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EL PASO FIREMEN'S PENSION FUND

ACTUARIAL VALUATION

AS OF JANUARY 1, 2012

buckconsultants A Xerox Company

October 5, 2012

Board of Trustees
El Paso Firemen & Policemen's Pension Fund
201 E. Main, Suite 1616
El Paso, TX 79901-1340-5623

Re: El Paso Firemen's Pension Fund Actuarial Valuation as of January 1, 2012

Dear Ladies & Gentlemen:

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the El Paso Firemen's Pension Fund (the Fund) as of January 1, 2012.

Actuarial Valuation

The primary purpose of the valuation report is to determine the adequacy of the current City's contribution rate, to describe the current financial condition of the Fund, and to analyze changes in the Fund's condition. In addition, the report provides information required by the Governmental Accounting Standards Board Statement No. 25 (GASB No. 25).

Valuations are prepared biennially, as of January 1 of even years. January 1 is the first day of the Fund's plan year.

Financing Objectives

The member contributions are set by state statute and the Board of Trustees, and employer contributions are established by state statute and City Ordinance. The City currently contributes 18.50% of total salary, while the Members currently contribute 15.28% of total salary. These rates are intended to be sufficient to pay the normal cost and to amortize the Fund's unfunded actuarial accrued liability.

Progress Toward Realization of Financing Objectives

As of January 1, 2012, the employer contribution rate needed in order to meet a 30-year amortization of the Unfunded Actuarial Accrued Liability (UAAL) is 23.82%. This is more than the current rate and therefore the current rate is inadequate to satisfy the 30-year maximum amortization period for the unfunded liability that is established under GASB No. 25.

14911 Quorum Drive, Suite 200 • Dallas, TX 75254-7534
972.628.6800 • 972.628.6801 (fax)

Section 14A of Article 6243b (Vernon's Annotated Texas Statute) requires that the actuary determine any additional contribution rate necessary to amortize the unfunded actuarial accrued liability, as defined in GASB No. 25, over a 40-year period. If an additional contribution rate is necessary, the contribution rate will be split between the City and the Members in the same proportion as the current contribution rates. However, the contribution rates of the Members shall only increase if the City increases its rate to the 40-year contribution rate. For purposes of Section 14A of Article 6243b (Vernon's Annotated Texas Statute), we have assumed that the return on the market value of assets is 7.75% and used the other assumptions and methods described in Schedule C. Based on this January 1, 2012 valuation, we have determined that the current contribution rates as a percentage of wages would have to be increased as follows to satisfy the 40-year funding period of Section 14A of Article 6243b (Vernon's Annotated Texas Statute)

	City	Member
Prior Rates	18.50%	15.28%
14A Rates	20.02%	16.53%

Benefit Provisions

The actuarial valuation reflects the benefit and contribution provisions set forth in the Fund's statutes. The benefit provisions used in the valuation are presented in Schedule B. The provisions were changed on June 30, 2007 so that Members of the Fund on or prior to June 30, 2007 are eligible for the Base Plan and Members of the Fund on or after July 1, 2007 are eligible for the Second-Tier Plan.

There were no changes in the provisions since the last actuarial valuation.

Assumptions and Methods

The actuarial assumptions and methods used in the valuation are presented in Schedule C. Following an experience study performed as of January 1, 2010, the assumptions were revised to better reflect actual experience of the Fund. New actuarial standards require actuaries to consider the effect of mortality improvement both prior to and subsequent to the valuation date. The mortality assumption was changed to the RP-2000 mortality table with separate healthy annuitant and employee tables with Scale AA forecasts of mortality improvement projected to seven years after the valuation date for annuitants and 15 years after the valuation date for non-annuitants. The change in mortality assumption decreased the Unfunded Actuarial Accrued Liability by about 5%. The changes to the assumptions are outlined in Schedule C. The assumptions used are individually reasonable and reasonable in the aggregate.

Data

Member data for retired, active, and inactive members was supplied as of January 1, 2012 by the Fund's staff. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was supplied by the Fund's staff.

We are Enrolled Actuaries, Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice, and we are available to answer questions about it.

Respectfully submitted,

Stephen J. Prullage, EA, FSA, MAAA
Director, Consulting Actuary

David L. Driscoll, EA, FSA, MAAA
Principal, Consulting Actuary

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Enclosures

Table of Contents

Summary of Principal Results

	January 1, 2012	January 1, 2010
Membership		
Active	794	812
Terminated with deferred benefits	3	3
Retired paid from fund	610	593
Compensation		
Total	$ 49,942,127	$ 48,172,561
Average	$ 62,899	$ 59,326
Assets		
Market value	$ 401,602,141	$ 381,332,132
Actuarial value	$ 431,209,946	$ 403,748,151
Valuation Results		
Unfunded actuarial accrued liability	$ 108,582,531	$ 89,572,311
Funding period	76 years	49 years
30-year funding cost (City)	23.82 %	22.55 %
Margin	(5.32)%	(4.05)%
GASB No. 25		
Actuarial accrued liability (AAL)	$ 539,792,477	$ 493,320,462
Assets (actuarial)	$ 431,209,946	$ 403,748,151
GASB ratio	79.9 %	81.8 %
Unfunded AAL	$ 108,582,531	$ 89,572,311

Comments on the Valuation

Overview

The current contribution rates are not sufficient to meet the 30-year maximum amortization period for the unfunded liability that is established under GASB No. 25, based on the current membership data, the current financial data, the current benefit provisions and the actuarial assumptions and methods used to determine liabilities and costs.

Section 14A of Article 6243b (Vernon's Annotated Texas Statute) requires that the actuary determine any additional contribution rate necessary to amortize the unfunded actuarial accrued liability, as defined in GASB No. 25, over a 40-year period. Based on this January 1, 2012 valuation, we have determined that the current contribution rates as a percentage of wages would have to be increased to satisfy the 40-year funding period of Section 14A by 1.52% and 1.25% for the City and Members, respectively.

Section 3 shows in more detail the changes to the unfunded actuarial accrued liability (UAAL), the funding cost, and the funding period based on the current contribution rates.

Funding Status

There are two significant measures of the funding status of the Fund. The first is the 30-year funding cost. This is the City contribution rate required to pay the normal cost and to amortize the UAAL over a 30-year period. As you can see, this rate is currently 23.82% compared with the City's actual contribution rate of 18.50% and the 30-year funding cost in 2010 of 22.55%. Section 3 shows a reconciliation of the changes between the 2010 and 2012 figures.

The other measure is the funding period. This is the length of time in years that will be required to amortize the current UAAL based on the current contribution rate. This period was 49 years in 2010 but is 76 years based on the 2012 valuation.

The UAAL is the excess of the liability assigned to prior years (the actuarial accrued liability) over the value of assets. Section 3 shows a reconciliation of this amount between 2010 and 2012.

GASB Statement No. 25

Section 4 provides information required for reporting under GASB No. 25. The GASB funded ratio decreased from 81.8% as of January 1, 2010 to 79.9% as of January 1, 2012. The unfavorable return on assets was the primary cause for this decrease.

Benefit Provisions

Schedule B summarizes all the benefit provisions of the fund. There are no significant benefits which were not taken into account in this valuation.

The provisions were changed on June 30, 2007 so that Members of the Fund on or prior to June 30, 2007 are eligible for the Base Plan and Members of the Fund on or after July 1, 2007 are eligible for the Second-Tier Plan.

There were no changes in the provisions since the last actuarial valuation.

Actuarial Assumptions and Methods

Schedule C describes all of the assumptions used for this valuation. An experience study was performed as of January 1, 2010. As recommeneded in that study, the Board adopted assumption changes to better reflect anticipated experience of the Fund.

New actuarial standards require actuaries to consider the effect of mortality improvement both prior to and subsequent to the valuation date. The mortality assumption was changed to the RP-2000 mortality table with separate healthy annuitant and employee tables with Scale AA forecasts of mortality improvement projected to seven years after the valuation date for annuitants and 15 years after the valuation date for non-annuitants.

GASB Statement No. 27

Under GASB Statement No. 27, employers must determine a pension expense based on a 30-year amortization of the UAAL. The amortization can assume payroll growth due to inflation, but no membership growth. Prior to 2006, the pension expense under GASB No. 27 was determined based on a 40-year amortization of the UAAL. If the actual contribution rate is less than the rate required by GASB No. 27, the excess must be expensed. This will result in the employer showing an accrued but unpaid liability for pension benefits on its financial statements.

The annual required contribution under GASB No. 25 is 23.82% of wages. The City must contribute 23.82% of wages plus an adjustment for any pension asset or obligation to avoid any changes in its net pension asset or obligation.

Financial Data

The financial data used in this report was supplied by the Fund's staff.

Section 5 reconciles the Fund's assets between 2010 and 2012 and shows the development of the actuarial value of assets (AVA). Rather than using the market value for cost calculations, we use an adjusted market value, which phases in gains and losses (compared to the assumed investment return rate) over five years. This method is designed to reduce the volatility of the results.

Historical returns and experience are also summarized in Section 5.

Membership statistics

Data on active members and on retired members was supplied by the Fund's staff. The active membership decreased from 812 to 794 between 2010 and 2012, a 2.2% decrease over the two year period, while payroll grew from $48.2 million to $49.9 million over the same period, a 3.7% increase. Schedule A shows a summary of the membership data.

Actuarial Cost, Margin and Funding Period

		January 1, 2012	January 1, 2010
1.	Covered Payroll	$ 49,942,127	$ 48,172,561
2.	Actuarial present value of future pay	$ 481,570,590	$ 477,333,230
3.	Current contribution rates		
	a. City	18.50 %	18.50 %
	b. Member	15.28 %	15.28 %
	c. Total	33.78 %	33.78 %
4.	Normal cost rate		
	a. Total (before adjustment for overtime)	27.97 %	28.49 %
	b. Total (after adjustment for overtime)	26.89 %	27.39 %
	c. Member contribution rate	15.28 %	15.28 %
	d. Employer normal cost rate (4b - 4c)	11.61 %	12.11 %
5.	Actuarial present value of future benefits	$ 674,487,771	$ 629,312,699
6.	Actuarial present value of future normal costs (4a x 2)	$ 134,695,294	$ 135,992,237
7.	Actuarial accrued liability (5 - 6)	$ 539,792,477	$ 493,320,462
8.	Actuarial value of assets	$ 431,209,946	$ 403,748,151
9.	Unfunded actuarial accrued liability (UAAL) (7 - 8)	$ 108,582,531	$ 89,572,311
10.	30-year funding cost for City*		
	a. Employer normal cost rate (4d)	11.61 %	12.11 %
	b. Amortization rate	12.21 %	10.44 %
	c. Total	23.82 %	22.55 %
11.	Margin over/(under) 30-year cost (3a - 10c)*	(5.32)%	(4.05)%
12.	Funding period to amortize UAAL*	76 years	49 years

* 30-year funding cost is necessary for accounting purposes only. The actual funding period is calculated based on level contributions and reflects the provisions of the second-tier plan for Members hired after June 30, 2007.

Analysis of Change in UAAL

1.	UAAL as of January 1, 2010	$	89,572,311
2.	Changes due to:		
	a. Expected increase (negative amortization)	$	7,139,540
	b. Actual contributions greater than expected		(1,395,909)
	c. Other changes including liability experience		(7,332,483)
	d. Assumption changes		(3,985,792)
	e. Asset experience		24,584,864
	Total Changes	$	19,010,220
3.	UAAL as of January 1, 2012	$	108,582,531

Analysis of Change in Funding Cost

1.	30-year funding cost as of January 1, 2010	22.55 %
2.	Changes due to:	
	a. Actual contributions greater than expected	(0.16)%
	b. Other changes including liability experience	(0.72)%
	c. Assumption changes	(0.61)%
	d. Asset experience	2.76 %
	Total	1.27 %
3.	30-year funding cost as of January 1, 2012	23.82 %

Analysis of Change in Funding Period

1.	Funding period as of January 1, 2010	49 years
2.	Changes due to:	
	a. Passage of time	(2)
	b. Actual contributions greater than expected	(2)
	c. Other changes including liability experience	1
	d. Assumption changes	(3)
	e. Asset experience	33
	Total	27
3.	Funding period as of January 1, 2012	76 years

GASB #25 Disclosure Amounts as of January 1, 2012

Period Ending	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)- Entry Age	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
December 31, 2006						
December 31, 2007	$317.9	$431.9	$114.0	73.6%	$41.2	276.7%
December 31, 2008						
Decmeber 31, 2009	403.7	493.3	89.6	81.8%	48.2	185.9%
December 31, 2010						
Decmeber 31, 2011	431.2	539.8	108.6	79.9%	49.9	217.4%

GASB #25 Schedule of Employer Contributions for Period Ending December 31, 2011

Period Ending	Annual Required Contribution	Percentage Contributed
December 31, 2006	$15,343,321	52%
December 31, 2007	15,794,257	404%
December 31, 2008	13,255,005	65%
December 31, 2009	14,998,356	517%
December 31, 2010	11,747,947	82%
December 31, 2011	12,159,125	82%

Reconciliation of Fund Assets

	Period Ending	
	December 31, 2011	December 31, 2010
1. Value of fund at beginning of period	$ 418,002,551	$ 381,332,132
2. Contributions		
f. City	9,969,854	9,523,180
g. Member	8,230,062	8,112,337
h. Total	$ 18,199,916	$ 17,635,517
3. Benefit payments	(24,288,106)	(23,563,764)
4. Earnings	(9,663,751)	43,165,827
5. Administrative expenses	(648,469)	(567,161)
6. Value of assets at end of period	$ 401,602,141	$ 418,002,551

Determination of Excess Earnings to Be Deferred

	Period Ending December 31, 2011	Period Ending December 31, 2010
1. Market value at beginning of period	$ 418,002,551	$ 381,332,132
2. Net new investments		
a. City contributions	$ 9,969,854	$ 9,523,180
b. Member contributions	8,230,062	8,112,337
c. Benefit payments	(24,288,106)	(23,563,764)
d. Total	$ (6,088,190)	$ (5,928,247)
3. Weighted new investments (2d x 50%)	$ (3,044,095)	$ (2,964,124)
4. Assets available (1 + 3)	$ 414,958,456	$ 378,368,008
5. Assumed investment return rate	7.75%	7.75%
6. Expected net return (4 x 5)	$ 32,159,280	$ 29,323,521
7. Actual net return		
a. Total investment return	$ (9,663,751)	$ 43,165,827
b. Administrative expenses	(648,469)	(567,161)
c. Net return	$ (10,312,220)	$ 42,598,666
8. Gains/(losses) subject to deferral (7c - 6)	$ (42,471,500)	$ 13,275,145

Calculation of Actuarial Value of Assets

1. Market value of assets as of December 31, 2011 — $ 401,602,141

2. Deferral amounts

	Year	Total Gain/(Loss)	Percent Deferred	Deferral Amount
a.	2011	$(42,471,500)	80%	$ (33,977,200)
b.	2010	13,275,145	60%	7,965,087
c.	2009	47,147,970	40%	18,859,188
d.	2008	(112,274,398)	20%	(22,454,880)
e.	Total			$ (29,607,805)

3. Actuarial value of assets (1 – 2e) — $ 431,209,946

Summary of Asset Experience and Yield on Market Value of Assets

		Plan Year (1)	Beginning of Year Market Value (2)	Employer Plus Employee Contributions to Fund (3)	Benefit Disbursements from Fund (Including Refund of Contributions) (4)	Net Earnings on Fund (6)-(2)+(4)-(3) (5)	End of Year Market Value (6)	Annualized Yield Based on Market Value (7)
3/1/1966	thru	2/28/1967	$ 1,547,208	$ 370,095	$ 182,298	$ 32,663	$1,767,668	1.99%
3/1/1967	thru	2/29/1968	1,767,668	380,444	192,195	86,728	2,042,645	4.66
3/1/1968	thru	2/28/1969	2,042,645	593,198	208,366	121,904	2,549,381	5.45
3/1/1969	thru	8/31/1969	2,549,381	280,772	106,614	(6,609)	2,716,930	(0.50)
9/1/1969	thru	8/31/1970	2,716,930	768,543	227,417	(30,712)	3,227,344	(1.03)
9/1/1970	thru	8/31/1971	3,227,344	799,479	234,759	296,867	4,088,931	8.46
9/1/1971	thru	8/31/1972	4,088,931	893,998	251,884	211,612	4,942,657	4.80
9/1/1972	thru	8/31/1973	4,942,657	1,055,881	272,197	(295,827)	5,430,514	(5.55)
9/1/1973	thru	8/31/1974	5,430,514	1,113,313	318,569	(1,123,014)	5,102,244	(19.27)
9/1/1974	thru	8/31/1975	5,102,244	1,207,931	390,572	1,137,268	7,056,871	20.64
9/1/1975	thru	8/31/1976	7,056,871	1,337,359	493,835	1,044,645	8,945,040	13.97
9/1/1976	thru	8/31/1977	8,945,040	1,577,958	609,556	263,996	10,177,438	2.80
9/1/1977	thru	8/31/1978	10,177,438	1,776,875	763,734	95,253	11,285,832	0.89
9/1/1978	thru	8/31/1979	11,285,832	1,972,493	862,797	1,093,021	13,488,549	9.23
9/1/1979	thru	8/31/1980	13,488,549	1,004,483	1,003,091	2,363,277	15,853,218	17.52
9/1/1980	thru	8/31/1981	15,853,218	2,420,405	1,233,471	925,838	17,965,990	5.63
9/1/1981	thru	8/31/1982	17,965,990	2,839,208	1,567,891	1,810,233	21,047,540	9.73
9/1/1982	thru	8/31/1983	21,047,540	3,086,224	1,892,082	3,085,445	25,327,127	14.26
9/1/1983	thru	8/31/1984	25,327,127	3,373,113	2,000,420	3,000,669	29,700,489	11.54
9/1/1984	thru	12/31/1984	29,700,489	915,457	720,809	1,780,169	31,675,306	19.01
1/1/1985	thru	12/31/1985	31,675,306	24,605,901	22,995,801	7,284,906	40,570,312	22.43
1/1/1986	thru	12/31/1986	40,570,312	6,238,743	5,833,057	8,054,718	49,030,716	19.75
1/1/1987	thru	12/31/1987	49,030,716	4,399,173	2,623,305	1,272,708	52,079,292	2.55
1/1/1988	thru	12/31/1988	52,079,292	4,332,419	3,358,360	3,938,446	56,991,797	7.49
1/1/1989	thru	12/31/1989	56,991,797	4,613,241	3,980,955	10,755,980	68,380,063	18.77
1/1/1990	thru	12/31/1990	68,380,063	4,964,139	4,364,185	3,223,512	72,203,529	4.69
1/1/1991	thru	12/31/1991	72,203,529	5,370,948	4,731,758	13,537,940	86,380,659	18.67
1/1/1992	thru	8/31/1992	86,380,659	3,984,655	3,408,292	2,245,838	89,202,860	3.91
9/1/1992	thru	8/31/1993	89,202,860	6,114,853	5,731,676	11,379,020	100,965,057	12.73
9/1/1993	thru	8/31/1994	100,965,057	6,370,197	6,467,470	3,826,728	104,694,512	3.79
9/1/1994	thru	8/31/1995	104,694,512	6,378,848	6,977,688	11,150,010	115,245,682	10.68
9/1/1995	thru	8/31/1996	115,245,682	6,871,024	7,459,968	8,855,917	123,512,655	7.70
9/1/1996	thru	8/31/1997	123,512,655	7,236,916	8,380,348	25,587,041	147,956,264	20.81
9/1/1997	thru	8/31/1998	147,956,264	7,438,353	9,394,749	(3,494,009)	142,505,859	(2.38)
9/1/1998	thru	6/30/1999	142,505,859	6,480,485	8,376,426	29,017,367	169,627,285	25.08
7/1/1999	thru	6/30/2000	169,627,285	8,087,144	10,577,992	7,740,233	174,876,670	4.60
7/1/2000	thru	6/30/2001	174,876,670	8,814,568	11,098,252	529,864	173,122,850	0.30
7/1/2001	thru	6/30/2002	173,122,850	9,581,909	12,265,846	(6,232,926)	164,205,987	(3.63)
7/1/2002	thru	6/30/2003	164,205,987	10,681,239	13,312,583	5,409,823	166,984,466	3.32
7/1/2003	thru	12/31/2003	166,984,466	5,965,660	6,867,584	18,137,881	184,220,423	22.97
1/1/2004	thru	12/31/2004	184,220,423	13,397,445	14,368,403	22,696,133	205,945,598	12.35
1/1/2005	thru	12/31/2005	205,945,598	14,060,139	15,278,655	16,456,483	221,183,565	8.01

Summary of Asset Experience and Yield on Market Value of Assets (continued)

		Plan Year (1)	Beginning of Year Market Value (2)	Employer Plus Employee Contributions to Fund (3)	Benefit Disbursements from Fund (Including Refund of Contributions) (4)	Net Earnings on Fund (6)-(2)+(4)-(3) (5)	End of Year Market Value (6)	Annualized Yield Based on Market Value (7)
1/1/2006	thru	12/31/2006	221,183,565	14,652,563	16,791,226	34,067,233	253,112,135	15.48%
1/1/2007	thru	12/31/2007	253,112,135	70,379,603	18,378,936	32,175,561	337,288,363	11.53
1/1/2008	thru	12/31/2008	337,288,363	16,137,223	20,047,854	(85,447,754)	247,929,978	(25.48)
1/1/2009	thru	12/31/2009	247,929,978	85,174,157	21,308,978	69,536,975	381,332,132	24.85
1/1/2010	thru	12/31/2010	381,332,132	17,635,517	23,563,764	42,598,666	418,002,551	11.26
1/1/2011	thru	12/31/2011	418,002,551	18,199,916	24,288,106	(10,312,220)	401,602,141	(2.49)

Membership Data

	January 1, 2012	January 1, 2010
1. Active members		
a. Number of males	783	801
b. Number of females	11	11
c. Total	794	812
d. Total payroll	$ 49,942,127	$ 48,172,561
e. Average annual pay	62,899	59,326
f. Average age	38.7	38.1
g. Average service (years)	11.7	11.2
h. Total accumulated member contributions	65,076,772	57,380,276
i. Average member contributions	81,961	70,665
2. Inactive members		
a. Number currently being paid from fund	610	593
b. Number entitled to deferred benefits	3	3
c. Total number of inactive members	613	596
d. Total current annual benefit	$ 24,058,199	$ 21,165,906
e. Average current annual benefit	39,247	35,513
f. Average age	65.2	63.5

Schedule A
(continued)

	YEARS OF SERVICE										
AGE	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	Total
Under 25	1	33	2	0	0	0	0	0	0	0	36
	36,305	40,946	48,197	0	0	0	0	0	0	0	
25 to 29	0	59	46	0	0	0	0	0	0	0	105
	0	42,925	50,912	0	0	0	0	0	0	0	
30 to 34	0	31	61	37	0	0	0	0	0	0	129
	0	42,572	54,735	63,634	0	0	0	0	0	0	
35 to 39	0	10	43	77	18	0	0	0	0	0	148
	0	44,399	60,188	63,745	73,071	0	0	0	0	0	
40 to 44	0	7	34	55	78	17	0	0	0	0	191
	0	44,082	62,618	64,279	70,024	82,274	0	0	0	0	
45 to 49	0	4	28	15	37	31	8	0	0	0	123
	0	70,540	66,544	62,894	67,908	71,721	83,223	0	0	0	
50 to 54	0	0	7	6	0	17	12	2	0	0	44
	0	0	72,443	61,660	0	71,687	78,567	77,729	0	0	
55 to 59	0	0	8	0	0	0	6	2	1	0	17
	0	0	69,263	0	0	0	72,657	70,912	95,933	0	
60 to 64	0	0	0	0	0	0	0	1	0	0	1
	0	0	0	0	0	0	0	71,932	0	0	
65 to 69	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	
70 & Up	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	
Total	1	144	229	190	133	65	26	5	1	0	794

THE NUMBER AND ANNUAL RETIREMENT
ALLOWANCES OF RETIRED MEMBERS,
DISABLED MEMBERS AND BENEFICIARIES
BY AGE AS OF JANUARY 1, 2012

AGE	NUMBER	BENEFIT	AVERAGE BENEFIT
38	1	$ 26,021	$ 26,021
41	1	27,259	27,259
42	2	56,696	28,348
43	1	42,173	42,173
44	2	69,294	34,647
45	2	77,946	38,973
46	5	218,426	43,685
47	4	148,318	37,080
48	9	422,828	46,981
49	8	389,883	48,735
50	17	655,124	38,537
51	13	588,597	45,277
52	18	879,301	48,850
53	18	800,525	44,474
54	13	582,455	44,804
55	13	551,702	42,439
56	25	1,039,659	41,586
57	26	1,093,324	42,051
58	25	1,056,868	42,275
59	24	996,194	41,508
60	23	1,012,754	44,033
61	17	762,248	44,838
62	16	781,295	48,831
63	20	935,563	46,778
64	19	798,457	42,024
65	15	661,432	44,095
66	10	452,329	45,233
67	11	438,389	39,854
68	14	555,305	39,665
69	14	629,645	44,975
70	20	723,905	36,195
71	20	767,955	38,398
72	18	663,913	36,884

THE NUMBER AND ANNUAL RETIREMENT
ALLOWANCES OF RETIRED MEMBERS,
DISABLED MEMBERS AND BENEFICIARIES
BY AGE AS OF JANUARY 1, 2012

AGE	NUMBER	BENEFIT	AVERAGE BENEFIT
73	22	$ 931,631	$ 42,347
74	16	596,884	37,305
75	16	583,075	36,442
76	21	789,046	37,574
77	13	337,971	25,998
78	11	304,645	27,695
79	10	316,201	31,620
80	6	140,097	23,350
81	8	184,329	23,041
82	11	346,949	31,541
83	8	206,571	25,821
84	3	124,767	41,589
85	4	93,803	23,451
86	1	11,558	11,558
87	8	102,347	12,793
88	1	13,919	13,919
89	4	20,654	5,164
91	1	4,800	4,800
95	1	5,100	5,100
96	1	4,800	4,800
TOTAL	610	$ 24,024,930	$ 39,385

THE NUMBER AND FUTURE ANNUAL
ALLOWANCES OF TERMINATED MEMBERS,
ENTITLED TO A FUTURE BENEFIT
BY AGE AS OF JANUARY 1, 2012

AGE	NUMBER	BENEFIT	AVERAGE BENEFIT
45	2	$ 15,736	$ 7,868
49	1	17,533	17,533
TOTAL	3	$ 33,269	$ 11,090

Summary of Benefit Provisions
As of January 1, 2012

The Base Plan

1. *Wages*: Base pay, plus longevity pay, incentive pay and overtime.

2. *Final Wages*: The average of the monthly wages, excluding overtime pay, on which a Member made contributions to the Pension Fund during the 36-month period preceding retirement, but not less than the 12-month monthly wages preceding June 30, 2007.

3. *Member*: Any person who has been or becomes enrolled as a fire fighter in the Fire Department of the City of El Paso on or prior to June 30, 2007.

4. *Credited Service*: The time for which a Member contributes to the Pension Fund.

5. *Pension Fund*: The El Paso Firemen's Pension Fund.

6. *Qualified Spouse*: The widow (widower) of a deceased Member.

7. *Qualified Child or Children*: The surviving, dependent children under 19 years of age (23 if a full-time student).

8. *Contribution Rates*: The active Member contributes 15.28% of their pre-tax wages per year. The City contributes 18.50% of the Member's wages per year (18.00% base contribution plus 0.50% contribution for Members hired after age 29).

9. *Service Retirement Benefits*:

   a. Normal Retirement Benefit

Eligibility	Age 45 with 20 years of Credited Service.
Benefit	2.75% of Final Wages times years of Credited Service, not to exceed 77% of Final Wages.

   b. Early Retirement Benefit

Eligibility	20 years of Credited Service.

Benefit	2.75% of Final Wages times years of Credited Service, not to exceed 28 years, multiplied by the appropriate actuarial reduction factor. The actuarial reduction factors are as follows:

Age	Factor
44	.95
43	.90
42	.84
41	.78
40	.71
39	.63
38	.55

Other factors may be obtained by interpolation.

c. Deferred Retirement Benefit

Eligibility	At least 10 years of Credited Service.
Benefit	2.75% of Final Wages for each year of Credited Service not to exceed 28 years. This benefit is payable commencing at age 50, or immediately upon termination of service if at least age 50 at termination.

d. Withdrawal (Refund) of Contributions

Eligibility	5 years of Credited Service.
Benefit	Total employee contributions without interest. No other benefits are payable under the Plan once the contributions are withdrawn.

10. *Survivor Benefits*

a. Qualified Surviving Spouse Benefit

Eligibility	Death of a Member who was active, retired, or eligible for a deferred retirement benefit.

Benefit	100% of Member's earned benefit at date of death, but not less than 50% of Final Wages. If there are qualified surviving children or Member was eligible for a deferred retirement benefit, the surviving spouse's benefit is reduced to 66-2/3%.

b. Qualified Surviving Children Benefit

Eligibility	Death of a Member who was active, retired, or eligible for a deferred retirement benefit.
Benefit	Two-thirds of the Member's earned benefit at date of death if there is no surviving spouse. If a surviving spouse is receiving a benefit, the above fraction is reduced to one-third.

11. *Disability Retirement Benefit*

Eligibility	Total and permanent disability from an injury in the line of duty or any injury not due to the Member's own fault.
Benefit	2.75% of Final Wages times Credited Service, not to exceed 28 years, with a minimum benefit of 50% of Final Wages.

12. *Minimum Benefits*: Minimum pension benefit for any retiree or qualified spouse is $400 per month.

13. *Cost of Living Adjustment*: Cost of living adjustments are applicable to those retiring after March 23, 1980. If the Member retires at age 60 or later, the retirement income will be increased by 3% per year beginning on the date of retirement and then on each January 1 thereafter. If the retirement age is 55 through 59, the 3% annual increase will begin when the Member reaches age 60. A 3% increase will also be given on each subsequent January 1. If the retirement age is prior to 55, the 3% annual increase will begin five years after the retirement date. The first increase begins on the anniversary date of the Member's retirement; thereafter increases will occur on each January 1. Cost-of-living increases are not granted for deferred retirements. For beneficiaries of an active member who dies in service, the initial increase will occur five years after the Member's death. Increases will occur on each January 1 thereafter.

14. *Normal Form of Retirement Benefit*:

a. Single Member	Life Annuity.
b. Married Member	100% joint-and-survivor annuity.

15. *Back Deferred Retirement Option Program (Back DROP)*:

Members who are 50 years old and have over 20 and one half years of service can elect the Back DROP. The Back DROP benefit is a lump sum and a reduced monthly benefit. The reduced monthly benefit equals the benefit calculated at the beginning of the Back DROP period. The lump sum equals the number of months in the Back DROP period multiplied by the monthly benefit. The Back DROP period must be at least six months and not more than 36 months. After deducting the period of the Back DROP the member must still have 20 years of credited service for the calculation of their benefit.

Summary of Benefit Provisions
As of January 1, 2012

The Second-Tier Plan

1. *Wages:* Base pay, plus longevity pay, incentive pay and overtime.

2. *Final Wages*: The average of the monthly wages, excluding overtime pay, on which a Member made contributions to the Pension Fund during the 36-month period preceding retirement.

3. *Member*: Any person who has been or becomes enrolled as a fire fighter in the Fire Department of the City of El Paso on or after July 1, 2007.

4. *Credited Service*: The time for which a Member contributes to the Pension Fund.

5. *Pension Fund*: The El Paso Firemen's Pension Fund.

6. *Qualified Spouse*: The widow (widower) of a deceased Member.

7. *Qualified Child or Children*: The surviving, dependent children under 19 years of age (23 if a full-time student).

8. *Contribution Rates*: The active Member contributes 15.28% of their pre-tax wages per year. The City contributes 18.50% of the Member's wages per year (18.00% base contribution plus 0.50% contribution for Members hired after age 29).

9. *Service Retirement Benefits*:

   a. Normal Retirement Benefit

Eligibility	Age 50 with 25 years of Credited Service.
Benefit	2.50% of Final Wages times years of Credited Service.

   b. Deferred Retirement Benefit

Eligibility	At least 10 years of Credited Service.
Benefit	2.50% of Final Wages for each year of Credited Service. This benefit is payable commencing at age 50, or immediately upon termination of service if at least age 50 at termination.

c. Withdrawal (Refund) of Contributions

Eligibility	5 years of Credited Service.
Benefit	Total employee contributions without interest. No other benefits are payable under the Plan once the contributions are withdrawn.

10. *Survivor Benefits*

a. Qualified Surviving Spouse Benefit

Eligibility	Death of a Member who was active, retired, or eligible for a deferred retirement benefit.
Benefit	75% of Member's earned benefit at date of death, but not less than 50% of Final Wages. If there are qualified surviving children or Member was eligible for a deferred retirement benefit, the surviving spouse's benefit is reduced to 50%.

b. Qualified Surviving Children Benefit

Eligibility	Death of a Member who was active, retired, or eligible for a deferred retirement benefit.
Benefit	50% of the Member's earned benefit at date of death if there is no surviving spouse. If a surviving spouse is receiving a benefit, the surviving children's benefit is reduced to 25%.

11. *Disability Retirement Benefit*

Eligibility	Total and permanent disability from an injury in the line of duty or any injury not due to the Member's own fault.
Benefit	2.50% of Final Wages times Credited Service with a minimum benefit of 50% of Final Wages.

12. *Minimum Benefits*: Minimum pension benefit for any retiree or qualified spouse is $400 per month.

13. *Cost of Living Adjustment*: None.

14. *Normal Form of Retirement Benefit*

a. Single Member	Life Annuity
b. Married Member	75% joint and survivor annuity

15. *Back Deferred Retirement Option Program (Back DROP)*:

Members who are 50 and one half years old and have over 25 and one half years of service can elect the Back DROP. The Back DROP benefit is a lump sum and a reduced monthly benefit. The reduced monthly benefit equals the benefit calculated at the beginning of the Back DROP period. The lump sum equals the number of months in the Back DROP period multiplied by the monthly benefit. The Back DROP period must be at least six months and not more than 36 months. After deducting the period of the Back DROP the member must still have 25 years of credited service for the calculation of their benefit.

Summary of Actuarial Methods and Assumptions (Effective as of January 1, 2012)[1]

INVESTMENT RETURN: 7.75% per annum, compounded annually, net all expenses including administrative expenses. This rate reflects an underlying inflation rate of 3.50% and a real rate of return of 4.25%.

DEMOGRAPHIC ASSUMPTIONS: Representative values of the assumed annual rates of withdrawal, death, and disability are as follows:

Annual Rate per 1,000 Members

		Mortality – Pre Commencement*		Mortality – Post Commencement*		
Age	Withdrawal	Male	Female	Male	Female	Disability
20	20.0	0.21	0.12	0.21	0.12	1.30
25	20.0	0.29	0.14	0.29	0.14	1.50
30	10.0	0.39	0.20	0.39	0.20	2.00
35	10.0	0.68	0.35	0.68	0.35	2.70
40	10.0	0.87	0.47	0.87	0.47	3.80
45	5.0	1.06	0.73	1.66	0.73	5.80
50	0.0	1.31	1.06	3.79	1.69	9.80
60	0.0	3.16	3.43	6.03	5.64	0.00
70	N/A	6.60	6.65	16.66	15.22	N/A
80	N/A	53.18	40.15	53.18	40.15	N/A

* The mortality rates have been revised since the previous valuation. Mortality rates for disabled individuals are the same as for healthy lives.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increase attributable to longevity and promotion are as follows:

Years of Service	Annual Rate of Salary Increase
1	10.75%
11	5.60
21	4.50
31	4.50
41	4.50

[1] Assumptions were adopted for the 2010 valuation following the 2010 experience study. Additional changes to the mortality tables were adopted for the 2012 valuation.

Total payroll is assumed to increase 3.50% per year. New hires are assumed to replace terminations.

Overtime is assumed to be 4.00% of base, incentive, and longevity pay. The City and Members contribute on total pay including overtime.

RETIREMENT RATES: The percentage of population assumed to retire at various ages is as follows:

The Base Plan

Age	Rate	Age	Rate	Age	Rate
42	5.0%	48	15.0%	54	20.0%
43	10.0	49	15.0	55	30.0
44	10.0	50	25.0	56	40.0
45	20.0	51	15.0	57	40.0
46	10.0	52	15.0	58	40.0
47	10.0	53	20.0	59	40.0
				60	100.0

The Second-Tier Plan

Age	Rate	Age	Rate
50	60.0%	56	40.0%
51	20.0	57	40.0
52	20.0	58	40.0
53	20.0	59	40.0
54	20.0	60	100.0
55	30.0		

SPOUSES: 100% of active members are assumed to be married with the male three years older than the female. No children's benefits were valued because of the assumption that 100% of members are married.

POST RETIREMENT COST OF LIVING: 3% of pension annually for Members in the Base Plan, as defined in the Summary of Plan Provisions.

BACK DROP ELECTION: Participants who meet the eligibility requirements for the Back DROP option are assumed to elect the maximum Back DROP period.

FUTURE EXPENSES: All expenses, investment and administration, are paid from the Fund. The 7.75% assumed rate of return is net of these expenses.

VALUATION METHOD: The method used to determine Normal Cost and Accrued Actuarial Liability is the Entry Age Normal Cost Method. Under the Entry Age Normal Cost Method, an annual Normal Cost is determined for each covered active Member which is the contribution required to provide all the projected pension benefits assuming this contribution is payable over a period ending on the date of retirement (separation from active service) and expressed as a level percentage of compensation. The Actuarial Accrued Liability is determined as the excess of the total present value of all pension benefits over the total present value of future Normal Costs. The Unfunded Actuarial Accrued Liability as of the valuation date is determined as the excess of the Actuarial Accrued Liability over the assets of the Fund.

The Normal Cost and Accrued Actuarial Liability are derived by making certain assumptions as to the rates of interest, mortality, turnover, etc., which are assumed to reflect experience for many years into the future. Since actual experience will differ from the assumptions, the costs determined must be regarded as estimates of the true costs of the Plan. The effects of any actuarial gains or losses are immediately reflected in the Unfunded Actuarial Accrued Liability and the Normal Cost.

ACTUARIAL VALUE OF ASSETS: The actuarial value of assets is calculated based on the following formula:

$$MV - (8/10) \times G/(L)_1 - (6/10) \times G/(L)_2$$
$$- (4/10) \times G/(L)_3 - (2/10) \times G/(L)_4$$

where:

MV = the market value of assets as of the valuation date

$G/(L)_i$ = the asset gain or (loss) (i.e., actual return on assets less expected return on assets) for the i-th year preceding the valuation date.

buckconsultants A Xerox Company

October 5, 2012

OVERNIGHT DELIVERY

Mr. Robert J. Stanton
Executive Director
El Paso Firemen & Policemen's Pension Fund
201 E. Main, Suite 1616
El Paso, TX 79901-1340-5623

Re: El Paso Firemen's Pension Fund Actuarial Valuation as of January 1, 2012 and El Paso Policemen's Pension Fund Actuarial Valuation as of January 1, 2012

Dear Mr. Stanton:

We are enclosing 25 bound and one unbound copy for each of the El Paso Firemen's Pension Fund Actuarial Valuation as of January 1, 2012 and the El Paso Policemen's Pension Fund Actuarial Valuation as of January 1, 2012.

Very truly yours,

Stephen J. Prullage, EA, FSA, MAAA
Director, Consulting Actuary

SJP:km
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Enclosures