GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

DENVER EMPLOYEES RETIREMENT PLAN

ACTUARIAL VALUATION REPORT

AS OF JANUARY 1, 2014

Gabriel Roeder Smith & Company

GRS

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May 8, 2014

Board of Trustees
Denver Employees Retirement Plan
777 Pearl St
Denver, CO 80203

Re: Denver Employees Retirement Plan Actuarial Valuation as of January 1, 2014

Dear Board Members:

The results of the January 1, 2014 Annual Actuarial Valuation of the Denver Employees Retirement Plan (DERP) are presented in this report. The purpose of the valuation is to measure the Plan's funding progress and to determine the employer contribution rate for the next fiscal year.

This report was prepared at the request of the DERP Board and is intended to be used by those designated or approved by the Board. This report may be provided to parties other than DERP only in its entirety and only with the permission of DERP.

Regarding the contribution rate for the next fiscal year (2014), there is a slight increase in the Total Computed Contribution Rate for the Pension Plan while the Medical Plan Rate remained fairly constant, as shown on pages 9 and 10 of the valuation report. The increase is primarily due to the continued recognition of the past asset losses. The Total Computed Contribution Rate (Pension and Medical) has increased from 18.31% for 2013 to 18.40% for 2014. The scheduled contribution rate is already 18.50% and is therefore sufficient to cover the Annual Required Contribution. The Total Computed Contribution Amount (Pension and Medical) has increased from $97.3M for 2013 to $99.4M (a 2.3% increase) for 2014.

The valuation was based upon information furnished by DERP concerning Plan benefits, financial transactions, active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. These calculations may be subject to certain provisions of the agreement between DHHA and DERP. This letter and these calculations are not intended as legal or accounting advice, and we would recommend review by legal counsel for the compliance of these calculations with all relevant agreements.

The actuarial methods and assumptions used are in full compliance with the parameters established by GASB Statements No. 25 and No. 27 and meet the parameters set for the disclosures presented in the financial section by GASB Statement No. 25. For the retiree medical benefits, the schedules illustrate the value of the explicit benefit as described in the Plan Summary, and that explicit benefit is valued in compliance with all the parameters established by GASB Statements No. 43 and 45. The value of any implicit rate subsidy in the City-sponsored health plans will be illustrated in the disclosures related to those plans.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events for the Pension Plan, Retiree Medical Plan, and Denver Health and Hospital Authority (DHHA). We believe that the assumptions and methods used in this report are reasonable and appropriate for the purpose for which they have been used. However, other assumptions and methods could also be reasonable and could result in materially different results. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

If there is other information that you need in order to make an informed decision regarding the matters discussed in this report, please contact us.

We certify that the information contained in this report is accurate and fairly presents the actuarial position of DERP as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

The actuaries submitting this statement are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. Both are experienced in performing valuations for large public retirement systems.

Respectfully submitted,

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Senior Consultant

Diane L. Hunt

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Consultant

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SECTION A

INTRODUCTION

Pension Plan - Executive Summary

($ in Millions)

Valuation Date:	January 1, 2014	January 1, 2013
Fiscal Year Ending:	December 31, 2014	December 31, 2013
Actuarial Information:		
· Normal Cost %	10.05%	10.21%
· Actuarial Accrued Liability (AAL)	$2,699.00	$2,593.19
· Unfunded Actuarial Accrued Liability (UAAL)	$636.68	$612.99
· Funded Ratio	76.41%	76.36%
· UAAL as % of Covered Payroll	117.85%	115.32%
· Equivalent Single Amortization Period	29.0 years	30 years
Required Contributions:		
· Normal Cost	$54.27	$54.26
· Amortization of the Unfunded Liability	$38.42	$36.40
· Total Contribution Amount*	$92.69	$90.66
· Percentage of Covered Payroll	17.16%	17.06%
Assets:		
· Market Value	$2,030.54	$1,781.63
· Actuarial Value	$2,062.32	$1,980.20
· Return on Market Value	17.99%	12.54%
· Return on Actuarial Value	7.59%	5.41%
· Ratio – Actuarial Value to Market Value	101.57%	111.15%
Membership:		
· Number of:		
- Active Members	8,304	8,175
- Retirees and Beneficiaries	8,482	8,045
- Inactive, Non-retired Members**	5,162	5,038
- Total	21,948	21,258
· Covered Payroll	$540.23	$531.56

Highlights/Changes:

- A new tier of benefits is effective for new entrants as of July 1, 2011. See Section G for details.
- Total scheduled contribution increased 0.50% from 18.00% to 18.50%, effective January 1, 2014.
- The aggregate actuarial loss was $15.24 million, with $9.04 million due to continued recognition of past asset losses.
- The amortization methodology was changed from "open" to "closed bases", effective January 1, 2013, and is detailed in Section B.

* These results are on a baseline basis. Baseline results are net of the DHHA supplement. The 2014 Total Contribution Amount including the DHHA supplement is $94,822,795 (17.55% of payroll), and for 2013 is $92,592,973 (17.42% of payroll).

** The number of Inactive, Non-retired Members includes 1,750 Non-vested Inactive Members as of January 1, 2014, and 1,636 Non-vested Inactive Members as of January 1, 2013, who are not vested in any benefit other than their accumulated contributions.

Retiree Medical Plan - Executive Summary

($ in Millions)

Valuation Date:	January 1, 2014	January 1, 2013
Fiscal Year Ending:	December 31, 2014	December 31, 2013
Actuarial Information:		
· Normal Cost %	0.49%	0.51%
· Actuarial Accrued Liability (AAL)	$149.78	$148.89
· Unfunded Actuarial Accrued Liability (UAAL)	$67.05	$65.89
· Funded Ratio	55.24%	55.74%
· UAAL as % of Covered Payroll	12.41%	12.40%
· Equivalent Single Amortization Period	29.0 years	30 years
Required Contributions:		
· Normal Cost	$2.64	$2.72
· Amortization of the Unfunded Liability	$4.05	$3.91
· Total Contribution Amount*	$6.69	$6.64
· Percentage of Covered Payroll	1.24%	1.25%
Assets:		
· Market Value	$79.88	$73.06
· Actuarial Value	$82.74	$82.99
· Return on Market Value	18.22%	12.60%
· Return on Actuarial Value	7.11%	4.97%
· Ratio – Actuarial Value to Market Value	103.58%	113.60%

Highlights/Changes:

- No changes to benefit provisions.
- The aggregate investment and liability experience loss was $0.09 million.
- The amortization methodology was changed from "open" to "closed bases", effective Janaury 1, and is detailed in Section B.

* These results are on a baseline basis. Baseline results are net of the DHHA supplement. The 2014 Total Contribution Amount including the DHHA supplement is $6,697,994 (1.24% of payroll), and for 2013 is $6,638,172 (1.25% of payroll).

Contribution Summary
Combined Basis

Valuation Date:	January 1, 2014	January 1, 2013
Fiscal Year Ending:	December 31, 2014	December 31, 2013
Total Contribution Percent		
· Pension	17.16%	17.06%
· Retiree Medical	1.24%	1.25%
· Total	18.40%	18.31%
Total Scheduled Contribution	18.50%	18.00%
Contribution Surplus / (Shortfall)*	0.10%	(0.31%)

*There is generally a one year lag in implementing a change in the contribution requirement.

Discussion

Actuarial Valuation

Valuations are prepared annually, as of January 1 of each year, the first day of DERP's fiscal year. Valuations are prepared for the Pension and Retiree Medical Plans. Normal Cost is separately calculated for the Hospital and Non-Hospital employee groups, in order to determine the DHHA supplemental contribution amount (see Section I).

The primary purposes of the valuation report are to measure the plan's liabilities, to determine the required contribution rate and to analyze changes in DERP's actuarial position.

In addition, the report provides information in connection with Governmental Accounting Standards Board Statement No. 25 and 27 (GASB 25 and GASB 27), and it provides summaries of the member data, financial data, plan provisions, and actuarial assumptions and methods.

Financing Objectives

DERP is supported by member contributions, employer contributions, and net earnings on the investments of the fund. The member and employer contribution rates are set by law. Employer rates increased from 11.00% to 11.20% effective January 1, 2014. Member rates increased from 7.00% to 7.30% effective January 1, 2014.

The combined member and employer contributions are intended to be sufficient to pay the normal cost and to amortize the Unfunded Actuarial Accrued Liability (UAAL) over a closed period of 30 years from the valuation date. An amortization base will be established each year and each new base will be paid off over 30 years, using annual payments determined as a level percentage of payroll. Each base and full payment schedule is shown in the Appendix.

Contribution Requirement

The Total Computed Contribution required for the Pension Plan for the fiscal year ending December 31, 2014 is $92,689,131, 17.16% of covered payroll ($94,822,795, 17.55% of covered payroll including the DHHA Supplement). This compares with a Total Computed Contribution for the fiscal year ending December 31, 2013 of $90,659,225, 17.06% of covered payroll ($92,592,973, 17.42% of covered payroll including the DHHA Supplement).

The Total Computed Contribution required for the Retiree Medical Plan for the fiscal year ending December 31, 2014 is $6,689,146, 1.24% of covered payroll ($6,697,994, 1.24% of covered payroll including the DHHA Supplement). This compares with a Total Computed Contribution for the fiscal year ending December 31, 2013 of $6,636,420, 1.25% of covered payroll ($6,638,172, 1.25% of covered payroll including the DHHA Supplement).

The method used to determine the actuarial value of assets smoothes the differences between the actuarial and market values by recognizing 20% of the difference each year. The actuarial value is working to "catch up" to the market value. Last year, the difference between the actuarial and market values was $199 million for the pension plan. The greater-than-expected 2013 investment returns closed the gap between the actuarial value and market value to $32 million. The rate of return on a market value basis was 17.99%; on an actuarial basis it was 7.59%.

The contribution rate increased from 18.31% of pay to 18.40%. Of the 0.09% contribution rate increase, 0.06% is due to recognition of prior years' asset losses.

Funded Status

As of the valuation date, the Unfunded Actuarial Accrued Liability (UAAL) for the Pension Plan is $636.68 million, and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 76.41%. At the time of last year's valuation, the UAAL was $612.99 million, and the funded ratio was 76.36%. See Section D for a history of the funded ratios.

As of the valuation date, the Unfunded Actuarial Accrued Liability (UAAL) for the Retiree Medical Plan is $67.05 million, and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 55.24%. At the time of last year's valuation, the UAAL was $65.89 million, and the funded ratio was 55.74%. See Section D for a history of the funded ratios.

Gains and Losses

The Pension Plan experienced a total aggregate actuarial loss of $15.24 million, which includes an investment loss of $9.04 million (based on the Actuarial Value of Assets), and a non-investment loss of $6.20 million.

The Retiree Medical Plan experienced a total aggregate actuarial loss of $0.09 million, which includes an investment loss of $0.76 million (based on the Actuarial Value) and a non-investment gain of $0.67 million.

Valuation Assets

The funding policy for both the Pension Plan and the Retiree Medical Plan includes smoothing returns. Smoothing assets creates a more stable contribution rate. The 2013 return on the Actuarial Value of Assets for the Pension Plan was 7.59%, while the return on a Market Value basis was 17.99%. The 2013 return on the Actuarial Value of Assets for the Retiree Medical Plan was 7.11%, while the return on a Market Value basis was 18.22%.

The Actuarial Value of Assets exceeds the Market Value of Assets by $31.78 million for the Pension Plan and the Actuarial Value of Assets exceeds the Market Value of Assets by $2.86 million for the Retiree Medical Plan as of the valuation date (see Section C).

Funded Ratio Based on the Market Value of Assets

If Market Value had been the basis for the valuation, the funded ratios would have been 75.23%, for the Pension Plan and 53.33% for the Retiree Medical Plan.

Benefit Provisions

This valuation reflects the benefits as summarized in Section G of this report.

Actuarial Assumptions and Methods

In determining costs and liabilities, actuaries use assumptions about the future, such as rates of salary increase, probabilities of retirement, termination, death and disability, and an investment return assumption. The Retirement Board sets the actuarial assumptions and methods taking into account recommendations made by the plan's actuary and other advisors.

We believe the assumptions are internally consistent and are reasonable, based on the actual experience of DERP. These actuarial assumptions and methods comply with the parameters for disclosure in GASB No. 25.

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 amortization periods.

In addition to the actuarial assumptions, the actuary also makes use of an Actuarial Cost Method to allocate costs to particular years. DERP uses the Projected Unit Credit method. This method determines an accrued liability based on projected compensation, and uses service to the valuation date. The unfunded accrued liability is then amortized on a 30-year amortization basis, as a level percent of pay, with bases established each year. Prior to the January 1, 2013 valuation, the unfunded liability was amortized on an open 30-year period on a level dollar basis.

There are no new actuarial assumptions reflected in the liabilities. However, as a result of an actuarial audit conducted in 2013, enhancements were made to the method for valuing the spousal death benefit for vested participants who terminate and die prior to the commencement of their retirement benefits. In addition, the disability benefit was corrected to reflect that it does not contain a joint and survivor reduction. These changes are incorporated in the results and are specified in the assumptions and methodology section.

Member Data

The number of active members increased by 1.58% from 8,175 to 8,304 and average pay for active members increased from $65,023 to $65,057, a 0.05% increase. Average age of active members is 45.9, compared to 46.4 last year. Average years of service is 11.3, compared to 11.8 last year. There are also 5,162 inactive vested members, which includes 1,750 members vested in member contributions only.

The number of members in payment status increased by 437, from 8,045 to 8,482. This number includes service retirees, disability retirees, and beneficiaries receiving benefits. The average annual service retiree benefit is $20,039 and there are 0.98 active members for each member in payment status.

There were “show-up” retirees this year who were not in the valuation data last year, which led to a negligible actuarial loss.

GASB No. 25 Disclosure

Governmental Accounting Standards Board (GASB) Statement No. 25 governs reporting for government-sponsored retirement plans.

For Section D, the Annual Required Contribution (ARC) is defined to be the sum of (a) the employer’s normal cost, and (b) the amount needed to amortize the UAAL as a level percent of payroll over a “closed bases” 30-year period.

Effective January 1, 2008, valuation results presented are those provided by GRS. Results prior to that date were provided by the former actuary.

GASB No. 43

Governmental Accounting Standards Board (GASB) Statement No. 43 governs financial reporting for postemployment benefits other than pension plans. These liabilities shown in the report in Section D represent solely the value of the explicit benefit, without regard to the implicit rate subsidy. The explicit benefit is valued in compliance with all parameters established by GASB Statements No. 43 and No. 45. The value of any implicit rate subsidy in the city-sponsored health plans will be illustrated in the disclosures related to those plans.

ASOP No. 35 and Mortality Assumption

The Actuarial Standards of Practice, with regard to the mortality assumption, has recently been revised. ASOP No. 35 Disclosure Section 4.1.1 now states *“The disclosure of the mortality assumption should contain sufficient detail to permit another qualified actuary to understand the provision made for future mortality improvement. If the actuary assumes zero mortality improvement after the measurement date, the actuary should state that no provision was made for future mortality improvement.”* The mortality assumption currently includes margin for future mortality improvement. Details on this assumption can be found in Section F.

SECTION B

FUNDING RESULTS

Pension Plan
Principal Valuation Results
as of January 1*

Valuation Date	**2014**	**2013**
Covered Group		
A. Number of Participants:		
Actives Members	8,304	8,175
Vested Inactive Members**	5,162	5,038
Retirees and Beneficiaries	8,482	8,045
Total	21,948	21,258
Covered Annual Payroll	$ 540,229,189	$ 531,559,017

Development of Contribution Rate For Fiscal Year Ending	**2014**	**2013**
B. Normal Cost	$ 54,272,966	$ 54,255,692
% of pay	*10.05%*	*10.21%*
C. Unfunded Actuarial Accrued Liabilities (UAAL):		
Actuarial Accrued Liability	$ 2,699,000,126	$ 2,593,190,336
Actuarial Value of Assets	2,062,322,953	1,980,204,173
UAAL	$ 636,677,172	$ 612,986,163
Payment required to amortize UAAL	$ 38,416,164	$ 36,403,533
% of pay	*7.11%*	*6.85%*
D. Total Computed Contribution	$ 92,689,131	$ 90,659,225
% of pay	*17.16%*	*17.06%*

* Separate figures for DHHA are provided in Section I of this report

** The number of Vested Inactive Members includes 1,750 Inactive Members as of January 1, 2014, and 1,636 Inactive Members as of January 1, 2013, who are only vested in their contribution account.

Retiree Medical Plan
Principal Valuation Results
as of January 1*

Development of Contribution Rate **For Fiscal Year Ending**	**2014**	**2013**
A. Normal Cost	$ 2,642,417	$ 2,723,179
% of pay	*0.49%*	*0.51%*
B. Unfunded Actuarial Accrued Liabilities (UAAL):		
Actuarial Accrued Liability	$ 149,782,074	$ 148,886,318
Actuarial Value of Assets	82,736,993	82,992,647
UAAL	$ 67,045,081	$ 65,893,671
Payment required to amortize UAAL	$ 4,046,729	$ 3,913,241
% of pay	*0.75%*	*0.74%*
C. Total Computed Contribution	$ 6,689,146	$ 6,636,420
% of pay	*1.24%*	*1.25%*

* Separate figures for DHHA are provided in Section I of this report

Amortization of Actuarial Liabilities as of January 1, 2014

	Pension	Retiree Medical
Total Prior Remaining Bases as of January 1, 2014	$622,709,240	$66,938,865
UAAL as of January 1, 2014	636,677,172	67,045,081
2014 Base as of January 1, 2014	$13,967,932	$106,216
2014 Payment (30 years, level % of pay)	$829,516	$6,308

Year	Appendix	Years Remaining	Pension Initial Base	Pension Amortization Payment	Pension Remaining Base	Retiree Medical Initial Base	Retiree Medical Amortization Payment	Retiree Medical Remaining Base
2014	2014 Amortization Schedule	30	$13,967,932	$829,516	$13,967,932	$106,216	$6,308	$106,216
2013	2013 Amortization Schedule	29	612,986,163	37,586,648	622,709,240	65,893,671	4,040,421	66,938,865
UAAL					**$636,677,172**			**$67,045,081**
Total Amortization Payment				**$38,416,164**			**$4,046,729**	

See Appendix for amortization schedules for each base

Pension Plan
Actuarial Liabilities
as of January 1, 2014

	Actuarial Present Value of Future Benefits (1)	**Portion Covered by Future Normal Cost Contributions (2)**	**Actuarial Accrued Liabilities (1) - (2)**
Active members:			
Retirement	$1,156,392,204	$369,564,266	$786,827,938
Disability	52,370,691	17,653,313	34,717,378
Death	23,303,927	7,973,150	15,330,777
Termination	104,978,535	35,979,220	68,999,315
Vested inactive members	154,017,183	0	154,017,183
DROP participant - account balances	107,943,569	0	107,943,569
Retirees and Beneficiaries	1,531,163,966	0	1,531,163,966
Total	$3,130,170,075	$431,169,949	$2,699,000,126
Actuarial Value of Assets	$2,062,322,953	$0	$2,062,322,953
Liabilities to be covered by Future Contributions	$1,067,847,121	$431,169,949	$636,677,172

Retiree Medical Plan
Actuarial Liabilities
as of January 1, 2014

	Actuarial Present Value of Future Benefits (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Active members:			
Retirement	$54,550,758	$16,463,674	$38,087,084
Disability	2,995,237	988,379	2,006,858
Death	1,208,689	408,948	799,741
Termination	3,524,993	1,150,347	2,374,646
Vested inactive members	8,277,021	0	8,277,021
DROP participants	0	0	0
Retirees and Beneficiaries	98,236,724	0	98,236,724
Total	$168,793,422	$19,011,348	$149,782,074
Actuarial Value of Assets	$82,736,993	$0	$82,736,993
Liabilities to be covered by Future Contributions	$86,056,429	$19,011,348	$67,045,081

Pension Plan
Actuarial Balance Sheet as of January 1
Assets and Present Value of Expected Future Contributions

	2014	2013
A. Actuarial Value of Assets		
1. Net assets from system financial statements	$2,030,538,678	$1,781,633,331
2. Adjustment for Valuation Assets*	31,784,275	198,570,842
3. Actuarial Value of Assets	$2,062,322,953	$1,980,204,173
B. Actuarial Present Value of Expected Future Contributions		
1. For Normal Costs	$431,169,949	$434,944,254
2. For Unfunded Actuarial Accrued Liability	636,677,172	612,986,163
3. Total	$1,067,847,121	$1,047,930,417
C. Total Present and Expected Future Resources (equals Present Value of Benefits)	$3,130,170,075	$3,028,134,590

**See page 23*

Retiree Medical Plan
Actuarial Balance Sheet as of January 1
Assets and Present Value of Expected Future Contributions

	2014	**2013**
A. Actuarial Value of Assets		
1. Net assets from system financial statements	$79,877,187	$73,057,257
2. Adjustment for Valuation Assets*	2,859,806	9,935,390
3. Actuarial Value of Assets	$82,736,993	$82,992,647
B. Actuarial Present Value of Expected Future Contributions		
1. For Normal Costs	$19,011,348	$19,469,184
2. For Unfunded Actuarial Accrued Liability	67,045,081	65,893,671
3. Total	$86,056,429	$85,362,855
C. Total Present and Expected Future Resources (equals Present Value of Benefits)	$168,793,422	$168,355,502

**See page 24*

Pension Plan
Reconciliation of Actuarial Accrued Liability as of January 1
(rounded to the nearest $100)

1. Actuarial Accrued Liability (AAL) as of January 1, 2013:			$	2,593,190,300
2. Development of expected AAL as of January 1, 2014:				
a. Normal cost (NC) for prior plan year			$	56,189,400
b. Actual benefit payments paid during plan year (BP)				159,337,100
c. Interest on AAL and NC less interest on BP to December 31, 2013				202,755,000
d. Expected AAL as of January 1, 2014 (1.+2.a.-2.b.+2.c.)			$	2,692,797,600
3. Changes in AAL due to:				
a. Actual experience versus demographic assumptions (Gain)/Loss:				
i. Salary increases (Lower than expected)	$	(5,271,700)		
ii. Retirement (More than expected)		914,500		
iii. Mortality - pre and post (Fewer deaths than expected)		1,275,100		
iv. Vested termination (Fewer than expected)		1,968,800		
v. Non vested termination (More than expected)		(606,800)		
vi. Disability (Less than expected)		(834,900)		
vii. Other plan experience and data changes		4,032,800		
viii. New entrants		2,101,900		
Total change due to experience			$	3,579,700
b. Programming Enhancements*				2,586,400
c. Increase in Refund Benefit Due to Contribution Rate Increase				36,400
d. Plan improvements				-
e. Total (3.a.+ 3.b.+ 3.c.+ 3.d.)			$	6,202,500
4. Actuarial Accrued Liability as of January 1, 2014 (2.d.+3.e.)			$	2,699,000,100

*Added a spousal death benefit for vested participants who terminate and die before commencing benefits, and removed joint and survivor factor from disability benefit.

Retiree Medical Plan
Reconciliation of Actuarial Accrued Liability as of January 1

(rounded to the nearest $100)

1. Actuarial Accrued Liability (AAL) as of January 1, 2013:		$ 148,886,300
2. Development of expected AAL as of January 1, 2014:		
a. Normal cost (NC) for plan year		$ 2,724,900
b. Actual benefit payments paid during plan year (BP)		12,625,300
c. Interest on AAL and NC less interest on BP to December 31, 2013		11,470,700
d. Expected AAL as of January 1, 2014 (1.+2.a.-2.b.+2.c.)		$ 150,456,600
3. Changes in AAL due to:		
a. Actual experience versus demographic assumptions (Gain)/Loss:		
i. Salary increases	-	
ii. Retirement (Fewer than expected)	$ (189,800)	
iii. Mortality - pre and post	(1,657,800)	
iv. Vested termination (Fewer than expected)	52,500	
v. Non-vested termination and benefit opt-outs	(968,200)	
vi. Disability (Less than expected)	145,800	
vii. Other plan experience and data changes	1,836,200	
viii. New entrants	106,800	
Total change due to experience		$ (674,500)
b. Change in actuarial assumptions		-
c. Plan improvements		-
d. Change due to actuarial liability methods		-
4. Actuarial Accrued Liability as of January 1, 2014 (2.d.+3.d.)		$ 149,782,100

SECTION C

PLAN ASSETS

Pension Plan
Statement of Plan Assets
(Assets at Market or Fair Value)

Item	December 31 2013	December 31 2012
A. Assets:		
1. Cash and Cash Equivalents (Operating Cash)	$39,930,315	$31,579,891
2. Securities Lending Collateral	221,323,819	178,419,423
3. Capital Assets	5,201,747	5,574,691
4. Prepaid items	0	0
B. Receivables:		
1. Contributions	$0	$0
2. Unsettled Securities Sold	315,591	493,842
3. Interest and Dividends	1,676,635	1,353,379
4. Total Receivables	$1,992,226	$1,847,221
C. Investments:		
1. U.S. Government Obligations	$59,595,380	$71,934,943
2. Domestic Fixed Income	280,626,201	235,219,843
3. Domestic Equities	528,909,760	462,940,176
4. International Equities	545,628,025	467,215,068
5. Real Estate	160,840,411	146,894,297
6. Alternative Investments	313,608,587	272,638,672
7. Absolute Return	99,591,331	90,394,390
8. Total Investments	$1,988,799,695	$1,747,237,389
D. Liabilities:		
1. Unsettled Securities Purchased	($2,972,649)	($2,405,212)
2. Securities Lending Obligations	(221,323,819)	(178,419,423)
3. Accounts Payable	(2,412,656)	(2,200,649)
4. Total Liabilities	($226,709,124)	($183,025,284)
E. Total Market Value of Assets Available for Benefits	$2,030,538,678	$1,781,633,331
F. Allocation of Investments:		
1. U.S. Government Obligations	3.00%	4.12%
2. Domestic Fixed Income	14.11%	13.46%
3. Domestic Equities	26.59%	26.50%
4. International Equities	27.44%	26.74%
5. Real Estate	8.09%	8.41%
6. Alternative Investments	15.77%	15.60%
7. Absolute Return	5.00%	5.17%
8. Total Investments	100.00%	100.00%

Retiree Medical Plan
Statement of Plan Assets
(Assets at Market or Fair Value)

Item	December 31 2013	December 31 2012
A. Assets:		
1. Cash and Cash Equivalents (Operating Cash)	$1,570,776	$1,294,958
2. Securities Lending Collateral	8,706,421	7,316,227
3. Capital Assets	204,625	228,594
4. Prepaid Items	0	0
B. Receivables:		
1. Contributions	$0	$0
2. Unsettled Securities Sold	12,415	20,250
3. Interest and Dividends	65,955	55,496
4. Total Receivables	$78,370	$75,746
C. Investments:		
1. U.S. Government Obligations	$2,344,359	$2,949,748
2. Domestic Fixed Income	11,039,253	9,645,372
3. Domestic Equities	20,806,215	18,983,222
4. International Equities	21,463,877	19,158,516
5. Real Estate	6,327,129	6,023,515
6. Alternative Investments	12,336,712	11,179,760
7. Absolute Return	3,917,717	3,706,692
8. Total Investments	$78,235,262	$71,646,825
D. Liabilities:		
1. Unsettled Securities Purchased	($116,937)	($98,627)
2. Securities Lending Obligations	(8,706,421)	(7,316,227)
3. Accounts Payable	(94,909)	(90,239)
4. Total Liabilities	($8,918,267)	($7,505,093)
E. Total Market Value of Assets Available for Benefits	$79,877,187	$73,057,257
F. Allocation of Investments:		
1. U.S. Government Obligations	3.00%	4.12%
2. Domestic Fixed Income	14.11%	13.46%
3. Domestic Equities	26.59%	26.50%
4. International Equities	27.44%	26.74%
5. Real Estate	8.09%	8.41%
6. Alternative Investments	15.77%	15.60%
7. Absolute Return	5.00%	5.17%
8. Total Investments	100.00%	100.00%

Pension Plan
Reconciliation of Plan Assets

Item	December 31 2013	December 31 2012
A. Market Value of Assets at Beginning of Year	$1,781,633,331	$1,649,156,976
B. Revenues and Expenditures:		
1. Contributions:		
a. Employee Contributions	$37,138,512	$30,663,247
b. Employer Contributions	56,427,308	49,756,639
c. Purchased Service Credit	-	-
d. Total	$93,565,820	$80,419,886
2. Investment Income:		
a. Interest, Dividends, and Other Income	$329,966,967	$215,113,222
b. Net Securities Lending Income	969,255	858,717
c. Investment Expenses	(12,662,025)	(10,162,119)
d. Net Investment Income	$318,274,197	$205,809,820
3. Benefits and Refunds:		
a. Refunds	($1,051,298)	($947,756)
b. Regular Monthly Benefits	(153,475,911)	(144,232,319)
c. DROP and DROP II Benefits	(4,809,858)	(5,238,535)
d. Partial Lump-Sum Benefits Paid	-	-
e. Total	($159,337,067)	($150,418,610)
4. Administrative and Miscellaneous Expenses	($3,597,603)	($3,334,741)
5. Transfers	$0	$0
C. Market Value of Assets at End of Year	$2,030,538,678	$1,781,633,331

Retiree Medical Plan
Reconciliation of Plan Assets

Item	December 31 2013	December 31 2012
A. Market Value of Assets at Beginning of Year	$73,057,257	$70,313,146
B. Revenues and Expenditures:		
1. Contributions:		
a. Employee Contributions	$2,543,374	$2,492,678
b. Employer Contributions	4,135,064	4,241,292
c. Purchased Service Credit	-	-
d. Total	$6,678,438	$6,733,970
2. Investment Income:		
a. Interest, Dividends, and Other Income	$13,379,841	$9,022,961
b. Net Securities Lending Income	39,085	36,018
c. Investment Expenses	(507,009)	(423,231)
d. Net Investment Income	$12,911,917	$8,635,748
3. Benefits and Refunds:		
a. Refunds	($42,505)	($39,653)
b. Regular Monthly Benefits	(12,582,751)	(12,446,444)
c. Partial Lump-Sum Benefits Paid	-	-
d. Total	($12,625,256)	($12,486,097)
4. Administrative and Miscellaneous Expenses	($145,169)	($139,510)
5. Transfers	$0	$0
C. Market Value of Assets at End of Year	$79,877,187	$73,057,257

Pension Plan
Development of Actuarial Value of Assets

	Year Ending – December 31	2013	2012
A.	**Actuarial Value of Assets (AVA) Beginning of Year**	**$1,980,204,173**	**$1,946,844,159**
B.	Market Value (MV) End of Year	2,030,538,678	1,781,633,331
C.	Market Value Beginning of Year	1,781,633,331	1,649,156,976
D.	Increases During the Year:		
	D1. Member Contributions	$37,138,512	$30,663,247
	D2. Employer Contributions	56,427,308	49,756,639
	D3. Expected Return	155,836,096	153,001,449
	D4. Total Increases	$249,401,916	$233,421,335
E.	Decreases During the Year:		
	E1. Retirement Benefits	($158,285,769)	($149,470,854)
	E2. Refund of Member Accounts	(1,051,298)	(947,756)
	E3. Member Balance Transfers	0	0
	E4. Total Decreases	($159,337,067)	($150,418,610)
F.	Projected Actuarial Value of Assets (A. + D.4. + E.4.)	$2,070,269,022	$2,029,846,884
G.	Difference in Projected AVA and MV (B.-F.)	($39,730,344)	($248,213,553)
H.	Appreciation/(Depreciation) recognized: 20% of G.	($7,946,069)	($49,642,711)
I.	**Actuarial Value of Assets End of Year (F. + H.)**	**$2,062,322,953**	**$1,980,204,173**
J.	Unrecognized Difference in AVA and MV (B.-I.)	($31,784,275)	($198,570,842)
K.	**Actuarial Rate of Return**	**7.59%**	**5.41%**
L.	**Market Value Rate of Return**	**17.99%**	**12.54%**
M.	**Ratio of Actuarial Value of Assets to Market Value**	**102%**	**111%**

Retiree Medical Plan
Development of Actuarial Value of Assets

	Year Ending – December 31	2013	2012
A.	**Actuarial Value of Assets (AVA) Beginning of Year**	**$82,992,647**	**$84,679,890**
B.	Market Value (MV) End of Year	79,877,187	73,057,257
C.	Market Value Beginning of Year	73,057,257	70,313,146
D.	Increases During the Year:		
	D1. Member Contributions	$2,543,374	$2,492,678
	D2. Employer Contributions	4,135,064	4,241,292
	D3. Refund of Member Accounts	0	0
	D4. Expected Return	6,406,115	6,548,732
	D5. Total Increases	$13,084,553	$13,282,702
E.	Decreases During the Year:		
	E1. Retirement Benefits	($12,582,751)	($12,446,444)
	E2. Refund of Member Accounts	(42,505)	(39,653)
	E3. Member Balance Transfers	0	0
	E4. Total Decreases	($12,625,256)	($12,486,097)
F.	Projected Actuarial Value of Assets (A. + D.5. + E.4.)	$83,451,944	$85,476,495
G.	Difference in Projected AVA and MV (B.-F.)	($3,574,757)	($12,419,238)
H.	Appreciation/(Depreciation) recognized:		
	20% of G.	($714,951)	($2,483,848)
I.	**Actuarial Value of Assets End of Year (F. + H.)**	**$82,736,993**	**$82,992,647**
J.	Unrecognized Difference in AVA and MV (B.-I.)	($2,859,806)	($9,935,390)
K.	**Actuarial Rate of Return**	**7.11%**	**4.97%**
L.	**Market Value Rate of Return**	**18.22%**	**12.60%**
M.	**Ratio of Actuarial Value of Assets to Market Value**	**104%**	**114%**

History of Investment Return Rates

Plan Year Ending December 31 of	Pension Plan Market	Pension Plan Actuarial	Retiree Medical Market	Retiree Medical Actuarial
(1)	(2)	(3)	(4)	(5)
2002	(8.65%)	3.50%	(8.68%)	3.80%
2003	19.35%	6.10%	19.29%	6.10%
2004	11.10%	7.10%	11.03%	7.00%
2005	9.28%	7.50%	9.24%	7.40%
2006	13.72%	8.68%	13.72%	8.58%
2007	10.57%	9.10%	10.60%	9.04%
2008	(26.17%)	1.74%	(26.06%)	1.74%
2009	13.74%	3.39%	13.59%	3.23%
2010	13.89%	4.98%	13.66%	4.66%
2011	(0.31%)	3.94%	(0.23%)	3.61%
2012	12.54%	5.41%	12.60%	4.97%
2013	17.99%	7.59%	18.22%	7.11%
Average annual returns:				
Last five years:	11.39%	5.05%	11.39%	4.71%
Last ten years:	6.81%	5.92%	6.82%	5.71%
Standard deviation:				
Last five years:	6.96%	1.63%	6.94%	1.52%
Last ten years:	12.80%	2.43%	12.76%	2.44%

The above rates are based on the retirement plan's financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows. Figures prior to 2007 were provided by the previous actuary and DERP.

Pension Plan**
History of Cash Flow in Trust Fund

Plan Year Ending December 31	Total Contributions	Benefits and Refunds	Administrative Expenses	Transfers and Other	Net Investment Return*	Market Value of Assets at End of Year
2000						$1,488,342,575
2001	$43,990,992	($57,770,905)	($1,918,365)	-	($85,618,821)	1,387,025,476
2002	47,338,877	(62,334,251)	(1,955,993)	-	(117,388,491)	1,252,685,618
2003	45,899,111	(67,889,993)	(2,098,088)	-	242,309,261	1,470,905,909
2004	44,864,380	(76,437,075)	(2,211,322)	-	163,674,788	1,600,796,680
2005	48,595,153	(86,212,631)	(2,464,874)	-	149,237,500	1,709,951,828
2006	49,245,410	(95,645,656)	(2,618,710)	-	234,113,308	1,895,046,180
2007	52,934,416	(105,316,959)	(2,469,185)	-	199,977,322	2,040,171,774
2008	57,167,418	(115,583,559)	(2,839,820)	-	(523,370,681)	1,455,545,132
2009	55,976,584	(121,622,108)	(2,558,311)	-	198,018,642	1,585,359,939
2010	63,367,957	(138,058,331)	(2,555,677)	-	217,566,113	1,725,680,001
2011	71,814,123	(143,057,219)	(2,883,909)	-	(2,396,020)	1,649,156,976
2012	80,419,886	(150,418,610)	(3,334,741)	-	205,809,820	1,781,633,331
2013	93,565,820	(159,337,067)	(3,597,603)	-	318,274,197	2,030,538,678

Retiree Medical Plan**
History of Cash Flow in Trust Fund

Plan Year Ending December 31	Total Contributions	Benefits and Refunds	Administrative Expenses	Transfers and Other	Net Investment Return*	Market Value of Assets at End of Year
2000						$85,267,950
2001	$6,213,943	($5,672,171)	($110,628)	-	($4,910,543)	80,788,551
2002	3,556,073	(6,561,307)	(112,517)	-	(6,766,350)	70,904,450
2003	4,567,891	(7,588,370)	(117,418)	-	13,503,048	81,269,601
2004	3,928,526	(8,419,647)	(120,227)	-	8,832,033	85,490,236
2005	4,568,782	(9,209,929)	(129,711)	-	7,812,975	88,532,353
2006	5,263,707	(9,943,879)	(133,977)	-	11,955,835	95,674,039
2007	5,802,249	(10,632,418)	(123,382)	-	10,012,367	100,732,855
2008	5,437,137	(10,846,558)	(138,364)	-	(25,408,688)	69,776,382
2009	5,842,767	(11,023,712)	(120,955)	-	9,252,242	73,726,724
2010	4,875,366	(11,738,126)	(115,362)	-	9,714,426	76,463,028
2011	6,531,390	(12,513,090)	(125,390)	-	(42,792)	70,313,146
2012	6,733,970	(12,486,097)	(139,510)	-	8,635,748	73,057,257
2013	6,678,438	(12,625,256)	(145,169)	-	12,911,917	79,877,187

*Net of Investment Expense
**Figures prior to 2007 were provided by the previous actuary.

SECTION D

ACCOUNTING DISCLOSURES

Pension Plan*
Schedule of Funding Progress
($ in millions)

Valuation Date January 1	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) [(3) - (2)]	Funded Ratio [(2)/(3)]	Covered Payroll	UAAL as a Percentage of Covered Payroll [(4)/(6)]
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2004	$1,572.94	$1,604.53	$31.59	98.03%	$506.52	6.24%
2005	1,651.09	1,665.54	14.45	99.13%	495.17	2.92%
2006	1,735.21	1,782.50	47.30	97.35%	495.29	9.55%
2007	1,837.48	1,862.77	25.30	98.64%	499.46	5.06%
2008	1,950.01	1,985.65	35.64	98.21%	545.84	6.53%
2009	1,924.99	2,095.89	170.90	91.85%	564.99	30.25%
2010	1,923.56	2,176.24	252.68	88.39%	506.05	49.93%
2011	1,942.87	2,284.76	341.88	85.04%	517.40	66.08%
2012	1,946.84	2,386.53	439.69	81.58%	517.40	84.98%
2013	1,980.20	2,593.19	612.99	76.36%	531.56	115.32%
2014	2,062.32	2,699.00	636.68	76.41%	540.23	117.85%

Retiree Medical Plan*
Schedule of Funding Progress**
($ in millions)

Valuation Date January 1	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) [(3) - (2)]	Funded Ratio [(2)/(3)]	Covered Payroll	UAAL as a Percentage of Covered Payroll [(4)/(6)]
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2004	$87.11	$105.48	$18.37	82.59%	$506.52	3.63%
2005	88.53	116.57	28.04	75.95%	495.17	5.66%
2006	90.23	123.78	33.55	72.90%	495.29	6.77%
2007	93.09	127.13	34.04	73.22%	499.46	6.82%
2008	96.46	128.61	32.15	75.00%	545.84	5.89%
2009	92.68	134.00	41.32	69.17%	564.99	7.31%
2010	90.41	141.64	51.23	63.83%	506.05	10.12%
2011	87.61	143.11	55.50	61.22%	517.40	10.73%
2012	84.68	142.97	58.29	59.23%	517.40	11.27%
2013	82.99	148.89	65.89	55.74%	531.56	12.40%
2014	82.74	149.78	67.05	55.24%	540.23	12.41%

*Figures prior to 2008 were provided by the previous actuary.

**These liabilities represent solely the value of the explicit benefit, without regard to the implicit rate subsidy. The explicit benefit is valued in compliance with all the parameters established by GASB Statements No. 43 and No.45. The value of any implicit rate subsidy in the city-sponsored health plans will be illustrated in the disclosures related to those plans.

Pension Plan*
Schedule of Employer Contributions

Year Beginning January 1:	GASB NO. 25 Annual Required Contribution (ARC) % of Payroll[8]	Amount	Contributions * % of Payroll[7]	Amount[1]	Percentage of GASB ARC Contributed [(5)/(3)]
(1)	(2)	(3)	(4)	(5)	(6)
2005[2]	7.68%	$38,039,016	7.54%	$37,347,133	98.18%
2006	8.54%	42,277,066	7.63%	37,809,048	89.43%
2007	7.93%	39,623,830	8.20%	40,955,026	103.36%
2008	7.64%	41,699,683	8.13%	44,362,545	106.39%
2009	9.63%	54,392,610	7.63%	43,127,064	79.29%
2010[3]	9.68%	48,995,846	8.34%	42,228,203	86.19%
2011[4]	10.05%	52,000,472	8.83%	45,703,351	87.89%
2012[5]	10.83%	56,054,792	9.62%	49,756,639	88.76%
2013[6]	10.42%	55,397,564	10.62%	56,427,308	101.86%
2014[7]	10.34%	55,871,677	N/A	N/A	N/A

Retiree Medical Plan*
Schedule of Employer Contributions**

Year Beginning January 1:	Annual Required Contribution (ARC) % of Payroll[8]	Amount	Contributions * % of Payroll[7]	Amount[1]	Percentage of ARC Contributed [(5)/(3)]
(1)	(2)	(3)	(4)	(5)	(6)
2005[2]	0.61%	$3,032,638	0.71%	$3,530,326	116.41%
2006	0.82%	4,081,627	0.82%	4,075,768	99.86%
2007	0.79%	3,929,333	0.90%	4,504,640	114.64%
2008	0.83%	4,532,574	0.78%	4,253,783	93.85%
2009	0.91%	5,156,984	0.81%	4,551,097	88.25%
2010[3]	0.85%	4,290,712	0.58%	2,924,858	68.17%
2011[4]	0.96%	4,965,060	0.81%	4,202,033	84.63%
2012[5]	1.00%	5,153,185	0.82%	4,241,292	82.30%
2013[6]	0.89%	4,721,761	0.78%	4,135,064	87.57%
2014[7]	0.76%	4,093,763	N/A	N/A	N/A

*Figures prior to 2008 were provided by the previous actuary.

**These liabilities represent solely the value of the explicit benefit, without regard to the implicit rate subsidy. The explicit benefit is valued in compliance with all the parameters established by GASB Statements No. 43 and No.45. The value of any implicit rate subsidy in the city-sponsored health plans will be illustrated in the disclosures related to those plans.

1 Employers made contributions based on the legally required rates.
2 Beginning on January 1, 2005, the employers and employees contributed 8.50% and 2.50%, respectively.
3 Beginning on January 1, 2010, the employers and employees contributed 8.50% and 4.50%, respectively.
4 Beginning on January 1, 2011, the employers and employees contributed 9.50% and 5.50%, respectively.
5 Beginning on January 1, 2012, the employers and employees contributed 10.25% and 6.25%, respectively.
6 Beginning on January 1, 2013, the employers and employees contributed 11.00% and 7.00%, respectively and amortization method changed from level dollar 30-year open to level percent of pay 30-year closed bases.
7 Beginning January 1, 2014, the employer and employee contribution are 11.20% and 7.30%, respectively.
8 Estimated Payroll

Notes to Required Supplementary Information
(As Required by GASB Statement No. 25)

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

Valuation Date	January 1, 2014
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Percent of Pay, Annually Established 30-year Closed Bases
Equivalent Single Amortization Period	29 years
Valuation Asset Method	Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return *	8.00%
Projected Salary Increase *	3.25% to 7.25%
Payroll Growth *	3.25%
** Includes Price Inflation at*	2.75%
Cost-of-Living Adjustments	Ad-Hoc Only

SECTION E

PARTICIPANT DATA

Retirees, Beneficiaries and Disabled Reconciliation

Valuation Date January 1	No. Added to Rolls	No. Removed from Rolls	Rolls End of Year No.	Rolls End of Year Annual Benefits
2007			6,396	$97,109,973
2008	477	-259	6,614	$101,802,055
2009	474	-215	6,873	$109,243,231
2010	733	-183	7,423	$124,695,435
2011	410	-227	7,606	$130,319,793
2012	457	-287	7,776	$138,317,723
2013	540	-271	8,045	$146,837,873
2014	658	-221	8,482	$159,503,726

Age and Service Distribution
January 1, 2014

Nearest Whole Age	Whole Years of Service at Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Number	Active Payroll
Less than 20	4							4	$ 68,470
20-24	129	1						130	4,375,727
25-29	442	90	1					533	22,910,651
30-34	473	332	48	4				857	43,727,392
35-39	379	366	170	52	3			970	55,672,208
40-44	278	315	267	239	57	1		1,157	72,362,578
45-49	210	253	250	316	206	49	4	1,288	86,231,574
50-54	190	226	232	250	264	139	62	1,363	90,896,442
55-59	133	185	164	190	179	111	112	1,074	76,105,516
60-64	76	119	141	119	100	54	80	689	48,566,561
65-69	12	58	46	35	34	14	6	205	15,873,858
70 & Over	1	10	6	4	9		4	34	2,212,929
Totals	**2,327**	**1,955**	**1,325**	**1,209**	**852**	**368**	**268**	**8,304**	**$ 519,003,905**

Historical Summary of Active Member Data*

	Active Members		Covered Payroll		Average Payroll		Average	
1-Jan	Number	% Increase	$ Amount	% Increase	$ Amount	% Increase	Age	Service
2001	10,821		$501,841,985		$46,377			
2002	10,098	(6.7%)	503,694,300	0.4%	49,881	7.6%	43.1	9.6
2003	9,537	(5.6%)	491,635,701	(2.4%)	51,550	3.3%	43.7	10.0
2004	8,868	(7.0%)	467,911,855	(4.8%)	52,764	2.4%	44.1	10.4
2005	8,634	(2.6%)	460,341,857	(1.6%)	53,317	1.0%	44.8	10.9
2006	8,732	1.1%	475,500,445	3.3%	54,455	2.1%	45.3	11.2
2007	8,988	2.9%	489,447,759	2.9%	54,456	0.0%	45.4	11.2
2008	9,304	3.5%	543,728,238	11.1%	58,440	7.3%	45.4	11.0
2009	9,323	0.2%	564,986,660	3.9%	60,601	3.7%	45.5	11.0
2010	8,604	(7.7%)	506,045,186	(10.4%)	58,815	(2.9%)	45.7	11.2
2011	8,403	(2.3%)	517,398,105	2.2%	61,573	4.7%	46.2	11.7
2012	8,149	(3.0%)	517,396,257	(0.0%)	63,492	3.1%	46.3	11.9
2013	8,175	0.3%	531,559,017	2.7%	65,023	2.4%	46.4	11.8
2014	8,304	1.6%	540,229,189	1.6%	65,057	0.1%	45.9	11.3

* This schedule does not include participants in DROP and DROP II.

Summary of Membership Data by Category

	January 1	
	2014	2013
Active Members:		
Number	8,304	8,175
Average age (years)	45.9	46.4
Average service (years)	11.3	11.8
Average payroll	$65,057	$65,023
Total payroll supplied, annualized	$540,229,189	$531,559,017
Vested Inactive Members:		
Number	3,412	3,402
Average age (years)	50.59	50.49
Total annual deferred benefits	$20,175,753	$20,407,229
Average annual deferred benefit	$5,913	$5,999
Nonvested Inactive Members:		
Number	1,750	1,636
Average age (years)	46.43	44.49
Contribution Account Balance	$3,455,383	$2,809,837
Service Retirees:		
Number	7,122	6,719
Average age (years)	69.27	69.23
Total annual benefits	$142,719,520	$130,909,144
Average annual benefit	$20,039	$19,483
Disability Retirees:		
Number	316	320
Average age (years)	64.38	63.68
Total annual benefits	$4,641,467	$4,688,821
Average annual benefit	$14,688	$14,653
Beneficiaries:		
Number	1,044	1006
Average age (years)	68.96	68.76
Total annual benefits	$12,142,739	$11,239,908
Average annual benefit	$11,631	$11,173

Membership Data Reconciliation

	Actives	Disability	Terminated Vested	Terminated Nonvested	Retiree	Beneficiary	Total
GRS Counts as of January 1, 2013	8,175	320	3,402	1,636	6,719	1,006	**21,258**
Actives	**48**		(28)	(19)	(1)		
Disability	(2)	**6**	(4)				
Terminated Vested	(230)		**231**	(1)			
Terminated Nonvested	(259)		(1)	**260**			
Retiree	(349)	0	(183)	0	**532**		
Beneficiary	(1)	0			(1)	**2**	
Terminated Annuity							
Terminated Annuity (Refund)	(3)				(9)	(4)	
Dropped Records			(1)	(246)		(7)	
Deceased	(5)	(10)	(4)	0	(151)	(36)	
New Beneficiaries						80	
New Participants	930	0	0	117			
Data Correction			0	3	33	3	
Continuing	**7,326**	**310**	**3,181**	**1,370**	**6,557**	**959**	**19,703**
GRS Counts as of January 1, 2014	**8,304**	**316**	**3,412**	**1,750**	**7,122**	**1,044**	**21,948**

SECTION F

METHODS & ASSUMPTIONS

Valuation Methods-Liabilities

***Actuarial Cost Method* - The Projected Unit Credit (PUC) Cost Method** was used in the valuation.

The Projected Unit Credit Cost Method develops a normal cost and an accrued liability based on the benefit accrued as of the valuation date.

The normal cost is the present value of the benefits that accrue during the year. The benefit accrued during the year is the retirement benefit based on pay projected to a member's retirement date, based on service accrued as of the valuation date. The actuarial accrued liability is the present value of benefits allocated to service prior to the valuation date.

Finally, for all funding methods, the total present value of benefits is equal to the accrued liability plus the present value of future normal costs.

***Financing of Unfunded Actuarial Accrued Liabilities* -** Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) percent of pay contributions over a reasonable period of future years.

Deferred Retirement Option Plan (DROP) and DROP II – The DROPs are closed and no new members are assumed to enter either of the two DROPs. For members who were in DROP and remained employed upon their exit from the DROP program, their accrued liability is calculated as the value of their deferred benefit based on compensation and service earned before their DROP participation plus the value of their additional benefit earned based on compensation and service accrued after their DROP participation ended, as well as their accrued DROP balance. Further detail describing the DROPs can be found in the Plan Provisions, Section G of this report.

Benefits Limited to Maximums Specified in Internal Revenue Code (IRC) – Benefits in pay status are limited to the maximum specified by Section 415 of the IRC, as adjusted annually. The benefits in pay status are limited to the maximum compensation permitted by Section 401(a)(17) of the IRC.

Valuation Methods-Assets

Actuarial Value of Assets **–** The Actuarial Value of Assets recognizes 20% of the difference between the projected actuarial value and the market value at the valuation date. Effective January 1, 2009, this value is no longer constrained to a range of 80% to 120% of the market value of assets as of the valuation date. This method has the effect of smoothing volatility in investment returns. Returns are measured net of all administrative and investment expenses.

Actuarial Standards of Practice Statement #44 provides some guidance in the selection of a method for determining the actuarial value of assets. In particular, when considering utilizing an asset method other than the market value of assets, the method should be selected that is designed to produce actuarial values of assets that bear a reasonable relationship to the corresponding market values. The qualities of the DERP asset value method should include:

The actuarial value of assets should sometimes be greater than, and sometimes lesser than, the market value of assets. The method employed in the DERP valuation does produce asset values which are sometimes greater than, and sometimes less than the market value of assets.

The asset values fall within a sufficiently narrow range around the corresponding market values.

Development of Amortization Payment

Determination of UAAL Contribution Rate

The unfunded accrued liability as of January 1, 2014 is calculated as of the beginning of the fiscal year for which contributions are being made.

The unfunded accrued liability is amortized over the appropriate period to determine the amortization payment. This payment is divided by the projected fiscal year payroll to determine the amortization payment as a percentage of active member payroll.

Effective January 1, 2013, the funding policy for the development of the annual amortization payment was changed from 30-year open to a year-by-year 30-year closed. An amortization base will be established each year and each base will be paid off over 30 years, using annual payments determined as a level percentage of payroll. Each base and full payment schedule is shown in the Appendix.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section. Both the economic and demographic assumptions were based on an Experience Study performed as of January 1, 2013, and adopted for the January 1, 2013 valuation report.

A. Demographic Assumptions

Mortality rates were adjusted to include margin for future longevity improvement as described below.

1. Post-Retirement and Beneficiary Mortality Table: *This table shows the probability of dying after leaving employment either as a vested terminated member, a retiree or a beneficiary of a deceased member.*

   a. Male: RP-2000 Combined Mortality Table for males projected with Scale AA to 2020

   b. Female: RP-2000 Combined Mortality Table for females projected with Scale AA to 2020 with a multiplier of 90%

	% Dying Within Next Year Non-Disabled	
Ages	**Men**	**Women**
50	0.15%	0.11%
55	0.25%	0.21%
60	0.49%	0.41%
65	0.96%	0.79%
70	1.64%	1.36%
75	2.85%	2.15%
80	5.26%	3.59%

2. Disabled Mortality Table: *This table shows the probability of dying at sample attained ages.*

   i. Male: RP-2000 Disabled Life Mortality Table for males projected with Scale AA to 2020

   ii. Female: RP-2000 Disabled Life Mortality Table for females projected with Scale AA to 2020

	% Dying Within Next Year Disabled	
Ages	**Men**	**Women**
50	2.01%	0.82%
55	2.41%	1.41%
60	3.05%	1.98%
65	3.78%	2.54%
70	4.63%	3.40%
75	6.19%	4.45%
80	8.95%	6.28%

3. Active Mortality: *This table for active members shows the probability of dying before retirement or termination of employment. 15% of the deaths are assumed to be duty-related and 85% are assumed to be non-duty related.*

   i. Male: RP-2000 Combined Mortality Table for males projected with Scale AA to 2020 with a multiplier of 85%

   ii. Female: RP-2000 Combined Mortality Table for females projected with Scale AA to 2020 with a multiplier of 85%

	% Dying Within Next Year Non-Disabled	
Ages	**Men**	**Women**
20	0.02%	0.01%
25	0.03%	0.01%
30	0.03%	0.02%
35	0.06%	0.03%
40	0.08%	0.04%
45	0.10%	0.07%
50	0.13%	0.10%

4. Rates of Disability: *15% of the disabilities are assumed to be duty-related and 85% are assumed to be non-duty related.*

	% Becoming Disabled Within Next Year	
Ages	**Duty**	**Non-Duty**
20	0.00%	0.02%
25	0.00%	0.02%
30	0.00%	0.02%
35	0.00%	0.03%
40	0.01%	0.06%
45	0.02%	0.11%
50	0.04%	0.23%
55	0.07%	0.37%
60	0.10%	0.57%
65	0.15%	0.85%

5. Rates of Separation from Active Membership: *Rates do not apply to members eligible to retire and do not include separation on account of death or disability. Inactive members are assumed to retire at the earliest eligible age. If an inactive member is not vested, the liability valued is equal to their employee contributions plus interest. Rates are not applied after the member is eligible for reduced or unreduced retirement benefits.*

Non Hospital		
	Select Period	
Years of Service	% of Active Members Separating Within Next Year	
	Men	Women
1	15.97%	19.84%
2	13.73%	17.11%
3	11.81%	14.76%
4	10.15%	12.72%
5	8.73%	10.97%
6	7.51%	9.46%
7	6.46%	8.16%
8	5.55%	7.04%
9	4.77%	6.07%

Non Hospital		
	Ultimate Rates	
Ages	% of Active Members Separating Within Next Year*	
	Men	Women
25	6.25%	9.00%
30	5.50%	7.75%
35	4.75%	6.50%
40	4.00%	5.50%
45	3.25%	4.50%
50	2.50%	3.50%
55	1.90%	2.70%
60	1.90%	2.70%
64	1.90%	2.70%

*Members with 10 or more years of service

Hospital		
Ages	% of Active Members Separating Within Next Year	
	Men	Women
30	14.84%	15.41%
35	12.92%	11.91%
40	10.72%	8.40%
45	7.97%	5.60%
50	4.40%	5.60%
55	1.10%	5.60%
60	1.10%	5.60%
64	1.10%	5.60%

6. Rates of Retirement: *This table for active members shows the probability of eligible members retiring during the next year.*

Non Hospital

Ages	Percent of Eligible Active Members Retiring Within Next Year – Early Retirement	Percent of Eligible Active Members Retiring Within Next Year – Normal Retirement
55	2.50%	N/A
56	2.75%	N/A
57	3.00%	N/A
58	3.25%	N/A
59	3.50%	N/A
60	3.75%	N/A
61	4.00%	N/A
62	10.00%	N/A
63	10.00%	N/A
64	10.00%	N/A
65	N/A	20.00%
66	N/A	18.00%
67	N/A	18.00%
68	N/A	18.00%
69	N/A	18.00%
70	N/A	100.00%

Hospital

Ages	Percent of Eligible Active Members Retiring Within Next Year – Early Retirement	Percent of Eligible Active Members Retiring Within Next Year – Normal Retirement
55	2.50%	N/A
56	2.75%	N/A
57	3.00%	N/A
58	3.25%	N/A
59	3.50%	N/A
60	3.75%	N/A
61	4.00%	N/A
62	10.00%	N/A
63	10.00%	N/A
64	10.00%	N/A
65	N/A	20.00%
66	N/A	18.00%
67	N/A	18.00%
68	N/A	18.00%
69	N/A	18.00%
70	N/A	18.00%
71	N/A	18.00%
72	N/A	18.00%
73	N/A	18.00%
74	N/A	18.00%
75	N/A	100.00%

	Percent of Eligible Active Members Retiring Within Next Year
Ages	**Rule of 75 Retirement**
NAR*	22.00%
NAR+1	14.00%
NAR+2	14.00%
NAR+3	14.00%
NAR+4	14.00%
NAR+5	14.00%
NAR+6	18.00%
NAR+7	22.00%
NAR+8	26.00%
NAR+9	30.00%
NAR+10	30.00%

*NAR, Normal Age at Retirement, is defined as the first age at which a member is eligible to retire under the Rule of 75 with a minimum age of 55 (or Rule of 85 with a minimum age of 60 if hired after July 1, 2011) (Refer to Section G). After attainment of age 70 (age 75 for the Hospital group), or NAR +11, the retirement rate assumption is 100.00%.

B. Economic Assumptions

1. Investment Return Rate: 8.00% per annum, compounded annually, net of investment and administrative expenses.
2. Cost of Living Increases: 0.00% per annum
3. Inflation Rate: 2.75% per annum
4. Real Rate of Return: 5.25% per annum
5. The Rates of Salary Increase : *Assumed salary increases for active members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.*

Non Hospital			
	% Increase in Salary for the Year		
Sample Ages	Merit and Seniority	Base (Economic)*	Increase for the Year
20	4.00%	3.25%	7.25%
25	3.50%	3.25%	6.75%
30	2.50%	3.25%	5.75%
35	2.00%	3.25%	5.25%
40	1.25%	3.25%	4.50%
45	0.50%	3.25%	3.75%
50	0.00%	3.25%	3.25%
55	0.00%	3.25%	3.25%
60	0.00%	3.25%	3.25%
65	0.00%	3.25%	3.25%

Hospital			
	% Increase in Salary for the Year		
Sample Ages	Merit and Seniority	Base (Economic)*	Increase for the Year
30	0.00%	3.25%	3.25%
35	0.00%	3.25%	3.25%
40	0.00%	3.25%	3.25%
45	0.00%	3.25%	3.25%
50	0.00%	3.25%	3.25%
55	0.00%	3.25%	3.25%
60	0.00%	3.25%	3.25%
65	0.00%	3.25%	3.25%

**Salary increases shown include wage inflation of 3.25% per annum.*

C. Miscellaneous and Technical Assumptions

Administrative & Investment Expenses	The investment return assumption is intended to be the return net of investment and administrative expenses.
Benefit Service	Exact fractional service is used to determine the amount of benefit payable.
COLA	None assumed.
Covered Payroll	Annual payroll projected forward with one year's salary increase.
Death after termination but before Retirement (or Continuation)	A load of 0.7% (1.3% for members hired after January 1, 2010) is added to the vested terminated benefit to account for the benefit paid to the spouse if the participant dies before retirement.
Decrement Operation	All decrements other than withdrawal are in force during retirement eligibility.
Decrement Timing	Decrements of all types are assumed to occur mid-year.
Eligibility Testing	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.
Incidence of Contributions	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.
Marriage Assumption	75% of males and 60% of females are assumed to be married for purposes of death-in-service benefits and 75% of males and 60% of females are assumed to be married for purposes of retiree medical benefits. Male spouses are assumed to be the same age as female spouses for active member valuation purposes.
Normal Form of Benefit	A straight life annuity is the normal form of benefit.
Pay Increase Timing	Beginning of year. This is equivalent to assuming that reported pays represent annualized rates of pay on the valuation date.
Service Credit Accruals	It is assumed that members accrue one year of service credit per year.
Split of Member and Employer Contributions	For the Schedule of Employer Contributions the member and employer contributions are split between the pension and medical funds based on their respective ratios to the Total Computed Contribution Rate developed in the previous year's actuarial

valuation.

Terminal Pay For members hired prior to January 1, 2010, unused sick and vacation hours are converted into pay at retirement, death, disability or termination. That converted amount is included in the Final Average Compensation (FAC). The valuation accounts for this by assuming the FAC will be increased by 5.00% for active retirement benefits and increased by 2.25% for active ordinary death and termination benefits for members hired prior to January 1, 2010.

Retiree Medical Election Percentage It is assumed that 85% of members who retire elect medical benefits, 30% of members who terminate elect medical benefits, 80% of beneficiaries elect medical benefits, and 80% of members who leave as disabled members elect retiree medical benefits.

SECTION G

PLAN PROVISIONS

Plan Provisions

A. Ordinances	Amended and Restated under Denver Municipal Code Section 18-391 through 18-430.7. Most recently amended under Ordinance No. 567-13, adopted November 2013.
B. Effective Date	January 1, 1963
C. Plan Year	January 1 through December 31
D. Type of Plan	Qualified, 401(a) governmental defined benefit retirement plan; for GASB purposes it is a multi-employer cost sharing plan.
E. Eligibility Requirements	Elected Officials, Appointed Officials, and Employees as defined in Denver Municipal Code Sections 18-402 and 18-406.
F. Credited Service	Service measured in completed calendar months from date of employment to date of retirement or prior termination.
G. Compensation	*Gross pay, compensation and salary* shall mean that amount of remuneration, including wages, salaries, other amounts received for personal services actually rendered in the course of employment with the employer, and other amounts actually included or that could be included in gross income of and due to an employee, including employees on disability leave as provided for in division 4 of article V of chapter 18 of the Denver Municipal Code, or otherwise, from the employer in the full amount as calculated before any reductions or deductions are made for any purpose, including reductions or deductions by reason of sections 125, 132(f)(4) or 457 of the Internal Revenue Code, but not including distributions made from a plan of the employer designed to be eligible under section 457. Employer provided fringe benefits receiving special tax benefits, such as premiums for group term life insurance (to the extent excludible from gross income), shall be excluded from the definition of compensation. The calendar year shall be the limitation year (determination period) for purposes of section 415 of the Internal Revenue Code.
H. Final Average Compensation (FAC)	Average monthly rate of compensation during the highest 36 (60 for members hired on or after July 1, 2011) successive calendar months of covered service.
I. Normal Retirement	1. Eligibility: For employees hired prior to July 1, 2011, attainment of age 65, or attainment of age 55 with age plus credited service equal to 75. For Employees hired July 1, 2011 or after, attainment of age 65 with 5 years of service, or attainment of age 60 with age plus credited service equal to 85. 2. Benefit: 1.5% (2.0% if hired before September 1, 2004) of FAC times credited service. 3. Normal Form: straight life annuity.

J. Early Retirement

1. Eligibility: Attainment of age 55 (60 for members hired on or after July 1, 2011) and completion of 5 years.
2. Benefit: Benefit accrued to date of retirement, reduced by 3% (6% for members hired on or after July 1, 2011) per year from age 65 to reflect commencement of benefit at an earlier age.

K. Temporary Early Retirement

Pending approval of a disability application, a retirement benefit is available to an active, vested member who is at least age 55 or age 60, if hired on or after July 1, 2011. This benefit is designed to provide income to the member during the process of fulfilling the disability application requirements. There is a three year limit on this retirement benefit.

L. Deferred Retirement

1. Eligibility: Any vested employee who terminates service for any reason other than retirement, disability, or death and leaves their accumulated contributions on deposit in the trust fund.
2. Benefit: Based on the formula in effect at the time of separation from service. Payment may commence any month after the member's 55th birthday, if hired prior to July 1, 2011, or after the member's 60th birthday, if hired July 1, 2011 or later.

M. Service Connected Disability

1. Eligibility: Any employee who becomes totally and permanently disabled as defined in Denver Municipal Code Section 18-408(d) which arises out of and in the course of the member's employment with the employer.
2. Benefit: Based on the greater of 20 years of service or actual service plus 10 years. Total credited service cannot exceed the credited service the member would have earned at age 65.
3. Normal Form: straight life annuity.

N. Non-Service Connected Disability

1. Eligibility: Any vested employee who becomes totally and permanently disabled as defined in Denver Municipal Code Section 18-408(e) which does not occur as a result of a service connected disability.
2. Benefit: The higher of 75% of the amount calculated for a service-connected disability or the amount calculated for an early retirement.
3. Normal Form: straight life annuity.

O. Death in the Line of Duty

The active member's surviving spouse is awarded the retirement benefit the member would have been entitled at their normal retirement date based on the higher of 15 years of service or actual credited service plus 5 years. Total credited service cannot exceed the credited service the member would have earned at age 65. If there is no surviving spouse but the member has children under age 21, then the benefit shall be paid until the youngest child becomes age 21. If there is no surviving spouse and no children under age 21, then the benefit shall be paid to a designated beneficiary.

P. Other Pre-Retirement Death

The active member's surviving spouse is awarded 75% of the benefit that would have been entitled had the death been service connected. If an active member who has attained the age of fifty-five (55) or the age of sixty (60) if hired on or after July 1, 2011 dies prior to the actual retirement date, the member shall be deemed to have retired on the first day of the month following the month in which death occurs and the surviving spouse will receive an annuity as if the member had elected the 100% joint and survivor option if this will result in a greater benefit to the spouse than the above provision.

Q. Post-Retirement Death

1. For Normal Retirement (with at least 5 years of service), Disability Retirement (after age 65), and for Temporary Early Retirement (pending approval of disability) the lump-sum death benefit is $5,000.
2. For Disability Retirement before age 65, the death benefit is 150% of the member's annualized average monthly salary, limited to $50,000. This benefit reduces to $5,000 upon the disabled member reaching age 65.
3. If hired prior to July 1, 2011, for Early Retirement the lump-sum at age: 64 is $4,750; 63 is $4,500; 62 is $4,250; 61 is $4,000; 60 is $3,750; 59 is $3,500; 58 is $3,250; 57 is $3,000; 56 is $2,750; 55 is $2,500.
4. If hired on or after July 1, 2011, for Early Retirement the lump-sum at age: 64 is $4,500; 63 is $4,000; 62 is $3,500; 61 is $3,000; 60 is $2,500.

R. Optional Forms

Joint and Survivor Option - Any employee retiring under the normal retirement provision may elect a joint and survivor benefit. The member's benefit is actuarially reduced based on their election: 100%, 75%, or 50%. Once the benefit commences this election cannot be changed. If the spouse or designated beneficiary predeceases the member, the benefit paid to the member shall be increased to the full single straight life annuity as if no joint and survivor benefit had been selected.

S. Medical Benefits

Retiree Medical Plan Benefits – Participants and their surviving spouses or dependents receiving retirement benefits are eligible to elect to receive plan-provided retiree medical coverage and a plan-provided subsidy (benefit) to help provide for the payment of health insurance premiums. The Plan contributes $6.25 per month for each year of service for members who are Medicare eligible. The Plan contributes $12.50 per month for each year of service for members not eligible for Medicare. In the event of the election of a Joint and Survivor option, the benefit is calculated based on the age of the member. If the member predeceases the joint and survivor beneficiary then the full benefit is transferred to the surviving spouse or dependent regardless of the joint and survivor election percentage. The monthly benefit is limited to the monthly premium amount for the coverage elected. If a member dies and leaves a beneficiary who is not a spouse or dependent, that beneficiary can elect to participate in the group health plan, but must pay the full cost. No plan contribution can be made for non-spouse or non-dependent beneficiaries.

T. Refunds

1. Eligibility: All members leaving covered employment with less than 5 years of service are eligible. Vested members (those with 5 or more years of service) may not withdraw their accumulated contributions plus interest in lieu of the deferred benefits otherwise due.
2. Benefit: The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 3.00%.

U. Member Contributions

Increased from 7.00% of compensation to 7.30% of compensation, effective January 1, 2014.

V. Employer Contributions

Increased from 11.00% of compensation to 11.20% of compensation, effective January 1, 2014 for each member.

W. Cost of Living Increases

Given on an ad-hoc basis. There have been no cost of living increases since 2002.

X. Changes from Previous Valuation

There have been no changes in the plan provisions since the previous actuarial valuation, except for those specified herein.

Y. Deferred Retirement Option Plan

1. DROP – From January 1, 2001 through April 30, 2003, in lieu of immediate termination of employment and receipt of a normal retirement benefit, eligible members were permitted to continue employment for four years and have their normal retirement benefit paid into the deferred retirement option plan (DROP) account, after which time the participant either terminated employment or continued to be employed and resume regular membership with the retirement plan.
2. DROP II – From May 1, 2003 through September 1, 2003, in lieu of immediate termination of employment and receipt of a normal retirement benefit, eligible members were permitted to continue employment for five years and have their normal retirement benefit paid into the DROP II account after which time all participants terminated employment.

Z. Other Ancillary Benefits

Social Security Make-Up Benefit – For members hired before July 1, 2011 and retiring on or after January 1, 1996, an additional retirement benefit equal to the applicable percentage (per Denver Municipal Code Section 18-409(i)) of the member's estimated primary Social Security benefit multiplied by credited service with the City/DHHA during which the contributions were made to Social Security (up to a maximum of 35 years of credited service) divided by 35. This additional benefit is payable beginning on the first day of the month after the member's 62nd birthday or the member's retirement date, whichever is later, but will not be paid before retirement benefits have begun from the Plan. Members retiring under a disability form of retirement are not eligible for this benefit.

SECTION H

GLOSSARY

Glossary

Actuarial Accrued Liability (AAL)	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs. The total present value of benefits is the sum of the AAL and the Present Value of Future Normal Costs.
Actuarial Assumptions	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of future Normal Costs and the Actuarial Accrued Liability.
Actuarial Equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
Actuarial Present Value of Future Benefits	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 25, such as the Funded Ratio and the Annual Required Contribution (ARC).
Actuarial Value of Assets	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution (ARC). The actuarial value of assets is the asset amount used to determine the unfunded accrued liability, the funded ratio and the ARC

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Amortization Method	A method for determining the Amortization Payment. The choices are level dollar and level percentage of payroll; and open period versus closed period. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase. For an open amortization method (either level dollar or level percent of pay), the amortization period does not decline each year. Thus, at the end of a given period, an open amortization period may still have a remaining UAAL balance.
Amortization Payment	That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability. As a special note, it is possible that an open method level percent of pay payment may not pay off principle in early years.
Amortization Period	The period used in calculating the Amortization Payment.
Annual Required Contribution (ARC)	Under GASB 25, the employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ARC consists of the Employer Normal Cost and Amortization Payment. For Section D, the ARC is defined to be the sum of (a) the employer normal cost, and (b) the amount needed to amortize the UAAL as a level dollar amount over 30 years.
Closed Amortization Period	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
Employer Normal Cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Equivalent Single Amortization Period	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

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Experience Gain/Loss	A measure of the liability difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.
Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
GASB	Governmental Accounting Standards Board.
GASB No. 25 and GASB No. 27	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.
GASB No. 43 and GASB No. 45	These are the governmental accounting standards that set the accounting rules for postemployment benefits other than pensions for the public retirement systems and employers that sponsor or contribute to them. Statement No. 43 sets the accounting rules for the employers, while Statement No. 45 sets the rules for the systems themselves
Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
Open Amortization Period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
Select Period for Separation Rates	A select period sets separation rates for an employee's first "select" years of service. After the employee works beyond the select period, then the ultimate separation rates are used based on the employee's age.
Unfunded Actuarial Accrued Liability	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
Valuation Date	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

SECTION I

OTHER SPECIAL REQUIREMENTS

Determination of DHHA Supplemental Contributions

Determination of DHHA Supplemental Contributions – Pension Plan

	2014	2013
Average Age for Active Members at Hospital	52.08	52.21
Number of Active Members at Hospital	608	728
Average Age for Active Members Non-Hospital	45.38	45.78
Number of Active Members Non-Hospital	7,696	7,447
Normal Cost for Hospital	$7,803,831	$8,603,385
Estimated Payroll for Hospital	56,446,145	65,329,337
Normal Cost as a Percent of Hospital Payroll	13.83%	13.17%
Normal Cost for Non-Hospital	$48,602,799	$47,586,055
Estimated Payroll for Non-Hospital	483,783,043	466,229,679
Normal Cost as a Percent of Non-Hospital Payroll	10.05%	10.21%
Difference in Normal Cost as a Percent of Payroll	3.78%	2.96%
Estimated Payroll for Hospital	$56,446,145	$65,329,337
Difference in Normal Cost as a Dollar Amount	2,133,664	1,933,748

Determination of DHHA Supplemental Contributions – Retiree Medical Plan

	2014	2013
Average Age for Active Members at Hospital	52.08	52.21
Number of Active Members at Hospital	608	728
Average Age for Active Members Non-Hospital	45.38	45.78
Number of Active Members Non-Hospital	7,696	7,447
Normal Cost for Hospital	$284,942	$336,434
Estimated Payroll for Hospital	56,446,145	65,329,337
Normal Cost as a Percent of Hospital Payroll	0.50480%	0.51498%
Normal Cost for Non-Hospital	$2,366,323	$2,388,497
Estimated Payroll for Non-Hospital	483,783,043	466,229,679
Normal Cost as a Percent of Non-Hospital Payroll	0.48913%	0.51230%
Difference in Normal Cost as a Percent of Payroll	0.015675%	0.002681%
Estimated Payroll for Hospital	$56,446,145	$65,329,337
Difference in Normal Cost as a Dollar Amount	$8,848	$1,752
Total Difference in Normal Cost as a Dollar Amount	**$2,142,512**	**$1,935,500**

APPENDIX

AMORTIZATION SCHEDULES

Amortization Schedule of 2014 Base Year UAAL

		Pension		Retiree Medical	
Year	Years Remaining	Amortization Payment	Remaining Base	Amortization Payment	Remaining Base
		(1)	(2)	(3)	(4)
2014	30	$829,516	$13,967,932	$6,308	$106,216
2015	29	$856,476	$14,189,489	$6,513	$107,901
2016	28	$884,311	$14,399,654	$6,725	$109,499
2017	27	$913,051	$14,596,571	$6,943	$110,997
2018	26	$942,725	$14,778,201	$7,169	$112,378
2019	25	$973,364	$14,942,313	$7,402	$113,626
2020	24	$1,004,998	$15,086,465	$7,642	$114,722
2021	23	$1,037,661	$15,207,984	$7,891	$115,646
2022	22	$1,071,385	$15,303,950	$8,147	$116,376
2023	21	$1,106,205	$15,371,170	$8,412	$116,887
2024	20	$1,142,156	$15,406,163	$8,685	$117,153
2025	19	$1,179,276	$15,405,127	$8,968	$117,145
2026	18	$1,217,603	$15,363,918	$9,259	$116,832
2027	17	$1,257,175	$15,278,020	$9,560	$116,179
2028	16	$1,298,033	$15,142,513	$9,871	$115,148
2029	15	$1,340,219	$14,952,038	$10,191	$113,700
2030	14	$1,383,776	$14,700,764	$10,523	$111,789
2031	13	$1,428,749	$14,382,347	$10,865	$109,368
2032	12	$1,475,184	$13,989,885	$11,218	$106,383
2033	11	$1,523,127	$13,515,878	$11,582	$102,779
2034	10	$1,572,629	$12,952,171	$11,959	$98,492
2035	9	$1,623,739	$12,289,906	$12,347	$93,456
2036	8	$1,676,511	$11,519,460	$12,749	$87,597
2037	7	$1,730,997	$10,630,385	$13,163	$80,837
2038	6	$1,787,255	$9,611,339	$13,591	$73,087
2039	5	$1,845,340	$8,450,011	$14,033	$64,256
2040	4	$1,905,314	$7,133,045	$14,489	$54,242
2041	3	$1,967,237	$5,645,949	$14,959	$42,933
2042	2	$2,031,172	$3,973,010	$15,446	$30,212
2043	1	$2,097,185	$2,097,185	$15,948	$15,948
2044	0		-		-

Amortization Schedule of 2013 Base Year UAAL

		Pension		Retiree Medical	
Year	Years Remaining	Amortization Payment	Remaining Base	Amortization Payment	Remaining Base
		(1)	(2)	(3)	(4)
2013	30	$36,403,533	$612,986,163	$3,913,241	$65,893,671
2014	29	37,586,648	622,709,240	4,040,421	66,938,865
2015	28	38,808,214	631,932,400	4,171,735	67,930,319
2016	27	40,069,481	640,574,121	4,307,316	68,859,271
2017	26	41,371,739	648,545,012	4,447,304	69,716,111
2018	25	42,716,320	655,747,135	4,591,841	70,490,312
2019	24	44,104,601	662,073,279	4,741,076	71,170,349
2020	23	45,538,000	667,406,173	4,895,161	71,743,614
2021	22	47,017,985	671,617,626	5,054,254	72,196,329
2022	21	48,546,070	674,567,612	5,218,517	72,513,442
2023	20	50,123,817	676,103,266	5,388,119	72,678,518
2024	19	51,752,841	676,057,805	5,563,233	72,673,632
2025	18	53,434,809	674,249,361	5,744,038	72,479,231
2026	17	55,171,440	670,479,716	5,930,719	72,074,008
2027	16	56,964,512	664,532,939	6,123,467	71,434,752
2028	15	58,815,858	656,173,901	6,322,480	70,536,188
2029	14	60,727,374	645,146,686	6,527,961	69,350,804
2030	13	62,701,013	631,172,858	6,740,119	67,848,671
2031	12	64,738,796	613,949,592	6,959,173	65,997,236
2032	11	66,842,807	593,147,660	7,185,346	63,761,108
2033	10	69,015,198	568,409,241	7,418,870	61,101,822
2034	9	71,258,192	539,345,566	7,659,983	57,977,588
2035	8	73,574,083	505,534,364	7,908,933	54,343,013
2036	7	75,965,241	466,517,103	8,165,973	50,148,806
2037	6	78,434,112	421,796,010	8,431,367	45,341,460
2038	5	80,983,220	370,830,851	8,705,387	39,862,900
2039	4	83,615,175	313,035,441	8,988,312	33,650,114
2040	3	86,332,668	247,773,887	9,280,432	26,634,746
2041	2	89,138,480	174,356,517	9,582,046	18,742,660
2042	1	92,035,480	92,035,480	9,893,463	9,893,463
2043	0		-		-