

CITY OF AUSTIN EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION REPORT FOR THE YEAR ENDING DECEMBER 31, 2014



April 13, 2015

Mr. Chris Hanson Executive Director City of Austin Employees' Retirement System 418 E. Highland Mall Blvd. Austin, TX 78752

Dear Mr. Hanson:

### Subject: Actuarial Valuation as of December 31, 2014

We are pleased to present our report on the actuarial valuation of the City of Austin Employees' Retirement System (COAERS or the System). Based upon this actuarial valuation as of December 31, 2014, it is our opinion that these results reasonably reflect the funded status of the System.

As you know, the employee and employer contribution rates are set by statute. It is expected that these contribution rates will remain level as a percentage of payroll. The Sytem's recently adopted funding policy is for the contribution rates to be sufficient to cover the normal cost of the plan and to amortize any unfunded actuarial accrued liabilities over a period not to exceed 25 years.

Currently, the total contribution rate is sufficient to amortize the System's unfunded liabilities in less than 25 years. Therefore, the funding objective is currently being met.

In 2010 the City of Austin adopted the Amended Supplemental Funding Plan (ASFP). The ASFP provides for an additional City contribution rate of up to a maximum of 10.0% above the base 8.0% rate. The City is now contributing an additional 10.0%, or a total rate of 18.0%. The additional contribution rate is intended to stay in place until the ASFP is amended or repealed.

In addition to the actuarial valuation results, various accounting and statistical tables are also included which should help you compare the results of this plan year with prior years. The information presented in the trend data schedules of this report has been prepared by Gabriel, Roeder, Smith & Company. The information for years 1993 through 2000 was prepared by Watson Wyatt & Company. Information in these schedules prior to 1993 was determined by another actuarial firm.

GRS provided COAERS with the information used in preparing the following trend schedules in the financial section of the CAFR: Required Supplementary Information Schedule of Funding Progress, Required Supplementary Information Schedule of Employer Contributions, and Notes to Required Supplementary Information. GRS provided no additional assistance in the preparation of any other schedules in the financial section of the CAFR.

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Actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the plan's actuary. An experience investigation was performed for the five year period ending December 31, 2011. As a result of that study, revised assumptions were adopted by the Board effective with the valuation as of December 31, 2012. Except as noted below, these assumptions and methods continue to be used. We believe the assumptions are internally consistent, reasonable, and, where appropriate, based on the actual experience of COAERS.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations are intended to provide information for rational decision making.

Member data for retired, active and inactive participants was supplied as of December 31, 2014, by the COAERS 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 also supplied by the COAERS staff.

The last actuarial valuation of COAERS was prepared as of December 31, 2013 by Gabriel, Roeder, Smith & Company. Valuations are prepared annually as of December 31<sup>st</sup>.

The undersigned are independent actuaries and consultants. Mr. Falls is an Enrolled Actuary and a Member of the American Academy of Actuaries and he meets the Qualification Standards of the American Academy of Actuaries. Both Mr. Falls and Mr. Ward are experienced in performing valuations for large public retirement systems.

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We would like to thank you and your staff for your assistance in providing all necessary information to complete this valuation. Your courteous help is very much appreciated. We look forward to discussing this actuarial valuation report with you at your convenience. Please do not hesitate to let us know if you have any questions or need additional information.

Sincerely,

Lewis Ward Consultant R. Ryan Falls, F.S.A, E.A., M.A.A.A. Senior Consultant

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Lewis Ward

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### **EXECUTIVE SUMMARY**

The key results from the valuation of the City of Austin Employees' Retirement System as of December 31, 2014 may be summarized as follows:

		De	cember 31, 2014 (1)	Dec	cember 31, 2013 (2)
•	Members				
	— Actives		9,028		8,592
	— Retirees (including disabled) and beneficiaries	47	5,396		5,120
	— Vested - terminated		990		930
	— Proportional PSEM and CCSD*		<u>53</u>		<u>113</u>
	— Total		15,467		14,755
•	Covered payroll	\$	539,158,693	\$	490,553,170
•	Normal cost	\$	88,162,117	\$	82,485,334
	— As % of payroll		16.75%		17.21%
•	Actuarial accrued liability	\$	3,094,055,712	\$	2,909,917,750
•	Actuarial value of assets	\$	2,193,881,221	\$	2,047,929,504
•	Unfunded actuarial accrued liability (UAAL)	\$	900,174,491	\$	861,988,246
•	Estimated yield on assets				
	— Actuarial value basis		8.04%		8.87%
	— Market value basis		4.58%		15.34%
•	Contribution rate				
	— Employee		8.00%		8.00%
	— Employer		18.00%		18.00%
•	Benefit and refund payments	\$	161,718,226	\$	151,362,687
•	Amortization period of unfunded actuarial accrued		24 years		26 years
	liability		= : <i>j</i> = ::		
•	Funding Policy employer contribution rate**		17.63%		18.25%
	Funded ratio		70.9%		70.4%
•	Tunucu Tauo		70.9%		70.4%

<sup>\*</sup> PSEM and CCSD employees that are not yet vested

<sup>\*\*</sup> Employer contribution rate that satisfies the Board's funding policy. December 31, 2013 rate for informational purposes only, as funding policy did not exist at that time.

### INTRODUCTION

This December 31, 2014 actuarial valuation of the City of Austin Employees' Retirement System has been prepared by Gabriel, Roeder, Smith & Company. The primary purpose of the valuation is to value the liabilities of the System as of December 31, 2014, determine the funding period of any unfunded liability for the plan year beginning January 1, 2015, and to provide certain required disclosure information. We are pleased to have the privilege of working for the Board, and look forward to discussing the results with you at your convenience.

Section C of this report provides the current funded status of the plan and reviews the valuation results. Assets are discussed in Section D, while Section E contains an analysis of the actuarial gains and losses during the past year.

Section F discusses some of the historical comparisons and statistical summaries for the plan. Section G provides a summary of the valuation results along with other comments.

Various tables supporting the report are contained in Sections H and I, including any change in benefit provisions since the last valuation.

#### **FUNDED STATUS OF THE PLAN**

The funded status of the plan is shown in Table 1, Table 2, and Table 3. Table 1 summarizes the various cost items from the current year's and prior year's actuarial valuations, while Table 2 provides an allocation of the normal cost by its various components. Table 3 shows the components of the actuarial liability.

Reviewing the composition of normal cost of the System, Table 2 indicates that the employer normal cost as of December 31, 2014, is 16.75% of pay. This compares with 17.21% of pay as of the last valuation on December 31, 2013. This normal cost is developed based on the Individual Entry Age Normal (EAN) actuarial cost method. As may be seen in Item 1, the normal cost for the retirement benefits is 13.45% of pay. The normal cost for the deferred termination benefits is 1.17% and 1.53% for refunds of terminated employees (both vested and non-vested). The normal cost for disability benefits is 0.36%, and the normal cost for death benefits is 0.24%.

Table 1 illustrates a number of the key actuarial items for the 2014 valuation. As mentioned above, the total normal cost rate is 16.75% of covered payroll. The actuarial accrued liability is \$3,094.1 million as shown in Item 5 and as detailed in Table 3. The actuarial value of assets equals \$2,193.9 million, as shown in Item 6. Item 7 of Table 1 shows that the plan has an \$900.2 million unfunded liability (i.e. liabilities exceed plan assets) as of the valuation date. As of the last valuation (December 31, 2013), the System was underfunded by \$862.0 million. The increase in the unfunded liability is described in greater detail in Section E and Table 6.

On October 1, 2012, the City began contributing 18% of payroll and the employees are contributing 8% of payroll. Combining the employees' contributions with the City contribution, the System will have 26.00% of payroll to fund benefits. The current normal cost of the plan is 16.75%, which means that the System is currently receiving contributions in excess of the normal cost equal to 9.25% of pay (26.00% less 16.75%). These excess contributions are available to amortize any unfunded actuarial accrued liability. Based on these contribution rates, if all assumptions are exactly met then the current unfunded liability will be fully amortized over the next 24 years.

Under the Amended Supplemental Funding Plan (ASFP) the total City contribution rate is 18.0% of pay. The additional contribution is intended to stay in place until the ASFP is amended or repealed.

### FUNDED STATUS OF THE PLAN (Continued)

With the adoption of GASB 67 for the plan year ending December 31, 2014, the GASB annual required contribution (ARC) is no longer required to be determined. Therefore, it has not been determined in this valuation.

The normal cost was determined using the Individual Entry Age Normal Cost (IEANC) actuarial cost method. This method determines the normal cost for all employees on an individual basis, based on the benefits applicable to each individual member. Because employees hired on or after January 1, 2012 (Group B) have a less valuable benefit tier than employees hired prior to that date (Group A), the normal cost for Group B is less than the normal cost of Group A. With the application of the Individual EAN method, the normal cost is equal to the average of the individual members' normal costs. Since the current group of employees is primarily Group A, this means that the average normal costs for the group will decline over time as Group B employees replace Group A employees.

Because the contributions to the System are a fixed percentage of payroll, this means that the percentage of payroll that will go to pay off the unfunded liability will increase in the future as the average normal cost decreases. This result makes it difficult to calculate the funding period using a mathematical formula since the amount of contributions to pay off the unfunded liability will not be either a constant dollar amount or a constant percentage of payroll in the future. For this reason we are using an open group projection to determine when the System is expected to pay off its unfunded liability. The open group projection assumes a constant active population and that there will be no actuarial gains or losses on liabilities or the actuarial value of assets. Based on the open group projection the funding period of the System as of the valuation date is 24 years.

#### **CHANGE IN ASSETS**

Table 4 shows the development of the actuarial value of assets. Item 11 of Table 4, shows that the actuarial value of assets as of December 31, 2014 is \$2,193.9 million. Table 4 also shows the development of the gain/(loss) on the actuarial value of assets for the prior plan year. As shown in Item 12, the System had a gain on an actuarial asset basis of \$5.3 million in 2014. This compares to the \$20.7 million gain in 2013.

The method for determining the actuarial value of assets offsets excesses or shortfalls in the current year's investment income dollar for dollar against prior years' deferred gains or losses. Any remaining amounts from the current or prior years continue to be recognized over a five-year period. Since the current year provided a shortfall in investment income and the prior years have net deferred excess income, we will offset the current year's shortfall against the prior years' excess income. The remaining deferred gains from 2013 were sufficient to offset all of the current year's shortfall, leaving \$21.2 million in deferred gains to be recognized over four years. As a result, one-fourth of this deferred gain, or \$5.3 million, was recognized for the current year's actuarial value of assets, with the remainder to be deferred to future valuations.

The total deferral of all Excess/(Shortfall) investment income for the year (shown in Table 4, Column 6 of Item 8) is \$15.9 million.

An analysis of the change in the System's market value of assets for the last two plan years and an estimate of the return on assets for the System are included in Table 5. The estimated average annual rate of return for the year ending December 31, 2014, assuming that income, revenue, and expenditures are evenly distributed throughout the year is 4.58% on a market value of assets basis. The rate of return for the year ending December 31, 2014, on an actuarial value basis was 8.04%. This compares with the actuarial assumed investment return of 7.75%. Despite the return on a market basis being well below the actuarial assumption of 7.75%, the return on an actuarial basis exceeds the assumption due to the recognition of deferred gains.

### **ACTUARIAL GAINS AND LOSSES**

An important part of the change in unfunded actuarial accrued liability from year to year is due to the impact of actuarial gains and losses of the System. This section summarizes the combined asset and liability experience changes since the prior valuation on December 31, 2013.

As can be seen in Item 7 of Table 6, the expected value of the unfunded actuarial accrued liability as of December 31, 2014, was an underfunded position of \$877.4 million. This expected value reflects an assumed investment return assumption of 7.75% on the beginning of year unfunded actuarial accrued liability, normal cost, and contributions during 2014.

Since the actual unfunded actuarial accrued liability as of December 31, 2014 is \$900.2 million, it represents a total net loss for the period of \$22.8 million, as shown in Item 9 of Table 6. That is, the unfunded actuarial accrued liability is greater than expected. The net increase in the unfunded actuarial accrued liability includes an asset gain of \$5.3 million as shown in Table 4, and an increase on the liability side equal to \$28.1 million. This increase included an experience liability loss which is broken out by source in Items 15-22 of Table 6. As can be seen on Table 6, the largest liability loss was due to higher than expected salary increases and the largest liability gain was due to favorable retirement patterns.

Please see Table 12 for a more detailed description of the assumptions and methods.

### HISTORICAL COMPARISONS AND STATISTICAL SUMMARIES

Various statistical data on the System is shown in the tables contained in Section I. In addition, Tables 7 through 10 of Section H contain certain actuarial trend information which may be of interest.

Table 7 relates the size of the unfunded actuarial accrued liability (UAAL) to three different measurements. In Columns 3 and 4 the UAAL is related to the covered payroll of the System. Columns 5 and 6 relate the UAAL to the actuarial value of assets, while Columns 7 and 8 relate the UAAL to the total actuarial liabilities of the System.

Tables 8 through 10 provide information which should be included in your annual report. Table 8 provides a schedule of active member valuation data. Table 9 provides a schedule of retirees and beneficiaries added to and removed from payment rolls. Solvency test results are presented in Table 10.

### SUMMARY AND CLOSING COMMENTS

It is our opinion that the results of this valuation provide a reasonable reflection of the funded status of the System. The System's contributions are currently sufficient to amortize the unfunded liability of the System.

As previously mentioned, in 2010 the City of Austin adopted an Amended Supplemental Funding Plan (ASFP) which provides for an additional contribution from the City, above the 8.0% base rate, which has resulted in a gradual increase the City's total contribution rate to the System to 18.0%. This additional contribution is intended to remain in place until the ASFP is either amended or repealed.

The overall funded position of the System increased from 70.4% at the prior valuation to 70.9% at this valuation. Using an open group projection, we have determined that the System is expected to be fully funded in 24 years, assuming all valuation assumptions are realized in the future. Of course this could change with the addition of any unfunded liabilities (such as cost of living adjustments) or if there is a significant downturn in the financial markets.

### **ACTUARIAL TABLES**

Table							
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4	Development of Actuarial Value of Assets	13					
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6	Change in Unfunded Actuarial Accrued Liability	15					
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### **SUMMARY OF COST ITEMS**

	December 31, 2014				December 31, 2013		
			Cost as			Cost as	
		Cost Item (1)	% of Pay		Cost Item (3)	% of Pay	
1. Participants		(1)	(2)		(3)	(4)	
a. Active		9,028			8,592		
b. Terminated vested		990			930		
c. Retired participants and beneficiaries		5,293			5,019		
d. Dis abled		103			101		
e. Proportional PSEM and CCSD		53			113		
f. Total		15,467			14,755		
2. Covered Payroll	\$	539,158,693		\$	490,553,170		
3. Averages for Active Participants							
a. Average age		44.8			45.1		
b. Average years of service		9.3			9.6		
c. Average pay	\$	59,721		\$	57,094		
4. Total Normal Cost	\$	88,162,117	16.75% *	\$	82,485,334	17.21% *	
5. Actuarial Accrued Liability							
a. Active participants	\$	1,443,506,239		\$	1,359,821,471		
b. Terminated vested participants		61,948,270			51,809,428		
c. Refunds of terminated nonvested participants		8,280,861			8,580,561		
d. Retired participants and beneficiaries		1,564,739,947			1,463,142,223		
e. Disabled participants		15,580,395			15,003,796		
f. Proportional PSEM and CCSD					11,560,271		
g. Total	\$	3,094,055,712	573.87%	\$	2,909,917,750	593.19%	
6. Actuarial Assets	\$	2,193,881,221	406.91%	\$	2,047,929,504	417.47%	
7. Unfunded Actuarial Accrued Liability (UAAL)	\$	900,174,491	166.96%	\$	861,988,246	175.72%	
8. Relative Size of UAAL							
a. As percent of actuarial assets		41.03%			42.09%		
b. As percent of covered payroll		166.96%			175.72%		
9. Funding period using open group projection		24			26		
10. Employer contribution rate to satisfy funding policy**		17.63%			18.25%		

<sup>\*</sup> as % of expected payroll for current active members

<sup>\*\*</sup> employer rate that produces fully funded plan in 25-years in open group projection

### ANALYSIS OF NORMAL COST BY COMPONENT

	Cost as % of Pay				
Benefit Component (1)	December 31, 2014 (2)	December 31, 2013 (3)			
1. Retirement Benefits	13.45%	13.92%			
2. Termination - Deferred Benefits	1.17%	1.22%			
3. Termination - Refund Benefits	1.53%	1.47%			
4. Disability Benefits	0.36%	0.35%			
5. Death Benefits	0.24%	0.25%			
6. Normal Cost	16.75%	17.21%			

## ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS AND CALCULATION OF ACTUARIAL ACCRUED LIABILITY

	Dec	ember 31, 2014	December 31, 2013	
A. Durant Value of Fatous Devicts		(1)		(2)
A. Present Value of Future Benefits				
1. Active participants				
a. Retirement benefits	\$	1,943,470,317	\$	1,832,549,105
b. Deferred termination benefits		84,034,828		79,755,943
c. Refund of nonvested terminations		40,787,979		33,468,975
d. Disability benefits		25,574,220		22,379,820
e. Death benefits		24,276,835	<u> </u>	22,973,577
f. Total	\$	2,118,144,179	\$	1,991,127,420
2. Retired participants				
a. Service retirements and beneficiaries	\$	1,564,739,947	\$	1,463,142,223
b. Disability retirements		15,580,395	_	15,003,796
c. Total	\$	1,580,320,342	\$	1,478,146,019
3. Inactive participants				
a. Vested terminations with deferred benefits	\$	61,948,270	\$	51,809,428
b. Nonvested terminations with refunds payable		8,280,861		8,580,561
c. Total	\$	70,229,131	\$	60,389,989
4. Proportional PSEM and CCSD	\$	-	\$	11,560,271
5. Total actuarial present value of future benefits	\$	3,768,693,652	\$	3,541,223,699
B. Normal Cost Rate		16.75%		17.21%
C. Present Value of Future Normal Costs	\$	674,637,940	\$	631,305,949
D. Actuarial Accrued Liability for Active Members				
1. Present value of future benefits (Item A.1.f.)	\$	2,118,144,179	\$	1,991,127,420
2. Less present value of future normal costs (Item C)		674,637,940		631,305,949
3. Actuarial accrued liability	\$	1,443,506,239	\$	1,359,821,471
E. Total Actuarial Accrued Liability (Item A.2.c + Item A.3.c + Item A.4. + Item D.3)	\$	3,094,055,712	\$	2,909,917,750

### DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

	De	Year Ending ecember 31, 2014
Actuarial value of assets at beginning of year	\$	2,047,929,504
<ul><li>2. Net new investments</li><li>a. Contributions</li><li>b. Benefits and refunds paid</li><li>c. Subtotal</li></ul>	\$ \$ \$	143,820,573 (161,718,226) (17,897,653)
3. Assumed investment return rate for fiscal year		7.75%
4. Expected net investment income	\$	158,543,218
5. Expected actuarial value at end of year (Item 1+ Item 2 + Item 4)	\$	2,188,575,069
6. Market value of assets at end of year	\$	2,209,799,679
7. Difference (Item 6 - Item 5)	\$	21,224,610
8. Development of amounts to be recognized as of December 31, 2014:		
Fiscal Remaining Deferrals		
Year of Excess (Shortfall) Offsetting of Net Deferrals Years Recognized for		Remaining after
End of Investment Income Gains/(Losses) Remaining Remaining this valuation		this valuation
(1) (2) $(3) = (1) + (2)$ (4) $(5) = (3) / (4)$		(6) = (3) - (5)
2010 \$ 0 \$ 0 \$ 0 1 \$ 0	\$	0
2011 0 0 2 0		0
2012 0 0 0 3 0		0
2013 82,694,946 (61,470,336) 21,224,610 4 5,306,152		15,918,458
2014 (61,470,336) 61,470,336 0 5 0 Total \$ 21,224,610 \$ 0 \$ 21,224,610 \$ 5,306,152	Φ	15 019 459
Total \$ 21,224,610 \$ 0 \$ 21,224,610 \$ 5,306,152	\$	15,918,458
9. Preliminary actuarial value of plan assets, end of year (Item 5 + Item 8: Column 5)	\$	2,193,881,221
10. Actuarial value of assets corridor		
a. 80% of market value, end of year	\$	1,767,839,743
b. 120% of market value, end of year	\$	2,651,759,615
11. Final actuarial value of plan net assets, end of year (Item 9, but recognize 1/3 of any deferred gains or losses outside of Item 10)	\$	2,193,881,221
12. Asset gain (loss) for year (Item 11 - Item 5)	\$	5,306,152
13. Asset gain (loss) as % of final actuarial value of assets		0.24%
14. Ratio of actuarial value to market value		99.3%

Notes: Remaining deferrals in Column (1) for prior years are from Column (6) in last year's report. The number in the current year is the difference between the remaining deferrals for prior years and Item 7 (which is the difference between the market value of assets and the expected actuarial valye of assets). Column 2 is a direct offset of the current year's excess/(shortfall) return against prior years' excess/(shortfall) of the opposite type.

### **CHANGE IN NET POSITION**

		Valuation Period Ending December			
			2014		2013
			(1)		(2)
1.	Assets in plan at beginning of year (A)	\$ 2	2,130,624,450	\$	1,863,468,061
2.	Employer contributions	\$	93,331,482		86,556,453
3.	Employee contributions	\$	50,489,091		47,449,414
4.	Benefit payments made*	\$	157,563,807		146,624,826
5.	Refunds of contributions	\$	4,154,419		4,737,861
6.	Expenses paid from trust	\$	2,631,218		2,561,407
7.	Investment return	\$	99,704,100		287,074,616
8.	Other		0		0
9.	Assets in plan at end of year ( <b>B</b> ) (1 + 2 + 3 - 4 - 5 - 6 + 7 + 8)	\$ 2	2,209,799,679	\$	2,130,624,450
10.	Approximate rate of return on average invested assets				
	a. Net investment income $(7 - 6 = \mathbf{I})$	\$	97,072,882	\$	284,513,209
	b. Estimated yield based on $(2I/(A + B - I))$		4.58%		15.34%

<sup>\*</sup> Notes: Benefit payments exclude any distributions from the 415 Restoration Plan Columns may not add due to rounding

## CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILTIY AS OF DECEMBER 31, 2014

CALCULATION OF TOTAL ACTUARIAL GAIN OR LOSS	 2014	 2013
1. Unfunded actuarial accrued liability (UAAL) as of prior year	\$ 861,988,246	\$ 1,070,656,825
2. Actual normal cost paid during year	94,355,684	 63,687,150
3. Subtotal (1 + 2)	\$ 956,343,930	\$ 1,134,343,975
4. Interest at prior valuation's rate of 7.75%	70,460,372	85,443,781
5. Contributions during year	(143,820,573)	(134,005,867)
6. Interest on contributions for one-half year	(5,573,047)	(5,192,727)
7. Expected UAAL as of December 31st (3+4+5+6)	\$ 877,410,682	\$ 1,080,589,162
8. Actual UAAL as of December 31st	900,174,491	861,988,246
9. Unexpected Change in UAAL for the period (8 - 7)	\$ 22,763,809	\$ (218,600,916)
SOURCE OF CHANGE IN UAAL		
10. Asset (gain)/loss (See Table 4)	\$ (5,306,152)	\$ (20,673,736)
11. Total unanticipated increase/(decrease) in liabilities for the	28,069,961	(197,927,180)
period (10-9)		
12. Gain/(loss) due to benefit enhancements	0	0
13. Gain/(loss) due to assumption & method changes	 0	 (181,349,121)
14. Liability experience (gain)/loss (11 - 12 - 13)	\$ 28,069,961	\$ (16,578,059)
SOURCE OF LIABILITY (GAINS) AND LOSSES		
15. Salary Increases	\$ 25,904,267	\$ (27,407,515)
16. Service Retirement	(8,536,142)	(10,834,088)
17. Withdrawal	6,632,481	7,568,843
18. Disability Retirement	199,202	263,081
19. Active Mortality	(333,920)	(154,291)
20. Retiree Mortality	134,277	957,344
21. Rehires	1,756,367	3,348,380
22. Other (Data) including proportionate program	 2,313,429	 9,680,187
23. Total Liability Experience Gain/(Loss)	\$ 28,069,961	\$ (16,578,059)

### RELATIVE SIZE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

	-	Relativ Covered I		Relative to Actuarial Value of Present Assets		Relative to Actuarial Accr	
Valuation as of 31-Dec	Unfunded/ (Overfunded) Actuarial Accrued Liability	Covered Payroll	Percent of Covered Payroll	Present Assets	Percent of Present Assets	Actuarial Accrued Liability	Percent of Actuarial Accrued Liability
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1998	(74,816,812)	219,326,742	(34.1%)	952,634,480	(7.9%)	877,817,668	(8.5%)
1999	(60,632,797)	244,538,110	(24.8%)	1,105,121,657	(5.5%)	1,044,488,860	(5.8%)
2000	(18,353,201)	268,635,564	(6.8%)	1,230,971,746	(1.5%)	1,212,618,545	(1.5%)
2001	48,980,941	316,793,390	15.5%	1,311,288,668	3.7%	1,360,269,609	3.6%
2002	189,347,298	322,007,672	58.8%	1,250,851,348	15.1%	1,440,198,646	13.1%
2003	203,040,300	312,790,966	64.9%	1,348,790,502	15.1%	1,551,830,802	13.1%
2004	321,383,795	326,590,164	98.4%	1,356,797,448	23.7%	1,678,181,243	19.2%
2005	395,382,953	348,619,141	113.4%	1,398,798,722	28.3%	1,794,181,675	22.0%
2006	476,226,660	390,963,991	121.8%	1,497,783,958	31.8%	1,974,010,618	24.1%
2007	459,277,808	417,450,797	110.0%	1,653,533,484	27.8%	2,112,811,292	21.7%
2008	765,526,422	448,740,469	170.6%	1,481,377,439	51.7%	2,246,903,861	34.1%
2009	658,466,636	422,539,199	155.8%	1,672,470,344	39.4%	2,330,936,980	28.2%
2010	749,087,565	438,877,002	170.7%	1,711,577,229	43.8%	2,460,664,794	30.4%
2011	932,942,173	451,831,198	206.5%	1,790,902,641	52.1%	2,723,844,815	34.3%
2012	1,070,656,825	470,231,969	227.7%	1,897,722,867	56.4%	2,968,379,692	36.1%
2013	861,988,246	490,553,170	175.7%	2,047,929,504	42.1%	2,909,917,750	29.6%
2014	900,174,491	539,158,693	167.0%	2,193,881,221	41.0%	3,094,055,712	29.1%

### SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Year Ending	Active	Percent		Percent	Average	Percent
31-Dec	Participants	Change	Covered Payroll	Change	Salary	Change
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1998	6,311	-7.2%	219,326,742	0.1%	34,753	7.8%
1999	6,512	3.2%	244,538,110	11.5%	37,552	8.1%
2000	6,894	5.9%	268,635,564	9.9%	38,967	3.8%
2001	7,713	11.9%	316,793,390	17.9%	41,073	5.4%
2002	7,647	-0.9%	322,007,672	1.6%	42,109	2.5%
2003	7,432	-2.8%	312,790,966	-2.9%	42,087	-0.1%
2004	7,489	0.8%	326,590,164	4.4%	43,609	3.6%
2005	7,638	2.0%	348,619,141	6.7%	45,643	4.7%
2006	8,055	5.5%	390,963,991	12.1%	48,537	6.3%
2007	8,358	3.8%	417,450,797	6.8%	49,946	2.9%
2008	8,643	3.4%	448,740,469	7.5%	51,920	4.0%
2009	8,142	-5.8%	422,539,199	-5.8%	51,896	0.0%
2010	8,270	1.6%	438,877,002	3.9%	53,069	2.3%
2011	8,348	0.9%	451,831,198	3.0%	54,124	2.0%
2012	8,387	0.5%	470,231,969	4.1%	56,067	3.6%
2013	8,592	2.4%	490,553,170	4.3%	57,094	1.8%
2014	9,028	5.1%	539,158,693	9.9%	59,721	4.6%

### SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

	Adde	ed to Rolls	Remove	ed from Rolls	Rolls-End of Year			
Year Ending December 31	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2001	224	5,278,490	95	2,046,233	2,592	65,647,094	7.9%	25,327
2002	309	7,754,803	118	2,534,050	2,783	72,520,159	10.5%	26,058
2003	271	7,706,066	59	1,502,757	2,995	78,596,302	8.4%	26,243
2004	227	5,619,478	85	1,741,624	3,137	82,121,249	4.5%	26,178
2005	258	6,699,023	98	2,438,555	3,297	85,324,686	3.9%	25,879
2006	259	6,788,190	89	1,883,938	3,467	90,312,037	5.8%	26,049
2007	289	8,523,459	123	2,262,126	3,633	96,071,149	6.4%	26,444
2008	290	8,299,468	88	2,056,217	3,835	101,840,870	6.0%	26,556
2009	331	9,953,411	80	1,630,148	4,086	109,656,152	7.7%	26,837
2010	341	10,495,807	92	2,029,423	4,335	117,954,059	7.6%	27,210
2011	324	9,851,119	117	2,785,375	4,542	124,748,580	5.8%	27,466
2012	405	13,035,228	116	3,011,032	4,831	134,653,163	7.9%	27,873
2013	387	12,451,142	98	2,176,950	5,120	144,755,297	7.5%	28,273
2014	397	12,737,257	121	2,568,479	5,396	154,937,553	7.0%	28,713

### SOLVENCY TEST

	Aggregated Accrued Liabilities for						
	Active and		Active and Inactive		Portions	of Accrued Liab	ilities Covered
	Inactive		Members			by Reported As	sets
Valuation Date	Members Contributions	Retirees and Beneficiaries	(Employer Financed Portion)	Reported Assets	(5)/(2)	[(5)-(2)]/3	[(5)-(2)-(3)]/(4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
December 31, 2001	248,579,180	654,307,118	457,383,311	1,311,288,668	100.0%	100.0%	89.3%
December 31, 2002	265,812,595	718,187,586	456,198,465	1,250,851,348	100.0%	100.0%	58.5%
December 31, 2003	252,182,701	777,100,825	522,547,276	1,348,790,502	100.0%	100.0%	61.1%
December 31, 2004	261,905,526	812,266,336	604,009,381	1,356,797,448	100.0%	100.0%	46.8%
December 31, 2005	280,994,642	848,185,652	665,001,381	1,398,798,722	100.0%	100.0%	40.5%
December 31, 2006	295,166,238	904,166,079	774,678,301	1,497,783,958	100.0%	100.0%	38.5%
December 31, 2007	333,340,167	968,493,997	810,977,128	1,653,533,484	100.0%	100.0%	43.4%
December 31, 2008	357,423,035	1,025,407,475	864,073,351	1,481,377,439	100.0%	100.0%	11.4%
December 31, 2009	362,288,592	1,109,773,550	858,874,838	1,672,470,344	100.0%	100.0%	23.3%
December 31, 2010	377,651,365	1,195,328,215	887,685,214	1,711,577,229	100.0%	100.0%	15.6%
December 31, 2011	413,944,399	1,267,467,354	1,042,433,062	1,790,902,641	100.0%	100.0%	10.5%
December 31, 2012	417,481,360	1,375,244,710	1,175,653,622	1,897,722,867	100.0%	100.0%	8.9%
December 31, 2013	436,164,975	1,478,146,019	995,606,756	2,047,929,504	100.0%	100.0%	13.4%
December 31, 2014	453,220,166	1,580,320,342	1,060,515,204	2,193,881,221	100.0%	100.0%	15.1%

### SCHEDULE OF FUNDING PROGRESS

** *			Unfunded Actuarial		Annual	<b>T</b> TA A <b>T</b>
Valuation Date	Actuarial Value	Actuarial Accrued	Accrued Liability	Funded Ratio	Covered	UAAL as % of
	of Assets (AVA)	Liability (AAL)	(UAAL) (3) - (2)	(2)/(3)	Payroll	Payroll (4)/(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
December 31, 1998	952.6	877.8	(74.8)	108.5%	219.3	(34.1%)
December 31, 1999	1,105.1	1,044.5	(60.6)	105.8%	244.5	(24.8%)
December 31, 2000	1,231.0	1,212.6	(18.4)	101.5%	268.6	(6.8%)
December 31, 2001	1,311.3	1,360.3	49.0	96.4%	316.8	15.5%
December 31, 2002	1,250.9	1,440.2	189.3	86.9%	322.0	58.8%
December 31, 2003	1,348.8	1,551.8	203.0	86.9%	312.8	64.9%
December 31, 2004	1,356.8	1,678.2	321.4	80.8%	326.6	98.4%
December 31, 2005	1,398.8	1,794.2	395.4	78.0%	348.6	113.4%
December 31, 2006	1,497.8	1,974.0	476.2	75.9%	391.0	121.8%
December 31, 2007	1,653.5	2,112.8	459.3	78.3%	417.5	110.0%
December 31, 2008	1,481.4	2,246.9	765.5	65.9%	448.7	170.6%
December 31, 2009	1,672.5	2,330.9	658.5	71.8%	422.5	155.8%
December 31, 2010	1,711.6	2,460.7	749.1	69.6%	438.9	170.7%
December 31, 2011	1,790.9	2,723.8	932.9	65.7%	451.8	206.5%
December 31, 2012	1,897.7	2,968.4	1,070.7	63.9%	470.2	227.7%
December 31, 2013	2,047.9	2,909.9	862.0	70.4%	490.6	175.7%
December 31, 2014	2,193.9	3,094.1	900.2	70.9%	539.2	167.0%

Note: Dollar amount in millions.

### STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS (Effective as of December 31, 2014)

### A. ACTUARIAL ASSUMPTIONS

1. Investment Return Rate (adopted effective December 31, 2002)

Nominal Return of 7.75%: Includes inflation of 3.25%, gross real return of 4.63%, administrative expenses of -0.13%, investment expenses of -0.30%, and additional return of 0.30% due to alpha.

### 2. Mortality

a. Nondisabled annuitants (adopted effective December 31, 2012)

Healthy retirees and beneficiaries – The RP-2000 Mortality Table with the White Collar adjustment, with generational improvements projected from the year 2000 using the AA projection table with multipliers based on plan experience (see Item 21 for further discussion of mortality improvement). The following are sample rates for the year 2000:

Nondisabled Annuity Mortality Rates Before Projection			
	(but after Multiplier A	pplied)	
Age	Males	Females	
50	0.2176%	0.1907%	
55	0.3632%	0.3103%	
60	0.6141%	0.5612%	
65	1.2167%	1.0381%	
70	2.1203%	1.8222%	
75	3.6997%	3.0860%	
80	6.5353%	5.1696%	
85	11.5132%	8.9032%	
90	19.6100%	15.1381%	
Multiplier	110%	120%	

### b. <u>Disabled</u> (adopted effective December 31, 2012)

Disabled annuitants – The RP-2000 Mortality Table for Disabled lives projected using the AA projection table from the year 2000 with multipliers based on plan experience (see Item 21 for further discussion). The following are sample rates for the year 2000:

Disabled Annuity Mortality Rates Before Projection (but after Multiplier Applied)				
Age	Males	Females		
50	4.3463%	1.3842%		
55	5.3163%	1.9853%		
60	6.3063%	2.6207%		
65	7.5261%	3.3631%		
70	9.3875%	4.5162%		
75	12.3101%	6.2676%		
80	16.4058%	8.6774%		
85	21.2405%	12.0244%		
90	27.5112%	16.8059%		
Multiplier	150%	120%		

### c. Active members (adopted effective December 31, 2012)

Active employees – The RP-2000 Mortality Table for employees projected using the AA projection table from the year 2000 with multipliers based on plan experience (see Item 21 for further discussion). The following are sample rates for 2000:

Active Employee Mortality Rates Before Projection (but after Multiplier Applied)				
Age	Males	Females		
25	0.0263%	0.0145%		
30	0.0311%	0.0185%		
35	0.0541%	0.0333%		
40	0.0755%	0.0494%		
45	0.1056%	0.0787%		
50	0.1497%	0.1173%		
55	0.2120%	0.1768%		
60	0.3415%	0.2752%		
65	0.5301%	0.4075%		
Multiplier	70%	70%		

3. <u>Retirement Rates</u>: (adopted effective December 31, 2012)
The following rates of retirement are assumed for members eligible for normal retirement.

Males       Females         45 & under       25.0%       27.0%         46       25.0%       27.0%         47       25.0%       27.0%         48       25.0%       27.0%         49       25.0%       26.0%         50       25.0%       26.0%         51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
45 & under       25.0%       27.0%         46       25.0%       27.0%         47       25.0%       27.0%         48       25.0%       27.0%         49       25.0%       26.0%         50       25.0%       26.0%         51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
46       25.0%       27.0%         47       25.0%       27.0%         48       25.0%       27.0%         49       25.0%       26.0%         50       25.0%       26.0%         51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
47       25.0%       27.0%         48       25.0%       27.0%         49       25.0%       27.0%         50       25.0%       26.0%         51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         59       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
48       25.0%       27.0%         49       25.0%       27.0%         50       25.0%       26.0%         51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
49       25.0%       27.0%         50       25.0%       26.0%         51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
50       25.0%       26.0%         51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
51       25.0%       26.0%         52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
52       25.0%       26.0%         53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
53       25.0%       26.0%         54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
54       25.0%       26.0%         55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
55       25.0%       25.0%         56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
56       25.0%       25.0%         57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
57       25.0%       25.0%         58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
58       25.0%       25.0%         59       25.0%       25.0%         60       25.0%       24.0%         61       25.0%       24.0%
59 25.0% 25.0% 60 25.0% 24.0% 61 25.0% 24.0%
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66 25.0% 21.0%
67 25.0% 21.0%
68 25.0% 21.0%
69 25.0% 21.0%
70 25.0% 20.0%
71 25.0% 20.0%
72 25.0% 20.0%
73 25.0% 20.0%
74 & older 100.0% 100.0%

Group B members are assumed to retire at twice the applicable rate upon the first year they attain eligibility for normal retirement and at a rate of 50% at age 65. Early retirement rates (of 1% at age 55 increasing by 1% every two years to 5% at ages 63 and 64) apply for Group B members.

### 4. Rates of Decrement Due to Withdrawal (adopted effective December 31, 2012)

Rates of withdrawal are comprised of a select period for the first 5 years of employment and ultimate rates based on years of service from retirement after the end of the select period. Sample rates during the select period are shown below:

				Males				
			Year of Employment					
	Age	1	2	3	4	5		
_								
	25	0.1771	0.1549	0.1358	0.1145	0.1122		
	30	0.1610	0.1408	0.1234	0.1040	0.1019		
	35	0.1532	0.1339	0.1088	0.0855	0.0802		
	40	0.1389	0.1214	0.0946	0.0736	0.0706		
	45	0.1256	0.1098	0.0845	0.0675	0.0675		
	50	0.1155	0.1010	0.0803	0.0666	0.0670		
	55	0.1094	0.0957	0.0820	0.0699	0.0668		
	60	0.1125	0.0983	0.0888	0.0769	0.0668		

		Females				
		Year of Employment				
Age	1	2	3	4	5	
25	0.2072	0.1936	0.1760	0.1461	0.0999	
30	0.2012	0.1881	0.1709	0.1418	0.0962	
35	0.2000	0.1870	0.1653	0.1222	0.0842	
40	0.1842	0.1721	0.1484	0.1087	0.0772	
45	0.1642	0.1534	0.1346	0.1021	0.0772	
50	0.1381	0.1291	0.1207	0.0976	0.0783	
55	0.1329	0.1266	0.1142	0.0911	0.0832	
60	0.1404	0.1338	0.1206	0.1005	0.0966	

After the select period ends, rates of withdrawal are based on the number of years from employment. Sample rates are shown below for males and females

Years from Eligibility for Unreduced Retirement	Rates of W After Sele	
4	Males	<u>Females</u>
1	0.0112	0.0108
2	0.0153	0.0160
3	0.0182	0.0201
4	0.0207	0.0237
5	0.0228	0.0270
6	0.0248	0.0299
7	0.0265	0.0326
8	0.0281	0.0352
9	0.0296	0.0377
10	0.0310	0.0400
11	0.0323	0.0422
12	0.0336	0.0444
13	0.0348	0.0465
14	0.0360	0.0485
15	0.0371	0.0504
16	0.0381	0.0523
17	0.0392	0.0541
18	0.0402	0.0559
19	0.0411	0.0577
20	0.0421	0.0594
21	0.0430	0.0610
22	0.0439	0.0627
23	0.0448	0.0643
24	0.0456	0.0659
25	0.0464	0.0674

5. Disability Rates\* (adopted effective December 31, 2006)

Sample rates are shown below:

	Rates of Decrement Due to Disability		
Age	Males	Females	
20	.000039	.000016	
25	.000048	.000023	
30	.000101	.000050	
35	.000304	.000152	
40	.000837	.000419	
45	.001759	.000880	
50	.003109	.001554	
55	.005079	.002542	
60	.007497	.003726	

<sup>\*</sup> Rates are for disability due to all causes, occupational disability rates are assumed to be 10% of all causes.

### 6. Rates of Salary Increase (adopted effective December 31, 2012)

Years of	Promotional Rate of	Total Annual Rate of Increase Including 3.25% Inflation Component
Service	Increase	and 1.25% Productivity Component
1-7	1.50%	6.00%
8	1.25%	5.75%
9	0.75%	5.25%
10	0.50%	5.00%
11 - 19	0.25%	4.75%
20 or more	0.00%	4.50%

### 7. <u>DROP Participation:</u> (adopted effective December 31, 2012)

It was assumed that 15% of retiring active members with at least 20 years of service would elect a "Backward" DROP. It is assumed that all members who Back Drop will elect to DROP back to the date that would provide the greatest actuarial value to the member.

8. Married Percentage: (adopted effective December 31, 1997)

100% of the active members are assumed to be married.

- 9. There will be no recoveries once disabled: (adopted effective December 31, 1997)
- 10. Spousal Age Difference: (adopted effective December 31, 2012)

Males are assumed to be three years older than their spouses.

11. Normal Form of Payment: (adopted effective December 31, 1997)

It is assumed that all retiring members will elect the Life only form of payment with a guaranteed return of accumulated employee contributions.

12. Crediting Rate on Employee Contributions: (adopted effective December 31, 2002)

It is assumed that the interest credit rate on employee contributions will be 6.0%.

13. Payroll Growth Rate: (adopted December 31, 2002)

It is assumed that payroll will grow at 3.50% annually.

14. <u>Individual salaries used to project benefits:</u> (adopted effective December 31, 1997)

Rates of pay as of the valuation date are reported for all employees.

15. Pay increase timing: (adopted effective December 31, 1997)

Middle of calendar year.

16. <u>Decrement timing:</u> (adopted effective December 31, 1997)

Decrements of all types are assumed to occur mid-year.

17. Eligibility testing: (adopted effective December 31, 2002)

Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

### 18. <u>Decrement relativity:</u> (adopted effective December 31, 2002)

Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

### 19. Incidence of Contributions: (adopted effective December 31, 2002)

Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.

### 20. Benefit Service: (adopted December 31, 1997)

All members are assumed to accrue 1 year of eligibility service each year.

### 21. Mortality Improvement:

The base mortality tables are anchored at the year 2000. To account for future mortality improvement, the base mortality rates shown in Item 2 are projected forward using scale AA for all future years.

### 22. Service Purchases (military, permissive, and sick leave conversion):

No service purchases of any type are assumed. Any gains or losses due to these purchases are recognized in the valuation following the purchase.

#### ACTUARIAL VALUE OF ASSETS

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the Excess (Shortfall) between expected investment return and actual income. The expected investment return each year is calculated based on the actuarial value of assets with the difference from actual income smoothed in over five years in 20% increments. If the current year's difference is opposite sign of the prior years' deferred Excesses/(Shortfalls), then the prior years' bases (starting with the oldest) are reduced dollar for dollar along with the current year's base. Any remaining bases are then recognized over five years (20% per year) from their initial creation.

If the resulting preliminary asset value is less than 80% or more than 120% of the market value of assets, then 1/3 of the amount outside of the 80%-120% corridor is recognized in the final actuarial value of assets.

### B. ACTUARIAL FUNDING METHOD

The actuarial accrued liability is determined using the Entry Age Normal actuarial cost method. This method assigns the System's total actuarial present value of future benefits to various periods. The actuarial accrued liability is assigned to years prior to the valuation and the normal cost is assigned to the year following the valuation. The remaining costs are assigned to future years.

The normal cost is determined on an individual basis using the Individual Entry Age Normal Cost method. The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs where future normal costs are based on the benefit provisions that are applicable to each individual member. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of assets.

### C. FUNDING PERIOD

The funding period is determined using an open group projection. In the open group projection, the demographic assumptions are applied to the current active employees and any employees that are assumed to leave employment are replaced one for one with a new employee. Over time this results in the change of the employee group from mostly Group A members to Group B members. The projection is built to assume no gains or losses on the actuarial accrued liability or the actuarial value of assets. The funding period is the length of time it takes in the open group projection for the actuarial value of assets to exceed the actuarial accrued liability.

In the projection, new members' pay are assumed to increase at 3.75% year over year (i.e. a new employee in 2014 is assumed to be hired at a salary that is 3.75% greater than a new employee hired in 2013. The 3.75% growth rate is between our inflation assumption of 3.25% and our wage inflation assumption of 4.50% (ultimate salary increase assumption showing in Item A.6.) This new entrant salary growth rate is expected to produce a payroll with grows at a compounded rate of approximately 3.50% over the length of the funding period.

### D. CHANGES IN ASSUMPTIONS AND METHODS

There have been no changes in the actuarial assumptions and methods since the prior valuation.

### SUMMARY OF BENEFIT PROVISIONS OF THE RETIREMENT PLAN AS OF DECEMBER 31, 2014

### A. EFFECTIVE DATE

January 1, 1941.

### B. ELIGIBILITY AND PARTICIPATION

Any regular and permanent employee of the City of Austin, excluding all civil service commissioned police officers and firefighters, the Mayor and members of the City Council and all part-time employees who work less than 75 percent of a normal work week.

Members originally hired prior to January 1, 2012 are classified as Group A members and members hired on or after January 1, 2012 are classified as Group B members.

Unless noted otherwise, the provisions for Group A and Group B are the same.

#### C. MEMBERSHIP SERVICE

The period of time during which an eligible employee pays into and keeps on deposit the contribution prescribed to be paid by the employee into the System.

### D. AVERAGE FINAL COMPENSATION

The average of the monthly compensation for the 36 calendar months of highest compensation during the last 120 months prior to termination. The monthly compensation used in the determination of benefits cannot exceed the compensation limits of Internal Revenue Code \$401(a)(17) for the applicable period. The limit for 2011 is up to \$20,416.67 for persons who first become members after 1995 (members hired prior to 1996 have no limit on their compensation).

### E. CITY AND MEMBER CONTRIBUTION RATES

The City currently contributes a base rate of 8.00% of pay for each active member. Under the Amended Supplemental Funding Plan, the City is providing an additional contribution for each active member. Beginning October 1, 2012, this additional contribution became 10% of pay, for a total city contribution of 18%. Each active member contributes 8.00% of pay. These employee contributions are made under a pre-tax 401(h) pick-up arrangement.

# SUMMARY OF BENEFIT PROVISIONS OF THE RETIREMENT PLAN AS OF DECEMBER 31, 2014 (Continued)

#### F. RETIREMENT BENEFITS

#### 1. Normal Retirement

### a. <u>Eligibility</u>:

Group A - A participant may retire upon attaining age 62, or any age with 23 years of service, or attaining age 55 with 20 years of service.

Group B - A participant may retire upon attaining age 62 with 30 years of service, or at age 65 with 5 years of service.

### b. Monthly Benefit:

Group A - 3.00% of average final compensation times years of service.

Group B - 2.50% of average final compensation times years of service.

c. <u>Payment Form</u>: Benefits are paid as a monthly life annuity to the participant, with a provision that should the participant die prior to receiving monthly payments whose sum is greater than or equal to the participant's accumulated employee contributions, then the participant's beneficiary shall receive a lump-sum equal to the excess of the participant's accumulated employee contributions with interest over the sum of the monthly payments received.

### d. Optional Forms of Payment:

- i) Joint and contingent annuity with either 100%, 66 2/3%, or 50% of the reduced retirement income payable for the life of the contingent annuitant upon the death of the retiring participant, with the provision that, should the contingent annuitant predecease the participant, the monthly annuity will revert to the amount that would have been payable under the normal form of payment,
- ii) Joint and 66 2/3% last survivor provides a reduced retirement income payable as long as both the member and the joint annuitant are alive, and upon the death of either the member or the joint annuitant, the benefit reduces to 2/3 of such amount for the remainder of the life of the last survivor,

- iii) Period certain and life annuity with 15 years of payments guaranteed, or
- e. <u>Deferred Retirement Option Program (DROP)</u>: A member may elect to retroactively participate in the System's DROP (i.e. a Backward DROP). The member would receive a lump-sum payment equal to 90% of the sum of the monthly annuities the participant would have received if the member had retired at the DROP entry date. No COLAs are included but changes in the benefit multiplier are reflected. The maximum period a member may retroactively elect under the DROP is 60 months.

#### 2. Early Retirement:

#### a. Eligibility:

Group A – Currently there are no reduced retirement benefits under the plan.

Group B - A participant may retire with a reduced benefit upon attaining age 55 with 10 years of service.

#### b. Monthly Benefit:

Group A – Not applicable.

Group B – the same formula benefit as determined under normal retirement multiplied by an actuarial equivalent early retirement reduction factor.

#### G. DISABILITY RETIREMENT

- 1. <u>Eligibility</u>: If the employee is terminated by reason of a total and permanent disability which prevents the employee from engaging in any employment duties. If the employee has less than five years of service, the disability must be job related.
- 2. <u>Monthly Benefit</u>: Same as Normal Retirement benefit using pay and service at date of disability.
- 3. <u>Form of Payment</u>: The normal form of payment that is available to a member taking normal retirement and the optional forms of payments described in F.1.d.i) and F.1.d.i) above.

#### H. VESTING OF BENEFITS

#### 1. Vesting

An employee is vested according to the following schedule:

Years of	Vested
Vesting Service	Percentage
Less than 5	0%
5 or more	100%

#### Benefits Upon Vesting

A vested participant is entitled to the retirement benefit payable at normal retirement earned to the date of participant's termination multiplied by his/her vested percentage, or a refund of the employee's accumulated employee contributions with interest.

#### I. DEATH IN SERVICE

- 1. Eligibility: All active members.
- 2. Benefit: The amount of the benefit payable to the beneficiary is:
  - a. Employee eligible for retirement at date of death:

The surviving spouse if any may elect to receive an annuity equal to the monthly benefit as if the member had retired under any retirement option that would have been available to the member at the end of the month in which the member died. If there is no surviving spouse, then the beneficiary may elect to receive a 15 years certain and life annuity. The surviving spouse or beneficiary instead of electing the annuity may elect to receive a death benefit equal to twice the member's accumulated employee contributions with interest.

b. Employee not eligible for retirement at date of death:

A refund of the member's accumulated deposits (with interest) plus a death benefit from COA ERS equal to the member's accumulated deposits (with interest), but excluding any purchases for Non-contributory time, prior military service purchases, or Supplementary Service Credit.

#### J. RETIREE LUMP-SUM DEATH BENEFIT

Upon death of a retired member, a \$10,000 lump-sum death benefit is payable. This benefit is also payable upon the death of an active member eligible for retirement whose surviving spouse or beneficiary elects to receive an annuity.

#### K. COST-OF-LIVING ADJUSTMENT (COLA)

On January 1 of each year the Board may approve a cost-of-living adjustment for those retirees who retired on or before December 31 of the previous year. The maximum adjustment which can be approved is 6%. The amount of the adjustment is set by the Board upon recommendation by the System's actuary that such an adjustment will not make the Fund financially unsound, and the adjustment is not inconsistent with the Code. The adjustment is prorated for any benefit which has been in effect for less than a year, with the proration being 1/12 for each monthly payment received during the prior year.

#### L. LUMP-SUM ADDITIONAL BENEFIT PAYMENT

Once each year the Board may approve a lump-sum additional benefit payment to be paid to those members and beneficiaries currently in payment status. The additional payment would be equal to a percentage of the member's monthly annuity with a maximum percentage of 100%.

### M. <u>LEGISLATED PLAN CHANGES ENACTED BY 1995 LEGISLATURE</u>

#### 1. 2.3% Multiplier

The benefit multiplier was increased from 2.2% per year of service to 2.3% per year of service effective October 1995.

#### 2. 2.3% Retiree Gross-up

Effective October 1995, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.3% multiplier.

#### 3. \$10,000 Retiree Lump-Sum Death Benefit

The lump-sum death benefit payable upon the death of a retiree was increased from \$2,000 to \$10,000.

#### 4. Plan Participation Begins at Date of Hire

The six-month service requirement for participation was eliminated. Current active members were granted service for the period between their date of hire and their date of participation, up to six months.

#### N. LEGISLATED PLAN CHANGES ENACTED BY 1997 LEGISLATURE

#### 1. <u>2.6% Multiplier</u>

The benefit multiplier was increased from 2.3% per year of service to 2.6% per year of service effective October 1997.

#### 2. 2.6% Retiree Gross-up

Effective October 1997, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.6% multiplier.

#### 3. Military Service Purchase

Increased the number of months of military service that may be purchased from 24 to 48.

#### 4. Noncontributory Service Purchase

Allowed an employee to purchase noncontributory service for the following periods of time: (1) while employee was on workers' compensation leave, (2) while employee was on an authorized leave of absence, and (3) while employee performed service for the employer in a position for which the service was not otherwise creditable. The employee pays the full actuarial cost of the service purchase.

#### 5. Employer Purchase of Creditable Service

Allowed the employer to purchase the amount of service required to qualify an employee for an unreduced retirement benefit at age 55. To be eligible for the purchase, the employee must never have been a highly compensated employee within the meaning of IRC Section 414(q). The cost of the service purchase is the full actuarial cost of both the benefit and the retirement eligibility.

### O. <u>LEGISLATED PLAN CHANGES ENACTED BY 1999 LEGISLATURE</u>

#### 1. 2.7% Multiplier

The benefit multiplier was increased from 2.6% per year of service to 2.7% per year of service effective October 1999.

#### 2. <u>2.7% Retiree Gross-up</u>

Effective October 1999, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.7% multiplier.

#### 3. 23 & Out Provision

The service requirement at which a participant may retire with an unreduced retirement benefit was decreased from 25 years of Creditable Service to 23 years of Creditable Service.

#### 4. Pop-Up Provisions for Certain Joint and Survivor Payment Options

Certain optional forms of payment which extend coverage to a joint annuitant (Options I, II, and III) were amended so that, should the contingent annuitant predecease the participant, the monthly annuity will revert to the amount that would have been payable under the normal form of payment.

#### 5. <u>LUMP-SUM ADDITIONAL BENEFIT PAYMENT</u>

The Board was given the ability to make an additional payment to members and beneficiaries in payment status in the form of a lump-sum additional benefit payment. The additional payment would be a percentage of the current monthly payment with a maximum percentage of 100%.

#### 6. EMPLOYER PURCHASE OF CREDITABLE SERVICE

Limitations on employer purchases of Creditable Service for a Member before actual retirement were removed.

### P. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2000</u>

#### 1. "415 Restoration of Retirement Income Plan"

Certain highly compensated members may have their retirement annuity limited because of Section 415(b)(1) of the Internal Revenue Code. A plan amendment effective January 1, 2000, provides for COA ERS to pay a benefit payment that exceeds the maximum benefit limitation imposed by the Internal Revenue Code from a separate, non-qualified, pay-as-you-go "Restoration of Retirement Income Plan."

#### 2. 2.98% Multiplier

The benefit multiplier was increased from 2.7% per year of service to 2.98% per year of service effective April 2000.

#### 3. 2.98% Retiree Gross-up

Effective April 2000, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.98% multiplier.

#### 4. "Pop-up" Benefit Amendment

The "pop-up" benefit is extended to retirees who selected the actuarial equivalent of Life Annuity option with underlying options of I, II, or III.

#### Q. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2001

None

#### R. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2002

#### 1. 3.00% Multiplier

Benefit multiplier was increased from 2.98% per year of service to 3.00% per year of service effective January 2002.

#### 2. <u>3.00% Retiree Gross-up</u>

Effective January 2002, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 3.00% multiplier.

#### 3. <u>Deferred Retirement Option Program</u>

A "Backward" DROP was added as an optional benefit effective in 2002. The retiring member may elect to retroactively participate in a DROP. The member would receive a lump-sum payment equal to 90% of the sum of the monthly annuities the participant would have received if the member had retired at the DROP entry date. No COLAs are included but changes in the benefit multiplier are reflected.

#### 4. Purchase of Permissive Time

A member may purchase up to five years of Permissive Time. The purchase price charged to the member is the anticipated actuarial cost to the System for the additional service. Minimum purchase is one month with a maximum of 60 months (5 years) or the number of months needed to reach first eligibility for retirement whichever is less.

#### 5. Conversion of Unused Sick Leave

At retirement an employee may elect to purchase Creditable Service for unused sick leave. The Board requires payment by the Member, and then by the City of the equivalent amount of retirement contributions that would have been made had the sick hours been exercised as sick hours. An employee must already be eligible for retirement to purchase the service.

#### S. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2003

1. "Pop-up" Benefit Amendment

"Pop-up" benefit was extended to any Joint and Survivor option (including level income options), other than Joint and Last Survivor.

2. Permissive Time Amendment

Permissive Time resolution was amended removing the provision that restricts members from purchasing Permissive Time in excess of the amount needed to reach first retirement eligibility.

- T. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2004

  None
- U. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2005</u>

  None
- V. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2006
- W. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2007</u>
  None
- X. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2008

  None
- Y. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2009

  None
- Z. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2010</u>

  None

#### AA. LEGISLATED PLAN CHANGES ENACTED BY THE 2011 LEGISLATURE

#### 1. Retirement Provisions

For members hired on after January 1, 2012 (Group B members), changed the eligibility for normal retirement to age 65 with 5 years of service, or age 62 with 30 years of service. Also for members hired on or after January 1, 2012, added an eligibility for early retirement upon age 55 with 10 years of service.

#### 2. Benefit Multiplier

For members hired on after January 1, 2012, the benefit multiplier was changed to 2.5% per year of service. Early retirement benefits would be reduced on an actuarially equivalent basis.

#### BB. BENEFIT ENHANCEMENTS ENACTED IN 2012

None

#### CC. BENEFIT ENHANCEMENTS ENACTED IN 2013

None

#### DD. BENEFIT ENHANCEMENTS ENACTED IN 2014

None

#### **DEFINITION OF TERMS**

#### 1. Actuarial Cost Method

A method for determining the actuarial present value of future benefits and allocating such value to time periods in the form of a normal cost and an actuarial accrued liability.

#### 2. Present Value of Future Benefits

This is computed by projecting the total future benefit cash flow from the System, using actuarial assumptions, and then discounting the cash flow to the valuation date.

#### 3. Normal Cost

Computed differently under different actuarial cost methods, the normal cost generally represents the value of the portion of the participant's anticipated retirement, termination, and/or death and disability benefits accrued during a year.

#### 4. Actuarial Accrued Liability

Computed differently under different actuarial cost methods. Generally actuarial accrued liability represents the value of the portion of the participant's anticipated retirement, termination, and/or death and disability benefits accrued as of the valuation date.

#### 5. Entry Age Actuarial Cost Method

A method under which a participant's actuarial present value of future benefits is allocated on a level basis over the earnings of the participant between his/her entry into the System and his/her assumed exit.

#### 6. Unfunded Actuarial Accrued Liability

The difference between total actuarial present value of future benefits over the sum of the tangible assets of the System and the actuarial present value of the members' future normal costs. The System is underfunded if the difference is positive and overfunded if the difference is negative.

#### 7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to the System, as valued by the actuary for purposes of the actuarial valuation.

### **DEFINITION OF TERMS** (Continued)

#### 8. Actuarial Gain or Loss

From one valuation to the next, if the experience of the plan differs from that anticipated by the actuarial assumptions, an actuarial gain or loss occurs. For example, an actuarial gain would occur if the assets in the trust had a yield of 12% based on actuarial value, while the assumed yield on the actuarial value of assets was 7.75%.



The Statistical Section provides additional historical perspective, context, and detail to assist the reader in using the information in the financial statements and note disclosures to understand and assess the economic condition of the City of Austin Employees' Retirement System (COA ERS). In compliance with *GASB Statement No. 44, Economic Condition Reporting: The Statistical Section*, schedules are classified into the following categories: Demographic and Economic Information, Operating Information, and Financial Trends.

#### STATISTICAL TABLES

Table		
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	<b>Demographic and Economic Information</b> – designed to assist the reader in understanding the environment in which COA ERS operates.	
15A	Distribution of All Active Participants by Age and Length of Service	44
15B	Distribution of Group A Active Participants by Age and Length of Service	45
15C	Distribution of Group B Active Participants by Age and Length of Service	46
16	Distribution of All Active Participants by Service and Current Rate of Pay	47
	<b>Operating Information</b> – provides contextual information to help the reader understand how COA ERS' financial information relates to the services it provides and the activities it performs.	
17	Schedule of Average Benefit Payments	48
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**Sources:** Schedules and data are provided by the consulting actuary, Gabriel Roeder Smith & Company, unless otherwise noted.

## DISTRIBUTION OF ALL ACTIVE PARTICIPANTS BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2014

Attained Age	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Number of Employees	A	verage nnual alary
Under 25	101	42	18	3	1	1	0	0	0	0	0	0	166	\$	35,290
25-29	195	172	83	60	50	85	3	0	0	0	0	0	648		41,961
30-34	227	150	120	82	89	318	71	1	0	0	0	0	1,058		48,998
35-39	161	119	85	63	83	376	212	67	2	0	0	0	1,168		56,032
40-44	140	100	82	57	54	371	282	203	68	1	0	0	1,358		60,396
45-49	98	65	66	43	63	335	252	206	175	26	0	0	1,329		64,376
50-54	83	66	46	46	46	283	249	252	175	73	18	0	1,337		65,920
55-59	52	46	30	46	44	218	242	196	142	86	14	1	1,117		66,726
60-64	19	26	17	25	20	133	118	115	81	44	16	3	617		69,012
65 & Over	7	5	3	10	5	56	63	29	23	13	10	6	230		69,576
All Ages	1,083	791	550	435	455	2,176	1,492	1,069	666	243	58	10	9,028	\$	59,721

## DISTRIBUTION OF GROUP A ACTIVE PARTICIPANTS BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2014

Attained Age	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Number of Employees	A	verage nnual Salary
Under 25	0	0	0	3	1	1	0	0	0	0	0	0	5	\$	34,907
25-29	1	0	3	59	49	85	3	0	0	0	0	0	200		45,709
30-34	1	0	2	81	88	316	71	1	0	0	0	0	560		51,435
35-39	1	2	2	63	83	376	212	67	2	0	0	0	808		59,605
40-44	0	1	1	57	54	371	282	203	68	1	0	0	1,038		62,304
45-49	1	0	2	42	61	334	252	206	175	26	0	0	1,099		66,241
50-54	0	0	2	45	46	283	248	252	175	73	18	0	1,142		67,704
55-59	0	0	1	45	44	217	241	196	142	86	14	1	987		67,790
60-64	0	0	0	24	20	131	118	115	81	44	16	3	552		69,899
65 & Over	0	0	0	9	4	54	63	29	23	13	10	6	211		70,285
All Ages	4	3	13	428	450	2,168	1,490	1,069	666	243	58	10	6,602	\$	63,828

## DISTRIBUTION OF GROUP B ACTIVE PARTICIPANTS BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2014

Attained Age	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Number of Employees	A	verage nnual Salary
Under 25	101	42	18	0	0	0	0	0	0	0	0	0	161	\$	35,302
25-29	194	172	80	1	1	0	0	0	0	0	0	0	448		40,288
30-34	226	150	118	1	1	2	0	0	0	0	0	0	498		46,257
35-39	160	117	83	0	0	0	0	0	0	0	0	0	360		48,015
40-44	140	99	81	0	0	0	0	0	0	0	0	0	320		54,207
45-49	97	65	64	1	2	1	0	0	0	0	0	0	230		55,461
50-54	83	66	44	1	0	0	1	0	0	0	0	0	195		55,471
55-59	52	46	29	1	0	1	1	0	0	0	0	0	130		58,644
60-64	19	26	17	1	0	2	0	0	0	0	0	0	65		61,482
65 & Over	7	5	3	1	1	2	0	0	0	0	0	0	19		61,704
All Ages	1,079	788	537	7	5	8	2	0	0	0	0	0	2,426	\$	48,543

## DISTRIBUTION OF ALL ACTIVE PARTICIPANTS BY SERVICE AND CURRENT RATE OF PAY AS OF DECEMBER 31, 2014

Completed	Number of	Total Average
Years of Service	Employees	Salary
0	1,083	\$ 47,316
1	791	48,943
2	550	49,649
3	435	55,954
4	455	57,290
5-9	2,176	59,294
10-14	1,492	64,648
15-19	1,069	67,782
20-24	666	73,590
25-29	243	79,221
30-34	58	76,025
35+	10	87,895
All Years	9,028	\$ 59,721

### SCHEDULE OF AVERAGE BENEFIT PAYMENTS

<b>Retirement Effective Dates</b>			Years C	reditable S	ervice		
January 1, 2009 to December 31, 2014	0-4	5-9	10-14	15-19	20-24	25-29	30+
Period 01/01/2009 to 12/31/2009							
Average Monthly Benefit	\$308	\$925	\$1,439	\$2,133	\$3,211	\$3,804	\$4,158
Average Final Salary	\$40,780	\$53,705	\$51,213	\$54,996	\$62,085	\$61,276	\$53,537
Number of Active Retirees	17	35	34	39	124	46	9
Number of Metive Retirees	17	33	37	3)	124	40	
Period 01/01/2010 to 12/31/2010							
Average Monthly Benefit	\$257	\$740	\$1,600	\$2,089	\$3,134	\$4,115	\$5,936
Average Final Salary	\$44,138	\$44,485	\$55,981	\$53,598	\$58,538	\$66,432	\$84,299
Number of Active Retirees	22	40	35	31	96	64	15
	`						
Period 01/01/2011 to 12/31/2011							
Average Monthly Benefit	\$206	\$798	\$1,409	\$2,431	\$3,273	\$4,622	\$4,891
Average Final Salary	\$39,835	\$47,423	\$53,714	\$61,051	\$63,401	\$73,660	\$67,047
Number of Active Retirees	22	42	32	32	98	50	9
Period 01/01/2012 to 12/31/2012							
Average Monthly Benefit	\$263	\$890	\$1,591	\$2,366	\$3,158	\$4,669	\$4,490
Average Final Salary	\$41,271	\$50,472	\$55,358	\$57,742	\$61,017	\$74,302	\$60,811
Number of Active Retirees	12	46	52	33	109	73	17
Period 01/01/2013 to 12/31/2013							
Average Monthly Benefit	\$249	\$701	\$1,541	\$2,325	\$3,330	\$4,714	\$5,418
Average Final Salary	\$38,808	\$43,790	\$54,621	\$57,891	\$64,170	\$76,055	\$71,320
Number of Active Retirees	19	43	43	47	140	46	17
Period 01/01/2014 to 12/31/2014							
Average Monthly Benefit	\$304	\$934	\$1,748	\$2,059	\$3,457	\$4,653	\$5,142
Average Final Salary	\$41,458	\$54,808	\$61,215	\$55,462	\$66,771	\$74,120	\$70,799
Number of Active Retirees	23	51	50	39	115	56	22

### RETIRED MEMBERS BY TYPE OF BENEFIT (AS OF DECEMBER 31, 2014)

	Number of														
Amount of	Retired	Typ	e of Ret	irement <sup>a</sup>						Option S	elected <sup>b</sup>				
Monthly Benefit	Members	1	2	3	4	Unmod.	1	2	3	4	5	6	7	8	9
Deferred						990									
\$1-250	163	138	8	3	14	96	50	6	3				8		
251-500	252	203	24	11	14	117	93	15	8	4		1	12	2	
501-750	290	223	40	12	15	124	101	23	17	5	4	2	12		2
751-1,000	321	243	49	16	13	132	102	27	22	6	4	13	10	1	4
1,001-1,250	301	234	42	17	8	95	110	18	16	10	14	13	10		15
1,251-1,500	379	308	54	14	3	109	143	28	24	5	21	20	12	1	16
1,501-1,750	393	346	39	8	0	110	136	39	27	5	18	26	17	2	13
1,751-2,000	402	353	37	9	3	117	143	44	20	4	25	25	7		17
Over \$2,000	2,895	2,738	136	13	8	840	1,173	253	192	34	97	93	89	17	107
								_							
Total	5,396	4,786	429	103	78	2,730	2,051	453	329	73	183	193	177	23	174

#### Notes:

Unmodified Plan: life annuity

The following options reduce the retired member's monthly benefit:

Option 1 - Beneficiary receives 100 percent of member's reduced monthly benefit

Option 2 - Beneficiary receives 50 percent of member's reduced monthly benefit

Option 3 - Beneficiary receives 66-2/3 percent of member's reduced monthly benefit

Option 4 - Survivor receives 66-2/3 percent of member's reduced monthly benefit upon first death

Option 5 - Level income option payable for life of retiree

Option 6 - Level income option, beneficiary receives 66-2/3 percent of member's monthly benefit

Option 7 - Life annuity with 15 years guaranteed

Option 8 - Other participant created actuarial equivalent forms of payment

Option 9 - Level income option, beneficiary receives 100 percent of member's monthly benefit

a Type of Retirement

<sup>1.</sup> Normal retirement for age and service

<sup>2.</sup> Beneficiary payment, normal retirement or death in service

<sup>3.</sup> Disability retirement

<sup>4.</sup> QDRO - alternate payee

<sup>&</sup>lt;sup>b</sup> Option Selected:

<sup>\*</sup>The number of Retired Members and the number of options selected are not equal due to the inclusion of 990 deferred vested members in the Unmodified option selection.

### SCHEDULE OF PARTICIPATING EMPLOYERS

The City of Austin and the City of Austin Employees' Retirement System are the only participating employers in the plan.



### CHANGE IN NET POSITION, LAST TEN FISCAL YEARS

_					Fiscal	l Year				
_	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Additions		_						_		_
Member Contributions	\$33,334	\$35,791	\$39,971	\$41,263	\$38,752	\$40,629	\$41,503	\$43,922	\$47,449	\$50,489
Employer Contributions	27,168	30,610	36,521	40,786	45,263	53,576	66,718	76,217	86,713	93,470
Investment Income (net of expenses)	118,154	179,952	114,931	(435,867)	310,844	230,102	(21,964)	220,199	287,075	99,704
Total additions to plan net assets	178,656	246,353	191,423	(353,818)	394,859	\$324,307	\$86,257	\$340,338	\$421,237	\$243,663
Deductions										
Benefit Payments	85,851	90,116	94,627	100,707	108,090	115,665	123,558	131,606	141,923	152,664
Refunds	3,775	4,196	4,438	4,285	4,858	4,205	3,801	4,916	4,738	4,154
Administrative Expenses	1,497	1,671	1,776	1,883	2,032	2,113	2,218	2,280	2,561	2,631
Lump-sum Payments	1,798	2,178	1,328	3,022	3,095	2,013	2,483	3,843	4,858	5,039
Total deductions from plan net assets	92,921	98,161	102,169	109,897	118,075	123,996	132,060	142,645	154,080	164,488
Change in net assets	\$85,735	\$148,192	\$89,254	(\$463,715)	\$276,784	\$200,311	(\$45,803)	\$197,693	\$267,157	\$79,175

Notes: Dollar amounts in thousands

Columns may not add due to rounding

Includes contributions to and benefit payments from 415 Restoration Plan

### BENEFIT AND REFUND DEDUCTIONS FROM NET POSITION BY TYPE, LAST TEN FISCAL YEARS

		_								
_	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Type of Benefit										_
Age and service benefits:										
Retirees <sup>a</sup>	\$84,003	\$88,513	\$93,049	\$99,219	\$106,148	\$114,244	\$121,366	\$130,019	\$139,667	\$150,335
Beneficiaries <sup>a</sup>										
Lump-sum payments	\$1,798	\$2,178	\$1,328	\$3,022	\$3,095	\$2,011	\$2,483	\$3,843	\$4,858	\$5,039
In service death benefits: b	\$1,848	\$1,603	\$1,578	\$1,489	\$1,942	\$1,421	\$2,192	\$1,587	\$2,256	\$2,329
Disability benefits: c										
_										
Total benefits	\$87,649	\$92,294	\$95,955	\$103,730	\$111,185	\$117,676	\$126,041	\$135,449	\$146,781	\$157,703
Type of Refund										
Death <sup>b</sup>										
Separation _	\$3,775	\$4,196	\$4,438	\$4,285	\$4,858	\$4,205	\$3,801	\$4,916	\$4,738	\$4,154
Total refunds	\$3,775	\$4,196	\$4,438	\$4,285	\$4,858	\$4,205	\$3,801	\$4,916	\$4,738	\$4,154

Notes: Dollar amounts in thousands

<sup>&</sup>lt;sup>a</sup> Segregation of age benefits for beneficiaries not currently available

<sup>&</sup>lt;sup>b</sup> Segregation of death benefits between refunds and in service death benefits not currently available

Segregation of disability benefits from age and service benefits not currently available
 Includes benefit payments from 415 Restoration Plan
 Excludes administrative expenses