March 2012

The Police Retirement System of St. Louis

Actuarial Valuation Report As of October 1, 2011

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Contents

Contents *(continued)*

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March 9, 2012

The Board of Directors
c/o Mr. Stephen G. Olish
Executive Director
The Police Retirement System of St. Louis
2020 Market Street
St. Louis, MO 63103

Subject: Actuarial valuation report

Dear Steve:

Submitted in this report are the October 1, 2011 actuarial valuation results for The Police Retirement System of St. Louis. The purposes of this report are to:

- Present Mercer's actuarial estimates of the Plan's liabilities and expenses as of October 1, 2011 for the System to incorporate, as the System deems appropriate, in its financial statements; and

- Provide employer contribution rates for the period beginning October 1, 2011

This report contains a Glossary of certain terms referenced in the report, which you may wish to consult before reviewing the report.

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. 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,

Penny A. Bailey

Penny A. Bailey, FSA
Partner

Bonita J. Wurst

Bonita J. Wurst, ASA
Principal

Highlights

Contributions

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

	Plan Year Ending	
Contributions	**September 30, 2012**	**September 30, 2011**
Funding Policy Contribution Requirement	$ 28,473,995	$ 20,036,918

The contribution increase is primarily due to the recognition of deferred asset losses and the assumption changes resulting from the experience study. See the “Effects of Changes” section for more information

The “Plan Accounting” sections detail the required accounting information for the Plan under GASB Statement No. 25 and GASB Statement No. 27. The Annual Required Contribution for the System’s fiscal year ending September 30, 2012 is $22,146,187 as calculated under GASB Statement No. 25. The Net Pension Obligation for the City’s fiscal year ending June 30, 2012 is $(2,578,327)[1] and the Annual Pension Cost for the City’s fiscal year ending June 30, 2012 is $20,171,372 as calculated under GASB Statement No. 27.

The “Plan Assets” section provides detail on the plan assets used for the valuation including a development of the actuarial value of assets. The actuarial value of assets earned 1.3% net of expenses for the plan year ending September 30, 2011 as compared to the assumed rate of 7.75%.

Due to the asset smoothing method used, the actuarial value of assets (AVA) used to determine the City’s contribution amount in this valuation exceeds the market value of assets (MVA) by 16.6%. Absent future investment gains to offset the investment losses being smoothed, future City contributions will increase as past investment losses become recognized. If asset smoothing methods were not used for this valuation, the contribution amount, based on the market value of assets, would have been $41,051,622 instead of $28,473,995.

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. A glossary containing definitions of relevant terms is also included.

There were no changes in plan provisions or valuation methods since the October 1, 2010 valuation.

There were changes in assumptions since the October 1, 2010 valuation.

[1] *Reflects contributions made for the City’s fiscal year ending June 30, 2012 (assuming no additional contributions are made after this report is issued).*

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	
	October 1, 2011	**October 1, 2010**
Summary of Costs		
Normal cost	$ 26,425,981	$ 18,595,748
Contributions *(Calculated at System's year-end)*	28,473,995	20,036,918
Assets		
Actuarial value of assets	$ 695,421,570	$ 718,136,742
Market value of assets	596,324,758	640,405,653
Actuarial Present Values		
Present value of projected benefits	$ 950,696,876	$ 917,523,693
Present value of future member contributions	30,933,927	35,503,827
Participant Data		
Number of participants in valuation		
Active participants	1,161	1,141
DROP participants	214	201
Participants receiving benefits	1,407	1,410
Surviving spouses and children receiving benefits	485	482
Total	**3,267**	**3,234**
Active Participant Statistics		
Total valuation compensation	$ 72,659,908	$ 72,102,882
Average valuation compensation[1]	50,908	52,019
Average age[1]	37.2	37.4
Average service[1]	10.0	10.3

[1] *Excludes participants currently in DROP.*

Effects of Changes

There were no changes in plan provisions or valuation methods since the October 1, 2010 valuation.

The following assumption changes were reflected in the October 1, 2011 valuation:

- Cost of living was decreased from 3% per year to 2.5% per year.
- Salary scale rates were decreased at several ages.
- Percentage married was increased from 67% to 70%.
- Age difference was decreased from a male being four years older than his spouse to being three years older than his spouse.
- DROP participation rates were changed.
- Retirement rates were changed.
- Preretirement Ordinary Mortality and Postretirement Healthy Mortality were changed from the RP-2000, blue collar, combined mortality tables with ages set forward one year for male and female officers to the RP-2000, blue collar, combined mortality tables projected to 2018 for male and female officers.
- Withdrawal rates were reduced.
- Disability rates were changed from a special table of rates to the CCA 1985 Unisex Class 4 table.
- Post-disability Mortality was changed from the RP-2000 disabled retiree mortality tables for male and female officers to RP-2000 disabled retiree mortality tables projected to 2018 for male and female officers.
- Coding in the valuation was corrected to value the interest portion of the return of contributions for employees expected to withdraw from the system. This change increased the present value of projected benefits by 0.1%.

The effect of these changes is shown below. Without any changes, the system's current year contribution requirement would have been $23,760,120.

Effect of Principal Values	**Assumption Changes**
Present Value of Projected Benefits	$ 17,208,469
Present Value of Future Member Contributions	(4,499,688)
Actuarial Value of Assets	0
Present Value of Future Normal Costs	21,708,157
Contribution	4,713,875

Important Notices

Mercer has prepared this report exclusively for the Trustees of The St. Louis Police Retirement System (the System); Mercer is not responsible for reliance upon this report by any other party. Subject to this limitation, the System 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 of October 1, 2011 for the System to incorporate, as the System deems appropriate, in its financial statements; and
- Provide employer contribution rates for the period beginning October 1, 2011

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 report, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

The System 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 System.

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, 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.

Important Notices *(continued)*

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 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 the System’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.

The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the “present value” of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, you selected an assumption based on the expected long term rate of return on plan investments. Using a lower discount rate assumption, such as a rate based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

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.

Assumptions used are based on the last experience study, as adopted by the Board. The System is responsible for selecting the plan’s asset valuation method and assumptions. The funding policy and actuarial valuation method are prescribed by statute. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis section. The System is solely responsible for communicating to Mercer any changes required thereto.

Important Notices *(continued)*

To prepare this report Mercer has used and relied on financial data supplied by Hochschild, Bloom & Company, LLP and participant data supplied by the Executive Director of the Board of Trustees and The City of St. Louis. The System 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 October 1, 2011 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 plan documents, including amendments, and interpretations of plan provisions, supplied by the System as summarized in the Actuarial Basis section and on plan provisions stipulated by statute. We have assumed for purposes of this valuation that copies of any official plan document including all amendments and collective bargaining agreements as well as any interpretations of any such document have been provided to Mercer along with a written summary of any other substantive commitments. The System is 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.

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

- **Development of costs** shows the liabilities for plan benefits and the derivation of the contribution amount.
- **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.
- **Plan accounting under GASB 27** shows the disclosures required by GASB Statement No. 27.
- **Plan assets** presents information about the plan's assets as reported by the System's independent auditor (Hochschild, Bloom & Company LLP). The plan assets represent the portion of total plan liabilities that has been funded.
- **Participant data** presents and describes the participant data used in the valuation.
- **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.
- **Glossary** defines the terms used in this report.
- **Appendices** gives historical information relating to the plan and presents information relating to the participants and beneficiaries of the System.

Development of Costs

Normal Cost

		As of October 1, 2011
1. Present value of projected benefits		
a. Active participants	$	258,668,991
b. DROP and re-entered participants		151,354,873
c. Retirees and beneficiaries receiving benefits		540,673,012
d. Total	$	950,696,876
2. Assets		
a. Actuarial value of assets	$	695,421,570
b. Present value of future member contributions		30,933,927
c. Total assets	$	726,355,497
3. Present value of future normal contributions *(1.d – 2.c., but not less than $0)*	$	224,341,379
4. Present value of future salaries		594,910,447
5. Normal cost rate *(3. ÷ 4.)*		37.71%
6. Expected salaries of active participants[1]		70,076,650
7. Normal cost *(5. × 6.)*	**$**	**26,425,981**

[1] *Expected salaries of employees including DROP participants, not expected to retire in the following year.*

Development of Costs

Contribution

The funding policy contribution consists of the normal cost calculated under the Aggregate method projected with interest to the end of the year.

1. Normal cost as of October 1, 2011	$	26,425,981
2. Interest on 1. to System's year-end		2,048,014
3. Contribution for year ending September 30, 2012	**$**	**28,473,995**

Development of Costs

Actuarial Valuation Balance Sheet

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 from this fundamental equation; it 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 seven percent of compensation. The City'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 is designed to permit the establishment of a level rate of contribution each year.

Sources of Funds

Present and Potential Assets		**September 30, 2011**
Actuarial Value of Assets		
1. Market value of assets in trust	$	596,324,758
2. Adjustment to actuarial asset value total		99,096,812
3. Total actuarial value of assets *(1. + 2.)*	**$**	**695,421,570**
Present Value of Future Contributions		
4. Members' future contributions at 7% of future compensation	$	30,933,927
5. City's future normal cost contributions		224,341,379
6. Total present value of future contributions *(4. + 5.)*	**$**	**255,275,306**
7. Total assets *(3. + 6.)*	**$**	**950,696,876**

Development of Costs

Actuarial Valuation Balance Sheet *(continued)*

Present Value of Projected Benefits

Status		September 30, 2011
1. Actives		
a. Service retirement	$	44,365,295
b. DROP participation and retirement after DROP		137,651,358
c. Return of member contributions except upon termination		27,219,327
d. Return of member contributions with interest at termination		4,933,433
e. Ordinary disability retirement		1,218,529
f. Accidental disability retirement		25,330,685
g. Ordinary death		2,568,762
h. Accidental death		1,019,056
i. Death after service retirement		10,578,908
j. Death after accidental disability retirement		3,315,270
k. Death after ordinary disability retirement		468,368
l. Total	$	258,668,991
2. DROP and re-entered participants		
a. DROP participation and retirement after DROP	$	119,085,107
b. Death after DROP participation		8,399,608
c. DROP accrued account balances		23,870,158
d. Total	$	151,354,873
3. Retirees and beneficiaries		
a. Service[1]	$	439,741,201
b. Ordinary disability[1]		1,762,804
c. Accidental disability[1]		40,100,025
d. Surviving spouses and children		59,068,982
e. Total	$	540,673,012
4. Total present value of benefits *(1.l. + 2.d. + 3.e.)*	**$**	**950,696,876**

[1] *Includes benefits for prospective surviving spouses and children of retired police officers.*

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 Under Entry Age Normal Method

The Plan uses the aggregate actuarial cost method for determining contributions. This actuarial method does not directly calculate the actuarial accrued liability. The Schedule of Funding Progress is presented using the entry age actuarial cost method. The purpose of presenting the actuarial accrued liability using the entry age method is to provide information that serves as a surrogate for the funded status and funding progress of the plan.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (b) – (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b) – (a) / (c)
10/01/2006	$ 709,290,911	$ 754,021,412	$ 44,730,501	94.1%	$ 61,677,786	72.5%
10/01/2007	$ 752,501,900	$ 775,668,726	$ 23,166,826	97.0%	$ 62,178,772	37.3%
10/01/2008	$ 752,273,226	$ 803,417,002	$ 51,143,776	93.6%	$ 63,834,814	80.1%
10/01/2009	$ 727,139,060	$ 799,587,050	$ 72,447,990	90.9%	$ 68,572,905	105.7%
10/01/2010	$ 718,136,742	$ 814,926,868	$ 96,790,126	88.1%	$ 71,095,081	136.1%
10/01/2011	$ 695,421,570	$ 855,617,994	$ 160,196,424	81.3%	$ 67,593,989	237.0%

While not required by GASB, the following schedule shows the funding progress of the plan based on the market value of assets.

Actuarial Valuation Date	Market Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (b) – (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b) – (a) / (c)
10/01/2009	$ 608,956,042	$ 799,587,050	$ 190,631,008	76.2%	$ 68,572,905	278.0%
10/01/2010	$ 640,405,653	$ 814,926,868	$ 174,521,215	78.6%	$ 71,095,081	245.5%
10/01/2011	$ 596,324,758	$ 855,617,994	$ 259,293,236	69.7%	$ 67,593,989	383.6%

Plan Accounting Under GASB 25 (as Amended by GASB 50)

Schedule of Contributions from the Employer and Other Contributing Entities

The GASB Statement No. 25 annual required contribution (ARC) and actual percentage of ARC contributed are as follows:

Year Ended September 30	Annual Required Contribution	Percentage Contributed
2002	$ 0	N/A
2003	2,393,973	171.9%
2004	10,097,972	40.1%[1]
2005	12,483,078	64.8%
2006	15,524,959	52.1%
2007	16,136,312	262.1%[2]
2008	12,123,143	85.7%
2009	11,367,527	126.0%
2010	15,107,558	115.7%
2011	18,116,333	110.6%
2012	22,146,187[3]	N/A[4]

[1] *Reflects receivable City contribution paid October 2004.*

[2] *Reflects contributions made by the City for the System's fiscal year ending September 30, 2007 including a receivable contribution of $12,702,849.*

[3] *The GASB 25 ARC is 9/12 x the GASB 27 ARC for the City's July 1, 2011 to June 30, 2012 fiscal year plus 3/12 x the GASB 27 ARC for the City's July 1, 2012 to June 30, 2013 fiscal year (the contribution requirement for the System's plan year beginning October 1, 2011).*

[4] *As of the issuance of this report, no contributions have been made by the employer or any other contributing entity for the plan year ended September 30, 2012. The information in this exhibit will be restated at year-end to reflect actual contributions.*

Plan Accounting Under GASB 27

Provided below is information required for financial reporting by the City of St. Louis under GASB Statement No. 27 – Accounting for Pensions by State and Local Governmental Employers.

Annual Pension Cost and Net Pension Obligation

The System's annual pension cost and net pension obligation for the City's fiscal year ending June 30, 2011 and June 30, 2012 are as follows:

	June 30, 2012	June 30, 2011
1. Annual required contribution	$ 20,036,918	$ 17,476,138
2. Interest on net pension obligation	(210,241)	(219,100)
3. Adjustment to annual required contribution	344,695	333,416
4. Annual pension cost *(1. + 2. + 3.)*	20,171,372	17,590,454
5. Contributions made	(20,036,918)	(17,476,138)
6. Increase (decrease) in net pension obligation *(4. + 5.)*	134,454	114,316
7. Net pension obligation beginning of year	(2,712,781)	(2,827,097)
8. Net pension obligation end of year *(6. + 7.)*	**$ (2,578,327)**	**$ (2,712,781)**

Trend Information

Fiscal Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation
2010	14,437,164	99.2%	(2,827,097)
2011	17,590,454	99.4%	(2,712,781)
2012	20,171,372	99.3%	(2,578,327)

Plan Assets

Composition of Plan Assets by Investment Classification

	Assets as of September 30, 2011	Percent of Total
Cash or cash equivalents		
▪ Cash	$ 7,388,319	1.24%
▪ Money market funds	34,005,702	5.70%
Investments		
▪ Government securities	68,211,958	11.44%
▪ Corporate bonds	97,527,278	16.35%
▪ Corporate stock	307,056,947	51.49%
▪ Real estate securities fund	21,517,617	3.61%
▪ Mortgage backed securities	22,032,051	3.69%
▪ Guaranteed fixed income securities	526,941	0.09%
▪ Hedge fund of funds	25,021,382	4.20%
▪ Short-term notes and commercial paper	8,587,824	1.44%
▪ Partnership interest	3,150,163	0.53%
▪ Investment property	1,444,300	0.24%
▪ Other	529,082	0.09%
Receivables (net)	(764,914)	(0.13%)
Unsettled investment transactions (net)	90,108	0.02%
Total market value of plan assets	**$ 596,324,758**	**100.00%**

Plan Assets

Reconciliation of Plan Assets

The following exhibit shows the revenue, expenses and resulting assets of the System as reported by Hochschild, Bloom & Company LLP, the System's auditors, for the Plan's Fiscal Year October 1, 2010 to September 30, 2011.

Change in Assets		
1. Fund balance at market value at October 1, 2010	$	640,405,653
2. Contributions		
a. Employee		4,155,488
b. City		20,036,918
c. Total		24,192,406
3. Investment income		(7,433,135)
4. Benefits paid		(55,264,054)
5. Refunds of employee contributions		(1,054,201)
6. Expenses		
a. Investment		(2,858,515)
b. Administrative		(1,663,396)
c. Total		(4,521,911)
7. Fund balance at market value at September 30, 2011	**$**	**596,324,758**
8. Approximate rate of return before expenses		(1.2%)
9. Approximate rate of return net of expenses		(1.9%)
10. Approximate rate of return net of investment expenses		(1.7%)

Plan Assets

Actuarial Asset Value

	October 1, 2010 to September 30, 2011
1. Actuarial value at October 1, 2010	$ 718,136,742
2. Market value at October 1, 2010	640,405,953
3. Employee contributions	4,155,488
4. Employer contributions	20,036,918
5. Employer contributions receivable	0
6. Benefit payments and refunds	56,318,255
7. Interest on 1., 3., 4. and 6. at 7.75%	53,452,430
8. Expected actuarial value *(1. + 3. + 4. + 5. – 6. + 7.)*	739,463,323
9. 2010 – 2011 actual return on market value	(11,955,046)
10. 2010 – 2011 gain/(loss) *(9. – 7.)*	(65,407,476)
11. Market value adjustment (see table below)	(44,041,753)
12. Actuarial value at September 30, 2011 *(8. + 11.)*	**$ 695,421,570**
13. Approximate rate of return before expenses	2.0%
14. Approximate rate of return net of expenses	1.3%

Schedule of Market Value Adjustments

Plan Year Ending September 30	Original Gain/(Loss)	Amount Unrecognized as of 10/1/2010	Amount Recognized in PYE 9/30/2011	Amount Unrecognized as of 10/1/2011
2011	$ (65,407,476)	$ N/A	$ (13,081,495)	$ (52,325,981)
2010	10,886,537	8,709,230	2,177,307	6,531,923
2009	(50,310,222)	(30,186,134)	(10,062,044)	(20,124,090)
2008	(165,893,328)	(66,357,330)	(33,178,666)	(33,178,664)
2007	50,515,717	10,103,145	10,103,145	0
Total	**$ (220,208,772)**	**$ (77,731,089)**	**$ (44,041,753)**	**$ (99,096,812)**

Participant Data

Participant Data Reconciliation

	Actives	DROP	Retirees	Surviving Spouses and Children	Total
Participants 10/1/2010	**1,141**	**201**	**1,410**	**482**	**3,234**
New entrants	101	N/A	N/A	N/A	101
Return to active	0	N/A	N/A	N/A	0
Nonvested terminations	(30)	N/A	N/A	N/A	(30)
Retired	(21)	(9)	30	N/A	0
Entered into DROP	(30)	30	N/A	N/A	0
Re-Entry from DROP	8	(8)	N/A	N/A	0
Deaths without beneficiary	(1)	0	(10)	N/A	(11)
Deaths with beneficiary	(1)	0	(29)	34	4
Disabled	(6)	0	6	0	0
Benefits expired	N/A	N/A	0	(34)	(34)
Data correction	0	0	0	3	3
Net change	20	13	(3)	3	33
Participants 10/1/2011	**1,161**	**214**	**1,407**	**485**	**3,267**

Participant Data

Distribution of Active Participants[1]

Age	Years of Service								
	0 - 4	**5 - 9**	**10 - 14**	**15 - 19**	**20 – 24**	**25 - 29**	**30 - 34**	**35 +**	**Total**
Under 20									**0** **0**
20 - 24	20 39,206								**20** **39,206**
25 - 29	209 39,932	39 43,899							**248** **40,556**
30 - 34	105 40,577	136 47,096	17 56,287						**258** **45,048**
35 - 39	27 40,180	56 48,763	77 56,822	22 59,507					**182** **52,198**
40 - 44	7 40,157	30 49,083	42 57,277	108 61,356	14 64,396				**201** **58,145**
45 - 49	1 38,826	12 52,659	12 57,474	77 59,726	35 63,376	2 63,321			**139** **59,742**
50 - 54		2 46,521	6 56,897	28 60,251	19 63,492	14 68,849	1 59,704		**70** **62,162**
55 - 59	1 42,347	2 54,274	1 53,910	3 59,169	6 59,887	19 67,345	5 72,347		**37** **64,403**
60 - 64				1 54,283			4 75,551	1 57,387	**6** **68,979**
65+									
Total	**370** **40,102**	**277** **47,487**	**155** **56,921**	**239** **60,474**	**74** **63,316**	**35** **67,717**	**10** **72,364**	**1** **57,387**	**1,161** **50,908**

[1] *Excludes participants currently in DROP.*

Participant Data

Statistics for Active Participants

		Average		
	Number	**Age**	**Service**	**Compensation**
As of October 1, 2010				
▪ Continuing[1]	1,110	37.7	10.5	$ 52,406
▪ New	31	27.8	0.4	38,175
Total	**1,141**	**37.4**	**10.3**	**$ 52,019**
As of October 1, 2011				
▪ Continuing[1]	1,060	38.1	10.9	52,085
▪ New	101	28.4	0.7	38,556
Total	**1,161**	**37.2**	**10.0**	**50,908**

Statistics for DROP Participants

		Average				
	Number	**Age**	**Service**	**Earnings**	**DROP Account Balance**	**Monthly Benefit Amount**
As of October 1, 2010						
DROP	**201**	**49.5**	**22.3**[2]	**$63,426**	**$55,078**	**$2,448**
As of October 1, 2011						
DROP	**214**	**49.9**	**21.8**[2]	**$63,345**	**$76,706**	**$2,428**

[1] *Includes members who re-entered the System from DROP.*
[2] *Service is calculated at the time of entrance into DROP.*

Participant Data

Statistics for Inactive Participants

Inactive Participants as of October 1, 2011	Number	Amount of Monthly Benefit
Participants Receiving Benefits		
1. Retirees		
a. Service	1,256	$ 3,312,993
b. Ordinary disability	15	13,678
c. Accidental disability	136	316,494
d. Total	1,407	3,643,165
2. Surviving spouses and children		
a. Surviving spouses	432	581,794
b. Children	53	30,537
c. Total	485	612,331
3. Total inactive *(1.d. + 2.c.)*	**1,892**	**$ 4,255,496**

Actuarial Basis

Actuarial Cost Method

Liabilities and contributions in this report are computed using the Aggregate Cost Method (except for the liabilities shown in the GASB 25 Schedule of Funding Progress, which requires the use of the Entry Age Normal Method).

The objective under this method is to fund each member's benefits under the plan by annual contributions which are level as a percentage of total payroll for all members, starting at date of hire and continuing until the assumed date of retirement, termination, disability or death. The method does not distinguish between benefits credited for past and future service or between liabilities created before or after the introduction of the funding method.

A detailed description of the calculation follows:

- The **present value of projected benefits** is the present value at the assumed rate of investment return of all benefits expected to be paid from the plan to its current participants, including actives, retirees and beneficiaries.

- The **present value of future normal contributions** is the excess, if any, of the present value of projected benefits over the value of the assets of the plan.

- The **normal cost** for a given year is determined by dividing the present value of future normal costs by the present value of future salaries and multiplying that amount by the current salaries of active members under the assumed retirement age.

Asset Valuation Method

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 plan year, an expected asset value is calculated as the sum of the previous year's actuarial asset value increased with a year's interest at the plan valuation rate plus net cash flow adjusted for interest (at the same rate) to the end of the plan year;

- The investment gain or (loss) is taken as the excess of the actual return on market value over the expected return on actuarial value as described above;

- The investment gain or (loss) so determined is recognized over five years at 20% per year;

- The asset value is the sum of the expected asset value plus the scheduled recognition of investment gains or (losses) during the current and the preceding four plan years.

Actuarial Basis

Valuation and Accounting Procedures

Financial and census data: We used financial data submitted by the System's auditor and participant data submitted by the System. Mercer has reviewed the data in accordance with Actuarial Standards of Practice No. 23; however, Mercer has not verified or audited any of the data or information provided.

Valuation earnings are determined by annualizing the bi-weekly pay rate as of October 1, 2011.

No liability is included for members who terminate and receive a refund of their member contributions prior to the valuation date.

Funding Policy

The City's funding policy is to contribute annually an amount equal to the normal cost calculated under the Aggregate method projected with interest to the end of the System's plan year.

Actuarial Basis

Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan. Assumptions used are based on the last experience study, as adopted by the Board. The System is responsible for selecting the assumptions used for this valuation.

Investment return	7.75% compounded annually for funding purposes
Salary increases	See table of rates for both current and prior valuation
Cost-of-living	2.5% per year; 3.0% per year was used in the prior valuation
Other assumptions	
Mortality – Ordinary	RP2000 Blue Collar Combined Mortality Table projected to 2018 for males and females; see table of sample rates The prior valuation was based on RP2000 Blue Collar Combined Mortality Table set forward one year for males and females; see table of sample rates
Mortality – Accidental	.0003 per year for all ages in addition to ordinary mortality rates
Mortality – Post-Disability	RP2000 Disabled Retiree Mortality tables projected to 2018 for male and female officers The prior valuation was based on RP2000 Disabled Retiree Mortality tables for male and female officers
Disability	CCA 1985 Unisex Class 4 table; see table of sample rates. The prior valuation was based on age-related rates based on experience. Accidental disability retirees are assumed to receive an annuity of 75% of their Average Annual Compensation.
Withdrawal	Service-related rates based on experience; see table of sample rates The prior valuation was based on Service-related rates based on experience; see table of sample rates
Expenses	Investment return is assumed to be net of investment and administrative expenses of 0.60%
Retirement age	See table of rates for both current and prior valuation
Percentage married	70% The prior valuation was based on an assumption of 67%
Age difference	A male is assumed to be three years older than his spouse The prior valuation was based on a male assumed to be four years older than his spouse

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Children	Each member is assumed to have 1.5 children at retirement, disability or death; the child is assumed to be 30 years younger than the member and to receive benefits until he or she is 20 years old
Interest credited on member contributions	6% per year
DROP participation	Members participate in DROP based on their completed service; see table ▪ No disability assumed while in DROP ▪ One third of participants are expected to retire from DROP after four years ▪ The other two thirds of participants are expected to re-enter the plan after five years in DROP and remain in the plan for two years The prior valuation was based on the assumption that all DROP participants remain in DROP for three years and then they elect to retire
DROP re-entry	Participants that have elected to re-enter are assumed to remain active for two years and then retire
Special Advisor and Consultant Benefits	Assumed to be paid to all eligible members
Form of Payment	There are no optional payment forms; automatic survivor benefits are paid to all members
Changes in assumptions since prior valuation	The following assumptions were updated as a result of the experience study: cost of living, salary scale, percent married, age difference, DROP participation, retirement rates, mortality, withdrawal rates and disability rates.

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Table of Salary Increases

Age	Percent Salary Increase
20-24	6.5%
25-29	6.0
30-34	5.5
35-39	4.5
40-44	3.5
45-54	3.0
55-59	3.0
60+	3.0

The prior valuation was based on the following rates:

Age	Percent Salary Increase
20-24	7.0%
25-29	6.5
30-34	6.0
35-39	5.0
40-44	4.5
45-54	4.0
55-59	3.5
60+	3.5

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Table of Sample Ordinary Mortality Rates

Age	Rate of Mortality: Male	Rate of Mortality: Female
25	0.0513%	0.0178%
35	0.0993	0.0425
45	0.1417	0.1038
55	0.2972	0.2420
65	1.2056	0.9498
75	3.3464	2.6730
85	10.1409	7.4569
95	25.0282	18.5748
105	39.7886	29.3116
115	40.0000	40.0000
125	100.0000	100.0000

The prior valuation was based on the following rates:

Age	Rate of Mortality: Male	Rate of Mortality: Female
25	0.0618%	0.0237%
35	0.1150	0.0579
45	0.1894	0.1492
55	0.4967	0.3059
65	1.7555	1.1839
75	4.7693	3.3784
85	12.6358	9.2336
95	28.3905	20.5379
105	40.0000	30.7811
115	40.0000	40.0000
125	100.0000	100.0000

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Table of Sample Withdrawal Rates

Years of Service	Rate of Withdrawal
1-5	5.0%
6-10	4.0
11-12	3.0
13-14	2.0
15-18	1.0
19+	0.0

The prior valuation was based on the following rates:

Years of Service	Rate of Withdrawal
1	5.0%
2	7.0
3	10.0
4	9.0
5-6	8.0
7-8	5.0
9-11	3.0
12-14	2.0
15-18	1.0
19+	0.0

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Table of Sample Disability Rates

10% of disabilities are assumed ordinary disabilities and the remaining 90% are accidental disabilities.

Age	Rate of Disability
25	0.256%
35	0.508
45	0.940
55	2.288
60	3.434

The prior valuation was based on the following rates:

10% of disabilities are assumed ordinary disabilities and the remaining 90% are accidental disabilities.

Age	Rate of Disability
25	0.1%
35	0.3
45	0.3
55	0.1
60	0.0

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Table of Retirement Rates

Members not electing DROP are assumed to retire according to the following rates:

Years of Service	Rate of Retirement
20	25%
21	20
22-29	3
30	100

All Members are assumed to retire by age 65.

The prior valuation was based on the following rates:

Members not electing DROP are assumed to retire according to the following rates:

Years of Service	Rate of Retirement
20	20%
21	10
22-29	3
30	100

All Members are assumed to retire by age 65.

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Table of DROP Participation Rates

Years of Service	Percent Taking DROP
20	50%
21	25
22-27	5
28	10
29	30
30	80

The prior valuation was based on the following rates:

Years of Service	Percent Taking DROP
20	10%
21-24	3
25	5
26-27	3
28	5
29	30
30	85

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Table of Sample Post-Disability Mortality Rates

	Rate of Mortality	
Age	**Male**	**Female**
45	1.7834%	0.5573%
55	2.5093	1.4317
65	3.8928	2.5608
75	6.3673	4.5199
85	12.4784	8.9916

The prior valuation was based on the following rates:

	Rate of Mortality	
Age	**Male**	**Female**
45	2.2571%	0.7450%
55	3.5442	1.6544
65	5.0174	2.8026
75	8.2067	5.2230
85	14.1603	10.0203

Actuarial Basis

Summary of Plan Provisions

Following is a summary of the major plan provisions used in the valuation of this report. The System 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 this 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 different interpretations could lead to different valuation results.

Effective date and plan year	The Plan was established October 1, 1929, under the provisions of what are now Sections 86.010 to 86.193 inclusive, R.S. Mo. 1969. The Alternative Police Retirement System of St. Louis was established October 1, 1957, under the provisions of Sections 86.200 to 86.366 inclusive, R.S. Mo. 1969.
Most recent amendment	May 2011
Sponsor	The sponsor is the City of St. Louis (City).
Participating employees	All persons who become police officers in the City of St. Louis will become members as a condition of their employment.
Type of plan	The Plan is a defined benefit, self-insured trusteed plan.
Employer contributions	The City makes annual contributions which, together with the contributions of the members, are sufficient to provide for the benefits payable by the system. The City also contributes the amount needed, in addition to the existing assets of the former Police Pension Fund Association and Police Retirement System, to continue the benefits granted by the former systems which were in force at the establishment of the new system and to pay certain additional pensions to surviving spouses of members who had belonged to the former systems and who were previously on the pension payroll of the former systems.
Participant contributions	Members contribute at the rate of 7% of their compensation. The Board of Trustees shall annually determine the interest rate to be credited on members' contributions.
Service considered	Creditable Service at retirement shall consist of service rendered by the member as a police officer since last becoming a member, plus any prior service certified on a prior service certificate. No service is included for periods that a member participates in DROP.
Compensation considered	The annual salary which a member earns based on the member's rank or position as defined in the applicable salary matrix, plus additional compensation for academic work and shift differential. Earnable compensation shall not include overtime, standby time, court time, non-uniform time or unused vacation time.
Average annual compensation	The average earnable compensation of the member during the member's last two years of creditable service.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Normal retirement age	Effective August 1, 1979, a member may retire upon completion of 20 years of service, regardless of age, or upon attainment of age 55. Retirement is compulsory at age 65. Upon request of the Board of Police Commissioners, the Board of Trustees may permit a member to defer retirement up to one year at a time.
Normal retirement benefit (Service retirement allowance)	The monthly retirement allowance consists of 2% of the Average Annual Compensation for each year of service up to 25 years, plus 4% of such Average Annual Compensation for each additional year of service up to 5 additional years. Upon completion of at least 30 years of service, the monthly retirement allowance will be 75% of the Average Annual Compensation. Allowances will be increased up to 3% annually. The annual increase is limited to the lesser of 3% or the increase in the Consumer Price Index City Average (CPI) for all urban consumers for the 12-month period ending in June (four months prior to the beginning of the plan year). Historical cumulative increases in the CPI in excess of the 3% annual limit may be added to the current year increase when necessary to bring the current year increase up to the 3% limit. Cumulative increases for retirees and surviving spouses cannot exceed 30%.
Disability benefit	**Ordinary Causes** Upon the occurrence of a disability due to causes which are not the result of an accident in the actual performance of duty, a member who has completed ten years of Creditable Service is eligible to receive a retirement allowance. In the event of ordinary disability before being eligible for service retirement, a member receives a retirement allowance of 90% of his accrued service retirement allowance. The minimum allowance payable is 25% of his Average Annual Compensation. An additional 15% of his Average Annual Compensation is paid for each unmarried dependent child under age 18. If disabled after eligibility for service retirement, the service retirement benefit is payable. **Accident in the Actual Performance of Duty** Upon the occurrence of disability due to causes resulting from an accident in the actual performance of duty, regardless of the age or length of service of the member, a member is eligible to receive a retirement allowance equal to 75% of his Average Annual Compensation. At the discretion of the Board of Trustees, if the member is unable to perform any work of any kind, he may receive an annual pension not to exceed his annual compensation at the date of disablement. In addition, an allowance may be granted to cover surgical, medical, and hospital expenses resulting from the accident.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Death benefit	**Ordinary Causes Prior to Retirement** Upon the death of a member in service which is not the result of an accident in the actual performance of duty, a benefit is paid to the member's dependents. The surviving spouse receives an annuity after the member's death of 40% of the Average Annual Compensation of the deceased member plus 15% additional for each unmarried dependent child under age 18. If no surviving spouse survives, the benefit is shared by the dependent children, but not more than one-half of the surviving spouse's benefit shall be paid for one child. If no surviving spouse or dependent child survives, accumulated member contributions are returned to the designated beneficiary. **Accident in the Actual Performance of Duty Prior to Retirement** Upon the death of a member as a result of an accident in the actual performance of duty, a benefit is paid to the member's dependents. The surviving spouse receives an annuity after the member's death of 75% of the Average Annual Compensation of the deceased member plus 15% additional for each unmarried dependent child under age 18. If no surviving spouse survives, the benefit is shared by the dependent children, but not more than one-half of the surviving spouse's benefit shall be paid for one child. If no surviving spouse or dependent child survives, an amount equal to the surviving spouse's benefit is paid to a dependent father or mother of a deceased member until remarriage or death. **Death Benefit after Retirement** Upon the death of a member retired for service, ordinary disability or accidental disability, the surviving spouse receives an annuity after the member's death of 40% of the deceased member's Average Annual Compensation plus an additional 15% for each unmarried dependent child under age 18. If there is no surviving spouse, the entire death benefit is shared by the dependent children, but one child may not be paid more than one-half of the surviving spouse's benefit. The surviving spouse of a service retiree will receive an increase of up to 3% annually, subject to the same conditions as the increases to service retirees. If a member, retired because of accidental disability, dies before receiving benefits for five years, the surviving spouse receives an additional pension of 10% of the deceased member's Average Annual Compensation.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Disabled child over age 18	Whenever benefits are provided for a dependent unmarried child under age 18, such child who was disabled prior to age 18 will receive benefits after age 18 as long as disabled and not confined to a public institution.
Student benefits ages 18 to 22	Whenever benefits are provided for an unmarried dependent child under age 18, such child may receive benefits through age 22 as long as he is a full-time student.
Special consultant benefits	Any retiree or any surviving spouse of a retiree or active member whose benefit is less than $650 per month upon application will be employed by the Board of Trustees and paid a consultant's benefit such that his or her total benefit will equal $650.
Special advisor benefits	Any retiree or any surviving spouse who is older than 60 can become a special advisor and be eligible for an additional benefit equal to $10 per month for each full year of age over 60.
Return of contributions	Upon service retirement or death while active or disability due to an accident in the actual performance of duty or ordinary disability, contributions without interest are refunded. Upon the withdrawal from service of a member prior to retirement, the entire amount of the member's contributions with interest accumulation is returned to the member. If, at the termination of all benefits with respect to a member, the total of all benefit payments to date is less than the member's accumulated contributions at retirement or prior to death, the difference is paid to his or her beneficiary, or if no such beneficiary is living, to the estate of the beneficiary last entitled to benefits. Upon death, member contributions are returned to surviving spouse of members who die prior to receiving a refund of their contributions.
Form of payment	There are no optional payment forms; automatic survivor benefits are paid to all members

Actuarial Basis

Summary of Plan Provisions *(continued)*

Deferred Retirement Option Plan (DROP)	Any member who has at least twenty years of service or has attained the age of 55 may elect to participate in the DROP. A member electing to participate in the DROP will continue in active employment and will not receive any direct retirement allowance payments during participation in the DROP. No one may participate in the DROP for a period exceeding five years. Upon the start of the participation in the DROP, the member's contributions will cease. During the period of participation in the DROP, the amount that the member would have received as a service retirement allowance, if the member had retired, is deposited monthly in the member's DROP account. A member's DROP account earns interest equal to the rate of return earned by the System's investment portfolio (net of investment expenses) during the prior plan year on a market value basis, beginning in the first plan year after the member begins DROP participation. The DROP account is paid in a lump sum or a series of 120 monthly installments when a member retires. The member's service retirement allowance is not adjusted for any cost-of-living increases for any period prior to the member's retirement. Service earned during the period of participation in the DROP is not creditable service and is not counted in determination of any service retirement allowance or surviving spouses' or dependents' benefits. A member who has elected to participate in the DROP may re-enter the System. Upon re-entry, a member is no longer eligible to participate in the DROP and will be required to make contributions of 7% of compensation. If the member remains active for at least two years following re-entry and retires or if the member terminates due to death or disability at any time following re-entry, the member's benefit upon retirement will be based on creditable service and plan provisions in effect at retirement. If the member terminates other than due to death or disability within two years following re-entry, the member's benefit upon retirement will be equal to the member's benefit at the time of entry into DROP plus any benefit accruals since re-entry. Additional benefit accruals will be based on the member's Average Annual Compensation without regard to compensation earned while in DROP and plan provisions in effect at retirement. The member's contributions without interest will be paid to the member upon retirement or to the member's surviving spouse if the member dies before retirement.
Changes in plan provisions since prior valuation	None.

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 or GASB 27.

ASA. Associate of the Society of Actuaries.

Contribution Deficiencies (excess contributions). The difference between the annual required contributions of the employer(s) (ARC) and the employer’s actual contributions in relation to the ARC.

Employer’s Contributions. Contributions made in relation to the annual required contributions of the employer (ARC).

ERISA. The Employee Retirement Income Security Act of 1974.

FSA. Fellow of the Society of Actuaries.

Net Pension Obligation (NPO). The cumulative difference since the effective date of GASB 27 between annual pension cost and the employer’s contributions to the plan, including the pension liability (asset) at transition, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to pension-related debt.

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.

Glossary *(continued)*

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.

Appendices

In this section, historical information relating to the plan is given. In addition, information relating to the participants and beneficiaries of the System is presented. The information presented is based on employee data which was provided by the System and calculated as of October 1, 2011. The information in appendices I and II has been provided by the System and is presented here without further audit by the actuary.

- **Appendix I** – Members of the Board of Trustees of the Police Retirement System of St. Louis as of October 2011
- **Appendix II** – Historical Information
- **Appendix III** – Summary of Membership
- **Appendix IV** – Service Retirees
- **Appendix V** – Ordinary Disability Retirees
- **Appendix VI** – Accidental Disability Retirees
- **Appendix VII** – Surviving Spouses - Death of Active Members
- **Appendix VIII** – Surviving Spouses - Death of Retirees
- **Appendix IX** – Children

Appendices

Appendix I – Members of the Board of Trustees of The Police Retirement System of St. Louis as of October 2011

Ex-Officio:

Col. Jerry Lee	Designee, Board of Police Commissioners
Mr. John Zakibe	Deputy Comptroller of the City of St. Louis

Appointed by the Mayor:

Dr. Leslie F. Bond, Sr., M.D.
Mr. Joseph V. Neill
Mr. Thomas P. Stoff

Elected by Members of the Retirement System:

Capt. Michael J. Sack	Term expires September 30, 2012
Lt. Michael J. Anderson	Term expires September 30, 2013
Sgt. Michael A. Frederick	Term expires September 30, 2014

Elected by the Retirees of the Retirement System:

Lt. Kenneth M. Bradshaw (Retired)	Term expires September 30, 2013
Sgt. James R. Wurm (Retired)	Term expires September 30, 2014

Officer of the Board:

Lt. Stephen G. Olish (Retired)	Executive Director

Legal Adviser:

City Counselor's Office

Medical Board:

Dr. Russell C. Cantrell, Chairman

Appendices

Appendix II – Historical Information

The Police Retirement System of St. Louis became operative October 1, 1929, under the provisions of what are now Sections 86.010 to 86.193 inclusive, R.S. Mo. 1969. The Alternative Police Retirement System of St. Louis became operative October 1, 1957, under the provisions of Sections 86.200 to 86.366 inclusive, R.S. Mo. 1969.

The administration and operation of the Retirement System are under the direction of a ten-member Board of Trustees. There are two ex-officio members, three members appointed by the mayor, three members elected by the employees, and two members elected by the retirees. All applications for benefits are passed upon by the Board.

As of January 1994, Lt. Stephen G. Olish is employed as the Executive Director to the Board of Trustees.

The Board of Trustees has appointed a Medical Board and has appointed Dr. Russell C. Cantrell as its chairman. This Medical Board passes on all medical examinations as required by law.

The Board of Trustees has employed Mercer as actuaries for the System.

The Board of Trustees has employed Hochschild, Bloom & Company LLP, Certified Public Accountants to audit the operation of the System.

The 69th General Assembly of the Missouri State Legislature adopted legislation creating the Alternative Police Retirement System of St. Louis to begin operation as of October 1, 1957. All police officers in service on that date became members of the alternative system unless they filed notice of election to remain under the old system.

Appendices

Appendix II – Historical Information *(continued)*

Subsequent changes in the System are outlined in the table below:

Session of General Assembly	Year	Change
73rd	1965	Increase in benefits by change in formula from 1/70 to 1/60 of average compensation for each year of service.
74th	1967	(a) Increases in service retirement allowances based on increases in the Consumer Price Index (cap of 10%);
		(b) Increases in ordinary disability allowances of members with dependent children; and
		(c) Increases in allowances to survivors of retired members.
75th	1969	(a) Lowering retirement age in steps until it reaches 55 in 1973; and
		(b) Increase in benefits by gradual change in formula until it reaches 1/55 in 1973.
76th	1972	(a) Benefits based on 3 year final average salary, rather than 5 year; and
	1972	(b) Increase in benefits to surviving spouses of service retirees, based on cost-of-living, on same basis as increase to service retirees.
77th	1973	Increase in cost-of-living adjustments to service retirees and their surviving spouses, from 1% to 3% (cap of 25%).
78th	1975	Increase in benefits to 1/50.
79th	1977	Allowing normal retirement after 25 years of service.
80th	1979	(a) Increasing benefits by 2% for each year of service greater than 25 years with a 70% overall maximum; and
		(b) Allowing normal retirement after 20 years of service.

Appendices

Appendix II – Historical Information *(continued)*

Session of General Assembly	Year	Change
81st	1981	(a) Allowing refund of member contributions without interest upon service retirement, and (b) Special consultant allowance for retirees added to provide a minimum monthly retirement income of $350.
82nd	1983	(a) Allowing refund of member contributions without interest upon death while active after completing 20 years of service; (b) Special consultant allowance for surviving spouses added to provide a minimum monthly surviving spouse's income of $200, and (c) Name changed to the Police Retirement System of St. Louis.
82nd	1984	Upon approval of the Board, allowing refund of member contributions without interest to those who are receiving a service retirement benefit and retired prior to September 28, 1981.
83rd	1986	Special consultant allowance for retirees to provide a minimum monthly retirement benefit of $400. Special consultants for surviving spouses to provide a minimum monthly retirement benefit of $250.
*	1989	Special consultant allowance for surviving spouses to provide a minimum monthly retirement benefit of $400.
85th	1990	(a) An additional monthly benefit to current and future retirees of $10 per month for each year past age 60. The effective date for this improvement is July 1, 1994. (b) Provides for the addition of two retirees to the Board of Trustees and an additional Board member appointed by the mayor. (c) Provides for the refund of member contributions for retirees prior to September 28, 1981.

* *Revised interpretation of state statutes by System's Legal Advisor.*

Appendices

Appendix II – Historical Information *(continued)*

Session of General Assembly	Year	Change
87th	1993	Special consultant allowance for retirees and surviving spouses to provide a minimum monthly retirement benefit of $550.
87th	1994	Allows for the return of employee contributions to all surviving spouses of members who die prior to receiving a refund of their contribution.
88th	1995	Adoption of the Deferred Retirement Option Plan.
89th	1997	(a) Maximum cumulative cost of living allowance for retirees and beneficiaries increased from 25% to 30% beginning with October 1, 1997 increases. (b) Effective August 28, 1997, upon approval of the Board, allowing refund of member contributions without interest to retirees deemed to be 100% disabled due to an accident in the actual performance of duty.
90th	1999	(a) Special consultant allowance for current and future retirees and surviving spouses to provide a minimum monthly retirement benefit of $650 effective August 18, 1999. (b) An additional monthly benefit to current and future surviving spouses of $10 per month for each year past age 60 effective August 12, 1999. (c) Increase benefit to future surviving spouses of service and disability retirees to 40% of Average Annual Compensation effective October 1, 1999. Special consultant allowance to current surviving spouses of service and disability retirees to increase benefit to 40% of Average Annual Compensation effective October 1, 1999. (d) Increase benefit to future dependent children of members to 15% of Average Annual Compensation effective October 1, 1999. Special consultant allowance to current dependent children of members equal to the greater of $100 per month or 5% of Average Annual Compensation effective October 1, 1999. (e) Increase service retirement allowance to 75% of Average Annual Compensation for members with at least 30 years of service effective August 12, 1999.

Appendices

Appendix II – Historical Information *(continued)*

Session of General Assembly	Year	Change
90th	1999	(f) Increase benefit to future accidental death surviving spouses to 75% of Average Annual Compensation effective October 1, 1999. Special consultant allowance to current accidental death surviving spouses to increase benefit to 75% of Average Annual Compensation.
91st	2001	(a) Benefits based on 2-year Average Annual Compensation effective October 1, 2001.
		(b) Allow for a refund of member contributions without interest for any member who becomes disabled in the line of duty effective October 1, 2001.
		(c) Allow one-time re-entry into the System from DROP effective October 1, 2001.
91st	2002	Allow retiree organizations to request information and internal administration change regarding rulemaking by the Plan.
92nd	2003	Technical corrections to DROP.
92nd	2004	Redefine quorum.
93rd	2005	Remove limit of three children for disability and death benefits.
93rd	2006	Add required compliance language for minimum distributions and direct rollovers.
94th	2007	Add fiduciary education requirement.
96th	2011	Update required compliance language for minimum distributions, limit on benefits, direct rollovers and death while on military leave.
		Permit System to accept rollovers of after-tax amounts from other plans.

Appendices

Appendix III – Summary of Membership

This appendix presents a breakdown by type of the retirees and beneficiaries receiving benefits.

Type	Number Pensioners	Monthly Pension	Average Monthly Pension
1. Retirees			
a. Service	1,256	$ 3,312,993.31	$ 2,637.73
b. Ordinary disability	15	13,677.79	911.85
c. Accidental disability	136	316,494.16	2,327.16
d. Total	1,407	3,643,165.26	2,589.31
2. Surviving spouses			
a. Death of active members	77	95,759.73	1,243.63
b. Death of retirees	355	486,034.17	1,369.11
c. Total	432	581,793.90	1,346.75
3. Children			
a. Death of active members	30	20,858.64	695.29
b. Death of retirees	7	3,442.78	491.83
c. Child ordinary disability	4	2,487.57	621.89
d. Mentally handicapped children	12	3,747.73	312.31
e. Total	53	30,536.72	576.16
4. Total receiving benefits *(1.d. + 2.c. + 3.e.)*	**1,892**	**$ 4,255,495.88**	**$ 2,249.21**

Appendices

Appendix IV – Service Retirees

Age 9/30/2011	Number	Monthly Allowance	Age 9/30/2011	Number	Monthly Allowance
44	1	$ 2,528.16	72	39	$ 94,780.47
45	10	22,440.72	73	30	74,310.51
46	6	11,463.85	74	29	70,629.73
47	6	12,441.68	75	26	66,684.52
48	13	26,906.24	76	21	51,334.00
49	5	10,102.22	77	18	45,699.91
50	10	20,949.79	78	16	41,628.13
51	4	9,180.20	79	13	30,443.19
52	6	12,252.76	80	17	40,901.87
53	10	22,026.16	81	15	34,011.08
54	21	49,754.53	82	19	38,266.51
55	22	52,399.27	83	11	26,066.86
56	24	55,399.03	84	11	23,976.08
57	31	89,768.77	85	3	6,149.79
58	58	155,527.74	86	6	14,441.05
59	34	104,790.72	87	11	23,551.29
60	45	153,196.45	88	2	3,233.99
61	59	174,214.24	89	2	2,483.35
62	73	238,197.67	90	6	9,941.11
63	69	203,708.30	91	2	2,273.22
64	62	164,579.49	92	2	3,126.30
65	69	197,709.43	93	2	2,679.63
66	47	131,803.18	94	2	3,122.22
67	62	171,310.91	95	1	1,012.75
68	72	193,614.59	96	1	1,108.61
69	52	128,071.90	98	2	2,547.25
70	41	101,462.75			
71	37	82,789.14			
Total				**1,256**	**$ 3,312,993.31**
Average Monthly Allowance					$ 2,637.73
Average Age					66.3

Appendices

Appendix V – Ordinary Disability Retirees

Age 9/30/2011	Number	Monthly Allowance
39	1	$ 1,014.61
46	1	1,039.91
48	1	1,020.53
53	1	1,412.87
61	1	1,045.58
63	1	894.29
65	1	700.00
69	1	740.00
71	1	760.00
74	1	790.00
75	1	800.00
76	1	810.00
82	1	860.00
84	1	890.00
85	1	900.00
Total	**15**	**$ 13,677.79**
Average Monthly Allowance		$ 911.85
Average Age		66.1

Appendices

Appendix VI – Accidental Disability Retirees

Age 9/30/2011	Number	Monthly Allowance	Age 9/30/2011	Number	Monthly Allowance
29	1	2,770.56	57	2	$ 4,889.88
31	1	2,560.65	58	5	13,503.64
32	1	2,998.51	59	7	15,698.96
33	1	2,380.15	60	5	10,798.01
34	2	5,075.04	61	1	2,776.92
36	1	2,491.44	62	7	15,662.04
37	2	4,649.39	63	6	11,718.48
38	1	2,741.91	64	3	5,479.22
39	4	10,838.88	65	2	3,171.08
40	3	8,874.40	66	3	4,516.40
41	1	2,856.28	67	5	7,917.76
42	6	18,291.90	68	2	3,832.90
43	2	6,563.37	69	1	816.51
44	4	10,543.33	70	2	3,196.60
45	6	19,927.52	71	1	1,605.53
46	3	7,620.34	73	2	2,741.86
47	6	21,425.21	74	5	4,111.91
49	1	2,097.09	76	3	2,430.00
50	5	13,319.55	77	2	2,287.95
51	2	6,847.48	80	2	2,299.87
52	3	10,086.62	82	1	1,698.33
54	5	12,763.36	83	2	2,016.74
55	3	6,810.94	87	1	1,363.84
56	2	7,425.81			
Total				**136**	**$ 316,494.16**
Average Monthly Allowance					$ 2,327.16
Average Age					56.0

Appendices

Appendix VII – Surviving Spouses – Death of Active Members

Age 9/30/2011	Number	Monthly Allowance	Age 9/30/2011	Number	Monthly Allowance
25	1	$ 2,347.36	68	4	$ 6,574.87
27	1	822.94	69	3	4,738.19
30	1	1,302.98	71	1	750.00
36	1	1,735.97	73	3	4,439.53
44	2	3,916.92	75	4	3,712.49
46	1	1,131.31	76	2	1,566.82
48	1	2,043.61	77	2	2,111.87
50	1	1,689.25	78	2	2,825.74
52	1	2,100.12	79	2	2,146.13
56	3	4,141.41	80	3	3,236.59
57	1	1,652.68	81	3	3,026.24
58	1	737.80	82	1	1,257.82
59	1	760.23	83	2	1,789.34
60	1	1,185.84	84	3	3,058.06
61	1	748.33	85	2	1,868.60
62	4	4,975.75	86	1	920.00
63	2	2,456.05	88	2	1,840.00
64	1	1,391.19	89	1	940.00
65	2	2,708.93	90	3	2,870.00
66	1	2,236.95	94	2	1,980.00
67	2	2,971.82	100	1	1,050.00

Total	**77**	**$ 95,759.73**
Average Monthly Allowance		1,243.63
Average Age		69.9

Appendices

Appendix VIII – Surviving Spouses – Death of Retirees

Age 9/30/2011	Number	Monthly Allowance	Age 9/30/2011	Number	Monthly Allowance
47	3	$ 5,757.60	76	18	$ 23,491.85
50	1	1,789.60	77	10	14,760.98
51	3	4,872.41	78	7	9,840.99
52	1	1,784.15	79	11	14,703.86
54	6	9,724.33	80	11	17,163.31
55	7	10,900.46	81	8	11,038.91
56	8	11,163.87	82	18	23,980.39
57	1	650.00	83	13	17,687.65
58	5	7,210.52	84	11	13,299.59
59	5	6,858.46	85	11	13,606.99
60	5	7,381.50	86	9	9,215.39
61	6	11,057.31	87	6	6,206.63
62	3	5,376.30	88	10	10,923.84
63	7	10,174.83	89	7	7,244.50
64	6	8,550.59	90	12	11,595.43
65	8	11,645.51	91	2	1,973.67
66	12	18,661.49	92	9	9,184.28
67	9	13,240.08	93	6	5,895.19
68	7	11,671.43	94	4	4,470.67
69	11	17,030.53	95	3	3,000.00
70	7	12,445.32	96	1	1,000.00
71	13	21,399.16	97	2	2,020.00
72	12	16,633.22	101	2	2,324.11
73	5	6,816.72	104	1	1,090.00
74	8	11,178.29	105	1	1,100.00
75	3	5,242.26			
Total				**355**	**$ 486,034.17**
Average Monthly Allowance					$ 1,369.11
Average Age					75.5

Appendices

Appendix IX – Children

Age 9/30/2011	Number	Monthly Allowance
2	1	$ 469.47
4	1	469.47
6	2	1,622.89
10	1	488.62
11	4	2,632.62
12	1	623.95
13	1	495.30
14	6	3,254.85
15	2	1,250.52
16	2	1,471.36
17	1	787.54
18	5	3,809.95
19	7	4,219.00
20	1	645.67
21	2	864.85
22	3	3,055.58
23	1	627.35
37	1	248.04
41	1	264.62
49	2	638.61
51	1	248.65
52	1	392.34
56	3	1,179.21
57	1	338.01
63	1	251.41
70	1	186.84
Total	**53**	**$ 30,536.72**
Average Monthly Allowance		$ 576.16
Average Age		24.0

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