

June 2011

**Actuarial valuation report
as of January 1, 2011
for the 2011 Fiscal Year**

The City of Ladue Pension Plan for
Non-Uniform Employees

MERCER

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Mr. Rick Jett
Finance Director
City of Ladue
9345 Clayton Road
Ladue, MO 63124

June 2011

Subject: Actuarial valuation report

Dear Rick:

Submitted in this report are the January 1, 2011 actuarial valuation results for City of Ladue Pension Plan for Non-Uniform Employees. The purposes of this report are to:

- Present Mercer's actuarial estimates of the Plan's liabilities and expenses as of January 1, 2011 for the City of Ladue to incorporate, as the City deems appropriate, in its financial statements; and
- Provide the funding policy contribution for the year beginning January 1, 2011

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,



Ann E. Bremehr, FSA



Bonita J. Wurst, ASA

1. Report highlights

Below are highlights of the results from the January 1, 2011 valuation and a comparison to the last actuarial valuation as of January 1, 2010.

	<u>January 1, 2011</u>	<u>January 1, 2010</u>
Present value of projected benefits	\$ 4,407,308	\$ 4,128,558
Actuarial asset value	3,399,572	3,069,929
Normal cost	130,158	150,324
Funding policy contribution (end of year)	139,170	161,199

Due to the asset smoothing method used, the actuarial value of assets (AVA) used to determine the employer contribution rate(s) in this valuation exceeds the market value of assets (MVA) by 2.8%. Absent future actuarial gains to offset the investment losses being smoothed, future employer contributions will increase as past investment losses become recognized. If asset smoothing methods were not used for this valuation, the employer funding policy contribution, based on the market value of assets, would have been \$149,973.

Changes in plan provisions

There were no changes in plan provisions since the previous valuation.

Changes in actuarial assumptions

The discount rate was changed from 7.75% to 7.50% and the healthy mortality assumption was changed from RP-2000 combined active/retired, white collar adjustment, with a fixed 7 year projection to the same table with a fixed 17 year projection.

These assumption changes increased the present value of projected benefits \$230,000 and increased the funding policy contribution \$26,000.

Changes in actuarial methods

There were no changes in methods since the previous valuation.

Plan experience during prior plan year

During 2010, the plan experienced a net actuarial gain of \$120,000, primarily due to lower than expected 2010 salary increases. During 2010, the yield rate based on the actuarial value of assets was approximately 4.9% compared to an assumed 7.75% return. The return on a market value basis was approximately 13.5%.

2. Important notices

Mercer has prepared this report exclusively for the City of Ladue; Mercer is not responsible for reliance upon this report by any other party. Subject to this limitation, the City of Ladue may direct that this report be provided to its auditors.

The only purposes of this report are to:

- Present Mercer's actuarial estimates of the Plan's liabilities and expenses for the City of Ladue to incorporate, as the City deems appropriate, in its financial statements; and
- Provide the funding policy contribution for the year beginning January 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 valuation, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

The City of Ladue 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 City of Ladue.

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 Section 8, 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 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 City of Ladue'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 are based on the last experience study, as adopted by the Board, with updates to the investment return and mortality assumptions. The City of Ladue is 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 Sections 7 and 8. The City of Ladue 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 the City of Ladue and summarized in the valuation report in Sections 5 and 6. The City of Ladue 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 January 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 City of Ladue as summarized in the valuation report in Section 9. 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 City of Ladue 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 City of Ladue should notify Mercer promptly after receipt of this report if the City of Ladue disagrees with anything contained in the report or is aware of any information that would affect the results of the report that has not been communicated to Mercer or incorporated therein. The report will be deemed final and acceptable to the City of Ladue unless the City of Ladue 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.

3. Valuation results

	Actuarial Valuation as of	
	January 1, 2011	January 1, 2010
Funding Valuation		
Actuarial asset value	\$ 3,399,572	\$ 3,069,929
Present value of projected benefits	4,407,308	4,128,558
Normal cost	130,158	150,324
Funding policy contribution (end of year)	139,170	161,199
Participant Data		
Number of participants in valuation		
Active participants	29	29
Participants with deferred benefits	2	2
Participants receiving benefits	11	11
Total	42	42
Active Participant Statistics		
Average age	49.7	48.8
Average years of service	16.9	15.8

Normal Cost

The components of normal cost under the plan's funding method are:

Component	January 1, 2011	January 1, 2010
1. Present value of projected benefits		
a. Active participants	\$ 3,857,179	\$ 3,587,411
b. Participants with deferred benefits	73,719	65,688
c. Participants receiving benefits	476,410	475,459
d. Total	4,407,308	4,128,558
2. Actuarial value of assets	3,399,572	3,069,929
3. Present value of future employee contributions	0	0
4. Present value of future normal costs (1.d. – 2. – 3.)	1,007,736	1,058,629
5. Present value of future salaries	12,676,774	13,873,694
6. Normal cost rate (4. ÷ 5.)	7.9495%	7.6305%
7. Expected salaries of active participants under normal retirement age	1,385,721	1,707,938
8. Normal cost (6. × 7.)	110,158	130,324
9. Expected expenses	20,000	20,000
10. Total normal cost (8. + 9., but not less than zero)	\$ 130,158	\$ 150,324

Funding policy contribution

The funding policy contribution consists of the normal cost calculated under the aggregate cost method and interest to the end of the plan year.

	Plan year ending	
	December 31, 2011	December 31, 2010
1. Normal cost at beginning of year	\$ 130,158	\$ 150,324
2. Interest to end of year	9,012	10,875
3. Funding policy contribution (1. + 2.)	\$ 139,170	\$ 161,199

4. GASB disclosures

Provided below is the financial reporting information for the plan.

Schedule of funding progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll $\frac{(b) - (a)}{(c)}$
01/01/2008	\$ 2,542,196	\$ 2,897,592	\$ 355,396	87.7%	\$ 1,709,715	20.8%
01/01/2009	2,344,006	3,148,403	804,397	74.5%	1,727,832	46.6%
01/01/2010	3,069,929	3,492,843	422,914	87.9%	1,802,804	23.5%
01/01/2011	3,399,572	3,749,837	350,265	90.7%	1,717,264	20.4%

While not required by the governmental accounting standards, 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 $\frac{(b) - (a)}{(c)}$
01/01/2008	\$ 2,524,959	\$ 2,897,592	\$ 372,633	87.1%	\$ 1,709,715	21.8%
01/01/2009	1,953,338	3,148,403	1,195,065	62.0%	1,727,832	69.2%
01/01/2010	2,749,187	3,492,843	743,656	78.7%	1,802,804	41.2%
01/01/2011	3,307,634	3,749,837	442,203	88.2%	1,717,264	25.8%

Schedule of employer contributions

The annual required contributions as defined in the governmental accounting standards and ratio of actual to required contributions are as follows:

Year Ended December 31	Annual Required Contribution	Percentage Contributed
2002	\$ 50,615	100%
2003	92,402	100%
2004	99,990	100%
2005	110,188	100%
2006	120,800	100%
2007	143,662	100%
2008	148,695	118%
2009	203,664	198%
2010	161,199	162%
2011	139,170	*

* Cannot be determined until all 2011 contributions have been made.

Provided below is additional information required for financial reporting by the City of Ladue.

Annual pension cost and net pension obligation

The City's annual pension cost and net pension obligation for the City's fiscal years ending December 31, 2011 and December 31, 2010 are as follows:

	December 31, 2011	December 31, 2010
1. Annual required contribution	\$ 139,170	\$ 161,199
2. Interest on net pension obligation	(24,352)	(17,538)
3. Adjustment to annual required contribution	(33,017)	(19,146)
4. Annual pension cost (1. + 2. - 3.)	147,835	162,807
5. Contributions made	*	261,199
6. Increase (decrease) in net pension obligation (4. - 5.)	*	(98,392)
7. Net pension obligation beginning of year	(324,694)	(226,302)
8. Net pension obligation end of year (6. + 7.)	\$ *	\$ (324,694)

* Cannot be determined until all 2011 contributions have been made.

Trend Information

Fiscal Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation
2002	\$ 50,615	100.0%	\$ 0
2003	92,402	100.0%	0
2004	99,990	100.0%	0
2005	110,188	100.0%	0
2006	120,800	100.0%	0
2007	143,662	100.0%	0
2008	148,695	117.7%	(26,305)
2009	203,667	198.2%	(226,302)
2010	162,807	160.4%	(324,694)
2011	147,835	*	*

* Cannot be determined until all 2011 contributions have been made.

5. Plan assets

Summary of assets	Market Value as of December 31, 2010	Percentage of Total
Cash or cash equivalents:	\$ 81,846	2.47%
Investments:		
▪ Corporate bond funds	1,102,726	33.34%
▪ Corporate stocks – domestic	1,446,056	43.72%
▪ Corporate stocks – international	380,379	11.50%
▪ Alternative investments	285,155	8.62%
Accounts receivable	6,493	0.20%
Prepaid expense	4,979	0.15%
Net assets	\$ 3,307,634	100.00%

Reconciliation of assets (market value)	Plan year ending	
	December 31, 2010	December 31, 2009
Net assets at beginning of year	\$ 2,749,187	\$ 1,953,338
Contributions received		
▪ City	261,199	403,664
▪ Employee	0	0
Investment earnings		
▪ Interest and dividends	85,385	68,625
▪ Realized and unrealized gain/(loss)	306,768	417,723
Other income	0	0
Disbursements		
▪ Benefit payments to participants or beneficiaries	(59,744)	(71,317)
▪ Investment expenses	(8,806)	(6,364)
▪ Administrative expenses	(26,355)	(16,482)
Net income	\$ 558,447	\$ 795,849
Net assets at end of year	\$ 3,307,634	\$ 2,749,187
Actual investment return	13.51%	22.73%

Actuarial value of assets

1. Preliminary actuarial value of assets at January 1, 2010	\$ 3,069,929
2. Contributions	261,199
3. Benefit payments	(59,744)
4. Expenses	(26,355)
5. Expected interest at 7.75% on 1. + 2. + 3. + 4.	244,705
6. Expected actuarial value of assets at December 31, 2010 (1. + 2. + 3. + 4. + 5.)	3,489,734
7. Market value of assets at December 31, 2010	3,307,634
8. Adjustments to reflect market value (see following table)	(90,162)
9. Preliminary actuarial value at December 31, 2010 (6. + 8.)	3,399,572
10. 80% of market value at December 31, 2010	2,646,107
11. 120% of market value at December 31, 2010	3,969,161
12. Actuarial value of assets at December 31, 2010 (9., but not less than 10. nor more than 11.)	\$ 3,399,572

Schedule of market value adjustments

Year	Gain/(Loss) Base	Unrecognized Balance 1/1/2010	12/31/2010 Adjustment	Unrecognized Balance 1/1/2011
2006	\$ 67,570	\$ 13,514	\$ 13,514	\$ 0
2007	(38,410)	(15,364)	(7,682)	(7,682)
2008	(879,958)	(527,974)	(175,992)	(351,982)
2009	261,352	209,082	52,270	156,812
2010	138,642 ¹	N/A	27,728	110,914
Total	N/A	\$ (320,742)	\$ (90,162)	\$ (91,938)

¹ 7.-6.-Unrecognized balance January 1, 2010.

6. Participant data

Statistics

	Plan year beginning	
	January 1, 2011	January 1, 2010
Participants included in valuation		
▪ Active participants		
– Vested	23	20
– Non-vested	6	9
– Total actives	29	29
▪ Inactive with deferred benefits	2	2
▪ Inactive with immediate benefits	11	11
▪ Total	42	42
Active participant statistics		
▪ Average age	49.7	48.8
▪ Average years of service	16.9	15.8
▪ Total compensation ²	\$ 1,717,264	\$ 1,802,804
▪ Average compensation ²	59,216	62,166
Inactive deferred statistics		
▪ Average age	51.7	50.7
▪ Total monthly benefits	\$ 1,043	\$ 1,043
▪ Average monthly benefits	522	522
Inactive immediate statistics		
▪ Average age	78.6	77.6
▪ Total monthly benefits	\$ 4,979	\$ 4,979
▪ Average monthly benefits	453	453

² Annualized earnings for prior calendar year increased by the salary assumption of 5%.

Participant data reconciliation

	Active participants	Inactive participants		Total
		With deferred benefits	Receiving benefits	
Beginning of the year	29	2	11	42
Retirements	0	0	0	0
Disabilities	0	0	0	0
Deaths without beneficiary	0	0	0	0
Deaths with beneficiary	0	0	0	0
Non-vested terminations	(1)	N/A	N/A	(1)
Vested terminations	0	0	N/A	0
Rehires	1	0	0	1
Lump sum payouts	0	0	0	0
Expiration of benefits	N/A	N/A	0	0
New entrants	0	N/A	N/A	0
Net change	0	0	0	0
End of the year	29	2	11	42

Distribution of active participants

Age	Years of service as of January 1, 2011								Total
	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30+	
Under 25									0
25 – 29									0
30 – 34			1						1
35 – 39				5					5
40 – 44		1	2	1	2	1			7
45 – 49		1	1						2
50 – 54					1			1	2
55 – 59						2	1	2	5
60 – 64				1		1		1	3
65 – 69			1		2		1		4
70 & up									0
Total	0	2	5	7	5	4	2	4	29

In each cell, the number is the count of active employees for each age/service combination.

7. Actuarial methods and policies

Actuarial cost method

For liabilities and contributions

Actuarial cost method: Liabilities and contributions shown in this report are computed using the aggregate cost method of funding. The objective under this method is to fund all participants' benefits under the plan by annual contributions which are level as a percentage of aggregate salary, starting at the valuation date and continuing until the assumed retirement, termination, disability or death. The method does not distinguish between benefits credited for past and future service or between liabilities created before and after the introduction of the funding method.

A detailed description of this calculation follows:

- The present value of projected benefits is calculated as the present value of all benefit payments expected to be paid to the plan's current participants, including active and retired members, beneficiaries and terminated members with vested rights.
- The present value of future normal costs is the excess of the present value of projected benefits over the actuarial asset value of the fund and the present value of future employee contributions to the plan. This excess is divided by the present value of future salaries to obtain an accrual percentage. This percentage is applied to the salaries of active participants under the assumed retirement age and then adjusted for expected administrative expenses to obtain the normal cost.

For financial reporting

Actuarial cost method: Liabilities shown in this report for GASB financial reporting are computed using the individual entry age normal method of funding. The objective under this method is to fund each participant's benefits under the plan as payments which are level as a percentage of salary, starting at the original employment date and continuing until the assumed retirement, termination, disability or death.

A detailed description of the calculation follows:

- The normal cost for each active participant under the assumed retirement age is determined by applying to compensation 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 participants' normal costs, 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 participants, 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 actuarial asset value of the fund and represents that part of the accrued liability which has not been funded by accumulated past contributions.

Method for determining actuarial value of assets

The actuarial asset value is based on a five-year moving average of expected and market values determined as follows:

- At the end of each plan year, an expected asset value is calculated as the sum of the previous year's preliminary actuarial 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/(loss) is the excess of the current market value over the sum of the expected asset value plus the unrecognized balances of investment gains/(losses) for the previous five years;
- The investment gain so determined is recognized in five equal installments in the actuarial valuation immediately following the year in which such gain/(loss) incurred;
- The preliminary actuarial asset value is the sum of the expected asset value plus the installments of investment gains/(losses) during the preceding five plan years; and
- The actuarial asset value is the preliminary value but in no case more than 120% of the market value or less than 80% of the market value.

Funding policy

This funding policy contribution is the normal cost under the aggregate cost method with interest to the end of the plan year.

Changes in actuarial methods since prior valuation

There have been no changes in actuarial methods since the prior valuation.

8. Summary of actuarial assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan. These assumptions are based on the last experience study, as adopted by the Board, with updates to the investment return and mortality assumptions. The City of Ladue is responsible for selecting the assumptions used for this valuation.

Investment return	7.50% per year compounded annually.										
Salary increases	5.00% per year compounded annually.										
Inflation	3.00% per year.										
Expenses	\$20,000 per year										
Mortality											
▪ Healthy	RP-2000 Combined White Collar Mortality table projected to 2017 by Scale AA for males and females. See table of sample rates.										
▪ Disabled	Post-1994 Disability Mortality table as prescribed by IRS Revenue Ruling 96-7. See table of sample rates.										
Demographic assumptions											
Disability											
▪ Rates	Rates varying by age and gender. See table of sample rates.										
▪ Duration of disability	Factors varying by age for active participants and age at disability for disabled participants after January 1, 2008.										
	<table border="1"> <thead> <tr> <th><u>Age</u></th> <th><u>Duration</u></th> </tr> </thead> <tbody> <tr> <td>Under 45</td> <td>10 years</td> </tr> <tr> <td>45 – 54</td> <td>8 years</td> </tr> <tr> <td>55 – 59</td> <td>5 years</td> </tr> <tr> <td>60 and over</td> <td>2 years</td> </tr> </tbody> </table>	<u>Age</u>	<u>Duration</u>	Under 45	10 years	45 – 54	8 years	55 – 59	5 years	60 and over	2 years
<u>Age</u>	<u>Duration</u>										
Under 45	10 years										
45 – 54	8 years										
55 – 59	5 years										
60 and over	2 years										
Withdrawal	Rates varying by age. See table of sample rates.										

Retirement	<p>Rates varying by age for active participants.</p> <table border="0"> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Retirement Rate</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">62</td> <td style="text-align: center;">0.3</td> </tr> <tr> <td style="text-align: center;">63</td> <td style="text-align: center;">0.2</td> </tr> <tr> <td style="text-align: center;">64</td> <td style="text-align: center;">0.1</td> </tr> <tr> <td style="text-align: center;">65</td> <td style="text-align: center;">1.0</td> </tr> </tbody> </table> <p>For vested terminations, age 62 or 65 depending on their normal retirement ages.</p>	<u>Age</u>	<u>Retirement Rate</u>	62	0.3	63	0.2	64	0.1	65	1.0
<u>Age</u>	<u>Retirement Rate</u>										
62	0.3										
63	0.2										
64	0.1										
65	1.0										
Percentage married	80% for active participants. Actual information is used for retirees.										
Age difference	A married male is assumed to be four years older than his spouse. Actual spouse birth date is used for retirees.										

Form of payment	<p>For single participants, life annuity with a refund of contributions at termination.</p> <p>For married participants, unreduced 50% joint and survivor annuity, with refund of contributions at termination.</p> <p>For retirees, the form of payment is based on the form elected at retirement.</p>
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Table of sample rates

Attained Age	Rates							
	Mortality – Healthy		Mortality – Disabled		Disability		Withdrawal	
	Male	Female	Male	Female	Male	Female	Male	Female
20	.0002	.0001	.0246	.0097	.0000	.0000	.2000	.2250
25	.0003	.0002	.0275	.0120	.0000	.0000	.1500	.1750
30	.0003	.0002	.0307	.0148	.0000	.0000	.1000	.1250
35	.0005	.0004	.0342	.0177	.0000	.0000	.0750	.0900
40	.0008	.0005	.0384	.0206	.0005	.0010	.0500	.0650
45	.0011	.0008	.0430	.0240	.0010	.0020	.0340	.0450
50	.0015	.0012	.0480	.0280	.0020	.0030	.0200	.0300
55	.0024	.0023	.0531	.0326	.0031	.0045	.0100	.0150
60	.0042	.0043	.0581	.0380	.0045	.0063	.0000	.0000
65	.0087	.0079	.0637	.0443	.0000	.0000	.0000	.0000
70	.0149	.0139	.0733	.0513	.0000	.0000	.0000	.0000
75	.0265	.0224	.0889	.0626	.0000	.0000	.0000	.0000
80	.0501	.0382	.1071	.0805	.0000	.0000	.0000	.0000
85	.0929	.0670	.1333	.1094	.0000	.0000	.0000	.0000
90	.1665	.1199	.1734	.1535	.0000	.0000	.0000	.0000
95	.2544	.1809	.2341	.2170	.0000	.0000	.0000	.0000
100	.3387	.2335	.3192	.3034	.0000	.0000	.0000	.0000

Changes in assumptions since prior valuation

The discount rate was changed from 7.75% to 7.50% and the healthy mortality assumption was changed from RP-2000 combined active/retired, white collar adjustment, with a fixed 7 year projection to the same table with a fixed 17 year projection.

9. Summary of plan provisions

Following is a summary of the major plan provisions used in the valuation of this report. The City of Ladue 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	January 1, 1968; last amended November 9, 2007.
Plan year	January 1 through December 31.
Sponsoring employer	The City of Ladue.
Participating employees	Employees not covered by the City's pension plan for firemen and policemen.
Administration	Trust.
Type of plan	Defined benefit.
Eligibility	The first day of the month following hire date.
Actuarial equivalence	Based on UP84 Mortality set back one year and 5% interest.
Employee contributions	Employee contributions are no longer required. The interest rate used to accumulate contributions as set by the Retirement Committee is 4%.
Compensation	Compensation paid to an employee by the City of Ladue for personal services rendered during a calendar year including vacation pay, unused sick pay, pretax contributions to deferred compensation and cafeteria plans, and LTD premiums paid on behalf of the employee.
Final average monthly salary	Average compensation during the highest 36 consecutive months of compensation within the last 120 consecutive months of credited service. For disabled employees, the average shall be determined as of the date they ceased to be actively employed due to disability.
Credited service	The period of continuous employment calculated to completed months and periods while a participant is employed or receiving LTD benefits or disability benefits under the plan (or while on an FMLA leave).

Normal retirement

- Eligibility The first day of the month coincident with or next following the participant's 62nd birthday. For terminations prior to 2000, later of the participant's 65th birthday and 10 years of service.
 - Benefit The annual benefit is 1.25% of Final Average Monthly Salary multiplied by the smaller of Credited Service and 35 years. In addition, a participant terminating in 2000 or later is entitled to a refund of accumulated employee contributions with interest.
-

Late retirement

- Eligibility The first day of the month coinciding with or next following the termination of employment with the employer after Normal Retirement Date, but on or before the first day of the month coinciding with or next following the participant's 70th birthday.
 - Benefit The annual benefit is 1.25% of Final Average Monthly Salary multiplied by the smaller of Credited Service and 35 years. In addition, a participant terminating in 2000 or later is entitled to a refund of accumulated employee contributions with interest.
-

Early retirement

- Eligibility The first day of any month after attaining age 55 and completing 10 years of service.
 - Benefit The normal retirement benefit, accrued to the date of early retirement and actuarially reduced for early commencement. In addition, a participant terminating in 2000 or later is entitled to a refund of accumulated employee contributions with interest.
-

Disability

- Retirement benefit For disabilities commencing after January 1, 2008 disability benefits prior to retirement are paid outside of the plan through an insurance company. Upon cessation of payments, the early retirement, normal retirement, late retirement or termination provisions will apply if the participant has 10 years of Credited Service when payments cease.
 - Benefits beyond normal retirement age For disabilities commencing after January 1, 2008 and payments from the insurance company ceasing, upon attaining normal retirement age, a disabled participant will receive a Normal Retirement Benefit based on the Final Average Monthly Salary as of the date of disability and Credited Service he would have had if he had continued working to normal retirement age.
-

Death benefit prior to retirement	<p>The spouse of a participant who has completed 10 years of service or attained age 62 or died while on disability with at least 10 years of service will receive a monthly benefit for life equal to the amount that would have been payable if the participant terminated on the day prior to his death and had elected the 100% contingent annuitant option. The benefit begins at the participant's Normal Retirement Date or on an actuarially equivalent basis any time after the participant would have attained age 55. Spouses of participants who are not disabled are also entitled to a refund of accumulated employee contributions with interest.</p> <p>If the participant is not married or has not completed 10 years of service, no benefit will be payable, although if applicable, a refund of accumulated employee contributions with interest will be made.</p>
Termination benefit	<p>A participant who terminates after having completed at least 10 years of service is eligible to withdraw his accumulated employee contributions with interest and receive a deferred vested retirement benefit at Normal Retirement Date, or an actuarially reduced benefit at Early Retirement Date, based on service and pay through termination.</p> <p>If the participant terminates before having completed 10 years of service, he will receive his accumulated employee contributions with interest.</p>
Forms of payment	<p>The normal form of benefit payment is a monthly annuity with 50% continuing to the spouse, if married, when the participant dies. In lieu of monthly benefits, small benefits with a value less than \$5,000 may be paid in a lump sum.</p>

Changes in plan provisions since prior valuation

None.

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