

**CITY OF AUSTIN EMPLOYEES' RETIREMENT SYSTEM** ACTUARIAL VALUATION REPORT FOR THE YEAR ENDING DECEMBER 31, 2013



5605 N. MacArthur Blvd. Suite 870 Irving, TX 75038-2631

April 8, 2014

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

Dear Mr. Edmonds:

## Subject: Actuarial Valuation as of December 31, 2013

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, 2013, 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 funding objective of the plan 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 30 years.

Currently, the total contribution rate is sufficient to amortize the System's unfunded liabilities in less than 30 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 The additional contribution rate is intended to stay in place until the ASFP is amended or repealed.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. Mr. Stephen Edmonds April 8, 2014 Page 2

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.

In the prior valuation, the Entry Age Normal (EAN) actuarial cost method was used. In particular, a variant of this method known as the Ultimate Normal Cost EAN (or replacement life) method was used. In consultation with its actuary, the Board has decided to adopt the use of the Individual Normal Cost EAN method in conjunction with this valuation. Because COAERS is a two tier system the use of the Individual Normal Cost EAN method means that the normal cost will decline over time and the percentage of pay contributed towards the unfunded liability will increase over time. To better model how this financing will pay off the unfunded liabilities of COAERS, the Board has adopted the use of an open group projection in the determination of the System's funding period.

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, 2013, 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, 2012 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. Mr. Stephen Edmonds April 8, 2014 Page 3

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 Word

Lewis Ward Consultant

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

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# **EXECUTIVE SUMMARY**

The key results from the valuation of the City of Austin Employees' Retirement System as of December 31, 2013 may be summarized as follows:

	Members	De	<u>cember 31, 2013</u> (1)	Dec	cember 31, 2012 (2)
•	— Actives		8,592		8,387
	— Retirees (including disabled) and beneficiaries		5,120		4,831
	— Vested - terminated*		930		924
	- Proportional PSEM and CCSD		<u>113</u>		<u>124</u>
	— Total		14,755		14,266
•	Covered payroll	\$	490,553,170	\$	470,231,969
•	Normal cost	\$	82,485,334	\$	54,554,538
	— As % of payroll		17.21%		11.86%
٠	Actuarial accrued liability	\$	2,909,917,750	\$	2,968,379,692
•	Actuarial value of assets	\$	2,047,929,504	\$	1,897,722,867
٠	Unfunded actuarial accrued liability (UAAL)	\$	861,988,246	\$	1,070,656,825
•	Estimated yield on assets				
	— Actuarial value basis		8.87%		7.13%
	— Market value basis		15.34%		13.16%
•	Contribution rate				
	— Employee		8.00%		8.00%
	— Employer		18.00%		18.00%
٠	Benefit and refund payments	\$	151,362,687	\$	140,200,299
•	Amortization period of unfunded actuarial		26 years		27 years
	accrued liability				
•	GASB No. 25 disclosure				
	— UAAL as a % of Payroll		175.7%		227.7%
	— GASB funded ratio		70.4%		63.9%
	— GASB Annual Required Contribution (ARC)		N/A		17.16%

\* Includes vested proportionate members of PSEM and CCSD, 87 in 2013 and 100 in 2012

# **INTRODUCTION**

This December 31, 2013 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, 2013, determine the funding period of any unfunded liability for the plan year beginning January 1, 2014, 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. Governmental Accounting Standards Board Statement No. 25 (GASB No. 25) information in the report is discussed in Section G, and Section H provides a summary of the valuation results along with other comments.

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

This valuation reflects the adoption of the Individual EAN cost method, replacing the Ultimate EAN cost method used in the prior year. The valuation also reflects the adoption of the use of an open group projection for the determination of the funding period. A further discussion of these two changes is included in Sections C and E.

## 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, 2013, is 17.21% of pay. This compares with 11.86% of pay as of the last valuation on December 31, 2012. This normal cost is developed based on the Individual Entry Age Normal (EAN) actuarial cost method, whereas the prior year's normal cost was developed using the Ultimate EAN actuarial cost method. As may be seen in Item 1, the normal cost for the retirement benefits is 13.92% of pay. The normal cost for the deferred termination benefits is 1.22% and 1.47% for refunds of terminated employees (both vested and non-vested). The normal cost for disability benefits is 0.35%, and the normal cost for death benefits is 0.25%.

Table 1 illustrates a number of the key actuarial items for the 2013 valuation. As mentioned above, the total normal cost rate is 17.21% of covered payroll. The actuarial accrued liability is \$2,909.9 million as shown in Item 5 and as detailed in Table 3. The actuarial value of assets equals \$2,047.9 million, as shown in Item 6. Item 7 of Table 1 shows that the plan has an \$862.0 million unfunded liability (i.e. liabilities exceed plan assets) as of the valuation date. As of the last valuation (December 31, 2012), the System was underfunded by \$1,070.7 million. Although the System showed favorable asset experience, the primary reason for the decrease in the unfunded liability is the effect on the accrued liability due of the funding method change, as described in greater detail below.

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 17.21%, which means that the System is currently receiving contributions in excess of the normal cost equal to 8.79% of pay (26.00% less 17.21%). 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 26 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. In prior valuations, the Ultimate Normal Cost (UNC) actuarial cost method was used. With the UNC method, normal cost was determined as if all members were in the same benefit tier as new hires. This method change causes a significant increase in the normal cost percentage since the normal cost for Group A members is now based on their own benefit structure, rather than that of the Group B members. However, the actuarial cost method does not affect the calculation of the total present value of future benefits. A higher normal cost percentage translates to higher future normal costs, and thus a lower actuarial accrued liability than would be determined using the UNC method. This, along with a gain on the actuarial value of assets, has contributed to the increase in the funded ratio from 63.9% to 70.4%.

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 adoption 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 26 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, 2013 is \$2,047.9 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 \$20.7 million in 2013. This compares to the \$11.4 million loss in 2012.

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 excess income and the prior years have deferred shortfalls, we will offset the current year's excess against the prior years' shortfalls. This resulted in the elimination of all of the prior years' bases with a remaining current year base of \$103.4 million as shown in Item 8, Column 3 of Table 4. We then recognize 20% of this base in this year's actuarial value of assets and defer the remaining 80%.

The total deferral of all Excess/(Shortfall) investment income for the year (shown in Table 4, Column 6 of Item 8) is \$82.7 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, 2013, assuming that income, revenue, and expenditures are evenly distributed throughout the year is 15.34% on a market value of assets basis. The rate of return for the year ending December 31, 2013, on an actuarial value basis was 8.87%. This compares with the actuarial assumed investment return of 7.75%.

# 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, 2012.

As can be seen in Item 7 of Table 6, the expected value of the unfunded actuarial accrued liability as of December 31, 2013, was an underfunded position of \$1,080.6 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 2013.

Since the actual unfunded actuarial accrued liability as of December 31, 2013 is \$862.0 million, it represents a total net gain for the period of \$218.6 million, as shown in Item 9 of Table 6. That is, the unfunded actuarial accrued liability is less than expected. The net actuarial gain includes an asset gain of \$20.7 million as shown in Table 4, an experience gain on the liability side equal to \$16.6 million, and a gain due to the method change of \$181.3 million. The experience liability gain is broken out by source in Items 16-23 of Table 6. As can be seen on Table 6, there were many offsetting gains and losses with the largest liability gain due to lower than expected salary increases and the largest liability loss due to changes in data and other miscellaneous items including the proportionate program.

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 J. In addition, Tables 7 through 10 of Section I 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.



## GASB NO. 25 DISCLOSURE

The Governmental Accounting Standards Board (GASB) has issued Statement No. 25 which provides the manner in which the actuarial condition of a public sector retirement plan is to be disclosed. COA ERS was required to comply with GASB No. 25 beginning January 1, 1997.

The required schedule of funding progress is shown in Table 11a. Table 11b is the schedule of annual required contributions required by GASB No. 25. Table 11c provides notes to the required supplementary information.

Assets used for GASB No. 25 disclosure are based on the actuarial value used for this valuation. Plan liabilities are based on the Entry Age Normal (EAN) funding method which is the same method used for determining plan liabilities for valuation purposes, as required by GASB No. 25.

As the reader may be aware, GASB has recently issued new statements regarding disclosure requirements for governmental pension plans and their sponsors. These disclosure requirements will become effective for COA ERS in calendar year 2014 and for the City in fiscal year 2015.

## 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.

As a result of the funding method change and positive actuarial experience, the overall funded position of the System increased from 63.9% at the prior valuation to 70.4% at this valuation. Using an open group projection, we have determined that the System is expected to be fully funded in 26 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**

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# SUMMARY OF COST ITEMS

	 December 31, 20		3 December 31,		2012	
	Cost Item	Cost as % of Pay		Cost Item	Cost as % of Pay	
	 (1)	(2)		(3)	(4)	
1. Participants						
a. Active	8,592			8,387		
b. Terminated vested	930			924		
c. Retired participants and beneficiaries	5,019			4,741		
d. Disabled	101			90		
e. Proportional PSEM and CCSD	 113			124		
f. Total	14,755			14,266		
2. Covered Payroll	\$ 490,553,170		\$	470,231,969		
3. Averages for Active Participants						
a. Average age	45.1			45.1		
b. Average years of service	9.6			9.7		
c. Average pay	\$ 57,094		\$	56,067		
4. Total Normal Cost	\$ 82,485,334	17.21% *	\$	54,554,538	11.86% *	
5. Actuarial Accrued Liability						
a. Active participants	\$ 1,359,821,471		\$	1,520,835,021		
b. Terminated vested participants	51,809,428			50,142,940		
c. Refunds of terminated nonvested participants	8,580,561			9,375,936		
d. Retired participants and beneficiaries	1,463,142,223			1,362,279,838		
e. Disabled participants	15,003,796			12,964,872		
f. Proportional PSEM and CCSD	 11,560,271			12,781,085		
g. Total	\$ 2,909,917,750	593.19%	\$	2,968,379,692	631.26%	
6. Actuarial Assets	\$ 2,047,929,504	417.47%	\$	1,897,722,867	403.57%	
7. Unfunded Actuarial Accrued Liability (UAAL)	\$ 861,988,246	175.72%	\$	1,070,656,825	227.69%	
8. Relative Size of UAAL						
a. As percent of actuarial assets	42.09%			56.42%		
b. As percent of covered payroll	175.72%			227.69%		
9. 30-year amortization of UAAL as % of covered payroll	10.26%			13.30%		
10. GASB Annual Required Contribution (ARC)						
a. Total contribution rate (Item 4 as % of Pay + Item 9)	N/A			25.16%		
b. Employee contribution rate	N/A			8.00%		
c. ARC (10a 10b.)	N/A			17.16%		

 $\ast$  as % of expected payroll for current active members

# ANALYSIS OF NORMAL COST BY COMPONENT

	Cost as % of Pay				
Benefit Component	December 31, 2013	December 31, 2012			
(1)	(2)	(3)			
1. Retirement Benefits	13.92%	8.25%			
2. Termination - Deferred Benefits	1.22%	0.69%			
3. Termination - Refund Benefits	1.47%	2.18%			
4. Disability Benefits	0.35%	0.51%			
5. Death Benefits	<u>0.25%</u>	<u>0.23%</u>			
6. Normal Cost*	17.21%	11.86%			

\* Reflects change in funding method from Ultimate Entry Age to Individual Entry Age effective December 31, 2013.

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

	De	cember 31, 2013 (1)	De	cember 31, 2012 (2)
A. Present Value of Future Benefits		(1)		(-)
1. Active participants				
a. Retirement benefits	\$	1,832,549,105	\$	1,786,567,058
b. Deferred termination benefits		79,755,943		79,534,766
c. Refund of nonvested terminations		33,468,975		29,405,665
d. Disability benefits		22,379,820		20,963,438
e. Death benefits		22,973,577		22,241,237
f. Total	\$	1,991,127,420	\$	1,938,712,164
2. Retired participants				
a. Service retirements and beneficiaries	\$	1,463,142,223	\$	1,362,279,838
b. Disability retirements		15,003,796		12,964,872
c. Total	\$	1,478,146,019	\$	1,375,244,710
3. Inactive participants				
a. Vested terminations with deferred benefits	\$	51,809,428	\$	50,142,940
b. Nonvested terminations with refunds payable		8,580,561		9,375,936
c. Total	\$	60,389,989	\$	59,518,876
4. Proportional PSEM and CCSD	\$	11,560,271	\$	12,781,085
5. Total actuarial present value of future benefits	\$	3,541,223,699	\$	3,386,256,835
B. Normal Cost Rate*		17.21%		11.86%
C. Present Value of Future Normal Costs*	\$	631,305,949	\$	417,877,143
D. Actuarial Accrued Liability for Active Members				
1. Present value of future benefits (Item A.1.f.)	\$	1,991,127,420	\$	1,938,712,164
2. Less present value of future normal costs (Item C)		631,305,949		417,877,143
3. Actuarial accrued liability	\$	1,359,821,471	\$	1,520,835,021
E. Total Actuarial Accrued Liability (Item A.2.c + Item A.3.c + Item A.4. + Item D.3)*	\$	2,909,917,750	\$	2,968,379,692

\* Reflects change in funding method from Ultimate Entry Age to Individual Entry Age effective December 31, 2013.

## **DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS**

		Year Ending
	Dec	cember 31, 2013
1. Actuarial value of assets at beginning of year	\$	1,897,722,867
2. Net new investments a. Contributions	\$	134,005,867
b. Benefits and refunds paid	\$	(151,362,687)
c. Subtotal	\$	(17,356,820)
3. Assumed investment return rate for fiscal year		7.75%
4. Expected net investment income	\$	146,889,721
5. Expected actuarial value at end of year (Item 1+ Item 2 + Item 4)	\$	2,027,255,768
6. Market value of assets at end of year	\$	2,130,624,450
7. Difference (Item 6 - Item 5)	\$	103,368,682

8. Development of amounts to be recognized as of December 31, 2013:

	Fiscal	Remaining Deferrals						
	Year	of Excess (Shortfall)	Offsetting of	Net Deferrals	Years	Re	cognized for	Remaining after
_	End	of Investment Income	Gains/(Losses)	Remaining	Remaining	thi	s valuation	 this valuation
		(1)	(2)	(3) = (1) + (2)	(4)	(5)	) = (3) / (4)	(6) = (3) - (5)
	2009	\$ 0	\$0	\$ 0	1	\$	0	\$ 0
	2010	0	0	0	2		0	0
	2011	(34,254,806)	34,254,806	0	3		0	0
	2012	0	0	0	4		0	0
	2013	137,623,488	(34,254,806)	103,368,682	5		20,673,736	 82,694,946
	Total	\$ 103,368,682	\$0	\$ 103,368,682		\$	20,673,736	\$ 82,694,946
9. Preli	iminary	actuarial value of plan ass	sets, end of year (Item	n 6 + Item 8)				\$ 2,047,929,504
10. Actu	arial va	lue of assets corridor						
a. 8	80% of n	narket value, end of year						\$ 1,704,499,560
b. 1	20% of	market value, end of year	The second se					\$ 2,556,749,340
		al value of plan net assets recognize 1/3 of any defe	-	utside of Item 10)				\$ 2,047,929,504
12. Asse	et gain (l	loss) for year (Item 11 - It	em 5)					\$ 20,673,736
13. Asse	et gain (l	loss) as % of final actuaria	al value of assets					1.01%
14. Rati	o of actu	arial value to market valu	ie					96.1%

Notes: Remaining deferrals in Column (1) for prior years are from Table 5 in last year's report. The number in the current year is the differnce 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**

		Va	luation Period E	nding	g December 31,
			2013		2012
			(1)		(2)
1.	Assets in plan at beginning of year (A)	\$	1,863,468,061	\$	1,665,774,423
2.	Employer contributions	\$	86,556,453		76,052,464
3.	Employee contributions	\$	47,449,414		43,922,380
4.	Benefit payments made*	\$	146,624,826		135,284,635
5.	Refunds of contributions	\$	4,737,861		4,915,664
6.	Expenses paid from trust	\$	2,561,407		2,279,609
7.	Investment return	\$	287,074,616		220,198,702
8.	Other		0		0
9.	Assets in plan at end of year ( <b>B</b> ) (1 + 2 + 3 - 4 - 5 - 6 + 7 + 8)	\$	2,130,624,450	\$	1,863,468,061
10.	Approximate rate of return on average invested assets				
	a. Net investment income $(7 - 6 = \mathbf{I})$	\$	284,513,209	\$	217,919,093
	b. Estimated yield based on (2I/(A + B - I))		15.34%		13.16%

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

## **ACTUARIAL GAIN OR LOSS AS OF DECEMBER 31, 2013**

CALCULATION OF TOTAL ACTUARIAL GAIN OR LOSS	2013	2012
1. Unfunded actuarial accrued liability (UAAL) as of prior year	\$ 1,070,656,825	\$ 932,942,173
2. Actual normal cost paid during year	63,687,150	58,353,144
3. Subtotal $(1 + 2)$	\$ 1,134,343,975	\$ 991,295,317
4. Interest at prior valuation's rate of 7.75%	85,443,781	74,564,203
5. Contributions during year	(134,005,867)	(119,974,844)
6. Interest on contributions for one-half year	(5,192,727)	(4,649,025)
7. Expected UAAL as of December $31$ st $(3 + 4 + 5 + 6)$	\$ 1,080,589,162	\$ 941,235,651
8. Actual UAAL as of December 31st	861,988,246	1,070,656,825
9. Actuarial gain/(loss) for the period (7 - 8)	\$ 218,600,916	\$ (129,421,174)
SOURCE OF GAINS AND LOSSES		
10. Asset gain/(loss) (See Table 4)	\$ 20,673,736	\$ (11,418,268)
11. Total liability gain/(loss) for the period (9-10)	197,927,180	(118,002,906)
12. Gain/(loss) due to benefit enhancements	0	0
13. Gain/(loss) due to Proportional PSEM and CCSD	0	0
14. Gain/(loss) due to assumption & method changes	181,349,121	(104,778,999)
15. Liability experience gain/(loss) (11 - 12 - 13 - 14)	\$ 16,578,059	\$ (13,223,907)
SOURCE OF LIABILITY GAINS AND LOSSES		
16. Salary Increases	\$ 27,407,515	\$ 1,813,440
17. Service Retirement	10,834,088	(296,878)
18. Withdrawal	(7,568,843)	(5,559,620)
19. Disability Retirement	(263,081)	(391,551)
20. Active Mortality	154,291	(105,128)
21. Retiree Mortality	(957,344)	464,354
22. Rehires	(3,348,380)	(5,203,734)
23. Other (Data) including proportionate program	(9,680,187)	(3,944,790)
24. Total Liability Experience Gain/(Loss)	\$ 16,578,059	\$ (13,223,907)
	. ,	

765,526,422

658,466,636

749,087,565

932,942,173

1,070,656,825

861,988,246

448,740,469

422,539,199

438,877,002

451,831,198

470,231,969

490,553,170

Valuation

as of

31-Dec

(1)

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

	Relative		Relative to Act		Relative to	10141
Unfunded/ (Overfunded)	Covered Pa	Percent of	Value of Present	Percent	Actuarial Accru	Percent of Actuarial
Actuarial Accrued	Covered	Covered	Present	of Present	Accrued	Accrued
Liability	Payroll	Payroll	Assets	Assets	Liability	Liability
(2)	(3)	(4)	(5)	(6)	(7)	(8)
(74,816,812)	219,326,742	(34.1%)	952,634,480	(7.9%)	877,817,668	(8.5%)
(60,632,797)	244,538,110	(24.8%)	1,105,121,657	(5.5%)	1,044,488,860	(5.8%)
(18,353,201)	268,635,564	(6.8%)	1,230,971,746	(1.5%)	1,212,618,545	(1.5%)
48,980,941	316,793,390	15.5%	1,311,288,668	3.7%	1,360,269,609	3.6%
189,347,298	322,007,672	58.8%	1,250,851,348	15.1%	1,440,198,646	13.1%
203,040,300	312,790,966	64.9%	1,348,790,502	15.1%	1,551,830,802	13.1%
321,383,795	326,590,164	98.4%	1,356,797,448	23.7%	1,678,181,243	19.2%
395,382,953	348,619,141	113.4%	1,398,798,722	28.3%	1,794,181,675	22.0%
476,226,660	390,963,991	121.8%	1,497,783,958	31.8%	1,974,010,618	24.1%
459,277,808	417,450,797	110.0%	1,653,533,484	27.8%	2,112,811,292	21.7%

1,481,377,439

1,672,470,344

1,711,577,229

1,790,902,641

1,897,722,867

2,047,929,504

51.7%

39.4%

43.8%

52.1%

56.4%

42.1%

2,246,903,861

2,330,936,980

2,460,664,794

2,723,844,815

2,968,379,692

2,909,917,750

# **RELATIVE SIZE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY**

170.6%

155.8%

170.7%

206.5%

227.7%

175.7%

34.1%

28.2%

30.4%

34.3%

36.1%

29.6%

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%

## SCHEDULE OF ACTIVE MEMBER VALUATION DATA

	Add	ed to Rolls	Remove	Removed from Rolls Rolls-End of Year		-End of Year	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

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

			SULVENCI IES	1			
	Agg	regated Accrued Liab	vilities for				
	Active and		Active and Inactive		Portions	s of Accrued Liabi	lities 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%

# SOLVENCY TEST

Gabriel Roeder Smith & Company

(As required by GASB #25)							
Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (3) - (2)	Funded Ratio (2)/(3)	Annual Covered Payroll	UAAL as % of 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%	

# SCHEDULE OF FUNDING PROGRESS

Note: Dollar amount in millions.

	A	
Fiscal Year (1)	Annual Required <u>Contribution</u> (2)	Percentage Contributed (3)
1996	\$15,738,068	100.00%
1997	\$15,313,819	100.00%
1998	\$16,126,014	100.00%
1999	\$18,224,558	100.00%
2000	\$21,531,859	100.00%
2001	\$24,831,016	100.00%
2002	\$26,375,274	100.00%
2003	\$30,660,538	81.05%
2004	\$32,733,243	82.30%
2005	\$41,610,470	65.20%
2006	\$49,390,658	61.84%
2007	\$56,080,689	64.98%
2008	\$57,937,202	70.18%
2009	\$78,184,719	57.69%
2010	\$74,172,819	72.00%
2011	\$83,893,732	79.32%
2012	\$72,825,996	104.43%
2013	\$82,517,152	104.90%

# SCHEDULE OF EMPLOYER CONTRIBUTIONS (as required by GASB #25)

## 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, 2013
Actuarial cost method	Entry Age Normal
Amortization method	Level Percent of Pay, open
Payroll growth rate for amortization	3.50%
Remaining amortization period	26 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.75%
Projected salary increases*	4.50% to 6.00%
*Includes inflation at	3.25%
Cost-of-living adjustments	None assumed

## STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS (Effective as of December 31, 2013)

#### 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. <u>Nondisabled annuitants (adopted effective December 31, 2012)</u>

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 Applied)					
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%			

## STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS (EFFECTIVE AS OF December 31, 2013) (Continued)

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

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. <u>Active members</u> (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.

Age	Rates of Retirement		
	Males	<u>Females</u>	
45 & under	25.0%	27.0%	
46	25.0%	27.0%	
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%	
58	25.0%	25.0%	
59	25.0%	25.0%	
60	25.0%	24.0%	
61	25.0%	24.0%	
62	25.0%	24.0%	
63	25.0%	24.0%	
64	25.0%	24.0%	
65	25.0%	21.0%	
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. <u>Rates of Decrement Due to Withdrawal</u> (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		
		Yea	r of Employn	nent	
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		
			r of Employn		
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 Withdrawal After Select Period		
	<u>Males</u>	<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	
25	0.0464	0.0674	

#### 5. <u>Disability Rates\*</u> (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

- \* Rates are for disability due to all causes, occupational disability rates are assumed to be 10% of all causes.
- 6. <u>Rates of Salary Increase</u> (adopted effective December 31, 2012)

Years	Promotional	Total Annual Rate of Increase
of	Rate of	Including 3.25% Inflation Component
Service	Increase	and 1.25% Productivity Component
1-7	1.50% 1.25%	6.00% 5.75%
9 10	0.75%	5.25% 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. <u>There will be no recoveries once disabled</u>: (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. <u>Normal Form of Payment</u>: (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. <u>Payroll Growth Rate:</u> (adopted December 31, 2002)It is assumed that payroll will grow at 3.50% annually.
- 14. Individual salaries used to project benefits: (adopted effective December 31, 1997)

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

15. <u>Pay increase timing:</u> (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. <u>Benefit Service:</u> (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.

## B. 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.

### STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS (EFFECTIVE AS OF December 31, 2013) (Continued)

#### C. 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.

#### D. 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.

#### E. CHANGES IN ASSUMPTIONS AND METHODS

There have been no changes in the actuarial assumptions since the prior valuation. The actuarial cost method was changed from the Ultimate Entry Age Normal Cost method to the Individual Entry Age Normal Cost method.

### SUMMARY OF BENEFIT PROVISIONS OF THE RETIREMENT PLAN AS OF DECEMBER 31, 2013

#### 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. <u>MEMBERSHIP SERVICE</u>

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. <u>CITY AND MEMBER CONTRIBUTION RATES</u>

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.

#### F. <u>RETIREMENT BENEFITS</u>

#### 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. <u>Early Retirement:</u>
  - a. <u>Eligibility</u>:

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.ii) above.

#### H. <u>VESTING OF BENEFITS</u>

1. <u>Vesting</u>

An employee is vested according to the following schedule:

Years of<br/>Vesting ServiceVested<br/>PercentageLess than 50%<br/>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. <u>Benefit:</u> 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. <u>RETIREE LUMP-SUM DEATH BENEFIT</u>

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

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. LEGISLATED PLAN CHANGES ENACTED BY 1995 LEGISLATURE

1. <u>2.3% Multiplier</u>

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

2. <u>2.3% Retiree Gross-up</u>

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. <u>\$10,000 Retiree Lump-Sum Death Benefit</u>

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. <u>2.6% Retiree Gross-up</u>

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. LEGISLATED PLAN CHANGES ENACTED BY 1999 LEGISLATURE

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. <u>23 & Out Provision</u>

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. <u>Pop-Up Provisions for Certain Joint and Survivor Payment Options</u>

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. <u>EMPLOYER PURCHASE OF CREDITABLE SERVICE</u>

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

### P. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2000

1. <u>"415 Restoration of Retirement Income Plan"</u>

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. <u>2.98% Multiplier</u>

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. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2002</u>

#### 1. <u>3.00% Multiplier</u>

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. Deferred Retirement Option Program

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. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2003</u>

1. <u>"Pop-up" Benefit Amendment</u>

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

2. <u>Permissive Time Amendment</u>

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. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2006</u> None
- W. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2007</u> None
- X. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2008</u> None
- Y. <u>BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2009</u> 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. <u>Retirement Provisions</u>

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

## **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 umber	Content of Tables	Pag
	<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	47
15B	Distribution of Group A Active Participants by Age and Length of Service	48
15C	Distribution of Group B Active Participants by Age and Length of Service	49
16	Distribution of All Active Participants by Service and Current Rate of Pay	50
	<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, Last Ten Years	51
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	<b>Financial Trends</b> – schedules to help users understand and assess changes in COA ERS' financial position over time.	
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21	Benefit and Refund Deductions from Net Position by Type, Last Ten Fiscal Years	55

*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, 2013

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	72	27	9	6	2	1	0	0	0	0	0	0	117	\$	33,074
25-29	203	113	88	72	37	104	0	0	0	0	0	0	617		39,417
30-34	153	124	86	95	49	374	73	1	0	0	0	0	955		46,357
35-39	125	94	70	81	56	382	240	56	2	0	0	0	1,106		53,594
40-44	102	89	57	63	65	360	306	186	64	0	0	0	1,292		57,317
45-49	63	62	47	57	49	335	261	226	149	26	1	0	1,276		60,803
50-54	71	46	51	54	34	297	279	235	186	92	12	0	1,357		63,165
55-59	49	30	46	40	25	225	210	188	148	87	18	1	1,067		64,258
60-64	19	19	22	21	16	150	121	100	70	29	18	4	589		65,700
65 & Over	6	3	6	5	3	54	64	28	22	17	4	4	216		65,764
All Ages	863	607	482	494	336	2,282	1,554	1,020	641	251	53	9	8,592	\$	57,094

## DISTRIBUTION OF GROUP A ACTIVE PARTICIPANTS BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

Attained Age	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Number of Employees	А	verage nnual alary
Under 25	0	0	9	6	2	1	0	0	0	0	0	0	18	\$	35,625
25-29	0	1	88	72	37	104	0	0	0	0	0	0	302		41,265
30-34	0	1	86	95	49	373	73	1	0	0	0	0	678		47,915
35-39	2	1	70	81	56	382	240	56	2	0	0	0	890		54,992
40-44	0	1	56	63	65	360	306	186	64	0	0	0	1,101		58,610
45-49	0	0	47	57	49	334	261	226	149	26	1	0	1,150		61,859
50-54	0	1	51	54	34	295	279	235	186	92	12	0	1,239		64,126
55-59	0	0	46	40	25	225	210	188	148	87	18	1	988		64,749
60-64	0	0	21	21	16	149	121	100	70	29	18	4	549		66,110
65 & Over	0	0	6	4	3	54	64	28	22	17	4	4	206		66,262
All Ages	2	5	480	493	336	2,277	1,554	1,020	641	251	53	9	7,121	\$	59,482

Attained Age	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Number of Employees	А	verage nnual alary
Under 25	72	27	0	0	0	0	0	0	0	0	0	0	99	\$	32,610
25-29	203	112	0	0	0	0	0	0	0	0	0	0	315		37,644
30-34	153	123	0	0	0	1	0	0	0	0	0	0	277		42,542
35-39	123	93	0	0	0	0	0	0	0	0	0	0	216		47,834
40-44	102	88	1	0	0	0	0	0	0	0	0	0	191		49,863
45-49	63	62	0	0	0	1	0	0	0	0	0	0	126		51,158
50-54	71	45	0	0	0	2	0	0	0	0	0	0	118		53,075
55-59	49	30	0	0	0	0	0	0	0	0	0	0	79		58,119
60-64	19	19	1	0	0	1	0	0	0	0	0	0	40		60,083
65 & Over	6	3	0	1	0	0	0	0	0	0	0	0	10		55,501
All Ages	861	602	2	1	0	5	0	0	0	0	0	0	1,471	\$	45,537

## DISTRIBUTION OF GROUP B ACTIVE PARTICIPANTS BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

## DISTRIBUTION OF ALL ACTIVE PARTICIPANTS BY SERVICE AND CURRENT RATE OF PAY AS OF DECEMBER 31, 2013

Completed Years of Service	Number of Employees	Total Average Salary
0	863	\$ 45,854
1	607	44,888
2	482	50,661
3	494	52,503
4	336	57,201
5-9	2,282	54,786
10-14	1,554	61,525
15-19	1,020	63,865
20-24	641	70,650
25-29	251	74,315
30-34	53	68,919
35+	9	88,141
All Years	8,592	\$ 57,094

<b>Retirement Effective Dates</b>	Years Creditable Service											
January 1, 2008 to December 31, 2013	0-4	5-9	10-14	15-19	20-24	25-29	30+					
Period 01/01/2008 to 12/31/2008												
Average Monthly Benefit	\$347	\$827	\$1,529	\$2,461	\$3,110	\$3,641	\$4,677					
Average Final Salary	\$42,430	\$43,523	\$55,998	\$59,644	\$58,147	\$60,404	\$62,389					
Number of Active Retirees	17	36	34	20	113	27	13					
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					
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					

# SCHEDULE OF AVERAGE BENEFIT PAYMENTS

Gabriel Roeder Smith & Company

	Number of														
Amount of	Retired	Ту	pe of Ret	irement <sup>a</sup>						Option Se	elected <sup>b</sup>				
Monthly Benefit	Members	1	2	3	4	Unmod.	1	2	3	4	5	6	7	8	9
Deferred						843									
\$1-250	152	127	9	3	13	88	49	7	3				5		
251-500	246	195	25	12	14	111	92	15	8	4		1	14	1	
501-750	274	208	42	11	13	113	95	25	16	5	4	2	11	1	2
751-1,000	305	230	46	17	12	127	95	27	21	6	4	12	8	1	4
1,001-1,250	285	220	41	17	7	87	103	16	16	10	15	14	8		16
1,251-1,500	381	312	52	14	3	106	142	29	26	5	24	20	12	1	16
1,501-1,750	378	333	37	8	0	105	129	36	26	5	19	27	16	2	13
1,751-2,000	390	340	38	9	3	115	134	41	20	4	25	25	7		19
Over \$2,000	2,709	2,561	131	10	7	775	1,085	230	179	32	100	98	88	14	108
Total	5,120	4,526	421	101	72	2,470	1,924	426	315	71	191	199	169	20	178

## **RETIRED MEMBERS BY TYPE OF BENEFIT (AS OF DECEMBER 31, 2013)**

#### Notes:

<sup>a</sup> Type of Retirement

1. Normal retirement for age and service

2. Beneficiary payment, normal retirement or death in service

3. Disability retirement

4. QDRO - alternate payee

<sup>b</sup> Option Selected:

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

\*The number of Retired Members and the number of options selected are not equal due to the inclusion of 843 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.

					Fiscal	Year				
-	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Additions										
Member Contributions	\$32,272	\$33,334	\$35,791	\$39,971	\$41,263	\$38,752	\$40,629	\$41,503	\$43,922	\$47,449
Employer Contributions	27,008	27,168	30,610	36,521	40,786	45,263	53,576	66,718	76,217	86,713
Investment Income (net of expenses)	145,631	118,154	179,952	114,931	(435,867)	310,844	230,102	(21,964)	220,199	287,075
Total additions to plan net assets	204,911	178,656	246,353	191,423	(353,818)	394,859	\$324,307	\$86,257	\$340,338	\$421,237
Deductions										
Benefit Payments	81,426	85,851	90,116	94,627	100,707	108,090	115,665	123,558	131,606	141,923
Refunds	5,112	3,775	4,196	4,438	4,285	4,858	4,205	3,801	4,916	4,738
Administrative Expenses	1,555	1,497	1,671	1,776	1,883	2,032	2,113	2,218	2,280	2,561
Lump-sum Payments	1,343	1,798	2,178	1,328	3,022	3,095	2,013	2,483	3,843	4,858
Total deductions from plan net assets	89,436	92,921	98,161	102,169	109,897	118,075	123,996	132,060	142,645	154,080
Change in net assets	\$115,475	\$85,735	\$148,192	\$89,254	(\$463,715)	\$276,784	\$200,311	(\$45,803)	\$197,693	\$267,157

# CHANGE IN NET POSITION, LAST TEN FISCAL YEARS

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Type of Benefit</b> Age and service benefits:										
Retirees <sup>a</sup>	\$80,152	\$84,003	\$88,513	\$93,049	\$99,219	\$106,148	\$114,244	\$121,366	\$130,019	\$139,667
Beneficiaries <sup>a</sup>										
Lump-sum payments	\$1,343	\$1,798	\$2,178	\$1,328	\$3,022	\$3,095	\$2,011	\$2,483	\$3,843	\$4,858
In service death benefits: <sup>b</sup>	\$1,274	\$1,848	\$1,603	\$1,578	\$1,489	\$1,942	\$1,421	\$2,192	\$1,587	\$2,256
Disability benefits: <sup>c</sup>										
Total benefits	\$82,769	\$87,649	\$92,294	\$95,955	\$103,730	\$111,185	\$117,676	\$126,041	\$135,449	\$146,781
<b>Type of Refund</b> Death <sup>b</sup>										
Separation	\$5,112	\$3,775	\$4,196	\$4,438	\$4,285	\$4,858	\$4,205	\$3,801	\$4,916	\$4,738
Total refunds	\$5,112	\$3,775	\$4,196	\$4,438	\$4,285	\$4,858	\$4,205	\$3,801	\$4,916	\$4,738

Notes: Dollar amounts in thousands

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

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

<sup>c</sup> Segregation of disability benefits from age and service benefits not currently available

Includes benefit payments from 415 Restoration Plan

Excludes administrative expenses