

**DENVER EMPLOYEES RETIREMENT PLAN** ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2012

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July 12, 2012

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

#### Re: Denver Employees Retirement Plan Actuarial Valuation as of January 1, 2012

Dear Board Members:

The results of the January 1, 2012 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 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 (2012), there is an increase in the Total Computed Contribution Rate for the Pension and Medical Plans, as shown on pages 8 and 9 of the valuation report. This is primarily due to 2011 assets not earning the assumed rate of return and the continued recognition of the 2008 asset losses. The Total Computed Contribution Rate (Pension and Medical) has increased from 16.51% for 2011 to 18.08% for 2012. The Total Contribution Amount (Pension and Medical) has increased from \$85.4M for 2011 to \$93.5M for 2012. Receiving this contribution is actuarially necessary to help improve and stabilize the funded status of the Pension and Retiree Medical Plans.

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.

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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.

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 public retirement systems.

Respectfully submitted,

Lesuid Shompson

Leslie L. Thompson, FSA, FCA, EA, MAAA Senior Consultant

unie L. Hunt

Diane L. Hunt, FSA, FCA, EA, MAAA Consultant

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# **SECTION A** INTRODUCTION

## Pension Plan - Executive Summary

(\$ in Millions)

Valuation Date:	January 1, 2012	January 1, 2011
Fiscal Year Ending:	December 31, 2012	December 31, 2011
Actuarial Information:		
· Normal Cost %	9.67%	9.69%
· Actuarial Accrued Liability (AAL)	\$2,386.53	\$2,284.76
· Unfunded Actuarial Accrued Liability (UAAL)	\$439.69	\$341.88
· Funded Ratio	81.58%	85.04%
• UAAL as % of Covered Payroll	84.98%	66.08%
· Equivalent Single Amortization Period	30 years	30 years
Required Contributions:		
· Normal Cost	\$50.03	\$50.13
Amortization of the Unfunded Liability	\$36.16	\$28.12
<ul> <li>Total Contribution Amount*</li> </ul>	\$86.19	\$78.25
· Percentage of Covered Payroll	16.66%	15.12%
Assets:		
· Market Value	\$1,649.16	\$1,725.68
Actuarial Value	\$1,946.84	\$1,942.87
· Return on Market Value	-0.31%	13.89%
· Return on Actuarial Value	3.94%	4.98%
· Ratio – Actuarial Value to Market Value	118.05%	112.59%
Membership:		
· Number of:		
- Active Members	8,149	8,403
- Retirees and Beneficiaries	7,776	7,606
- Inactive, Non-retired Members**	5,027	4,712
- DROP Participants	<u>0</u>	<u>0</u>
- Total	20,952	20,721
· Covered Payroll	\$517.40	\$517.40

Highlights/Changes:

 $\cdot$  A new tier of benefits is effective for new entrants July 1, 2011. See Section G for details.

• Contribution increase primarily due to continued recognition of the 2008 asset losses and additional losses in 2011 assets.

 $\cdot$  The aggregate experience loss was \$91.5 million, with \$77.4 million due to asset losses.

\* These results are on a baseline basis. Baseline results are net of the DHHA supplement. The 2012 Total Contribution Amount including the DHHA supplement is \$88,008,074 (17.01% of payroll), and for 2011 is \$80,218,294 (15.50% of payroll).

\*\* The number of Inactive, Non-retired Members includes 1,605 Non-vested Inactive Members as of January 1, 2012, and 1,369 Non-vested Inactive Members as of January 1, 2011, who are not vested in any benefit other than their accumulated contributions.

#### Retiree Medical Plan - Executive Summary (\$ in Millions)

Valuation Date:	January 1, 2012	January 1, 2011
Fiscal Year Ending:	December 31, 2012	December 31, 2011
Actuarial Information:		
· Normal Cost %	0.49%	0.51%
Actuarial Accrued Liability (AAL)	\$142.97	\$143.11
· Unfunded Actuarial Accrued Liability (UAAL)	\$58.29	\$55.50
· Funded Ratio	59.23%	61.22%
· UAAL as % of Covered Payroll	11.27%	10.73%
· Equivalent Single Amortization Period	30 years	30 years
Required Contributions:		
· Normal Cost	\$2.56	\$2.63
Amortization of the Unfunded Liability	\$4.79	\$4.56
<ul> <li>Total Contribution Amount*</li> </ul>	\$7.35	\$7.19
· Percentage of Covered Payroll	1.42%	1.39%
Assets:		
· Market Value	\$70.31	\$76.46
Actuarial Value	\$84.68	\$87.61
· Return on Market Value	-0.23%	13.66%
· Return on Actuarial Value	3.61%	4.66%
· Ratio – Actuarial Value to Market Value	120.43%	114.58%

#### Highlights/Changes:

 $\cdot$  No changes to benefit provisions.

 $\cdot$  The aggregate experience loss was \$2.4 million.

\* These results are on a baseline basis. Baseline results are net of the DHHA supplement. The 2012 Total Contribution Amount including the DHHA supplement is \$7,346,486 (1.42% of payroll), and for 2011 is \$7,187,545 (1.39% of payroll).

#### 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 9.5% to 10.25% effective January 1, 2012. Member rates increased from 5.5% to 6.25% effective January 1, 2012.

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 period of 30 years from the valuation date.

#### **Contribution Requirement**

The Total Computed Contribution required for the Pension Plan for the fiscal year ending December 31, 2012 is \$86,187,802, 16.66% of covered payroll (\$88,008,074, 17.01% of covered payroll including the DHHA Supplement). This compares with a Total Computed Contribution for the fiscal year ending December 31, 2011 of \$78,246,395, 15.12% of covered payroll (\$80,218,294, 15.50% of covered payroll including the DHHA Supplement).

The main reason for the contribution increase for the Pension Plan was this year's investment loss of \$77,418,800 due to the 2008 and 2011 asset losses that are partially recognized in the Actuarial Value of Assets.

The Total Computed Contribution required for the Retiree Medical Plan for the fiscal year ending December 31, 2012 is \$7,349,995, 1.42% of covered payroll (\$7,346,486, 1.42% of covered payroll including the DHHA Supplement). This compares with a Total Computed Contribution for the fiscal year ending December 31, 2011 of \$7,190,871, 1.39% of covered payroll (\$7,187,545, 1.39% of covered payroll including the DHHA Supplement).

The main reason for the contribution increase for the Retiree Medical Plan was this year's investment loss of \$3,670,600 due to the 2008 and 2011 asset losses that are partially recognized in the Actuarial Value of Assets.

#### Funded Status

As of the valuation date, the Unfunded Actuarial Accrued Liability (UAAL) for the Pension Plan is \$439.69 million, and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 81.58%. At the time of last year's valuation, the UAAL was \$341.88 million, and the funded ratio was 85.04%. 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 \$58.29 million, and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 59.23%. At the time of last year's valuation, the UAAL was \$55.50 million, and the funded ratio was 61.22%. See Section D for a history of the funded ratios.

#### Gains and Losses

The Pension Plan experienced a total aggregate loss of \$91,525,700 which includes an investment loss of \$77,418,800 (based on the Actuarial Value of Assets), a non-investment loss of \$6,990,300, and other losses of \$7,116,600.

The Retiree Medical Plan experienced a total aggregate loss of \$2,405,800, which includes an investment loss of \$3,670,600 (based on the Actuarial Value of Assets) and a non-investment gain of \$1,264,800.

#### 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 2011 return on the Actuarial Value of Assets for the Pension Plan was 3.94%, while the return on the Pension Plan on a Market Value basis was -0.31%. The 2011 return on the Actuarial Value of Assets for the Retiree Medical Plan was 3.61%, while the return on the Retiree Medical Plan on a Market Value basis was -0.23%.

The Actuarial Value of Assets exceeds the Market Value of Assets by \$297.69 million for the Pension Plan and the Actuarial Value of Assets exceeds the Market Value of Assets by \$14.37 million for the Retiree Medical Plan as of the valuation date (see Section C).

#### **Relationship of Actuarial Value of Assets to Market Value of Assets**

If Market Value had been the basis for the valuation, the funded ratios would have been 69.10%, for the Pension Plan and 49.18% for the Retiree Medical Plan.

#### **Benefit Provisions**

This valuation reflects the benefits as summarized in Section G of this report. A new tier was introduced for members hired on or after July 1, 2011, that affects retirement benefits and eligibility.

#### **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 over an open period of 30 years.

There have been no changes to actuarial assumptions or methods from the last valuation.

#### Member Data

The number of active members decreased by 3.02% from 8,403 to 8,149 and average pay for active members increased from \$61,573 to \$63,492, a 3.1% increase. Average age of active members is 46.3, compared to 46.2 last year. Average years of service is 11.9, compared to 11.7 last year. There are also 5,027 inactive vested members, which includes 1,605 members vested in member contributions only.

The number of members in payment status increased by 170, from 7,606 to 7,776. This number includes service retirees, disability retirees and beneficiaries receiving benefits. The average annual service retiree benefit is \$18,996 and there are 1.0 active members for each retiree/beneficiary.

A onetime adjustment was made to this year's pay data, reducing it from 54 weeks of pay to 52 weeks of pay, with a minimum pay set equal to last year's pay. This adjustment was necessary due to the payroll systems conversion process.

#### 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 dollar amount over 30 years.

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.

# **SECTION B** FUNDING RESULTS

### Pension Plan Principal Valuation Results as of January 1\*

2012	2011
8 1/0	8,403
	4,712
· · · · · · · · · · · · · · · · · · ·	7,606
	20,721
	\$517,398,105
<i>ф317,390,237</i>	\$517,590,105
2012	2011
9.67%	9.69%
JAAL):	
\$2,386,530,071	\$2,284,756,118
\$1,946,844,159	\$1,942,871,295
\$439,685,912	\$341,884,823
6.99%	5.43%
	8,149 5,027 <u>7,776</u> 20,952 \$517,396,257 <b>2012</b> 9.67% JAAL): \$2,386,530,071 <u>\$1,946,844,159</u> \$439,685,912

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

\*\* The number of Vested Inactive Members includes 1,605 Inactive Members as of January 1, 2012, and 1,369 Inactive Members as of January 1, 2011, 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	2012	2011		
A. Normal Cost %	0.49%	0.51%		
B. Unfunded Actuarial Accrued Liabilities (U	JAAL):			
Actuarial Accrued Liability	\$142,966,927	\$143,112,474		
Actuarial Value of Assets	\$84,679,890	\$87,609,491		
UAAL	\$58,287,037	\$55,502,983		
% of Payroll required to amortize UAAL	0.93%	0.88%		
C. Total Computed Contribution Rate	1.42%	1.39%		

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

## Pension Plan Actuarial Liabilities as of January 1, 2012

	Actuarial Present Value of Future Benefits (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Active members:	(1)	(2)	(1) - (2)
Retirement	\$1,050,233,181	\$352,006,292	\$698,226,889
Disability	45,429,547	14,919,825	30,509,722
Death	25,862,494	8,640,158	17,222,336
Termination	108,317,569	35,129,207	73,188,362
Vested inactive members	154,615,776	0	154,615,776
DROP participant - account balances	101,400,591	0	101,400,591
Retirees and Beneficiaries	1,311,366,395	0	1,311,366,395
Total	\$2,797,225,553	\$410,695,482	\$2,386,530,071
Actuarial Value of Assets	\$1,946,844,159	\$0	\$1,946,844,159
Liabilities to be covered by Future Contributions	\$850,381,394	\$410,695,482	\$439,685,912

## Retiree Medical Plan Actuarial Liabilities as of January 1, 2012

	Actuarial Present Value of Future Benefits	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
	(1)	(2)	(1) - (2)
Active members:			
Retirement	\$50,594,628	\$15,858,536	\$34,736,092
Disability	3,025,589	953,869	2,071,720
Death	1,349,612	436,007	913,605
Termination	3,946,991	1,239,449	2,707,542
Vested inactive members	8,530,269	0	8,530,269
DROP participants	0	0	0
Retirees and Beneficiaries	94,007,699	0	94,007,699
Total	\$161,454,788	\$18,487,861	\$142,966,927
Actuarial Value of Assets	\$84,679,890	\$0	\$84,679,890
Liabilities to be covered by Future Contributions	\$76,774,898	\$18,487,861	\$58,287,037

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

	2012	2011
A. Actuarial Value of Assets		
1. Net assets from system financial statements	\$1,649,156,976	\$1,725,680,001
2. Adjustment for Valuation Assets*	297,687,183	217,191,294
3. Actuarial Value of Assets	\$1,946,844,159	\$1,942,871,295
B. Actuarial Present Value of Expected Future Contributions		
1. For Normal Costs	\$410,695,482	\$419,814,046
2. For Unfunded Actuarial Accrued Liability	439,685,912	341,884,823
3. Total	\$850,381,394	\$761,698,869
C. Total Present and Expected Future Resources	\$2,797,225,553	\$2,704,570,164
(equals Present Value of Benefits)		
*See page 21		

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

	2012	2011
A. Actuarial Value of Assets		
1. Net assets from system financial statements	\$70,313,146	\$76,463,028
2. Adjustment for Valuation Assets*	14,366,744	11,146,463
3. Actuarial Value of Assets	\$84,679,890	\$87,609,491
B. Actuarial Present Value of Expected Future Contributions		
1. For Normal Costs	\$18,487,861	\$19,190,256
2. For Unfunded Actuarial Accrued Liability	58,287,037	55,502,983
3. Total	\$76,774,898	\$74,693,239
C. Total Present and Expected Future Resources	\$161,454,788	\$162,302,730
(equals Present Value of Benefits)		
*See page 22		

# 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, 2011:		\$	2,284,756,100
2. Development of expected AAL as of January 1, 2012:			
a. Normal cost (NC) for plan year		\$	52,099,100
b. Actual benefit payments paid during plan year (BP)			143,057,200
c. Interest on AAL and NC less interest on BP to December 31, 20	)11		178,625,200
d. Expected AAL as of January 1, 2012 (1.+2.a2.b.+2.c.)		\$	2,372,423,200
3. Changes in AAL due to:			
a. Actual experience versus demographic assumptions (Gain)/Loss:			
i. Salary increases (Lower than expected)	(1,887,700)		
ii. Retirement (Fewer than expected)	2,890,200		
iii. Mortality - pre and post (Fewer deaths than expected)	3,425,900		
iv. Vested termination (Fewer than expected)	1,634,800		
v. Non vested termination (More than expected)	862,500		
vi. Disability (Less than expected)	206,500		
vii. Data reconciliation (Changes in data)	795,700		
viii. Other plan experience	(2,103,300)		
ix. Benefit payments	(2,103,500)		
x. New entrants	1,165,700		
Total change due to experience	1,105,700	\$	6,990,300
b. Increase in Refund Benefit Due to Contribution Rate Increase		φ	72,500
			72,300
c. Social Security Makeup Benefit Refinement		\$	14,106,900
d. Total $(3.a. + 3.b. + 3.c.)$		Φ	14,100,900
4. Actuarial Accrued Liability as of January 1, 2012 (2.d.+3.e.)		\$	2,386,530,100

Retiree Medical Plan			
Reconciliation of Actuarial Accrued Liability			
as of January 1	2		
(rounded to the nearest \$100)			
1. Actuarial Accrued Liability (AAL) as of January 1, 2011:		\$ 1	143,112,500
2. Development of expected AAL as of January 1, 2012:			
a. Normal cost (NC) for plan year		\$	2,622,600
b. Actual benefit payments paid during plan year (BP)			12,513,100
c. Interest on AAL and NC less interest on BP to December 31, 201	1		11,009,700
d. Expected AAL as of January 1, 2012 (1.+2.a2.b.+2.c.)		\$ 1	44,231,700
3. Changes in AAL due to:			
a. Actual experience versus demographic assumptions (Gain)/Loss:			
i. Salary increases \$	-		
ii. Retirement (Fewer than expected)	365,300		
iii. Mortality - pre and post	(1,063,400)	)	
iv. Vested termination (Fewer than expected)	(207,500)	)	
v. Non-vested termination and benefit opt-outs	(324,900)	)	
vi. Disability (Less than expected)	(21,100)	)	
vii. Data reconciliation (Changes in data)	51,100		
viii. Other plan experience	(123,500)	)	
ix. New entrants	59,200	_	
Total change due to experience			(1,264,800)
b. Change in actuarial assumptions			-
c. Plan improvements			-
d. Total (3.a.+ 3.b.+ 3.c.)		\$	(1,264,800)
4. Actuarial Accrued Liability as of January 1, 2012 (2.d.+3.e.)		\$ 1	42,966,900

# **SECTION C** PLAN ASSETS

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

	Decemb	per 31
Item	2011	2010
A. Assets:	¢ 4 4 5 1 7 0 4 0	¢20,400,007
1. Cash and Cash Equivalents (Operating Cash)	\$44,517,068	\$38,482,887
2. Securities Lending Collateral	175,118,832	139,713,408
3. Capital Assets	5,788,453	3,803,014
4. Prepaid items	0	1,597,229
B. Receivables:		
1. Contributions	\$O	\$0
2. Unsettled Securities Sold	258,976	432,595
3. Interest and Dividends	3,131,381	2,384,346
4. Total Receivables	\$3,390,357	\$2,816,941
C. Investments:		
1. U.S. Government Obligations	\$74,067,868	\$200,747,699
2. Domestic Fixed Income	218,897,583	212,065,561
3. Domestic Equities	475,304,711	579,254,229
4. International Equities	403,843,541	383,494,349
5. Real Estate	137,109,585	118,516,320
6. Alternative Investments	211,995,599	163,399,598
7. Absolute Return	78,861,478	28,983,095
8. Total Investments	\$1,600,080,365	\$1,686,460,851
D. Liabilities:		
1. Unsettled Securities Purchased	(\$2,537,901)	(\$557,910)
2. Securities Lending Obligations	(175,118,832)	(145,149,088)
3. Accounts Payable	(2,081,366)	(1,487,331)
4. Total Liabilities	(\$179,738,099)	(\$147,194,329)
E. Total Market Value of Assets Available for Benefits	\$1,649,156,976	\$1,725,680,001
F. Allocation of Investments:		
1. U.S. Government Obligations	4.63%	11.90%
2. Domestic Fixed Income	13.68%	12.57%
3. Domestic Equities	29.70%	34.35%
4. International Equities	25.24%	22.74%
5. Real Estate	8.57%	7.03%
6. Alternative Investments	13.25%	9.69%
7. Absolute Return	4.93%	1.72%
8. Total Investments	100.00%	100.00%

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

	Decemb	er 31
Item	2011	2010
A. Assets:		
<ul><li>A. Assets.</li><li>1. Cash and Cash Equivalents (Operating Cash)</li></ul>	\$1,898,022	\$1,705,135
2. Securities Lending Collateral	7,466,333	6,190,551
3. Capital Assets	246,795	168,508
4. Prepaid Items	240,793	70,771
	0	10,111
B. Receivables:		
1. Contributions	\$0	\$0
2. Unsettled Securities Sold	11,042	19,168
3. Interest and Dividends	133,509	105,647
4. Total Receivables	\$144,551	\$124,815
C. Investments:		
1. U.S. Government Obligations	\$3,157,943	\$8,894,915
2. Domestic Fixed Income	9,332,876	9,396,397
3. Domestic Equities	20,265,002	25,666,133
4. International Equities	17,218,197	16,992,223
5. Real Estate	5,845,779	5,251,331
6. Alternative Investments	9,038,604	7,240,061
7. Absolute Return	3,362,323	1,284,210
8. Total Investments	\$68,220,724	\$74,725,270
D. Liabilities:		
1. Unsettled Securities Purchased	(\$108,205)	(\$24,720)
2. Securities Lending Obligations	(7,466,333)	(6,431,400)
3. Accounts Payable	(7,400,555) (88,741)	(65,902)
4. Total Liabilities	(\$7,663,279)	(\$6,522,022)
E. Total Market Value of Assets Available for Benefits	\$70,313,146	\$76,463,028
<ul><li>F. Allocation of Investments:</li><li>1. U.S. Government Obligations</li></ul>	4.63%	11.90%
2. Domestic Fixed Income	13.68%	12.57%
	29.70%	
3. Domestic Equities	29.70% 25.24%	34.35% 22.74%
<ol> <li>International Equities</li> <li>Real Estate</li> </ol>	8.57%	7.03%
5. Real Estate 6. Alternative Investments	8.37% 13.25%	
<ul><li>7. Absolute Return</li></ul>		9.69%
	4.93%	1.72%
8. Total Investments	100.00%	100.00%

Pension Plan
Reconciliation of Plan Assets

	December 31	
Item	2011	2010
A. Market Value of Assets at Beginning of Year	\$1,725,680,001	\$1,585,359,939
B. Revenues and Expenditures:		
1. Contributions:		
a. Employee Contributions	\$26,110,772	\$21,139,754
b. Employer Contributions	45,703,351	42,228,203
c. Purchased Service Credit		
d. Total	\$71,814,123	\$63,367,957
2. Investment Income:		
a. Interest, Dividends, and Other Income	\$5,418,028	\$224,087,787
b. Net Securities Lending Income	402,448	434,237
c. Investment Expenses	(8,216,496)	(6,955,911)
d. Net Investment Income	(\$2,396,020)	\$217,566,113
3. Benefits and Refunds:		
a. Refunds	(\$948,969)	(\$666,009)
b. Regular Monthly Benefits	(136,756,136)	(130,079,425)
c. DROP and DROP II Benefits	(5,352,114)	(7,312,897)
d. Partial Lump-Sum Benefits Paid	-	_
e. Total	(\$143,057,219)	(\$138,058,331)
4. Administrative and Miscellaneous Expenses	(\$2,883,909)	(\$2,555,677)
5. Transfers	\$0	\$0
C. Market Value of Assets at End of Year	\$1,649,156,976	\$1,725,680,001

### Retiree Medical Plan Reconciliation of Plan Assets

	Decemb	er 31
Item	2011	2010
A. Market Value of Assets at Beginning of Year	\$76,463,028	\$73,726,724
B. Revenues and Expenditures:		
1. Contributions:		
a. Employee Contributions	\$2,329,357	\$1,950,508
b. Employer Contributions	4,202,033	2,924,858
c. Purchased Service Credit	-	-
d. Total	\$6,531,390	\$4,875,366
2. Investment Income:		
a. Interest, Dividends, and Other Income	\$296,574	\$10,007,214
b. Net Securities Lending Income	16,387	19,629
c. Investment Expenses	(355,753)	(312,417)
d. Net Investment Income	(\$42,792)	\$9,714,426
3. Benefits and Refunds:		
a. Refunds	(\$41,255)	(\$30,120)
b. Regular Monthly Benefits	(12,471,835)	(11,708,006)
c. Partial Lump-Sum Benefits Paid		-
d. Total	(\$12,513,090)	(\$11,738,126)
4. Administrative and Miscellaneous Expenses	(\$125,390)	(\$115,362)
5. Transfers	\$0	\$0
C. Market Value of Assets at End of Year	\$70,313,146	\$76,463,028

### Pension Plan Development of Actuarial Value of Assets

Year Ending – December 31	2011	2010
A. Actuarial Value of Assets (AVA) Beginning of Year	\$1,942,871,295	\$1,923,560,713
B. Market Value (MV) End of Year	1,649,156,976	1,725,680,001
C. Market Value Beginning of Year	1,725,680,001	1,585,359,939
D. Increases During the Year:		
D1. Member Contributions	\$26,110,772	\$21,139,754
D2. Employer Contributions	45,703,351	42,228,203
D3. Expected Return	152,521,665	150,854,457
D4. Total Increases	\$224,335,788	\$214,222,414
E. Decreases During the Year:		
E1. Retirement Benefits	(\$142,108,250)	(\$137,392,322)
E2. Refund of Member Accounts	(948,969)	(666,009)
E3. Member Balance Transfers	0	0
E4. Expenses	(2,883,909)	(2,555,677)
E5. Total Decreases	(\$145,941,128)	(\$140,614,008)
F. Projected Actuarial Value of Assets (A. + D.4. + E.5.)	\$2,021,265,955	\$1,997,169,119
G. Difference in Projected AVA and MV (BF.)	(\$372,108,979)	(\$271,489,118)
H. Appreciation/(Depreciation) recognized:		
20% of G.	(\$74,421,796)	(\$54,297,824)
I. Actuarial Value of Assets End of Year (F. + H.)	\$1,946,844,159	\$1,942,871,295
J. Unrecognized Difference in AVA and MV (BI.)	(\$297,687,183)	(\$217,191,294)
K. Actuarial Rate of Return	3.94%	4.98%
L. Market Value Rate of Return	-0.31%	13.89%
M. Ratio of Actuarial Value of Assets to Market Value	118%	113%

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.

### Retiree Medical Plan Development of Actuarial Value of Assets

	Year Ending – December 31	2011	2010
А.	Actuarial Value of Assets (AVA) Beginning of Year	\$87,609,491	\$90,414,800
В.	Market Value (MV) End of Year	70,313,146	76,463,028
C.	Market Value Beginning of Year	76,463,028	73,726,724
D.	Increases During the Year:		
	D1. Member Contributions	\$2,329,357	\$1,950,508
	D2. Employer Contributions	4,202,033	2,924,858
	D3. Refund of Member Accounts	0	0
	D4. Expected Return	6,769,175	6,959,429
	D5. Total Increases	\$13,300,565	\$11,834,795
E.	Decreases During the Year:		
	E1. Retirement Benefits	(\$12,471,835)	(\$11,708,006)
	E2. Refund of Member Accounts	(41,255)	(30,120)
	E3. Member Balance Transfers	0	0
	E4. Expenses	(125,390)	(115,362)
	E5. Total Decreases	(\$12,638,480)	(\$11,853,488)
F.	Projected Actuarial Value of Assets (A. + D.5. + E.5.)	\$88,271,576	\$90,396,107
G.	Difference in Projected AVA and MV (BF.)	(\$17,958,430)	(\$13,933,079)
Н.	Appreciation/(Depreciation) recognized:		
	20% of G.	(\$3,591,686)	(\$2,786,616)
I.	Actuarial Value of Assets End of Year (F. + H.)	\$84,679,890	\$87,609,491
J.	Unrecognized Difference in AVA and MV (BI.)	(\$14,366,744)	(\$11,146,463)
К.	Actuarial Rate of Return	3.61%	4.66%
L.	Market Value Rate of Return	-0.23%	13.66%
М.	Ratio of Actuarial Value of Assets to Market Value	120%	115%

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.

### Pension Plan History of Investment Return Rates

Plan Year Ending		
December 31 of	Market	Actuarial
(1)	(2)	(3)
2002	(8.65%)	3.50%
2003	19.35%	6.10%
2004	11.10%	7.10%
2005	9.28%	7.50%
2006	13.72%	8.68%
2007	10.57%	9.10%
2008	(26.17%)	1.74%
2009	13.74%	3.39%
2010	13.89%	4.98%
2011	(0.31%)	3.94%
Average annual reti	irns:	

Average annual returns:			
Last five years:	1.06%	4.60%	
Last ten years:	4.73%	5.58%	

### Retiree Medical Plan History of Investment Return Rates

Plan Year Ending December 31 of	Market	Actuarial
(1)	(2)	(3)
2002	(8.68%)	3.80%
2003	19.29%	6.10%
2004	11.03%	7.00%
2005	9.24%	7.40%
2006	13.72%	8.58%
2007	10.60%	9.04%
2008	(26.06%)	1.74%
2009	13.59%	3.23%
2010	13.66%	4.66%
2011	(0.23%)	3.61%
Average annual ret	urns :	
Last five years:	1.05%	4.43%
Last ten years:	4.70%	5.49%

.....

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

### 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
2010	4,875,366	(11,738,126)	(115,362)		9,714,426	76,463,028

\*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%

### 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%

\*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	GASB NO. 25 A Contribut	-	Contrib	Percentage of GASB ARC Contributed		
January 1:	% of Payroll <sup>6</sup>	Amount	% of Payroll <sup>6</sup>	Amount <sup>1</sup>	[(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 <sup>3</sup>	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 <sup>5</sup>	10.83%	56,054,792	N/A	N/A	N/A	

#### Retiree Medical Plan\* Schedule of Employer Contributions\*\*

Year Beginning	Annual Require (AR		Contribu	tions *	Percentage of ARC Contributed
January 1:	% of Payroll <sup>6</sup>	Amount	% of Payroll <sup>6</sup>	Amount <sup>1</sup>	[(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 <sup>4</sup>	0.96%	4,965,060	0.81%	4,202,033	84.63%
2012 <sup>5</sup>	1.00%	5,153,185	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.

<sup>1</sup> Employers made contributions based on the legally required rates.

<sup>2</sup> Beginning on January 1, 2005, the employers and employees contributed 8.50% and 2.50%, respectively.

<sup>3</sup> Beginning on January 1, 2010, the employers and employees contributed 8.50% and 4.50%, respectively.

<sup>4</sup> Beginning on January 1, 2011, the employers and employees contributed 9.50% and 5.50%, respectively.

<sup>5</sup> Beginning on January 1, 2012, the employers and employees contributed 10.25% and 6.25%, respectively.

<sup>6</sup> 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, 2012
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Dollar, Open
Equivalent Single Amortization Period	30 years
Valuation Asset Method	Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return *	8.00%
Projected Salary Increase *	3.00% to 6.30%
* Includes Price Inflation at	3.00%
Cost-of-Living Adjustments	Ad-Hoc Only

# **SECTION E** PARTICIPANT DATA

			Rolls E	nd of Year
Valuation Date	No. Added	No. Removed		Annual
January 1	to Rolls	from Rolls	No.	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

### Retirees, Beneficiaries and Disabled Reconciliation

Nearest	Ţ	Whole Years of Service at Valuation Date							Totals	
Whole									Active	
Age	0-4	5-9	10-14	15-19	20-24	25-29	<b>30 Plus</b>	Number	Payroll	
Less than 20									\$ -	
20-24	94	1						95	3,332,052	
25-29	366	81	2					449	19,501,685	
30-34	425	265	83	2				775	38,175,592	
35-39	386	247	263	50	2			948	52,892,667	
40-44	321	256	354	230	59			1,220	73,638,789	
45-49	254	177	339	265	163	53	5	1,256	80,584,971	
50-54	292	192	314	235	182	119	79	1,413	89,874,254	
55-59	186	151	243	197	136	92	113	1,118	78,296,155	
60-64	108	93	160	112	76	43	45	637	43,636,437	
65-69	27	54	64	32	20	2	5	204	15,266,517	
70 & Over	2	12	7	10	2		1	34	2,273,257	
Totals	2,461	1,529	1,829	1,133	640	309	248	8,149	\$ 497,472,378	

## Age and Service Distribution January 1, 2012

	Active	Members	Covered	Payroll	Averag	e Payroll	Ave	erage
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

### Historical Summary of Active Member Data\*

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

	January 1	
	2012	2011
Active Members:		
Number	8,149	8,403
Average age (years)	46.3	46.2
Average service (years)	11.9	11.7
Average payroll	\$63,492	\$61,573
Total payroll supplied, annualized	\$517,396,257	\$517,398,105
Vested Inactive Members:		
Number	3,422	3,343
Average age (years)	50.27	49.86
Total annual deferred benefits	\$20,584,651	\$18,164,193
Average annual deferred benefit	\$6,015	\$5,434
Nonvested Inactive Members:		
Number	1,605	1,369
Average age (years)	44.34	44.57
Contribution Account Balance	\$2,723,265	\$1,376,945
Service Retirees:		
Number	6,478	6,296
Average age (years)	69.26	69.27
Total annual benefits	\$123,053,558	\$114,821,783
Average annual benefit	\$18,996	\$18,237
Disability Retirees:		
Number	319	338
Average age (years)	62.92	62.97
Total annual benefits	\$4,579,536	\$5,006,449
Average annual benefit	\$14,356	\$14,812
Beneficiaries:		
Number	979	972
Average age (years)	68.53	68.59
Total annual benefits	\$10,684,629	\$10,491,561
Average annual benefit	\$10,914	\$10,794

## Summary of Membership Data by Category

## Membership Data Reconciliation

	Actives	Disability	Terminated Vested	Terminated Nonvested	Retiree	DROP and DROP II	Beneficiary	Total
GRS Counts as of January 1, 2011	8,403	338	3,343	1,369	6,296	0	972	20,721
Actives	30		(12)	(17)	(1)			
Disability	(13)	24	(10)				(1)	
Terminated Vested	(262)		262					
Terminated Nonvested	(305)		(3)	308				
Retiree	(231)	(23)	(134)		388			
DROP and DROP II						0		
Beneficiary Terminated Annuity (Legal					(1)		1	
Reasons)							0	
Terminated Annuity (Refund)	(10)		(1)		(25)		(24)	
Dropped Records			(12)	(224)				
Deceased	(22)	(20)	(11)	(2)	(185)		(32)	
New Beneficiaries							63	
New Actives	559	0	0					
Data Correction				171	6			
Continuing	7,560	295	3,160	1,126	6,084	0	915	19,140
GRS Counts as of January 1, 2012	8,149	319	3,422	1,605	6,478	0	979	20,952

## **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) dollar 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.

#### 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.

### Development of Amortization Payment

#### **Determination of UAAL Contribution Rate**

The unfunded accrued liability as of January 1, 2012 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.

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#### 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, 2008, and adopted for the January 1, 2008 valuation report. In 2010, the DHHA assumptions were studied and new DHHA assumptions adopted for the January 1, 2010 valuation report.

#### Changes to Actuarial Assumptions

There have been no changes to the actuarial assumptions as of the valuation date.

#### Economic Assumptions

*The investment return rate* assumed in the valuations is 8.00% per year, compounded annually (net of investment and administrative expenses).

The **Wage Inflation Rate** assumed in this valuation was 3.00% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity and labor market conditions. The wage inflation rate does not include pay changes rated to individual merit and seniority effects.

The assumed **real rate of return** over wage inflation is defined to be the portion of total investment return that is more than the assumed total wage growth rate. Considering other economic assumptions, the 8.00% investment return rate translates to an assumed real rate of return over wage inflation of 5.00%.

*Pay increase assumptions* for individual active members are shown for sample ages on the following page. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.00% recognizes wage inflation, productivity increases, and other macroeconomic forces.

*The rates of salary increase* used for individual 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.

	% Increase in Salary for the Year			
Sample Ages	Merit and Seniority	Base (Economic)*	Increase for the Year	
20	3.30%	3.00%	6.30%	
25	3.30%	3.00%	6.30%	
30	3.00%	3.00%	6.00%	
35	2.20%	3.00%	5.20%	
40	1.70%	3.00%	4.70%	
45	1.20%	3.00%	4.20%	
50	0.70%	3.00%	3.70%	
55	0.00%	3.00%	3.00%	
60	0.00%	3.00%	3.00%	
65	0.00%	3.00%	3.00%	

\* Includes 3.00% for price inflation

#### Demographic Assumptions

*The post-employment and beneficiary mortality table* was 100% of the 1994 Group Annuity 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.

	% Dying Within Next Year Non-Disabled			
Ages	Men	Women		
50	0.26%	0.14%		
55	0.44%	0.23%		
60	0.80%	0.44%		
65	1.45%	0.86%		
70	2.37%	1.37%		
75	3.72%	2.27%		
80	6.20%	3.94%		

*The active mortality table* was 65% of the 1994 Group Annuity Mortality Table. This table for active members shows the probability of dying before retirement or termination of employment.

	% Dying Within Next Year Non-Disabled			
Ages	Men	Women		
20	0.03%	0.02%		
25	0.04%	0.02%		
30	0.05%	0.02%		
35	0.06%	0.03%		
40	0.07%	0.05%		
45	0.10%	0.06%		
50	0.17%	0.09%		

*The disabled mortality table* for disabled retirees below shows the probability of dying at sample attained ages:

	% Dying Within				
	Next Year Disabled				
Ages	Men	Women			
50	3.16%	3.16%			
55	3.78%	3.78%			
60	4.25%	4.25%			
65	5.12%	5.12%			
70	6.75%	6.75%			
75	8.28%	8.28%			
80	10.77%	10.77%			

	Non Hospital			
	Percent of Eligible Active Members Retiring Within Next Year			
Ages	Early Retirement	Normal Retirement		
ē				
55	2.50%	N/A		
56	3.00%	N/A		
57	3.50%	N/A		
58	4.00%	N/A		
59	4.50%	N/A		
60	5.00%	N/A		
61	7.50%	N/A		
62	10.00%	N/A		
63	12.50%	N/A		
64	12.50%	N/A		
65	N/A	20.00%		
66	N/A	15.00%		
67	N/A	15.00%		
68	N/A	15.00%		
69	N/A	15.00%		
70	N/A	100.00%		

The rates of retirement used to measure the probability of eligible members retiring during the next year are as follows:

Hospital				
Percent of Eligible Active Members Retiring Within Next Year				
Early Retirement	Normal Retirement			
2.50%	N/A			
3.00%	N/A			
3.50%	N/A			
4.00%	N/A			
4.50%	N/A			
5.00%	N/A			
7.50%	N/A			
10.00%	N/A			
12.50%	N/A			
12.50%	N/A			
N/A	20.00%			
N/A	15.00%			
	15.00%			
	15.00%			
	15.00%			
N/A	15.00%			
N/A	15.00%			
	13.00% 15.00%			
	13.00% 15.00%			
	13.00% 15.00%			
	100.00%			
	Percent of E Members Re Next Early Retirement 2.50% 3.00% 3.50% 4.00% 4.50% 5.00% 7.50% 10.00% 12.50% 12.50% 12.50% N/A N/A N/A N/A			

	Percent of Eligible Active Members Retiring Within Next Year	
Ages	Rule of 75 Retirement	
NAR*	20.00%	
NAR+1	10.00%	
NAR+2	10.00%	
NAR+3	10.00%	
NAR+4	10.00%	
NAR+5	10.00%	
NAR+6	10.00%	
NAR+7	10.00%	
NAR+8	40.00%	
NAR+9	40.00%	
NAR+10	40.00%	

\*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). Rates beyond NAR+8 in the table above continue at 40.00% until member reaches age 70 for Non-Hospital employees and age 75 for Hospital employees. After attainment of those ages, the retirement rate assumption is 100.00%.

*Rates of separation from active membership* are shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability).

Non Hospital					
	Select Period				
	% of Active Members				
	Separatir	ng Within			
Years of	Next	Year			
Service	Men Women				
1	17.75%	20.89%			
2	15.26%	18.01%			
3	13.12%	15.53%			
4	11.28%	13.39%			
5	9.70%	11.55%			
6	8.34%	9.96%			
7	7.17%	8.59%			
8	6.17%	7.41%			
9	5.30%	6.39%			

Non Hospital					
	Ultimate Rates				
	% of Active Members				
	Separating Wit	hin Next Year*			
Ages	Men	Women			
25	13.89%	14.26%			
30	10.33%	11.75%			
35	7.69%	9.30%			
40	5.67%	7.17%			
45	4.07%	5.35%			
50	2.78%	3.81%			
55	1.72%	2.49%			
60	0.83%	1.37%			
64	0.22%	0.58%			

\*Members with 10 or more years of service

Hospital		
% of Active Members		
	Separating Within Next Year	
	Men	Women
25	18.14%	17.51%
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%

For inactive members, the assumed age at retirement is age 65. 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.

	% 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	0.01%	0.12%	
50	0.03%	0.24%	
55	0.04%	0.40%	
60	0.07%	0.60%	
65	0.10% 0.90%		

*Rates of disability* among active members are shown below for selected ages (10% of the disabilities are assumed to be duty-related and 90% are assumed to be non-duty related):

## 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.
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.
<i>Retiree Medical Election</i> <i>Percentage</i>	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. 530-11, adopted October 2011.	
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	<i>Gross pay, compensation and salary</i> 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	<ol> <li>Eligibility: Attainment of age 55 (60 for members hired on or after July 1, 2011) and completion of 5 years.</li> <li>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.</li> </ol>
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	<ol> <li>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.</li> <li>Benefit: Based on the formula in effect at the time of separation from service. Payment may commence any month after the member's 55<sup>th</sup> birthday, if hired prior to July 1, 2011, or after the member's 60<sup>th</sup> birthday, if hired July 1, 2011 or later.</li> </ol>
M. Service Connected Disability	<ol> <li>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.</li> <li>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.</li> </ol>
N. Non-Service Connected Disability	<ol> <li>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.</li> <li>Benefit: The higher of 75% of the amount calculated for a service-connected disability or the amount calculated for an early retirement.</li> </ol>
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	<ol> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol>
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	<ol> <li>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.</li> <li>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%.</li> </ol>	
U. Member Contributions	Increased from 5.5% of compensation to 6.25% of compensation, effective January 1, 2012.	
V. Employer Contributions	Increased from 9.5% of compensation to 10.25% of compensation, effective January 1, 2012 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.	
Y. Deferred Retirement Option Plan	<ol> <li>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.</li> <li>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.</li> </ol>	
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 62 <sup>nd</sup> 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

## Glossary

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.

## Glossary

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 Pension Plan

	2012	2011
Average Age for Active Members at Hospital	51.71	51.29
Number of Active Members at Hospital	805	921
Average Age for Active Members Non-Hospital	45.71	45.53
Number of Active Members Non-Hospital	7,344	7,482
Normal Cost for Hospital	\$8,464,459	\$9,267,706
Estimated Payroll for Hospital	68,689,514	75,263,320
Normal Cost as a Percent of Hospital Payroll	12.32%	12.31%
Normal Cost for Non-Hospital	\$43,380,493	\$42,831,374
Estimated Payroll for Non-Hospital	448,706,742	442,134,785
Normal Cost as a Percent of Non-Hospital Payroll	9.67%	9.69%
Difference in Normal Cost as a Percent of Payroll	2.65%	2.62%
Estimated Payroll for Hospital	\$68,689,514	\$75,263,320
Difference in Normal Cost as a Dollar Amount	1,820,272	1,971,899

### Determination of DHHA Supplemental Contributions Retiree Medical Plan

	2012	2011
Average Age for Active Members at Hospital	51.71	51.29
Number of Active Members at Hospital	805	921
Average Age for Active Members Non-Hospital	45.71	45.53
Number of Active Members Non-Hospital	7,344	7,482
Normal Cost for Hospital	\$335,828	\$378,649
Estimated Payroll for Hospital	68,689,514	75,263,320
Normal Cost as a Percent of Hospital Payroll	0.48891%	0.50310%
Normal Cost for Non-Hospital	\$2,216,687	\$2,243,908
Estimated Payroll for Non-Hospital	448,706,742	442,134,785
Normal Cost as a Percent of Non-Hospital Payroll	0.49402%	0.50752%
Difference in Normal Cost as a Percent of Payroll	-0.005110%	-0.004418%
Estimated Payroll for Hospital	\$68,689,514	\$75,263,320
Difference in Normal Cost as a Dollar Amount	-\$3,510	-\$3,325