45	3.0	1.2	4.2
50	3.0	1.1	4.1
55	3.0	0.9	3.9
60	3.0	0.7	3.7
65	3.0	0.0	3.0

** Add 2% for each of the first 3 years of service.*

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

Using an age-related salary scale assumption is fairly common actuarial practice, but is particularly appropriate for PMRS given the need to apply the assumption to determine plan-specific costs for municipalities with wide variations in demographic profiles.

Actual salary increases during 2005 averaged 3.5% for the 6,734 participants who were active during all of 2004 and 2005 compared to an expected increase of 4.6%. The average increase for participants below age 40 was about 5.1%, while older participants averaged 3.1% increases. Municipal (non-uniformed) employees received an average increase of 3.3% (expected increase of 4.6%), compared with a 5.4% average increase (expected increase of 5.2%) for Uniformed employees.

For comparison, the prior valuation report showed that overall average salary increased by 4.5% from 2004 to 2005, including 4.3% for Municipal employees and 5.3% for Uniformed employees. See **Tables 13A, 13B and 13C** (below and page 21) for more detail on salary increases during 2005.

Retirement Age

In terms of cost impact, one of the more important assumptions is the age at which employees will retire from service. If it is assumed that employees will retire as soon as they become eligible, the projected cost will be higher than if it is assumed that retirement is deferred for a number of years beyond eligibility. Of course, the ultimate cost of the Plan will depend on the ages at which employees actually retire from service in the future.

TABLE 13A
Average Salary Increases for 2005 - Combined Uniformed and Municipal Employees

Age	Number of Employees (a)	Prior Year Salaries	Current Year Salaries	Percentage Increase	Projected Increase (b)	Expected Salaries	Deviation (c)
Under 30	334	\$11,846,574	\$12,673,144	7.0%	8.1%	\$12,808,807	-1.1%
30 - 39	1,191	47,665,394	49,888,081	4.7	5.6	50,319,565	-0.9
40 - 49	2,216	88,987,992	91,994,780	3.4	4.5	93,010,285	-1.1
50 - 59	2,280	93,796,902	96,578,763	3.0	4.1	97,644,691	-1.1
60 and over	713	26,748,879	27,410,035	2.5	3.6	27,713,554	-1.1
Total	6,734	\$269,045,742	\$278,544,803	3.5%	4.6%	\$281,496,902	-1.1%

(a) Includes only those employees who earned a full year of service during 2004 and 2005.

(b) Based on the assumed salary scale.

(c) Difference between actual salary and projected salary increase percentages.

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

TABLE 13B

Average Salary Increases for 2005 - Uniformed Employees

Age	Number of Employees (a)	Prior Year Salaries	Current Year Salaries	Percentage Increase	Projected Increase (b)	Expected Salaries	Deviation (c)
Under 30	63	\$2,970,397	\$3,259,938	9.7%	8.2%	\$3,213,736	1.5%
30 - 39	248	12,089,822	12,859,644	6.4	5.6	12,769,766	0.8
40 - 49	188	10,298,936	10,665,242	3.6	4.4	10,750,790	-0.8
50 - 59	97	5,185,672	5,436,313	4.8	4.0	5,394,918	0.8
60 and over	15	799,622	827,348	3.5	3.8	830,361	-0.3
Total	611	\$31,344,449	\$33,048,484	5.4%	5.2%	\$32,959,571	0.2%

TABLE 13C

Average Salary Increases for 2005 - Municipal Employees

Age	Number of Employees (a)	Prior Year Salaries	Current Year Salaries	Percentage Increase	Projected Increase (b)	Expected Salaries	Deviation (c)
Under 30	271	\$8,876,177	\$9,413,205	6.1%	8.0%	\$9,595,071	-1.9%
30 - 39	943	35,575,573	37,028,437	4.1	5.5	37,549,799	-1.4
40 - 49	2,028	78,689,057	81,329,538	3.4	4.5	82,259,495	-1.1
50 - 59	2,183	88,611,229	91,142,450	2.9	4.1	92,249,773	-1.2
60 and over	698	25,949,257	26,582,687	2.4	3.6	26,883,193	-1.2
Total	6,123	\$237,701,293	\$245,496,318	3.3%	4.6%	\$248,537,331	-1.3%

(a) Includes only those employees who earned a full year of service during 2004 and 2005.

(b) Based on the assumed salary scale.

(c) Difference between actual salary and projected salary increase percentages.

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

While employees are expected to retire at various ages, the actuarial cost calculations are based on the following assumptions:

- (a) For Uniformed Members it was assumed that:
 - (i) members first eligible for normal retirement at age 57 or younger will defer their retirement four years;
 - (ii) members first eligible to retire at ages 58, 59, 60 or 61 will retire at age 62 and;
 - (iii) members first eligible to retire at ages 62 or older will retire when first eligible.
- (b) Municipal Members are assumed to retire over a range of ages. The probability that a member retires at a given age (if eligible for unreduced benefits at that age) is shown below:

Age	Rate of Normal Retirement
Under 46	5%
46 - 54	15
55 - 61	10
62	30
63 - 64	20
65	35
66 - 74	15
75	100

Rates indicated are adjusted by adding 5% (10% for ages 60-62) for the year in which the member is first eligible for normal retirement.

- (c) Inactive vested members are assumed to retire when first eligible for unreduced benefits.

Termination Rates Before Retirement

For municipal plans with 25 or more active members, the annual termination rates indicated below were used; for municipalities with between 6 and 24 members a percentage of the indicated rates was used where such percentage equaled 100 percent less 5 percent times (25 - number of members); for municipalities with 5 members or less, no terminations were assumed.

Years of Service	Rate of Termination ¹	
	Uniformed Members Male and Female	Municipal Members Male Female
less than 1	13%	13% 16%
1 but less than 2	10	12 15
2 but less than 3	7	10 13
3 but less than 4	7	9 11
4 but less than 5	6	6 9
5 but less than 6	5	6 8
6 but less than 7	4	6 7
7 but less than 8	3	5 7
8 but less than 9	3	4 6
9 but less than 10	3	3 5
10 or more	3	2 4

The adjustments for groups with less than 25 active members are intended to reflect the greater variability in experience from year to year for such groups rather than a specific expectation that such groups will have less actual turnover.

¹ No termination rates are applied once an employee becomes eligible for voluntary early or normal retirement.

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

Disability Rates

Assumed rates of disablement for Uniformed plans are equal to 60% of the rates set forth in the 1964 OASDI (Social Security) Experience for Males. Rates assumed for Municipal plans are equal to 40% of those rates. Sample annual rates are as follows:

Age	Uniformed	Non-Uniformed
25	0.051%	0.034%
35	0.088	0.059
45	0.216	0.144
55	0.605	0.404
65	1.393	0.928

The portion of disablements assumed to occur from service related causes is 15% for Municipal employees and 50% for Uniformed employees.

Mortality Rates

A mortality table is used to project the number of employees at each age who will die in active service, and also to determine the amount of the reserve required at the time of retirement to pay benefits for the remainder of an employee's lifetime.

The 1983 Group Annuity Table for Males was used as the basis for projecting expected mortality for those retired prior to January 1, 2005. Females are assumed to have the mortality of a male 6 years younger. For those retiring on or after January 1, 2005, the 1994 Group Annuity Mortality Static Table for males and females was used to project mortality. The life expectancies that result from the application of the tables follow:

Expected Number of Years of Life Remaining					
Age		1983	1994 Table		
Male	Female	Table	Age	Male	Female
55	61	24.8	55	26.2	30.2
56	62	24.0	56	25.3	29.2
57	63	23.1	57	24.4	28.3
58	64	22.3	58	23.5	27.4
59	65	21.5	59	22.7	26.5
60	66	20.6	60	21.8	25.6
61	67	19.8	61	21.0	24.7
62	68	19.0	62	20.2	23.8
63	69	18.2	63	19.4	23.0
64	70	17.5	64	18.6	22.1
65	71	16.7	65	17.8	21.3
66	72	15.9	66	17.1	20.5
67	73	15.2	67	16.4	19.7
68	74	14.5	68	15.7	18.9
69	75	13.8	69	15.0	18.1
70	76	13.2	70	14.3	17.3
71	77	12.5	71	13.6	16.5
72	78	11.9	72	13.0	15.8
73	79	11.3	73	12.3	15.0
74	80	10.7	74	11.7	14.3
75	81	10.2	75	11.1	13.6

Disability pensioners are assumed to have the mortality characteristics of a healthy pensioner who is 10 years older.

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

Presence and Age of Spouse

It was assumed that 85% of members will be married at the time of retirement and that wives are 4 years younger than their husbands.

Social Security Benefits

Where it has been necessary to estimate the amount of a member's primary Social Security benefit, the following has been assumed:

- a) The Social Security Taxable Wage Base and the U.S. Average Wage will increase by 3.5% compounded annually.
- b) The Consumer Price Index will increase by 3.0% compounded annually.

Post-Retirement Cost-of-Living Increases

Where post-retirement adjustments are provided, we have assumed that they will average 3.0% per year until the maximum increase is achieved.

Administration Expenses

The reserve for non-investment related expenses of the system, net of the \$20 per participant annual assessment, is based on expected expenses for the coming year. The amount allocated for 2006 is \$2,900,000 compared to \$3,000,000 for 2005.

Asset Valuation Method

Valuing assets purely at market value would subject PMRS plans to possible wide fluctuations from year to year. Gains and losses from this factor could cause undesirable swings in the actuarially determined employer contribution rate and thereby undermine a fundamental purpose of the Plan's funding method — to stabilize the rate of contribution. Therefore, it is desirable to adopt an asset valuation procedure that reflects market value, but only on a systematic basis that limits the effects of large fluctuations.

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

The PMRS Board has adopted an asset valuation method that was first effective for the year ending December 31, 1985, with minor modifications first approved for the years ending December 31, 1990 and 2004. This method recognizes only the portion of investment income to be distributed as excess interest (according to the formula shown in Section 7), after adjusting the sum of all audited reserve accounts for a one-year administration expense reserve. The steps in the determination of the actuarial asset value as of December 31, 2005 are shown in **Table 14**. The difference between the market value of assets of \$1,322,392,000 and the actuarial value of \$1,289,520,000 is considered the “surplus.” The amount of this investment reserve/(shortfall) as of December 31, 2005 is \$32,872,000, which is 2.5% of the market value.

Funding Method

Funding the PMRS on an actuarial reserve basis seeks to achieve the following objectives:

1. Assist budgeting by establishing contributions that will remain relatively level as a percentage of payroll over a long period of years;
2. Finance pensions earned by present employees on a current basis. This means that the pensions of present employees are being funded currently by the generation of taxpayers who benefit from the services of these employees, rather than by future generations of taxpayers.
3. Produce investment earnings on accumulated reserves to help meet future pension costs;
4. Make it possible to estimate the long-term actuarial cost of various proposals for benefit improvements.

TABLE 14

Determination of Actuarial Asset Value as of December 31, 2005 (\$1,000s)

Item	Amount
1. Prior Year Actuarial Value	\$1,222,130
2. Total Audited Reserve Accounts	1,279,181
3. Expected 2005 Administration Expenses	2,900
4. Preliminary Actuarial Value: [= 2. + 3.]	1,282,081
5. Current Year Market Value	1,322,392
6. Prior Year Market Value	1,237,561
7. New Surplus: [= (5. - 4.) - (6. - 1.), not greater than (5. - 4.)]	24,880
8. Percentage of New Surplus to be Credited as Excess Interest*	29.90%
9. Excess Interest (not less than zero): [= 7. x 8.]	\$7,439
10. Current Year Actuarial Value: [= 4. + 9.]	<u>\$1,289,520</u>

* See Section 7 for derivation of this percentage; subject to minimum threshold.

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

In general, the funding method refers to the budgeting or payment program under which the Plan is being financed.

The actuarial cost method used for determining Plan liabilities and costs is the Entry Age Normal Actuarial Cost Method. Under this method a “normal cost” is calculated that would fund each employee’s benefits during his or her career as a level percent of pay. The unfunded actuarial accrued liability is calculated at each valuation date as:

the present value of all Plan benefits,
less the present value of future normal cost payments,
less current assets (actuarial value).

The normal cost rate is applied to the projected payroll and expected employee contributions are deducted. Actuarial gains (or losses) are reflected by decreases (or increases) in the unfunded actuarial accrued liability. Under Act 205 of 1984, the unfunded actuarial accrued liability is amortized as a level dollar amount* over the lesser of:

- (a) i. 30 years, with respect to the initial liability as of 1/1/1985 (or first valuation);
- ii. 20 years, with respect to changes due to plan provisions and actuarial assumptions;
- iii. 10 years, with respect to changes in benefits for currently retired members;
- iv. 15 years, with respect to actuarial gains and losses; or

* Under Act 205 of 1984, certain distressed municipalities may use "level percent of payroll" amortization of the initial liability, where the assumed rate of increase in annual payroll is 4.0%.

** However, this treatment does not apply to payments made to certain retirees as a result of legislated 'Special Ad-Hoc' benefits effective in 1989.

- (b) the average assumed future working lifetime of active employees, as of the date the liability was established. Severely distressed municipalities do not need to apply this part (b).

With the two exceptions described below, the funding method is applied individually with respect to each municipality:

Retired members are paid monthly benefits from the System’s retiree reserve account, which at the time of retirement receives a transfer from the municipal and member accounts in an amount actuarially determined to be sufficient to pay all future benefits for the member (and, if applicable, a surviving beneficiary). Thus, post-retirement experience is pooled within the System.**

A disabled member’s pension is met in part from the amount that can be provided by the member’s own accumulated contributions and from the amount that can be provided by the value of that portion of the member’s accrued benefit attributable to municipal contributions, with the balance of the pension being provided by the appropriate transfer from the Disability Reserve Account. The amount of annual transfer from accumulated municipal contributions to the Disability Reserve Account is determined on the one year term cost basis, i.e. it is the expected cost of disabilities in the coming year.

SECTION 4: Actuarial Assumptions and Methods for the Pennsylvania Municipal Retirement System

Overall Actuarial Basis

We believe that the actuarial assumptions and methods, individually and in the aggregate, form a reasonable basis for valuing the plans of the System and changes to them. Of course, actuarial assumptions are projections of future events and, therefore, never match actual experience exactly. Section 6 provides additional discussion of actuarial experience during the most recent year with respect to those assumptions where the entire System's experience is shared, or "pooled": investment yield, mortality and disability. A separate 5-year experience report (presented to the Board in November 2004, covering experience during 1998 through January 1, 2003) formed the basis for several changes in assumptions first effective with the 2005 actuarial valuation. Details on the prior assumptions are shown in Exhibit IV of the Certificate in the Appendix.

SECTION 5: Financial Data for the Pennsylvania Municipal Retirement System

A. FINANCIAL DATA

Table 15 provides a detailed breakdown of assets at market value as of December 31, 2005

TABLE 15
Assets as of December 31, 2005 at Market Value (\$1,000s)

Item	Amount	
Accounts Receivable:		
Accrued investment income	\$1,334	
Investment sales	1,458	
Contributions	<u>2,562</u>	
Total		\$5,353
Investments:		
Fixed income	\$348,045	
Equities	888,773	
Real estate	<u>85,338</u>	
Total		1,322,156
Fixed assets		<u>351</u>
Total assets		\$1,327,860
Less: Accounts payable and accrued expenses	\$1,619	
Investment purchases payable	<u>3,849</u>	
Total		<u>5,468</u>
Net assets at market value		<u>\$1,322,392</u>

Note: Assets may not add exactly to amount shown due to rounding.

SECTION 5: Financial Data for the Pennsylvania Municipal Retirement System

Table 16 (page 29) and **Chart H** show a distribution of the investment portfolio at market value and, for comparison, the distribution last year. At the end of 2005, 26.3% was in fixed income securities, 67.2% was in equities, and 6.5% in real estate funds. At the beginning of that year, the corresponding percentages were 24.8% fixed, 65.8% equity and 9.4% real estate.

CHART H

Investment Portfolio at Market Value by Type of Security

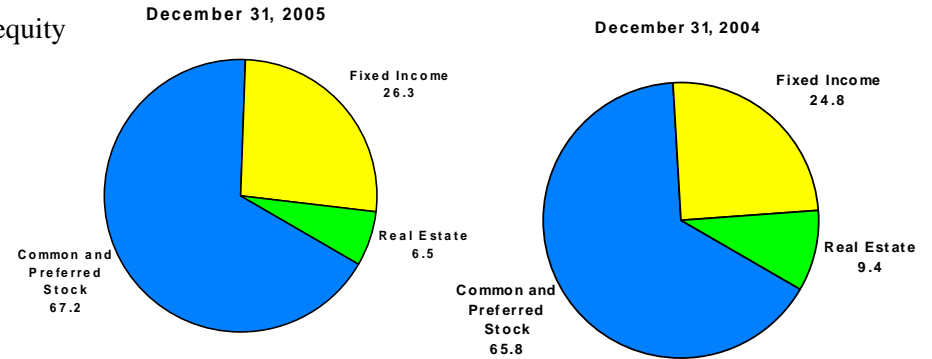


TABLE 16

Investment Portfolio, at Market Values, by Type of Security

Type of Security	December 31, 2005		December 31, 2004	
	Amount* (\$1,000s)	Percent*	Amount* (\$1,000s)	Percent*
Fixed Income Investments:				
U.S. Government Bonds	\$227,115	17.2%	\$170,497	13.8%
Short-Term Investments	33,655	2.5	23,953	1.9
Corporate Bonds	<u>87,275</u>	<u>6.6</u>	<u>111,642</u>	<u>9.0</u>
Total Fixed Income	\$348,045	26.3%	\$306,092	24.8%
Common & Preferred Stock	888,773	67.2	812,368	65.8
Real Estate Funds	<u>85,338</u>	<u>6.5</u>	<u>115,747</u>	<u>9.4</u>
Total Investments	\$1,322,156	100.0%	\$1,234,207	100.0%

* Amounts and percents may not add exactly to totals shown due to rounding.

Note: The total does not match the total value of all System assets; this table shows only the investment portfolio.

SECTION 5: Financial Data for the Pennsylvania Municipal Retirement System

Table 17 is a summary of the income and expenses of the Fund on the actuarial basis. It reflects investment yield inclusive only of regular and “excess” interest. So restated, the net actuarial value of assets available for benefits increased by \$67,390,000 in 2005, and \$62,962,000 in 2004.

TABLE 17
Summary, Income and Expenses
Year Ended December 31, 2004 and December 31, 2005 (Actuarial Basis; \$1,000s)

Item	December 31, 2005	December 31, 2004
Contributions:		
Municipal contributions	\$19,890	\$17,041
Member contributions	16,047	15,821
Municipal expense assessments	<u>278</u>	<u>263</u>
Total contributions	\$36,215	\$33,126
Investment income:		
Regular interest	\$72,489	\$75,012
Excess interest*	<u>7,439</u>	<u>0</u>
Total investment income	<u>79,928</u>	<u>75,012</u>
Total income	\$116,143	\$108,13
Expenses:		
Total expenses during year	\$7,448	\$7,292
Less: investment management fees	(4,333)	(4,165)
Less: expense reserve	<u>(2,900)</u>	<u>(3,000)</u>
Net administrative expense	\$215	\$127
Benefit payments:		
Retirement pensions	\$37,022	\$33,641
Disability pensions	1,184	1,090
Refunds to terminated members	<u>10,332</u>	<u>10,318</u>
Total benefit payments	<u>48,538</u>	<u>45,049</u>
Total expenses	<u>48,753</u>	<u>45,176</u>
Net change in actuarial asset value	<u>\$67,390</u>	<u>\$62,962</u>
Actuarial asset value as of the following January 1	<u>\$1,289,520</u>	<u>\$1,222,130</u>

Note: Individual amounts may not add to totals shown due to rounding.

* Available as of January 1, 2006 to be allocated as of December 31, 2006.

SECTION 5: Financial Data for the Pennsylvania Municipal Retirement System

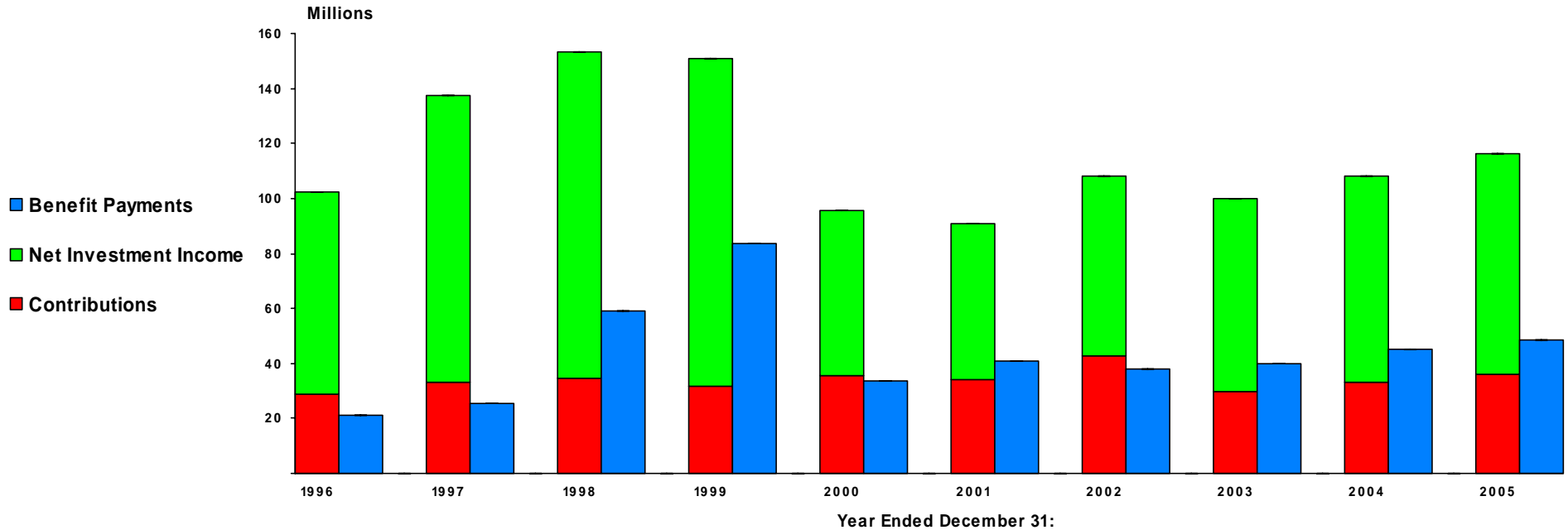
As indicated in Table 17, the actuarial investment income for 2005 was \$72.5 million from “regular” interest. This income resulted from a total credited interest rate of 6.0% for 2005. In addition, there was \$7.4 million of “Excess” interest available. Considering all assets (whether or not invested), and net investment income of \$100,269,000 including changes in market values, the estimated total market value rate of return* for 2005 was 8.15%.

* *Technical note: The rate of return was calculated assuming non-investment income and expense occurred uniformly throughout the year.*

Table 18 (page 32) shows the progress of the assets over the past ten years, as measured for actuarial purposes. Over the last 5 years, the annual compound growth rate of assets, including the effect of contributions and benefit payments, was about 6.4%. **Chart I** shows the relationship between contribution and actuarial investment income compared with benefit payments over the past ten years.

CHART I

Contributions and Net Investment Income (Actuarial Basis) vs. Benefit Payments



SECTION 5: Financial Data for the Pennsylvania Municipal Retirement System

TABLE 18
Progress of the Fund Through December 31, 2005 (All amounts in \$1,000s)

Year ended December 31:	Contributions	Investment return¹	Benefit payments²	Actuarial value of assets at end of year
1996	28,617	73,665	21,231	642,587
1997	33,105	104,526	25,378	754,840
1998	34,617	118,861	58,955	849,363
1999	31,744	119,068	83,444	916,731
2000	35,368	60,385	33,416	979,068
2001	34,267	56,510	40,783	1,029,062
2002	42,736	65,278	38,085	1,098,991
2003	29,727	70,402	39,952	1,159,168
2004	33,126	75,012	45,176	1,222,130
2005	36,215	79,928	48,753	1,289,520

¹ On the actuarial basis, including excess interest. Figures are net of investment fees.

² Includes payouts to withdrawing municipalities and non-investment administration expenses in excess of reserve.

SECTION 5: Financial Data for the Pennsylvania Municipal Retirement System

Table 19 shows various rates of investment return over the same ten year period.

TABLE 19
Investment Return, Last Ten Years

Year	Regular interest	Excess¹ interest	Total credited interest	Market² yield
1996	6.5	6.56	13.06	15.35
1997	6.5	9.42	15.92	17.86
1998	6.5	9.68	16.18	16.75
1999	6.5	8.49	14.99	14.59
2000	6.5	0.00	6.50	3.30
2001	6.5	0.00	6.50	(3.90)
2002	6.5	0.00	6.50	(8.27)
2003	6.5	0.00	6.50	22.90
2004	6.5	0.00	6.50	12.68
2005	6.0	0.58	6.58	8.15
Average for the period	6.45%	3.47%	9.92%	9.94%

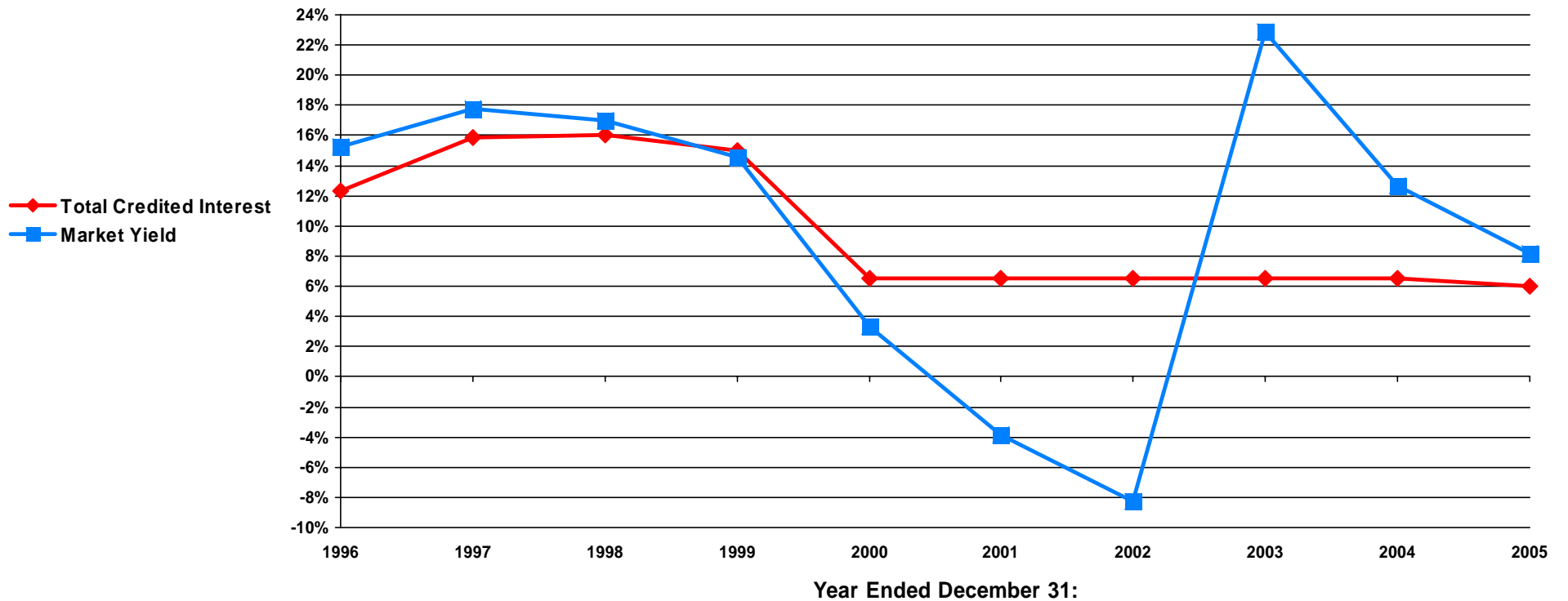
¹ Awarded at the end of the following year.

² Estimated, assuming non-investment income and expenses occur uniformly throughout the year.

SECTION 6: Actuarial Experience for the Pennsylvania Municipal Retirement System

Chart J illustrates the wide fluctuations in the net investment return based on market value and the stabilizing effect of the asset valuation method on the total credited interest over the last ten years.

CHART J
Investment Return



SECTION 6: Actuarial Experience for the Pennsylvania Municipal Retirement System

ACTUARIAL EXPERIENCE

The actuarial funding system for PMRS contemplates that each municipality pays its own costs based on its own experience except in three areas where experience is pooled.

- (a) Each municipality is credited with the same rate of investment return on its assets, and a reserve is maintained by the System as part of the actuarial asset valuation method (as described in Section 4). The reserve is available for crediting of regular interest at 6.0% even if the actual return on invested assets is lower than the regular rate.
- (b) Each municipality is charged annually with the amount expected to be needed for disability retirements, regardless of the number of employees from that municipality who in fact become disabled, if any.
- (c) At retirement, the expected amount needed for the member's lifetime pension is transferred to the Retired Reserve Account; no further adjustment is made to the municipal account regardless of how long the member (and spouse, if applicable) collects his or her pension.

On December 31, 2005, two of the pooled components (Disability and Retirement) had a margin against future adverse experience, while the Retiree Reserve Account has a very small deficit.

The margin in the **Investment Reserve** component was eliminated in 2001 due to negative market returns and the required 6.5% credit to member and municipal accounts. Investment experience improved in 2004 and 2005 and there is now an investment surplus of \$32,872,000, after crediting of \$7,349,000 in excess interest was applied to accounts as of December 31, 2005 at the end of 2006.

This surplus in the Reserve represents 2.49% of the market value of assets as of December 31, 2005 compared to a 1.25% Reserve surplus as of one year prior. As discussed in the next section, the determination of the portion awarded as excess interest is based on investment performance, using methodology adopted in 1986.

The **Disability Reserve Account** receives disability allocations each year based on each municipality's expected disability requirement. Each time an employee becomes disabled, there is a transfer to the Retired Reserve Account of the excess of the amount needed for the disability pension over the amounts in the municipal and member accounts that would have been needed upon termination or retirement if the employee were not disabled. If experience is exactly as projected on a cumulative basis, there would be no balance in the Disability Reserve at year end.

There is, in fact, a balance of \$433,300 as of December 31, 2005, that can be considered a reserve for possible adverse future disability experience. We note that the balance changed from \$504,300 as of December 31, 2004. Transfers out of disability reserves were \$720,100, compared to 2005 contribution allocations of \$621,700. Stated as a percent of municipal reserves, the Disability Reserves are 0.08%. The ratio at December 31, 2004 was 0.09%.

The Board's policy (adopted January 1992) is that the Disability Reserves shall not exceed 1.5 times the highest level of required disability transfers to the Retired Members' Reserves in the last three years. This cap was not applicable this year, nor was it applied last year.

SECTION 6: Actuarial Experience for the Pennsylvania Municipal Retirement System

The **Retirement Reserve Account** receives the amount needed to pay for the lifetime pension for each new pension at the time it is awarded. On December 31, 2005, the account had a balance of \$398,433,000. Based on our actuarial calculations, \$398,450,000 is the present value of future expected pension payments to retired pensioners and beneficiaries as of that date. The actuarial present value takes into consideration (1) the life expectancy of the pensioner and/or beneficiary, and (2) investment earnings at the assumed rate of 6.0% per year on System assets.

2005 represents the second year in which there was a deficit in the retirement reserves. The amount of this deficit was only \$17,000 or less than (0.01)% of the actuarial liability. This deficit is approximately \$13,000 smaller than it was a year ago.

We note that studies indicate that there have been and will continue to be significant improvements in mortality of the elderly, so we regard the gradual development of a margin as desirable.

SECTION 7: Excess Interest Allocation for the Pennsylvania Municipal Retirement System

EXCESS INTEREST ALLOCATION

Each year, municipalities are eligible to receive a supplemental allocation of investment monies beyond the regular 6.0% interest rate. This “excess interest” award is derived as a portion of new “surplus” created during the year. “Surplus” refers to the excess of market value over the actuarial value of assets. Once the preliminary actuarial asset value has been determined (as shown earlier on **Table 14**), a formula is used to allocate the new surplus.

Generally, depending on the relative size of surplus to market value (referred to as “margin”), between 10% and 90% of new surplus will become “excess interest.” For the year ended December 31, 2005, there was a new surplus of \$24.9 million that could potentially be allocated to excess interest.

A derivation of these results follows (all dollar amounts are in \$1,000s):

	12/31/2005 (Preliminary)	12/31/2004 (Final)
Market value	\$1,322,392	\$1,237,561
Actuarial value	<u>1,282,081</u>	<u>1,222,130</u>
Surplus/(deficit)	\$40,311	\$15,431
New Surplus[= 40,311 - 15,431]		\$24,880
Margin [= 40,311 ÷ 1,322,392]		3.05% = ‘m’
New Margin [= 24,880 ÷ 1,322,392]		1.88% = ‘n’
Excess Interest Portion [= (.10 + 8m) ÷ (1.0+8n)]		29.90% = ‘e’

No further adjustment is required as long as ‘e’ is between 10% and 90%; therefore, 29.90% of the new surplus of \$24,880,000 would generally be allocated to excess interest. This amount is \$7,439,000 which is 0.58% of the eligible reserves of \$1,280,728,000. Therefore, since this is above the 0.50% threshold adopted by the Board, excess interest is payable and is added to the actuarial asset value, so the final actuarial asset value is \$1,289,520,000.

The final surplus is now determined as (in \$1,000’s):

Market value	\$1,322,392
Actuarial value	<u>1,289,520</u>
Surplus/(deficit)	\$32,872
Percent of market value	2.49%

(If the surplus represents more than 10% of market value, under current policy additional excess interest would be allocated until the surplus is reduced to 10% of market value.)

Under Act 15, as amended in 1981, any excess interest is allocated to each municipality in the same proportion that each municipality’s asset accounts as of December 31 bear to the System’s total asset accounts as of such date where, for this purpose, asset accounts include member reserve accounts, retired members’ actuarial reserves* and municipal accounts. Each municipality may allocate its share of excess actuarial investment income among its member reserve, retired members and municipal asset accounts as it so chooses.

* On the current actuarially determined basis.

SECTION 7: Excess Interest Allocation for the Pennsylvania Municipal Retirement System

Any actual allocation is made at the end of 2006 and would not yet be reflected in account balances as of December 31, 2005. The determination of the allocation percentage (the “excess interest rate”) is as follows (all dollar amounts are in \$1,000s):

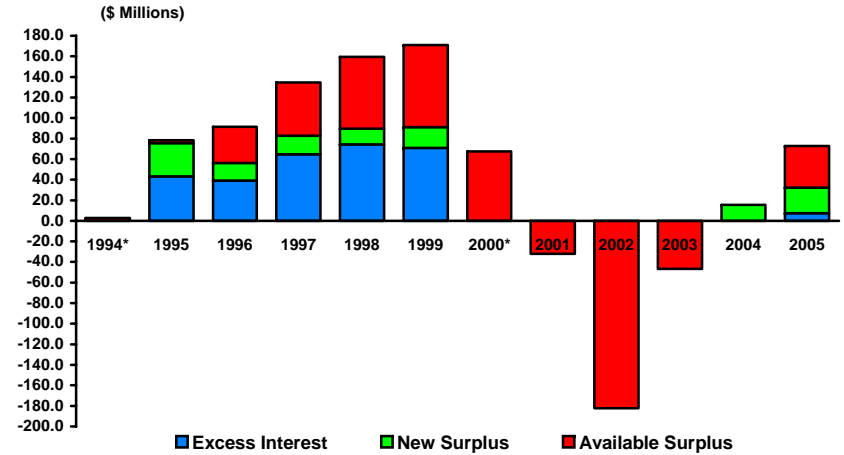
Assets as of December 31, 2005:

Member Accounts	\$308,712
Municipal Accounts	571,603
Retired Members (Actuarial basis)	<u>400,413</u>
Total eligible assets	\$1,280,728
Total excess interest to be allocated	\$7,439
Ratio of total excess interest to eligible assets	0.58%

Therefore, each municipality’s 2005 excess interest allocation is equal to 0.58% of its total asset accounts as of December 31, 2005. **Table 20** and **Chart K** contain historical summaries of experience in the operation of the PMRS excess interest method for the last ten years.

CHART K

Excess Interest, New Surplus and Available Surplus Amount



* The new surplus was negative and no excess interest was awarded.

TABLE 20
PMRS Excess Interest Method, Last Ten Years (\$ Millions)

Year	Available		New		Excess portion	Excess interest		Final	
	Surplus	Margin	Surplus	Margin		Amount	Rate	Surplus	Margin
1994	\$2.8	0.6%	\$(28.0)	(6.2)%	30.0%	-0-	-0-	\$2.8	0.6%
1995	78.2	13.1	75.4	12.6	57.1	\$43.1	8.37%	35.2	5.9
1996	91.3	13.1	56.1	8.1	69.9	39.2	6.56	52.1	7.5
1997	134.7	16.3	82.6	10.0	78.1	64.5	9.42	70.2	8.5
1998	159.7	17.1	89.5	9.6	83.1	74.3	9.68	85.4	9.1
1999	167.6	16.5	82.3	8.1	86.3	71.0	8.49	96.6	9.5
2000	67.5	6.5	(29.2)	(2.8)	79.3	-0-	-0-	67.5	6.5
2001	(32.1)	(3.2)	(99.6)	(10.0)	N/A	-0-	-0-	(32.1)	(3.2)
2002	(182.3)	(19.9)	(150.2)	(16.4)	N/A	-0-	-0-	(182.3)	(19.9)
2003	(46.6)	(4.2)	135.7	12.2	N/A	-0-	-0-	(46.6)	(4.2)
2004	15.4	1.2	15.4	1.2	N/A	-0-	-0-	15.4	1.2
2005	40.3	3.1	24.9	1.9	29.9	7.4	0.58	32.9	2.5

SECTION 8: Accounting Information for the Pennsylvania Municipal Retirement System

A. ACCOUNTING INFORMATION

The Governmental Accounting Standards Board (GASB) establishes standards for the way governmental entities account for their pension plans. The current standards, GASB Statements Nos. 25 and 27, replaced the prior reporting requirements under GASB Statement No. 5.

Note that the figures disclosed here are inclusive of values attributable to defined contribution-only plans administered by the PMRS. A detailed breakdown of these figures is included in the attached Certificate of Actuarial Valuation, which also contains a description of the actuarial assumptions used in the projections.

B. GASB STATEMENT NO. 25

For plan years commencing after June 15, 1996, the System is subject to the disclosure requirements of Statement No. 25 of the Governmental Accounting Standards Board (GASB).

Statement No. 25 establishes financial reporting standards for defined benefit pension plans as they relate to the System's financial accounting. As used in Statement No. 25, pension benefits include retirement income as well as other types of postemployment benefits (disability, death benefits, life insurance) but excludes postemployment healthcare.

Statement No. 25 for defined benefit plans requires two financial statements for PMRS on an accrued basis - a statement of net assets and a statement of changes in net assets. The statement requires the fair value of assets for those financial statements where previously cost or amortized cost could be used.

Statement No. 25 also requires notes to the Financial Statements including plan description, classes of employees covered, a brief description of benefit provisions and a summary of significant accounting policies (including funding policy).

Also required is supplementary information ("Required Supplementary Information"), including a schedule of funding progress and a schedule of employer contributions. The actuarial information to be shown must be determined under certain parameters. (These parameters are the same as those required under GASB Statement No. 27, described on the next page.)

SECTION 8: Accounting Information for the Pennsylvania Municipal Retirement System

C. GASB PARAMETERS

Actuarial Valuations

Must occur at least every two years and the results must be applied within 12 months (24 months for biennial valuations, applicable for PMRS) for plans and 24 months for employers.

Actuarial Assumptions

Best estimate of individual assumptions and required consistency of all assumptions. Investment return assumption (discount rate) based on estimated long-term investment yield for plan.

Actuarial Cost Method

Entry age, frozen entry age, attained age, frozen attained age, aggregate or projected unit credit are acceptable.

Actuarial Value of Assets

Market related.

Annual Required Contributions of Employers

Must include normal (current service) cost and amortization of the plan's total unfunded actuarial liability (UAL).

Amortization Period for UAL

Periods of up to 40 years acceptable for the first 10 years after the effective date of Statement No. 25. After that, periods cannot exceed 30 years. Significant decreases in UAL caused by changing actuarial methods must be amortized over at least 10 years.

Amortization Method

Level dollar or level percentage of projected payroll, open or closed basis. PMRS municipalities generally use the level dollar, closed basis – though a few severely distressed municipalities apply level percentage of payroll amortization to the original UAL balance at January 1, 1985.

GASB Statement No. 25 eliminates the need to report actuarial accrued liabilities on a standardized basis (*i.e.*, pension benefit obligation) and instead substitutes all actuarially determined information based on the plan's funding methods (Entry Age Normal Actuarial Cost for PMRS.)

Paragraph 39 states that the required schedules of "Funding Progress" and "Employer Contributions" should include information for the current year and as many of the prior years as information according to the parameters is available.

The "Schedule of Funding Progress" is presented in **Table 21** (page 41). Only the odd-numbered years show results for all municipalities in the System. Even numbered years show only the distressed municipalities (through 2006) and county-sponsored plans that are required to redetermine contribution requirements.

SECTION 8: Accounting Information for the Pennsylvania Municipal Retirement System

TABLE 21

GASB Statement No. 25 Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded/ (Surplus) AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll* (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
1/1/1999	768,038,700	692,084,400	(75,954,300)	111.0	267,134,600	0.00
1/1/2000	202,070,300	167,273,700	(34,796,600)	120.8	64,141,200	0.00
1/1/2001	959,454,800	812,645,100	(146,809,700)	118.1	282,113,600	0.00
1/1/2002	242,905,700	196,473,500	(46,432,200)	123.6	67,861,900	0.00
1/1/2003	1,084,828,900	955,259,400	(129,569,500)	113.6	293,388,800	0.00
1/1/2004	54,024,200	45,580,700	(8,443,500)	118.5	22,249,300	0.00
1/1/2005	1,219,130,000	1,154,858,200	(64,271,800)	105.6	319,004,900	0.00
1/1/2006	60,678,300	55,251,100	(5,427,200)	109.8	23,905,900	0.00

Notes: For 2000, 2002, 2004 and 2006, values shown only include plans required to redetermine contribution requirements.

Figures include values attributable to defined contribution only plans, but exclude any excess interest awarded for the year preceding the valuation date to be allocated at the end of the following year.

** Covered payroll is projected salary for defined benefit participants (below the assumed retirement age) for the year following the valuation date.*

SECTION 8: Accounting Information for the Pennsylvania Municipal Retirement System

D. GASB STATEMENT NO. 27

GASB Statement No. 27 establishes the standards of accounting and financial reporting for pension expenditures/expense and related pension liabilities, pension assets, note disclosures and required supplementary information in the financial reports of governmental employers. (The financial reporting for the pension trust funds is covered by GASB Statement No. 25 as described in subsection B.)

GASB Statement No. 27 does not mandate or require the employer to fund (contribute) any specific amount. Rather it determines the standards (parameters) to be used for purpose of expensing the cost of pension benefits on the employer's financial statements. To the extent that an employer wants to fund (contribute) the same amount that it expenses, the amount contributed must be determined under certain parameters. When the funding methods and assumptions meet the parameters, the same methods and assumptions are used for both funding and expensing (accounting). If they do not, the employer/entity must choose between making two calculations at each actuarial valuation - one for funding and one for accounting - or modifying the funding approach to meet the parameters. Using different methods for accounting and funding may result in increasing employer liabilities (Net Pension Obligation).

The implementation date for GASB Statement No. 27 was for fiscal years beginning on or after June 15, 1997, although earlier adoption was permitted.

Statement No. 27 terminology includes:

Net Pension Obligation (NPO) - Represents the employer's transition obligation/asset for past underfunding/overfunding of contribution amounts compared to those actuarially determined. It includes the cumulative difference between annual pension cost (ARC) and the employer's contributions.

Actuarial Required Contribution (ARC) - Represents the contribution amount that can also be used for purposes of reporting annual pension expense/accounting. If an employer has an NPO, an adjustment to the ARC is needed to be used for expense/accounting purposes. In determining the ARC amount, certain actuarial parameters must be met. The parameters are the same as those for GASB 25 (see subsection C).

The actuarial assumptions and methods currently employed for purposes of actuarially determining annual contribution for PMRS municipalities are, in our opinion, within the required GASB parameters, with the sole exception that the aggregated amortization period (derived from the various layers of amortization of UAL under Act 205 of 1984) may in some cases exceed the maximum years stated in GASB 25.

April 30, 2007

PENNSYLVANIA MUNICIPAL RETIREMENT SYSTEM

Certificate of Actuarial Valuation

This is to certify that we have prepared an annual actuarial valuation of the System as of January 1, 2006, in accordance with generally accepted actuarial principles and practices. This certificate includes the following attached exhibits:

Certificate Contents

EXHIBIT I	Funded Status of Actuarial Accrued Liabilities
EXHIBIT II	Schedule of Retirees and Beneficiaries
EXHIBIT III	Actuarial Assumptions
EXHIBIT IV	Actuarial Methods

Individual municipality actuarial valuation results as of January 1, 2006, have been provided separately for 4 plans sponsored by counties that are required to redetermine contribution levels as of January 1, 2006 under the applicable Commonwealth statute (Act 293 of 1972). We have calculated (1) the unfunded liability; (2) the amortization required; and (3) the normal cost as a percentage of payroll. State law delegates to the governing authority the determination of payroll that is to be applied to the normal cost percentage. Individual plan funding requirements for other municipal plans were not required and not redetermined; contribution requirements for such municipalities are determined on a biennial basis, most recently as of January 1, 2005.

The valuation was based on information supplied by the System’s auditor with respect to assets, and by the System’s administrative staff with respect to reserve accounts; age, service and compensation of employees; and age, benefit form and amount for inactive participants and pensioners. We have not verified and customarily would not verify such information, but we have examined the data for reasonableness and have no reason to doubt its substantial accuracy. The actuarial assumptions employed in this valuation were adopted by the Pennsylvania Municipal Retirement Board based on our recommendations, and comply with the parameters set forth in Government Accounting Standard No. 25.

To the best of my knowledge, the information supplied in this actuarial certificate is complete and accurate, and in my opinion the assumptions used in the aggregate are reasonably related to the experience of the various plans and to reasonable expectations of anticipated experience.



Eli Greenblum, FSA, MAAA, EA
Senior Vice President & Actuary
Enrolled Actuary No. 05-3636

APPENDIX: Certificate of Actuarial Valuation for the Pennsylvania Municipal Retirement System

EXHIBIT I

**Funded Status of Actuarial Accrued Liabilities
GASB Statement No. 25 Disclosure**

The actuarial assumptions as of January 1, 2006 are shown in Exhibit II. The information below was derived from the following membership data, as provided by the System, regarding:

- 630 defined benefit plans and 139 defined contribution-only plans as of January 1, 2001;
- 14 defined benefit plans required to redetermine contribution levels as of January 1, 2002;
- 656 defined benefit plans and 163 defined contribution-only plans as of January 1, 2003;
- 4 defined benefit plans required to redetermine contribution levels as of January 1, 2004;
- 678 defined benefit plans and 169 defined contribution-only plans as of January 1, 2005;
- 4 defined benefit plans require to redetermine contribution levels as of January 1, 2006.

Actuarial Valuation Date	Actuarial Value of Assets ¹ (a)	Actuarial Accrued Liability (AAL) — Entry Age (b)	Unfunded AAL (Surplus) (b-a)	Funded Ratio (a/b)
1/1/2001	\$959,454,800	\$812,645,100	\$(146,809,700)	118.1%
1/1/2002	242,905,700	196,473,500	(46,432,200)	123.6
1/1/2003	1,084,828,900	955,259,400	(129,569,500)	113.6
1/1/2004	54,024,249	45,580,670	(8,443,579)	118.5
1/1/2005	1,219,130,000	1,154,858,200	(64,271,800)	105.6
1/1/2006	60,678,307	55,251,080	(5,427,227)	109.8

According to method described in Exhibit IV, but excluding one-year administration expense reserve and excess interest allocation, if any, to be credited at year end. For even-numbered year valuations of plans required to redetermine contribution requirements, excludes Disability Reserves, and Retired Reserve allocation is based on current actuarial present value.

APPENDIX: Certificate of Actuarial Valuation for the Pennsylvania Municipal Retirement System

EXHIBIT I (Continued)

**Funded Status of Actuarial Accrued Liabilities
GASB Statement No. 25 Disclosure**

	As of January 1,			
	2006	2005	2004	2003
a. Retirees currently receiving benefits	218	2,768	194	2,534
b. Beneficiaries currently receiving benefits	8	424	8	393
c. Terminated vested employees entitled to future benefits - defined benefit plans	53	464	37	473
d. Terminated non-vested employees entitled to contribution refunds - defined benefit plans	7	165	4	177
e. Active employees in defined benefit plans	717	8,341	731	8,142
i. aggregate salary*	\$23,905,899	\$319,004,918	\$22,249,329	\$293,388,800
ii. vested	358	4,603	259	41,89
iii. non-vested	359	3,738	472	3,953
f. Participants in defined contribution-only plans	--	1,005	--	897
i. aggregate salary**	--	\$26,807,519	--	\$21,459,225
ii. active	--	867	--	797
iii. inactive	--	138	--	100

* Projected salary for actives under the latest retirement age for year following valuation date.

** Actual salary for year preceding valuation date.

APPENDIX: Certificate of Actuarial Valuation for the Pennsylvania Municipal Retirement System

EXHIBIT II

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls for Last Six Years

Valuation Date 1/1	Added to Roll	Deleted from Roll	Number on Roll	Annual Annuities	Percentage Increase in Annuities	Average Annual Annuities	Percentage Increase in Average Annual Annuities
2006	268	83	3,377	\$37,943,181	9.4%	\$11,236	3.4%
2005	251	116	3,192	34,691,928	8.4%	10,868	3.8
2004	214	84	3,057	32,010,035	7.4	10,471	2.8
2003	199	71	2,927	29,816,676	8.2	10,187	3.4
2002	250	138	2,799	27,566,700	11.4	9,849	6.9
2001	209	100	2,687	24,748,000	17.4	9,210	12.6

APPENDIX: Certificate of Actuarial Valuation for the Pennsylvania Municipal Retirement System

**EXHIBIT III
Actuarial Assumptions**

The following actuarial assumptions were adopted by the PMRS Board in November 2004, for first use in the January 1, 2005 actuarial valuation.

Healthy life mortality rates: For those retired before January 1, 2005, the 1983 Group Annuity Mortality Table for Males, with ages set back 6 years for females. For new retirees on or after January 1, 2005, the 1994 Group Annuity Mortality Static Table for males and females. The sample rates are given below.

Age	Retirees Prior to January 1, 2005*		New Retirees on or After January 1, 2005	
	Male	Female	Male	Female
50	0.39%	0.19%	0.26%	0.14%
55	0.61	0.35	0.44	0.23
60	0.92	0.57	0.80	0.44
65	1.56	0.84	1.45	0.86
70	2.75	1.39	2.37	1.37
75	4.46	2.48	3.72	2.27
80	7.41	4.04	6.20	3.94
85	11.48	6.71	9.72	6.77

Disabled life mortality rates: Mortality under healthy life table for a life 10 years older.

* This table was used for all participants in the prior valuation.

APPENDIX: Certificate of Actuarial Valuation for the Pennsylvania Municipal Retirement System

**EXHIBIT III (Continued)
Actuarial Assumptions**

Termination rates before retirement:

For all plans with 25 or more active members, the termination rates indicated below were used; for municipalities with between 6 and 24 members, a percentage of the indicated rates where such percentage equals 100 percent less 5 percent x (25 - number of members); for municipalities with 5 or fewer members, no terminations were assumed. The prior and current valuation rates are shown below.

Years of Service	Rate ¹		
	Uniformed Members	Municipal Members	
	Male and Female	Male	Female
less than 1	13%	13%	16%
1 but less than 2	10	12	15
2 but less than 3	7	10	13
3 but less than 4	7	9	11
4 but less than 5	6	6	9
5 but less than 6	5	6	8
6 but less than 7	4	6	7
7 but less than 8	3	5	7
8 but less than 9	3	4	6
9 but less than 10	3	3	5
10 or more	3	2	4

¹No termination rates are applied once the employee becomes eligible for voluntary early or normal retirement.

APPENDIX: Certificate of Actuarial Valuation for the Pennsylvania Municipal Retirement System

EXHIBIT III (Continued)
Actuarial Assumptions

Disability incidence rates:

- (a) 40% of 1964 OASDI (Social Security) Experience for Males for municipal plans. Sample rates are as follows:

Age	Rate (%)
25	0.034%
35	0.059
45	0.144
55	0.404
65	0.928

- (b) Uniformed plans -- 60% of 1964 OASDI (Social Security) Experience for Males. Sample rates are as follows:

Age	Rate (%)
25	0.051%
35	0.088
45	0.216
55	0.605
65	1.393

EXHIBIT III (Continued)

Actuarial Assumptions

Type of disability:

(a) Municipal plans -- 15% of disablements are assumed to be service related.
 (b) Uniformed plans -- 50% of disablements are assumed to be service related.

Workers compensation:

Service-related disability benefits payable from municipal plans are offset by 25% of final average salary

Salary scale:

3.0% inflation and age related scale for merit/seniority. Plans that calculate benefits based on final rate of pay at time of retirement or on the final year's actual salary are assumed to have an additional 6% increase applied at time of assumed retirement 2% is added to the rate shown below for each of the first 3 years of service.

Sample rates are as follows:

Age	Total Rate (%)* (including inflation)
25	7.8%
30	5.9
35	5.1
40	4.5
45	4.2
50	4.1
55	3.9
60	3.7
65	3.0

* Add 2% for each of the first 3 years of service.

EXHIBIT III (Continued)

Actuarial Assumptions

Retirement age:

Active members are assumed to retire no earlier than the age at which unreduced benefits are available. No early retirement is assumed. Specific assumptions regarding retirement age are as follows:

- (a) Uniformed Members:
 - (i) Members first eligible to retire at age 57 or younger will defer their retirement four years,
 - (ii) Members first eligible to retire at ages 58, 59, 60 or 61 will retire at age 62, and
 - (iii) Members first eligible to retire at ages 62 or older will retire when first eligible.
- (b) Municipal Members: Members are assumed to retire over a range of ages. The probability that a member retires at a given age (if still active and eligible for unreduced benefits at that age) is shown below:

Age	Rate of Normal Retirement ²
Under 46	5%
46 - 54	15
55 - 59	10
60 - 61	10
62	30
63 - 64	20
65	35
66 - 74	15
75	100

Inactive vested members are assumed to retire when first eligible for unreduced benefits.

² Rates indicated are adjusted by adding 5% (and 10% for ages 60-62 under current rate assumptions) for the year in which the member is first eligible for normal retirement.

EXHIBIT III (Continued)
Actuarial Assumptions

Marital status and spouse's age: ³	85 percent of members will be married at time of retirement and females are four years younger than their spouses.
Social Security projections: ³	a) The Social Security Taxable Wage Base will increase by 3.5% compounded annually. b) The Consumer Price Index will increase by 3.0% compounded annually. c) The Average Total Wages of All Workers will increase by 3.5% compounded annually.
Post-retirement cost-of-living increases: ³	3.0% per year, subject to plan limitations.
Net investment return:	6.0% compounded annually (net of investment and certain administration expenses) for funding purposes.

³ If applicable.

EXHIBIT IV

Actuarial Methods

Contribution requirements are individually determined for each participating municipality, on an actuarial basis as described below, at least biannually. The frequency of actuarial valuation is determined by applicable Commonwealth statute (Act 205 of 1984 and Act 293 of 1972). The following actuarial methods were adopted effective January 1, 1985, unless indicated otherwise.

Actuarial value of assets (adopted effective January 1, 1991):

Sum of all audited reserve accounts as of the valuation date, including Member, Municipal, Retired, and Disability Reserves, and a one-year administration expense reserve, plus the portion of any additional investment income to be distributed as “excess interest.” The actuarial value can never be less than 90 percent of fair market value.

Each year, municipalities receive an excess interest allocation derived as a portion of new surplus created during the prior year. “Surplus” refers to the excess of fair market value over the actuarial value of assets. Once the preliminary actuarial asset value has been determined, a formula is used to allocate the new surplus. Generally, depending on the relative size of surplus to fair market value, between 10 percent and 90 percent of new surplus will become excess interest. The excess interest allocation for 2005 was based on 29.90% of new surplus, resulting in an excess interest allocation during 2006 of 0.58% of eligible reserve accounts.

Actuarial cost method:

Entry Age Normal Actuarial Cost Method

Entry age is defined as attained age less credited service. The normal cost rate is derived as a level percent of future compensation of current employees, on an individual basis. This rate is applied to the projected payroll and projected employee contributions are deducted. Actuarial gains (or losses), including the effect of contributions greater or less than the previously determined actuarial level, are reflected by decreases (or increases) in the unfunded actuarial accrued liability. Under Act 205 of 1984, the unfunded actuarial accrued liability is amortized as a level dollar amount over the lesser of:

- (a) i. 30 years, with respect to the initial liability as of 1/1/85 (or first valuation);
- ii. 20 years, with respect to changes due to plan provisions and actuarial assumptions;
- iii. 10 years, with respect to changes in benefits for currently retired members;
- iv. 15 years, with respect to actuarial gains and losses; or

EXHIBIT IV (Continued)

Actuarial Methods

Contribution requirements are individually determined for each participating municipality, on an actuarial basis as described below, at least biannually. The frequency of actuarial valuation is determined by applicable Commonwealth statute (Act 205 of 1984 and Act 293 of 1972). The following actuarial methods were adopted effective January 1, 1985, unless indicated otherwise.

Actuarial cost method (continued):

(b) the average assumed working lifetime of active employees as of the date the liability was established.⁵

With the two exceptions which follow, the funding method is applied individually with respect to each municipality:

Retired and disabled members are paid monthly benefits from the System's Retired Reserve account, which at the time of retirement receives a transfer from the municipal and member accounts in an amount actuarially determined to be sufficient to pay all future benefits for the member (and, if applicable, a surviving beneficiary). Thus, post-retirement experience is pooled with the system. (However, this procedure does not apply to the legislated ad-hoc adjustments effective January 1, 1989).

A disabled member's pension is met in part from the amount that can be provided by the member's own accumulated contributions and from the amount that can be provided by the value of that portion of the member's accrued benefit attributable to municipal contributions, with the balance of the pension being provided by the appropriate transfer from the Disability Reserve Account. The amount of annual transfer from accumulated municipal contributions to the Disability Reserve Account is determined on the one year term cost basis, i.e. it is the expected cost of disabilities in the coming year.

⁵ *If there are no active employees, the unfunded liability is amortized in one year from the date that the liability was established.*