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**EL PASO POLICEMEN'S PENSION FUND**

**ACTUARIAL VALUATION**

**AS OF JANUARY 1, 2012**

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 Policemen'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 Policemen'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 13.89% 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 these goals with a 30 year amortization of the Unfunded Actuarial Accrued Liability (UAAL) is 27.38%. 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.

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)

	<u>City</u>	<u>Member</u>
Prior Rates	18.50%	13.89%
14A Rates	21.14%	15.88%

### ***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***

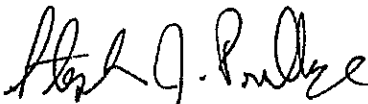
The actuarial assumptions and methods used in the valuation are presented in Schedule C. Following an experience study performed as of January 1, 2010, the assumptions were revised to better reflect actual experience of the Fund. New actuarial standards require actuaries to consider the effect of mortality 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 4%. The changes to the assumptions are outlined in Schedule C. The assumptions used are individually reasonable and reasonable in the aggregate.

*Data*

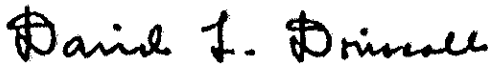
Member data for retired, active, and inactive members was supplied as of January 1, 2012 by the Fund's staff. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was supplied by the Fund's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

	<u>PAGE</u>
Section 1 - Summary of Principal Results .....	1
Section 2 - Comments on the Valuation .....	2
Section 3 - Actuarial Funding Requirements .....	5
Section 4 - Accounting Information .....	9
Section 5 - Summary of Asset Information .....	10
Schedule A - Membership Data .....	15
Schedule B - Summary of Benefit Provisions .....	20
Schedule C - Summary of Actuarial Methods and Assumptions .....	27

**Summary of Principal Results**

	January 1, 2012	January 1, 2010
<b>Membership</b>		
Active	1,044	1,091
Terminated with deferred benefits	16	10
Retired paid from fund	812	785
<b>Compensation</b>		
Total	\$ 66,953,641	\$ 62,537,734
Average	\$ 64,132	\$ 57,321
<b>Assets</b>		
Market value	\$ 582,435,578	\$ 550,976,591
Actuarial value	\$ 626,346,104	\$ 588,662,976
<b>Valuation Results</b>		
Unfunded actuarial accrued liability	\$ 174,514,074	\$ 127,052,367
Funding period	never	71 years
30-year funding cost (City)	27.38 %	25.01 %
Margin	(8.88)%	(6.51)%
<b>GASB No. 25</b>		
Actuarial accrued liability (AAL)	\$ 800,860,178	\$ 715,715,343
Assets (actuarial)	\$ 626,346,104	\$ 588,662,976
GASB ratio	78.2 %	82.2 %
Unfunded AAL	\$ 174,514,074	\$ 127,052,367

## 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 2.64% and 1.99% 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 27.38% compared with the City's actual contribution rate of 18.50% and the 30-year funding cost in 2010 of 25.01%. 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 71 years in 2010 but is infinite 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 82.2% as of January 1, 2010 to 78.2% as of January 1, 2012. The loss on the actuarial value of 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 recommended in that study, the Board adopted assumption changes in 2010 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 27.38% of wages. The City must contribute 27.38% 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 1,091 to 1,044 between 2010 and 2012, a 4.3% decrease over the two year period, while payroll grew from \$62.5 million to \$67.0 million over the same period, a 7.1% 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	\$ 66,953,641	\$ 62,537,734
2. Actuarial present value of future pay	\$ 539,986,353	\$ 544,064,574
3. Current contribution rates		
a. City	18.50 %	18.50 %
b. Member	13.89 %	13.89 %
c. Total	32.39 %	32.39 %
4. Normal cost rate		
a. Total (before adjustment for overtime)	29.34 %	30.14 %
b. Total (after adjustment for overtime)	27.17 %	27.91 %
c. Member contribution rate	13.89 %	13.89 %
d. Employer normal cost rate (4b - 4c)	13.28 %	14.02 %
5. Actuarial present value of future benefits	\$ 959,292,174	\$ 879,696,406
6. Actuarial present value of future normal costs (4a x 2)	\$ 158,431,996	\$ 163,981,063
7. Actuarial accrued liability (5 - 6)	\$ 800,860,178	\$ 715,715,343
8. Actuarial value of assets	\$ 626,346,104	\$ 588,662,976
9. Unfunded actuarial accrued liability (UAAL) (7 - 8)	\$ 174,514,074	\$ 127,052,367
10. 30-year funding cost for City*		
a. Employer normal cost rate (4d)	13.28 %	14.02 %
b. Amortization rate	14.10 %	10.99 %
c. Total	27.38 %	25.01 %
11. Margin over/(under) 30-year cost (3a - 10c)*	(8.88)%	(6.51)%
12. Funding period to amortize UAAL*	never	71 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	\$ 127,052,367
2. Changes due to:	
a. Expected increase (negative amortization)	\$ 13,564,798
b. Actual contributions greater than expected	(1,879,485)
c. Other changes including liability experience	779,009
d. Assumption changes	(4,922,775)
e. Asset experience	<u>39,920,160</u>
Total Changes	\$ 47,461,707
3. UAAL as of January 1, 2012	\$ 174,514,074

### Analysis of Change in Funding Cost

1. 30-year funding cost as of January 1, 2010	25.01 %
2. Changes due to:	
a. Actual contributions greater than expected	(0.15)%
b. Other changes including liability experience	(0.17)%
c. Assumption changes	(0.54)%
d. Asset experience	<u>3.23 %</u>
Total	2.37 %
3. 30-year funding cost as of January 1, 2012	27.38 %

### Analysis of Change in Funding Period

- |   |          |
|---|----------|
| 1. Funding period as of January 1, 2010         | 71 years |
| 2. Changes due to:                              |          |
| a. Passage of time                              |          |
| b. Actual contributions greater than expected   |          |
| c. Other changes including liability experience |          |
| d. Assumption changes                           |          |
| e. Asset experience                             |          |
| Total   |          |
| 3. Funding period as of January 1, 2012         | never    |

**GASB #25 Disclosure Amounts as of January 1, 2012**

<u>Period Ending</u>	<u>Actuarial Value of Assets</u>	<u>Actuarial Liability (AAL)- Entry Age</u>	<u>Unfunded AAL (UAAL)</u>	<u>Funded Ratio</u>	<u>Covered Payroll</u>	<u>UAAL as a Percentage of Covered Payroll</u>
December 31, 2006						
December 31, 2007	\$515.3	\$613.9	\$98.6	83.9%	\$56.8	173.4%
December 31, 2008						
December 31, 2009	588.6	715.7	127.1	82.2%	62.5	203.2%
December 31, 2010						
December 31, 2011	626.3	800.9	174.5	78.2%	67.0	260.6%

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

<u>Period Ending</u>	<u>Annual Required Contribution</u>	<u>Percentage Contributed</u>
December 31, 2006	\$20,153,124	57%
December 31, 2007	20,800,595	263%
December 31, 2008	16,746,050	74%
December 31, 2009	17,648,266	312%
December 31, 2010	17,595,473	74%
December 31, 2011	18,211,315	74%

**Reconciliation of Fund Assets**

	Period Ending	
	December 31, 2011	December 31, 2010
1. Value of fund at beginning of period	\$ 605,033,404	\$ 550,976,591
2. Contributions		
a. City	13,471,608	13,149,372
b. Member	<u>10,121,735</u>	<u>9,655,346</u>
c. Total	\$ 23,593,343	\$ 22,804,718
3. Benefit payments	(32,303,650)	(30,066,077)
4. Earnings	(13,174,651)	62,138,896
5. Administrative expenses	(712,868)	(820,724)
6. Value of assets at end of period	\$ 582,435,578	\$ 605,033,404

**Determination of Excess Earnings To Be Deferred**

	Period Ending	
	December 31, 2011	December 31, 2010
1. Market value at beginning of period	\$ 605,033,404	\$ 550,976,591
2. Net new investments		
a. City contributions	\$ 13,471,608	\$ 13,149,372
b. Member contributions	10,121,735	9,655,346
c. Benefit payments	<u>(32,303,650)</u>	<u>(30,066,077)</u>
d. Total	\$ (8,710,307)	\$ (7,261,359)
3. Weighted new investments (2d x 50%)	\$ (4,355,154)	\$ (3,630,680)
4. Assets available (1 + 3)	\$ 600,678,250	\$ 547,345,911
5. Assumed investment return rate	7.75%	7.75%
6. Expected net return (4 x 5)	\$ 46,552,564	\$ 42,419,308
7. Actual net return		
a. Total investment return	\$ (13,174,651)	\$ 62,138,896
b. Administrative expenses	<u>(712,868)</u>	<u>(820,724)</u>
c. Net return	\$ (13,887,519)	\$ 61,318,172
8. Gains/(losses) subject to deferral (7c - 6)	\$ (60,440,083)	\$ 18,898,864



**Calculation of Actuarial Value of Assets**

1. Market value of assets as of December 31, 2011 \$ 582,435,578

2. Deferral amounts

	<u>Year</u>	<u>Total Gain/(Loss)</u>	<u>Percent Deferred</u>	<u>Deferral Amount</u>
a.	2011	\$ (60,440,083)	80%	\$ (48,352,066)
b.	2010	18,898,864	60%	11,339,318
c.	2009	\$ 74,520,813	40%	29,808,325
d.	2008	(183,530,515)	20%	(36,706,103)
e.	Total			\$ (43,910,526)

3. Actuarial value of assets (1 - 2e) \$ 626,346,104

Summary of Asset Experience and Yield on Market Value of Assets

Plan Year			Beginning of Year Market Value	Employer Plus Employee Contributions to Fund	Benefit Disbursements from Fund (Including Refund of Contributions)	Net Earnings on Fund	End of Year Market Value	Annualized Yield Based on Market Value
(1)	(1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
						(6)-(2)+(4)-(3)		
3/1/1967	thru	2/29/1968	1,346,308	361,179	184,683	82,912	1,605,716	5.78%
3/1/1968	thru	2/28/1969	1,605,716	584,433	190,730	84,165	2,083,584	4.67
3/1/1969	thru	8/31/1969	2,083,584	264,252	93,583	8,238	2,262,491	0.76
9/1/1969	thru	8/31/1970	2,262,491	725,550	200,351	(7,139)	2,780,551	(0.28)
9/1/1970	thru	8/31/1971	2,780,551	767,739	235,791	212,068	3,524,567	6.96
9/1/1971	thru	8/31/1972	3,524,567	932,173	248,250	187,550	4,396,040	4.85
9/1/1972	thru	8/31/1973	4,396,040	1,142,196	261,876	(344,068)	4,932,292	(7.11)
9/1/1973	thru	8/31/1974	4,932,292	1,303,600	279,016	(1,094,322)	4,862,554	(20.10)
9/1/1974	thru	8/31/1975	4,862,554	1,483,345	348,368	1,095,170	7,092,701	20.17
9/1/1975	thru	8/31/1976	7,092,701	1,696,914	498,619	951,450	9,242,446	12.37
9/1/1976	thru	8/31/1977	9,242,446	2,014,477	724,487	377,047	10,909,483	3.81
9/1/1977	thru	8/31/1978	10,909,483	2,308,059	846,390	289,873	12,661,025	2.49
9/1/1978	thru	8/31/1979	12,661,025	2,636,869	903,826	1,214,002	15,608,070	8.97
9/1/1979	thru	8/31/1980	15,608,070	2,786,580	1,034,999	1,214,765	18,574,416	7.37
9/1/1980	thru	8/31/1981	18,574,416	3,116,323	1,334,277	1,362,208	21,718,670	7.00
9/1/1981	thru	8/31/1982	21,718,670	3,456,323	1,549,185	2,078,992	25,704,800	9.17
9/1/1982	thru	8/31/1983	25,704,800	3,784,730	1,724,450	3,593,153	31,358,233	13.44
9/1/1983	thru	8/31/1984	31,358,233	4,222,805	1,978,230	3,734,256	37,337,064	11.50
9/1/1984	thru	12/31/1984	37,337,064	1,142,330	701,113	2,147,922	39,926,203	18.16
1/1/1985	thru	12/31/1985	39,926,203	26,060,116	23,848,881	8,500,222	50,637,660	20.72
1/1/1986	thru	12/31/1986	50,637,660	7,604,348	6,404,922	10,269,082	62,106,168	20.04
1/1/1987	thru	12/31/1987	62,106,168	5,456,948	2,797,401	1,602,798	66,368,513	2.53
1/1/1988	thru	12/31/1988	66,368,513	5,644,747	3,312,657	5,796,220	74,496,823	8.58
1/1/1989	thru	12/31/1989	74,496,823	6,366,251	3,852,933	12,043,779	89,053,920	15.90
1/1/1990	thru	12/31/1990	89,053,920	6,849,721	4,274,644	5,387,009	97,016,006	5.96
1/1/1991	thru	12/31/1991	97,016,006	7,416,200	4,774,154	19,217,400	118,875,452	19.54
1/1/1992	thru	8/31/1992	118,875,452	5,424,574	3,347,654	3,740,983	124,693,355	4.72
9/1/1992	thru	8/31/1993	124,693,355	8,781,639	5,537,340	16,598,618	144,536,272	13.14
9/1/1993	thru	8/31/1994	144,536,272	9,788,426	6,265,077	7,350,992	155,410,613	5.02
9/1/1994	thru	8/31/1995	155,410,613	10,470,384	7,192,593	18,598,570	177,286,974	11.84
9/1/1995	thru	8/31/1996	177,286,974	11,299,119	7,783,184	13,948,214	194,751,123	7.79
9/1/1996	thru	8/31/1997	194,751,123	11,925,975	9,160,521	40,965,530	238,482,107	20.89
9/1/1997	thru	8/31/1998	238,482,107	12,223,261	10,233,758	(5,940,105)	234,531,505	(2.48)
9/1/1998	thru	6/30/1999	234,531,505	11,054,605	9,504,209	47,918,974	284,000,875	24.90
7/1/1999	thru	6/30/2000	284,000,875	13,665,223	12,748,916	12,831,468	297,748,650	4.51
7/1/2000	thru	6/30/2001	297,748,650	14,658,218	14,103,823	1,347,827	299,650,872	0.45
7/1/2001	thru	6/30/2002	299,650,872	15,353,592	15,436,546	(5,878,531)	293,689,387	(1.96)
7/1/2002	thru	6/30/2003	293,689,387	16,814,226	16,570,261	5,500,957	299,434,309	1.87
7/1/2003	thru	12/31/2003	299,434,309	8,416,586	8,833,981	32,831,843	331,848,757	23.15
1/1/2004	thru	12/31/2004	331,848,757	18,092,242	19,159,910	41,407,492	372,188,581	12.50
1/1/2005	thru	12/31/2005	372,188,581	18,073,981	20,738,555	30,182,882	399,706,889	8.14

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

		<u>Plan Year</u>	<u>Beginning of Year Market Value</u>	<u>Employer Plus Employee Contributions to Fund</u>	<u>Benefit Disbursements from Fund (Including Refund of Contributions)</u>	<u>Net Earnings on Fund (6)-(2)+(4)-(3)</u>	<u>End of Year Market Value</u>	<u>Annualized Yield Based on Market Value</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
1/1/2006	thru	12/31/2006	399,706,889	19,053,835	23,008,976	61,845,264	457,597,012	15.55%
1/1/2007	thru	12/31/2007	457,597,012	62,506,379	25,057,295	55,130,450	550,176,546	11.57
1/1/2008	thru	12/31/2008	550,176,546	22,355,985	26,197,467	(139,670,051)	406,665,013	(25.48)
1/1/2009	thru	12/31/2009	406,665,013	64,546,618	28,722,037	108,486,997	550,976,591	25.55
1/1/2010	thru	12/31/2010	550,976,591	22,804,718	30,066,077	61,318,172	605,033,404	11.20
1/1/2011	thru	12/31/2011	605,033,404	23,593,343	32,303,650	(13,887,519)	582,435,578	(2.31)

**Membership Data**

	<u>January 1, 2012</u>	<u>January 1, 2010</u>
1. Active members		
a. Number of males	925	964
b. Number of females	<u>119</u>	<u>127</u>
c. Total	1,044	1,091
d. Total payroll	\$ 66,953,641	\$ 62,537,734
e. Average annual pay	64,132	57,321
f. Average age	40.3	38.8
g. Average service (years)	12.5	11.2
h. Total accumulated member contributions	80,017,928	68,254,583
i. Average member contributions	76,646	62,561
2. Inactive members		
a. Number currently being paid from fund	812	785
b. Number entitled to deferred benefits	<u>16</u>	<u>10</u>
c. Total number of inactive members	828	795
d. Total current annual benefit	\$ 31,905,801	\$ 28,448,049
e. Average current annual benefit	38,534	35,784
f. Average age	62.2	60.6

El Paso Policemen's Pension Fund  
 Actuarial Valuation - January 1, 2012

Schedule A  
 (continued)

AGE	YEARS OF SERVICE													Total		
	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						
Under 25	1 44,347	9 39,607	0	0	0	0	0	0	0	0	0	0	0	0	0	10
25 to 29	1 44,443	73 44,640	25 50,682	0	0	0	0	0	0	0	0	0	0	0	0	99
30 to 34	0	48 45,893	80 52,819	35 61,686	0	0	0	0	0	0	0	0	0	0	0	163
35 to 39	2 45,006	32 48,653	56 54,749	111 65,278	22 72,064	0	0	0	0	0	0	0	0	0	0	223
40 to 44	0	17 49,504	19 55,486	80 65,115	118 71,330	33 70,857	0	0	0	0	0	0	0	0	0	267
45 to 49	0	7 52,707	12 58,593	24 65,440	56 68,149	69 75,591	13 81,126	0	0	0	0	0	0	0	0	181
50 to 54	0	3 45,619	6 55,875	20 64,324	3 66,928	16 75,000	19 78,279	2 72,084	0	0	0	0	0	0	0	69
55 to 59	0	1 63,980	1 62,527	9 57,960	2 66,424	0	4 86,078	5 82,679	0	0	0	0	0	0	0	22
60 to 64	0	0	2 60,387	1 64,124	0	0	0	4 95,067	2 68,661	0	0	0	0	0	0	9
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	1 88,865	0	1
70 & Up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	190	201	280	201	118	36	11	2	1	1,044					

**backconsultants**

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
31	1	\$ 18,642	\$ 18,642
32	1	18,796	18,796
34	1	19,673	19,673
38	3	50,434	16,811
39	1	29,895	29,895
40	2	43,217	21,609
41	1	20,157	20,157
42	2	48,558	24,279
43	6	169,431	28,239
44	5	151,172	30,234
45	9	330,646	36,738
46	15	525,889	35,059
47	17	648,379	38,140
48	12	451,235	37,603
49	20	776,903	38,845
50	29	1,270,081	43,796
51	33	1,417,329	42,949
52	16	589,497	36,844
53	21	864,280	41,156
54	20	934,794	46,740
55	28	1,312,951	46,891
56	24	1,038,075	43,253
57	25	1,055,503	42,220
58	34	1,580,086	46,473
59	30	1,248,738	41,625
60	33	1,659,219	50,279
61	31	1,357,551	43,792
62	42	1,875,090	44,645
63	32	1,476,799	46,150
64	33	1,445,408	43,800
65	20	835,028	41,751
66	17	662,273	38,957
67	18	781,515	43,418

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
68	19	\$ 769,487	\$ 40,499
69	15	601,048	40,070
70	13	575,928	44,302
71	6	216,374	36,062
72	15	558,591	37,239
73	14	399,724	28,552
74	15	548,481	36,565
75	12	391,998	32,667
76	13	444,630	34,202
77	13	403,512	31,039
78	15	398,355	26,557
79	13	437,711	33,670
80	9	183,980	20,442
81	12	206,129	17,177
82	4	75,318	18,830
83	11	256,596	23,327
84	4	99,559	24,890
85	8	99,238	12,405
86	9	83,902	9,322
87	5	97,115	19,423
89	1	6,000	6,000
90	1	6,000	6,000
92	2	12,000	6,000
93	1	6,000	6,000
TOTAL	812	\$ 31,584,920	\$ 38,898

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
39	3	\$ 61,192	\$ 20,397
40	5	85,617	17,123
42	2	45,987	22,994
43	1	26,492	26,492
44	1	14,730	14,730
45	1	17,524	17,524
46	2	49,947	24,974
47	1	19,392	19,392
TOTAL	16	\$ 320,881	\$ 20,055



**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 police officer in the Police 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 Policemen'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 13.89% 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.
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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 factors are as follows:

<u>Age</u>	<u>Factor</u>
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 Benefits:

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 \$500 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 58 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 58, the 3% annual increase will begin two 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 two years after the Member's death. Increases will occur on each January 1 thereafter.



**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 police officer in the Police 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 Policemen'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 13.89% 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 Benefits:

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 \$500 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<sup>1</sup>)**

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:

Age	Withdrawal*	Annual Rate per 1,000 Members					Disability
		Mortality - Pre Commencement**		Mortality - Post Commencement**			
		Male	Female	Male	Female		
20	30.0	0.21	0.12	0.21	0.12	1.30	
25	30.0	0.29	0.14	0.29	0.14	1.50	
30	30.0	0.39	0.20	0.39	0.20	2.00	
35	15.0	0.68	0.35	0.68	0.35	2.70	
40	15.0	0.87	0.47	0.87	0.47	3.80	
45	10.0	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	

\* During each of the first three years of employment, these rates are increased an additional 2%.  
 \*\*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

<sup>1</sup> Assumptions were adopted for the 2010 valuation following the 2010 experience study. Additional changes to the mortality table 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 8.00% of base, incentive, and longevity pay. The City and Members contribute on total pay including overtime.

RETIREMENT RATES: To determine the value of future normal cost, the percentage of population assumed to retire at various ages is as follows:

The Base Plan

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

The Second Tier Plan

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
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.