December 2009

Public Employees Police & Fire Fund

Actuarial Valuation Report as of July 1, 2009

MERCER

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Contents

Highlights

This report has been prepared by Mercer for the Public Employees Retirement Association of Minnesota to:

- Present the results of a valuation of the Public Employees Police & Fire Fund as of July 1, 2009.
- Review experience under the Plan for the year ended June 30, 2009.
- Provide reporting and disclosure information for governmental agencies and other interested parties.

Contributions

The following table summarizes important contribution information as described in the "Development of Costs" section.

	Actuarial Valuation as of	
Contributions	**July 1, 2009**	**July 1, 2008**
Statutory Contributions – Chapter 353E (% of Payroll)	23.50%	22.50%
Required Contributions – Chapter 356 (% of Payroll)	29.99%	28.41%
Sufficiency / (Deficiency)	(6.49%)	(5.91%)

The contribution deficiency increased from (5.91%) of payroll to (6.49%) of payroll. On a market value of asset basis, the contribution deficiency increased from (6.84%) of payroll to (15.63%) of payroll. The primary reasons for the increases are the less than expected return on assets and the impact of insufficient contributions. **Without a change in contribution rates, or favorable actuarial experience, the funded status will continue to deteriorate.**

The "Plan Assets" section provides detail on the plan assets used for the valuation including a development of the actuarial value of assets. The market value of assets earned (19.2%) for the plan year ending June 30, 2009. **Only 20% of the asset loss for the plan year just ended will be recognized in the July 1, 2009 actuarial value of assets. The remainder will be recognized over the next four years.** The actuarial value of assets earned 2.9% for the plan year ending June 30, 2009 as compared to the assumed rate of 8.5%.

Participant reconciliation and statistics are detailed in the "Participant Data" section. The "Actuarial Basis" section includes a summary of plan provisions and actuarial methods and assumptions used for the calculations in this report. The "Plan Accounting" section details the required accounting information for the Plan under GASB Statement No. 25 (as amended by GASB 50).

There were no changes in actuarial assumptions since the July 1, 2008 valuation. Changes in valuation methods and plan provisions are reflected in this report and summarized in the Actuarial Basis section.

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in plan provisions, actuarial assumptions or valuation methods and procedures between the two valuations are described after the summary.

	Actuarial Valuation as of			
		July 1, 2009		July 1, 2008
Contributions *(% of Payroll)*				
Statutory – Chapter 353E		23.50%		22.50%
Required – Chapter 356		29.99%		28.41%
Sufficiency / (Deficiency)		(6.49%)		(5.91%)
Funding Ratios *(dollars in thousands)*				
Accrued Benefit Funding Ratio				
– Current assets (AVA)	$	5,239,855	$	5,233,015
– Current benefit obligations		6,107,112		5,755,664
– Funding ratio		85.80%		90.92%
Accrued Liability Funding Ratio				
– Current assets (AVA)	$	5,239,855	$	5,233,015
– Market value of assets (MVA)		4,001,046		5,110,823
– Actuarial accrued liability		6,296,274		5,918,061
– Funding ratio (AVA)		83.22%		88.42%
– Funding ratio (MVA)		63.55%		86.36%
Projected Benefit Funding Ratio				
– Current and expected future assets	$	7,105,933	$	6,963,714
– Current and expected future benefit obligations		7,986,149		7,617,313
– Funding ratio		88.98%		91.42%
Participant Data				
Active members				
– Number		11,035		10,961
– Projected annual earnings *(000s)*	$	786,887	$	746,743
– Average annual earnings *(projected)*	$	71,308	$	68,127
– Average age		39.6		39.3
– Average service		11.7		11.4
Service retirements		5,213		5,068
Survivors		1,380		1,279
Disability retirements		838		824
Deferred retirements		1,280		1,242
Terminated other non-vested		911		877
Total		**20,657**		**20,251**

Effects of Changes

The following changes in plan provisions and methods were recognized as of July 1, 2009:

Dissolution of Minnesota Post Retirement Investment Fund (Post Fund)

Since the Post Fund composite funding ratio was less than 80 percent as of June 30, 2008, the Post Fund was dissolved, and assets were transferred back to PERA and merged with the respective active member fund. The transfer of assets and liabilities occurred on June 30, 2009.

In conjunction with the dissolution, benefit recipients will receive future annual 2.5% cost-of-living adjustments (COLA) post-retirement.

The waiting period and proration schedule for the COLA paid in the fiscal year were also revised.

The Post Fund dissolution (other than the asset method change described below) and COLA changes did not have an impact on the valuation results.

Asset Method

For the purpose of determining the actuarial value of assets, the Post Fund asset loss for the fiscal year ending June 30, 2009 will be recognized incrementally over five years at 20% per year, similar to the smoothing of active fund assets. Prior to June 30, 2009, Post Fund asset gains and losses were not smoothed.

The change in the actuarial asset method for Post Fund assets reduced the required contribution by 3.60% of pay.

Certification

Mercer has prepared this report exclusively for Trustees of the Public Employees Police & Fire Fund and the Legislative Commission on Pension and Retirement (LCPR) for the following purposes:

- Present the results of a valuation of the Public Employees Police & Fire Fund as of July 1, 2009 as required by Minnesota Statutes Section 356.215 and the requirements of the Standards of Actuarial Work established by the Minnesota Legislative Commission on Pensions and Retirement
- Review plan experience for the year ended June 30, 2009
- Provide the Annual Required Contribution for the period beginning July 1, 2009
- Provide reporting and disclosure information for financial statements for governmental agencies pursuant to GASB Statements Numbers 25 (as amended by GASB 50) and 27.

This valuation report may not be relied upon for any other purpose or by any party other than the Trustees, the LCPR, or the Plan's auditors solely for the purpose of completing an audit related to the matters herein. Mercer is not responsible for the consequences of any unauthorized use.

A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a plan's future financial condition or its ability to pay benefits in the future.

Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, plan expenses and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, *Actuarial Assumptions*, as described in the Actuarial Basis section, are used to select a single scenario from a range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. Due to the limited scope of our assignment, we did not perform, nor do we present, an analysis of the potential range of future possibilities and scenarios.

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

Data and plan provisions

To prepare this report, Mercer has used and relied on financial data submitted by the Fund as of June 30, 2009, as well as participant data supplied by the Fund as of June 30, 2009. We have reviewed the financial and participant data for internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. We have also used and relied on the plan documents, including amendments, supplied by the Fund. A summary of the plan provisions valued is presented in our report. The Fund is solely responsible for the accuracy, validity and comprehensiveness of this information. If the data or plan provisions supplied are not accurate and complete the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report.

Certification

Actuarial Calculations, Methods and Assumptions

To the best of our knowledge and belief, this report is complete and accurate and all costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures, and in accordance with the requirements of Minnesota Statutes Section 356.215 and the requirements of the Standards of Actuarial Work established by the LCPR. The economic assumptions, including discount rates, are set in Minnesota Statutes, and the remaining assumptions are adopted by the Trustees and the LCPR. This valuation is based on assumptions, plan provisions, methods and other parameters as summarized in this report. If this information is inaccurate or incomplete or does not reflect current statutes, regulations or Board directives, the reader of this report should not rely on the valuation results and should notify Mercer promptly. In our opinion, this report fully and fairly discloses the actuarial position of the plan on an ongoing basis.

Professional qualifications

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. In addition, Mr. Dickson meets the requirements of "approved actuary" under Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (c). We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

Gary D. Dickson

Gary D. Dickson FSA, EA, MAAA
Principal

12/3/2009
Date

Bonita J. Wurst

Bonita J. Wurst, ASA, EA, MAAA
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12/3/2009
Date

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Supplemental Information

The remainder of the report includes information supporting the results presented in the previous sections.

- **Plan assets** presents information about the plan's assets as reported by the Public Employees Retirement Association of Minnesota and the Minnesota State Board of Investments. The assets represent the portion of total fund liabilities that has been funded.

- **Membership data** presents and describes the membership data used in the valuation.

- **Development of costs** shows the liabilities for plan benefits and the derivation of the contribution amount.

- **Actuarial basis** describes the plan provisions, as well as the methods and assumptions used to value the plan. The valuation is based on the premise that the plan is ongoing.

- **Plan accounting under GASB 25 (as amended by GASB 50)** shows the disclosures required by GASB Statement No. 25 as amended by GASB Statement No. 50.

- **Glossary** defines the terms used in this report.

Plan Assets

Statement of Plan Net Assets for Year Ended June 30, 2009 *(Dollars in Thousands)*

		Market Value
Assets in Trust		
▪ Cash, equivalents, short term securities	$	89,733
▪ Fixed income		861,334
▪ Equity		2,399,281
▪ SBI Alternative		606,604
Total assets in trust	**$**	**3,956,952**
Assets Receivable		48,567
Amounts Payable		(4,473)
Net assets held in trust for pension benefits	**$**	**4,001,046**

Plan Assets

Reconciliation of Plan Assets

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by the Public Employees Retirement Association and the Minnesota State Board of Investment, for the Plan's Fiscal Year July 1, 2008 to June 30, 2009.

Change in Assets *(Dollars in Thousands)*	**Non-MPRIF Assets**	**MPRIF Reserve**	**Market Value**
1. Fund balance at market value at July 1, 2008	$ 2,924,650	$ 2,186,173	$ 5,110,823
2. Contributions			
a. Member	67,701	0	67,701
b. Employer	101,548	0	101,548
c. Other sources	0	0	0
d. Total contributions	169,249	0	169,249
3. Investment income			
a. Interest and dividends	(530,266)	(431,545)	(961,811)
b. Investment expenses	(3,282)	(2,352)	(5,634)
c. Net subtotal	(533,548)	(433,897)	(967,445)
4. Other	701	0	701
5. Total additions *(2.d. + 3.c. + 4.)*	**$ (363,598)**	**$ (433,897)**	**$ (797,495)**
6. Benefits paid			
a. Annuity benefits	(50,045)	(260,054)	(310,099)
b. Refunds	(1,237)	0	(1,237)
c. Total benefits paid	(51,282)	(260,054)	(311,336)
7. Expenses			
a. Other	(199)	0	(199)
b. Administrative	(747)	0	(747)
c. Total expenses	(946)	0	(946)
8. Total distributions *(6.c. + 7.c.)*	**$ (52,228)**	**$ (260,054)**	**$ (312,282)**
9. Other changes in reserves			
a. Annuities awarded	(64,140)	64,140	0
b. Transfer between reserves	1,517,039	(1,517,039)	
c. Mortality gain/(loss) not transferred	39,323	(39,323)	0
d. Change in assumptions	0	0	0
e. Total other changes	1,492,222	(1,492,222)	0
10. Fund balance at market value at June 30, 2009 *(1. + 5. + 8. + 9.e.)*	**$ 4,001,046**	**$ 0**	**$ 4,001,046**

Plan Assets

Actuarial Asset Value *(Dollars in Thousands)*

			June 30, 2009
1. Market value of assets available for benefits			$ 4,001,046
2. Determination of average balance			
a. Total assets available at July 1, 2008			5,110,823
b. Total assets available at June 30, 2009			4,001,046
c. Net investment income for fiscal year ending June 30, 2009			(966,744)
d. Average balance *[a. + b. – c.] / 2*			5,039,307
3. Expected return *[8.5% x 2.d.]*			428,341
4. Actual return			(966,744)
5. Current year unrecognized asset return			(1,395,085)
6. Unrecognized asset recognized asset returns*			
	Original Amount	**% Not Recognized**	
a. Year ended June 30, 2009	$ (1,395,085)	80%	$ (1,116,068)
b. Year ended June 30, 2008	(416,143)	60%	(249,685)
c. Year ended June 30, 2007	270,763	40%	108,305
d. Year ended June 30, 2006	93,192	20%	18,639
e. Total unrecognized return			$ (1,238,809)
7. Actuarial value at June 30, 2009 *(1. – 6.e.)*			**$ 5,239,855**

** Prior to the year ended June 30, 2009, unrecognized asset returns do not include Post Fund gains or losses.*

Membership Data

Distribution of Active Participants

	Years of Service as of June 30, 2009										
Age	**<3**	**3 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40+**	**Total**
<25	349	39									**388**
Avg. Earnings	35,842	51,262									**37,392**
25 – 29	667	507	307								**1,481**
Avg. Earnings	44,544	58,259	62,575								**52,977**
30 – 34	278	309	932	282							**1,801**
Avg. Earnings	46,640	57,370	65,390	69,303							**61,732**
35 – 39	172	171	601	1,057	173						**2,174**
Avg. Earnings	43,941	54,517	65,347	71,370	76,481						**66,616**
40 – 44	78	79	328	606	692	235					**2,018**
Avg. Earnings	40,129	55,169	64,380	71,024	76,873	81,675					**71,375**
45 – 49	38	37	140	280	405	584	190	1			**1,675**
Avg. Earnings	41,220	56,026	64,477	71,643	76,777	80,165	82,252	60,204			**75,418**
50 – 54	22	21	62	103	148	248	319	110			**1,033**
Avg. Earnings	43,153	46,148	68,437	69,452	74,330	78,978	84,042	84,329			**77,433**
55 – 59	8	10	32	63	32	82	71	62	5		**365**
Avg. Earnings	33,159	58,251	63,259	65,839	70,148	76,393	83,288	82,769	71,262		**73,782**
60 – 64	1	3	16	6	10	16	16	14	6		**88**
Avg. Earnings	58,122	42,498	68,578	71,480	63,650	67,072	76,971	84,315	87,728		**72,269**
65 – 69	1		3	1	1		1			1	**8**
Avg. Earnings	441		43,407	28,693	57,652		21,957			69,852	**38,602**
70+			1	2	1						**4**
Avg. Earnings			28,971	83,566	49,157						**61,315**
Total	**1,614**	**1,176**	**2,422**	**2,400**	**1,462**	**1,165**	**597**	**187**	**11**	**1**	**11,035**
Avg. Earnings	**42,573**	**56,715**	**64,862**	**70,837**	**76,273**	**79,772**	**83,089**	**83,682**	**80,244**	**69,852**	**66,440**

In each cell, the top number is the count of active participants for the age/service combination and the bottom number is average annual earnings.

Membership Data

Distribution of Service Retirements*

	Years Retired as of June 30, 2009							
Age	**<1**	**1 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25+**	**Total**
<45								**0**
Avg. Benefit								**N/A**
50 – 54								**0**
Avg. Benefit								**N/A**
50 – 54	86	350						**436**
Avg. Benefit	50,050	43,240						**44,583**
55 – 59	80	464	521					**1,065**
Avg. Benefit	53,153	48,342	43,924					**46,542**
60 – 64	31	147	665	328	1			**1,172**
Avg. Benefit	36,879	41,106	46,982	44,090	31,905			**45,155**
65 – 69	7	27	167	550	126			**877**
Avg. Benefit	25,795	28,407	37,433	54,243	46,530			**48,912**
70 – 74		6	36	240	343	5		**630**
Avg. Benefit		43,407	26,488	51,390	49,212	36,488		**48,587**
75 – 79		1	4	85	258	124		**472**
Avg. Benefit		34,107	18,639	50,611	48,329	48,356		**48,465**
80 – 84		1	1	28	216	61	50	**357**
Avg. Benefit		1,219	19,496	52,927	47,947	44,056	51,679	**47,985**
85 – 89				3	62	28	52	**145**
Avg. Benefit				35,386	47,873	39,646	34,076	**41,078**
90+				4	35	4	16	**59**
Avg. Benefit				40,149	48,373	32,583	29,480	**41,681**
Total	**204**	**996**	**1,394**	**1,238**	**1,041**	**222**	**118**	**5,213**
Avg. Benefit	**48,433**	**44,849**	**44,065**	**50,630**	**48,285**	**45,524**	**40,912**	**46,778**

In each cell, the top number is the count of retired participants for the age/service combination and the bottom number is the average annual benefit amount.

* *Difference from number of retirees shown on page 14 is due to the exclusion of multiple payees of members (ex-spouse, child support, etc.).*

Membership Data

Distribution of Survivors

	Years Since Death as of June 30, 2009							
Age	**<1**	**1 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25+**	**Total**
<45	8	55	36	13	4	1		**117**
Avg. Benefit	19,433	15,162	15,092	17,128	11,814	24,373		**15,615**
45 - 49	3	13	3	2	2	1		**24**
Avg. Benefit	39,950	29,894	24,640	45,703	39,378	38,204		**32,948**
50 - 54		18	13	9	7	3		**50**
Avg. Benefit		30,031	27,836	40,991	39,282	23,868		**32,358**
55 - 59	4	16	13	4	12	8	3	**60**
Avg. Benefit	34,674	28,024	28,161	31,205	35,980	35,168	25,230	**31,113**
60 – 64	6	38	26	20	24	6	7	**127**
Avg. Benefit	31,341	26,423	30,462	35,465	32,450	22,605	31,441	**30,141**
65 – 69	7	32	37	24	21	4	8	**133**
Avg. Benefit	21,440	30,234	29,997	29,521	31,266	36,670	31,572	**30,014**
70 – 74	10	29	35	21	25	8	10	**138**
Avg. Benefit	35,911	32,716	25,645	27,732	30,218	36,297	27,386	**29,765**
75 – 79	7	38	35	43	54	9	15	**201**
Avg. Benefit	23,328	30,236	23,685	25,533	29,016	32,242	20,169	**26,860**
80 – 84	9	42	48	45	57	17	21	**239**
Avg. Benefit	27,556	23,377	26,386	22,415	27,244	28,391	20,647	**24,997**
85 – 89	6	33	26	41	48	15	18	**187**
Avg. Benefit	21,444	21,796	22,247	18,427	26,886	22,445	18,521	**22,152**
90+	1	7	11	26	31	15	13	**104**
Avg. Benefit	27,781	17,401	16,298	22,309	25,237	19,462	11,270	**20,478**
Total	**61**	**321**	**283**	**248**	**285**	**87**	**95**	**1,380***
Avg. Benefit	**27,525**	**25,245**	**24,728**	**25,202**	**28,829**	**27,467**	**21,455**	**25,851**

In each cell, the top number is the count of survivors for the age/years since death combination and the bottom number is the average annual benefit amount.

* *Difference from number of survivors shown on page 14 is due to the inclusion of multiple survivors of members.*

Membership Data

Distribution of Disability Retirements

	Years Disabled as of June 30, 2009							
Age	**<1**	**1 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25+**	**Total**
<45	4	46	30	7	1			**88**
Avg. Benefit	30,924	34,001	28,985	32,134	37,376			**32,041**
45 - 49	2	36	35	23	2			**98**
Avg. Benefit	35,643	37,249	33,145	35,454	32,496			**35,232**
50 - 54	5	58	73	22	6	3	1	**168**
Avg. Benefit	35,355	46,604	36,498	40,039	38,460	33,599	15,810	**40,312**
55 - 59	3	38	113	40	5	1		**200**
Avg. Benefit	33,382	43,171	48,548	45,847	43,412	37,020		**46,573**
60 – 64		16	82	82	10			**190**
Avg. Benefit		31,970	53,192	56,017	47,110			**52,304**
65 – 69		2	13	44	15			**74**
Avg. Benefit		44,850	34,887	52,115	45,329			**47,517**
70 – 74			2	11	5			**18**
Avg. Benefit			25,670	45,571	54,208			**45,759**
75 – 79				2				**2**
Avg. Benefit				25,565				**25,565**
80 – 84								**0**
Avg. Benefit								**N/A**
85 – 89								**0**
Avg. Benefit								**N/A**
90+								**0**
Avg. Benefit								**N/A**
Total	**14**	**196**	**348**	**231**	**44**	**4**	**1**	**838**
Avg. Benefit	**33,707**	**40,050**	**43,237**	**48,459**	**44,824**	**34,455**	**15,810**	**43,781**

In each cell, the top number is the count of disabled participants for the age/years since disability combination and the bottom number is the average annual benefit amount.

Membership Data

Reconciliation of Members*

		Terminated		Recipients			
	Actives	Deferred Retirement	Other Non-vested	Service Retirements	Disability Retirements	Survivors	Total
Members on 6/30/2008	**10,961**	**1,242**	**879**	**5,079**	**824**	**1,291**	**20,276**
New entrants	429	0	0	0	0	0	**429**
Return to active	53	(27)	(26)	0	0	0	**0**
Terminated non-vested	(54)	0	86	0	0	0	**32**
Service retirements	(200)	(38)	0	241	(3)	0	**0**
Terminated deferred	(108)	108	0	0	0	0	**0**
Terminated refund	(21)	(17)	(6)	0	0	0	**(44)**
Deaths	(6)	(3)	(1)	(103)	(7)	(55)	**(175)**
New beneficiary	0	0	0	0	0	73	**73**
Disabled	(19)	(8)	0	0	27	0	**0**
Benefits expired	0	0	0	0	0	0	**0**
Data correction	0	23	(21)	5	(3)	(7)	**(3)**
Net change	74	38	32	143	14	11	**312**
Members on 6/30/2009	**11,035**	**1,280**	**911**	**5,222**	**838**	**1,302**	**20,588**

* *Provided by PERA and checked for reasonableness.*

Terminated deferred retirement statistics

- Average age 45.3 years
- Average service 9.1 years
- Average annual benefit, including augmentation $22,863

Development of Costs

Actuarial Valuation Balance Sheet *(Dollars in Thousands)*

The actuarial balance sheet is based on the fundamental equation that at any given time the present value of benefits to be paid in the future must be equal to the assets on hand plus the present value of future contributions to be received. The total rate of contribution is determined as that amount which will make the total present and potential assets balance with the total present value of future benefits. The members' rate of contribution is fixed at the current schedule of compensation. The Employer's rate of contribution is the balance required to cover the total rate of contribution.

The contributions made in excess of amounts required for current benefit payments are accumulated as a reserve to help meet benefit payments in later years. It is this reserve system which permits the establishment of a level rate of contribution each year

						June 30, 2009
A. Actuarial Value of Assets					$	5,239,855
B. Present Value of expected future assets						
1. Present value of expected future statutory supplemental contributions					$	176,204
2. Present value of future normal cost contributions						1,689,874
3. Total expected future assets *(1. + 2.)*					$	1,866,078
C. Total current and expected future assets *(A. + B.3.)*					$	7,105,933
		Non-Vested		**Vested**		**Total**
D. Current benefit obligations						
1. Benefit recipients						
a. Service requirements	$	0	$	2,655,299	$	2,655,299
b. Disability		0		467,069		467,069
c. Survivors		0		324,424		324,424
2. Deferred retirements with augmentation		0		281,062		281,062
3. Former members without vested rights		0		1,538		1,538
4. Active Members		26,904		2,350,816		2,377,720
5. Total Current Benefit Obligations	$	26,904	$	6,080,208	$	6,107,112
E. Expected Future Benefit Obligations						1,879,037
F. Total Current and Expected Future Benefit Obligations *(D.5. + E.)*					$	7,986,149
G. Current Unfunded Benefit Obligations *(D.5. – A.)*					$	867,257
H. Current and Future Unfunded Benefit Obligations *(F. – C.)*					$	880,216

Development of Costs

Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Rate *(Dollars in Thousands)*

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. Determination of Actuarial Accrued Liability (AAL)			
1. Active Members			
a. Retirement annuities	$ 3,625,034	$ 1,290,413	$ 2,334,621
b. Disability benefits	372,557	212,525	160,032
c. Survivor's benefits	108,555	64,523	44,032
d. Deferred retirements	150,611	122,414	28,197
e. Total	$ 4,256,757	$ 1,689,875	$ 2,566,882
2. Deferred retirements with future augmentation	281,062	0	281,062
3. Former members without vested rights	1,538	0	1,538
4. Annuitants	3,446,792	0	3,446,792
5. Total	$ 7,986,149	$ 1,689,875	$ 6,296,274
B. Determination of Unfunded Actuarial Accrued Liability (UAAL)			
1. Actuarial accrued liability			$ 6,296,274
2. Current assets (AVA)			5,239,855
3. Unfunded actuarial accrued liability			$ 1,056,419
C. Determination of Supplemental Contribution Rate			
1. Present value of future payrolls through the amortization date of July 1, 2038			$ 13,554,169
2. Supplemental contribution rate *(B.3. / C.1.)*			7.79%

Development of Costs

Changes in Unfunded Actuarial Accrued Liability (UAAL) *(Dollars in Thousands)*

		Year Ending June 30, 2009
A. Unfunded actuarial accrued liability at beginning of year	$	685,046
B. Changes due to interest requirements and current rate of funding		
1. Normal cost and actual administrative expenses	$	173,020
2. Contributions		(169,249)
3. Interest on A., B.1. and B.2.		58,389
4. Total *(B.1. + B.2.+ B.3.)*	$	62,160
C. Expected unfunded actuarial accrued liability at end of year *(A. + B.4.)*		747,206
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected		
1. Salary increases	$	(1,499)
2. Investment return		777,619
3. Mortality of benefit recipients		10,528
4. Other items		10,343
5. Total	$	796,991
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions *(C. + D.5.)*	$	1,544,197
F. Change in unfunded actuarial accrued liability due to changes in plan provisions	$	0
G. Change in unfunded actuarial accrued liability due to changes in actuarial assumptions	$	0
H. Change in unfunded actuarial accrued liability due to changes in actuarial methods	$	(487,778)
I. Unfunded actuarial accrued liability at end of year *(E. + F. + G. + H.)*	$	1,056,419

Development of Costs

Determination of Contribution Sufficiency/(Deficiency) *(Dollars in Thousands)*

	Percent of Payroll		Dollar Amount
A. Statutory contributions – Chapter 353E			
1. Employee contributions	9.40%	$	73,967
2. Employer contributions	14.10%		110,951
3. Total	23.50%	$	184,918
B. Required contributions – Chapter 356			
1. Normal cost			
a. Retirement benefits	16.83%	$	132,430
b. Disability benefits	2.89%		22,727
c. Survivors	0.87%		6,875
d. Deferred retirement benefits	1.48%		11,671
e. Total	22.07%	$	173,703
2. Supplemental contribution amortization by July 1, 2038 of Unfunded Actuarial Accrued Liability	7.79%	$	61,298
3. Allowance for expenses	0.13%	$	1,023
4. Total	29.99%	$	236,024
C. Contribution Sufficiency/(Deficiency) *(A.3. – B.4.)*	(6.49%)	$	(51,106)

Note: Projected annual payroll for fiscal year beginning on the valuation date: $786,887.

Actuarial Basis

Actuarial Cost Method

Liabilities and contributions in this report are computed using the Individual Entry Age Normal Cost Method. This method is prescribed by Minnesota Statutes.

The objective under this method is to fund each member's benefits under the Plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed date of retirement termination, disability or death.

At any given date, a liability is calculated equal to the contributions which would have been accumulated if this method of funding had always been used, the current plan provisions had always been in place, and all assumptions had been precisely accurate. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability. The unfunded liability is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows:

The normal cost for each active member under the assumed retirement age is determined by applying to earnings the level percentage of salary which, if contributed each year from date of entry into the Plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.

- The present value of present value of future normal costs is the total of the discounted values of all active members' normal cost, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.
- The present value of projected benefits is calculated as the value of all benefit payments expected to be paid to the Plan's current members, including active and retired members, beneficiaries, and terminated members with vested rights.
- The accrued liability is the excess of the present value of projected benefits over the present value of future normal costs.
- The unfunded liability is the excess of the accrued liability over the assets of the fund, and represents that part of the accrued liability which has not been funded by accumulated past contributions.

Actuarial Basis

Asset Valuation Method

Assets: The assets are valued based on a five-year moving average of expected and market values (five-year average actuarial value) determined as follows:

- At the end of each fiscal year, an average asset value is calculated as the average of the market asset value at the beginning and end of the fiscal year net of investment income for the fiscal year;
- The investment gain or (loss) is taken as the excess of actual investment income over the expected investment income based on the average asset value as calculated above;
- The investment gain or (loss) so determined for the fiscal year is recognized over five years at 20% per year;
- The asset value is the sum of the market value plus the scheduled recognition of investment gains or (losses) during the current and the preceding four fiscal years.

Changes in Asset Valuation Method

For the purpose of determining the actuarial value of assets, the Post Fund asset loss for the fiscal year ending June 30, 2009 is recognized incrementally over five years at 20% per year, similar to the smoothing of active fund assets. Prior to June 30, 2009, Post Fund asset gains and losses were not smoothed.

Payment on the Unfunded Actuarial Accrued Liability

A level percentage of payroll each year to the statutory amortization date of July 1, 2038 assuming payroll increases of 4.50% per annum. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll.

Benefits included or excluded

To the best of our knowledge, all material benefits have been included in the liability.

IRC Section 415(b): The limitations of Internal Revenue Code Section 415(b) have been incorporated into our calculations.

IRC Section 401(a)17: The limitations of Internal Revenue Code Section 401(a)(17) have been incorporated into our calculations.

Funding Objective

The fundamental financing objective of the fund is to establish contribution rates which, when expressed as a percentage of active member payroll, will remain approximately level from generation to generation and meet the required deadline for full funding.

Actuarial Basis

Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan.

Investment return:	6.0% compounded annually post-retirement 8.5% compounded annually pre-retirement
Benefit increases after retirement	Payment of 2.5% annual cost-of-living adjustments after retirement accounted for by using a 6.0% post-retirement assumption, as required by statute.
Salary increases	Reported salary for prior fiscal year, with new hires annualized, increased to current fiscal year and annually for each future year according to the ultimate rate table below.
Mortality	
Healthy pre-retirement	1983 Group Annuity Mortality for males set back six years 1983 Group Annuity Mortality for females set back six years
Healthy post-retirement	1983 Group Annuity Mortality for males set back one year 1983 Group Annuity Mortality for females set back one year
Disabled	1965 RRB rates up to age 40. For ages 41 to 59, graded rates between 1965 RRB and the Healthy Post-Retirement Mortality Table. For ages 60 and later, the Healthy Post-Retirement Mortality Table.
Retirement	Age related table as follows: Ages: 50-54 10% 55 30% 56-59 20% 60-61 25% 62-64 35% 65-69 50% 70 & Over 100%
Withdrawal	Select and Ultimate rates based on plan experience. Ultimate rates after the third year are shown in the rate table. Select rates are 3.50% per year for each of the first three years
Disability	Rates are shown in rate table.
Allowance for Combined Service Annuity	Liabilities for former members are increased by 30.00% to account for the effect of some participants having eligibility for a Combined Service Annuity due to continued public employment.
Expenses	Prior year administrative expenses expressed as percentage of prior year payroll.
Refund of contributions	All employees withdrawing after becoming eligible for a deferred benefit are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit.
Percentage married	85% of male members and 65% of female members are assumed to be married.
Age of spouse	Wives are assumed to be four years younger than their husbands. For members in payment status actual spouse date of birth is used if provided.
Eligible children	Retiring members are assumed to have no dependent children.

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Form of payment	Married members assumed to elect subsidized joint and survivor form of annuity as follows: | | Males | Females | 50% J&S option: Males 40.00%, Females 15.00% 100% J&S option: Males 45.00%, Females 15.00%
Unknown data for members	To prepare this report, Mercer has used and relied on participant data supplied by the Fund. We have reviewed the participant data for internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. In cases where submitted data was missing or incomplete, the following assumptions were applied: <u>Data for active members</u>: Date of birth: July 1, 1964 Salary: Prior year salary <u>Data for terminated members</u>: Date of birth: July 1, 1964 Allowable service: 9 years Salary: $24,000
Changes in actuarial assumptions	None

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Summary of Rates

	Rate (%)				
	Pre-Retirement Mortality		Ultimate Withdrawal	Disability	Salary Increase
Age	Males	Females			
20	0.03%	0.01%	6.01%	0.11%	11.00%
25	0.04	0.02	3.24	0.13	9.00
30	0.04	0.02	1.90	0.16	7.50
35	0.06	0.03	1.46	0.19	6.50
40	0.08	0.04	1.26	0.29	5.50
45	0.11	0.06	0.91	0.54	5.00
50	0.19	0.09	0.50	1.04	4.75
55	0.35	0.15	0.11	2.03	4.75
60	0.57	0.23	0.00	0.00	4.75
65	0.84	0.38	0.00	0.00	4.75
70	1.39	0.64	0.00	0.00	4.75

Actuarial Basis

Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

Plan year	July 1 through June 30
Eligibility	All full-time and certain part-time, police officers and fire fighters, who are not contributing to any other local retirement fund.
Contributions	Shown as a percent of salary (rates shown became effective January 2009): Member 9.40% of salary Employer 14.10% of salary Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h).
Allowable service	Police and Fire service during which member contributions were made. May also include certain leaves of absence and military service.
Salary	Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes lump sum annual leave payments and sick leave payments and Workers' Compensation benefits.
Average salary	Average of the five highest successive years of salary. Average Salary is based on all Allowable Service if less than five years.
Retirement	.
Normal retirement benefit	
Age/service requirements	Age 55 and three years of Allowable Service. Proportionate retirement annuity is available at age 65 and one year of Allowable Service.
Amount	3.0% of Average Salary for each year of Allowable Service.
Early retirement	
Age/service requirements	Age 50 and three years of Allowable Service.
Amount	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement date and 0.10% (0.20% for members enrolled in the plan after June 30, 2007) reduction for each month the member is under age 55.
Form of payment	Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are: 25%, 50%, 75% or 100% Joint and Survivor with bounce back feature without additional reduction.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Retirement *(continued)*	
Benefit increases (continued)	Benefit recipients will receive future annual 2.5% cost-of-living adjustments (COLA). A benefit recipient who has been receiving a benefit for at least 12 full months as of December 31 will receive a full increase. Members receiving benefits for at least one full month but less than 12 full months will receive a pro rata increase. Members retired under laws in effect before July 1, 1973 receive an additional lump sum payment each year. In 1989, this lump sum payment is the greater of $25 times each full year of Allowable Service or the difference between $400 times each full year of Allowable Service and the sum of benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump sum payment will increase by the same percentage increase that is applied to regular annuities paid from the fund. Effective January 1, 2002, annual lump sum payment is divided by 12 and paid as a monthly life annuity in the annuity form elected.
Disability	
Duty disability benefit	
Age/service requirement	Physically or mentally unable to perform duties as a police officer or fire fighter as a direct result of an act of duty. Members age 55 or older with 20 or more years of Allowable Service are not eligible to apply for duty disability benefits.
Amount	60.00%, plus an additional 3.00% for each year of service in excess of 20 years, of Average Salary paid until Normal Retirement Age, or for 60 months, whichever is later. The retirement benefit is then recalculated but is never lower than the disability benefit. If a member became disabled prior to July 1, 1997 but did not commence their benefit before July 1, 1997, the benefit is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in post-retirement interest rates from 5.00% to 6.00%.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Disability *(continued)*	
Regular disability benefit	
Age/service requirement	Physically or mentally unable to perform duties as a police officer or fire fighter with one year of Allowable Service. Members age 55 or older with 15 or more years of Allowable Service are not eligible to apply for regular disability benefits.
Amount	45.00% of Average Salary, paid until Normal Retirement Age, or for 60 months, whichever is later. The retirement benefit is then recalculated but is never lower than the disability benefit. Benefits for total and permanent regular disability are calculated as 3.00% of Average Salary for each year of Allowable Service, with a minimum of 45.00% of Average Salary. If a member became disabled prior to July 1, 1997 but did not commence their benefit before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in post-retirement interest rates from 5.00% to 6.00%.
Benefit increases	Same as for retirement.
Retirement benefit	
Age/service requirement	Upon cessation of disability benefits.
Amount	Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 65 or the normal retirement benefit available at age 65, or an actuarially equivalent optional annuity.
Form of payment	Same as for retirement.
Benefit increases	Same as for retirement.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Death	
Surviving spouse benefit	
Age/service requirement	Death of active member or regular disabled member with surviving spouse, with at least three years of Allowable Service at death (service requirement is waived if death occurs in the line of duty).
Amount	50.00% of salary (60.00% if death occurs in the line of duty) averaged over last six months. Benefit paid until spouse's death but no payments while spouse is remarried prior to July 1, 1991. If a member becomes deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Benefit increases	Same as for retirement.
Surviving dependent children's benefit	
Age/service requirement	Death of active member or regular disabled member with eligible dependent child.
Amount	10.00% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 50.00% of salary and maximum of 70.00% of salary. Benefits paid until child marries, dies, or attains age 18 (age 23 if full-time student). If a member became deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Duty disability surviving spouse benefit	
Age/service requirement	Active member who is totally and permanently disabled who dies before age 55 or within five years of the effective date of the disability benefit, whichever is later.
Amount	60.00% of salary averaged over last six months. Benefits paid until spouse's death but no payments while spouse is remarried prior to July 1, 1991. If a member became deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Benefit increases	Same as for retirement.

Actuarial Basis

Summary of Plan Provisions *(continued)*

***Death** (continued)*	
Duty disability surviving dependent children's benefit	
Age/service requirement	Death of a member with eligible dependent child who was disabled in the line of duty.
Amount	10.00% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 60.00% of salary and maximum of 80.00% of salary. Benefits paid until child marries, dies, or attains age 18 (age 23 if full-time student). If a member became deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Surviving spouse optional annuity	
Age/service requirement	Active or Disabled member dies before age 55. Benefits commence when member would have been age 55 or as early as age 50 if qualified for early retirement, benefits commence immediately if member had 30 years of service.
Amount	Survivor's payment of the 100% joint and survivor benefit the member could have elected if terminated. Alternatively, spouse may elect refund of deceased's contributions with interest if there are no dependent children. If a member became deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefits before July 1, 1997, the benefit payable is calculated under the laws in effect before July 1, 1997, and an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Benefit increases	Same as for retirement.
Termination	
Refund of contributions	
Age/service requirement	Termination of public service.
Amount	Member's contributions with 5.00% interest compounded annually if termination occurred before May 16, 1989 and 6.00% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Service.
Deferred benefit	
Age/service requirement	Three years of Allowable Service.
Amount	Benefit computed under law in effect at termination and increased by the following percentage compounded annually: 0.00% before July 1, 1971; 5.00% from July 1, 1971 to January 1, 1981; 3.00% thereafter until January of the year following attainment of age 55; and 5.00% (2.50% if hired after June 30, 2006) thereafter until the annuity begins. Amount is payable at normal or early retirement.

Actuarial Basis

Summary of Plan Provisions *(continued)*

***Termination** (continued)*	
<u>*Deferred benefit (continued)*</u>	
Amount (continued)	If a member terminated employment prior to July 1, 1997 but was not eligible to commence their pension before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Form of payment	Same as for retirement.
Combined Service Annuity	Members who have at least one-half year of allowable service must have their benefit based on the following: (a.) Allowable service in all covered plans are combined in order to determine eligibility for early retirement. (b.) Average salary is based on the high five consecutive years during their entire service in all covered plans
Changes in Plan Provisions	<u>Dissolution of Minnesota Post Retirement Investment Fund (Post Fund)</u> Since the Post Fund composite funding ratio was less than 80 percent as of June 30, 2008, the Post Fund was dissolved, and assets were transferred back to PERA and merged with the respective active member fund. The transfer of assets and liabilities occurred on June 30, 2009. In conjunction with the dissolution, benefit recipients will receive future annual 2.5% cost-of-living adjustments (COLA). The waiting period and proration schedule for the COLA paid in the first year of retirement were also revised.

Plan Accounting Under GASB 25 (as amended by GASB 50)*

Provided below is information required under GASB Statement No. 25 as amended by GASB Statement No. 50 – Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans as amended by GASB Statement No. 50.

Schedule of Funding Progress *(Dollars in Thousands)*

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	Actual Covered Payroll (Previous FY) (c)	UAAL as a Percentage of Covered Payroll (b) – (a) / (c)
07/01/1991	$ 839,560	$ 794,295	$ (45,265)	105.70%	$ 238,230	(19.00%)
07/01/1992	979,981	888,826	(91,155)	110.26%	239,158	(38.11%)
07/01/1993	1,118,342	1,009,226	(109,116)	110.81%	253,666	(43.02%)
07/01/1994	1,234,961	1,099,221	(135,740)	112.35%	277,566	(48.90%)
07/01/1995	1,385,901	1,196,795	(189,106)	115.80%	293,919	(64.34%)
07/01/1996	1,633,010	1,334,202	(298,808)	122.40%	316,189	(94.50%)
07/01/1997	1,974,635	1,556,483	(418,152)	126.87%	346,319	(120.74%)
07/01/1998	2,337,313	1,741,344	(595,969)	134.22%	375,131	(158.87%)
07/01/1999	3,679,551	3,004,637	(674,914)	122.46%	352,066	(191.70%)
07/01/2000	4,145,351	3,383,187	(762,164)	122.53%	392,796	(194.04%)
07/01/2001[1]	4,472,041	3,712,360	(759,681)	120.46%	500,839	(151.68%)
07/01/2002[1]	4,672,679	3,886,311	(786,368)	120.23%	522,153	(150.60%)
07/01/2003[1]	4,683,115	4,390,953	(292,162)	106.65%	560,503	(52.12%)
07/01/2004	4,746,834	4,692,190	(54,644)	101.16%	551,266	(9.91%)
07/01/2005	4,814,961	4,956,340	141,379	97.15%	580,723	24.35%
07/01/2006	5,017,951	5,260,564	242,613	95.39%	618,435	39.23%
07/01/2007	5,198,922	5,669,347	470,425	91.70%	648,342	72.56%
07/01/2008	5,233,015	5,918,061	685,046	88.42%	703,701	97.35%
07/01/2009	5,239,855	6,296,274	1,056,419	83.22%	733,164	144.09%

** Information prior to 2008 provided by the Segal Company.*

[1] *Excludes amounts receivable from municipalities with positive amortizable bases.*

Plan Accounting Under GASB 25 (as amended by GASB 50)*

Schedule of Contributions from the Employer and Other Contributing Entities *(Dollars in Thousands)*

The GASB Statement No. 25 (as amended by GASB 50) required and actual contributions are as follows:

Plan Year Ended June 30	Actuarially Required Contribution Rate[1] (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Contributions [(a)x(b)] – (c) = (d)	Actual Employer Contributions[2] (e)	Percentage Contributed (e) / (d)
1991	17.56%	$ 238,230	$ 17,636	$ 24,197	$ 26,440	109.27%
1992	17.54%	239,158	19,217	22,731	28,766	126.55%
1993	18.60%	253,666	20,406	26,776	30,434	113.66%
1994	17.45%	277,566	21,806	26,629	32,536	122.18%
1995	17.28%	293,919	22,356	28,433	33,548	117.99%
1996	16.49%	316,189	24,065	28,075	36,066	128.46%
1997	15.11%	346,319	26,354	25,975	39,508	152.10%
1998[3]	15.69%	375,131	28,552	30,306	42,786	141.18%
1999[3]	12.32%	352,066	30,897	12,478	46,280	370.89%
2000[3]	12.87%	392,796	31,214	19,339	53,178	274.98%
2001[3, 4, 5]	12.21%	500,839	31,341	29,811	52,960	177.65%
2002	12.61%	522,153	33,801	32,042	90,664	282.95%
2003[3, 5, 6]	12.52%	560,503	34,751	35,424	50,917	143.74%
2004[3, 5, 7]	19.47%	551,266	36,313	71,019	52,770	74.30%
2005[3]	21.99%	580,723	37,873	89,828	55,802	62.12%
2006[3]	24.36%	618,435	42,970	107,681	63,603	59.07%
2007[3, 8]	25.76%	648,342	50,688	116,325	74,707	64.22%
2008[3, 9]	28.82%	703,701	58,259	144,548	87,023	60.20%
2009[3, 10]	28.41%	733,164	67,701	140,591	101,548	72.23%
2010[3, 11]	29.99%					

* *Information prior to 2008 provided by the Segal Company.*

[1] *Actuarially Required Contributions determined for years ended 1995, 1996 and 1997 did not comply with the parameters of GASB 25 since a one percent growth in covered population is assumed in the amortization calculation.*
[2] *Includes contributions from other sources (if applicable).*
[3] *Actuarially Required Contributions Rate calculated according to parameters of GASB 25 with no assumption for growth of covered population.*
[4] *Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 11.41%.*
[5] *Excludes amounts receivable from municipalities with positive amortizable bases.*
[6] *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 12.33%*
[7] *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 15.36%.*
[8] *Actuarially Required Contribution Rate prior to change in Plan Provisions is 25.77%.*
[9] *Actuarially Required Contribution Rate prior to change in Plan Provisions is 26.75% and prior to change in Asset Valuation Method including new Plan Provisions is 26.27%.*
[10] *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 32.75% and prior to change in Plan Provisions is 27.96%.*
[11] *Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 33.59%.*

Glossary

Actuarial Asset Value. The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method. The goal of an asset valuation method is to produce a relatively stable asset value thereby reducing year-to-year volatility in contribution requirements.

Actuarial Cost Method. Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Annual Pension Cost. A measure of the periodic cost of an employer's participation in a defined benefit pension plan.

Annual Required Contributions (ARC). The employer's periodic required contributions to a defined benefit pension plan, calculated in accordance with the parameters of GASB 25 (as amended by GASB 50) or GASB 27.

ASA. Associate of the Society of Actuaries.

Current Benefit Obligations. The present value of benefits earned to the valuation date, based on current service and including future salary increases to retirement.

EA. Enrolled Actuary.

FSA. Fellow of the Society of Actuaries.

MAAA. Member of the American Academy of Actuaries.

Normal Cost. The annual cost assigned to the current year, under the actuarial cost method in use.

Present Value. Sometimes called "actuarial present value," the current worth (on the valuation date) of an amount or series of amounts payable or receivable in the future. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Statement No. 25 of the Governmental Accounting Standards Board (GASB 25). The accounting standard governing the financial reporting for defined benefit pension plans and note disclosures for defined contribution plans.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27). The accounting standard governing a state or local governmental employer's accounting for pensions.

Statement No. 50 of the Governmental Accounting Standards Board (GASB 50). The accounting standard amending both GASB 25 and GASB 27 to require a schedule of funding progress under the Entry Age Normal method for plans that use the aggregate funding method to determine the Annual Required Contribution.

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