

December 2010

# Minneapolis Employees Retirement Fund

Actuarial Valuation Report as of July 1, 2010

**MERCER**

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December 2010

Public Employees Retirement Association of Minnesota  
Minneapolis Employees Retirement Fund  
St. Paul MN

Dear Trustees of the Minneapolis Employees Retirement Fund:

Submitted in this report are the July 1, 2010 actuarial valuation results for the Minneapolis Employees Retirement Fund. The purposes of this report are to:

- Present Mercer's actuarial estimates of the Plan's liabilities and expenses as required by Minnesota Statutes, Section 356.215 and the Standards for Actuarial Work established by the State of Minnesota Legislative Commission on Pensions and Retirement (LCPR) for the Public Employees Retirement Association of Minnesota (PERA) to incorporate, as PERA deems appropriate, in its financial statements; and
- Provide the actuarially required contribution rate for the period beginning July 1, 2010.

To the best of our knowledge and belief, the valuation was performed in accordance with the requirements of Minnesota Statutes, Section 356.215, and the requirements of the Standards for Actuarial Work established by the LCPR, including one modification regarding decrement timing. The LCPR approved this modification prior to the preparation of this report in order to ensure consistency and comparability. For more information about the decrement timing methodology, please refer to the *Actuarial Basis* section..

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. Moreover, this report contains a Glossary of certain terms referenced in the report, which you may wish to consult before reviewing the report. 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.

Respectfully submitted,



Gary D. Dickson, FSA, EA, MAAA



Bonita J. Wurst, ASA, EA, MAAA

## Highlights

The Minneapolis Employees Retirement Fund experienced many changes during the past year. The administration of the plan was transferred to the Public Employees Retirement Association of Minnesota. A number of method changes were made, including an extension of the amortization date and elimination of asset smoothing. Mortality tables and discount rates were updated. Annual post-retirement benefit increases were changed to 1% per year. Employer and State contribution requirements were also changed. A summary of all changes, as well as their impact, can be found in the *Effects of Change* section.

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

Contributions	Actuarial Valuation as of	
	July 1, 2010	July 1, 2009*
Statutory Contributions – Chapter 422A (% of Payroll)	322.21%	163.16%
Required Contributions – Chapter 356 (% of Payroll)	538.76%	833.55%
Sufficiency / (Deficiency)	(216.55%)	(670.39%)
Statutory Contributions – Chapter 422A (000's)	\$ 28,620	\$ 17,690
Required Contributions – Chapter 356 (000's)	47,858	90,372
Sufficiency / (Deficiency)	(19,238)	(72,682)

\* Provided by Gabriel Roeder Smith & Company

The annual contribution deficiency decreased from \$73 million to \$19 million. The primary reasons for the year-over-year improvement are the change in discount rate, the amortization date extension, and the increase in the statutory contribution. However, a significant contribution deficiency remains. A contribution deficiency means that over the long run, without further changes or favorable actuarial experience, the contributions scheduled to be made to the fund will not provide enough money to pay all the benefit promises. We concur with Milliman's recommendation to perform cash flow solvency testing for this plan on a regular basis to analyze the ultimate sufficiency of statutory contributions.

The effect upon this year's valuation results of having received contributions in the preceding year that were less than actuarially required was approximately a \$74 million increase in unfunded liability and a \$7.7 million increase in this year's required contributions.

The "Plan Assets" section provides detail on the plan assets used for the valuation including a development of the actuarial value of assets (AVA). The market value of assets (MVA) earned 15.7% for the plan year ending June 30, 2010.

## 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, 2010	July 1, 2009*
<b>Contributions (% of Payroll)</b>		
Statutory – Chapter 422A	322.21%	163.16%
Required – Chapter 356	538.76%	833.55%
Sufficiency / (Deficiency)	(216.55%)	(670.39%)
<b>Contributions (dollars in thousands)</b>		
Statutory Contributions – Chapter 422A	\$ 28,620	\$ 17,690
Required Contributions – Chapter 356	47,858	90,372
Sufficiency / (Deficiency)	(19,238)	(72,682)
<b>Funding Ratios (dollars in thousands)</b>		
Accrued Benefit Funding Ratio		
– Current assets (AVA)	\$ 844,033	\$ 880,133
– Current benefit obligations	1,284,153	N/A
– Funding ratio	65.73%	N/A
Accrued Liability Funding Ratio		
– Current assets (AVA)	\$ 844,033	\$ 880,133
– Market value of assets (MVA)	844,033	859,895
– Actuarial accrued liability	1,286,151	1,551,099**
– Liquidity Trigger Adjustment (Chapter 422A)	N/A	23,912***
– Funding ratio (AVA)	65.62%	55.88%
– Funding ratio (MVA)	65.62%	54.60%
Projected Benefit Funding Ratio		
– Current and expected future assets	\$ 1,287,974	\$ N/A
– Current and expected future benefit obligations	1,287,974	N/A
– Funding ratio	100.00%	N/A

\* Provided by Gabriel Roeder Smith & Company.

\*\* GRS excluded increases under 1998 and 1999 legislation from this liability because these costs are excluded from state-provided funding. Per direction from PERA, these increases are no longer excluded.

\*\*\* Liquidity Trigger Adjustment (Chapter 422A) is added to the Actuarial Accrued Liability

## Principal Valuation Results

	Actuarial Valuation as of	
	July 1, 2010	July 1, 2009*
<b>Participant Data</b>		
Active members		
– Number	143	174
– Projected annual earnings ( <i>000s</i> )	\$ 8,883	\$ 10,842
– Average annual earnings ( <i>projected</i> )	\$ 62,116	\$ 62,309
– Average age	60.1	59.2
– Average service	35.5	34.6
Service retirements	3,360	3,468
Survivors	840	879
Disability retirements	143	146
Deferred retirements	102	120
<b>Total</b>	<b>4,588</b>	<b>4,787</b>

\* Provided by Gabriel Roeder Smith & Company

## Effects of Changes

The administration of the Minneapolis Employees Retirement Fund as the MERF division is transferred to the Public Employees Retirement Association Board of Trustees. In addition, the following changes in assumptions, methods and plan provisions were recognized as of July 1, 2010:

- For the purposes of determining the actuarial value of assets, the assets are valued at market value, similar to the Retirement Benefit Fund (RBF) Reserve assets. Prior to June 30, 2010, the Non-RBF Reserve asset gains and losses were smoothed over a five year period.
- The Liquidity Trigger Adjustment that was added to the actuarial accrued liability in the 2008 and 2009 valuations is no longer required by statute.
- Increases under 1998 and 1999 legislation are no longer excluded from the actuarial accrued liability, as directed by PERA.
- The Deposit Accumulation Fund (or Survivor Benefit Fund) is now included in the total fund, as directed by PERA.
- The statutory amortization date changed from June 30, 2020 to June 30, 2031.
- Post-retirement benefit increases changed from one layer relating to the Consumer Price Index and a second layer relating to investment performance to 1.0% beginning January 1, 2011. If the accrued liability funded ratio of PERA's General Employees Retirement Plan reaches 90% (on a Market Value of Assets basis), the benefit increase changes to 2.5%.
- Employer and State Contribution requirements were modified. See the *Actuarial Basis* section for additional detail.
- Pre-retirement and post-retirement mortality assumptions were changed from the average of male and female rates of the 1986 Projected Experience Table set back 1 year to RP 2000 healthy sex distinct annuitant mortality, white collar adjustment, projected to 2018.
- The disabled mortality assumption was changed from the average of male and female rates of the 1986 Projected Experience Table set back 1 year to RP 2000 healthy sex distinct annuitant mortality, white collar adjustment, reduced 20%.
- The post-retirement investment return assumption was changed from 5.0% to 8.5%.
- The pre-retirement investment return assumption was changed from 6.0% to 8.5%.
- Annual post-retirement benefit increases are valued explicitly in the benefit amounts rather than implicitly through a difference in the pre and post-retirement investment return assumptions.

## Effects of Changes

The combined impact of the plan changes, assumption changes, and amortization date changes described on the prior page was to decrease the accrued liability by \$193 million and decrease the required contribution by \$40,864,000 as follows:

	<b>Before Amortization Period, Plan and Assumption Changes</b>	<b>Reflecting Amortization Period Change</b>	<b>Reflecting Amortization Period, Plan and Assumption Changes</b>	<b>Total Change</b>
Accrued Liability Funding Ratio (AVA)	57.0%	57.0%	65.6%	8.6%
Unfunded Accrued Liability (000's)	\$ 635,000	\$ 635,000	\$ 442,000	\$ (193,000)
Normal Cost Rate (000's)	\$ 899	\$ 899	\$ 520	\$ (379)
Amortization of Unfunded (000's)	86,331	54,012	45,846	(40,485)
Expenses (000's)	1,492	1,492	1,492	0
Total Required Contribution (000's)	\$ 88,722	\$ 56,403	\$ 47,858	\$ (40,864)

Refer to the *Actuarial Basis* section of this report for a complete description of these changes.

## Valuation of Future Post-Retirement Benefit Increases

A very important assumption affecting the valuation results is the expectation of future post-retirement benefit increases. Currently, post-retirement increases are 1%. The accrued liability funding ratio of the General Employees Retirement Plan (on a market value of assets basis and assuming 1.0% benefit increases) is currently 66%. If the General Employees Retirement Plan (PERA General) reaches a funding ratio of 90% (on a market value of assets basis) in the future, post-retirement increases in the Minneapolis Employees Retirement Fund will change to the 2.5% level.

We performed a projection of liabilities and assets for PERA General, using the 2010 valuation results as a baseline and assuming future experience follows the valuation assumptions. The projection indicates that, without contribution increases, changes in benefits or assumptions, or favorable experience, the funded status of PERA General is expected to decline from the current level of 66%.

The liabilities in this report are calculated using the reduced 1.0% annual increases for all future years. This approach was prescribed by PERA based on their interpretation of applicable Minnesota Statutes (and their consultation with the LCPR). If we had used annual increases of 2.5% instead of 1.0%, the liability would have been approximately \$1,435 million instead of approximately \$1,286 million, resulting in an actuarial accrued liability funded ratio of 58.8% (on a market value basis).

## Important Notices

Mercer has prepared this report exclusively for the Trustees of PERA and the Legislative Commission on Pensions and Retirement (LCPR); Mercer is not responsible for reliance upon this report by any other party. Subject to this limitation, PERA may direct that this report be provided to its auditors in connection with audits of the Plan or its sponsoring entities.

The only purposes of this report are to:

- Present Mercer's actuarial estimates of the Plan's liabilities and expenses as required by Minnesota Statutes, Section 356.215 and the Standards for Actuarial Work established by the State of Minnesota LCPR for PERA to incorporate, as PERA deems appropriate, in its financial statements; and
- Provide the actuarial required contribution rate for the period beginning July 1, 2010.

This report may not be used for any other purpose; Mercer is not responsible for the consequences of any unauthorized use.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

The State Board of Investment (SBI) is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Mercer's actuaries have not provided any investment advice to the Trustees or the SBI.

A valuation report is only a snapshot of a Plan's estimated financial condition at a particular point in time; it does not predict the Plan's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the Plan. 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, the period of time over which benefits are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

To prepare the valuation report, actuarial assumptions, as described in the *Actuarial Basis* section of this report, are used in a forward looking financial and demographic model to present a single scenario from a wide range of possibilities; the results based on that single scenario are included in the valuation. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. A "sensitivity analysis" shows the degree to which

## Important Notices

results would be different if you substitute alternative assumptions within the range of possibilities for those utilized in this report. We have not been engaged to perform such a sensitivity analysis and thus the results of such an analysis are not included in this report. At PERA's request, Mercer is available to perform such a sensitivity analysis.

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. A change in assumptions is not an indication that prior assumptions were unreasonable when made.

Because valuations are a snapshot in time and are based on estimates and assumptions that are not precise and will differ from actual experience, contribution calculations are inherently imprecise. There is no uniquely "correct" level of contributions for the coming plan year.

Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contributions not made this year, for whatever reason, including errors, remain the responsibility of the Plan sponsor and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this with a view to funding the plan over time.

Data, computer coding and mathematical errors are possible in the preparation of a valuation involving complex computer programming and thousands of calculations and data inputs. Errors in a valuation discovered after its preparation may be corrected by amendment to the valuation or in a subsequent year's valuation.

Actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by Minnesota Statutes Section 356.215, the LCPR, and the Trustees. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the *Actuarial Basis* section of this report. PERA is solely responsible for communicating to Mercer any changes required thereto.

To prepare this report Mercer has used and relied on financial data and participant data supplied by PERA and summarized in the *Plan Assets* and *Membership Data* sections of this report. PERA is responsible for ensuring that such participant data provides an accurate description of all persons who are participants under the terms of the plan or otherwise entitled to benefits as of the valuation date that is sufficiently comprehensive and accurate for the purposes of this report. Although Mercer has reviewed the data in accordance with Actuarial Standards of Practice No. 23, Mercer has not verified or audited any of the data or information provided.

Mercer has also used and relied on the summary of plan provisions, including amendments, and interpretations of plan provisions, supplied by PERA as summarized in the *Actuarial Basis* section of this report and on plan provisions stipulated by statute. The Trustees are solely responsible for the validity, accuracy and comprehensiveness of this information. If any 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. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and that the different interpretations could lead to different valuation results.

## Important Notices

PERA should notify Mercer promptly after receipt of the valuation report if PERA disagrees with anything contained in the valuation report or is aware of any information that would affect the results of the valuation report that has not been communicated to Mercer or incorporated therein. The valuation report will be deemed final and acceptable to PERA unless PERA promptly provides such notice to Mercer.

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.

## 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 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, 2010 *(Dollars in Thousands)*

	<b>Market Value</b>
<b>Assets in Trust</b>	
▪ Cash, equivalents, short term securities	\$ 27,425
▪ Fixed income	285,590
▪ Equity	518,231
<b>Total assets in trust</b>	<b>\$ 831,246</b>
Assets Receivable*	12,788
Amounts Payable	(1)
<b>Net assets held in trust for pension benefits</b>	<b>\$ 844,033</b>

\* Includes \$9 million contribution paid September 15, 2010.

## 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 for the Plan's Fiscal Year July 1, 2009 to June 30, 2010.

<b>Change in Assets</b> ( <i>Dollars in Thousands</i> )	<b>Market Value</b>
1. Fund balance at market value at July 1, 2009*	\$ 853,375
2. Contributions	
a. Member	1,081
b. Employer	4,798
c. State	9,000
d. Total contributions	<u>14,879</u>
3. Investment income	
a. Investment income	\$ 127,196
b. Investment expenses	<u>(1,485)</u>
c. Net subtotal	125,711
4. Other	0
<b>5. Total income</b> (2.d. + 3.c. + 4.)	<b>\$ 140,590</b>
6. Benefits Paid	
a. Annuity benefits	(147,099)
b. Refunds	<u>(27)</u>
c. Total benefits paid	\$ (147,126)
7. Expenses	
a. Other	(1,571)
b. Administrative	<u>(1,235)</u>
c. Total Expenses	(2,806)
<b>8. Total distributions</b> (6.c. + 7.c.)	<b>\$ (149,932)</b>
<b>9. Fund balance at market value at June 30, 2010</b> (1. + 5. + 8.)	<b>\$ 844,033</b>

\* Adjusted to match MERF's and PERA's financial statements; does not include the Receivable Amount of \$6.5 million included in 2009 valuation assets by Gabriel Roeder Smith & Company (GRS) in the prior year valuation report.

## Plan Assets

### Actuarial Asset Value

Actuarial Asset Value is equal to Market Value, including receivable contributions and reduced by amounts payable at the valuation date.

# Membership Data

## Distribution of Active Participants

Age	Years of Service as of June 30, 2010										Total
	<3	3 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
<25											0
Avg. Earnings											N/A
25 – 29											0
Avg. Earnings											N/A
30 – 34											0
Avg. Earnings											N/A
35 – 39											0
Avg. Earnings											N/A
40 – 44											0
Avg. Earnings											N/A
45 – 49											0
Avg. Earnings											N/A
50 – 54								19	3		22
Avg. Earnings								56,848	71,084		58,789
55 – 59								37	17	1	55
Avg. Earnings								61,062	63,712	41,755	61,530
60 – 64								21	13	9	43
Avg. Earnings								64,694	58,804	50,455	59,933
65 – 69								4	6	5	15
Avg. Earnings								47,148	67,225	54,291	57,560
70+									4	4	8
Avg. Earnings									46,915	58,799	52,857
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>43</b>	<b>19</b>	<b>143</b>
<b>Avg. Earnings</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>60,328</b>	<b>61,670</b>	<b>52,764</b>	<b>59,726</b>

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

## Membership Data

### Distribution of Service Retirements

Age	Years Since Retirement as of June 30, 2010							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
<45								<b>0</b>
Avg. Benefit								<b>N/A</b>
45 – 49								<b>0</b>
Avg. Benefit								<b>N/A</b>
50 – 54	5	24	15					<b>44</b>
Avg. Benefit	38,653	36,379	35,785					<b>36,435</b>
55 – 59	12	118	159	14				<b>303</b>
Avg. Benefit	39,779	36,925	37,696	35,156				<b>37,361</b>
60 – 64	15	129	233	174	10			<b>561</b>
Avg. Benefit	24,934	32,648	39,311	43,161	39,626			<b>38,594</b>
65 – 69	9	48	201	170	24	3	1	<b>456</b>
Avg. Benefit	49,050	27,670	29,511	45,792	45,906	48,680	17,170	<b>36,735</b>
70 – 74	1	18	88	211	59	24	2	<b>403</b>
Avg. Benefit	4,267	21,633	27,645	32,667	49,708	44,743	35,146	<b>34,233</b>
75 – 79		6	24	134	209	59	31	<b>463</b>
Avg. Benefit		24,444	23,485	32,430	31,118	51,099	50,532	<b>34,861</b>
80 – 84		1	11	34	162	196	103	<b>507</b>
Avg. Benefit		18,596	31,717	30,923	26,011	30,975	49,567	<b>33,154</b>
85 – 89			2	8	33	125	209	<b>377</b>
Avg. Benefit			31,382	32,116	23,908	28,644	32,619	<b>30,522</b>
90+			2		2	16	226	<b>246</b>
Avg. Benefit			12,172		19,486	19,486	27,633	<b>26,912</b>
<b>Total</b>	<b>42</b>	<b>344</b>	<b>735</b>	<b>745</b>	<b>499</b>	<b>423</b>	<b>572</b>	<b>3,360</b>
<b>Avg. Benefit</b>	<b>35,484</b>	<b>32,921</b>	<b>34,087</b>	<b>38,031</b>	<b>32,016</b>	<b>33,565</b>	<b>34,654</b>	<b>34,583</b>

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

## Membership Data

### Distribution of Survivors

Age	Years Since Retirement as of June 30, 2010							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
<45			8					8
Avg. Benefit			13,804					13,804
45 – 49		1	4		1			6
Avg. Benefit		30,919	7,059		29,261			14,736
50 – 54		2	4	3				9
Avg. Benefit		38,234	18,862	49,030				33,223
55 – 59		4	9	14	4		3	34
Avg. Benefit		41,909	19,822	28,161	31,779		13,699	26,721
60 – 64		2	9	10	10	4	5	40
Avg. Benefit		45,589	27,229	37,449	30,378	23,700	20,356	30,277
65 – 69			2	11	9	7	18	47
Avg. Benefit			23,884	28,521	35,889	32,485	19,750	26,966
70 – 74			3	14	22	18	23	80
Avg. Benefit			29,637	35,497	36,864	36,674	30,961	34,614
75 – 79			3	8	25	31	57	124
Avg. Benefit			25,734	29,765	21,109	36,815	31,040	30,271
80 – 84			3	4	11	45	117	180
Avg. Benefit			10,797	16,336	35,120	33,161	32,427	32,057
85 – 89			1	1	3	24	159	188
Avg. Benefit			13,336	17,455	45,378	31,520	32,058	32,025
90+				1	2	5	116	124
Avg. Benefit				5,554	18,888	31,356	22,613	22,767
<b>Total</b>	<b>0</b>	<b>9</b>	<b>46</b>	<b>66</b>	<b>87</b>	<b>134</b>	<b>498</b>	<b>840</b>
<b>Avg. Benefit</b>	<b>N/A</b>	<b>40,689</b>	<b>19,504</b>	<b>31,106</b>	<b>30,829</b>	<b>33,799</b>	<b>29,105</b>	<b>29,788</b>

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

## Membership Data

### Distribution of Disability Retirements

Age	Years Disabled as of June 30, 2010							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
<45								<b>0</b>
Avg. Benefit								<b>N/A</b>
45 – 49								<b>0</b>
Avg. Benefit								<b>N/A</b>
50 – 54			1					<b>1</b>
Avg. Benefit			25,796					<b>25,796</b>
55 – 59			4	3	3	6		<b>16</b>
Avg. Benefit			19,663	27,305	28,897	24,979		<b>24,821</b>
60 – 64			1	14	4	4	11	<b>34</b>
Avg. Benefit			35,096	32,583	31,651	28,613	20,669	<b>28,226</b>
65 – 69			2	7	5	4	5	<b>23</b>
Avg. Benefit			28,362	25,995	32,553	37,830	23,360	<b>29,112</b>
70 – 74				3	4	2	16	<b>25</b>
Avg. Benefit				26,748	27,336	27,228	28,437	<b>27,961</b>
75 – 79					3	6	7	<b>16</b>
Avg. Benefit					46,836	18,495	25,860	<b>27,031</b>
80 – 84						2	11	<b>13</b>
Avg. Benefit						23,683	15,989	<b>17,173</b>
85 – 89							12	<b>12</b>
Avg. Benefit							17,149	<b>17,149</b>
90+							3	<b>3</b>
Avg. Benefit							24,233	<b>24,233</b>
<b>Total</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>27</b>	<b>19</b>	<b>24</b>	<b>65</b>	<b>143</b>
<b>Avg. Benefit</b>	<b>N/A</b>	<b>N/A</b>	<b>24,533</b>	<b>29,640</b>	<b>32,943</b>	<b>26,185</b>	<b>22,070</b>	<b>25,772</b>

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

	Actives	Terminated	Recipients			Total
		Deferred Retirement	Service Retirements	Disability Retirements	Survivors	
<b>Members on 6/30/2009</b>	<b>174</b>	<b>120</b>	<b>3,468</b>	<b>146</b>	<b>879</b>	<b>4,787</b>
New entrants	0	N/A	N/A	N/A	N/A	0
Return to active	0	0	0	0	N/A	0
Terminated non-vested	0	N/A	N/A	N/A	N/A	0
Service retirements	(31)	(18)	49	N/A	N/A	0
Terminated deferred	0	0	N/A	N/A	N/A	0
Terminated refund	0	(2)	N/A	N/A	N/A	(2)
Deaths	0	0	(157)	(4)	(65)	(226)
New beneficiary	N/A	N/A	N/A	N/A	37	37
Disabled	0	0	N/A	0	N/A	0
Benefits expired	N/A	N/A	N/A	N/A	(11)	(11)
Service buy back	0	2	0	0	0	2
Data correction	0	0	0	1	0	1
Net change	(31)	(18)	(108)	(3)	(39)	(199)
<b>Members on 6/30/2010</b>	<b>143</b>	<b>102</b>	<b>3,360</b>	<b>143</b>	<b>840</b>	<b>4,588</b>

#### Terminated deferred retirement statistics

- Average age 59.9 years
- Average service 7.2 years
- Average annual benefit, including augmentation \$5,085

## 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. The Employer's rate of contribution is the balance required to cover the remainder of the funding requirements.

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.

	<b>June 30, 2010</b>		
A. Actuarial Value of Assets			\$ 844,033
B. Present value of expected future assets			
1. Present value of expected future statutory supplemental contributions*		\$	442,118
2. Present value of future normal cost contributions			1,823
3. Total present value of future contributions (1. + 2.)		\$	443,941
C. Total current and expected future assets (A. + B.3.)		\$	1,287,974
	<u>Non-Vested</u>	<u>Vested</u>	<u>Total</u>
D. Current benefit obligations			
1. Benefit recipients			
a. Service retirements	\$ 0	\$ 1,015,476	\$ 1,015,476
b. Disability	0	35,449	35,449
c. Survivors	0	163,953	163,953
2. Deferred retirements with augmentation	0	5,995	5,995
3. Former members without vested rights	0	0	0
4. Active Members	0	63,280	63,280
5. Total Current Benefit Obligations	\$ 0	\$ 1,284,153	\$ 1,284,153
E. Expected Future Benefit Obligations			3,821
F. Total Current and Expected Future Benefit Obligations (D.5. + E.)			\$ 1,287,974
G. Unfunded Current Benefit Obligations (D.5. - A.)			\$ 440,120
H. Unfunded Current and Future Benefit Obligations (F. - C.)			\$ 0

\* Per the Actuarial Standards, this represents the balancing item needed so that C. equals F. Actual statutory contributions may be significantly different.

## 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
<b>A. Determination of Actuarial Accrued Liability (AAL)</b>			
1. Active Members			
a. Retirement annuities	\$ 62,622	\$ 725	\$ 61,897
b. Disability benefits	2,654	451	2,203
c. Survivor's benefits	521	61	460
d. Deferred retirements	1,304	586	718
e. Total	\$ 67,101	\$ 1,823	\$ 65,278
2. Deferred retirements with future augmentation	5,995	0	5,995
3. Annuitants	1,214,878	0	1,214,878
4. Total	\$ 1,287,974	\$ 1,823	\$ 1,286,151
<b>B. Determination of Unfunded Actuarial Accrued Liability (UAAL)</b>			
1. Actuarial accrued liability			\$ 1,286,151
2. Current assets (AVA)			844,033
3. Unfunded actuarial accrued liability <i>(1. – 2.)</i>			\$ 442,118
<b>C. Determination of Supplemental Contribution Rate</b>			
1. Current unfunded actuarial accrued liability to be amortized by July 1, 2031			\$ 442,118
2. Supplemental contribution amount			\$ 45,846*

\* *The amortization factor as of July 1, 2010 is 9.6435.*

## Development of Costs

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

	Year Ending June 30, 2010
A. Unfunded actuarial accrued liability at beginning of year*	\$ 670,966
B. Changes due to interest requirements and current rate of funding	
1. Normal cost and actual administrative expenses	\$ 2,388
2. Contributions	(14,879)
3. Interest on A., B.1. and B.2.	39,883
4. Total (B.1. + B.2. + B.3.)	\$ 27,392
C. Expected unfunded actuarial accrued liability at end of year (A. + B.4.)	\$ 698,358
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected	
1. Salary increases	\$ (2)
2. Investment return (includes change in asset method)	(47,306)
3. Mortality of benefit recipients	7,297
4. Updated benefit information for deferred retirements	(543)
5. COLA gain due to no 2010 retiree benefit increase	(13,621)
6. Other items	(8,780)
7. Total	\$ (62,955)
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions (C. + D.7.)	\$ 635,403
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	\$ (193,285)
H. Change in unfunded actuarial accrued liability due to changes in actuarial methods	\$ Included in D.2. and D.6. above
I. Unfunded actuarial accrued liability at end of year (E. + F. + G. + H.)	\$ 442,118

\* Excluding Liquidity Trigger Adjustment

\*\* The change to a 1% COLA did not increase the UAAL because the previous valuation report valued an implicit 1% COLA through a pre-retirement discount rate assumption of 6% and a post-retirement discount rate assumption of 5%. The previous valuation report did not include the value of COLA adjustments due to inflation over 1% or COLA adjustments due to favorable investment performance.

## Development of Costs

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

The annual required contribution (ARC) is the sum of normal cost, a supplemental contributions to amortize the Unfunded Actuarial Accrued Liability, and an allowance for expenses.

	Percent of Payroll		Dollar Amount
<b>A. Statutory contributions – Chapter 422A</b>			
1. Employee contributions	9.75%	\$	866
2. Employer regular contributions	9.75%		866
3. Employer additional contributions <i>[2.68% plus \$3,900,000 (43.91%)]</i>	46.59%		4,138
4. Employer supplemental contribution*	0.00%		0
5. Employer special additional contribution**	0.00%		0
6. State contributions	256.12%		22,750
7. Total	322.21%	\$	28,620
<b>B. Required contributions – Chapter 356</b>			
1. Normal cost			
a. Retirement benefits	2.49%	\$	221
b. Disability benefits	1.48%		131
c. Survivors	0.20%		18
d. Deferred retirement benefits	1.69%		150
e. Total	5.86%	\$	520
2. Supplemental contribution amortization by July 1, 2031 of Unfunded Actuarial Accrued Liability	516.11%		45,846
3. Allowance for administrative expenses	14.46%	\$	1,285
4. Allowance for 1992 investment expenses	2.33%		207
5. Total	538.76%	\$	47,858
<b>C. Contribution Sufficiency/(Deficiency) (A.7. – B.5.)</b>	<b>(216.55%)</b>	<b>\$</b>	<b>(19,238)</b>

Note: Projected annual payroll for fiscal year beginning on the valuation date: \$8,883.

\* Not payable until after June 30, 2012

\*\* Based on current assets and expected benefit payments, not applicable for 2010-2011.

## 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. For valuation purposes, entry age for each member is determined as the age at valuation minus years of service as of the valuation date.

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 full-career 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 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.

### Decrement Timing

All decrements are assumed to occur on the anniversary of the valuation date, beginning on the valuation date. Decrement timing is a fundamental part of the computer programming underlying actuarial calculations. Mercer's valuation systems use beginning of year decrements, a generally accepted actuarial practice. The LCPR approved this modification to the Standards for Actuarial Work prior to the preparation of this report in order to ensure consistency and comparability.

## Actuarial Basis

### Asset Valuation Method

Market value of assets.

### Payment on the Unfunded Actuarial Accrued Liability

A level dollar amount each year to the statutory amortization date (June 30, 2031).

### 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. Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2010, the limit is \$195,000.

**IRC Section 401(a)17:** The limitations of Internal Revenue Code Section 401(a)(17) have been incorporated into our calculations. Compensation for any 12-month period used to determine accrued benefits may not exceed the limits in IRC Section 401(a)(17) for the calendar year in which the 12-month period begins. This limit is indexed annually. For 2010, the limit is \$245,000.

### Method changes since prior valuation

The statutory amortization date changed from June 30, 2020 to June 30, 2031.

For the purposes of determining the actuarial value of assets, the assets are valued at market value. Prior to June 30, 2010, the Non-Retirement Benefit Fund (RBF) Reserve asset gains and losses were smoothed over a five year period.

The Liquidity Trigger Adjustment that was added to the actuarial accrued liability in the 2008 and 2009 valuations is no longer applicable.

Increases under 1998 and 1999 legislation are no longer excluded from the actuarial accrued liability.

The Deposit Accumulation Fund (or Survivor Benefit Fund) is now included in the total fund.

Annual post-retirement benefit increases are valued explicitly in the benefit amounts rather than implicitly through a difference in the pre and post-retirement investment return assumptions.

## Actuarial Basis

### Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan. All assumptions are prescribed by Statutes, the LCPR, or the Trustees.

<i>Investment return:</i>	8.5% compounded annually.		
<i>Benefit increases after retirement</i>	Payment of 1% annual cost-of-living adjustments after retirement accounted for explicitly.		
<i>Salary increases</i>	Total reported pay for prior calendar year increased 1.98% (half year of 4.00%, compounded) to prior fiscal year and 4.00% annually for each future year.		
<i>Mortality</i>			
<i>Healthy pre-retirement</i>	RP 2000 healthy sex distinct annuitant mortality table, white collar adjustment, projected to 2018.		
<i>Healthy post-retirement</i>	RP 2000 healthy sex distinct annuitant mortality table, white collar adjustment, projected to 2018.		
<i>Disabled</i>	RP 2000 healthy sex distinct annuitant mortality table, white collar adjustment, reduced by 20%.		
<i>Retirement</i>	Active members are assumed to retire at age 61		
<i>Withdrawal</i>	Rates are shown in rate table.		
<i>Disability</i>	Rates are shown in rate table.		
<i>Allowance for Combined Service Annuity</i>	Liabilities for active members are increased by 0.2% and liabilities for former members (not in payment status) are increased by 30.0% to account for the effect of some participants having eligibility for a Combined Service Annuity.*		
<i>Administrative expenses</i>	Prior year administrative expenses (excluding investment expenses) increased by 4.00% expressed as a percentage of projected annual payroll.		
<i>Investment expenses</i>	Investment expenses for the fiscal year ending June 30, 1992 are being amortized as follows:		
	<b><u>Beginning Balance</u></b>	<b><u>Fixed Annual Payment</u></b>	<b><u>Years Remaining</u></b>
	\$2,849,000	\$207,000	10
<i>Refund of contributions</i>	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.		
<i>Commencement of Deferred Benefits</i>	Current terminated deferred members are assumed to begin receiving benefits at age 60.		
<i>Percentage married</i>	67% of members are assumed to be married.		
<i>Age of spouse</i>	Wives are assumed to be three years younger than their husbands. For members in payment status, actual spouse date of birth is used.		
<i>Form of Payment</i>	Members are assumed to elect a life annuity.		

\* Based on recommendation by a former actuary and consistent with prior valuations; Mercer is unable to substantiate reasonableness of assumption.

## Actuarial Basis

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### *Unknown data for participants*

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:

#### Data for vested terminated members (one participant):

Annual benefit: \$5,085 (equal to the average for vested terminated members)

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### *Changes in actuarial assumptions*

Pre-retirement and post-retirement mortality was changed from the average of male and female rates of the 1986 Projected Experience Table set back 1 year to RP 2000 healthy sex distinct annuitant mortality, white collar adjustment, projected to 2018.

Disabled mortality was changed from the average of male and female rates of the 1986 Projected Experience Table set back 1 year to RP 2000 healthy sex distinct annuitant mortality, white collar adjustment, reduced 20%.

The post-retirement investment return assumption was changed from 5.0% to 8.5%.

The pre-retirement investment return assumption was changed from 6.0% to 8.5%.

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## Actuarial Basis

### Summary of Actuarial Assumptions *(continued)*

#### Summary of Rates

Age	Pre-Retirement Mortality		Post-Retirement Mortality		Disability Mortality*	
	Male	Female	Male	Female	Male	Female
20	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
25	0.02	0.02	0.02	0.02	0.02	0.02
30	0.03	0.02	0.03	0.02	0.03	0.02
35	0.05	0.04	0.05	0.04	0.05	0.04
40	0.08	0.05	0.08	0.05	0.07	0.05
45	0.11	0.08	0.11	0.08	0.11	0.08
50	0.14	0.12	0.14	0.12	0.48	0.20
55	0.23	0.22	0.23	0.22	0.43	0.28
60	0.43	0.44	0.43	0.44	0.53	0.45
65	0.86	0.80	0.86	0.80	0.93	0.73
70	1.47	1.40	1.47	1.40	1.54	1.21

Age	Withdrawal		Disability	
	Male	Female	Male	Female
20	21.00%	21.00%	0.21%	0.21%
25	11.00	11.00	0.21	0.21
30	5.00	5.00	0.23	0.23
35	1.50	1.50	0.30	0.30
40	1.00	1.00	0.41	0.41
45	1.00	1.00	0.61	0.61
50	1.00	1.00	0.93	0.93
55	1.00	1.00	1.60	1.60
60	1.00	1.00	0.00	0.00
65	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00

\* Please note that we have used the table adopted by the LCPR on July 8, 2010; however, this table differs from the table recommended in GRS's experience study report dated September 30, 2009, and in some cases, reflects lower mortality than the table used for healthy members.

## Actuarial Basis

### Summary of Plan Provisions

Following is a summary of the major plan provisions used in the valuation of this report. PERA is solely responsible for the validity, accuracy and comprehensiveness of this information. If any of the plan provisions shown below are not accurate and complete, the valuation results may differ significantly from those shown in the report and may require a revision of this report. Moreover, these plan provisions may be susceptible to different interpretations, each of which could be reasonable, and that the interpretations could lead to different valuation results.

<i>Plan year</i>	July 1 through June 30
<i>Eligibility/Employee rule</i>	<p>An employee of the City of Minneapolis, the Metropolitan Airports Commission, the Met Council/Environmental Services, the Municipal Employees Retirement Fund, and Special School District No. 1 if covered prior to July 1, 1978. New employees are covered by the Public Employees Retirement Association (PERA) Plan.</p> <p>Effective July 1, 1992, licensed peace officers and firefighters who are employed by the Metropolitan Airports Commission and covered by the Minneapolis Employees Retirement Fund will receive the greater of retirement, disability, or survivor benefits under:</p> <ul style="list-style-type: none"> <li>a) The Minneapolis Employees Retirement Fund; or</li> <li>b) The Public Employees Retirement Association (PERA) Police &amp; Fire Plan</li> </ul>

#### *Contributions*

<i>Member</i>	9.75% of salary
<i>Employer</i>	9.75% of salary (Employer Regular Contributions) 2.68% of salary plus employing unit's share of \$3.9 million (Employer Additional Contribution)

City of Minneapolis	\$ 2,763,437
Minneapolis Schools	\$ 731,125
Metropolitan Airports Commission	\$ 402,512
MnSCU	\$ 2,926
<b>Total:</b>	<b>\$ 3,900,000</b>

Employer Supplemental Contribution – first due after June 30, 2012. Equal to the larger of:

- Total actuarial required contributions minus member and employer regular and additional contributions less the State contribution; or
- \$27,000,000

The total employer contribution (Regular, Additional and Supplemental) can not exceed \$34,000,000.

Employer Special Additional Contribution – required if expected benefit payments will likely exceed assets during the year.

## Actuarial Basis

### Summary of Plan Provisions *(continued)*

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**Contributions**

The Supplemental and Special Additional Contributions are allocated to the employers in proportion to their share of the actuarial accrued liability of MERF on July 1, 2009, as follows:

<b>Employer</b>	<b>Allocation</b>
City of Minneapolis	54.21%
Minneapolis Park Board	10.33%
Met Council	1.74%
Metropolitan Airport Commission	5.76%
Municipal Building Commission	1.08%
Minneapolis School District No. 1	23.04%
Hennepin County	3.74%
MnSCU	0.10%
<b>Total</b>	<b>100.00%</b>

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**State Contributions**

Equal to the actuarial required contribution minus expected member and employer regular and additional contributions. The State's contribution can not exceed the following amounts:

<b>Due Date</b>	
September 15, 2010	\$ 9,000,000
September 15, 2011	\$ 22,750,000
September 15, 2012	\$ 22,750,000
September 15, 2013 and beyond	\$ 24,000,000

The State's contributions end on the earlier of September 15, 2031, or in the year following the first date on which MERF assets equal or exceed MERF actuarial accrued liability.

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**Allowable service**

Service during which member contributions were made. Allowable Service may also include certain leaves of absence, military service and service prior to becoming a member. Allowable service also includes time on duty disability provided that the member returns to active service if the disability ceases.

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**Salary**

All amounts of salary, wages or compensation

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**Average Salary**

Average of the five highest calendar years of salary out of the last ten calendar years.

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## Actuarial Basis

### Summary of Plan Provisions *(continued)*

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#### **Retirement**

##### Normal retirement benefit

<i>Age/Service requirements</i>	Age 60 and 10 years of employment. Any age with 30 years of employment. Proportionate retirement annuity is available at age 65 and 1 year allowable service. Retirement is mandatory at age 70.
<i>Amount</i>	2.00% of average salary for the first 10 years of allowable service plus 2.50% of average salary for each subsequent year of allowable service.

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#### **Disability**

##### Disability benefit

<i>Age/Service requirements</i>	Total and permanent disability before age 60 with five years of allowable service, or no allowable service if a work-related disability.
<i>Amount</i>	2.00% of average salary for the first 10 years of disability service plus 2.50% of average salary for each subsequent year of disability service. Disability service is the greater of (a) or (b) where: <ul style="list-style-type: none"> <li>(a.) equals allowable service plus service projected to age 60, subject to a maximum of 22 years, and</li> <li>(b.) equals allowable service.</li> </ul> Benefit is reduced by Workers' Compensation benefits. Payments stop at age 60 or earlier if disability ceases or death occurs. Benefits may be reduced on resumption of partial employment.

##### Disability after separation

<i>Age/Service requirements</i>	Total and permanent disability after electing to receive a retirement benefit but before age 60.
<i>Amount</i>	Actuarial equivalent of total credit to member's account.

##### Retirement after disability

<i>Age/Service requirements</i>	Total and permanent disability after electing to receive a retirement benefit but before age 60. Employee is still disabled after age 60.
<i>Amount</i>	Benefit continues according to the option selected.

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## Actuarial Basis

### Summary of Plan Provisions *(continued)*

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#### **Death**

##### Pre-Retirement Survivor's Spouse Benefit

<i>Age/Service requirements</i>	Active member with 18 months of allowable service.
<i>Amount</i>	30% of salary averaged over the last six months to the surviving spouse plus 10% of salary averaged over the last six months to each surviving child. Minimum benefit is \$900 per month.

##### Pre-Retirement Survivor's Spouse Annuity

<i>Age/Service requirements</i>	Active member or former member who dies before retirement with 20 years of allowable service.
<i>Amount</i>	Actuarial equivalent of a single life annuity which would have been paid as a retirement benefit on the date of death without regard to eligibility age for retirement benefit. If there is no surviving spouse, the designated beneficiary may be a dependent child or dependent parent.

##### Refund of accumulated city contributions

<i>Age/Service requirements</i>	Active member or former member dies after 10 years of allowable service and prior to retirement.
<i>Amount</i>	Present value of the City's annual installments of \$60 or, in the case of a former member, the net accumulation of city deposits. This benefit is not payable if survivor's benefits are paid.

##### Lump sum

<i>Age/Service requirements</i>	Death prior to service or disability retirement without an eligible surviving beneficiary.
<i>Amount</i>	\$750 with less than 10 years allowable service, or \$1,500 with 10 or more years of allowable service.

##### Refund of member contributions at death

<i>Age/Service requirements</i>	Active member or former member dies before retirement.
<i>Amount</i>	The excess of the member's contributions (exclusive of the contributions to the survivor's account) plus interest to the date of death.

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#### **Termination**

##### Deferred benefit

<i>Age/Service requirements</i>	Three years of allowable service.
<i>Amount</i>	Benefit computed under law in effect at termination and increased by the following annual percentage: <ul style="list-style-type: none"> <li>(a.) 0.00% prior to July 1, 1971, and</li> <li>(b.) 5.00% from July 1, 1971 to January 1, 1981, and</li> <li>(c.) 3.00% thereafter until the annuity begins.</li> </ul> Amount is payable at or after age 60.

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## Actuarial Basis

### Summary of Plan Provisions *(continued)*

<u>Refund of member's contributions upon termination</u>	
Age/Service requirements	Termination of public service.
Amount	Member's contributions with interest.
<b>Form of payment</b>	<ul style="list-style-type: none"> <li>▪ Life annuity.</li> <li>▪ Life annuity with 3, 5, 10 or 15 years guaranteed</li> <li>▪ Joint &amp; Survivor (with or without bounce back feature)</li> </ul>
<b>Two Dollar Bill and Annuity</b>	Optional Two Dollar Bill money purchase annuity available at age 55 with 20 years of service if member had service prior to June 28, 1973. According to PERA, this option is rarely utilized. We have assumed that remaining active members will not elect this optional benefit.
<b>Benefit increases</b>	Benefit recipients receive future annual 1.0% benefit increases. If the accrued liability funding ratio of the General Employees Retirement Plan reaches 90% (on a Market Value of Assets basis), the benefit increase will change to 2.5%.
<b>Changes in Plan Provisions</b>	<p>The administration of the Minneapolis Employees Retirement Fund as the MERF division is transferred to the Public Employees Retirement Association Board of Trustees.</p> <p>Post-retirement benefit increases change from one layer relating to the Consumer Price Index and a second layer relating to investment performance to 1.0% beginning January 1, 2011. If the accrued liability funding ratio of PERA's General Employees Retirement Plan reaches 90% (on a Market Value of Assets basis), the benefit increase changes to 2.5%.</p> <p>Employer and State Contribution requirements were modified.</p>

## 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<sup>1</sup> (Dollars in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Liquidity Trigger Adjustment (LTA) (c)	Unfunded (Overfunded) AAL (UAAL) (b) + (c) – (a)	Funded Ratio (a)/[(b)+(c)]	Actual Covered Payroll (Previous FY) (d)	UAAL as a Percentage of Covered Payroll (b)+(c) – (a) (d)
07/01/2002	\$1,540,221	\$1,667,871	N/A	\$127,650	92.35%	\$43,461	293.71%
07/01/2003	1,519,421	1,645,921	N/A	126,500	92.31%	40,537	312.06%
07/01/2004	1,513,389	1,643,140	N/A	129,751	92.10%	33,266	390.04%
07/01/2005	1,489,713	1,624,355	N/A	134,642	91.71%	27,479	489.98%
07/01/2006	1,490,280	1,617,653	N/A	127,373	92.13%	21,669	587.82%
07/01/2007	1,383,742	1,610,881	N/A	227,139	85.90%	17,296	1,313.27%
07/01/2008	1,214,305	1,576,855	\$12,135	374,685	76.42%	13,957	2,684.64%
07/01/2009	880,133	1,551,099	23,912	694,878	55.88%	10,979	6,328.96%
07/01/2010 <sup>2</sup>	844,033	1,286,151	N/A	442,118	65.62%	11,090 <sup>3</sup>	3,986.64%

<sup>(1)</sup> Information prior to 2010 provided by Gabriel Roeder Smith & Company.

<sup>(2)</sup> Actuarial value of assets set equal to market value

<sup>(3)</sup> Assumed equal to actual employee contributions divided by 9.75%

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

### Schedule of Contributions from the Employer and Other Contributing Entities<sup>1</sup> (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 (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Contributions [(a)x(b)] – (c) =(d)	Actual Employer Contributions (e)	Percentage Contributed (e)/(d)
2002	41.78%	\$ 43,461	\$ 4,780	\$ 13,378	\$ 21,158	158.16%
2003	46.64%	40,537	4,167	14,739	40,199	272.73%
2004	52.49%	33,266	3,343	14,118	45,459	321.98%
2005	63.95%	27,479	3,087	14,478	19,395	133.96%
2006	75.07%	21,669	2,312	13,955	44,953	322.14%
2007	95.33%	17,296	1,665	14,823	28,545	192.58%
2008	187.33%	13,957	1,431	24,714	15,272	61.79%
2009	374.32%	10,979	1,072	40,026	15,646	39.09%
2010	833.55%	11,090 <sup>2</sup>	1,081	91,360	13,798	15.10%

<sup>(1)</sup> Information prior to 2010 provided by Gabriel Roeder Smith & Company.

<sup>(2)</sup> Assumed equal to actual employees contributions divided by 9.75%

## 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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