

**RETIREMENT PLAN FOR THE EMPLOYEES' RETIREMENT
FUND OF THE CITY OF DALLAS**
ACTUARIAL VALUATION REPORT
AS OF DECEMBER 31, 2010

April 21, 2011

Board of Trustees
Employees' Retirement Fund of the City of Dallas, Texas
600 North Pearl Street
Suite 2450
Dallas, Texas 75201

Dear Members of the Board:

We are pleased to present our report of the actuarial valuation of the Employees' Retirement Fund of the City of Dallas, Texas ("ERF" or the "Fund") as of December 31, 2010.

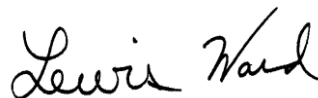
This valuation provides information on the funding status of ERF. It includes a determination of the actuarially calculated contribution rates for the 2011 calendar year. In addition, it also contains the information necessary to determine the current total obligation rate and the current adjusted total obligation rate for the fiscal year beginning October 1, 2011 per City Ordinance. This rate is a function of the previous year's adjusted total obligation rate, this year's actuarially calculated contribution rate, and the rate necessary to make the debt service payment on the previously issued pension obligation bonds for fiscal year 2012.

This valuation is based on the provisions of ERF in effect as of the valuation date, data on the ERF membership and information on the asset values of the Fund as of December 31, 2010. The member, annuitant and asset data used in the valuation were all prepared and furnished by ERF staff. While certain checks for reasonableness were performed, the data used was not audited.

As part of the five year experience review, the actuary recommended new assumptions to the Board of Trustees. The Board modified these recommendations and adopted new actuarial assumptions effective with this valuation. All actuarial assumptions and methods are described under Section N of this report and meet the parameters of Governmental Accounting Standards Board Statement No. 25. We believe the actuarial assumptions individually and collectively represent reasonable expectations of experience over the long-term future.

To the best of our knowledge, this report is complete and accurate and was conducted in accordance with the Actuarial Standards of Practice as set forth by the Actuarial Standards Board and in compliance with the provisions of the City Ordinance. The actuarial valuation was produced under the supervision of a Member of the American Academy of Actuaries and both signatories have significant experience valuing large public employee retirement systems.

Respectfully submitted,



Lewis Ward
Consultant



Mark R. Randall, MAAA, FCA, EA
Executive Vice President & Senior Consultant

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EXECUTIVE SUMMARY

(\$ in 000's)

The key results from the actuarial valuation of the Employees' Retirement Fund of the City of Dallas as of December 31, 2010, may be summarized as follows:

	<u>December 31, 2009</u>	<u>December 31, 2010</u>
	(1)	(2)
• Members		
- Actives	7,654	7,034
- Benefit recipients	5,706	5,993
- Deferred vested*	655	702
- Other terminated*	<u>564</u>	<u>409</u>
- Total	14,579	14,138
• Projected payroll (including overtime)	\$ 364,237	\$ 322,374
• Normal cost	\$ 59,020	\$ 52,993
as % of payroll	16.46%	16.82%
• Actuarial accrued liability	\$ 3,192,121	\$ 3,282,126
• Actuarial value of assets	\$ 3,031,652	\$ 3,027,439
• Market value of assets	\$ 2,600,373	\$ 2,868,196
• Unfunded actuarial accrued liability (UAAL)	\$ 160,468	\$ 254,687
• Estimated yield on assets (market value basis)	30.35%	15.77%
• Estimated yield on assets (actuarial value basis)	6.79%	4.30%
• Contribution Rates		
- Prior Adjusted Total Obligation Rate	24.76%	26.51%
- Current Total Obligation Rate	28.26%	31.99%
- Current Adjusted Total Obligation Rate	26.51%	29.16%
• Actuarial gains/(losses)		
- Assets	\$ (146,936)	\$ (117,398)
- Actuarial liability experience	\$ 23,699	\$ 101,313
- Assumption and method changes	\$ 96,689	\$ (66,634)
• 30-year level % of pay funding cost	\$ 72,765	\$ 72,797
as % of payroll (Employee + City)	20.15%	22.81%
• Funded ratio		
- Based on actuarial value of assets	95.0%	92.2%
- Based on market value of assets	81.5%	87.4%

* *Deferred vested are members who have applied for a deferred pension. Other terminations are other members who have terminated and still have contribution balances in the Fund.*

PURPOSES OF THE ACTUARIAL VALUATION

At your request, we have performed the actuarial valuation of the Employees' Retirement Fund of the City of Dallas ("ERF" or the "Fund") as of December 31, 2010.

The purposes of an actuarial valuation are as follows:

- To determine the funding status of ERF as of the valuation date;
- To develop the actuarially determined level of contributions for ERF for the 2011 calendar year; and
- To develop the current total obligation rate and the current adjusted total obligation rate for the fiscal year beginning October 1, 2011.

REPORT HIGHLIGHTS

The following is a set of key actuarial results from the prior year's valuation as compared to the current year:

	(\$ in 000's)	
	<u>2010</u>	<u>2011</u>
Contribution Rates (% of Payroll)		
Normal Cost (including administrative expense)	17.37%	17.82%
Total Actuarial Contribution Rate	20.15%	22.81%
Total Projected Actuarial Contribution	\$72,765	\$72,797
Funded Status	<u>12/31/09</u>	<u>12/31/10</u>
Actuarial Accrued Liability	\$3,192,120	\$3,282,126
Actuarial Value of Assets	<u>3,031,652</u>	<u>3,027,439</u>
Unfunded Actuarial Accrued Liability	\$160,468	\$254,687
Funded Ratio	94.97%	92.24%

FUNDING PROCESS

Based on the previous work of the Employees' Retirement Fund Study Committee, which was ratified by both the City Council and the voters of Dallas, a new funding process commenced October 1, 2005. From this date forward, a new "current adjusted total obligation rate" will be contributed jointly by the City (63%) and the Membership (37%). This current adjusted total obligation rate will cover both the debt service tied to the pension obligation bonds issued in 2005 and the contributions to the ERF. In subsequent years, the contribution rate changes only if the actuarial valuation develops a "current total obligation rate" which differs from the "prior adjusted total obligation rate" by more than 3.00%.

As shown in Table 3 (under Section L) and discussed later in this report, the "current total obligation rate" differs from the "prior adjusted total obligation rate" by more than 3.00% as of December 31, 2010. This means that the "current adjusted total obligation rate" will increase from 26.51% to 29.16% of active member payroll effective October 1, 2011.

ACTUARIAL CONTRIBUTIONS

The Actuarially Required Contribution Rate developed in this actuarial valuation is 22.81% of active member payroll. This rate excludes the amount needed to make the City's debt service payment on the pension obligation bonds in fiscal year 2012. As shown in Section L -Table 3 of this report, the debt service payment is determined to be 9.18% of projected payroll. The sum of these rates is 31.99% (the Current Total Obligation Rate) which is 5.48% more than the Prior Adjusted Total Obligation Rate of 26.51%. Because the difference is more than 3.00%, the total contribution rate in fiscal year 2012 (the Current Adjusted Total Obligation Rate) to fund the ERF and make the debt service payment on the pension obligation bonds will increase to 29.16% which is the 110% of the Prior Adjusted Total Obligation Rate of 26.51%.

The members contribute 37% of the Current Adjusted Total Obligation Rate and the City contributes 63%. Hence the members portion of the 29.16% total contribution rate will be 10.79% and the City portion will be 18.37%. All of the member contribution rate will be contributed to the ERF. As noted above 9.18% of the City's contribution rate will go towards the debt service on the pension obligation bonds and the remaining 9.19% will be contributed towards the ERF. This means a total contribution rate of 19.98% will be contributed to the ERF, which compares to the actuarially calculated rate of 22.81%.

ACTUARIAL ASSUMPTIONS

Section N of this report includes a summary of the actuarial assumptions and methods used in this valuation. In short, costs are determined using the Entry Age Normal actuarial cost method. The assumed annual investment return rate is 8.25% including an annual assumed rate of inflation of 3.00%.

An experience investigation was completed for the five-year period ending December 31, 2010. Based on that investigation, the actuary recommended numerous changes to the actuarial assumptions.

A brief description of the 2010 experience investigation follows. Please see Section N for a complete description of these assumptions.

2010 Experience Study

As a result of our analysis, the Board approved several actuarial assumption modifications. The approved changes resulted in an actuarially calculated contribution rate that is higher than it would have been if no changes had been made. Most of the experience was analyzed using five years of data. However, to study salary increases and rates of termination and retirement, ten years of experience data was analyzed. As a result of significant events occurring in the City of Dallas budget, layoffs occurred in both 2009 and 2010. In addition, there were furlough days and most employees received a reduction in their rate of pay effective October 1, 2010. As a result of these significant events we excluded from the salary experience analysis calendar year 2010 results and we excluded both 2009 and 2010 from the termination and retirement analysis.

The following is a description of the main findings and recommendations of our study (the Board approved all of the recommendations except as noted below):

ACTUARIAL ASSUMPTIONS (CONTINUED)

- ***Recommend a decrease in the investment return assumption of 8.25% to 8.00%(Not Adopted)***
 - The Board did not adopt this recommendation, so the investment return assumption of 8.25% remains unchanged.
- ***Recommend changes to the promotional salary increase rates (Adopted)***
 - Three components analyzed: inflation, promotional/longevity, and general productivity.
 - Proposed service-based promotional increases are lower than those currently assumed.
 - No changes were recommended to the inflation and productivity assumptions, which keep general salary increases at 3.50%.
 - Board modified the long term assumption for the next four years by assuming a flat 3.00% per year salary increase for years 2011 to 2014.
- ***Recommend modifying the post-retirement mortality rates (Adopted)***
 - For healthy-retired mortality, proposed assumptions are based on more current published tables (healthy retiree RP-2000M and RP-2000F).
 - For disabled mortality, proposed assumptions are based on more current published tables (disabled RP-2000M for both males and females).
- ***Recommend modifying the active-member mortality rates (Adopted)***
 - Proposed rates are based on more current published tables (employee RP-2000M and RP-2000F).
 - Propose assuming that 10% of active deaths are service related
- ***Recommend changes in retirement rates (Adopted)***
 - Early retirement rates remained unchanged.
 - The proposed rates for members retiring in their fifties are slightly decreased for males at first eligibility and increased for males beyond first eligibility. The proposed rates for females were decreased at most ages. A larger rate of retirement at first eligibility for normal retirement is still incorporated in the proposed structure for males, but the proposed

female rates continue to have no first eligibility distinction.

ACTUARIAL ASSUMPTIONS (CONTINUED)

- For age sixty and over, there are two proposed retirement rates at each age. One set is for members with less than 18 years of service and the other for members with 18 or more years of service. The proposed rates are lower than the current rates (for most ages) for members retiring after the age of 60.
- ***Recommend modifying the marriage assumption (Adopted)***
 - Currently it is assumed that 80% of members are married.
 - Propose changing assumption to 75% males and 50% females are married.
 - No change to the spouse's age assumption. Currently assumed that female spouse is 3 years younger than male spouse.
- ***Recommend change in assumed form of payment (Adopted)***
 - Propose assuming 60% of married males elect J & 50%
 - Propose assuming 75% of married females elect J & 50%
 - Propose adjusting form of payment assumption to reflect differences between actual conversion factors and factors derived from valuation assumptions.
 - Combining form of payment assumption with the marriage assumption produces the following valuation assumption:
 - Value future male retirees as J & 30.5% Survivor
 - Value future female retirees as J & 15.0% Survivor
- ***Recommend change to vacation leave conversion (Adopted)***
 - Members with 20 or more years of service are assumed to convert unused vacation leave to 1.7 months of service. Members with 10 to 19 years of service are assumed to convert unused vacation leave to 1 month of service. Members with less than 10 years of service are assumed to convert unused vacation leave to 0.5 months of service. No vacation leave conversion is assumed for disability retirement.
- ***Recommend no change to 3.00% inflation (Adopted)***

ACTUARIAL ASSUMPTIONS (CONTINUED)

- *Recommend no change to 3.00% payroll growth assumption (Adopted)*
- *Recommend no change to termination rates (Adopted)*
- *Recommend no change to disability incidence rates (Adopted)*
- *Recommend no change to refund election (Adopted)*
- *Recommend no change to any liability or asset valuation method (Adopted)*

ERF BENEFITS

There were no changes in the benefit provisions of ERF since the prior valuation. Please see Section O for a summary description of the ERF benefits.

EXPERIENCE DURING 2010

An Actuarial (Gain)/Loss Analysis [(G)/L] reviews the effects of the actual experience that differs from the assumed experience based on the actual results for the year. If any difference increases assets or reduces liabilities, we have an actuarial gain. The reverse is an actuarial loss.

On a market value return basis, the Fund gained approximately 15.77% (calculated on a dollar-weighted basis, net of investment expenses). Given this positive return, the actual investment income was more than the expected investment income on the actuarial value of assets; therefore, an investment income gain is being partially recognized this year (1/5) and partially deferred into the near future (4/5). After recognizing prior years' deferred investment gains and losses (years 2009, 2008, 2007 and 2006), there was an overall actuarial loss of approximately \$117 million on the actuarial value of assets as of December 31, 2010. The rate of return on the actuarial value of assets for 2010 was 4.30% (calculated on a dollar-weighted basis, net of investment expenses). This result was less than the current investment return assumption of 8.25% per annum.

During 2010 there was an aggregate actuarial gain of about \$99.1 million derived from demographic assumptions and non-investment economic assumptions (salary increases). As seen below, ERF experienced an overall actuarial loss in calendar year 2010. This year's overall actuarial experience loss amounted to approximately \$18.3 million.

The total (G)/L for the prior 4 years is broken down as follows (\$ in millions):

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
1) Actuarial (Gain)/Loss on Assets	(\$39.19)	\$375.99	\$146.94	\$117.40
2) Actuarial (Gain)/Loss on Liabilities	21.73	29.25	(23.70)	(101.31)
3) Total Actuarial (Gain) or Loss (1+2)	<u>(17.46)</u>	<u>405.24</u>	<u>123.24</u>	<u>16.09</u>

In addition, as previously discussed in Section F, the experience study changes resulted in an actuarial loss of approximately \$66.6 million. Also, the UAAL increased \$9.1 million because of the difference between the calculated contribution rate and the actual contributions during 2010.

ASSET INFORMATION

The assets of the Fund (on a market value basis) increased from \$2,600 million as of December 31, 2009 to \$2,868 million as of December 31, 2010.

The assets recognized for actuarial valuation purposes (known as “the actuarial value of assets”) are the product of a five-year market smoothing asset method. The purpose of such a smoothing method is to allow the use of market values, but to dampen the effect of the typical year-to-year market fluctuations. See Table 6 in Section L of this report for the determination of the actuarial value of assets as of December 31, 2010.

The actuarial value of assets has decreased from \$3,032 million to \$3,027 million during 2010. This decrease is due to the continued recognition of the 2008 investment loss. While the good investment results from 2009 & 2010 have helped to mitigate the 2008 investment loss, they have not completely offset it.

The rate of return on investments for 2010 on the actuarial value of assets was 4.30% compared to 6.79% in 2009. The detailed determinations of asset values utilized in this valuation and the change in assets in the last year are exhibited in Tables 4 and 5 of Section L of this report.

FUNDED STATUS

The funded status of ERF is measured by the Funded Ratio and the Unfunded Actuarial Accrued Liability (UAAL). The Funded Ratio is the ratio of the actuarial value of assets available for benefits to the actuarial accrued liability (AAL) of the Fund. Therefore, it reflects the portion of the AAL that is covered by ERF assets. The UAAL is the difference between these two amounts.

A Funded Ratio of 100% means that the funding of ERF is precisely on schedule. In addition, an increasing funded ratio from year-to-year also means that the funding of ERF is on schedule. By monitoring changes in the Funding Ratio each year we can determine whether or not funding progress is being made.

Based on the actuarial value of assets, the Funded Ratio of ERF decreased from 95.0% as of December 31, 2009 to 92.2% as of December 31, 2010. This decrease is due to the continued recognition of the significant downturn in the investment markets during 4th quarter of 2008 and due to the change in assumptions adopted by the Board effective with this valuation.

The UAAL increased from \$160.5 million (shortfall) as of December 31, 2009 to \$254.7 million (shortfall) as of December 31, 2010. Since the UAAL is positive, this implies the actuarial accrued liabilities exceed the actuarial assets of the Fund as of December 31, 2010.

GASB DISCLOSURE

Governmental Accounting Standards Board (GASB) Statement Numbers 25 and 27 detail the current accounting standards for ERF and the Fund's sponsor, the City of Dallas. Tables 10a, 10b, and 10c located in Section L of this report provide footnotes and/or Required Supplemental Information tables required to be disclosed by these statements.

ACTUARIAL TABLES

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Summary of Actuarial Values
As of December 31, 2010
(\$ in 000's)

	APV* of Projected Benefits	Entry Age Actuarial Values		
		Actuarial Accrued Liability (AAL)	Normal Cost \$	Normal Cost % of Pay**
1 Active Members				
a. Retirement	\$ 1,309,488	\$ 1,082,097	\$ 35,968	11.43%
b. Death	27,479	18,445	1,469	0.47%
c. Disability	16,613	7,918	1,390	0.44%
d. Termination	95,042	17,343	11,894	3.78%
e. Health Subsidy	46,603	33,770	2,272	0.70%
Total	1,495,225	1,159,573	52,993	16.82%
2 Benefit Recipients	2,041,322	2,041,322		
3 Other Inactive	81,231	81,231		
4 Total Actuarial Values of Benefits	3,617,778	3,282,126	52,993	16.82%
5 Actuarial Value of Assets		3,027,439		
6 Unfunded Actuarial Accrued Liability (4 - 5)		254,687		
7 Funding Ratio		92.24%		

* APV – Actuarial Present Value

** Percentage of expected payroll for continuing active members.

Development of Actuarially Required Contribution for FY 2012
(\$ in 000's)

	<u>\$</u>	<u>% of Pay</u>
1 Actuarial Requirement		
a. Payment to Amortize UAAL over 30 years*	\$ 16,569	4.99%
b. Normal Cost	52,993	16.82%
c. Administrative Expense	<u>3,235</u>	<u>1.00%</u>
Total	\$ 72,797	22.81%

** Amortization is determined as a level percentage of projected payroll*

Information for Ordinance 25695
For the Fiscal Year Commencing October 1, 2011

1 Prior Adjusted Total Obligation Rate	26.51%
2 Actuarially Required Contribution Rate	22.81%
3 Debt Service	
a Scheduled Debt Service Payment for FY 2012	30,469,255
b Projected Payroll	332,044,904
c Pension Obligation Bond Credit Rate (a/b)	9.18%
4 Current Total Obligation Rate (2 + 3c)	31.99%
5 Current Adjusted Total Obligation Rate	29.16% *
6 Allocation of Contribution Rates for FY 2011	
a Employee (5 x .37)	10.79%
b City (5 x .63)	18.37%

* If the absolute value of the difference between the Prior Adjusted Total Obligation Rate (PATOR) and the Current Total Obligation Rate (CTOR) is less than or equal to 3.0% then:

Current Adjusted Total Obligation Rate (CATOR) = PATOR

otherwise:

1) If $PATOR - CTOR > 3.00\%$ then the CATOR is set equal to the greater of:

- a) the average of the Prior Adjusted Total Obligation Rate and the Current Total Obligation Rate; or
- b) 90% of the Prior Adjusted Total Obligation Rate

or

2) If $PATOR - CTOR < -3.00\%$ then the CATOR is set equal to the lesser of:

- a) the average of the Prior Adjusted Total Obligation Rate and the Current Total Obligation Rate; or
- b) 110% of the Prior Adjusted Total Obligation Rate

Excerpts from City Ordinance 25695

ACTUARIALLY REQUIRED CONTRIBUTION RATE – means, for any fiscal year, a rate of contribution to the fund, expressed as a percentage of members' projected wages for such fiscal year, which is the sum of the following as determined in the actuarial valuation report for the preceding plan year:

- (A) the actuarial present value of the pension plan benefits and expenses that are allocated to a valuation period by the actuarial cost method; and
- (B) the contribution that will amortize the difference between the actuarial accrued liability of the fund and the actuarial value of the assets of the fund over the period of years required by generally accepted accounting principles.

CITY CONTRIBUTIONS – means, for each pay period ending during a transition year, the city shall contribute to the retirement fund an amount equal to:

- (A) 63% times the current total obligation rate for that fiscal year times the members' wages for the pay period, minus
- (B) The pension obligation bond credit rate for that fiscal year times the members' wages for the pay period;

and, for each pay period ending during each fiscal year, except for a transition year, the city shall contribute to the retirement fund an amount equal to:

- (C) 63% times the current adjusted total obligation rate for that fiscal year times the members' wages for the pay period, minus
- (D) The pension obligation bond credit rate for that fiscal year times the members' wages for the pay period.

EMPLOYEE CONTRIBUTIONS – means, for each pay period ending during a transition year, each member shall contribute to the retirement fund an amount equal to:

- (A) 37% times the current total obligation rate for that fiscal year times the member's wages for the pay period;

and, for each pay period ending during each fiscal year, except for a transition year, the member shall contribute to the retirement fund an amount equal to:

- (B) 37% times the current adjusted total obligation rate for that fiscal year times the member's wages for the pay period.

CURRENT ADJUSTED TOTAL OBLIGATION RATE – means, for any fiscal year, the rate determined by the board as follows, using whichever formula is applicable:

(A) If the current total obligation rate minus the prior adjusted total obligation rate is greater than three, then the current adjusted total obligation rate for such fiscal year is equal to the lesser of:

- (i) the prior adjusted total obligation rate plus one-half times the difference of the current total obligation rate minus the prior adjusted total obligation rate; or
- (ii) 110 percent times the prior adjusted total obligation rate; or
- (iii) 36 percent.

(B) If the difference between the current total obligation rate and the prior adjusted total obligation rate is less than three, then the current adjusted total obligation rate for such fiscal year is equal to the prior adjusted total obligation rate.

(C) If the prior adjusted total obligation rate minus the current total obligation rate is greater than three, then the current adjusted total obligation rate for such fiscal year is equal to the greater of:

- (i) the prior adjusted total obligation rate minus one-half times the difference of the prior adjusted total obligation rate minus the current total obligation rate; or
- (ii) 90 percent times the prior adjusted total obligation rate.

CURRENT TOTAL OBLIGATION RATE – means, for any fiscal year, the rate adopted by the board that is equal to the sum of the pension obligation bond credit rate for such fiscal year plus the actuarially required contribution rate for such fiscal year.

PENSION OBLIGATION BOND CREDIT RATE – means, for any fiscal year, the rate adopted by the board that is a percentage calculated by dividing:

(A) the debt service due during such fiscal year on any pension obligation bonds, the proceeds of which have been deposited in the fund, by:

(B) the total members' projected wages for such fiscal year, as reported in the relevant actuarial valuation report.

PRIOR ADJUSTED TOTAL OBLIGATION RATE – means:

(A) for the fiscal year commencing October 1, 2006, the current total obligation rate that was effective for the prior fiscal year; and

(B) for each fiscal year commencing on or after October 1, 2007, the current adjusted total obligation rate that was effective for the prior fiscal year.

PROJECTED PAYROLL – means the covered payroll for the valuation proceeding the fiscal year multiplied by the payroll growth assumption.

TRANSITION YEAR – means each of the following:

- (A) the first fiscal year in which debt service payments related to pension obligation bonds are due from the city;
- (B) the first fiscal year in which no debt service payments related to pension obligation bonds are due from the city; and
- (C) the fiscal year beginning October 1, 2005.

	Net Assets Available for Benefits	
	(\$ in 000's)	
	<u>December 31, 2009</u>	<u>December 31, 2010</u>
Assets		
Cash & Short-Term	\$87,493	\$99,101
Receivables		
Accrued Investment Income	12,125	12,102
Securities Sold	2,364	3,891
Employer Contribution	217	307
Employee Contribution	239	351
Pending Contracts	0	1,844
	<u>14,945</u>	<u>18,495</u>
Investments		
Index Funds	355,299	255,126
Fixed Income	707,134	785,328
Equities	1,463,692	1,599,408
Real Estate	0	135,049
Private Equity	3,708	16,434
Venture Capital	5	4
	<u>2,529,838</u>	<u>2,791,349</u>
Total Assets	2,632,276	2,908,945
Liabilities		
Accounts Payable	4,324	3,836
Investment Transactions	27,579	36,913
	<u>31,903</u>	<u>40,749</u>
Net Assets Available For Benefits	<u><u>2,600,373</u></u>	<u><u>2,868,196</u></u>

Change in Assets Available for Benefits
Fiscal Year Ending December 31, 2010
(\$ in 000's)

	<u>2009</u>	<u>2010</u>
1 Assets Available at Beginning of Year	\$ 2,096,850	\$ 2,600,373
Adjustment *	<u>6,415</u>	<u>(173)</u>
	2,103,265	2,600,200
2 Revenues		
a. Employer Contributions	25,232	27,323
b. Employee Contributions	32,229	31,666
c. Investment Income	77,616	79,003
d. Investment Expense	(9,147)	(10,892)
e. Realized and Unrealized Gains (Losses)	549,664	330,364
f. Other (Security Lending)	<u>1,595</u>	<u>1,126</u>
Total Revenues	677,189	458,590
3 Expenses		
a. Benefits	172,493	182,883
b. Refunds	4,273	4,476
c. Administration Expense	<u>3,315</u>	<u>3,235</u>
Total Expense	180,081	190,594
4 Assets Available at End of Year (1 + 2 - 3)	<u><u>2,600,373</u></u>	<u><u>2,868,196</u></u>

* Change due to difference between unaudited asset value used for prior valuation and audited asset value reported the following year.

Development of Actuarial Value of Assets		
As of December 31, 2010		
(\$ in 000's)		
	<u>Market Value</u>	<u>Actuarial Value</u>
1 Value of Assets @ 12-31-2009	\$ 2,600,373	\$ 3,031,652
2 Non-Investment Cash Flows during 2010		
a. Employer Contributions	27,323	27,323
b. Employee Contributions	31,666	31,666
c. Benefits (including refunds)	(187,359)	(187,359)
d. Administrative Expenses	(3,235)	(3,235)
Total	(131,605)	(131,605)
3 Expected Investment Returns @ 8.25%	244,790	244,790
4 Expected Assets @ 12-31-2010 (1 + 2 + 3)	2,713,558	3,144,837
5 Actual Assets Available for Benefits	2,868,196	
6 Gain/ (Loss) From Investment Returns (5 - 4)	154,638	
7 Recognition of Gains / (Losses)		
a. One-fifth of Current Year Gain/(Loss) (one-fifth of 6)		30,928
b. One-fifth of 2009 Gain/(Loss)		75,826
c. One-fifth of 2008 Gain/(Loss)		(246,859)
d. One-fifth of 2007 Gain/(Loss)		(25,893)
e. One-fifth of 2006 Gain/(Loss)		48,600
Total		(117,398)
8 Actuarial Value of Assets @ 12-31-2010 (4 + 7)		3,027,439

Historical Investment Performance
Dollar Weighted Basis Net of Investment Expenses

<u>Calendar Year</u>	<u>On Market Value</u>	<u>On Actuarial Value</u>
1997	20.48%	12.49%
1998	16.99%	15.17%
1999	16.74%	17.69%
2000	-3.45%	9.59%
2001	-5.46%	2.76%
2002	-9.81%	-5.37%
2003	27.05%	2.03%
2004	15.22%	9.38%
2005	7.93%	13.71%
2006	16.90%	13.03%
2007	3.56%	9.58%
2008	-31.31%	-3.76%
2009	30.35%	6.79%
2010	15.77%	4.30%
5-year average ending in 2010	4.64%	5.83%
10-year average ending in 2010	5.39%	5.06%

**Analysis of Change in Unfunded
Actuarial Accrued Liability
For the Year Ending December 31, 2010
(\$ in 000's)**

1 UAAL as of December 31, 2009		\$ 160,468
2 Expected Change in UAAL during 2010		
a. Expected Amortization Payment for CY 2010	(10,430)	
b. Interest adjustments on 1, 2a, & 2b to Year End @ 8.25%	<u>12,808</u>	
c. Expected change in UAAL		2,378
3 Increase/(Decrease) in UAAL Due to Difference Between Calculated Contribution Rate and Actual Contribution Rate		9,122
4 Net Actuarial Experience (Gains) & Losses		16,085
5 Assumption and Method Changes		66,634
6 UAAL as of December 31, 2010		\$ 254,687

Analysis of Actuarial (Gains) and Losses
For 2010
(\$ in 000's)

	<u>2010</u>
Investment Return	\$ 117,398
Salary Increase	(83,034)
Age and Service Retirement	(2,335)
General Employment Termination	(2,206)
Disability Incidence	(123)
Active Mortality	(54)
Benefit Recipient Mortality	2,019
Actual vs. Expected Cost of Living Adjustment (COLA)*	(8,684)
Other	<u>(6,896)</u>
Total Actuarial (Gain) Loss	\$ 16,085

*Actual COLA of 2.30% versus expected COLA of 3.00%

Schedule of Funding Status
(As Required by GASB #25)
(\$ in 000's)

End of Year	Actuarial Value of Assets (a)	AAL (b)	UAAL (b-a)	Funding Ratio (a/b)	Payroll* (c)	UAAL as % of Payroll ((b-a)/c)
1992	\$854,000	\$1,107,000	\$253,000	77.15%	\$200,000	126.50%
1993	945,000	1,123,000	178,000	84.15%	200,000	89.00%
1994	991,000	1,199,000	208,000	82.65%	208,000	100.00%
1995	1,176,000	1,459,000	283,000	80.60%	243,357	116.30%
1996	1,310,081	1,585,081	275,000	82.65%	257,169	106.90%
1997	1,437,533	1,673,761	236,228	85.89%	261,799	90.20%
1998	1,617,468	1,750,430	132,962	92.40%	275,547	48.30%
1999	1,862,644	1,873,998	11,353	99.39%	282,127	4.00%
2000	1,997,828	2,038,078	40,250	98.03%	298,355	13.50%
2001	2,017,041	2,276,488	259,447	88.60%	332,842	77.90%
2002	1,863,701	2,399,569	535,868	77.67%	324,615	165.08%
2003	1,843,099	2,489,071	645,972	74.05%	318,492	202.82%
2004	2,482,082	2,488,270	6,188	99.75%	331,201	1.87%
2005	2,739,269	2,606,173	(133,096)	105.11%	332,446	-40.04%
2006	2,998,099	2,761,404	(236,695)	108.57%	344,997	-68.61%
2007	3,183,260	2,915,164	(268,096)	109.20%	370,150	-72.43%
2008	2,957,506	3,075,385	117,879	96.17%	389,362	30.27%
2009	3,031,652	3,192,120	160,468	94.97%	375,164	42.77%
2010	3,027,439	3,282,126	254,687	92.24%	332,045	76.70%

* Projected to following year.

Schedule of Employer Contributions
(As Required by GASB #25)
(\$ in 000's)

Year	Total ARC*	Member Contributions	Net City ARC	Actual City Contributions	City Cont. as Percent of Net ARC
1997	\$58,095	\$13,193	\$44,902	\$22,404	49.90 %
1998	61,339	14,001	47,338	23,762	50.20 %
1999	57,159	14,932	42,227	25,217	59.72 %
2000	50,142	16,460	33,682	27,847	82.68 %
2001	52,535	20,814	31,728	35,182	110.91 %
2002	71,246	21,771	49,475	36,606	73.99 %
2003	86,429	20,580	65,849	34,729	52.74 %
2004	92,278	20,896	71,382	35,251	49.38 %
2005	51,290	23,392	27,898	565,569	2027.29 %
2006	44,503	30,123	14,380	23,000	159.94 %
2007	41,079	31,692	9,387	23,413	249.42 %
2008	42,637	31,839	10,798	22,720	210.41 %
2009	71,615	32,229	39,386	25,232	64.06 %
2010	72,765	31,666	41,099	27,323	66.48 %
2011	72,797	32,574 **	40,223 **		

* ARC – Annual Required Contribution as defined in GASB Statements No. 25 and No. 27.

** Estimated.

Note 1: Data for years prior to 1998 are based on prior actuarial work product.

Note 2: GASB Statements 25 and 27 are standards for accounting for public retirement systems and employers. They are not designed to limit the funding decisions of plan sponsors.

Notes to Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation for GASB 25 purposes is as follows:

Valuation Date	December 31, 2010
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent Open
Payroll Growth Rate for Amortization	3.00%
Remaining Amortization Period	30 years
Asset Valuation Method	5-Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return*	8.25%
Projected Salary Increases*	3.0% - 7.0%
*Includes Inflation at	3.00%
Cost-of-Living Adjustments	3.00%

Summary of Data Characteristics

	December 31, 2008	December 31, 2009	December 31, 2010
Active Members			
Number	8,371	7,654	7,034
Total Annualized Earnings of Members as of 12/31 (000's)	\$378,021	\$364,237	\$322,374
Average Earnings	45,158	47,588	45,831
Benefit Recipients			
Number	5,476	5,706	5,993
Total Annual Retirement Income (000's)	\$154,693	\$165,826	\$179,730
Total Annual Health Supplement (000's)	\$7,988	\$8,317	\$8,741
Average Total Annual Benefit	\$29,708	\$30,519	\$31,449
Inactive Members			
Number	1,092	1,219	1,111*

* The number of inactives on 12/31/2010 includes 702 members who have applied for a deferred pension and 409 other members who have terminated and still have contribution balances in the Fund.

**Distribution of Active Members and Payroll by Age and Years of Service
as of December 31, 2010**

Age	Years of Service								Totals
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under 20	-	1	-	-	-	-	-	-	1
	-	18,047	-	-	-	-	-	-	18,047
20-24	24	94	1	-	-	-	-	-	119
	713,506	2,670,006	24,215	-	-	-	-	-	3,407,727
25-29	45	314	53	3	-	-	-	-	415
	1,520,478	10,520,838	1,864,435	110,365	-	-	-	-	14,016,116
30-34	42	321	148	71	-	-	-	-	582
	1,417,119	11,941,806	6,300,564	2,822,123	-	-	-	-	22,481,612
35-39	37	293	192	195	56	3	-	-	776
	1,525,136	11,364,698	8,165,273	8,382,920	2,500,060	139,304	-	-	32,077,391
40-44	33	301	199	218	161	54	13	-	979
	1,271,838	11,849,819	8,661,428	10,115,894	8,317,459	2,798,775	678,762	-	43,693,975
45-49	32	313	235	291	161	179	156	11	1,378
	1,092,009	12,276,570	10,480,025	13,124,792	8,347,808	10,516,008	8,814,760	637,887	65,289,859
50-54	24	238	174	240	153	211	178	35	1,253
	1,036,472	9,849,543	7,884,894	11,354,378	8,124,538	12,278,425	10,937,995	2,218,205	63,684,450
55-59	20	180	121	213	140	91	87	41	893
	739,062	7,436,772	5,441,252	10,230,043	7,177,329	5,535,978	5,298,634	2,466,766	44,325,836
60-64	4	95	89	116	65	52	46	25	492
	248,394	3,730,658	4,461,454	5,835,857	3,649,930	3,098,012	3,021,183	1,750,738	25,796,226
65&Over	3	14	28	30	25	20	14	12	146
	53,362	578,999	1,535,661	1,544,099	1,363,258	1,140,778	759,710	606,587	7,582,454
Totals	264	2,164	1,240	1,377	761	610	494	124	7,034
	9,617,376	82,237,756	54,819,201	63,520,471	39,480,382	35,507,280	29,511,044	7,680,183	322,373,693

**Distribution of Benefit Recipients
as of December 31, 2010**

Age	Number	Annual Benefit*	Annual Average Benefit*
Under 50	87	1,382,322	15,889
50-54	391	15,633,288	39,983
55-59	864	34,957,483	40,460
60-64	1,374	49,153,481	35,774
65-69	1,037	29,229,702	28,187
70-74	732	19,239,457	26,283
75-79	584	13,181,609	22,571
80-84	453	9,461,173	20,886
85-89	299	5,327,902	17,819
90 & Over	172	2,163,967	12,581
Total	5,993	179,730,384	29,990

* Does not include Health Benefit Supplement.

EXPERIENCE TABLES

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**Pay Experience for Employees who are Active at
Beginning and End of Year
Valuation Pay Analysis
Analyzed by Years of Service**

Service Beginning of Year	Experience for 2010			
	Number	Expected Pay	Actual Pay	Ratio A/E
Under 5	1,891	78,401,282	71,996,731	91.83%
5-9	1,347	62,650,612	58,175,565	92.86%
10-14	1,388	67,456,970	63,240,818	93.75%
15-19	855	46,348,316	43,525,873	93.91%
20-24	585	36,420,045	33,763,823	92.71%
25-29	540	34,796,510	32,247,770	92.68%
30 & Over	154	10,202,238	9,424,834	92.38%
Total	6,760	\$ 336,275,973	\$ 312,375,414	92.89%
Over 10 Years	3,522	\$ 195,224,079	\$ 182,203,118	93.33%

Service Beginning of Year	Experience for 2006/2010			
	Number	Expected Pay	Actual Pay	Ratio A/E
Under 5	9,831	382,412,323	374,551,406	97.94%
5-9	6,868	296,612,894	293,130,310	98.83%
10-14	6,739	309,060,371	307,321,474	99.44%
15-19	4,039	209,234,966	208,002,250	99.41%
20-24	3,913	221,679,770	220,797,189	99.60%
25-29	2,865	168,099,266	166,463,134	99.03%
30 & Over	871	52,410,763	51,925,153	99.07%
Total	35,126	\$ 1,639,510,353	\$ 1,622,190,916	98.94%
Over 10 Years	18,427	\$ 960,485,136	\$ 954,509,200	99.38%

Analysis of Retirement Experience

Age	2010 Retirement			2006/2010 Retirement		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
46	-	-	N/A	-	-	N/A
47	-	-	N/A	-	-	N/A
48	-	0.90	0.00%	1	2.40	41.67%
49	2	0.90	222.22%	6	5.80	103.45%
50	29	20.10	144.28%	97	96.30	100.73%
51	25	16.74	149.34%	92	94.58	97.27%
52	19	17.90	106.15%	87	101.40	85.80%
53	26	18.30	142.08%	83	92.50	89.73%
54	18	20.70	86.96%	92	105.75	87.00%
55	15	21.00	71.43%	68	112.95	60.20%
56	28	20.31	137.86%	84	95.92	87.57%
57	15	14.06	106.69%	77	97.27	79.16%
58	19	16.24	117.00%	72	91.28	78.88%
59	22	18.32	120.09%	70	81.96	85.41%
60	31	29.60	104.73%	97	138.29	70.14%
61	23	23.15	99.35%	81	109.95	73.67%
62	25	25.46	98.19%	69	91.61	75.32%
63	13	15.43	84.25%	54	67.84	79.60%
64	11	12.48	88.14%	42	54.74	76.73%
65	14	14.00	100.00%	51	72.15	70.69%
66	6	6.70	89.55%	33	46.45	71.04%
67	12	11.10	108.11%	39	38.20	102.09%
68	11	6.55	167.94%	23	22.05	104.31%
69	5	4.35	114.94%	13	15.25	85.25%
70 & Over	11	39.00	28.21%	41	202.00	20.30%
Total	380	373.29	101.80%	1,372	1,836.64	74.70%
Total Under 70	369	334.29	110.38%	1,331	1,634.64	81.42%

Analysis of Retirement Experience
Age Groups

Age Group	2010 Retirements			2006/2010 Retirements		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
Under 55	121	112.41	107.64%	460	515.60	89.22%
55-59	105	119.58	87.81%	377	509.03	74.06%
60-64	97	121.10	80.10%	337	477.41	70.59%
65-69	47	56.45	83.26%	158	207.85	76.02%
70 & Over	10	46.00	21.74%	40	209.00	19.14%
Total	380	455.54	83.42%	1,372	1,918.89	71.50%
Total Under 70	370	409.54	90.35%	1,332	1,709.89	77.90%

Analysis of Turnover Experience

Years of Service	2010 Quits			2006/2010 Quits		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
0-4	329	294.75	111.62%	2,109	1,750.72	120.47%
5-9	90	93.59	96.16%	516	450.97	114.42%
10-14	41	50.79	80.73%	259	256.03	101.16%
15-19	16	21.10	75.85%	95	98.09	96.85%
20-24	8	7.78	102.77%	56	52.69	106.27%
25-29	1	1.83	54.67%	5	8.72	57.35%
Total	485	469.84	103.23%	3,040	2,617.21	116.15%

Analysis of Active Mortality Experience

<u>Age</u>	2010 Deaths			2006/2010 Deaths		
	<u>Actual</u>	<u>Expected</u>	<u>Ratio A/E</u>	<u>Actual</u>	<u>Expected</u>	<u>Ratio A/E</u>
20-24	-	0.07	0.00%	-	0.42	0.00%
25-29	1	0.26	390.27%	3	1.36	220.96%
30-34	2	0.45	447.63%	5	2.33	214.89%
35-39	2	0.67	297.87%	4	3.59	111.52%
40-44	2	1.20	166.07%	8	6.78	117.95%
45-49	3	2.47	121.68%	14	12.81	109.30%
50-54	-	3.79	0.00%	23	19.07	120.60%
55-59	5	4.54	110.06%	27	23.17	116.55%
60 and Over	4	7.04	56.81%	24	30.23	79.38%
Total	19	20.49	92.73%	108	99.76	108.26%

Data review during 2011 experience study found additional deaths during 2006 – 2009.

Analysis of Disability Experience

Age	2010 Disabilities			2006/2010 Disabilities		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
20-24	-	0.02	0.00%	-	0.14	0.00%
25-29	-	0.11	0.00%	-	0.60	0.00%
30-34	-	0.23	0.00%	-	1.18	0.00%
35-39	-	0.40	0.00%	2	2.14	93.41%
40-44	1	0.89	112.37%	5	5.01	99.81%
45-49	3	2.42	124.09%	10	12.57	79.58%
50-54	5	3.45	144.90%	17	17.33	98.12%
55-59	2	3.26	61.31%	11	16.34	67.33%
60 and Over	-	0.91	0.00%	2	4.30	46.54%
Total	11	11.69	94.09%	47	59.60	78.86%

2006-2009 expected disabilities modified from prior report to include possibility of disability when not eligible for benefit.

Analysis of Retiree Mortality Experience*

Age	2010 Experience			2006/2010 Experience		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
Under 60	6	5.29	113.40%	36	27.56	130.64%
60-64	19	12.86	147.74%	68	52.84	128.68%
65-69	13	16.62	78.20%	58	72.51	79.99%
70-74	14	19.19	72.94%	75	89.24	84.05%
75-79	23	23.41	98.24%	110	119.16	92.31%
80-84	30	28.44	105.50%	121	138.55	87.34%
85-89	22	27.17	80.96%	140	132.36	105.77%
90 & over	24	21.04	114.09%	104	101.13	102.84%
Total	151	154.03	98.04%	712	733.34	97.09%

*This analysis does not include beneficiary, QDRO, or disabled deaths.

ACTUARIAL METHOD AND ASSUMPTIONS ENTRY AGE NORMAL METHOD

The Entry Age Normal actuarial cost method is the actuarial valuation method used for all purposes under ERF.

The concept of this method is that funding of benefits for each member should be effected as a, theoretically, level contribution (as a level percentage of pay) from entry into ERF to termination of active status.

The Normal Cost (NC) for a fiscal year under this method is determined as described in the prior paragraph for each member. The ERF NC for the year is the total of individual normal costs determined for each active member.

The Actuarial Accrued Liability (AAL) under this method is the theoretical asset balance of the normal costs that would have accumulated to date based upon current actuarial assumptions. To the extent that the assets of the fund are insufficient to cover the AAL, an Unfunded Actuarial Accrued Liability (UAAL) develops.

The actuarially calculated contribution for a year is the Normal Cost for that year plus an amount to amortize the UAAL over 30 years as a level percentage of pay.

ACTUARIAL VALUE OF ASSET METHOD

The actuarial value of assets is equal to the expected actuarial value of assets adjusted for a five-year phase-in of actual investment return in excess of (or less than) expected investment return. The actual return is calculated net of investment expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's actuarial value of assets, adjusted for contributions, benefits paid, and refunds.

ACTUARIAL ASSUMPTIONS (AS OF DECEMBER 31, 2010)

Annual Rate of Investment Return. For all purposes under the Fund, the rate of investment return is assumed to be 8.25% per annum, net of investment expenses. This rate includes an annual assumed rate of inflation of 3.00%. In addition, annual cost-of-living adjustments are assumed to occur on average at the rate of 3.00% per annum.

Annual Compensation Increases. Each member's compensation is assumed to increase in accordance with a table based on actual ERF experience. Sample rates follow.

<u>Years of Service</u>	<u>Merit, Promotion, Longevity</u>		<u>General</u>		<u>Total</u>	
0	3.50	%	3.50	%	7.00	%
1	3.25		3.50		6.75	
2	2.75		3.50		6.25	
3	1.50		3.50		5.00	
4	1.25		3.50		4.75	
5	1.00		3.50		4.50	
6	0.75		3.50		4.25	
7	0.50		3.50		4.00	
8	0.25		3.50		3.75	
9 & Over	0.00		3.50		3.50	

The schedule shown above is assumed for calendar years after 2014. Active employee salaries are assumed to increase by 3.00% for calendar years 2011 – 2014.

Actuarial Assumptions (cont.)

Mortality:

Disabled Lives: RP-2000 Disabled Mortality Table for male annuitants, set forward one year.

Sample rates follow (rate per 1,000):

Age	Disability Mortality Rate	
	Male	Female
20	23	23
30	23	23
40	23	23
50	30	30
60	43	43
70	66	66
80	116	116
90	200	200

Other Benefit Recipients:

- a. Males – RP-2000 Healthy Mortality Table for male annuitants, projected to 2007 using scale AA, set forward two years.
- b. Females – RP-2000 Healthy Mortality Table for female annuitants.

Sample rates follow (rate per 1,000).

Age	Mortality Rate	
	Male	Female
30	0.5	0.3
40	1.1	0.7
50	2.3	1.7
60	7.9	5.1
70	24.5	16.7
80	76.1	45.9
90	212.1	131.7

Actuarial Assumptions (cont.)

Mortality:

Active Members:

- a. Males – RP2000 Healthy Mortality Table for male employees, set forward 4 years.
- b. Females – RP2000 Healthy Mortality Table for female employees, set back 5 years.

Sample rates follow (rate per 1,000).

Age	Mortality Rate	
	Male	Female
30	0.7	0.2
40	1.4	0.5
50	2.8	1.1
60	7.0	2.5
70	33.9	5.8
80	99.8	28.1
90	250.7	77.4

10% of active deaths are assumed to be service related.

Disability: A client-specific table of disability incidence with sample rates follows (rate per 1,000).

Age	Disability Rate
30	0.3
40	0.6
50	2.4
60	6.0

35% of disabilities are assumed to be service related. There is a 0.00% assumption of disability for members who have over 10 years of service and are eligible for retirement.

Actuarial Assumptions (cont.)

Retirement: Upon eligibility, active members are assumed to retire as follows (rate per 1,000).

Age	Male		Female	
	First Year Eligible	Thereafter	First Year Eligible	Thereafter
48-49	100	100	100	100
50	550	550	350	350
51	450	450	430	430
52	450	330	430	430
53	380	330	300	300
54	380	330	300	300
55	380	330	300	300
56	350	300	250	250
57	350	300	220	220
58-59	330	280	220	220
	<u>Service < 18 yrs.</u>	<u>Service 18 yrs.+</u>	<u>Service < 18 yrs.</u>	<u>Service 18 yrs. +</u>
60	80	250	100	350
61	90	250	150	220
62	130	250	150	200
63	150	280	150	150
64	160	250	100	100
65	200	350	200	250
66	250	250	250	350
67	250	200	250	350
68	150	200	150	350
69	150	200	150	150
70	1,000	1,000	1,000	1,000

Actuarial Assumptions (cont.)

General Turnover: A table of termination rates based on ERF experience. A sample of the ultimate rates follows.

<u>Years of Service</u>	<u>Terminations (per 1,000)</u>
0	210.0
1	160.0
2	130.0
3	105.0
4	85.0
5	67.5
6	62.5
7	57.5
8	49.0
9	46.0
10-14	37.0
15-19	22.0
20 & Over	14.0

There is 0.00% assumption of termination for members eligible for retirement.

Refunds of Contributions: Members are assumed to choose the most valuable termination benefit.

Operational Expenses: The amount of estimated administrative expenses expected in the next year is assumed to be equal to the prior year's expenses and is incorporated in the Normal Cost.

Marital Status: 75% of active male members and 50% of active female employees are assumed to be married.

Vacation Leave Conversions: Members with 20 or more years of service are assumed to convert unused vacation leave to 1.7 months of service. Members with 10 to 19 years of service are assumed to convert unused vacation leave to 1 month of service. Members with less than 10 years of service are assumed to convert unused vacation leave to 0.5 months of service. No vacation leave conversion is assumed for disability retirement.

Actuarial Assumptions (cont.)

Spouse Age: The female spouse is assumed to be 3 years younger than the male spouse.

Payroll Growth Rate: In determining the level percent amortization of UAAL rate, the payroll of the entire system is assumed to increase at 3% each year.

Member's Pay: In determining the member's valuation salary, the greater of the prior calendar year's gross pay and the member's rate of compensation is used.

Form of Payment: It is assumed that 60% of married active male members and 75% of married active female employees will elect a Joint & 50% Survivor form of payment. Taking into consideration the marriage assumption and the inherent subsidy in the System's Joint & 100% Survivor factors, the male employees are valued with Joint and 30.5% Survivor annuities and the female employees are valued with Joint and 15.0% Survivor annuities.

Changes in Assumptions and Methods Since Prior Valuation: Please refer Section F and to the December 31, 2010 Experience Study report for a listing of assumptions changes. The assumptions shown in this section reflect the adopted assumption changes.

SUMMARY OF BENEFIT PROVISIONS

Employees' Retirement Fund of the City of Dallas as of December 31, 2010

Membership	An employee becomes a member upon permanent employment and contributes to the Fund.
Contributions	Member: 37% of the current adjusted total obligation rate. New rates effective October 1 after the valuation date. City: 63% of the current adjusted total obligation rate. New rates effective October 1 after the valuation date.
Definitions	Final Average Salary: Average monthly salary over the member's highest three years of service. Credited Service: Length of time as an employee of the City of Dallas and while making contributions to the Fund.
Retirement Pension	Eligibility: a. Attainment of age 60; or b. Attainment of age 55 (if credited service began before May 9, 1972); or c. At any age after completion of 30 years of credited service with a reduced benefit before age 50; or d. Attainment of age 50, if the sum of an active member's age and credited service is at least equal to 78.

Summary of Benefit Provisions (cont.)

Retirement Benefits: The retirement benefit equals 2-3/4% multiplied by average monthly earnings multiplied by credited service limited to a maximum of 36.3636 years plus a monthly \$125 health supplement (prorated for service less than 5 years).

Form of Payment: An unreduced pension benefit under a joint and one-half survivor option or a ten-year certain and life option. An actuarially equivalent joint and full survivor option is also available.

Deferred Retirement

Eligibility: Deferred retirement pension benefit commencing at age 60 or at age 55, if employment commenced prior to May 9, 1972, with at least five (5) years of credited service, and accumulated contributions are left on deposit with the Fund.

Monthly Benefit: The deferred retirement benefit is equal to the retirement pension based on earnings and credited service at the time of termination.

Disability Retirement Pension

Non-Service Disability:

1. Eligibility: Five (5) years of service and totally and permanently incapacitated for duty.
2. Monthly Benefit: Computed based on average monthly earnings and credited service at time of disability but not less than 10 times the percentage multiplier multiplied by the average monthly earnings.

Summary of Benefit Provisions (cont.)

Service Disability:

1. Eligibility: Totally and permanently incapacitated from the further performance of duty as a result of injury while in the course of employment for the City.
2. Monthly Benefit: Calculated as a non-service disability pension but not less than \$500 per month.

Death Benefits

Form: Benefit paid in accordance with the option on file, or the eligible option, or if no eligible beneficiary, a lump sum equivalent of 10 years of benefit payments to the member's estate.

Monthly Benefit: Based on average monthly earnings and credited service at death but not less than 10 times the percentage multiplier multiplied by the average monthly earnings.

Minimum Service Death Benefit: Not less than \$500 per month if death resulted from a service related injury.

Return of Accumulated Contributions

A member at the time of termination is entitled to be paid accumulated contributions without interest.

Cost-of-Living Adjustments

An annual cost-of-living adjustment to the base pension benefit shall be made based on the greater of:

- a. The percentage of change in the price index for October of the current year over October of the previous year, up to 5%, or
- b. The percentage of annual average change in the price index for the 12-month period ending with the effective date of the adjustment, up to 5%.