
**The Report of the
December 31, 2005 Actuarial Valuation
of the Employees' Retirement Fund
of the City of Dallas**



GRS

Gabriel Roeder Smith & Company

May 9, 2006

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

Dear Members of the Board:

We are pleased to present the report of the actuarial valuation of the Employees' Retirement Fund of the City of Dallas ("ERF") as of December 31, 2005.

This valuation provides information on the funding status of ERF. It includes a determination of the actuarially calculated contribution level for the 2006 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, 2006. 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 pension obligation bonds for fiscal year 2007.

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 value of the trust fund as of that date. All member data and asset information were provided by ERF staff. While certain checks for reasonableness were performed, the data used was not audited.

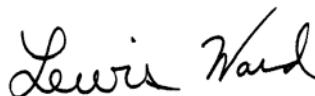
The actuarial assumptions and cost method are those adopted by the Board of Trustees in April 2006 following the completion of an experience investigation.

To the best of our knowledge, this report is complete and accurate and was conducted in accordance with standards of practice by the Actuarial Standards Board and in compliance with the provisions of the ordinance. The actuarial assumptions used for the valuation produce results which, in the aggregate, are reasonable. The valuation was produced under the supervision of a Member of the American Academy of Actuaries, and all three signatories have significant experience valuing large, public employee retirement systems.

Respectfully submitted,



Norman S. Losk, F.S.A.
Senior Consultant



Lewis Ward
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Summary of the Valuation



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") as of December 31, 2005.

The purposes of an actuarial valuation are as follows:

- To determine the funding status of ERF as of the valuation date, and
- To develop the actuarially determined level of contributions for ERF for the calendar year 2006, and
- To develop the current total obligation rate and the current adjusted total obligation rate for the fiscal year beginning October 1, 2006.

Report Highlights

The following is a set of key results for the prior year valuation and for the current year:

	(\$ in 000's)	
	<u>2005</u>	<u>2006</u>
Contribution Rates (% of Payroll)		
Normal Cost (including administrative expense)	15.90%	16.64%
Total Actuarial Contribution Rate	16.02%	14.03%
Total Projected Actuarial Contribution	\$51,290	\$44,503
Funded Status	<u>12/31/04</u>	<u>12/31/05</u>
Actuarial Accrued Liability	\$2,488,270	\$2,606,173
Actuarial Value of Assets	2,482,082	2,739,269
Unfunded Actuarial Accrued Liability	6,188	(133,096)
Funded Ratio	99.75%	105.11%



Funding Process

Based on the previous work of the Employees' Retirement Fund Study Committee that was ratified by both the City Council and the voters, a new funding process commenced October 1, 2005. From that 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 pension obligation bonds issued in 2005 and the contributions to the ERF. In subsequent years, the contribution rate will change only if the actuarial valuation develops a "current total obligation rate" which differs from the "prior adjusted total obligation rate" by 3.00% or more.

Actuarial Contribution

The Actuarially Required Contribution Rate developed in this actuarial valuation is 14.03% 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 2007. The debt service payment was determined to be 8.53% of projected payroll. The sum of these rates is 22.56% (the Current Total Obligation Rate) which is 1.85% less than the Prior Adjusted Total Obligation Rate of 24.41%. Because the difference is less than 3.00%, the total contribution rate in fiscal year 2007 (the Current Adjusted Total Obligation Rate) to fund the ERF and make the debt service payment on the pension obligation bonds remains at 24.41%.

Actuarial Assumptions

Appendix G 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 actuarial cost method. The assumed annual investment return rate is 8.25%.

An experience investigation was completed for the five-year period ending December 31, 2005. Based on that investigation, the actuary recommended numerous changes to the actuarial assumptions.



A brief description of the 2006 experience investigation follows. Please see Appendix G for a complete description of these assumptions.

2006 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 slightly lower than it would have been if no change had been made. Individually, each proposed change has a very small impact on the actuarially calculated contribution rate. Most of the experience was analyzed using five years of data. However, to study salary increases and rates of withdrawal, we used nine years of experience data.

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):

- ***Recommended no change to 3.00% inflation assumption***
- ***Recommended no change in investment return assumption of 8.25%***
- ***Recommended a decrease in the payroll growth assumption from 3.00% to 2.00%***
 - The Board did not adopt this recommendation, so the payroll growth assumption of 3.00% remains unchanged.
- ***Recommended changes to the promotional salary increase rates***
 - Three components analyzed: inflation, promotional/longevity, and general productivity.
 - Proposed service-based promotional increases are generally lower than those currently assumed.
 - No changes were recommended to the inflation and productivity assumptions, which keeps general salary increases at 3.50%.
- ***Recommended modifying the post-retirement mortality rates***
 - For disabled mortality, proposed assumptions are gender specific. Proposed male rates reflect poorer mortality than currently assumed, and proposed female rates assume better mortality than currently assumed.
 - For healthy-retired mortality, proposed assumptions are based on more current published tables (UP-94M and UP-94F). Overall, proposed male rates assume poorer mortality than currently assumed, and female rates were adjusted to create a better fit to actual experience.



- ***Recommended changes in retirement rates***
 - Proposed rates are gender specific, and do not use the first-eligibility distinction for members in their sixties.
 - Early retirement rates were considerably reduced.
 - The proposed rates for members retiring in their fifties are generally decreased. A first eligibility increase in the male rates is still incorporated in the proposed structure, but the proposed female rates have no first eligibility distinction.
 - For age sixty and over, there are two proposed retirement rates for 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 members with less than 18 years of service, and higher than the current rates for members with 18 or more years of service.
- ***Recommended modifying the termination rates***
 - Generally, the match between the assumed and actual service-based rates was very good.
 - The proposed rates make slight changes to more closely match the experience of the previous nine years.
- ***Recommended changes in percentage of employees electing refunds***
 - We proposed changing from the current practice of using specific refund percentages to a method that assumes a member will elect a refund only if the refund is actuarially more valuable.
 - The Board did not adopt our recommendation, so the current assumed refund percentages remain unchanged.
- ***Recommended modifying the active-member mortality rates***
 - Proposed rates are based on more current published tables (UP-94M and UP-94F).
 - Proposed male rates reflect an improved mortality and the proposed female rates are slightly different to better match experience.
 - Propose assuming that 15% of active deaths are service related.
- ***Recommended no change in rates of disability incidence***
 - Propose assuming that 35% of disabilities are service related.
- ***Recommended no changes to any liability or asset valuation methods***

ERF Benefits



There have been no changes in the benefit provisions of ERF since the prior valuation.

Experience During 2005

Actuarial Gain and Loss Analysis reviews the effects of experience that differs from that assumed on actuarial results. If such a difference increases assets or reduces liabilities, we have an actuarial gain. The reverse is an actuarial loss.

ERF experienced an overall actuarial gain in calendar year 2005. This year's overall actuarial gain amounted to approximately \$134.00 million.

The total actuarial gain is the net of the gain from assets and the gain from liabilities. The total gain is broken down as follows (\$ in millions):

	2002	2003	2004	2005
1) Actuarial (Gain)/Loss on Assets	\$279.54	\$118.79	(\$15.80)	(\$133.36)
2) Actuarial (Gain)/Loss on Liabilities	(21.08)	(51.16)	(27.52)	(0.64)
3) Total Actuarial (Gain) or Loss (1+2)	258.46	67.63	(43.32)	(134.00)

On a market value basis, the fund earned approximately 7.93% (on a dollar weighted basis net of investment expenses). However, the actual investment income was slightly more than the expected investment income on the actuarial value of assets, therefore, a small amount of excess investment income is being deferred into the future. Due to the recognition of prior years' deferred investment gains, there was an actuarial gain of nearly \$133.36 million on the actuarial value of assets. The rate of return on the actuarial value for 2005 was 13.71% (on a dollar weighted basis net of investment expenses). This result was more than the current investment return assumption of 8.25%.

In addition, during 2005, there was an actuarial gain of about \$640,000 from demographic assumptions and non-investment economic assumptions (salary increases).



Asset Information

The market value of the assets of the fund, which are available for benefits, increased from \$2,668 million as of December 31, 2004 (includes proceeds of the pension obligation bond) to \$2,799 million as of December 31, 2005. The investment markets, which turned downward significantly in the first three years of the 21st century, have reversed themselves to produce significant investment gains in the last three calendar years.

The assets recognized for actuarial purposes (actuarial value of assets) are the product of a smoothing technique. The purpose of such a technique is to allow the use of market values, but to dampen the effect of market volatility. See Table 3 for the determination of the actuarial value of assets.

The actuarial value of assets has been increased from \$2,482 million to \$2,739 million during 2005. The rate of return on investments for 2005 on the actuarial value of assets was 13.71% compared to 9.34% in 2004. The detailed determinations of asset values utilized in this valuation and asset growth in the last year are set out in Appendix A.

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. Thus, it reflects the portion of the AAL that is covered by ERF assets. The UAAL is the difference between these items.

A funded ratio of 100% means that the funding of ERF is precisely 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 ERF funded ratio would have increased from 99.75% as of December 31, 2004 to 105.07% as of December 31, 2005 had the assumptions not been changed. The assumption change increased the funded ratio to 105.11%.



The UAAL decreased from \$6.2 million at December 31, 2004 to -\$132.1 million at December 31, 2005 with no assumption changes. The UAAL as of December 31, 2005 after the assumption changes is -\$133.1 million. Since the UAAL is negative, this implies the actuarial assets exceed the actuarial liabilities of the Fund.

GASB Disclosure

GASB Statements Numbers 25 and 27 set out the current accounting standards for ERF. Tables 11, 12, and 13 in Appendix D provide footnotes and/or Required Supplemental Information tables required to be disclosed by those statements.



Appendices



Appendix A

Asset Information



TABLE 1
Net Assets Available for Benefits
(\$ in 000's)

	<u>December 31, 2004</u>	<u>December 31, 2005</u>
Assets		
Cash & Short-Term	\$80,366	\$72,015
Receivables		
Accrued Investment Income	8,449	11,641
Securities Sold	4,201	50,051
Employer Contribution	1,060	682
Employee Contribution	626	881
Pending Contracts	0	195
Pension Obligaion Bond Proceeds	533,397	0
	<u>547,733</u>	<u>63,450</u>
Investments		
Index Funds	555,808	1,125,465
Fixed Income	536,057	792,250
Equities	1,023,616	867,820
Real Estate	0	0
Venture Capital	289	161
	<u>2,115,770</u>	<u>2,785,696</u>
Total Assets	2,743,869	2,921,161
Liabilities		
Accounts Payable	3,790	4,797
Investment Transactions	72,321	117,828
	<u>76,111</u>	<u>122,625</u>
Net Assets Available For Benefits	<u><u>2,667,758</u></u>	<u><u>2,798,536</u></u>

TABLE 2
Change in Assets Available for Benefits
Fiscal Year Ending December 31, 2005
(\$ in 000's)

	<u>2004</u>	<u>2005</u>
1 Assets Available at Beginning of Year	\$ 1,909,749	\$ 2,667,758
Adjustment *	-	(4)
	<u>1,909,749</u>	<u>2,667,754</u>
 2 Revenues		
a. Employer Contributions	35,251	32,172
b. Employee Contributions	20,896	23,392
c. Investment Income	47,100	62,065
d. Investment Expense	(6,514)	(7,561)
e. Realized and Unrealized Gains (Losses)	249,189	153,271
f. Other (Security Lending)	523	806
Total Revenues	<u>346,445</u>	<u>264,145</u>
 3 Expenses		
a. Benefits	116,675	127,578
b. Refunds	2,976	3,049
c. Administration Expense	2,182	2,737
Total Expense	<u>121,833</u>	<u>133,363</u> **
 4 Pension Obligation Bond Proceeds	533,397	-
 5 Assets Available at End of Year (1 + 2 - 3 + 4)	<u><u>2,667,758</u></u>	<u><u>2,798,536</u></u>

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

** The Total Expense differs from the sum of components shown due to rounding.



TABLE 3
Development of Actuarial Value of Assets
As of December 31, 2005
(\$ in 000's)

	Market Value	Actuarial Value
1 Value of Assets @ 12/31/2004	\$ 2,667,758	\$ 2,482,082
2 Non-Investment Cash Flows during 2005		
a. Employer Contributions	32,172	32,172
b. Employee Contributions	23,392	23,392
c. Benefits (including refunds)	(130,627)	(130,627)
d. Administrative Expenses	(2,737)	(2,737)
Total	(77,800)	(77,800)
3 Expected Investment Returns @ 8.25%	201,626	201,626
4 Expected Assets @ 12-31-2005 (1 + 2 + 3)	2,791,584	2,605,908
5 Actual Assets Available for Benefits	2,798,536	
6 Gain/ (Loss) From Investment Returns (5 - 4)	6,952	
7 Recognition of Gains / (Losses)		
a. One-third of Current Year Gain/(Loss) (33% of 6)		2,317
b. One-third of 2004 Gain/(Loss)		45,456
c. One-third of 2003 Gain/(Loss)		85,588
Total		133,361
8 Actuarial Value of Assets @ 12-31-2005 (4 + 7)		2,739,269



Appendix B

Membership Data



TABLE 4
Summary of Data Characteristics

	<u>December 31, 2003</u>	<u>December 31, 2004</u>	<u>December 31, 2005</u>
Active Members			
Number	7,538	7,825	7,763
Total Annualized Earnings of Members as of 12/31 (000's)	\$306,243	\$321,554	\$322,763
Average Earnings	40,627	41,093	41,577
Benefit Recipients			
Number	4,805	4,926	5,065
Total Annual Retirement Income (000's)	\$103,762	\$112,934	\$124,076
Total Annual Health Supplement (000's)	\$7,092	\$7,268	\$7,430
Average Total Annual Benefit	\$23,071	\$24,402	\$25,964
Inactive Members			
Number	501	489	748*

* The number of inactives on 12/31/2005 includes 516 members who have applied for a deferred pension and 232 other members who have terminated and still have contribution balances in the Fund.



TABLE 5
Distribution of Active Members and Payroll by Age and Years of Service
as of December 31, 2005

Age	Years of Service								Totals
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under20	7	1	-	-	-	-	-	-	8
	149,783	18,712	-	-	-	-	-	-	168,495
20-24	93	70	3	-	-	-	-	-	166
	2,324,254	1,838,360	100,061	-	-	-	-	-	4,262,675
25-29	151	224	106	2	-	-	-	-	483
	4,580,439	7,218,396	3,393,308	54,974	-	-	-	-	15,247,117
30-34	145	215	272	69	3	-	-	-	704
	4,712,200	7,143,986	9,501,221	2,503,486	113,956	-	-	-	23,974,849
35-39	143	247	293	187	65	16	-	-	951
	4,830,635	9,042,455	11,005,448	7,753,964	2,805,398	741,842	-	-	36,179,742
40-44	126	248	357	196	196	176	15	-	1,314
	3,853,151	9,254,971	13,552,089	8,472,850	9,586,517	8,260,399	749,231	-	53,729,208
45-49	100	186	300	188	222	315	175	12	1,498
	3,197,383	7,231,928	11,690,248	8,217,224	11,300,372	16,592,558	8,754,014	612,751	67,596,478
50-54	78	141	258	173	161	287	164	42	1,304
	2,792,430	5,388,675	10,497,073	7,764,591	8,108,664	14,660,387	8,682,944	2,208,097	60,102,861
55-59	42	107	172	136	150	168	71	42	888
	1,478,804	4,423,595	7,340,005	6,223,280	7,707,640	8,538,092	3,831,185	2,364,462	41,907,063
60-64	17	38	81	60	51	48	24	18	337
	668,405	1,390,271	3,280,539	2,874,678	2,335,541	2,217,751	1,100,187	935,198	14,802,570
65&Over	9	14	25	23	12	10	10	7	110
	524,234	623,464	978,154	911,669	574,767	426,194	418,744	334,845	4,792,071
Totals	911	1,491	1,867	1,034	860	1,020	459	121	7,763
	29,111,718	53,574,813	71,338,146	44,776,716	42,532,855	51,437,223	23,536,305	6,455,353	322,763,129



TABLE 6
Distribution of Benefit Recipients
as of December 31, 2005

Age	Number	Annual Benefit*	Annual Average Benefit*
Under 50	105	1,421,446	13,538
50-54	408	14,712,440	36,060
55-59	859	31,259,394	36,390
60-64	838	22,675,486	27,059
65-69	739	17,763,464	24,037
70-74	653	13,293,191	20,357
75-79	573	10,711,866	18,694
80-84	437	7,140,343	16,339
85-89	309	3,859,421	12,490
90 & Over	144	1,238,723	8,602
Total	5,065	124,075,774	24,497

* Does not include Health Benefit Supplement.



Appendix C

Actuarial Determinations

TABLE 7
Summary of Actuarial Values
As of December 31, 2005
(\$ 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	\$ 1,290,094	\$ 1,062,502	\$ 35,138	11.00%
b. Death	31,097	20,254	1,718	0.53%
c. Disability	15,166	7,600	1,153	0.36%
d. Termination	88,920	19,156	10,469	3.28%
e. Health Subsidy	47,559	36,260	1,965	0.62%
Total	<u>1,472,836</u>	<u>1,145,772</u>	<u>50,443</u>	<u>15.79%</u>
2 Benefit Recipients	1,404,562	1,404,562		
3 Other Inactive	55,839	55,839		
4 Total Actuarial Values of Benefits	2,933,237	2,606,173	50,443	15.79%
5 Actuarial Value of Assets		2,739,269		
6 Unfunded Actuarial Accrued Liability (4 - 5)		(133,096)		
7 Funding Ratio		105.11%		

* APV – Actuarial Present Value

** Percentage of expected payroll for continuing active participants



TABLE 8
Development of Actuarially Required Contribution for FY 2007
(\$ in 000's)

	<u>\$</u>	<u>% of Pay</u>
1 Actuarial Requirement		
a. Payment to Amortize UAAL over 30 years*	\$ (8,677)	-2.61%
b. Normal Cost	50,443	15.79%
c. Administrative Expense	<u>2,737</u>	<u>0.85%</u>
Total	\$ 44,503	14.03%

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



TABLE 9
Analysis of Change in Unfunded
Actuarial Accrued Liability
For the Year Ending December 31, 2005
(\$ in 000's)

1 UAAL as of December 31, 2004		\$	6,188
2 Expected Change in UAAL during 2005			
a. Normal Cost for 2005 based on actual payroll	\$ 50,988		
b. Contributions 2005	(55,564)		
c. Interest adjustments on 1, 2a, & 2b to Year End @ 8.25%	<u>322</u>		
d. Expected change in UAAL			(4,254)
3 Net Actuarial Experience (Gains) & Losses			(134,001)
4 Assumption Change			(1,029)
5 UAAL as of December 31, 2005		\$	(133,096)

TABLE 10
Analysis of Actuarial Gains and Losses
For 2005
(\$ in 000's)

	2005
Investment Return	\$(133,361)
Salary Increase	(13,777)
Age and Service Retirement	7,533
General Employment Termination	194
Disability Incidence	(241)
Active Mortality	36
Benefit Recipient Mortality	(12,704)
Actual vs. Expected Cost of Living Adjustment	14,752
Other	3,567
Total Actuarial (Gain) Loss	\$(134,001) *

**The Total Actuarial Gain differs from the sum of the components shown due to rounding.*

Appendix D

Information required for City Ordinance 25695

TABLE 11
Information for Ordinance 25695
For the Fiscal Year Commencing October 1, 2006

1 Prior Adjusted Total Obligation Rate	24.41%
2 Actuarially Required Contribution Rate	14.03%
3 Debt Service	
a Scheduled Debt Service Payment for FY 2007	\$ 28,342,199
b Projected Payroll	332,446,023
c Pension Obligation Bond Credit Rate (a/b)	8.53%
4 Current Total Obligation Rate (2 + 3c)	22.56%
5 Current Adjusted Total Obligation Rate	24.41% *
6 Allocation of Contribution Rates for FY 2006	
a Employee (5 x .37)	9.03%
b City (5 x .63)	15.38%

* If the difference between the Prior Adjusted Total Obligation Rate and the Current Total Obligation Rate is less than 3.0% then the Current Adjusted Total Obligation Rate is set equal to 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, that 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, minus



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 preceding 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.



Appendix E

Information for GASB No. 25 & 27

TABLE 12
Schedule of Funding Status
(\$ 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%

* Projected to following year.

Note: Data for years prior to 1997 are based on prior actuarial work product.



TABLE 13
Schedule of Employer Contributions
(\$ 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	32,172	115.32 %
2006	44,503	30,020 **	14,483 **		

* 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 retirement systems.

They are not designed to limit the funding decisions of plan sponsors.



TABLE 14
Information for Trend Data Notes

Actuarial Cost Method	Entry Age
Amortization Method	Level Percent Open
Remaining Amortization Period (Years)	30
Asset Valuation Method	3-Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return*	8.25%
Projected Salary Increases*	3.5% - 8.0%
Cost-of-Living Adjustments	3.00%

** Includes Inflation at 3.0%.*

Appendix F

Analysis of 2005 Experience

TABLE 15
Pay Experience for Employees who are Active at
Beginning and End of Year
Analyzed by Years of Service*

Service Beginning of Year	Experience for 2005			
	Number	Expected Pay	Actual Pay	Ratio A/E
Under 5	1,405	\$ 48,877,055	\$ 46,995,747	96.15%
5-9	1,897	68,984,686	68,983,056	100.00%
10-14	1,099	44,002,015	44,436,852	100.99%
15-19	819	37,906,351	38,329,654	101.12%
20-24	1,061	50,189,060	50,587,945	100.79%
25-29	509	24,738,173	24,947,596	100.85%
30 & Over	135	6,814,878	6,861,959	100.69%
Total	6,925	\$ 281,512,218	\$ 281,142,809	99.87%
Over 10 Years	3,623	\$ 163,650,477	\$ 165,164,006	100.92%

Service Beginning of Year	Experience for 2001/2005			
	Number	Expected Pay	Actual Pay	Ratio A/E
Under 5	7,268	\$ 254,964,834	\$ 243,369,532	95.45%
5-9	9,166	335,444,339	328,277,150	97.86%
10-14	5,113	212,425,689	210,338,574	99.02%
15-19	5,340	242,335,777	240,041,427	99.05%
20-24	5,166	242,628,157	239,785,156	98.83%
25-29	2,336	113,811,019	112,602,006	98.94%
30 & Over	749	39,476,558	38,998,066	98.79%
Total	35,138	\$ 1,441,086,373	\$ 1,413,411,911	98.08%
Over 10 Years	18,704	\$ 850,677,200	\$ 841,765,229	98.95%

* The analysis shown in this year's report is based on the rate of compensation.
Last year, the analysis was based on gross compensation.



TABLE 16a
Analysis of Retirement Experience

Age	2005 Retirement			2001/2005 Retirement		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
46	-	-	N/A	-	-	N/A
47	-	-	N/A	-	-	N/A
48	-	1.57	0.00%	5	10.65	46.95%
49	1	3.84	26.04%	6	21.35	28.10%
50	15	16.00	93.75%	101	105.50	95.73%
51	20	16.39	122.03%	104	88.72	117.22%
52	17	17.44	97.48%	81	84.04	96.38%
53	14	19.01	73.65%	82	99.91	82.07%
54	20	20.30	98.52%	90	105.16	85.58%
55	24	18.97	126.52%	100	94.62	105.69%
56	16	20.03	79.88%	80	94.31	84.83%
57	27	24.97	108.13%	73	90.24	80.90%
58	20	20.72	96.53%	78	78.36	99.54%
59	12	19.79	60.64%	50	68.33	73.17%
60	23	27.78	82.79%	91	128.91	70.59%
61	12	11.63	103.18%	73	59.18	123.35%
62	20	12.30	162.60%	59	48.08	122.71%
63	10	9.90	101.01%	48	37.06	129.52%
64	8	6.53	122.51%	33	26.33	125.33%
65	7	6.16	113.64%	45	27.73	162.28%
66	3	4.94	60.73%	28	19.57	143.08%
67	3	1.75	171.43%	21	12.96	162.04%
68	4	2.32	172.41%	8	9.35	85.56%
69	0	1.52	0.00%	2	6.46	30.96%
70 & Over	5	22.00	22.73%	20	61.00	32.79%
Total	281	305.86	91.87%	1,278	1,377.82	92.76%
Total Under 70	276	283.86	97.23%	1,258	1,316.82	95.53%



TABLE 16b
Analysis of Retirement Experience
Age Groups

Age Group	2005 Retirements			2001/2005 Retirements		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
Under 55	87	94.55	92.01%	469	515.33	91.01%
55-59	99	104.48	94.75%	381	425.86	89.47%
60-64	73	68.14	107.13%	304	299.56	101.48%
65-69	17	16.69	101.86%	104	76.07	136.72%
70 & Over	5	22.00	22.73%	20	61.00	32.79%
Total	281	305.86	91.87%	1,278	1,377.82	92.76%
Total Under 70	276	283.86	97.23%	1,258	1,316.82	95.53%

TABLE 17
Analysis of Turnover Experience

Years of Service	2005 Quits			2001/2005 Quits		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
0-4	332	262.07	126.68%	1,295	1,244.32	104.07%
5-9	158	146.92	107.54%	583	732.34	79.61%
10-14	53	42.71	124.09%	197	196.58	100.21%
15-19	13	21.06	61.74%	90	137.83	65.30%
20-24	19	13.04	145.76%	81	65.27	124.11%
25-29	2	3.34	59.88%	6	14.99	40.03%
Total	577	489.13	117.96%	2,252	2,391.32	94.17%

TABLE 18
Analysis of Active Mortality Experience

<u>Age</u>	2005 Deaths			2001/2005 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	-	0.10	0.00%	-	0.42	0.00%
25-29	-	0.31	0.00%	-	1.54	0.00%
30-34	1	0.50	201.85%	2	2.57	77.75%
35-39	2	0.94	212.99%	3	5.04	59.58%
40-44	1	1.89	52.78%	6	10.09	59.48%
45-49	6	3.66	164.09%	16	18.23	87.78%
50-54	3	5.11	58.66%	25	26.49	94.37%
55-59	9	5.75	156.46%	22	24.98	88.08%
60 and Over	5	4.93	101.33%	13	21.70	59.90%
Total	27	23.19	116.44%	87	111.05	78.34%

TABLE 19
Analysis of Disability Experience

Age	2005 Disabilities			2001/2005 Disabilities		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
20-24	-	0.02	0.00%	-	0.09	0.00%
25-29	-	0.11	0.00%	-	0.56	0.00%
30-34	1	0.24	418.45%	1	1.26	79.46%
35-39	1	0.47	211.24%	4	2.56	156.45%
40-44	-	1.10	0.00%	5	5.85	85.46%
45-49	5	2.57	194.27%	15	12.87	116.59%
50-54	1	3.40	29.44%	16	17.11	93.53%
55-59	2	3.04	65.88%	12	13.68	87.73%
60 and Over	-	0.00	N/A	2	0.00	N/A
Total	10	10.95	91.34%	55	53.96	101.93%

TABLE 20
Analysis of Retiree Mortality Experience*

Age	2005 Experience			2001/2005 Experience		
	Actual	Expected	Ratio A/E	Actual	Expected	Ratio A/E
Under 60	10	6.21	161.00%	36	24.93	144.42%
60-64	9	8.82	102.01%	44	38.55	114.12%
65-69	14	13.45	104.08%	73	62.64	116.55%
70-74	22	17.55	125.38%	114	91.50	124.59%
75-79	30	22.45	133.61%	126	110.44	114.08%
80-84	28	24.71	113.29%	176	130.85	134.50%
85-89	43	22.95	187.34%	149	103.20	144.38%
90 & over	10	12.85	77.83%	91	63.91	142.38%
Total	166	129.00	128.68%	809	626.03	129.23%

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

Appendix G

Actuarial Method and Assumptions

Entry Age Method

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

The concept of this method is that funding of benefits for each employee should be effected as a, theoretically, level contribution (as a 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 employee. The ERF NC for the year is the total of individual normal costs determined for each active employee.

The Actuarial Accrued Liability (AAL) under this method is the theoretical asset balance such normal costs would have accumulated to date based on current 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 NC for that year plus an amount to amortize the UAAL over 30 years as a level percentage of pay.

Asset Method

The actuarial value of assets is equal to the expected actuarial value of assets adjusted for a three-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 (12/31/2005)

Rate of Investment Return. For all purposes under the system the rate of investment return is assumed to be 8.25% per annum, net of investment expenses.

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

Years of Service	Merit, Promotion, Longevity		General		Total	
0	4.50	%	3.50	%	8.00	%
1	4.00		3.50		7.50	
2	3.25		3.50		6.75	
3	2.00		3.50		5.50	
4	1.75		3.50		5.25	
5	1.50		3.50		5.00	
6	1.00		3.50		4.50	
7	0.75		3.50		4.25	
8	0.50		3.50		4.00	
9 & Over	0.00		3.50		3.50	

Mortality:

Disabled Lives: 1965 Railroad Retirement Board Disabled Annuitants Mortality Table

For females, the rates are multiplied by 60%.

Sample rates follow (rate per 1,000)

Age	Disability Mortality Rate	
	Male	Female
20	44	26
30	44	26
40	44	26
50	45	27
60	53	32
70	75	45
80	130	78
90	240	144



Actuarial Assumptions

Other Benefit Recipients:

- a. Males – 1994 Unisex Pension Mortality Table for males, set forward two years.
- b. Females – 1994 Unisex Pension Mortality Table for females, base table rates multiplied by 125% for ages less than 85 and multiplied by 135% for ages 85 and up.

Sample rates follow (rate per 1,000):

Age	Mortality Rate	
	Male	Female
30	0.9	0.5
40	1.3	1.0
50	3.5	1.9
60	10.9	6.0
70	30.6	18.5
80	81.2	53.0
90	196.0	168.8

Active Members:

- a. Males – 1994 Unisex Pension Mortality Table for males, base table rates multiplied by 87%.
- b. Females – 1994 Unisex Pension Mortality Table for females, base table rates multiplied by 125%.

Sample rates follow (rate per 1,000):

Age	Mortality Rate	
	Male	Female
30	0.7	0.5
40	1.0	1.0
50	2.4	1.9
60	7.5	6.0
70	22.2	18.5
80	58.0	53.0
90	143.1	156.3

15% of active deaths are assumed to be service related.



Actuarial Assumptions

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.

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	400	400
51	420	420	500	500
52	350	300	500	500
53	350	300	350	350
54	450	300	300	300
55	450	350	400	400
56	450	280	300	300
57	450	280	280	280
58-59	400	280	280	280
	<u>Service < 18 yrs.</u>	<u>Service 18 yrs.+</u>	<u>Service < 18 yrs.</u>	<u>Service 18 yrs. +</u>
60	100	280	150	400
61	110	300	150	350
62	160	300	150	250
63	140	300	150	250
64	200	300	70	170
65	250	500	300	300
66-69	250	400	200	300
70	1,000	1,000	1,000	1,000



Actuarial Assumptions

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: Vested members terminating before retirement who elect a refund of contributions (per 1,000).

<u>Age</u>	<u>Service</u>			
	<u>5 – 9</u>	<u>10 – 14</u>	<u>15 – 19</u>	<u>20+</u>
20-30	1,000	1,000	N/A	N/A
31-40	950	900	600	0
41-50	800	650	400	0
51-60	700	450	0	0

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: 80% of members are assumed to be married.



Actuarial Assumptions

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, gross pay is used unless gross pay is less than 90% of the member's rate of compensation. If gross pay is less than 90% of the member's rate of compensation, the member's valuation salary is set to the member's rate of compensation. For new hires with no salary information, the valuation salary is set to \$29,260, which is the average of the middle 80% of valuation salaries for members with less than one year of service.



APPENDIX H

Summary of Benefit Provisions

SUMMARY OF KEY PROVISIONS
Employees' Retirement Fund of the City of Dallas
as of December 31, 2005

Membership	An employee becomes a member upon permanent employment and contributes to the Retirement 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 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 78.



Summary of Key Provisions

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 \$125 health supplement (prorated for service less than 5 years).

Form of Payment: An unreduced pension 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 commencing at age 60 or at age 55, if employment commenced prior to May 9, 1972, with at least five years of credited service, and accumulated contributions are left on deposit with the Fund.

Monthly Benefit: The deferred retirement 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 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 Key Provisions

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 terminations is entitled to be paid accumulated contributions without interest.

Cost-of-Living Adjustments

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

The percentage of change in the price index for October of the current year over October of the previous year up to 5%, or

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%.

