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CITY OF AUSTIN EMPLOYEE RETIREMENT SYSTEM

**GASB STATEMENT NO. 67 PLAN REPORTING AND
ACCOUNTING SCHEDULES**

DECEMBER 31, 2014



April 17, 2015

Mr. Christopher Hanson
Executive Director
City of Austin Employee Retirement System
418 E. Highland Mall Blvd

Dear Mr. Hanson:

This report provides information required by the Retirement System in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67 "Financial Reporting for Pension Plans."

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB No. 67. The calculation of the plan's liability for this report may not be applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB No. 67 may produce significantly different results. This report may be provided to parties other than the City of Austin Employee Retirement System ("COAERS") only in its entirety and only with the permission of COAERS.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of December 31, 2014. It is our opinion that the recommended assumptions are internally consistent, reasonable, and comply with the requirements under GASB No. 67.

This report compliments the December 31, 2014 actuarial valuation report that was previously provided to COAERS and should be considered together as a complete report for the plan year ending December 31, 2014. Please see the actuarial valuation report as December 31, 2014 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

This report is based upon information, furnished to us by COAERS, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not otherwise audited. GRS is not responsible for the accuracy or completeness of the information provided to us by COAERS.

To the best of our knowledge, the information contained with this report is accurate and fairly represents the actuarial position of the City of Austin Employee Retirement System. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Mr. Falls is a member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Lewis Ward
Consultant

R. Ryan Falls, FSA, EA, MAAA
FSA, EA, MAAA

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SECTION A
EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY
AS OF DECEMBER 31, 2014

	<u>2014</u>
Actuarial Valuation Date	December 31, 2014
Pension Plan's Fiscal Year Ending Date (Measurement Date & Reporting Date)	December 31, 2014
Membership	
Number of	
- Retirees and Beneficiaries	5,396
- Inactive, Nonretired Members	2,303
- Active Members	9,028
- Total	<u>16,727</u>
Covered Payroll*	\$ 518,508,233
Net Pension Liability	
Total Pension Liability	\$ 3,094,055,712
Plan Fiduciary Net Position	<u>2,209,799,679</u>
Net Pension Liability	\$ 884,256,033
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	71.42%
Net Pension Liability as a Percentage of Covered Payroll*	170.54%
Development of the Single Discount Rate	
Single Discount Rate	7.75%
Long-Term Expected Rate of Return	7.75%
Long-Term Municipal Bond Rate**	3.65%
Last year ending December 31 in the 2014 to 2113 projection period for which projected benefit payments are fully funded	2113

*Reported payroll for calendar year 2014

**Source: "State & local bonds" rate from Federal Reserve statistical release (H.15) as of December 25, 2014.

The statistical release describes this rate as "Bond Buyer Index, general obligation, 20 years to maturity, mixed quality." In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA.

DISCUSSION

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67, “Financial Reporting for Pension Plans,” replaces the requirements of GASB Statement No. 25, “Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans,” and GASB Statement No. 50, “Pension Disclosures.” GASB Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability of employers and non-employer contributing entities for benefits provided through the pension plan.

The following discussion provides a summary of the information that is required to be disclosed under this new accounting standard. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report, and your internal staff will be responsible for preparing that information to comply with this accounting standard. Wherever possible we have indicated whether the disclosure information is contained this report

Financial Statements

GASB Statement No. 67 requires defined benefit pension plans to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position.

The *statement of fiduciary net position* presents the following items as of the end of the pension plan’s reporting period, such as:

- assets;
- deferred inflows and outflows of resources;
- liabilities; and
- fiduciary net position (assets, plus deferred outflows, minus liabilities, minus deferred inflows).

The *statement of changes in fiduciary net position* presents the following for the plan’s reporting period:

- additions, such as contributions and investment income;
- deductions, such as benefit payments and expenses; and
- net increase or decrease in the fiduciary net position (the difference between additions and deductions).

COAERS provided this information to GRS in conjunction with the preparation of the actuarial valuation. Therefore, the information is **not included in this report**.

Notes to Financial Statements

GASB Statement No. 67 also requires the notes of the plan's financial statements to include additional disclosure information. This disclosure information should include:

- a description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs **(not included in this report)**;
- the number and classes of employees covered by the benefit terms **(not included in this report)**;
- the composition of the pension plan's Board and the authority under which benefit terms may be amended **(not included in this report)**;
- a description of the plan's funding policy, which includes member and employer contribution requirements **(not included in this report)**;
- the pension plan's investment policies **(not included in this report)**;
- a description of how fair value is determined **(not included in this report)**;
- concentrations of investments greater than or equal to 5% **(not included in this report)**;
- annual money-weighted rate of return on pension plan investments **(not included in this report)**;
- the portion of the present value of benefits to be provided through the pension plan to current active and inactive plan members **(not included in this report)**;
- the pension plan's fiduciary net position **(not included in this report)**;
- the net pension liability **(included in Section B of this report)**;
- the pension plan's fiduciary net position as a percentage of the total pension liability **(included in Section B of this report)**;
- significant assumptions and methods used to calculate the total pension liability **(included in Section B of this report)**;
- inputs to the discount rates **(included in Executive Summary of this report)**; and
- certain information about mortality assumptions and the dates of experience studies **(included in Section B of this report)**.
- A description of the terms of the plan's deferred retirement option program (DROP) and the total DROP balance for those members currently participating in the DROP **(not included in this report)**. Because COAERS's DROP is a "Back-DROP", no member is ever actually in DROP nor does a DROP account balance ever exist on the valuation date. Therefore, we believe this disclosure item is not necessary. However, we suggest that you confirm this with your external auditor.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- sources of changes in the net pension liability **(included in Section B of this report)**;
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll **(included in Section B of this report)**;

- comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy (**included in Section B of this report**); and
- the annual money-weighted rate of return on pension plan investments for each year (**not included in this report**). Note that this calculation is to be determined on at least a monthly basis.

While GASB No. 67 requests a 10-year schedule of these items they allow for the tables to be built prospectively. Therefore, for the three items we are providing we are building the tables on a prospective basis.

Measurement of the Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. If the actuarial valuation is not calculated as of the plan's fiscal year end, the total pension liability is required to be rolled forward from the actuarial valuation date to the pension plan's fiscal year end.

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2014 and a measurement date of December 31, 2014.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.65% (based on the weekly rate closest to but not later than the measurement date of the "state & local bonds" rate from Federal Reserve statistical release (H.15)); and the resulting Single Discount Rate is 7.75%.

Effective Date and Transition

GASB Statement No. 67 is effective for a pension plan's fiscal years beginning after June 15, 2013; however, earlier application is encouraged by the GASB.

SECTION B

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS MULTIYEAR
Last 10 Fiscal Years (which may be built prospectively)

Fiscal year ending December 31,	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total Pension Liability										
Service Cost	\$ 89,235,267									
Interest on the Total Pension Liability	222,709,911									
Benefit Changes	-									
Difference between Expected and Actual Experience	33,911,010									
Assumption Changes	-									
Benefit Payments	(157,563,807)									
Refunds	(4,154,419)									
Net Change in Total Pension Liability	184,137,962									
Total Pension Liability - Beginning	2,909,917,750									
Total Pension Liability - Ending (a)	\$3,094,055,712									
Plan Fiduciary Net Position										
Employer Contributions	\$ 93,331,482									
Employee Contributions	50,489,091									
Pension Plan Net Investment Income	99,704,100									
Benefit Payments	(157,563,807)									
Refunds	(4,154,419)									
Pension Plan Administrative Expense	(2,631,218)									
Other	-									
Net Change in Plan Fiduciary Net Position	79,175,229									
Plan Fiduciary Net Position - Beginning	2,130,624,450									
Plan Fiduciary Net Position - Ending (b)	\$2,209,799,679									
Net Pension Liability - Ending (a) - (b)	884,256,033									
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	71.42 %									
Covered Employee Payroll	\$ 518,508,233									
Net Pension Liability as a Percentage of Covered Employee Payroll	170.54 %									
Notes to Schedule:										
N/A										

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF THE NET PENSION LIABILITY MULTIYEAR
Last 10 Fiscal Years (which may be built prospectively)

<u>FY Ending December 31,</u>	<u>Total Pension Liability</u>	<u>Plan Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Net Position as a % of Total Pension Liability</u>	<u>Covered Payroll</u>	<u>Net Pension Liability as a % of Covered Payroll</u>
2014	3,094,055,712	2,209,799,679	884,256,033	71.42%	518,508,233	170.54%

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**SCHEDULE OF CONTRIBUTIONS MULTIYEAR
LAST 10 FISCAL YEARS**

FY Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	95,053,678	93,331,482	1,722,196	518,508,233	18.00%

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NOTES TO SCHEDULE OF CONTRIBUTIONS

Valuation Date:	December 31, 2014
Notes	Members and employers contribute based on statutorily fixed or negotiated rates. A funding period is solved for through open group projections.
Methods and Assumptions Used to Determine Contribution Rates:	
Actuarial Cost Method	Entry Age Normal
Amortization Method	N/A
Remaining Amortization Period	N/A
Asset Valuation Method	20% of market plus 80% of expected actuarial value
Inflation	3.25%
Salary Increases	4.50% to 6.00%
Investment Rate of Return	7.75%
Retirement Age	Experience-based table of rates that are gender specific. Last updated for December 31, 2012 valuation pursuant to an experience study of the 5-year period ending December 31, 2011.
Mortality	RP-2000 Mortality Table with White Collar adjustment and multipliers of 110% for males and 120% for females. Generational mortality improvements in accordance with Scale AA are projected from the year 2000.
Other Information:	
Notes	There were no benefit changes during the year.

SECTION C

NOTES TO FINANCIAL STATEMENTS

Single Discount Rate

A Single Discount Rate of 7.75% was used to measure the total pension liability. This Single Discount Rate was based on the expected rate of return on pension plan investments of 7.75%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 7.75%, as well as what the plan's net pension liability would be, if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

SENSITIVITY OF NET PENSION LIABILITY TO THE SINGLE DISCOUNT RATE ASSUMPTION

1% Decrease 6.75%	Current Single Discount Rate Assumption 7.75%	1% Increase 8.75%
\$1,250,122,059	\$884,256,033	\$576,553,790

SUMMARY OF POPULATION STATISTICS

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	5,396
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	2,303
Active Plan Members	<u>9,028</u>
Total Plan Members	16,727

Note: The Inactive Plan Members Entitled to But Not Yet Receiving Benefits includes 1,260 non-vested terminated members entitled to a refund of their member contributions.

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SECTION D

CALCULATION OF THE SINGLE DISCOUNT RATE

CALCULATION OF THE SINGLE DISCOUNT RATE

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk-free” rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.65%; and the resulting Single Discount Rate is 7.75%.

The tables in this section provide background for the development of the Single Discount Rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

**SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION
OF CONTRIBUTIONS ENDING DECEMBER 31 FOR 2014 TO 2063**

Year	Projected Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll	Projected Contributions from Current Employees	Employer Contributions for Current Employees	Contributions Related to Payroll of Future Employees	Projected Total Contributions
0							
1	\$ 526,495,192	\$ 12,663,500	\$ 539,158,693	\$ 42,119,615	\$ 94,769,135	\$ 1,667,186	\$ 138,555,936
2	502,653,051	55,376,196	558,029,247	40,212,244	90,477,549	7,290,433	137,980,226
3	482,545,680	95,014,590	577,560,271	38,603,654	86,858,222	12,477,448	137,939,324
4	464,110,383	133,664,497	597,774,880	37,128,831	83,539,869	17,516,555	138,185,255
5	446,602,247	172,094,754	618,697,001	35,728,180	80,388,404	22,516,522	138,633,106
6	429,595,703	210,755,693	640,351,396	34,367,656	77,327,227	27,552,163	139,247,046
7	411,947,457	250,816,238	662,763,695	32,955,797	74,150,542	32,783,607	139,889,946
8	392,942,163	293,018,261	685,960,424	31,435,373	70,729,589	38,302,975	140,467,937
9	372,853,466	337,115,573	709,969,039	29,828,277	67,113,624	44,080,415	141,022,316
10	352,015,871	382,802,084	734,817,955	28,161,270	63,362,857	50,081,000	141,605,127
11	330,823,679	429,712,904	760,536,584	26,465,894	59,548,262	56,262,719	142,276,875
12	309,951,052	477,204,312	787,155,364	24,796,084	55,791,189	62,546,369	143,133,642
13	289,281,991	525,423,811	814,705,802	23,142,559	52,070,758	68,955,829	144,169,146
14	267,854,301	575,366,204	843,220,505	21,428,344	48,213,774	75,624,096	145,266,214
15	245,169,609	627,563,613	872,733,223	19,613,569	44,130,530	82,620,595	146,364,694
16	221,650,980	681,627,906	903,278,886	17,732,078	39,897,176	89,893,461	147,522,715
17	198,065,472	736,828,174	934,893,647	15,845,238	35,651,785	97,346,536	148,843,559
18	175,818,970	791,795,954	967,614,924	14,065,518	31,647,415	104,799,622	150,512,555
19	155,416,008	846,065,438	1,001,481,447	12,433,281	27,974,882	112,192,798	152,600,961
20	136,226,467	900,306,831	1,036,533,297	10,898,117	24,520,764	119,614,347	155,033,228
21	119,317,680	953,494,282	1,072,811,963	9,545,414	21,477,182	126,927,119	157,949,715
22	105,439,410	1,004,920,971	1,110,360,381	8,435,153	18,979,094	134,038,326	161,452,573
23	93,948,737	1,055,274,258	1,149,222,995	7,515,899	16,910,773	141,038,017	165,464,689
24	84,286,023	1,105,159,777	1,189,445,799	6,742,882	15,171,484	148,004,257	169,918,623
25	76,319,364	1,154,757,039	1,231,076,402	6,105,549	6,105,549	39,482,583	51,693,681
26	69,494,854	1,204,669,222	1,274,164,076	5,559,588	5,559,588	41,511,921	52,631,097
27	63,441,538	1,255,318,282	1,318,759,819	5,075,323	5,075,323	43,585,468	53,736,114
28	57,634,955	1,307,281,458	1,364,916,413	4,610,796	4,610,796	45,720,241	54,941,833
29	51,280,187	1,361,408,301	1,412,688,487	4,102,415	4,102,415	47,938,326	56,143,156
30	44,222,164	1,417,910,420	1,462,132,584	3,537,773	3,537,773	50,243,965	57,319,511
31	37,694,314	1,475,612,911	1,513,307,225	3,015,545	3,015,545	52,579,940	58,611,030
32	32,442,722	1,533,830,256	1,566,272,978	2,595,418	2,595,418	54,917,155	60,107,991
33	27,663,132	1,593,429,400	1,621,092,532	2,213,051	2,213,051	57,288,466	61,714,568
34	23,354,916	1,654,475,855	1,677,830,770	1,868,393	1,868,393	59,692,224	63,429,010
35	19,288,114	1,717,266,733	1,736,554,847	1,543,049	1,543,049	62,135,317	65,221,415
36	15,597,103	1,781,737,165	1,797,334,267	1,247,768	1,247,768	64,612,898	67,108,434
37	12,448,618	1,847,792,348	1,860,240,966	995,889	995,889	67,122,089	69,113,867
38	9,647,306	1,915,702,095	1,925,349,400	771,784	771,784	69,670,283	71,213,851
39	7,226,049	1,985,510,580	1,992,736,629	578,084	578,084	72,258,711	73,414,879
40	5,340,897	2,057,141,515	2,062,482,411	427,272	427,272	74,889,019	75,743,563
41	3,942,762	2,130,726,533	2,134,669,296	315,421	315,421	77,569,032	78,199,874
42	2,845,935	2,206,536,786	2,209,382,721	227,675	227,675	80,311,555	80,766,905
43	2,051,499	2,284,659,617	2,286,711,116	164,120	164,120	83,124,358	83,452,598
44	1,487,723	2,365,258,282	2,366,746,005	119,018	119,018	86,016,601	86,254,637
45	1,056,614	2,448,525,502	2,449,582,116	84,529	84,529	88,996,918	89,165,976
46	747,580	2,534,569,910	2,535,317,490	59,806	59,806	92,071,608	92,191,220
47	513,937	2,623,539,664	2,624,053,602	41,115	41,115	95,247,814	95,330,044
48	341,731	2,715,553,747	2,715,895,478	27,339	27,339	98,531,716	98,586,394
49	222,043	2,810,729,777	2,810,951,820	17,763	17,763	101,929,599	101,965,125
50	133,007	2,909,202,126	2,909,335,133	10,641	10,641	105,447,560	105,468,842

**SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION
OF PLAN FIDUCIARY NET POSITION ENDING DECEMBER 31 FOR 2014 TO 2063**

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.750%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	\$ 2,209,799,679	\$ 138,555,936	\$ 168,859,606	\$ 2,895,724	\$ 169,997,003	\$ 2,346,597,288
2	2,346,597,288	137,980,226	181,441,472	2,764,592	180,103,461	2,480,474,912
3	2,480,474,912	137,939,324	193,671,392	2,654,001	190,016,560	2,612,105,403
4	2,612,105,403	138,185,255	205,942,213	2,552,607	199,764,509	2,741,560,346
5	2,741,560,346	138,633,106	218,249,917	2,456,312	209,349,934	2,868,837,158
6	2,868,837,158	139,247,046	231,235,937	2,362,776	218,746,971	2,993,232,462
7	2,993,232,462	139,889,946	244,813,538	2,265,711	227,899,431	3,113,942,589
8	3,113,942,589	140,467,937	259,157,055	2,161,182	236,734,979	3,229,827,269
9	3,229,827,269	141,022,316	273,966,560	2,050,694	245,178,164	3,340,010,495
10	3,340,010,495	141,605,127	289,020,070	1,936,087	253,171,445	3,443,830,910
11	3,443,830,910	142,276,875	303,858,500	1,819,530	260,683,244	3,541,112,999
12	3,541,112,999	143,133,642	318,167,682	1,704,731	267,715,417	3,632,089,646
13	3,632,089,646	144,169,146	332,036,223	1,591,051	274,282,428	3,716,913,946
14	3,716,913,946	145,266,214	346,013,919	1,473,199	280,370,982	3,795,064,024
15	3,795,064,024	146,364,694	360,393,033	1,348,433	285,927,335	3,865,614,586
16	3,865,614,586	147,522,715	374,939,040	1,219,080	290,890,818	3,927,870,000
17	3,927,870,000	148,843,559	388,998,644	1,089,360	295,236,129	3,981,861,683
18	3,981,861,683	150,512,555	401,731,413	967,004	299,004,415	4,028,680,236
19	4,028,680,236	152,600,961	412,543,074	854,788	302,305,401	4,070,188,735
20	4,070,188,735	155,033,228	421,705,277	749,246	305,270,404	4,108,037,845
21	4,108,037,845	157,949,715	428,481,319	656,247	308,060,480	4,144,910,474
22	4,144,910,474	161,452,573	432,287,571	579,917	310,909,474	4,184,405,033
23	4,184,405,033	165,464,689	433,638,616	516,718	314,073,898	4,229,788,285
24	4,229,788,285	169,918,623	432,930,222	463,573	317,789,428	4,284,102,542
25	4,284,102,542	51,693,681	430,197,353	419,757	317,608,635	4,222,787,748
26	4,222,787,748	52,631,097	425,996,200	382,222	313,053,570	4,162,093,994
27	4,162,093,994	53,736,114	420,505,702	348,928	308,601,878	4,103,577,355
28	4,103,577,355	54,941,833	414,092,399	316,992	304,357,781	4,048,467,579
29	4,048,467,579	56,143,156	407,528,197	282,041	300,383,402	3,997,183,899
30	3,997,183,899	57,319,511	400,935,394	243,222	296,705,831	3,950,030,625
31	3,950,030,625	58,611,030	393,533,413	207,319	293,383,405	3,908,284,328
32	3,908,284,328	60,107,991	384,661,754	178,435	290,543,452	3,874,095,582
33	3,874,095,582	61,714,568	374,988,511	152,147	288,323,762	3,848,993,253
34	3,848,993,253	63,429,010	364,472,154	128,452	286,844,332	3,834,665,990
35	3,834,665,990	65,221,415	353,575,683	106,085	286,217,340	3,832,422,976
36	3,832,422,976	67,108,434	342,049,925	85,784	286,554,325	3,843,950,027
37	3,843,950,027	69,113,867	329,951,310	68,467	287,984,665	3,871,028,783
38	3,871,028,783	71,213,851	317,470,964	53,060	290,638,300	3,915,356,910
39	3,915,356,910	73,414,879	304,569,500	39,743	294,648,538	3,978,811,084
40	3,978,811,084	75,743,563	291,050,802	29,375	300,169,259	4,063,643,728
41	4,063,643,728	78,199,874	277,154,384	21,685	307,365,926	4,172,033,459
42	4,172,033,459	80,766,905	262,999,978	15,653	316,402,225	4,306,186,958
43	4,306,186,958	83,452,598	248,538,294	11,283	327,451,351	4,468,541,330
44	4,468,541,330	86,254,637	233,971,515	8,182	340,694,416	4,661,510,686
45	4,661,510,686	89,165,976	219,518,464	5,811	356,309,946	4,887,462,333
46	4,887,462,333	92,191,220	205,224,285	4,112	374,479,869	5,148,905,025
47	5,148,905,025	95,330,044	191,197,369	2,827	395,394,488	5,448,429,361
48	5,448,429,361	98,586,394	177,465,270	1,880	419,253,679	5,788,802,283
49	5,788,802,283	101,965,125	164,089,029	1,221	446,269,746	6,172,946,904
50	6,172,946,904	105,468,842	151,114,589	732	476,667,588	6,603,968,012

**SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES
OF PROJECTED BENEFITS ENDING DECEMBER 31 FOR 2014 TO 2063**

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{^(a)-.5}	(g)=(e)*vf ^{^(a)-.5}	(h)=((c)/(1+SDR)) ^{^(a)-.5}
1	\$ 2,209,799,679	\$ 168,859,606	\$ 168,859,606	\$ -	\$ 162,673,620	\$ -	\$ 162,673,620
2	2,346,597,288	181,441,472	181,441,472	-	162,222,332	-	162,222,332
3	2,480,474,912	193,671,392	193,671,392	-	160,702,368	-	160,702,368
4	2,612,105,403	205,942,213	205,942,213	-	158,593,323	-	158,593,323
5	2,741,560,346	218,249,917	218,249,917	-	155,982,663	-	155,982,663
6	2,868,837,158	231,235,937	231,235,937	-	153,377,021	-	153,377,021
7	2,993,232,462	244,813,538	244,813,538	-	150,703,424	-	150,703,424
8	3,113,942,589	259,157,055	259,157,055	-	148,058,534	-	148,058,534
9	3,229,827,269	273,966,560	273,966,560	-	145,261,554	-	145,261,554
10	3,340,010,495	289,020,070	289,020,070	-	142,221,041	-	142,221,041
11	3,443,830,910	303,858,500	303,858,500	-	138,768,202	-	138,768,202
12	3,541,112,999	318,167,682	318,167,682	-	134,851,989	-	134,851,989
13	3,632,089,646	332,036,223	332,036,223	-	130,607,910	-	130,607,910
14	3,716,913,946	346,013,919	346,013,919	-	126,316,564	-	126,316,564
15	3,795,064,024	360,393,033	360,393,033	-	122,102,862	-	122,102,862
16	3,865,614,586	374,939,040	374,939,040	-	117,894,309	-	117,894,309
17	3,927,870,000	388,998,644	388,998,644	-	113,517,544	-	113,517,544
18	3,981,861,683	401,731,413	401,731,413	-	108,801,132	-	108,801,132
19	4,028,680,236	412,543,074	412,543,074	-	103,693,048	-	103,693,048
20	4,070,188,735	421,705,277	421,705,277	-	98,372,135	-	98,372,135
21	4,108,037,845	428,481,319	428,481,319	-	92,763,617	-	92,763,617
22	4,144,910,474	432,287,571	432,287,571	-	86,856,286	-	86,856,286
23	4,184,405,033	433,638,616	433,638,616	-	80,861,013	-	80,861,013
24	4,229,788,285	432,930,222	432,930,222	-	74,922,429	-	74,922,429
25	4,284,102,542	430,197,353	430,197,353	-	69,094,647	-	69,094,647
26	4,222,787,748	425,996,200	425,996,200	-	63,498,741	-	63,498,741
27	4,162,093,994	420,505,702	420,505,702	-	58,172,001	-	58,172,001
28	4,103,577,355	414,092,399	414,092,399	-	53,164,544	-	53,164,544
29	4,048,467,579	407,528,197	407,528,197	-	48,558,495	-	48,558,495
30	3,997,183,899	400,935,394	400,935,394	-	44,336,833	-	44,336,833
31	3,950,030,625	393,533,413	393,533,413	-	40,388,210	-	40,388,210
32	3,908,284,328	384,661,754	384,661,754	-	36,638,250	-	36,638,250
33	3,874,095,582	374,988,511	374,988,511	-	33,147,929	-	33,147,929
34	3,848,993,253	364,472,154	364,472,154	-	29,900,986	-	29,900,986
35	3,834,665,990	353,575,683	353,575,683	-	26,920,695	-	26,920,695
36	3,832,422,976	342,049,925	342,049,925	-	24,169,969	-	24,169,969
37	3,843,950,027	329,951,310	329,951,310	-	21,638,103	-	21,638,103
38	3,871,028,783	317,470,964	317,470,964	-	19,322,177	-	19,322,177
39	3,915,356,910	304,569,500	304,569,500	-	17,203,673	-	17,203,673
40	3,978,811,084	291,050,802	291,050,802	-	15,257,602	-	15,257,602
41	4,063,643,728	277,154,384	277,154,384	-	13,484,100	-	13,484,100
42	4,172,033,459	262,999,978	262,999,978	-	11,875,137	-	11,875,137
43	4,306,186,958	248,538,294	248,538,294	-	10,414,993	-	10,414,993
44	4,468,541,330	233,971,515	233,971,515	-	9,099,371	-	9,099,371
45	4,661,510,686	219,518,464	219,518,464	-	7,923,228	-	7,923,228
46	4,887,462,333	205,224,285	205,224,285	-	6,874,523	-	6,874,523
47	5,148,905,025	191,197,369	191,197,369	-	5,943,995	-	5,943,995
48	5,448,429,361	177,465,270	177,465,270	-	5,120,267	-	5,120,267
49	5,788,802,283	164,089,029	164,089,029	-	4,393,813	-	4,393,813
50	6,172,946,904	151,114,589	151,114,589	-	3,755,356	-	3,755,356

**SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES
OF PROJECTED BENEFITS ENDING DECEMBER 31 FOR 2064 TO 2113 (CONCLUDED)**

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{(a)-5}	(g)=(e)*vf ^{(a)-5}	(h)=(c)/(1+SDR) ^{(a)-5}
51	\$ 6,603,968,012	\$ 138,566,672	\$ 138,566,672	\$ -	\$ 3,195,849	\$ -	\$ 3,195,849
52	7,085,191,136	126,471,213	126,471,213	-	2,707,085	-	2,707,085
53	7,620,179,081	114,868,534	114,868,534	-	2,281,886	-	2,281,886
54	8,212,733,864	103,783,337	103,783,337	-	1,913,389	-	1,913,389
55	8,866,931,069	93,235,324	93,235,324	-	1,595,287	-	1,595,287
56	9,587,147,605	83,250,160	83,250,160	-	1,321,984	-	1,321,984
57	10,378,078,664	73,845,057	73,845,057	-	1,088,291	-	1,088,291
58	11,244,770,708	65,040,933	65,040,933	-	889,597	-	889,597
59	12,192,645,054	56,852,380	56,852,380	-	721,669	-	721,669
60	13,227,532,975	49,292,328	49,292,328	-	580,699	-	580,699
61	14,355,709,258	42,367,331	42,367,331	-	463,218	-	463,218
62	15,583,933,227	36,077,557	36,077,557	-	366,079	-	366,079
63	16,919,493,154	30,421,076	30,421,076	-	286,480	-	286,480
64	18,370,249,223	25,386,028	25,386,028	-	221,869	-	221,869
65	19,944,688,432	20,950,550	20,950,550	-	169,934	-	169,934
66	21,651,983,827	17,091,359	17,091,359	-	128,660	-	128,660
67	23,502,049,558	13,776,581	13,776,581	-	96,248	-	96,248
68	25,505,607,792	10,965,209	10,965,209	-	71,097	-	71,097
69	27,674,261,193	8,612,342	8,612,342	-	51,825	-	51,825
70	30,020,565,767	6,671,963	6,671,963	-	37,261	-	37,261
71	32,558,106,514	5,097,516	5,097,516	-	26,420	-	26,420
72	35,301,578,207	3,839,803	3,839,803	-	18,470	-	18,470
73	38,266,874,510	2,850,123	2,850,123	-	12,724	-	12,724
74	41,471,180,902	2,084,978	2,084,978	-	8,638	-	8,638
75	44,933,069,820	1,503,806	1,503,806	-	5,782	-	5,782
76	48,672,605,456	1,069,613	1,069,613	-	3,817	-	3,817
77	52,711,456,122	751,063	751,063	-	2,487	-	2,487
78	57,073,013,112	520,973	520,973	-	1,601	-	1,601
79	61,782,520,305	357,225	357,225	-	1,019	-	1,019
80	66,867,212,882	242,882	242,882	-	643	-	643
81	72,356,466,670	164,300	164,300	-	404	-	404
82	78,281,961,025	110,762	110,762	-	253	-	253
83	84,677,854,702	74,573	74,573	-	158	-	158
84	91,580,975,305	50,260	50,260	-	99	-	99
85	99,031,024,217	34,057	34,057	-	62	-	62
86	107,070,797,998	23,246	23,246	-	39	-	39
87	115,746,427,632	15,911	15,911	-	25	-	25
88	125,107,636,569	10,914	10,914	-	16	-	16
89	135,208,018,822	7,522	7,522	-	10	-	10
90	146,105,339,011	5,182	5,182	-	7	-	7
91	157,861,855,904	3,546	3,546	-	4	-	4
92	170,544,671,042	2,412	2,412	-	3	-	3
93	184,226,104,455	1,640	1,640	-	2	-	2
94	198,984,099,611	1,118	1,118	-	1	-	1
95	214,902,659,806	754	754	-	1	-	1
96	232,072,318,417	500	500	-	0	-	0
97	250,590,645,610	329	329	-	0	-	0
98	270,562,794,371	214	214	-	0	-	0
99	292,102,088,915	137	137	-	0	-	0
100	315,330,658,720	86	86	-	0	-	0
Totals					\$ 3,768,693,652	\$ -	\$ 3,768,693,652

SECTION E
GLOSSARY OF TERMS

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GLOSSARY OF TERMS

<i>Actuarial Accrued Liability (AAL)</i>	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
<i>Actuarial Assumptions</i>	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
<i>Accrued Service</i>	Service credited under the system which was rendered before the date of the actuarial valuation.
<i>Actuarial Cost Method</i>	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
<i>Actuarial Gain (Loss)</i>	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
<i>Actuarial Present Value (APV)</i>	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
<i>Actuarial Valuation</i>	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.
<i>Actuarial Valuation Date</i>	The date as of which an actuarial valuation is performed.
<i>Actuarially Determined Contribution (ADC)</i>	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.
<i>Amortization Payment</i>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<i>Amortization Method</i>	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year).

GLOSSARY OF TERMS

<i>Cost-of-Living Adjustments</i>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i>	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
<i>Covered-Employee Payroll</i>	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
<i>Deferred Inflows and Outflows</i>	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
<i>Discount Rate</i>	<p>For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:</p> <ol style="list-style-type: none">1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
<i>Entry Age Actuarial Cost Method (EAN)</i>	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
<i>GASB</i>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<i>Fiduciary Net Position</i>	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
<i>Long-Term Expected Rate of Return</i>	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.

GLOSSARY OF TERMS

<i>Money-Weighted Rate of Return</i>	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
<i>Multiple-Employer Defined Benefit Pension Plan</i>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<i>Municipal Bond Rate</i>	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
<i>Net Pension Liability (NPL)</i>	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
<i>Non-Employer Contribution Entities</i>	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contribution entities.
<i>Normal Cost</i>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
<i>Real Rate of Return</i>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<i>Service Cost</i>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<i>Total Pension Expense</i>	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: <ol style="list-style-type: none">1. Service Cost2. Interest on the Total Pension Liability3. Current-Period Benefit Changes4. Employee Contributions (made negative for addition here)5. Projected Earnings on Plan Investments (made negative for addition here)6. Pension Plan Administrative Expense7. Other Changes in Plan Fiduciary Net Position8. Recognition of Outflow (Inflow) of Resources due to Liabilities9. Recognition of Outflow (Inflow) of Resources due to Assets
<i>Total Pension Liability (TPL)</i>	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
<i>Valuation Assets</i>	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 67 and 68, the valuation assets are equal to the market value of assets.