AUSTIN POLICE RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF DECEMBER 31, 2009

AUGUST 16, 2010

Rudd and Wisdom, Inc.

CONSULTING ACTUARIES

9500 Arboretum Blvd., Suite 200 Austin, Texas 78759

> Post Office Box 204209 Austin, Texas 78720-4209

Phone: (512) 346-1590 Fax: (512) 345-7437 E-mail: rmay@ruddwisdom.com mfenlaw@ruddwisdom.com Robert M. May, F.S.A. J. Christopher McCaul, F.S.A. Edward A. Mire, F.S.A. Rebecca B. Morris, A.S.A. Michael J. Muth, F.S.A. Khiem Ngo, F.S.A. Ronald W. Tobleman, F.S.A. David G. Wilkes, F.S.A.

August 16, 2010

Police Retirement Board Austin Police Retirement System Post Office Box 684808 Austin, Texas 78768

Re: Actuarial Valuation as of December 31, 2009

Members of the Board of Trustees:

In accordance with the requirements of Article 6243n-1, which is the state law governing the Austin Police Retirement System (System), an actuarial valuation of the System as of December 31, 2009 has been completed. The data for police officers, pensioners, and assets used in the valuation were provided on behalf of the Board of Trustees by Sam Jordan, Chief Executive Officer of the System.

The results of the December 31, 2009 actuarial valuation are described in the Summary section of the report. A comparison of the current valuation with the December 31, 2008 valuation is also discussed in this section. The summary of key valuation results is shown in Exhibit 1. Exhibit 2 shows a 25-year projection of the assets of the System. Exhibits 3 through 6 summarize the System's assets and development of the actuarial value of assets. Data on both police officers and pensioners are contained in Exhibits 7 through 11. Exhibit 12 shows a historical comparison of the actuarial accrued liability and the actuarial value of assets.

A summary plan description based on the current plan is included as Exhibit 13. The actuarial methods and assumptions are described in Exhibits 14 through 19, which include a description of assumption changes since the prior valuation. Exhibit 20 defines certain actuarial terms used in this report.

Mitchell L. Bilbe, F.S.A. Evan L. Dial, F.S.A. Philip S. Dial, F.S.A. Charles V. Faerber, F.S.A., A.C.A.S. Mark R. Fenlaw, F.S.A. Carl L. Frammolino, F.S.A. Kenneth J. Herbold, A.S.A. Christopher S. Johnson, F.S.A. Police Retirement Board August 16, 2010

The disclosures required in accordance with Statement No. 25 of the Governmental Accounting Standards Board (GASB) for the System's annual report needed for the System's financial statements are included in Exhibit 21. The disclosures required in accordance with GASB Statement No. 27 needed for the City of Austin's financial statements are included in Exhibit 22.

The actuarial team for this actuarial valuation included Rebecca B. Morris and Elizabeth A. Wiley, both of whom are Associates of the Society of Actuaries. We certify that all four of us are members of the American Academy of Actuaries who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report.

Respectfully submitted,

Robert M. May

Robert M. May Fellow, Society of Actuaries Member, American Academy of Actuaries Enrolled Actuary

Mark R. Fenlaw

Mark R. Fenlaw Fellow, Society of Actuaries Member, American Academy of Actuaries Enrolled Actuary

RMM/MRF:bb i:\clients\aprs\val-2009\val.doc

Table of Contents

Austin Police Retirement System Actuarial Valuation as of December 31, 2009

SUMMARY	- Results of December 31, 2009 Valuation	1
EXHIBIT 1	- Summary of Key Valuation Results	6
EXHIBIT 2	- 25-Year Projection	7
EXHIBIT 3	- Market Value of Assets	8
EXHIBIT 4	- Market Value Asset Allocation	9
EXHIBIT 5	- Development of Actuarial Value of Assets	10
EXHIBIT 6	- Historical Comparison of Market and Actuarial Asset Values	11
EXHIBIT 7	- Distribution of Police Officers by Age and Service	12
EXHIBIT 8	- Historical Summary of Growth in Number of Contributing Members	13
EXHIBIT 9	- Breakdown by Sex of Number of Officers and Average Annual Rate of Pay	14
EXHIBIT 10	- Breakdown of Pensioners by Type and Annuity Option	15
EXHIBIT 11	- Summary Data of Police Officers and Pensioners and Status Reconciliation	16
EXHIBIT 12	- Historical Comparison of Actuarial Accrued Liability and Actuarial Value of Assets	18
EXHIBIT 13	- Summary Plan Description	19
EXHIBIT 14	- Summary of Actuarial Methods and Assumptions	23
EXHIBIT 15	- Changes in Actuarial Methods and Assumptions	27
EXHIBIT 16	- Salary Rate of Increase Assumption	28
EXHIBIT 17	- Assumed Service Retirement Rates and Distribution of Retirements by Option Elected	29
EXHIBIT 18	- Assumed Withdrawal Rates	31
EXHIBIT 19	- Assumed Disability Rates	32
EXHIBIT 20	- Definitions	33
EXHIBIT 21	- Disclosures in Accordance with GASB Statement No. 25	34
EXHIBIT 22	- Disclosures in Accordance with GASB Statement No. 27	39

Summary

Austin Police Retirement System Results of December 31, 2009 Actuarial Valuation

This valuation reflects assumed total contributions of 32.63% of covered pay (13.00% by the police officers and contributions by the City of Austin of 18.63% for January through September 2010 and 19.63% thereafter) will be contributed to the System. The City of Austin contribution rates as a percent of covered pay are specified in Article 6243n-1 of Texas state law: 18% before September 30, 2010; 19% after September 30, 2010; plus 0.63% after September 30, 2009. These rates can only be changed by action of the Texas Legislature amending the state law, except that the 0.63% rate is to be reviewed every five years and adjusted up or down as considered necessary by the actuary to fund the additional liabilities from participating in the Proportionate Retirement Program. Since these rates apply only to this System, we are assuming that the legislature would not change them without the concurrence of the System's Board of Trustees, the City of Austin, and the Austin Police Association. This procedure for changing the City of Austin contribution rates has been followed since the plan provisions were put into state law in 1991. Since September 1, 2003, a very small portion of the city's biweekly contributions is being allocated by the Board to a Retiree Death Benefit Fund (account) within the System, which is being used to pay the post-retirement lump sum death benefits.

The summary of key valuation results shown in Exhibit 1 reveals that the System has an unfunded actuarial accrued liability (UAAL) of \$215,522,737. The normal cost for the projected benefits for each police officer based on the current plan provisions is 22.338% of pay. Since total contributions on behalf of each police officer are more than the normal cost, the remaining portion can be used to amortize the plan's UAAL. Assuming that the total covered payroll increases at the rate of 4% per year in future years attributable to general pay increases, **the UAAL will be amortized in 29.3 years**.

The summary of key valuation results in Exhibit 1 compares the actuarial condition of the System on December 31, 2009 with the condition on December 31, 2008. Both valuations are based on the present plan provisions, summarized in Exhibit 13. Between these two valuations, the period for amortizing the UAAL has decreased by 6.1 years (from 35.4 years to 29.3 years). Since one year has passed since the prior valuation date, a one-year reduction in the amortization period to 34.4 years would be expected if the experience of the System had been exactly as anticipated (including an 8% rate of investment return on the actuarial value of assets). For the reasons described below, the System's amortization period is 5.1 years less than expected.

1. The rate of investment return, net of all expenses, on the market value of assets during 2009 was 8.8%. However, the actuarial value of assets (AVA) used in the valuation and the determination of the amortization period is based on an adjusted market value. In particular, the AVA defers recognition of portions of the investment gains in the years 2006, 2007 and 2009 and of the investment loss in 2008. The rate of investment return on the AVA, net of expenses, for 2009 was 9.3% compared to the assumed rate

of return of 8%. Therefore, the AVA as of December 31, 2009 is more than expected, resulting in a **decrease** in the amortization period of 1.7 years.

- 2. Police officers received no general pay increase in the fall of 2009, which was less than our assumed general pay increase of 4% each year. This caused the amortization period to **decrease** 4.8 years.
- 3. The covered payroll increased by 0.2% since the prior valuation, less than the assumed 4% increase. The lower payroll **increased** the amortization period by 2.6 years.
- 4. The demographic experience in the aggregate was slightly negative, **increasing** the amortization period by 1.3 years.
- 5. The changes in actuarial assumptions had the overall effect of **decreasing** the amortization period by 2.5 years. In a separate letter to the Board of Trustees dated August 16, 2010, we recommended the actuarial methods and assumptions for this valuation.

In summary, this valuation reveals that the actuarial value of assets plus future investment income received by the System and future contributions by the police officers and the City of Austin will be adequate to pay the benefits according to the provisions of the state law and board rules governing the System. In order for the System to have an adequate contribution arrangement, contributions must be made that are sufficient to pay the System's normal cost and to amortize its UAAL over an acceptable period of time. Based on the Texas Pension Review Board guidelines, our professional judgment, and the actuarial assumptions and methods used in this valuation, we consider a period of 25 years to 30 years to be preferable for the System and 40 years to be the maximum acceptable period.

The total contributions to the System are sufficient to pay the System's normal cost and to provide an additional amount that will result in amortization of the UAAL in 29.3 years. In addition, we believe that it is appropriate to assume that the police officers and the City will be able to maintain their current commitment in future years to contribute 13% and 19.63%, respectively, of covered compensation into the System. Consequently, we are of the opinion that the System has an adequate contribution arrangement as of December 31, 2009 based on the levels of benefits and contributions reflected in this valuation.

Projected Actuarial Valuation Results

In addition to completing this actuarial valuation, we estimated the amortization periods for the next four annual actuarial valuations. We did these projections because the actuarial investment gains that the System experienced in 2006, 2007 and 2009 and the significant actuarial investment loss in 2008 have been only partially recognized as of December 31, 2009. As shown in Exhibit 5, a smoothing method is used to determine the actuarial value of assets (AVA) for this valuation. This method phases in over a five-year period any investment gains or losses (actual net investment return greater or less than the actuarially assumed net investment return) that the System has had. The AVA used in this

current valuation is deferring recognition of a portion of the investment gains in 2006, 2007 and 2009 and of the investment loss in 2008. The AVA used in this valuation is \$518,111,923. The market value of assets, excluding the Retiree Death Benefit Fund, is \$431,706,412. The difference between this market value and the AVA, \$86,405,511, is the net of the deferred gains and loss that will be recognized in the next four actuarial valuations.

For the purpose of projecting the amortization period in the future, we have used five scenarios of various assumed annual rates of investment return on the market value of assets, net of all expenses, over the 2010-2013 projection period. The projected amortization periods will not be the same as the actual amortization periods from completed future actuarial valuations but are the result of projected future actuarial valuation, showing (1) the expected effects of the recognition over the next four years of the portions of the past investment gains and losses that are deferred as of December 31, 2009 and (2) the effects over the next four years of investment returns different from the 8% assumption used in making the valuation.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Assumed Investment Return					
for Calendar Year					
2010	8%	20%	4%	10%	4%
2011	8	15	20	10	4
2012	8	10	15	10	20
2013	8	10	15	10	15
2014 and later	8	8	8	8	8
Amortization Period					
as of December 31:					
2009 (actual)	29 years				
2010 (projected)	35 years	32 years	36 years	34 years	36 years
2011 (projected)	47 years	36 years	46 years	45 years	53 years
2012 (projected)	70 years	38 years	54 years	59 years	84 years
2013 (projected)	68 years	30 years	41 years	52 years	65 years

Projected Amortization Periods

The projected amortization periods in Scenario 1 isolate the expected effects of the recognition over the next four years of the portions of the past investment gains and losses that are deferred as of December 31, 2009. The primary observation of Scenario 1 is that as the deferred portions of the investment gains for the years 2006, 2007 and 2009 are recognized, they will be dwarfed by the systematic recognition of the deferred portion of the investment loss for 2008. Therefore, without any significant investment gains (returns above 8%) in 2010 and 2011 or increases in the total contribution rate, the System would have an inadequate contribution arrangement in the December 31, 2011 actuarial valuation. This conclusion from Scenario 1 is not surprising since the amortization period in the December 31, 2009 actuarial valuation would be over 70 years if we had used the market value of assets as the actuarial value of assets.

Scenarios 2, 3, 4, and 5 show the projected amortization periods in the next four actuarial valuations based on various levels of assumed investment experience. Even though the equity markets have increased significantly since the market low on March 9, 2009, there is still some uncertainty in the national and global economies as we write this report as to how the pace of recovery will move once it begins and how the markets will respond. In our opinion, in the context of these caveats, Scenarios 2 through 5 present a range of plausible scenarios for the next four actuarial valuations with no changes in benefits or contributions.

Variations in experience from the underlying assumptions other than investment return will cause the actual amortization periods to be different from the projected periods shown above. However, the primary observations from these scenarios are that (1) it would require a rather robust market rebound in 2010 and 2011, similar to Scenario 2, for the amortization period to avoid going over 40 years, and (2) a moderate market rebound similar to Scenario 4 or a delayed market rebound similar to Scenario 3 could result in an amortization period in excess of 40 years by the December 31, 2011 actuarial valuation.

Variability in Future Actuarial Measurement

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- System experience differing from that anticipated by the current economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements;
- Changes in economic or demographic assumptions; and
- Changes in plan provisions.

Analysis of the potential range of such future measurements resulting from the possible sources of measurement variability is typically outside the scope of this actuarial valuation report. However, we provided projected amortization periods for the next four annual actuarial valuations under five scenarios and the amortization period for this valuation if it had been based on the market value of assets. Additional sensitivity analysis could be performed in a subsequent report if desired by the Board of Trustees.

Retiree Death Benefit Fund

The statute established a Retiree Death Benefit Fund effective September 1, 2003. This fund is a separate account within the System used to pay \$10,000 post-retirement lump sum death benefits. The Retiree Death Benefit Fund is funded by a portion of the city's

total contribution rate. As part of this December 31, 2009 actuarial valuation, the city contribution needed for the Retiree Death Benefit Fund has been re-determined for 2011 to be 0.098%. We recommend that this new rate be effective January 1, 2011, replacing the rate of 0.092% effective for 2010 that was determined based on the December 31, 2008 actuarial valuation. The remainder of the city's contribution will be used for the System's liabilities excluding the post-retirement lump sum death benefits.

The 0.098% city contribution rate is comprised of the normal cost percentage plus an additional amount to amortize the unfunded actuarial accrued liability for only the \$10,000 post-retirement lump sum death benefits over 30 years as shown below. The amortization of this unfunded actuarial accrued liability is determined as a level percentage of payroll assuming that the payroll will increase 4% per year.

Allocated City Contribution Effective January 1, 2011 for the Retiree Death Benefit Fund				
Normal cost	0.034%			
Thirty-year amortization of unfunded actuarial accrued liability	0.064			
Total city contribution rate allocated to the Retiree Death Benefit Fund as of				
January 1, 2011	0.098%			

The 0.098% city contribution rate was determined using the same funding method and actuarial assumptions used in this December 31, 2009 actuarial valuation for the System. In particular, the Entry Age Actuarial Cost Method is used with the normal cost determined as a level percentage of payroll. The RP-2000 Combined Healthy Mortality Tables for males and females projected to 2010 are used for both active and retired members. The following is a summary of the actuarial valuation results of the liabilities for the \$10,000 post-retirement lump sum death benefits.

	Actuarial Valuation Results of the Retiree Death Benefit Fund as of						
	December 31, 2009						
1.	Actuarial present value of future benefits						
	a. Current retired members	\$1,118,214					
	b. Current active members	968,885					
	c. Total	\$2,087,099					
2.	Actuarial present value of future normal						
	cost contributions	\$ 387,414					
3.	Actuarial accrued liability (Item 1c – Item 2)	\$ 1,699,685					
4.	Assets of fund	\$ 321,142					
5.	Unfunded actuarial accrued liability (Item 3 – Item 4)	\$1,378,543					

Austin Police Retirement System Summary of Key Valuation Results

		December 31, 2008^{1}	December 31, 2009^{1}
1.	Actuarial present value of future benefits		
	a. Payable to those now receiving benefits		
	or entitled to receive benefits	\$ 268,693,202	\$ 308,526,658
	b. Payable to police officers	729,088,730	724,329,064
	c. Total	997,781,932	1,032,855,722
2.	Actuarial present value of future normal		
	cost contributions	\$ 304,579,433	\$ 299,221,062
3.	Actuarial accrued liability (Item 1c-Item 2)	\$ 693,202,499	\$ 733,634,660
4.	Actuarial value of assets	\$ 464,230,585	\$ 518,111,923
5.	Unfunded actuarial accrued liability (UAAL) (Item 3-Item 4)	\$ 228,971,914	\$ 215,522,737
6.	Total contributions (percent of payroll)	32.538% ²	32.532% ³
7.	Normal cost (percent of payroll)	22.627%	22.338%
8.	Percent of payroll available to amortize		
	the UAAL	9.911%	10.194%
9.	Annualized covered payroll	\$ 122,735,216	\$ 122,928,285
10.	Present annual amount available to		
	amortize the UAAL	\$ 12,164,287	\$ 12,531,309
11.	Years to amortize the UAAL	35.4 Years^4	29.3 years^5
12.	GASB 27 funded ratio (Item 4 ÷ Item 3)	67.0%	70.6%

¹ Reflects current plan provisions that became effective January 1, 2009 and excludes the \$10,000 postretirement lump sum death benefit.

² The total contribution rate of 32.63% (13% by members and 19.63% by the city) is reduced by the calculated city contribution rate for the separate Retiree Death Benefit Fund of 0.092%. The 19.63% city contribution rate is the ultimate rate beginning October 2010.

³ The total contribution rate of 32.63% (13% by members and 19.63% by the city) is reduced by the calculated city contribution rate for the separate Retiree Death Benefit Fund of 0.098%. The 19.63% city contribution rate is the ultimate rate beginning October 2010.

⁴ The amortization period was calculated reflecting the city contribution rates of 18.25% for January through September of 2009, 18.63% for October 2009 through September 2010, and 19.63% thereafter.

⁵ The amortization period was calculated reflecting the city contribution rates of 18.63% for January through September of 2010 and 19.63% thereafter.

Austin Police Retirement System 25-Year Projection

	Market Value				Market Value	
	of Fund at	Contributions	Net	Total	of Fund at	Ratio of
	Beginning	by City and	Investment	Benefit	End of	Fund to
Year	of Year	Police Officers	Income	Payments	Year	Payments
2005	 \$ 349,105,060	24,167,426 \$	35,183,986 \$	18,767,339 \$	389,689,133	20.76
2006	389,689,133	26,857,508	65,521,438	20,888,547	461,179,532	22.08
2007	461,179,532	31,444,215	44,359,401	21,971,475	515,011,673	23.44
2008	515,011,673	34,942,710	-136,715,791	26,118,172	387,120,420	14.82
2009	387,120,420	38,447,581	34,632,706	28,173,153	432,027,554	15.33
2010	432,027,554	39,189,537	34,583,027	38,668,963	467,131,155	12.08
2011	467,131,155	41,715,959	37,427,786	40,283,631	505,991,269	12.56
2012	505,991,269	43,384,597	40,515,053	42,490,804	547,400,115	12.88
2013	547,400,115	45,119,981	43,757,113	45,992,387	590,284,822	12.83
2014	590,284,822	46,924,780	47,168,047	48,293,241	636,084,408	13.17
2015	636,084,408	48,801,771	50,749,966	52,221,439	683,414,706	13.09
2016	683,414,706	50,753,842	54,551,594	53,793,402	734,926,740	13.66
2017	734,926,740	52,783,996	58,619,303	57,154,890	789,175,149	13.81
2018	789,175,149	54,895,356	62,899,592	60,755,842	846,214,255	13.93
2019	846,214,255	57,091,170	67,416,381	64,110,146	906,611,660	14.14
2020	906,611,660	59,374,817	72,075,374	70,713,799	967,348,052	13.68
2021	967,348,052	61,749,810	76,758,616	77,480,515	1,028,375,963	13.27
2022	1,028,375,963	64,219,802	81,585,627	81,331,060	1,092,850,332	13.44
2023	1,092,850,332	66,788,594	86,600,591	87,474,478	1,158,765,039	13.25
2024	1,158,765,039	69,460,138	91,713,063	94,163,636	1,225,774,604	13.02
2025	1,225,774,604	72,238,544	97,006,466	98,626,094	1,296,393,520	13.14
2026	1,296,393,520	75,128,086	102,466,346	106,256,482	1,367,731,470	12.87
2027	1,367,731,470	78,133,209	108,164,959	109,472,162	1,444,557,476	13.20
2028	1,444,557,476	81,258,537	114,066,393	118,713,674	1,521,168,732	12.81
2029	1,521,168,732	84,508,878	120,115,443	123,960,272	1,601,832,781	12.92
2030	1,601,832,781	87,889,233	126,526,146	128,401,134	1,687,847,026	13.15
2031	1,687,847,026	91,404,802	133,267,712	135,406,062	1,777,113,478	13.12
2032	1,777,113,478	95,060,994	140,493,965	136,938,819	1,875,729,618	13.70
2033	1,875,729,618	98,863,434	148,290,595	143,057,807	1,979,825,840	13.84
2034	1,979,825,840	102,817,971	156,616,834	147,048,802	2,092,211,843	14.23

A. Data for years 2005 through 2009 were taken from the annual reports for those years. Fund balance at beginning and end of year reflects the total market value of the System's assets including the Retiree Death Benefit Fund (account).

B. Assumptions for years 2010 through 2034:

1. Benefits will be paid in accordance with the demographic and economic assumptions used in this December 31, 2009 actuarial valuation and include benefit payments from the Retiree Death Benefit Fund (account).

2. Contributions are made by both the police officers and the city. Contributions are 13% of pay by the police officers. The city will contribute 18.63% through September 2010 and then the rate will increase to 19.63% on October 1, 2010.

3. Annual payroll for 2010 will be \$122,928,285. It will increase 4% per year thereafter.

4. Investment income (net of expenses) will be 8% of the average fund balance in each year.

5. No ad hoc COLAs were assumed beginning January 1, 2011 or thereafter.

Austin Police Retirement System Net Market Value of Assets as of December 31, 2008 and 2009 Including the Retiree Death Benefit Fund

	December 31, 2008	December 31, 2009		
Assets				
Investments				
Real Estate Interests	\$ 130,065,014	\$ 105,627,556		
Corporate Stocks	72,770,760	118,327,434		
U.S. Government Bonds	21,572,735	6,980,841		
International Government Securities	49,444,685	45,673,677		
International Stocks	36,515,709	40,848,123		
Short-Term Investment Funds	14,071,867	26,540,698		
Partnership Interests	32,065,523	39,068,791		
Corporate Bonds	6,222,234	18,573,942		
Alternatives	21,172,930	26,929,577		
Total Investments	\$ 383,901,457	\$428,570,639		
Other Assets				
Interest and Dividends Receivable	\$ 1,729,033	\$ 1,760,333		
Cash	92,461	131,916		
Fixed Assets	899,135	819,796		
Contributions Receivable	1,069,016	1,271,160		
Other Assets	6,705	5,744		
Total	\$ 3,796,350	\$ 3,988,949		
Total Assets	<u>\$ 387,697,807</u>	<u>\$432,599,588</u>		
Liabilities				
Contributions Refundable	\$ 94,044	\$ 38,049		
Other Payables	483,343	493,985		
Total Payables	<u>\$ 577,387</u>	<u>\$ 532,034</u>		
Net Market Value of Assets	1	2		
(Assets Minus Liabilities)	<u>\$ 387,120,420</u> ¹	<u>\$432,027,554</u> ²		

¹ Includes \$313,919 for the Retiree Death Benefit Fund. The Net Market Value of Assets, excluding the Retiree Death Benefit Fund, is \$386,806,501.

 ² Includes \$321,142 for the Retiree Death Benefit Fund. The Net Market Value of Assets, excluding the Retiree Death Benefit Fund, is \$431,706,412.

Austin Police Retirement System Comparison of Market Value Asset Allocation as of the Prior and Current Actuarial Valuation Dates

December 31, 2008

December 31, 2009



Exhibit 5 Austin Police Retirement System Development of Actuarial Value of Assets

Calculation of Actuarial Investment Gain/(Loss)				
Based on Total Market Value for Plan Years	2009	2008	2007	2006
1. Market Value of Assets as of beginning of year	\$ 387,120,420	\$ 515,011,673	\$ 461,179,532	\$ 389,689,133
2. City of Austin Contributions	22,272,667	20,171,151	18,594,236	17,033,469
3. Police Officer Contributions	16,174,914	14,771,559	12,849,979	9,824,039
4. Benefit Payments and Contribution Refunds	(28,173,153)	(26,118,172)	(21,971,475)	(20,888,547)
5. Expected Investment Return*	31,372,704	41,547,125	37,265,983	31,409,296
6. Expected Market Value of Assets as of end of year	\$ 428,767,552	\$ 565,383,336	\$ 507,918,255	\$ 427,067,390
7. Actual Market Value of Assets as of end of year	432,027,554	387,120,420	515,011,673	461,179,532
8. Actuarial Investment Gain/(Loss)	\$ 3,260,002	\$(178,262,916)	\$ 7,093,418	\$ 34,112,142
9. Market Value Rate of Return Net of Expenses	8.8%	(26.3)%	9.5%	16.7%
10. Rate of Actuarial Investment Gain/(Loss)	0.8%	(34.3)%	1.5%	8.7%

* Assuming (1) uniform distribution of contributions and payments during the plan year and (2) expected investment rate of return of 8.00%.

	Deferred Actuarial Investment Gains/(Losses) to be Recognized in Future Years								
	Plan	Investment	Deferral	Deferred Gain/(Loss)					
	Year	Gain/(Loss)	Percentage	as of December 31, 2009					
	2009	\$ 3,260,002	80%	\$ 2,608,002					
	2008	(178,262,916)	60%	(106,957,750)					
	2007	7,093,418	40%	2,837,367					
	2006	34,112,142	20%	6,822,428					
	Total			\$ (94,689,953)					
		Actuarial Value of	of Assets as of December 31	, 2009					
11.	Market Val	ue of Assets as of Deceml	ber 31, 2009	\$ 432,027,554					
12.	Deferred Ga	ain/(Loss) to be recognize	d in future	(94,689,953)					
13.	Preliminary	Value (Item 11 – Item 12	2)	\$ 526,717,507					
14.	Corridor for	r Actuarial Value of Asset	ts						
	a. 80% of M	Market Value as of Decem	uber 31, 2009 (minimum)	345,622,043					
	b. 120% of	Market Value as of Dece	mber 31, 2009 (maximum)	518,433,065					
15.	Total Actua	rial Value as of Decembe	r 31, 2009	518,433,065					
16.	Retiree Dea	th Benefit Fund as of Dec	cember 31, 2009	321,142					
17.	Net Actuari	al Value as of December	31, 2009 (Item 15-Item 16)	\$518,111,923					
18.	Adjustment	to market value of assets	(Item 15 – Item 11)	\$ 86,405,511					

10

Austin Police Retirement System Historical Comparison of Market and Actuarial Value of Assets (Valuations as of December 31)



 \square

Austin Police Retirement System Distribution of Police Officers by Age and Service as of December 31, 2009 with Average Annual Salary

	Attained Age										
Years									C 0		Average
of	11 1 25	25.20	20.24	25.20	10 11	45 40	50 54	55 50	60 or	TT (1	Annual
Service	Under 25	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	40-44	<u>45-49</u>	<u>50-54</u>	<u> </u>	Over	lotal	Salary
0	10	39	21	9	4	0	0	0	0	83	\$32,433
1*	0	4	10	18	23	17	9	7	1	89	65,352
2	5	45	24	17	1	1	0	0	0	93	53,290
3	5	65	45	21	13	4	0	0	0	153	60,183
4	0	15	24	10	8	1	0	0	0	58	63,410
5	0	12	16	15	8	0	0	0	0	51	63,246
6	0	1	25	22	19	3	0	0	0	70	63,867
7	0	0	24	19	5	2	0	0	0	50	68,316
8	0	1	36	35	13	8	2	0	0	95	69,342
9	0	0	30	39	18	6	2	0	0	95	70,423
10	0	0	7	21	9	3	0	0	0	40	71,346
11	0	1	11	44	24	11	2	0	0	93	76,595
12	0	0	6	40	32	9	2	0	0	89	77,906
13	0	0	0	37	18	5	1	0	0	61	78,888
14	0	0	1	21	28	6	1	0	0	57	79,719
15	0	0	1	22	23	16	2	1	0	65	87,053
16	0	0	0	5	27	12	2	0	0	46	90,200
17	0	0	0	3	24	19	11	0	0	57	95,633
18	0	0	0	0	18	9	2	0	0	29	98,016
19	0	0	0	1	16	27	14	0	0	58	99,233
20-24	0	0	0	0	8	69	35	8	0	120	100,638
25-29	0	0	0	0	0	23	34	16	1	74	101,930
30-34	0	0	0	0	0	0	5	17	1	23	96,906
35-39	0	0	0	0	0	0	0	1	0	1	100,865
40-44	_0	0	0	0	0	0	0	0	<u>1</u>	1	115,636
Totals	20	183	281	399	339	251	124	50	4	1,651	\$74,457
Average Annual			A		•• ••	.	.	401 ···	40 0 - 1	*- • ·	
Salary	\$43,483	\$52,882	\$62,801	\$71,115	\$79,032	\$90,822	\$94,085	\$94,619	\$93,362	\$74,457	

* Includes most of the PSEM transfers in January 2009.





* Includes the PSEM transfers in January 2009.

10-year period 2000-2010: 3.5% 20-year period 1990-2010: 3.8% 30-year period 1980-2010: 3.8%

Average annual increase over:

5

Austin Police Retirement System Breakdown by Sex of Number of Officers and Average Annual Rate of Pay as Reported for the December 31, 2009 Valuation



Austin Police Retirement System Breakdown of Pensioners by Type and Annuity Option as of the December 31, 2009 Valuation



5

Austin Police Retirement System Summary Data of Police Officers and Pensioners as of the December 31, 2009 Valuation

Active Police Officers	Male	Female	Total
Total Contributing Police Officers	1,460	191	1,651
Annualized Reported Payroll	\$108,531,060	\$14,397,226	\$122,928,286
Average Annual Rate of Pay	\$74,336	\$75,378	\$74,457

			Actuarial
		Monthly	Present Value
Pensioners and Vested Terminated Officers	Number	Payment	of Benefits
Service Retirements by Type of Annuity			
Straight Life	192	\$963,698	\$124,954,166
Joint and 100%	114	521,906	72,047,500
Joint and 50%	45	230,257	30,521,806
Joint and Two-Thirds	50	248,758	33,808,308
Level Income Straight Life	15	69,041	6,286,724
Level Income Joint and Two-Thirds	22	94,306	9,504,667
Level Income Joint and 100%	9	41,484	4,749,768
Fifteen Year Certain and Life	3	12,153	1,416,653
Total Service Retirements	450	2,181,603	283,289,592
Disability Retirements	5	13,426	1,849,357
Surviving Beneficiaries	41	151,417	16,222,472
Vested Terminated Officers	20	32,430	4,638,301
Alternate Payees	18	19,946	2,526,936
Total	534	\$2,398,822	\$308,526,658

Austin Police Retirement System Police Officers and Pensioners Reconciliation

	Police Officers	Current Payment Status	Vested Terminated Police Officers	Total
1. As of December 31, 2008	1,629	475 ¹	13	2,117
 2. Change of status a. retirement b. disability c. death d. withdrawal e. vested termination (VT) f. new VT from PRP g. new QDRO h. completion of payment i. new retirement from PRF j. net changes 	(41) (1) (2) (14) (3) (0) (0) (0) (0) (0) (0) (0) (0) (0) (0	$ \begin{array}{r} 41 \\ 1 \\ 0 \\ 0 \\ 0 \\ (5) \\ \underline{1} \\ 39 \end{array} $	$ \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 3 \\ 4 \\ 0 \\ 0 \\ - 0 \\ 7 \end{array} $	$0 \\ 0 \\ (1) \\ (14) \\ 0 \\ 4 \\ 0 \\ (5) \\ -1 \\ (15)$
3. New police officers	83	0	0	83
4. As of December 31, 2009	1,651	514 ²	20	2,185

¹ Includes 18 alternate payees of QDROs.
 ² Includes 18 alternate payees of QDROs.

Austin Police Retirement System Historical Comparison of Actuarial Accrued Liability and Actuarial Value of Assets (Valuations as of December 31)



Austin Police Retirement System Summary Plan Description

Date System Began: January 1, 1980

Plan Effective Date: January 1, 2009

Administration: The System is administered by a retirement board consisting of 11 members. Funds are held by the retirement board, as trustee.

Employees Included: All regular and permanent full-time police officers or cadets who are employed by the police department. In addition, employees of the System's administrative staff are also included.

Employee Contributions: 13% of each police officer's "Compensation Considered".

City Contributions: 18% of "Compensation Considered" for all "Employees Included" effective as of October 1, 1996 through December 31, 2008. Beginning in January 2009, the contribution rate increased to 18.25% and increased to 18.63% effective October 1, 2009, both as a result of implementing the Proportionate Retirement Program. The city contribution rate will further increase to 19.63% effective October 1, 2010. Since September 1, 2003, a very small portion of the city contribution has been allocated by the Board to the Retiree Death Benefit Fund (account) administered by the System.

Service Considered: The number of months during which a member is required to make and does make prescribed contributions plus (a) any creditable service received as a result of the provisions for establishing credit for certain military service, cadet service, or probationary service, (b) any previously forfeited service that is reinstated according to the provisions for reinstatement, and (c) any "permissive service credit" that is purchased according to plan provisions.

Compensation Considered: Base pay and longevity pay.

Average Final Compensation: The highest monthly average of the "Compensation Considered" for 36 months of the last 120 months during which the member contributed to the system or during the months of service for which he did contribute, if less than 120.

Austin Police Retirement System Summary Plan Description

Normal Retirement Date: The first day of the month following the earliest month in which (a) the member has completed at least 23 years of creditable service not reflecting any military service credit; or (b) the member has attained age 55 and completed at least 20 years of creditable service not reflecting any military service credit; or (c) the member has reached age 62.

Normal Service Retirement Benefit: A member is eligible for a normal service retirement benefit after having reached his normal retirement date. The monthly annuity, payable as a life annuity (modified cash refund), is, effective December 1, 2007, 3.20% of "Average Final Compensation" multiplied by years and months of "Service Considered."

Disability Benefit: A member is eligible for a disability benefit (a) at any age provided he has completed ten years of service and (b) has a total and permanent disability from any cause. A member with less than 10 years of service is also eligible for a disability benefit if his disability is total and permanent and is the result of his duties as a police officer. The annuity is based on credited service and compensation to date of disability; however, not less than 20 years of service will be credited for an occupational disability.

Death Benefits: If death occurs before eligibility for retirement, the member's beneficiary receives a benefit equal to twice the accumulated member contributions made plus allowable interest. This benefit will not be less than \$10,000.

If death occurs before retirement but after eligibility for retirement and the member had elected an optional annuity, the member's beneficiary will be entitled to a monthly annuity calculated as if the member had retired at the end of the month in which he died. A \$10,000 lump-sum death benefit is also payable to the beneficiary.

If death occurs before retirement but after eligibility for retirement and prior to selection of an optional annuity and, if the member leaves a lawfully married spouse surviving, then the surviving spouse may select an optional annuity or select a lump sum benefit equal to twice the accumulated member contributions made plus allowable interest. If the lawfully married surviving spouse dies before having received benefits equal to the amount of accumulated member contributions, the excess of such accumulated deposits over the benefits actually received will be refunded in one sum to the member's estate. If the member leaves no surviving spouse, then the member's designated beneficiary, or if no beneficiary exists, the executor or administrator of the estate, may select either the Fifteen Year Certain and Life Annuity or a lump sum benefit equal to twice the accumulated member contributions made plus allowable interest. If an optional annuity is selected in lieu of a lump sum benefit, a \$10,000 lump sum death benefit is payable to the beneficiary.

Austin Police Retirement System Summary Plan Description

If death occurs after retirement, under certain optional pension forms the beneficiary will also be entitled to receive a monthly annuity for life or for the remainder of a certain period. If no monthly annuity is payable, the member's beneficiary receives a lump sum benefit equal to the excess, if any, of the accumulated member contributions plus allowable interest over any benefits actually received.

Retiree Death Benefit Fund: Effective September 1, 2003, a separate fund was established to pay post-retirement lump sum death benefits. This fund is funded by city contributions. Effective September 1, 2007, the amount of these benefits was increased to \$10,000.

Termination Benefit: A member terminating employment with less than 10 years of service for reasons other than service retirement, disability retirement or death will receive an amount equal to his contributions to the retirement system and accumulated interest. Interest is credited at the end of each calendar year at a rate determined by the System's board of trustees on the member's beginning-of-year account balance. Effective September 1, 2007, interest will not be credited to members with less than 10 years of service.

If the terminating member has 10 or more years of service, he may elect to leave his accumulated contributions with the retirement system. He will be entitled to a deferred benefit commencing at the normal retirement date based upon his service and compensation prior to termination.

Optional Payments: A retiring member may elect an optional form of annuity payment rather than the standard Life Annuity. Such options are a Joint and 100% to Survivor, Joint and 50% to Survivor, Joint and Two-Thirds to Survivor, Joint and Two-Thirds to Last Survivor or 15-Year Certain and Life Annuity.

A retroactive deferred retirement option plan (RETRO DROP) can also be elected by retiring members meeting certain eligibility requirements. This option provides the member with a monthly annuity and a lump sum. The RETRO DROP benefit computation date elected by the member (1) may not be earlier than the date the member completed 23 years of creditable service not reflecting any military service credit and (2) may not be earlier than 36 months prior to the date of retirement.

Austin Police Retirement System Summary Plan Description

Beginning in 2007, a FORWARD DROP can be elected by a member who has at least 23 years of creditable service not reflecting any military service credit. This option provides the member at retirement with a monthly annuity and a lump sum. The monthly benefit is determined at the election date as if the member had retired on that date. The amount of the lump sum depends upon the period between the election date and the actual date of retirement. The maximum lump sum possible is provided if the member retires five years after the election date.

Postretirement Cost-of-Living Increases: The Board may authorize an annual ad hoc cost-of-living adjustment (COLA), subject to actuarial approval, not to exceed 6% per year. No COLAs were given January 1, 2010 and January 1, 2009. A COLA of 1% was given January 1, 2008. No COLAs were given January 1, 2007 and January 1, 2006. COLAs of 1.75%, 3%, and 1.5% were given January 1, 2005, 2004, and 2003, respectively. Postretirement benefit increases will automatically be provided when the system's benefit formula as a percent of average compensation for years of service increases. Therefore, effective December 1, 2007, the monthly benefits of pensions also increased 6.67% because of the increase in the benefit formula from 3.0% to 3.2% of average compensation.

Proportionate Retirement Program: Beginning in 2009, the System and the city began participating in the statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System's requirements for service retirement eligibility and for eligibility for vested benefits for a terminated member. The participating systems, in addition to the System, are the six statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

Austin Police Retirement System Summary of Actuarial Methods and Assumptions

1.	Actuarial Cost Method	 Entry Age Actuarial Cost Method The normal cost is calculated to be a level percent of compensation over a member's career. The unfunded actuarial accrued liability is assumed to be funded by level percent contributions of employee payroll based on annual payroll growth of 4% per year due to general wage increases.
2.	Actuarial Value of Assets Method	All assets are valued at market value with an adjustment made to uniformly spread actuarial gains or losses (as measured by actual market value investment return vs. expected market value investment return) over a five-year period. The total adjustment amount shall be limited as necessary such that the actuarial value of assets shall not be less than 80% of market value nor greater than 120% of market value. As a last step, the amount in the Retiree Death Benefit Fund according to the audited financial statements is subtracted.
3.	Investment Return (Interest Rate)	8% per year, net of all expenses
4.	Inflation	4% per year
5.	Salary Increase Due to General Wage Increases	4% per year
6.	Salary Increases Due to Promotion and Longevity Increases	2.8% per year average over 25-year career. See Exhibit 16 for the promotion and longevity salary increases by year of service.
7.	Total Salary Increase	6.8% per year average over 25-year career. See Exhibit 16 for the total salary increases by year of service.
8.	Interest Credited on Officer's Accumulated Contributions	5% per year after the first ten years

Austin Police Retirement System Summary of Actuarial Methods and Assumptions

9. Mortality a. Active and Retired **RP-2000** Combined Healthy Mortality Tables for males and females projected to 2010 **RP-2000** Combined Healthy Mortality Tables b. Disabled for males and females projected to 2010 10. Retirement Rates See Exhibit 17 for service and age-related rates. 11. Withdrawal Rates See Exhibit 18 for service-related rates. See Exhibit 19 for age-related rates. 12. Disability Rates 13. Future Pre-Employment Military • 100% of officers will purchase Service Purchase for Officers with • All of military service will be purchased Military Service Information in up to allowable 24 months Database Who Have Not Yet • Officers will pay 25% of estimated cost Purchased Credit 14. Future Pre-Employment Military • 35% of officers will purchase Service Purchase for Officers Who • 22 months purchased on average Have Not Told System Whether • Officers will pay 25% of estimated cost They Have Such Service 15. DROP Election 65% of those eligible for at least a 12-month DROP lump sum will make such an election (RETRO) or will have made such an election (FORWARD). See Exhibit 17 for the allocation between RETRO and FORWARD. 16. DROP Period Election Members elect the maximum period eligible (up to 36 months for RETRO and up to 60 months for FORWARD). 17. Percent Single after Eligible for 15% Service Retirement 18. Age of Spouse of Officer Who Dies Female 3 years younger than male While Eligible to Retire

Austin Police Retirement System Summary of Actuarial Methods and Assumptions

19.	Payment Form Election for Pre- Retirement Death Benefitsa. Married Membersb. Single Members	Joint and 100% to Survivor 15-Year Certain and Life Annuity
20.	Ad Hoc Cost-of-Living Increases for Pensioners	None

21. Cadet Service Purchase

- 22. Forfeited Service Purchase, Probationary Service Purchase, and Uniform Military Leave of Service Purchase
- 23. DROP Lump Sums Left with the System for Investment after Retirement (PROP)
- 24. Payment Form for Retirement Benefits Due to Service Retirement, Disability Retirement, or Vested Termination
- 25. Future Vested Terminated Members with Earlier Retirement Date Due to the Proportionate Retirement Program

- 100% of officers who have not yet purchased the credit will purchase their cadet service in the future.
- Officer purchase amount based on officer contribution rate and cadet pay at time of cadet service.

100% of officers with such eligible service in the database will purchase the respective service.

- 60% of officers retiring with DROP will leave their lump sum in the System until age 60.
- Average annual rate credited to the PROP accounts will be 6%.

Life annuity (modified cash refund)

- One termination per year for next 18 years
- Termination at age 45 with 18 years of service
- Retirement at age 50 instead of age 62
- Final average monthly salary of \$7,469 for the 2010 termination, with 4.1% per year increase for subsequent terminations

Austin Police Retirement System Summary of Actuarial Methods and Assumptions

26.	Additional Administrative Expenses for Participation in the Proportionate Retirement Program	An increase in the normal cost contribution rate of 0.025% of payroll
27.	Contributions (% of Covered Pay)	
	a. Cityi. January 2010-Sept. 2010ii. October 2010 and thereafter	18.63% 19.63%
	b. Police Officers	13.00%

Austin Police Retirement System Changes in Actuarial Methods and Assumptions

	December 31, 2008 Actuarial Assumption	December 31, 2009 Actuarial Assumption
• DROP Election – Percentage of those assumed to retire who are eligible for at least a 12-month DROP lump sum will make such an election (RETRO) or will have made such an election (FORWARD)	60%	65%
• DROP lump sums left with the System for investment after retirement (PROP)	50%	60%
• Interest credited to the PROP accounts	8% per year	6% per year

Austin Police Retirement System Salary Rate of Increase Assumption from Year t-1 to Year t

	Salary Incre	ases Due to			
	Promotion and				
Year of	Longevity				
Service t	Increases	Total Increases			
1	18.0%	22.7%			
2	11.2	15.6			
3	5.8	10.0			
4	0.9	4.9			
5	0.9	4.9			
6	7.1	11.4			
7	0.5	4.5			
8	0.5	4.5			
8	0.5	4.5			
10	7.1	11.4			
11	0.3	4.3			
12	0.3	4.3			
13	0.3	4.3			
14	7.1	11.4			
15	0.2	4.2			
16	7.2	11.5			
17	0.2	4.2			
18	0.1	4.1			
19	0.1	4.1			
20	0.1	4.1			
21	0.1	4.1			
22	0.1	4.1			
23	0.1	4.1			
24	0.1	4.1			
25	0.1	4.1			
26-45	0.0	4.0			

For Entry Ages Under 32 ¹			32 ¹	For Entry Ages 33 and Above ³			ove ³
APRS	22 &	02.07	20.22		22.27	20.42	43 &
Service	Under	23-27	28-32	Age	33-37	38-42	Over
0-22 23 24 25 26	50 50 150 200 250	50 75 150 200 250	50 100 150 200 250	33-37 38-42 43-47 48 49	100 100 100 100 100	100 100 100 100	100 100 100
27 28 29 30 31	450 500 500 500 500	350 400 400 500 500	300 400 500 500 500	50 51 52 53 54	100 100 100 100 100	100 100 100 100 100	100 100 100 100 100
32 33 34 35 36	500 500 500 600 600	500 500 500 500 500	1000 ²	55 56 57 58 59	200 250 300 350 500	100 100 100 100 100	100 100 100 100 100
37 38 39 40 41	600 600 600 600 600	1000 ²		60 61 62 63 64	1000	500 350 350 350 350	100 100 800 400 400
42	1000^{2}			65		1000	1000

Austin Police Retirement System Assumed Service Retirement Rates Per 1,000 Members

¹ Rates are based on only APRS service and apply after an officer is eligible for retirement with combined APRS and Proportionate Retirement Program (PRP) service. Entry ages are determined based on only APRS service. An officer would need to have some PRP service in order for the bold rates to be applicable.

 2 100% retirement rate will be effective at age 60 if earlier.

³ Rates are based on age and apply after an officer is eligible for retirement with combined APRS and PRP service. Entry ages are determined based on only APRS service. An officer would need to have some PRP service in order for the bold rates to be applicable.

Service at				
Employment	No DROP	RETRO DROP	FORWARD	
Termination	Elected ¹	Elected	DROP Elected	Total
23 or less	100%	0%	0%	100%
24	35	55	10	100
25	35	45	20	100
26	35	35	30	100
27	35	30	35	100
28	35	30	35	100
29	35	30	35	100
30	35	30	35	100
31	35	30	35	100
32	35	30	35	100
33	35	35	30	100
34	35	45	20	100
35	35	55	10	100
36	35	65	0	100
37	35	65	0 0	100
			Ŭ	100
38	35	65	0	100
39	35	65	Ū.	100
40	35	65	ů 0	100
41	35	65	ů ů	100
42	35	65	ů 0	100%

Austin Police Retirement System Assumed Distribution of Retirements by Option Elected

¹ Police officers elect a type of service retirement benefit that does not include payment of a lump sum distribution.

Combined			
Years of Service ¹	Withdrawal Rates		
0	100		
1	20		
2	20		
3	20		
4	20		
5	20		
6	20		
7	20		
8	20		
9	20		
10			
10	20		
	17		
12	14		
13	10		
14	5		
15	0		
15	0		
17	0		
18	0		
19	$\overset{\circ}{0}$		

Austin Police Retirement System Assumed Withdrawal Rates Per 1,000 Members

¹ APRS service combined with Proportionate Retirement Program service.

	Disability		Disability
Age	Rates	Age	Rates
20	0.14	40	0.92
21	0.15	41	1.14
22	0.16	42	1.32
23	0.17	43	1.48
24	0.18	44	1.73
25	0.19	45	2.09
26	0.21	46	2.55
27	0.23	47	2.98
28	0.25	48	3.34
29	0.28	49	3.62
30	0.31	50	3.79
31	0.35	51	3.92
32	0.40	52	4.04
33	0.45	53	4.24
34	0.49	54	4.56
			4.00
35	0.52	55	4.90
36	0.54	56	5.32
37	0.57	57	5.86
38	0.62	58	6.60
39	0.73	59	7.53
		60	0.11
		00 61	9.11 11 72
		01	11./2
		62 and later	0.00

Austin Police Retirement System Assumed Disability Rates Per 1,000 Members¹

¹ Rates are for disability due to all causes, and occupational disability rates are assumed to be 55% of all cause rates. Rates are not applicable after an officer is or would be eligible for retirement.

Austin Police Retirement System Definitions

- 1. *Actuarial cost method* A procedure for determining the actuarial present value of pension plan benefits and for developing an actuarially equivalent allocation of such value to time periods in the form of a normal cost contribution rate and an actuarial accrued liability.
- 2. *Actuarially equivalent* Of equal actuarial present value, determined as of a given date with each value based on the same set of actuarial assumptions.
- 3. *Actuarial present value* The value of an amount or series of amounts payable or receivable at various times in the future, determined as of a given date (the valuation date) by the application of the actuarial assumptions.
- 4. *Entry age actuarial cost method* A method under which the actuarial present value of projected benefits of each individual included in the valuation is allocated on a level basis over the earnings of the individual between the entry age and assumed exit. Entry age is calculated as the difference between the attained age and the years of service credit as of the valuation date. Service is assumed to be continuous.
- 5. *Normal cost contribution rate* That portion of the actuarial present value of benefits which is allocated to a valuation year by the Entry Age Actuarial Cost Method. It is expressed as a percent of compensation and is equal to the actuarial present value at hire of projected benefits divided by the actuarial present value at hire of anticipated future compensation. It is calculated for each individual and summed for the entire group.
- 6. *Actuarial accrued liability* That portion, as determined by the Entry Age Actuarial Cost Method, of the actuarial present value of benefits which is not provided for by future normal cost contributions.
- 7. *Unfunded actuarial accrued liability* The excess of the total actuarial present value of future benefits over the sum of the tangible assets and the actuarial present value of future normal cost contributions.
- 8. *Actuarial value of assets* The value of cash, investments, and other property belonging to a pension plan, as used by the actuary for the purpose of an actuarial valuation.
- 9. Actuarial gain or loss A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates.
- 10. *Amortization period* The period determined in an actuarial valuation as the number of years required, beginning with the valuation date, to amortize the unfunded actuarial accrued liability with a level percent of payroll that is the difference between the expected total contribution rate and the normal cost contribution rate.

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 25 for the System's Financial Statements for Fiscal Year Ending December 31, 2009

Actuarial Valuation	Actuarial Value of Assets	Entry Age Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Annual Covered Payroll ¹	UAAL as a Percentage of Covered Payroll
12/31/04	(a) \$343,446,574	(0)	(0 - a) \$108,133,306	(a/b) 76.1%	(C)	((b - a)/c) 124.8%
$12/31/05^2$	371,504,533	494,640,856	123,136,323	75.1	93,428,957	131.8
$12/31/06^{2,3}$ $12/31/07^{2}$	417,283,844	576,125,324	158,841,480	72.4	100,090,151	158.7
12/31/07 $12/31/08^{2,4}$	464,230,585	693,202,499	228,971,914	67.0	122,735,216	186.6
$12/31/09^2$	518,111,923	733,634,660	215,522,737	70.6	122,928,285	175.3

I. Schedule of Funding Progress

¹The covered payroll is based on the annual rate of base pay and longevity pay used in the valuation.

² Some of the actuarial assumptions were revised.

³Reflects changes in plan benefit provisions effective September 1, 2007 and December 1, 2007.

⁴Reflects changes in plan benefit provisions effective January 2009.

Plan Year	Actual Contribution	Actual	Annual Required			Percent of ARC
Ended	As a Percent of	Contribution	Ľ	ontributio	n	Contri-
12/31	Covered Payroll ¹	Amount	$(ARC)^2$			buted
			Date	AP	Rate	
2004	17.906%	\$14,714,174 ³	12/31/02	25.7	17.906%	100.0%
2005	17.902	$15,754,922^4$	12/31/03	28.6	17.902	100.0
2006	17.906	16,945,167 ⁵	12/31/04	32.0	17.906	100.0
2007	17.919	$18,510,066^6$	12/31/05	30.0	18.775	95.4
2008	17.900	$20,060,458^7$	12/31/06	30.0	17.846	100.3
2009	18.254^{8}	$22,159,076^9$	12/31/07	30.0	16.776	108.8

II. Schedule of Employer Contributions

¹ Effective September 1, 2003, a portion of the Employer's total 18% contribution is allocated to a Retiree Death Benefit Fund.
² The ARC is based on a one-year lag between the date of the actuarial valuation ("Date") and the beginning of the plan year. The ARC is expressed as a contribution rate ("Rate") that is a percent of covered payroll. An amortization period (AP) for the ARC of up to 40 years was compliant with GASB parameters through the 2006 plan year. After the 2006 plan year, an AP of up to 30 years is compliant.

³ The employer's total contribution during 2004 including the Retiree Death Benefit Fund was \$14,794,834.

⁴ The employer's total contribution during 2005 including the Retiree Death Benefit Fund was \$15,840,395.

⁵ The employer's total contribution during 2006 including the Retiree Death Benefit Fund was \$17,033,469.

⁶ The employer's total contribution during 2007 including the Retiree Death Benefit Fund was \$18,594,236.

⁷ The employer's total contribution during 2008 including the Retiree Death Benefit Fund was \$20,171,151.

⁸ The employer's total contribution rate was 18.25% January-September 2009 and 18.63% October-December 2009. The average contribution rate was 18.254% (18.345% total average – 0.091% for Retiree Death Benefit Fund).

⁹ The employer's total contribution during 2009 including the Retiree Death Benefit Fund was \$22,272,667.

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 25 for the System's Financial Statements for Fiscal Year Ending December 31, 2009

III. Notes to Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

Valuation date	December 31, 2009
Actuarial cost method	Entry Age
Amortization method	Level percentage of projected payroll, open
Amortization period	29.3 years
Asset valuation method	Market value smoothed by a 5-year deferred recognition method with a 80%/120% corridor on market
Actuarial assumptions:	
- Investment rate of return, net	
of expenses	8.0%
- Projected salary increases including	
promotion and longevity	4.0% to 22.0% per year, averaging 6.8%
- Inflation rate per year	4.0%
- Postretirement cost-of-living adjustr	nents None

IV. Actuarial Information for Notes to the Financial Statement as Required by Paragraph 32 of GASB 25

A. PLAN DESCRIPTION

The Board of Trustees of the City of Austin Police Retirement System is the administrator of a single-employer defined benefit pension plan.

The System was originally established in 1979 by a City Council ordinance. Since August 1991, the System has been governed by state law, with plan amendments made by the Texas Legislature. The System provides retirement, death, disability and withdrawal benefits. Benefits vest after 10 years of credited service. Participants may retire at (a) 23 years of service, excluding any military service credit, regardless of age, or (b) age 55 with 20 years of service excluding any military service or (c) age 62. The monthly benefit at retirement is payable as a life annuity (modified cash refund). The monthly benefit is equal to 3.2% of the highest 36-month average salary multiplied by years and months of service.

The DROP provisions require that a participant must have 23 years of creditable service with the retirement system excluding any military service credit on the date the participant either elects for the RETRO DROP benefit computation date or elects to

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 25 for the System's Financial Statements for Fiscal Year Ending December 31, 2009

enter the FORWARD DROP. Further, the DROP provisions may be changed in the future by Board rule with approval by the System's actuary. Similarly, the eligibility requirement for service retirement may be changed in the future by Board rule with approval by the System's actuary, except the age 62 minimum eligibility regardless of service may not be changed.

The Post Retirement Option Plan (PROP) is an option allowing retiring officers to leave their DROP lump sum in the System for a period of time. The participant can elect to receive partial payments from the DROP lump sum account and can also elect to delay payment of the entire DROP lump sum. Interest credits are paid on the participant's DROP lump sum account following the participant's retirement until the entire lump sum is paid. The interest credits are granted based on an annual rate determined from time to time by Board Rule.

Distributions to officers or their beneficiaries are also available in the event of total and permanent disability, provided the officer has completed 10 years of service or the injury was sustained during the performance of employment duties, or upon death. The terms of benefit payments are determined by certain elections made by the officer, their level of earnings and length of service. Payments to officers or their beneficiaries may be increased annually on an ad hoc basis, limited to 6% per year, and subject to the approval of the Retirement Board and the actuary.

A \$10,000 post-retirement lump sum death benefit is payable from a separate Retiree Death Benefit Fund (account) administered by the System.

Beginning in 2009, the System and the city began participating in the Texas statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System's requirements for service retirement eligibility and for eligibility for vested benefits for a terminated member. The participating systems, in addition to the System, are the six Texas statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

Participating members in the System include full-time police officers and cadets employed by the police department of the City and employees of the System. The following membership status of the System was reflected in the actuarial valuation as of December 31, 2009:

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 25 for the System's Financial Statements for Fiscal Year Ending December 31, 2009

Retirees and beneficiaries currently receiving benefits (514)	
and terminated employees entitled to future monthly	
benefits (20)	534
Current participating members	<u>1,651</u>
Total	2,185

B. FUNDING POLICY

The System is funded by biweekly contributions from the basic compensation, consisting of base pay and longevity pay, of police officers and by contributions from the City. Under the provisions in effect during the plan year ending December 31, 2009, participants are required to contribute 13% of their basic compensation to the System. The City's required contributions were equal to 18% of basic compensation in 2008 and were increased to 18.25% in January 2009. The City contribution rate again increased to 18.63% on October 1, 2009 and will further increase to 19.63% on October 1, 2010.

Since September 1, 2003, a portion of the City's contribution has been allocated to the Retiree Death Benefit Fund. This portion, re-determined annually, was 0.091% for 2009 based on the December 31, 2007 actuarial valuation and is 0.092% for 2010 based on the December 31, 2008 actuarial valuation. This portion was redetermined based on the December 31, 2009 actuarial valuation to be 0.098% for 2011.

The City contribution rate is required by the state law governing the System and may be changed by amendment made by the Texas Legislature. The participant contribution rate must be at least 6% but was increased from 9% to 11% effective October 2006 and to 13% effective October 2007 by a recommendation of the Retirement Board and an approving vote of the participating members in accordance with the state law governing the System. The participant contribution rate may be changed by amendment made by the Texas Legislature or by appropriate actions of the Board and the participating members in accordance with the state law governing the System.

While contribution rates are not actuarially determined, state law requires that each plan of benefits adopted by the System must be approved by a qualified actuary. The actuary certifies that the contribution commitment by the police officers and the City provides an adequate contribution arrangement at the time any change is made. Using the entry age actuarial cost method, the System's normal cost is determined as

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 25 for the System's Financial Statements for Fiscal Year Ending December 31, 2009

a percentage of payroll. The excess of the total contribution rate over the normal cost rate is used to amortize the System's unfunded actuarial accrued liability, and the number of years needed to amortize the System's unfunded actuarial accrued liability is determined using an open, level percentage of payroll method. Based on the actuarial valuation as of December 31, 2009 and the plan provisions reflected in that valuation, the normal cost was 22.338% of pay and the amortization period was 29.3 years.

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Austin for the Fiscal Year Ending September 30, 2010

I. Annual Pension Cost

For the fiscal year ending September 30, 2010, the City's Annual Pension Cost (APC) for the Austin Police Retirement System is <u>\$</u> as described below in footnote 4 of Trend Information. The total contributions by the City are a fixed percentage of basic compensation, consisting of base pay and longevity pay, of the members of the System (including both police cadets and officers). Effective October 1, 2009, the city contribution rate increased from 18.25 to 18.63% and will further increase to 19.63% on October 1, 2010.

Since September 1, 2003, a portion of the city's contribution is allocated to a separate Retiree Death Benefit Fund (account). This portion, redetermined annually, was 0.091% for 2009 based on the December 31, 2007 actuarial valuation and is 0.092% for 2010 based on the December 31, 2008 actuarial valuation. Therefore, the contributions for the fiscal year ending September 30, 2010 were equal to 18.539% of payroll for the period October 1, 2009 through December 31, 2009, and 18.538% of payroll for the period January 1, 2010 through September 30, 2010.

The annual required contribution (ARC) by the city for the fiscal year ending September 30, 2010 was based on the actuarial valuations as of December 31, 2007 (for the 2009 plan year) and as of December 31, 2008 (for the 2010 plan year) using the entry age actuarial cost method and determined in compliance with the GASB Statement No. 27 parameters, including the amortization periods for the ARC indicated below. The actuarial methods and assumptions used for the three most recent valuations are shown below:

Valuation date	12/31/2007	12/31/2008	12/31/2009	
Actuarial cost method	Entry age	Entry age	Entry age	
Amortization method	Level percent of Level percent of payroll, open payroll, open		Level percent of payroll, open	
Amortization period for ARC	30 years	30 years	30 years	
Asset valuation method	5-year adjusted market value	5-year adjusted market value	5-year adjusted market value	
Actuarial Assumptions				
• Investment return	8.0%	8.0%	8.0%	
• Projected salary increases	4.0% plus promotion and longevity	4.0% plus promotion and longevity	4.0% plus promotion and longevity	
• Inflation	4.0%	4.0%	4.0%	
 Cost-of-living increases 	0.0%	0.0%	0.0%	
• Payroll increases	4.0%	4.0%	4.0%	
ARC as a percent of payroll	16.776%	20.291%	19.360%	
for the plan year	2009	2010	2011	

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Austin for the Fiscal Year Ending September 30, 2010

II. Three-Year Trend Information for the **Austin Police Retirement System**

Fiscal	Annual	Contributions as	Percentage	Net
Year	Pension	a Percent of	of APC	Pension
Ending	Cost (APC)	Covered Payroll	Contributed	Obligation
09/30/2008	\$ ¹	17.919/17.900%	2	1
09/30/2009	3	17.900/18.159	2	3
09/30/2010	4	18.538/18.539	2	4

As determined using worksheet on page 41 of the December 31, 2007 actuarial valuation report.

2 The percentage of APC contributed is the actual city contributions to the System in excess of the portion of contributions for the Retiree Death Benefit Fund, divided by the APC.

³ As determined using worksheet on page 44 of the December 31, 2008 actuarial valuation report.
 ⁴ See the worksheet at the end of this exhibit.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio	Annual Covered Payroll ¹	UAAL as a Percentage of Covered Payroll ((b - a)/c)
12/31/04 $12/31/05^2$	(a) \$343,446,574 371 504 533	\$451,579,880 494,640,856	\$108,133,306 123,136,323	(<i>a</i> /0) 76.1% 75.1	\$86,673,590 93,428,957	124.8%
$12/31/05^{2,3}$ $12/31/06^{2,3}$ $12/31/07^2$	417,283,844	576,125,324 637,559,674	123,130,323	73.1 72.4 75.6	100,090,151 111,809,091	151.8 158.7 138.9
$\frac{12/31/08^{2,4}}{12/31/09^2}$	464,230,585 518,111,923	693,202,499 733,634,660	228,971,914 215,522,737	67.0 70.6	122,735,216 122,928,285	186.6 175.3

III. Schedule of Funding Progress

¹The covered payroll is based on the annual rate of base pay and longevity pay used in the valuation.

² Some of the actuarial assumptions were revised.

³Reflects changes in plan benefit provisions effective September 1, 2007 and December 1, 2007.

⁴Reflects changes in plan benefit provisions effective January 2009.

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Austin for the Fiscal Year Ending September 30, 2010

IV. Actuarial Information for Notes to the Financial Statement as Required by Paragraph 20 of GASB 27

A. PLAN DESCRIPTION

The Board of Trustees of the City of Austin Police Retirement System is the administrator of a single-employer defined benefit pension plan. The System issues a stand-alone report that is available from the Retirement Board.

The System was originally established in 1979 by a City Council ordinance. Since 1991, the System has been governed by state law, with plan amendments made by the Texas Legislature. The System provides retirement, death, disability and withdrawal benefits. Benefits vest after 10 years of credited service. Participants may retire at (a) 23 years of service, excluding any military service credit, regardless of age, or (b) age 55 with 20 years of service excluding any military service or (c) age 62. The monthly benefit at retirement is payable as a life annuity (modified cash refund). The monthly benefit is equal to 3.2% of the highest 36-month average salary multiplied by years and months of service.

The DROP provisions require that a participant must have 23 years of creditable service with the retirement system excluding any military service credit on the date the participant either elects for the RETRO benefit computation date or elects to enter the FORWARD DROP. Further, the DROP provisions may be changed in the future by Board rule with approval by the System's actuary. Similarly, the eligibility requirement for service retirement may be changed in the future by Board rule with approval by the System's actuary, except, the age 62 minimum eligibility regardless of service may not be changed by Board rule.

The Post Retirement Option Plan (PROP) is an option allowing retiring officers to leave their DROP lump sum in the System for a period of time. The participant can elect to receive partial payments from the DROP lump sum account and can also elect to delay payment of the entire DROP lump sum. Interest credits are paid on the participant's DROP lump sum account following the participant's retirement until the entire lump sum is paid. The interest credits are granted based on an annual rate determined from time to time by Board Rule.

Distributions to officers or their beneficiaries are also available in the event of total and permanent disability, provided the officer has completed 10 years of service or the injury was sustained during the performance of employment duties, or upon death. The terms of benefit payments are determined by certain elections made by the officer,

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Austin for the Fiscal Year Ending September 30, 2010

their level of earnings and length of service. Payments to officers or their beneficiaries may be increased annually on an ad hoc basis, limited to 6% per year, and subject to the approval of the Retirement Board and the actuary.

A \$10,000 post-retirement lump sum death benefit is payable from a separate Retiree Death Benefit Fund (account) administered by the System.

Beginning in 2009, the System and the city began participating in the Texas statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System's requirements for service retirement eligibility and for eligibility for vested benefits for a terminated member. The participating systems, in addition to the System, are the six Texas statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

Participating members in the System include full-time police officers and cadets employed by the police department of the City and employees of the System.

B. FUNDING POLICY

The System is funded by biweekly contributions from the basic compensation, consisting of base pay and longevity pay, of police officers and by contributions from the City. Under the provisions in effect during the fiscal year ending September 30, 2009, participants are required to contribute 13% of their basic compensation to the System. The City's required contributions were equal to 18% of basic compensation in 2008 and were increased to 18.25% in January 2009. The City contribution rate again increased to 18.63% on October 1, 2009 and will further increase to 19.63% on October 1, 2010.

Since September 1, 2003, a portion of the City's contribution has been allocated to the Retiree Death Benefit Fund. This portion, re-determined annually, was 0.091% for 2009 based on the December 31, 2007 actuarial valuation and is 0.092% for 2010 based on the December 31, 2008 actuarial valuation. This portion was redetermined based on the December 31, 2009 actuarial valuation to be 0.098% for 2011.

The total City contribution rate of at least 18% prior to 2009 and the subsequent increases as described above are required by the state law governing the System and may be changed by amendment made by the Texas Legislature. The participant contribution rate must be at least 6% but was increased from 9% to 11% effective October 2006 and to 13% effective October 2007 by a recommendation of the

Austin Police Retirement System Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Austin for the Fiscal Year Ending September 30, 2010

Retirement Board and an approving vote of the participating members in accordance with the state law governing the System. The participant contribution rate may be changed by amendment made by the Texas Legislature or by appropriate actions of the Board and the participating members in accordance with the state law governing the System.

While contribution rates are not actuarially determined, state law requires that each plan of benefits adopted by the System must be approved by a qualified actuary. The actuary certifies that the contribution commitment by the police officers and the City provides an adequate contribution arrangement at the time any change is made. Using the entry age actuarial cost method, the System's normal cost is determined as a percentage of payroll. The excess of the total contribution rate over the normal cost rate is used to amortize the System's unfunded actuarial accrued liability, and the number of years needed to amortize the System's unfunded actuarial accrued liability is determined using an open, level percentage of payroll method. Based on the actuarial valuation as of December 31, 2009 and the plan provisions reflected in that valuation, the normal cost was 22.338% of pay and the amortization period was 29.3 years.

Austin Police Retirement System GASB Statement No. 27 Worksheet for Annual Pension Cost (APC) and Net Pension Obligation (NPO) for the Fiscal Year Ending September 30, 2010

		Plan Year the Accou	Accounting Year	
		Begins	Ends	Total
		Column A	Column B	Column C
1.	Plan year	2009	2010	
2.	Valuation date that is the basis for plan year ARC	12/31/2007	12/31/2008	
3.	Months of accounting year in each plan year	OctDec.	JanSept.	
4.	Portion of accounting year in each plan year	25%	75%	
5.	GASB compliant ARC for months of accounting year in line 3	1	2	
6.	ARC for the accounting year (5A+5B)			
7.	NPO at beginning of accounting year	3		
8.	Actuarial investment return assumption used in calculating line 5	8.0%	8.0%	
9.	Multiply line 7A by line 4 x line 8			
10.	Total interest on NPO (9A+9B)			
11.	Actuarial amortization factor used in calculating line 5 amount	18.2974	18.2974	
12.	Divide line 7A by line 11, then multiply by line 4			
13.	Adjustment to the ARC (12A+12B)			
14.	Annual pension cost (APC) (6C+10C-13C)			
15.	Actual contributions to the plan for the accounting year			4
16.	Change in NPO (14C-15C)			
17.	NPO at end of accounting year (7A+16C)			
18.	% of APC contributed (15C÷14C)			
1	ARC = 16.776% of actual covered payroll for Octobe	er – December 2009.		

² ARC = 20.291% of actual covered payroll for January – September 2010.
 ³ The NPO as of October 1, 2009 should have been determined according to the prior year worksheet.
 ⁴ Contributions in excess of the portion of contributions for the Retiree Death Benefit Fund.