Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

September 15, 2014

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Valuation as of January 1, 2014

Table of Contents

Section I - Report Text

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

1. Summary of Valuation Results

This report presents the results of the January 1, 2014 actuarial valuation of the Travis County ESD No. 6 Firefighters' Relief and Retirement Fund. The valuation was made, in part, to determine whether the plan satisfies the portions of Title 8 of the Texas Government Code relevant to the fund. The following table summarizes the 2012 and the 2014 valuation results. The figures on lines d. through f., below, were taken from Exhibit 2 of this report.

	Valuation as of 01/01/2012	Valuation as of 01/01/2014
a. Actuarial Value of Assets	$3,877,699	$7,554,521
b. Actuarial Present Value of Accumulated Plan Benefits	$3,851,582	$5,867,848
c. Accumulated Benefit Funding Ratio (line a. divided by line b.)	100.7%	128.7%
d. Unfunded Actuarial Accrued Liability (UAAL)	$6,673,272	$5,942,123
e. Annualized Compensation	$4,418,018	$5,199,069
f. Amortization Period	14.9 Yrs.	7.3 Yrs.

Lines a. through c. in the above table compare the actuarial value of assets with the sum of the values of retirement, death, disability, and termination benefits which members had accumulated as of the valuation date. The values of accumulated benefits were calculated using the same actuarial assumptions as were used for the valuation. The ratio on line c. shows that as of January 1, 2014, fund assets were 128.7 percent of the value of

accumulated benefits under the plan. This is a measure of funding on an ongoing-plan basis.

On a plan termination basis, the present value of accrued retirement benefits was approximately $4,085,561. This produces a funding ratio of 182.9 percent. As directed by the Board, these calculations valued plan benefits at the 7.00 percent assumed rate of return used in the valuation, rather than the 8.00 percent rate of return specified in the plan for purpose of actuarial equivalence. The mortality table used was also the same as that used for the valuation. More important than funding ratios, however, is the plan's amortization period.

Lines d. through f., above, summarize the valuation of the fund under the actuarial cost method, which looks at the progress in funding both current and future benefits.

Guidelines published by the Texas Pension Review Board specify that funding should be adequate to amortize the unfunded actuarial accrued liability over a period not to exceed 40 years, with 15 to 25 years being a more preferable target. (PRB Guidelines are set out in full on Appendix D.) The amortization period as of January 1, 2014, was 7.3 years. Thus, the plan meets Pension Review Board amortization period guidelines.

2. Discussion of Valuation Results

The amortization period as of January 1, 2012, was 14.9 years. If all of the prior valuation's assumptions had been realized exactly, the amortization period as of January 1, 2014, would have decreased to 12.9 years due to the passage of time. The amortization period as of January 1, 2014, however, was 11.9 years using the 2012 actuarial assumptions and methods. The amortization period was slightly lower than expected due to the rate of return on the actuarial value of assets, which was slightly higher than assumed. In addition, individual pay increases were greater than assumed, and the growth in total payroll was greater than assumed. The plan's amortization period also decreased due to the larger number of fire fighters covered by the plan.

Changes in Actuarial Assumptions

For the 2014 valuation, the assumed member contribution rate was increased to 19.60 percent of pay in order to reflect the increase in the rate at which members will begin contributing to the plan effective October 5, 2014. The member contribution rate used in the 2012 valuation was 18.20 percent of pay.

The assumed contribution rate for the Travis County Emergency Services District No. 6 was raised to 19.20 percent of pay, the actual rate at which Travis County ESD No. 6 is contributing to the fund. Calculations of the expected rate of return showed that it was no longer necessary to assume that a portion of the District's contribution was needed in order to meet plan expenses. The District contribution rate used in the 2012 valuation was 16.20 percent of pay. Finally, the assumed rate of increase in individual fire fighters' compensation was lowered to 5.00 percent per year based on a study of plan experience. The prior rate assumed was 5.50 percent per year.

The changes in assumptions lowered the amortization period to 7.3 years.

3. Fund Experience with Respect to Major Actuarial Assumptions

As part of the valuation, a study was made of the plan's experience with respect to rate of return. Salary increases—on an individual as well as on an aggregate basis—were also studied. The valuation was based upon an assumed rate of return of 7.00 percent per annum. Individual salaries were assumed to increase 5.00 percent per year. Total payroll was assumed to increase 4.00 percent per year.

Exhibit 4 of this report shows a graph which summarizes the fund's rate of return measured at market value. This exhibit also shows the average rates of return for the 34 full-time fire departments in the TLFFRA system which operate on a calendar-year basis. The 2013 TLFFRA rates of return are preliminary.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Using the market value of assets, the Travis Co. ESD No. 6 fund's approximate annual rates of return for the years ending December 31, 2009, through 2013, were 8.58%, 8.37%, -1.37%, 7.76%, and 17.88%, respectively.

Exhibit 5 of this report shows the fund's rates of return measured at actuarial value. The average rate of return on the actuarial value of assets over the last two years was 7.04%.

Exhibit 6 shows plan experience with respect to annual pay increases. Members with at least two full years of service averaged approximately 4.0 percent per year over the last two years. These rates include raises from all sources, including overtime, inflation, longevity, merit, and promotion. The annual increase in gross aggregate payroll was 14.8 percent over the last two years, when adjusted for the increase in the number of covered members. Aggregate payroll affects how much money the fund receives in contributions each year. The number of active fire fighters covered under the plan increased from 59 as of January 1, 2012, to 68 as of January 1, 2014.

Exhibit 7 shows a comparison of the plan's expected and actual unfunded actuarial accrued liability based on the 2010 through 2014 valuations. This type of calculation is called an "actuarial gain and loss analysis." The calculation measures the effect of plan experience under all assumptions, combined.

The last column of Exhibit 7 develops the projected actuarial accrued liability as of January 1, 2016. Next, this value is compared with the expected actuarial value of assets in order to calculate the projected amortization period. As of January 1, 2016, the projected amortization period runs from 6.0 years to 6.9 years.

The projected amortization period range is based on the assumption that the market value of plan assets grows at 7.00 percent per year after January 1, 2014.

It should be noted that demographic experience less favorable than assumed, a decrease in the number of covered fire fighters, or lower-than-assumed return on plan assets could result in an amortization period which is above the range projected.

The actuaries believe that the results on Exhibits 4 through 7 show that the assumptions used for the valuation fall within the range necessary to satisfy the best-estimate criterion both on an aggregate and on an individual basis. It will be necessary to update the mortality table in connection with the 2016 valuation in order to keep the mortality table's reference date later than the valuation date.

4. Notes Concerning the Valuation and the Amortization Period

It should be noted that valuation calculations measure plan soundness under the assumption that retirements, deaths, disabilities, and terminations will occur approximately in accordance with assumed rates. A sudden increase in the number of benefits being paid is not taken into account by the valuation calculations.

Amortization periods in this report are given to the nearest tenth of a year. The report does not intend to imply that the actuarial assumptions and the valuation calculations are capable of measuring the amortization period that closely. The periods are given to the nearest tenth of a year in order to provide as much information as possible when results at different valuation dates or results under different actuarial assumptions are compared with one another.

5. Actuarial Certification

Section 802.101 of the Texas Government Code requires that the governing body of a public retirement system employ an actuary to make a valuation of the assets and liabilities of the system at least once every three years. The valuation must be performed on the basis of assumptions which are realistic and reasonable and should comply with applicable actuarial standards. The allocation of the normal cost portion of contributions should be level or declining as a percent of payroll over all generations of taxpayers and should be calculated under applicable actuarial standards.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

The valuation detailed in this report meets the State of Texas standards listed above. Guidelines published by the Texas State Pension Review Board specify that the amortization period of the unfunded actuarial accrued liability should not exceed 40 years, with a 15- to 25-year period being preferable. (PRB Guidelines are set out in full on Appendix D.) The amortization period of the Travis County ESD No. 6 Firefighters' Relief and Retirement Fund as of January 1, 2014, was 7.3 years, and the fund's valuation satisfies PRB Guidelines with respect to actuarial methods and assumptions. Therefore, the plan meets Pension Review Board Guidelines.

The valuation was performed using employee census data as of January 1, 2014, furnished by the Travis County ESD No. 6 Firefighters' Relief and Retirement Fund and by the District. Financial information came from the plan's December 31, 2009 through 2013 audited financial statements, prepared by Montemayor Hill & Company, P.C., Certified Public Accountants. A review of all data supplied showed that the information was reasonable, consistent, and complete. Accordingly, the information was relied upon as furnished.

The firm of John M. Crider, Jr. – Consulting Actuary, which prepared the January 1, 2014 valuation, is compensated solely by the Travis County ESD No. 6 Firefighters' Relief and Retirement Fund with respect to work on the plan. This report has been prepared and certified by John M. Crider, Jr., an actuary for the firm of John M. Crider, Jr. – Consulting Actuary, who certifies that he is a member of the American Academy of Actuaries and that he meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. This report has been reviewed by Donna L. Hamaker, an actuary for the firm of Hamaker Consulting, who certifies that she is a member of the American Academy of Actuaries and that she meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

This report presents the actuarial position of the Travis County ESD No. 6 Firefighters' Relief and Retirement Fund as of January 1, 2014. The valuation and associated calculations have been performed in accordance with generally accepted actuarial principles and practices. The valuation conforms to the parameters specified in Governmental Accounting Standards Board (GASB) Statements No. 67, No. 27, and No. 50 for financial reporting by the fund and by the District.

Exhibits 1 and 2 of this report show the results of the valuation. The previous valuation's results are shown for purposes of comparison. The development of the actuarial value of assets is shown on Exhibit 3. Graphs summarizing the fund's rate of return history are provided on Exhibits 4 and 5.

Exhibit 6 documents the fund's experience with respect to salary increases. Exhibit 7 shows the plan's experience with respect to all assumptions, combined, and provides a range in which the amortization period is estimated to fall as of January 1, 2016.

The disclosures required under GASB Statements No. 67, No. 27, and No. 50 will be furnished in a separate report.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Thank you for the opportunity to serve the Travis County ESD No. 6 Firefighters' Relief and Retirement Fund. Please feel free to contact us if you have any questions about this report.

Prepared and Certified By

original signed by
John M. Crider, Jr.

John M. Crider, Jr.
Associate of the Society of Actuaries
Member, American Academy of Actuaries

Reviewed By

original signed by
Donna L. Hamaker

Donna L. Hamaker
Enrolled Actuary
Member, American Academy of Actuaries

Section II - Exhibits

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 1, Development of the Normal Cost Percentage

	Valuation as of 01/01/2012	Valuation as of 12/31/2014
Assumed Retirement Age	55	55
Assumed Rate of Return	7.00%	7.00%
Salary Scale	5.50%	5.00%
Increase in Payroll for Amortization	4.00%	4.00%
Assumed Contribution Percentage of Members	18.20%	19.60%
Assumed Contribution Percentage of District	16.20%	19.20%
1. Number of Participants		
a. Actives below assumed retirement age	59	68
b. Actives at or above assumed retirement age	0	0
c. Service retired	0	0
d. Disability retired	0	0
e. Vested and non-vested terminated	0	2
f. Spouses and alternate payees	0	0
g. Children	0	0
h. Total	59	70
2. Annualized Compensation		
a. Actives below assumed retirement age	$ 4,418,018	$ 5,199,069
b. Average compensation	74,882	76,457
3. Annual Retirement Income		
a. Actives below assumed retirement age	$ 9,039,778	$ 9,196,307
b. Actives at or above assumed retirement age	0	0
c. Service retired	0	0
d. Disability retired	0	0
e. Vested and non-vested terminated	0	0
f. Spouses and alternate payees	0	0
g. Children	0	0
h. Total	$ 9,039,778	$ 9,196,307

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 1, Development of the Normal Cost Percentage (continued)

		Valuation as of 01/01/2012	Valuation as of 12/31/2014
4.	**Plan Normal Cost**		
	a. Service retirement	$ 761,095	$ 849,493
	b. Death in active service	17,746	21,099
	c. Disability	77,949	91,161
	d. Termination	83,623	109,837
	e. Total	$ 940,413	$ 1,071,590
5.	**Anticipated Employee Contributions**	804,079	$ 1,019,018
6.	**Net Employer Normal Cost (4 - 5)**	136,334	$ 52,572
7.	**Net Employer Normal Cost, Expressed as a Percentage of Covered Payroll (6 ÷ 2a)**	3.09%	1.01%
8.	**Normal Cost Percentage for Members**	18.20%	19.60%
9.	**Total Normal Cost Percentage for the Plan (7) + (8)**	21.29%	20.61%

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 2, Unfunded Actuarial Accrued Liability and Amortization Period

	Valuation as of 01/01/2012	Valuation as of 12/31/2014
Assumed Retirement Age	55	55
Assumed Rate of Return	7.00%	7.00%
Salary Scale	5.50%	5.00%
Increase in Payroll for Amortization	4.00%	4.00%
Assumed Contribution Percentage of Members	18.20%	19.60%
Assumed Contribution Percentage of District	16.20%	19.20%
1. Present Value of Future Benefits Payable to Individuals Receiving or Due Benefits		
a. Service retired	$ 0	$ 0
b. Disability retired	0	0
c. Vested and non-vested terminated	0	44,742
d. Spouses and alternate payees	0	0
e. Children	0	0
f. Total	$ 0	$ 44,742
2. Present Value of Future Benefits Payable to Active and Overage Members		
a. Service retirement	$ 21,138,892	$ 24,315,078
b. Death in active service	369,798	418,638
c. Disability	1,575,065	1,786,714
d. Termination	1,105,490	1,246,080
e. Total	$ 24,189,245	$ 27,766,510
3. Total Present Value of Future Benefits (1f + 2e)	$ 24,189,245	$ 27,811,252

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 2, Unfunded Actuarial Accrued Liability and Amortization Period (continued)

		Valuation as of 01/01/2012	Valuation as of 12/31/2014
4.	**Actuarial Present Value of Future Normal Cost Contributions By**		
	a. Present active members	$ 11,739,015	$ 13,709,269
	b. City	1,899,259	605,339
	c. Total	$ 13,638,274	$ 14,314,608
5.	**Actuarial Accrued Liability (3 - 4c)**	$ 10,550,971	$ 13,496,644
6.	**Actuarial Value of Assets**	$ 3,877,699	$ 7,554,521
7.	**Unfunded Actuarial Accrued Liability (5 - 6)**	$ 6,673,272	$ 5,942,123
8.	**Total Contributions (% of Payroll)**	34.40%	38.80%
9.	**Normal Cost (% of Payroll)**	21.29%	20.61%
10.	**Percentage of Payroll Available to Fund the Unfunded Actuarial Accrued Liability (8 - 9)**	13.11%	18.19%
11.	**Annualized Compensation**	$ 4,418,018	$ 5,199,069
12.	**Amount Available to Amortize the Unfunded Actuarial Accrued Liability (10 × 11)**	$ 579,202	$ 945,711
13.	**Years to Amortize the Unfunded Actuarial Accrued Liability Assuming Total Annual Payroll Increases of 4.00% Annually**	14.9 Yrs.	7.3 Yrs.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 3, Development of the Actuarial Value of Assets

		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1.	**Market Value as of January 1**	$ 417,154	$ 1,119,993	$ 2,075,147	$ 3,680,348	$ 5,400,792
2.	**Contributions, Appreciation, and Interest and Dividends**					
	a. Contributions by the District	319,795	417,213	1,184,944	713,767	809,782
	b. Contributions by members	319,795	417,213	502,671	667,296	771,049
	c. Net realized and unrealized appreciation (depreciation)	75,731	141,732	(96,326)	258,503	966,276
	d. Interest and dividends	22,801	46,043	93,759	139,239	195,695
	e. Other	72	565	3,801	4,003	6,902
3.	**Disbursements**					
	a. Benefits paid	0	0	0	0	0
	b. Contributions refunded	0	7,689	42,805	0	74,137
	c. Administrative expenses	35,355	59,923	40,843	62,364	68,470
4.	**Subtotal of Contributions, Appreciation, Interest and Dividends, and Disbursements**	702,839	955,154	1,605,201	1,720,444	2,607,097
5.	**Market Value as of December 31**	1,119,993	2,075,147	3,680,348	5,400,792	8,007,889

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 3, Development of the Actuarial Value of Assets (continued)

	12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013
6. Actuarial Investment Gain/(Loss) for the Year					
a. Market Value as of January 1	$ 417,154	$ 1,119,993	$ 2,075,147	$ 3,680,348	$ 5,400,792
b. District and member contributions	639,590	834,426	1,687,615	1,381,063	1,580,831
c. Benefits and contribution refunds	0	7,689	42,805	0	74,137
d. Miscellaneous receipts and disbursements	72	565	3,801	4,003	6,902
e. Expected earnings	51,586	107,355	202,962	305,962	430,790
f. Expected market value of assets December 31	1,108,402	2,054,650	3,926,720	5,371,376	7,345,178
g. Actual market value of assets December 31	1,119,993	2,075,147	3,680,348	5,400,792	8,007,889
h. Actuarial investment gain/(loss)	11,591	20,497	(246,372)	29,416	662,711
7. Phase-in of actuarial investment gains and (losses)					
a. Portion of the year's actuarial investment gain/(loss) which is phased in over five years	20%	20%	20%	20%	20%
b. Line 6.h. times line 7.a.	2,318	4,099	(49,274)	5,883	132,542
c. Factor applied to line 7.b. to calculate the unrecognized amount as of December 31, 2013	0	1	2	3	4

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

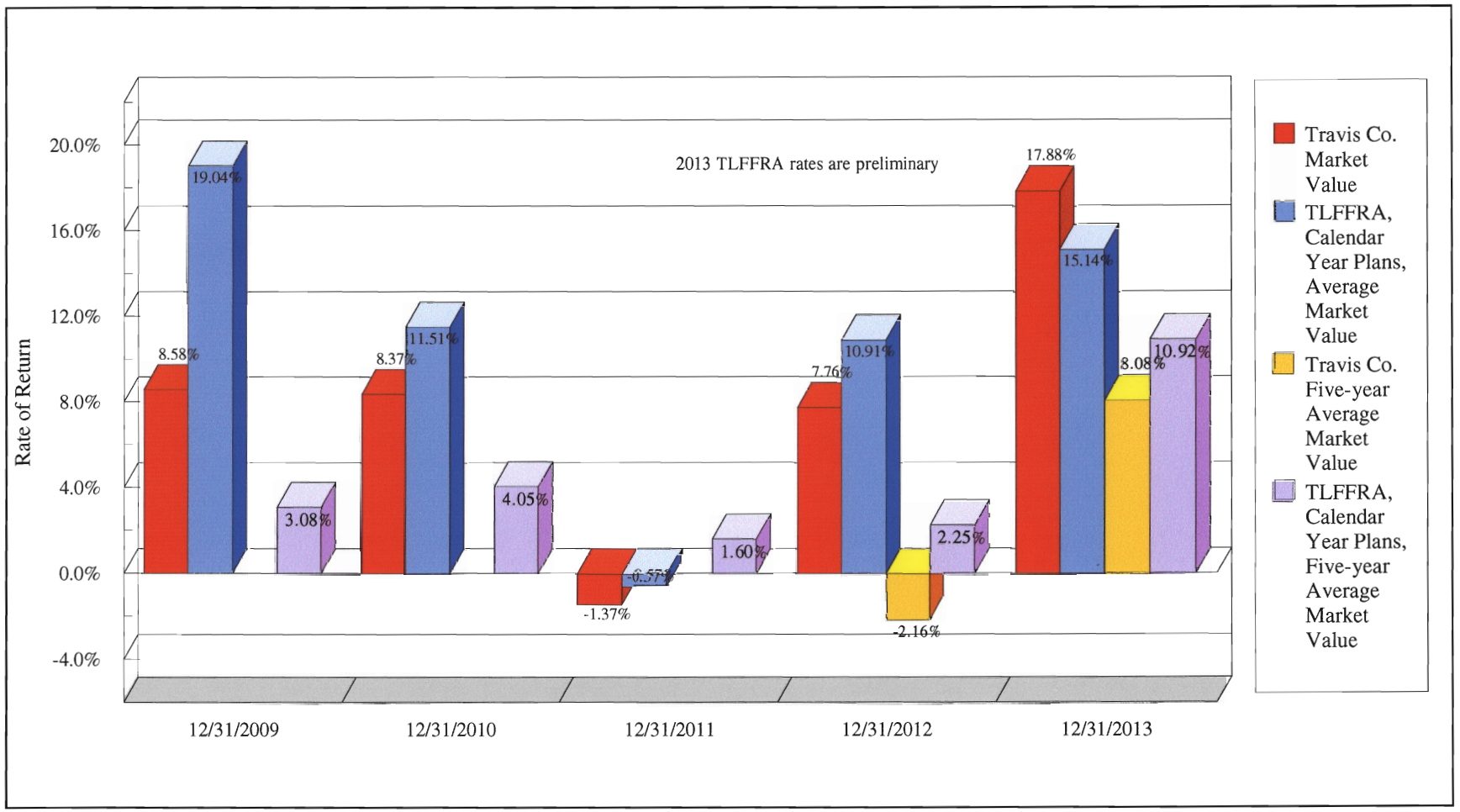
Exhibit 3, Development of the Actuarial Value of Assets (continued)

		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013
7.	**Phase-in of actuarial investment gains and (losses), (continued)**					
	d. Amount of the year's actuarial investment gain/(loss) for the year which is unrecognized as of December 31, 2013 (Line 7.b. times line 7.c.)	$ 0	$ 4,099	$ (98,548)	$ 17,649	$ 530,168
	e. Total unrecognized actuarial gain/(loss) for five prior years as of December 31, 2013 (sum of line 7.d. for five prior years)					453,368
8.	**Market Value at December 31, 2013**					8,007,889
9.	**Actuarial Value of Assets as of January 1, 2014, Before Test for 80% to 120% of Market Value (line 8. minus line 7.e.)**					7,554,521
10.	**Preliminary Actuarial Value of Assets Expressed as a Percentage of Year-end Market Value**					94.3%
11.	**Actuarial Value of Assets After Limiting the Preliminary Actuarial Value of Assets to a Range of 80% to 120% of Market Value**	$ 1,162,285	$ 2,086,173	$ 3,877,699	$ 5,514,566	$ 7,554,521

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

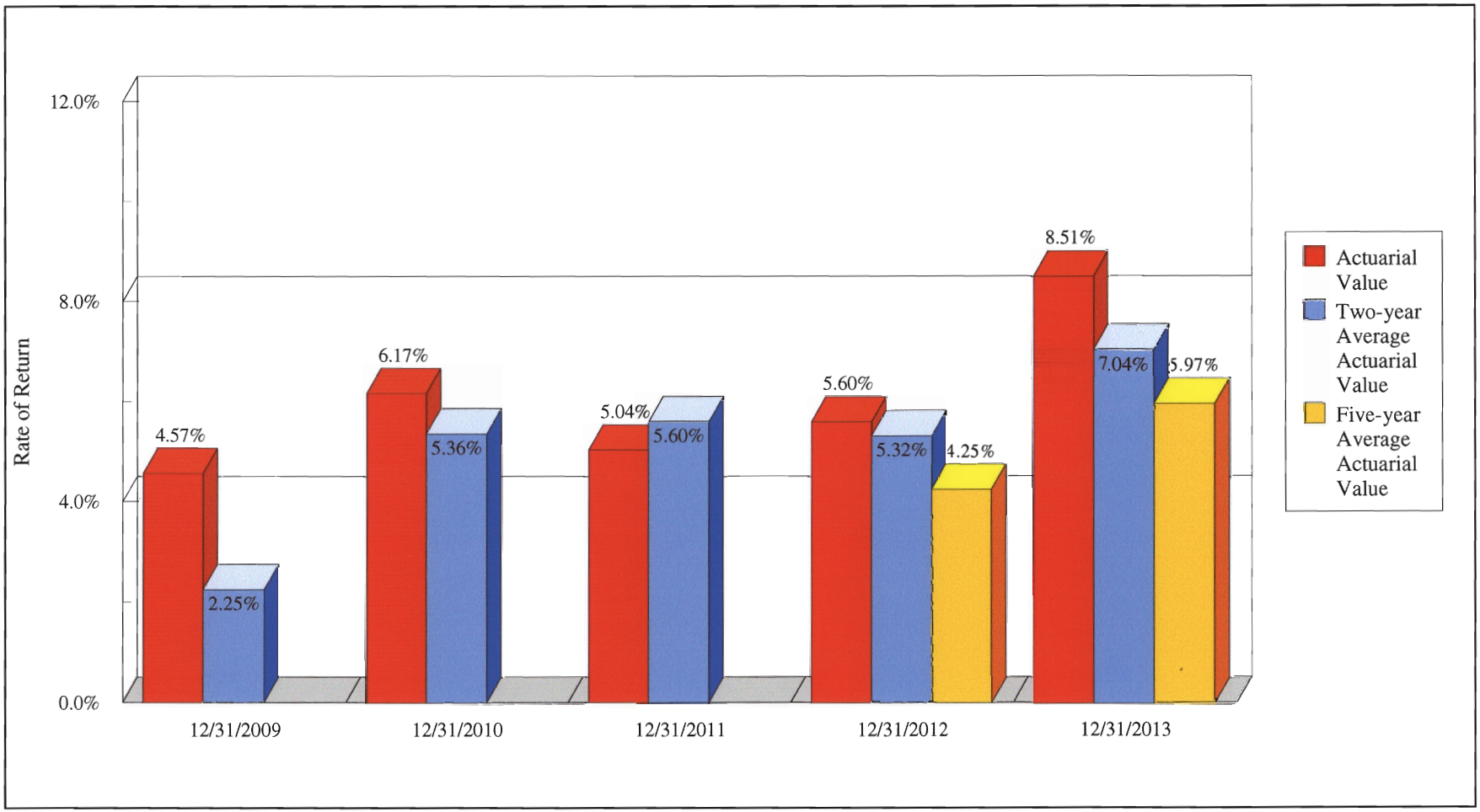
Exhibit 4, Summary of the Rate of Return on Fund Assets Measured at Market Value



Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 5, Summary of the Rate of Return on Fund Assets Measured at Actuarial Value



Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2012

Exhibit 6, Average Age at Retirement and Salary Increase Rates

	12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013
Average Individual Salary Increases					
1. Average Individual Salary Increase Rate Over the Last Year		13.2%	11.1%	4.9%	3.5%
2. Average Individual Salary Increase Rate Over the Last Two Years			11.9%		4.0%
Average Aggregate Salary Increases					
3. Number of Active Members in the Valuation	63		59		68
4. Average Aggregate Salary Increase Rate Over the Last Two Years Adjusted for Changes in the Number of Plan Members and the Number of Pay Periods			-1.3%		14.8%

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 7, Experience Gain and Loss Analysis

				Projected
Rate of Return Assumed for Prior Valuation	7.00%	7.00%	7.00%	7.00%
Salary Scale Assumed for Prior Valuation	5.50%	5.50%	5.50%	5.00%
Increase in Payroll for Amortization Assumed for Prior Valuation	4.00%	4.00%	4.00%	4.00%
Valuation Date	01/01/2010	01/01/2012	01/01/2014	01/01/2016
Expected Actuarial Accrued Liability				
1. Prior valuation Actuarial Accrued Liability (AAL)	$2,644,708	$4,109,994	$10,550,971	$13,496,644
2. Prior valuation Normal Cost (NC)	381,031	465,660	940,413	1,071,590
3. Distributions for second prior year	2,247	7,689	0	76,361
4. Interest on AAL for second prior year	185,130	287,700	738,568	944,765
5. Interest on NC for second prior year	26,672	32,596	65,829	75,011
6. Interest on distributions for second prior year	79	269	0	2,673
7. Expected prior year AAL, (1+2-3+4+5-6)	$3,235,215	$4,887,992	$12,295,781	$15,508,976
8. Prior valuation NC with salary scale increase	396,272	484,286	978,030	1,114,454
9. Distributions for immediate prior year	0	42,805	74,137	78,652
10. Interest on AAL for immediate prior year	226,465	342,159	860,705	1,085,628
11. Interest on NC for immediate prior year	27,739	33,900	68,462	78,012
12. Interest on distributions for immediate prior year	0	1,498	2,595	2,753
13. Expected AAL as of the valuation date, (7+8-9+10+11-12)	$3,885,691	$5,704,034	$14,126,246	$17,705,665
Expected Actuarial Value of Assets				
14. Prior valuation Actuarial Value of Assets (AVA)	$0	$1,162,285	$3,877,699	$7,554,521
15. Contributions for second prior year	488,206	834,426	1,381,063	1,644,064
16. Distributions for second prior year	2,247	7,689	0	76,361
17. Interest on AVA for second prior year	0	81,360	271,439	528,816
18. Interest on contributions for second prior year	17,087	29,205	48,337	57,542
19. Interest on distributions for second prior year	79	269	0	2,673
20. Expected prior year AVA, (14+15-16+17+18-19)	502,967	2,099,318	5,578,538	9,705,909
21. Contribution for immediate prior year	639,590	1,297,310	1,580,831	1,709,827
22. Distribution for immediate prior year	0	42,805	74,137	78,652
23. Interest on AVA for immediate prior year	35,208	146,952	390,498	679,414
24. Interest on contributions for immediate prior year	22,386	45,406	55,329	59,844
25. Interest on distributions for immediate prior year	0	1,498	2,595	2,753
26. Expected AVA at valuation date (20+21-22+23+24-25)	$1,200,151	$3,544,683	$7,528,464	$12,073,589

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 7, Experience Gain and Loss Analysis (continued)

				Projected
Rate of Return Assumed for Prior Valuation	7.00%	7.00%	7.00%	7.00%
Salary Scale Assumed for Prior Valuation	5.50%	5.50%	5.50%	5.00%
Increase in Payroll for Amortization Assumed for Prior Valuation	4.00%	4.00%	4.00%	4.00%
Valuation Date	01/01/2010	01/01/2012	01/01/2014	01/01/2016
Expected Valuation Results Before Assumption or Method Changes				
27. Expected AAL as of the valuation date (line 13)	$3,885,691	$5,704,034	$14,126,246	$17,705,665
28. Expected AVA at valuation date (line 26)	1,200,151	3,544,683	7,528,464	12,073,589
29. Expected Unfunded Actuarial Accrued Liability (UAAL), (line 27 minus line 28)	$2,685,540	$2,159,351	$6,597,782	$5,632,076
Actual Valuation Results Before Assumption or Method Changes				
30. Actual AAL before changes	$4,141,385	$6,431,678	$13,965,796	$17,705,665
31. AVA before changes	1,162,285	3,469,606	7,554,521	12,321,684
32. Actual UAAL before changes (line 30 minus line 31)	$2,979,100	$2,962,072	$6,411,275	$5,383,981
Gain/(Loss) on the Unfunded Actuarial Accrued Liability				
33. UAAL gain or (loss) since the previous valuation (line 29 minus line 32)	($293,560)	($802,721)	$186,507	$248,095
Check of Gain/(Loss) Calculation				
34. Actuarial Accrued Liability gain/(loss), (line 27 minus line 30)*	($255,694)	($727,644)	$160,450	$0
35. Actuarial Value of Assets gain/(loss), (line 31 minus line 28)	(37,866)	(75,077)	26,057	248,095
36. AAL gain/(loss) + AVA gain/(loss)	(293,560)	(802,721)	186,507	248,095
37. Difference (line 33 - line 36)	0	0	0	0

* The AAL gain or (loss) is also referred to as the "demographic" gain or (loss).

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Exhibit 7, Experience Gain and Loss Analysis (continued)

				Projected
Rate of Return Assumed for Prior Valuation	7.00%	7.00%	7.00%	7.00%
Salary Scale Assumed for Prior Valuation	5.50%	5.50%	5.50%	5.00%
Increase in Payroll for Amortization Assumed for Prior Valuation	4.00%	4.00%	4.00%	4.00%
Valuation Date	01/01/2010	01/01/2012	01/01/2014	01/01/2016
Calculation of the Amortization Period				
38. Percentage of payroll available to amortize the UAAL	5.64%	10.51%	12.84%	18.19%
39. Annualized compensation	3,717,196	4,407,618	5,223,826	5,623,313
40. Amount available to amortize the UAAL	209,650	463,241	670,739	1,022,881
41. Years to amortize the UAAL before changes in methods or assumptions	19.5	7.5	11.9	6.0
42. Years to amortize the UAAL after changes in methods and/or assumptions	9.1	3.2	7.3	-
43. Years to amortize the UAAL after changes in methods, assumptions and plan amendments	-	-	-	-
			with demographic loss of $0	6.0
			with demographic loss of $727,644	6.9

Notes

The 6.0-year projected amortization period as of January 1, 2016, assumes that there is no demographic loss for the two-year period between the January 1, 2014 and 2016 valuation dates. The 6.9-year projected amortization period as of January 1, 2016, assumes that the demographic loss for the two-year period between the January 1, 2014 and 2016 valuation dates equals $727,644, the same demographic loss as occurred between the 2010 and 2012 valuations. Please see line 34 of the 2012 column for the 2010 to 2012 demographic loss.

For the purposes of developing the January 1, 2016 projections, the total of benefits and contribution refunds paid for the years ending December 31, 2014, and 2015, was assumed to be 103.0 percent of the prior year's amount. Expenses for the years ending in 2014 and 2015 were assumed to be were assumed to be 110.0 percent of the prior year's expenses. The market value rate of return of the trust for the years ending in 2014 and 2015 was assumed to be 7.00 percent. The normal costs for the years ending December 31, 2015, and 2016, were assumed to be 104.00 percent of the prior year's normal cost.

Section III - Appendices

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix A, Actuarial Cost Method and Actuarial Value of Assets

Actuarial Cost Method

The actuarial cost method used in the valuation is the individual entry age normal actuarial cost method. This method is also referred to as the entry age actuarial cost method under the terminology developed by the Joint Committee on Pension Terminology.

The valuation measures the actuarial balance between the present value of future benefits and the sum of (1) the present value of future contributions and (2) the actuarial value of assets. The plan is not subject to the minimum funding requirements of Internal Revenue Code Section 430.

The normal cost for each employee equals the level percentage of pay contribution which, if paid annually from date of employment to date of assumed retirement, would fully fund the member's benefits. The employee's portion of the normal cost equals his or her anticipated employee contributions for the year. The employer normal cost for the year equals the total normal cost for all employees minus the total employee normal cost.

The actuarial accrued liability is developed by subtracting the present value of future normal costs from the present value of future benefits. The unfunded actuarial accrued liability is calculated by subtracting the actuarial value of assets from the actuarial accrued liability.

The actuarial cost method is the same as was used for the previous valuation.

Actuarial Value of Assets

The actuarial value of assets is smoothed market value. Calculation of the actuarial value of assets begins with the market value of assets as of the valuation date. The expected amount of return over each of the last five years is calculated and subtracted from the actual amount of return for each year. The difference for each year is phased in to the valuation assets at a rate of 20 percent per year until it is fully recognized.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix A, Actuarial Cost Method and Actuarial Value of Assets

The actuarial value of assets, calculated as described above, is subject to a minimum value of 80 percent of the market value of assets as of the valuation date and a maximum value of 120 percent of the market value of assets as of the valuation date.

The development of the actuarial value of assets is shown on Exhibit 3. The method used to develop the actuarial value of assets is the same as the method used for the previous valuation.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix B, Actuarial Assumptions

1. Rate of return on the actuarial value of assets

7.00% per annum, compounded annually

2. Mortality

Employee and healthy annuitant combined rates from the RP-2000 Mortality Table, projected to 2015 using Scale AA, with separate rates for males and females

3. Termination

Table T-1 from the *Actuary's Pension Handbook*. Specimen rates are:

Age	Termination Rate
25	4.97%
35	2.49%
45	0.62%
55	0.00%

4. Disability

Rates developed from 1985 Society of Actuaries Disability Table Study using Class 1 male rates with a 90-day elimination period. Specimen rates are:

Age	Disability Rate
25	0.187%
35	0.164%
45	0.335%
55	0.858%

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix B, Actuarial Assumptions

5. Assumed retirement age for active members	Active members are assumed to retire once they have both attained age 55 and completed at least 20 years of service. Active members who have already attained age 55 and completed 20 years of service are assumed to retire on the valuation date.
6. Assumed retirement age for vested terminated members	Benefits for vested terminated members are assumed to start on the date the member attains age 55 or, if later, the date the member would have completed 20 years of service.
7. Compensation increases for individual members	5.00% per year, compounded annually
8. Increases in total payroll	4.00% per year, compounded annually
9. Marital status	
a. Proportion married	Males: 100%, Females: 100%
b. Difference in ages	Actual age differences are used for married members. Unmarried members are assumed to be married at retirement. Males are assumed to be three years older than their spouses.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix B, Actuarial Assumptions

10. Assumed form of payment	Benefits are assumed to be paid for the life of the member with two-thirds continued to the surviving spouse.
11. Assumed death benefit to children	Each member is assumed to have two children. The first child is assumed to have been born when the member was age 25. The second child is assumed to be two years younger. It is also assumed that benefits will be paid until each child reaches the age of 18.
12. Assumed contribution rates	
a. Members	19.60% of compensation
b. District contribution on behalf of all members	19.20% of compensation

Decrements are assumed to be annual rates, rather than probabilities, and are adjusted for the interaction between competing decrements. The 7.00 percent rate of return was set by taking into account future expected rates of return for portfolios with similar asset allocations. The assumed 7.00 percent rate can be considered to include a provision for inflation at 3.00 percent per year, although other combinations of real return, risk premium and inflation are also accounted for by a 7.00 assumed rate. The same inflation component was used in the assumed rate of return on the actuarial value of assets, the assumed increases in compensation for individual members, and the other actuarial assumptions.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix B, Actuarial Assumptions

The valuation includes provisions for mortality improvement to 2015. The mortality table used in the valuation is updated periodically. The actuaries are not aware of any significant event that has occurred since the valuation date that would have materially changed any of the demographic assumptions selected for the valuation.

Changes in Actuarial Assumptions

The assumed member contribution rate was increased to 19.60 percent of pay for the January 1, 2014 valuation. The member contribution rate assumed for the 2012 valuation was 18.20 percent of pay.

The assumed contribution rate for the Travis County Emergency Services District No. 6 was raised to 19.20 percent of pay. The assumed District contribution rate in the 2012 valuation was 17.20 percent of pay. The one percent reduction in the District's contribution rate to cover plan expenses was removed for the 2014 valuation.

The assumed rate of increase in individual fire fighters' compensation was lowered to 5.00 percent per year based on a study of plan experience. The prior rate assumed was 5.50 percent per year.

The changes were made in order to most accurately reflect anticipated plan experience.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix C, Summary of Principal Fund Provisions

Authority for the Fund and Definitions

The Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund is established under the authority of the Texas Local Fire Fighter's Retirement Act (TLFFRA). The fund is administered by a Board of Trustees. The Board is made up of three members elected from and by fund members, two representatives of Travis County Emergency Services District No. 6, and two citizen members.

Effective with the pay period ending October 19, 2013, the Travis County Emergency Services District No. 6 began contributing to the fund at a rate of 19.20 percent of each member's total W-2 pay (including regular wages and standard overtime pay, but excluding (1) lump sum payments upon termination of employment for unused sick and vacation pay and (2) payments in addition to an employee's base pay that are due to overtime other than standard overtime pay and "step-up" service). Compensation includes amounts not includable in W-2 compensation due to Internal Revenue Code Sections 125, 132(f), 401(k), 403(b) or 457(b).

Effective with the pay period ending October 19, 2013, members began contributing to the fund at a rate of 19.20 percent of pay. The definition of pay for the purposes of employee contributions is the same as the definition of pay for employer contributions. Employee contributions are "picked up" by the District under Section 414(h)(2) of the Internal Revenue Code. The change from after-tax contributions to pick-up contributions was effective January 1, 2011. For this reason, a member's contributions after December 31, 2010, are excluded from his or her taxable income. The member contribution rate will rise to 19.6 percent effective with the pay period ending October 18, 2014, and to 20.0 percent effective with the pay period ending October 17, 2015.

Fund members receive credited service for the period during which they pay into, and keep on deposit in the fund, the contributions required by the fund. Credited service is calculated in years and completed months. In addition, each member of the fund, who was an active employee as of November 1, 2008, receives credit for service with the Fire Department that was performed prior to March 1, 2008.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix C, Summary of Principal Fund Provisions

Retirement and termination benefits are calculated using a member's highest average monthly pay. Highest average monthly pay is based on an average of the 60 consecutive months of compensation which produce the highest average. Notwithstanding the above, highest average monthly pay shall be based only upon compensation since January 1, 2009.

The fund was originally effective January 1, 2008, and was most recently amended November 25, 2013.

Eligibility

An individual who is an employee of the District shall become a member of the fund if that individual is younger than 36 years old on the date that he or she begins employment with the Fire Department. An individual who is older than 36 years of age at date of employment with the fire department is eligible to be a member only if (1) the individual first became a firefighter at an age younger than age 36, (2) the board through order authorizes membership in the fund for such individual, and (3) the individual affirmatively elects to be a member and passes the physical examination provided for in Section 9(e) of TLFFRA. Any other individual who first becomes an employee after age 36 is not eligible for membership in the fund.

Normal Retirement Benefits

A member is eligible for service retirement upon completion of 20 years of service and attainment of age 55. A member who retires under the service retirement provisions of the fund will receive a monthly benefit equal to 2.61 percent of the member's highest average monthly pay, multiplied by his or her years of credited service.

Service retirement benefits are payable for the member's lifetime. In the event the member's death precedes that of his spouse, two-thirds of the member's benefit will be continued to the spouse for the spouse's lifetime.

In lieu of the straight service retirement benefit described above, a member may elect to receive his or her benefit under the Deferred Retirement Option Program (DROP), described later in this Appendix C.

Disability Benefits

An active member will qualify for monthly disability benefit if, prior to satisfying the requirements for a service retirement benefit, the member is unable, as a result of a physical or mental condition, to perform the duties of (a) the duties of his or her present position or (b) a position offered to him or her in the Fire Department which provides pay equal to or greater than the pay the disabled member would have received in his or her position prior to disablement.

Disability benefits are payable in the same form as service retirement benefits. However, disability benefits stop if the member recovers to the point that he no longer meets the definition of disability under the fund.

Amount of Disability Benefit

The amount of monthly disability benefit payable under the fund will equal 2.61 percent of the member's highest average monthly pay, multiplied by his or her years of credited service. Years of credited service will not be less than 20.

Death Benefits

If a member dies while in active service, the member's surviving spouse will receive an immediate monthly benefit, payable for as long as he or she is living. The amount of monthly death benefit payable under the fund will equal 1.873 percent of the member's highest average monthly pay, multiplied by the member's years of credited service. Years of credited service will not be less than 20. The spouse's benefit is payable for life.

In addition to the above surviving spouse's benefit, each unmarried child of the member will receive a monthly benefit of 7.47 percent of the member's highest average monthly pay. Orphan benefits continue until the child reaches age 18. However, benefits will continue until age 25 for a child who is a full-time student. Orphan benefits are doubled if the deceased member has no surviving spouse.

Termination Benefits

Members with Less Than Ten Years of Credited Service

A fund member who terminates employment prior to completing 10 years of credited service will be entitled to the return of the excess of his or her contributions to the fund over the amount of any benefits he or she has received from the fund.

Members Ten or More Years of Credited Service

A fund member who terminates employment after completing at least 10 years of credited service, but prior to the date he or she attains age 55, will be entitled to receive a monthly benefit starting at age 55. The monthly termination benefit will equal 2.61 percent of the member's highest average monthly average pay at multiplied by his or her years of credited service at date of termination of employment.

The DROP Program

A member is eligible to receive his benefit under the plan's DROP provision after he or she has both completed 20 years of service and attained age 55. The election to participate in the DROP may be made at the time the member elects to retire.

Amount of Monthly Retirement Income to DROP Program Participants

The monthly retirement income payable to a member who retires under the DROP will equal his service retirement benefit under the plan based on average monthly salary and years of service as of the member's DROP Date. The member's benefit will be calculated, however, using the benefit formula in effect on the member's DROP date.

A member's DROP Date is the date two years prior to the date he or she retires from the Department.

Upon retirement, the member will receive—in addition to his monthly retirement benefit—an amount equal to the sum of:

a. the total of the monthly retirement benefits the member would have received between his or her DROP Date and the time he or she retired under the plan, and

b. the amount of monthly contributions that the member has made to the fund between his or her DROP Date and the time he or she retired under the plan.

Amendment of the Plan

The plan document may be amended as provided in Section 7 of the Texas Fire Fighters' Retirement Act (Article 6243e. V.T.C.S.). Amending the plan requires approval of any proposed change by (a) an eligible actuary and (b) a majority of the participating members of the fund.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix D, Glossary of Terms Used in the Report

Actuarial Assumptions

In order to project future retirement benefits and to calculate the contributions necessary to fund those benefits, the actuary must choose an earnings rate which will be representative of the trust fund's future rate of return over the long term. Expected rates of mortality, disability, termination and retirement must be selected as well. It is also necessary to choose the assumed rates at which members' compensation will increase. Each of these assumed rates is referred to as an actuarial assumption. The actuary monitors the plan's experience with respect to each assumption and changes assumptions as required. The actuarial assumptions used in this valuation are listed on Appendix B.

Actuarial Cost Method

The actuarial cost method is the means for distributing the cost of a member's pension over his or her period of service with the employer. The cost attributed to each specific year is referred to as the normal cost for that year. The pattern of normal costs is what distinguishes one cost method from another. The specific actuarial cost method used for the actuarial valuation is described on Appendix A.

Actuarial Present Value

Actuarial valuations discount the value of future pension and other benefits from the date they are assumed to be paid, back to the valuation date. Payments are discounted for interest and for the probability that they will ultimately be paid. Probabilities that are taken into account include death, disability and termination.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix D, Glossary of Terms Used in the Report

Actuarial Value of Assets

The assets of the trust fund can be measured in several ways. If the value of assets is measured by the amount that was paid for them, assets are said to be valued at cost. Assets valued on the basis of the price between a willing buyer and a willing seller are said to be accounted for at market value. The actuarial value of assets is the value of fund assets used in the actuarial valuation. The actuarial value of assets may be set at cost, at market, or some combination of values. Actuarial value is chosen so as to smooth temporary fluctuations of the trust fund. The method used to develop the actuarial value of assets for the valuation is described on Appendix A.

Amortization Period

The portion of the employer's contribution not needed to meet the normal cost for the year is applied to amortizing the unfunded actuarial accrued liability (UAAL). The amortization payment is first applied toward interest on the UAAL. Any remaining amount reduces principal. By taking into account the size of the UAAL, the amount available to amortize the UAAL, and the plan's assumed interest rate, the actuary can calculate the length of time that will be required to reduce the UAAL to zero. This time span is called the amortization period. It is important to note that the periodic amortization payments are not level. Rather, payments are assumed to increase each year by a percentage equal to the growth in total payroll.

Annual Required Contribution (ARC)

As defined in Governmental Accounting Standards Board Statements No. 25 and No. 27, the annual required contribution of the employer is the employer's periodic required contribution calculated using the plan's actuarial cost method and actuarial assumptions. The annual required contribution of the employer may be expressed as a dollar amount or as a percentage of payroll.

Travis Co. ESD No. 6 Firefighters' Relief and Retirement Fund

Valuation as of January 1, 2014

Appendix D, Glossary of Terms Used in the Report

Entry Age Normal Cost Method

Under the entry age normal cost method, the cost of a member's pension is spread over his or her entire career. The normal cost of benefits is calculated so as to be a level amount when expressed as a percentage of pay. A detailed description of the cost method used appears on Appendix A.

Net Pension Obligation (NPO)

As defined in Governmental Accounting Standards Board Statements No. 25 and No. 27, the net pension obligation is the cumulative difference, since the effective date of Statement No. 27, between the annual pension cost and the employer's contributions to the plan.

Normal Cost

The normal cost is the portion of the cost of a member's pension that is attributed to a specific year.

Texas Pension Review Board Guidelines for Actuarial Soundness

The Texas Pension Review Board has published guidelines which specify the basis for determining whether a public pension plan complies with the requirements of Section 802.101 of the Texas Government Code. The guidelines, as amended September 28, 2011, provide that valuations should meet the following requirements.

1. The funding of a pension plan should reflect all plan obligations and assets.

2. The allocation of the normal cost portion of contributions should be level or declining as a percent of payroll over all generations of taxpayers and should be calculated under applicable actuarial standards.

3. Funding of the unfunded actuarial accrued liability should be level or declining as a percent of payroll over the amortization period.

4. Funding should be adequate to amortize the unfunded actuarial accrued liability over a period not to exceed 40 years, with 15 to 25 years being a more preferable target. Benefit increases should not be adopted if all plan changes being considered cause a material increase in the amortization period and if the resulting amortization period exceeds 25 years.

5. The choice of assumptions should be realistic and reasonable and should comply with applicable actuarial standards.

Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability (UAAL) represents the difference between (a) the present value of future benefits and (b) the sum of the present value of future normal costs and the actuarial value of assets. The UAAL is used in calculating the amortization payment for the year, which is a part of the annual contribution requirement. The UAAL does not represent a measure of the degree to which accrued benefits are funded. Many plans which are fully funded as far as accrued benefits are concerned nevertheless have unfunded actuarial accrued liabilities.