Gabriel Roeder Smith & Company
Consultants & Actuaries

DENVER EMPLOYEES RETIREMENT PLAN

ACTUARIAL VALUATION REPORT

AS OF JANUARY 1, 2009

GRS

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September 17, 2009

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

Re: Denver Employees Retirement Plan Actuarial Valuation as of January 1, 2009

Dear Board Members:

The results of the January 1, 2009 Annual Actuarial Valuation of the Denver Employees Retirement Plan (DERP) are presented in this report. The purpose of the valuation was to measure the Plan's funding progress and to determine the total contribution rate for the next fiscal year.

Regarding the contribution rate for the next fiscal year (2009), there is a significant increase in the Actuarially Required Contribution, as shown on pages 8 and 9 of the Valuation Report. This is due to the market events of 2008. The decrease in the Market Value of Assets resulted in a significant increase in the Unfunded Actuarial Accrued Liability. The Total Computed Contribution Rate has risen from 10.97% for 2008 to 13.04% for 2009. Receiving this contribution is actuarially necessary to help improve and stabilize the funded status of the Pension and Retiree Medical Plans and strengthen their actuarial soundness.

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.

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, with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

The undersigned actuaries are independent of the plan sponsor and meet the Qualification Standards of the American Academy of Actuaries.

Respectfully submitted,

Leslie L. Thompson

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Susan M. Hogarth

Susan M. Hogarth, EA, MAAA
Consultant

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SECTION A

INTRODUCTION

Pension Plan - Executive Summary

($ in Millions)

Valuation Date:	January 1, 2009	January 1, 2008
Fiscal Year Ending:	December 31, 2009	December 31, 2008
Actuarial Information:		
· Normal Cost %	9.50%	9.48%
· Actuarial Accrued Liability (AAL)	$2,095.89	$1,985.65
· Unfunded Actuarial Accrued Liability (UAAL)	$170.90	$35.64
· Funded Ratio	91.85%	98.21%
· UAAL as % of Covered Payroll	30.25%	6.53%
· Equivalent Single Amortization Period	30 years	30 years
Required Contributions:		
· Annual Amount*	$67.72	$54.67
· Percentage of Covered Payroll	11.99%	10.02%
Assets:		
· Market Value	$1,455.55	$2,040.17
· Actuarial Value	$1,924.99	$1,950.01
· Return on Market Value	-26.17%	10.57%
· Return on Actuarial Value	1.74%	9.10%
· Ratio – Actuarial Value to Market Value	132.25%	95.58%
Membership:		
· Number of:		
- Active Members	9,323	9,304
- Retirees and Beneficiaries	6,873	6,590
- Inactive, Non-retired Members**	4,541	4,265
- DROP Participants	0	24
- Total	20,737	20,183
· Covered Payroll	$564.99	$545.84

Highlights/Changes:

- No changes to benefit provisions
- No changes to actuarial assumptions
- Method change to remove Actuarial Value of Asset corridor
- Contribution increase primarily due to lower than expected asset return
- The aggregate experience loss was $135.9 million.

* These results are on a baseline basis. Baseline results exclude the DHHA supplement. The 2009 Actuarially Required Contribution including the DHHA supplement is $69,944,150 (12.38% of payroll), and for 2008 is $56,753,847 (10.40% of payroll).

** The number of Inactive, Non-retired Members includes 1,202 Non-vested Inactive Members as of January 1, 2009, and 963 Non-vested Inactive Members as of January 1, 2008, who are not vested in any benefit other than their accumulated contributions.

Retiree Medical Plan - Executive Summary

($ in Millions)

Valuation Date:	January 1, 2009	January 1, 2008
Fiscal Year Ending:	December 31, 2009	December 31, 2008
Actuarial Information:		
· Normal Cost %	0.45%	0.47%
· Actuarial Accrued Liability (AAL)	$134.00	$128.61
· Unfunded Actuarial Accrued Liability (UAAL)	$41.32	$32.15
· Funded Ratio	69.17%	75.00%
· UAAL as % of Covered Payroll	7.31%	5.89%
· Equivalent Single Amortization Period	30 years	30 years
Required Contributions:		
· Annual Amount*	$5.95	$5.21
· Percentage of Covered Payroll	1.05%	0.95%
Assets:		
· Market Value	$69.78	$100.73
· Actuarial Value	$92.68	$96.46
· Return on Market Value	-26.06%	10.60%
· Return on Actuarial Value	1.74%	9.04%
· Ratio – Actuarial Value to Market Value	132.83%	95.76%

Highlights/Changes:

· No changes to benefit provisions

· No changes to actuarial assumptions

· The aggregate experience loss was $9.6 million.

* These results are on a baseline basis. Baseline results exclude the DHHA supplement. The 2009 Actuarially Required Contribution including the DHHA supplement is $5,975,581 (1.06% of payroll), and for 2008 is $5,211,494 (0.95% of payroll).

Discussion

Actuarial Valuation

Valuations are prepared annually, as of January 1 of each year, the first day of DERP's fiscal year. A valuation is prepared for the Pension Plan, the Retiree Medical Plan, and DHHA.

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 (GASB 25), and it provides summaries of the member data, financial data, plan provisions, 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 at 2.50% and 8.50% of the member's compensation, respectively.

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 computed total contribution required for the Pension Plan for the fiscal year ending December 31, 2009 is $67,716,897, 11.99% of covered payroll ($69,944,150, 12.38% of covered payroll including the DHHA Supplement). This compares with a contribution for the fiscal year ending December 31, 2008 of $54,668,084, 10.02% of covered payroll ($56,753,847, 10.40% of covered payroll including the DHHA Supplement).

The main reason for the contribution increase was due to the asset losses.

The computed total contribution required for the Retiree Medical Plan for the fiscal year ending December 31, 2009 is $5,948,358, 1.05% of covered payroll ($5,975,581, 1.06% of covered payroll including the DHHA Supplement). This compares with a contribution for the fiscal year ending December 31, 2008 of $5,210,545, 0.95% of covered payroll ($5,211,494, 0.95% of covered payroll including the DHHA Supplement).

The main reason for the contribution increase was due to the asset losses.

Funded Status

As of the valuation date, the Unfunded Actuarial Accrued Liability (UAAL) for the Pension Plan is $170.90 million, and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 91.85%. At the time of last year's valuation, the UAAL was $35.64 million, and the funded ratio was 98.21%. 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 $41.32 million, and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 69.17%. At the time of last year's valuation, the UAAL was $32.15 million, and the funded ratio was 75.00%. See Section D for a history of the funded ratios.

Gains and Losses

The Pension Plan experienced a total aggregate loss of $135,880,200 which includes an investment loss of $119,838,500 (based on the Actuarial Value of Assets) and a non-investment loss of $16,041,700. There were no assumption changes this year.

The Retiree Medical Plan experienced a total aggregate loss of $9,579,200, which includes an investment loss of $5,825,700 (based on the Actuarial Value of Assets) and a non-investment loss of $3,753,500. There were no assumption changes this year.

The only method change this year for both the Pension and Retiree Medical Plans is the removal of the constraining value range of 80% of Market Value (end of year) and 120% of Market Value (end of year) that has been applied to the projected Actuarial Value of Assets in previous valuations.

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 2008 return on the Actuarial Value of Assets for the Pension Plan was 1.74%, while the return on the Pension Plan on a Market Value basis was -26.17%. The 2008 return on the Actuarial Value of Assets for the Retiree Medical Plan was 1.74%, while the return on the Retiree Medical Plan on a Market Value basis was -26.06%.

The Actuarial Value of Assets exceeds the Market Value of Assets by $469.45 million for the Pension Plan and the Actuarial Value of Assets exceeds the Market Value of Assets by $22.91 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 69.45%, for the Pension Plan and 52.07% 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. These assumptions and procedures were revised in 2008 following an analysis of plan experience for the five-year period ending December 31, 2007.

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 or in actuarial experience 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.

Member Data

The number of active members increased by 0.20% from 9,304 to 9,323 and average pay (excluding Deferred Retirement Option Plan (DROP) and DROP II pay (defined in Section G)) for active members increased from $58,440 to $60,601, a 3.7% increase. Average age of active members is 45.5, compared to 45.4 last year. Average years of service is 11.0, compared to 11.0 last year. There are also 4,541 inactive vested members, which includes 1,202 members vested in member contributions only.

The number of members in payment status increased by 283, from 6,590 to 6,873. This number includes service retirees, disability retirees and beneficiaries receiving benefits. The average annual service retiree benefit is $16,920 and there are 1.4 active members for each retiree/beneficiary.

GASB No. 25 Disclosure

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

For Section D, the ARC is defined to be the sum of (a) the 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.

SECTION B

FUNDING RESULTS

Pension Plan
Principal Valuation Results
as of January 1*

Valuation Date	**2009**	**2008**
Covered Group		
A. Number of Participants:		
Actives Members	9,323	9,304
Vested Inactive Members**	4,541	4,265
Retirees and Beneficiaries	6,873	6,590
DROP Participants	0	24
Total	20,737	20,183
Covered Annual Payroll***	$564,986,660	$545,835,393

Development of Contribution Rate For Fiscal Year Ending	**2009**	**2008**
B. Normal Cost %	9.50%	9.48%
C. Unfunded Actuarial Accrued Liabilities (UAAL):		
Actuarial Accrued Liability	$2,095,887,096	$1,985,651,482
Actuarial Value of Assets	$1,924,991,121	$1,950,010,815
UAAL	$170,895,975	$35,640,667
% of Payroll required to amortize UAAL	2.49%	0.54%
D. Total Computed Contribution Rate	11.99%	10.02%

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

** The number of Vested Inactive Members includes 1,202 Non-vested Inactive Members as of January 1, 2009, and 963 Non-vested Inactive Members as of January 1, 2008, who are not vested in any benefit other than their contribution account.

*** Includes DROP and DROP II Payroll for 2008 valuation year only

Retiree Medical Plan
Principal Valuation Results
as of January 1*

Development of Contribution Rate For Fiscal Year Ending	**2009**	**2008**
A. Normal Cost %	0.45%	0.47%
B. Unfunded Actuarial Accrued Liabilities (UAAL):		
Actuarial Accrued Liability	$134,000,558	$128,607,079
Actuarial Value of Assets	$92,682,144	$96,457,419
UAAL	$41,318,414	$32,149,660
% of Payroll required to amortize UAAL	0.60%	0.48%
C. Total Computed Contribution Rate	1.05%	0.95%

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

Pension Plan
Actuarial Liabilities
as of January 1, 2009

Actuarial Present Value of Benefits	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Active members:			
Retirement	$1,110,090,745	$392,603,430	$717,487,315
Disability	48,928,206	16,989,659	31,938,547
Death	27,072,465	9,628,658	17,443,807
Termination	113,389,541	40,217,320	73,172,221
Vested inactive members	120,295,849	0	120,295,849
DROP participants	96,801,380	0	96,801,380
Retirees and Beneficiaries	1,038,747,977	0	1,038,747,977
Total	$2,555,326,163	$459,439,067	$2,095,887,096
Actuarial Value of Assets	$1,924,991,121	$0	$1,924,991,121
Liabilities to be covered by Future Contributions	$630,335,042	$459,439,067	$170,895,975

Retiree Medical Plan
Actuarial Liabilities
as of January 1, 2009

Actuarial Present Value of Benefits	**Total Present Value (1)**	**Portion Covered by Future Normal Cost Contributions (2)**	**Actuarial Accrued Liabilities (1) - (2)**
Active members:			
Retirement	$51,169,717	$16,385,923	$34,783,794
Disability	2,651,478	860,536	1,790,942
Death	1,444,154	483,787	960,367
Termination	3,957,581	1,366,439	2,591,142
Vested inactive members	6,706,283	0	6,706,283
DROP participants	0	0	0
Retirees and Beneficiaries	87,168,030	0	87,168,030
Total	$153,097,243	$19,096,685	$134,000,558
Actuarial Value of Assets	$92,682,144	$0	$92,682,144
Liabilities to be covered by Future Contributions	$60,415,099	$19,096,685	$41,318,414

Actuarial Balance Sheet as of January 1

Pension Plan

Assets and Present Value of Expected Future Contributions

	2009	2008
A. Actuarial Value of Assets		
1. Net assets from system financial statements	$1,455,545,132	$2,040,171,774
2. Adjustment for Valuation Assets*	469,445,989	(90,160,959)
3. Actuarial Value of Assets	$1,924,991,121	$1,950,010,815
B. Actuarial Present Value of Expected Future Contributions		
1. For Normal Costs	$459,439,067	$450,058,578
2. For Unfunded Actuarial Accrued Liability	170,895,975	35,640,667
3. Total	$630,335,042	$485,699,245
C. Total Present and Expected Future Resources (equals Present Value of Benefits)	$2,555,326,163	$2,435,710,060

*See page 21

Actuarial Balance Sheet as of January 1

Retiree Medical Plan
Assets and Present Value of Expected Future Contributions

	2009	2008
A. Actuarial Value of Assets		
1. Net assets from system financial statements	$69,776,382	$100,732,855
2. Adjustment for Valuation Assets*	22,905,762	(4,275,436)
3. Actuarial Value of Assets	$92,682,144	$96,457,419
B. Actuarial Present Value of Expected Future Contributions		
1. For Normal Costs	$19,096,685	$19,156,149
2. For Unfunded Actuarial Accrued Liability	41,318,414	32,149,660
3. Total	$60,415,099	$51,305,809
C. Total Present and Expected Future Resources (equals Present Value of Benefits)	$153,097,243	$147,763,228

*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, 2008:		$ 1,985,651,500
2. Development of expected AAL as of January 1, 2009:		
a. Normal cost (NC) for plan year		$ 53,822,500
b. Actual benefit payments paid during plan year (BP)		115,583,600
c. Interest on AAL and NC less interest on BP to December 31, 2008		155,955,000
d. Expected AAL as of January 1, 2009 (1.+2.a.-2.b.+2.c.)		$ 2,079,845,400
3. Changes in AAL due to:		
a. Actual experience versus demographic assumptions (Gain)/Loss:		
i. Salary increases	$ 5,175,600	
ii. Retirement	(1,039,900)	
iii. Mortality - pre and post	(481,300)	
iv. Vested termination	1,309,400	
v. Non vested termination	1,104,800	
vi. Disability	(194,200)	
vii. Data reconciliation	6,793,900	
viii. Other plan experience	179,700	
ix. Benefit payments	873,100	
x. New entrants	2,320,600	
Total change due to experience		$ 16,041,700
b. Change in actuarial assumptions		-
c. Plan improvements		-
d. Change due to actuarial liability methods		-
e. Total (3.a.+ 3.b.+ 3.c.+ 3.d.)		$ 16,041,700
4. Actuarial Accrued Liability as of January 1, 2009 (2.d.+3.e.)		$ 2,095,887,100

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, 2008:		$ 128,607,100
2. Development of expected AAL as of January 1, 2009:		
a. Normal cost (NC) for plan year		$ 2,567,300
b. Actual benefit payments paid during plan year (BP)		10,846,600
c. Interest on AAL and NC less interest on BP to December 31, 2008		9,919,300
d. Expected AAL as of January 1, 2009 (1.+2.a.-2.b.+2.c.)		$ 130,247,100
3. Changes in AAL due to:		
a. Actual experience versus demographic assumptions (Gain)/Loss:		
i. Salary increases	$ -	
ii. Retirement	1,263,700	
iii. Mortality - pre and post	(1,897,600)	
iv. Vested termination	117,100	
v. Non vested termination	(244,900)	
vi. Disability	86,600	
vii. Data reconciliation	4,026,100	
viii. Other plan experience	309,100	
ix. New entrants	93,400	
Total change due to experience		3,753,500
b. Change in actuarial assumptions		-
c. Plan improvements		-
d. Change due to actuarial liability methods		-
e. Total (3.a.+ 3.b.+ 3.c.+ 3.d.)		$ 3,753,500
4. Actuarial Accrued Liability as of January 1, 2009 (2.d.+3.e.)		$ 134,000,600

SECTION C

PLAN ASSETS

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

Item	December 31 2008	December 31 2007
A. Assets:		
1. Cash and Cash Equivalents (Operating Cash)	$41,025,270	$38,628,626
2. Securities Lending Collateral	144,351,797	266,549,886
3. Capital Assets	960,542	994,655
B. Receivables:		
1. Contributions	$974,029	$8,239
2. Unsettled Securities Sold	6,110,918	765,980
3. Interest and Dividends	1,086,052	6,171,827
4. Total Receivables	$8,170,999	$6,946,046
C. Investments:		
1. U.S. Government Obligations	$131,432,478	$151,226,696
2. Domestic Fixed Income	302,385,751	365,115,270
3. Domestic Equities	526,756,121	821,651,320
4. International Equities	203,866,605	347,463,075
5. Real Estate	168,445,201	227,170,895
6. Other Investments	82,199,802	88,484,162
7. Total Investments	$1,415,085,958	$2,001,111,418
D. Liabilities:		
1. Unsettled Securities Purchased	($1,705,509)	($5,306,324)
2. Securities Lending Obligations	(150,181,345)	(266,549,886)
3. Accounts Payable	(2,162,580)	(2,202,647)
4. Total Liabilities	($154,049,434)	($274,058,857)
E. Total Market Value of Assets Available for Benefits	$1,455,545,132	$2,040,171,774
F. Allocation of Investments:		
1. U.S. Government Obligations	9.29%	7.56%
2. Domestic Fixed Income	21.37%	18.25%
3. Domestic Equities	37.22%	41.06%
4. International Equities	14.41%	17.36%
5. Real Estate	11.90%	11.35%
6. Alternative Investments	5.81%	4.42%
7. Total Investments	100.00%	100.00%

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

Item	December 31 2008	December 31 2007
A. Assets:		
1. Cash and Cash Equivalents (Operating Cash)	$1,966,682	$1,907,277
2. Securities Lending Collateral	6,919,982	13,160,819
3. Capital Assets	46,046	49,111
B. Receivables:		
1. Contributions	$46,693	$407
2. Unsettled Securities Sold	292,947	37,820
3. Interest and Dividends	52,064	304,732
4. Total Receivables	$391,704	$342,959
C. Investments:		
1. U.S. Government Obligations	$6,300,652	$7,466,772
2. Domestic Fixed Income	14,495,864	18,027,454
3. Domestic Equities	25,251,801	40,568,782
4. International Equities	9,773,022	17,155,882
5. Real Estate	8,074,979	11,216,493
6. Other Investments	3,940,520	4,368,878
7. Total Investments	$67,836,838	$98,804,261
D. Liabilities:		
1. Unsettled Securities Purchased	($81,759)	($261,998)
2. Securities Lending Obligations	(7,199,441)	(13,160,819)
3. Accounts Payable	(103,670)	(108,755)
4. Total Liabilities	($7,384,870)	($13,531,572)
E. Total Market Value of Assets Available for Benefits	$69,776,382	$100,732,855
F. Allocation of Investments:		
1. U.S. Government Obligations	9.29%	7.56%
2. Domestic Fixed Income	21.37%	18.25%
3. Domestic Equities	37.22%	41.06%
4. International Equities	14.41%	17.36%
5. Real Estate	11.90%	11.35%
6. Alternative Investments	5.81%	4.42%
7. Total Investments	100.00%	100.00%

Pension Plan
Reconciliation of Plan Assets

Item	December 31 2008	December 31 2007
A. Market Value of Assets at Beginning of Year	$2,040,171,774	$1,895,046,180
B. Revenues and Expenditures:		
1. Contributions:		
a. Employee Contributions	$12,804,873	$11,979,390
b. Employer Contributions	44,362,545	40,955,026
c. Purchased Service Credit	-	-
d. Total	$57,167,418	$52,934,416
2. Investment Income:		
a. Interest, Dividends, and Other Income	($516,498,731)	$207,906,177
b. Net Securities Lending Income	1,806,146	1,075,087
c. Investment Expenses	(8,678,096)	(9,003,942)
d. Net Investment Income	($523,370,681)	$199,977,322
3. Benefits and Refunds:		
a. Refunds	($492,692)	($390,158)
b. Regular Monthly Benefits	(108,049,331)	(98,867,475)
c. DROP and DROP II Benefits	(7,041,536)	(6,059,326)
d. Partial Lump-Sum Benefits Paid	-	-
e. Total	($115,583,559)	($105,316,959)
4. Administrative and Miscellaneous Expenses	($2,839,820)	($2,469,185)
5. Transfers	$0	$0
C. Market Value of Assets at End of Year	$1,455,545,132	$2,040,171,774

Retiree Medical Plan
Reconciliation of Plan Assets

Item	December 31 2008	December 31 2007
A. Market Value of Assets at Beginning of Year	$100,732,855	$95,674,039
B. Revenues and Expenditures:		
1. Contributions:		
a. Employee Contributions	$1,183,354	$1,297,609
b. Employer Contributions	4,253,783	4,504,640
c. Purchased Service Credit	-	-
d. Total	$5,437,137	$5,802,249
2. Investment Income:		
a. Interest, Dividends, and Other Income	($25,075,048)	$10,407,678
b. Net Securities Lending Income	88,037	53,584
c. Investment Expenses	(421,677)	(448,895)
d. Net Investment Income	($25,408,688)	$10,012,367
3. Benefits and Refunds:		
a. Refunds	($24,005)	($19,489)
b. Regular Monthly Benefits	(10,822,553)	(10,612,929)
c. Partial Lump-Sum Benefits Paid	-	-
d. Total	($10,846,558)	($10,632,418)
4. Administrative and Miscellaneous Expenses	($138,364)	($123,382)
5. Transfers	$0	$0
C. Market Value of Assets at End of Year	$69,776,382	$100,732,855

Pension Plan
Development of Actuarial Value of Assets

	Year Ending – December 31	**2008**	**2007**
A.	Actuarial Value of Assets (AVA) Beginning of Year	$1,950,010,815	$1,837,476,077
B.	Market Value (MV) End of Year	1,455,545,132	2,040,171,774
C.	Market Value Beginning of Year	2,040,171,774	1,895,046,180
D.	Increases During the Year:		
	D1. Member Contributions	$12,804,873	$11,979,390
	D2. Employer Contributions	44,362,545	40,955,026
	D3. Expected Return	153,597,764	144,846,226
	D4. Total Increases	$210,765,182	$197,780,642
E.	Decreases During the Year:		
	E1. Retirement Benefits	($115,090,867)	($104,926,801)
	E2. Refund of Member Accounts	(492,692)	(390,158)
	E3. Member Balance Transfers	0	0
	E4. Expenses	(2,839,820)	(2,469,185)
	E5. Total Decreases	($118,423,379)	($107,786,144)
F.	Projected Actuarial Value of Assets (A. + D.4. + E.5.)	$2,042,352,618	$1,927,470,575
G.	Difference in Projected AVA and MV (B.-F.)	($586,807,486)	$112,701,199
H.	Appreciation/(Depreciation) recognized:		
	20% of G.	($117,361,497)	$22,540,240
I.	Contraining Values:		
	H1. 80% of Market Value End of Year	N/A for 2008	$1,632,137,419
	H2. 120% of Market Value End of Year	N/A for 2008	$2,448,206,129
J.	Actuarial Value of Assets End of Year (F. + H.)	$1,924,991,121	$1,950,010,815
K.	Unrecognized Difference in AVA and MV (B.-J.)	($469,445,989)	$90,160,959
L.	**Actuarial Rate of Return**	**1.74%**	**9.10%**
M.	**Market Value Rate of Return**	**-26.17%**	**10.57%**
N.	**Ratio of Actuarial Value of Assets to Market Value**	**132%**	**96%**

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	2008	2007
A.	Actuarial Value of Assets (AVA) Beginning of Year	$96,457,419	$93,089,297
B.	Market Value (MV) End of Year	69,776,382	100,732,855
C.	Market Value Beginning of Year	100,732,855	95,674,039
D.	Increases During the Year:		
	D1. Member Contributions	$1,183,354	$1,297,609
	D2. Employer Contributions	4,253,783	4,504,640
	D3. Refund of Member Accounts	0	0
	D4. Expected Return	7,498,951	7,252,814
	D5. Total Increases	$12,936,088	$13,055,063
E.	Decreases During the Year:		
	E1. Retirement Benefits	($10,822,553)	($10,612,929)
	E2. Refund of Member Accounts	(24,005)	(19,489)
	E3. Member Balance Transfers	0	0
	E4. Expenses	(138,364)	(123,382)
	E5. Total Decreases	($10,984,922)	($10,755,800)
F.	Projected Actuarial Value of Assets (A. + D.5. + E.5.)	$98,408,585	$95,388,560
G.	Difference in Projected AVA and MV (B.-F.)	($28,632,203)	$5,344,295
H.	Appreciation/(Depreciation) recognized:		
	20% of G.	($5,726,441)	$1,068,859
I.	Contraining Values:		
	H1. 80% of Market Value End of Year	N/A for 2008	$80,586,284
	H2. 120% of Market Value End of Year	N/A for 2008	$120,879,426
J.	Actuarial Value of Assets End of Year (F. + H.)	$92,682,144	$96,457,419
K.	Unrecognized Difference in AVA and MV (B.-J.)	($22,905,762)	$4,275,436
L.	**Actuarial Rate of Return**	**1.74%**	**9.04%**
M.	**Market Value Rate of Return**	**-26.06%**	**10.60%**
N.	**Ratio of Actuarial Value of Assets to Market Value**	**133%**	**96%**

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)
1999	15.00%	13.30%
2000	(1.40%)	9.50%
2001	(5.80%)	6.30%
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%
Average returns:		
Last five years:	2.42%	6.79%
Last ten years:	2.76%	7.24%

Retiree Medical Plan
History of Investment Return Rates

Plan Year Ending December 31 of	Market	Actuarial
(1)	(2)	(3)
1999	15.00%	13.30%
2000	(1.40%)	9.80%
2001	(5.74%)	6.40%
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%
Average returns:		
Last five years:	2.44%	6.72%
Last ten years:	2.76%	7.27%

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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 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
2001	$43,990,992	($67,232,001)	($1,918,365)	-	($85,618,821)	$1,377,564,380
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

Retiree Medical Plan
History of 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
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

*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)
2003	$1,503.22	$1,478.36	($24.87)	101.68%	$521.90	(4.76%)
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%

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)
2003	$85.03	$96.44	$11.41	88.17%	$521.90	2.19%
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%

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

Pension Plan
Schedule of Contributions

Year Beginning January 1:	GASB NO. 25 Annual Required Contribution (ARC)		Contributions *		Percentage of GASB ARC Contributed
	% of Payroll	Amount	% of Payroll	Amount[1]	[(5)/(3)]
(1)	(2)	(3)	(4)	(5)	(6)
2003[2]	9.09%	$47,435,946	8.79%	$45,899,111	96.76%
2004	10.16%	51,480,166	8.86%	44,864,380	87.15%
2005[3]	9.84%	48,734,324	9.81%	48,595,153	99.71%
2006	10.79%	53,427,749	9.94%	49,245,410	92.17%
2007	10.12%	50,536,315	10.60%	52,934,416	104.75%
2008	10.02%	54,668,084	10.47%	57,167,418	104.57%
2009	11.99%	67,716,897	N/A	N/A	N/A

Retiree Medical Plan
Schedule of Contributions

Year Beginning January 1:	GASB NO. 25 Annual Required Contribution (ARC)		Contributions *		Percentage of GASB ARC Contributed
	% of Payroll	Amount	% of Payroll	Amount[1]	[(5)/(3)]
(1)	(2)	(3)	(4)	(5)	(6)
2003[2]	0.90%	$4,710,070	0.88%	$4,567,891	96.98%
2004	0.81%	4,072,025	0.78%	3,928,526	96.48%
2005[3]	0.95%	4,723,233	0.92%	4,568,782	96.73%
2006	1.07%	5,292,244	1.06%	5,263,707	99.46%
2007	1.10%	5,475,322	1.16%	5,802,249	105.97%
2008	0.95%	5,210,545	1.00%	5,437,137	104.35%
2009	1.05%	5,948,358	N/A	N/A	N/A

* Figures prior to 2008 were provided by the previous actuary.
[1] Contributions were made based on the legally required rates.
[2] The employers contributed 10% of covered payroll through September 30, 2003. Beginning on October 1, 2003, the employers contributed 8.00% and the employees contributed 2.00% of covered salary.
[3] Beginning on January 1, 2005, the employers and employees contributed 8.50% and 2.50%, respectively.

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, 2009
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

Retirees and Beneficiaries 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

*Includes DROP and DROP II participants

Non-Retired
DROP II Participants
Age Distribution

The period of employment for the DROP II participants has expired as of December 31, 2008, hence there are no Non-Retired DROP II participants to be included in the results as of the valuation date.

Age and Service Distribution
January 1, 2009

Nearest Whole Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals Number	Totals Active Payroll
	Whole Years of Service at Valuation Date								
Less than 20	8							8	$ 148,126
20-24	150	1						151	5,353,992
25-29	584	62	4					650	26,475,359
30-34	577	232	58	1				868	41,577,827
35-39	498	328	271	62	1			1,160	63,265,173
40-44	370	319	381	232	53	5		1,360	79,167,562
45-49	309	275	293	295	151	63	1	1,387	83,506,430
50-54	276	218	251	301	188	198	105	1,537	97,737,535
55-59	186	197	221	238	167	119	185	1,313	86,414,221
60-64	96	140	138	135	82	41	57	689	45,750,199
65-69	16	29	39	43	10	6	12	155	10,542,924
70 & Over	2	12	11	7	3	2	8	45	2,973,846
Totals	**3,072**	**1,813**	**1,667**	**1,314**	**655**	**434**	**368**	**9,323**	**$ 542,913,194**

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

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

Summary of Membership Data by Category

	January 1	
	2009	**2008**
Active Members:		
Number	9,323	9,304
Average age (years)	45.5	45.4
Average service (years)	11.0	11.0
Average payroll	$60,601	$58,440
Total payroll supplied, annualized	$564,986,660	$543,728,238
Vested Inactive Members:		
Number	3,339	3,302
Average age (years)	48.95	48.55
Total annual deferred benefits	$17,401,655	$16,679,364
Average annual deferred benefit	$5,212	$5,051
Nonvested Inactive Members:		
Number	1,202	963
Average age (years)	41.74	43.10
Contribution Account Balance	$702,437	$593,004
Service Retirees:		
Number	5,663	5,432
Average age (years)	69.38	69.48
Total annual benefits	$95,818,280	$88,679,473
Average annual benefit	$16,920	$16,325
Disability Retirees:		
Number	315	299
Average age (years)	61.94	61.82
Total annual benefits	$4,311,144	$3,931,168
Average annual benefit	$13,686	$13,148
Beneficiaries:		
Number	895	859
Average age (years)	68.24	67.55
Total annual benefits	$9,113,807	$8,473,457
Average annual benefit	$10,183	$9,864
DROP and DROP II Participants:		
Number	0	24
Average age (years)	N/A	61.38
Total DROP and DROP II Payroll	$0	$2,107,156
Total annual benefits	$0	$717,957
Average annual benefit	N/A	$29,915
Total Account Balances	$96,801,380	$96,066,783

Membership Data Reconciliation

	Actives	Disability	Terminated Vested	Terminated Nonvested	Retiree	DROP and DROP II	Beneficiary	Child	Total
GRS Counts as of January 1, 2008	9,304	299	3,302	963	5,432	24	842	17	**20,183**
Actives	**41**		(28)	(10)	(3)				
Disability	(17)	**25**	(6)	(1)	(1)				
Terminated Vested	(205)		**205**						
Terminated Nonvested	(249)			**249**					
Retiree	(254)		(122)		**400**	(24)			
DROP and DROP II						**0**			
Beneficiary							**0**		
Child								**0**	
Terminated Annuity (Legal Reasons)					(1)		(1)	(2)	
Terminated Annuity (Refund)	(97)			(71)					
Dropped Records			(1)						
Deceased without Beneficiary	(15)	(7)	(14)		(128)		(24)	(1)	
Deceased with Beneficiary	(1)	(3)			(44)				
New Beneficiaries							63		
New Children								1	
New Actives	816								
Data Correction									
Not it last year's file		1	3	72	8				
Continuing	**8,467**	**292**	**3,131**	**881**	**5,255**	**0**	**817**	**14**	**18,857**
GRS Counts as of January 1, 2009	**9,323**	**315**	**3,339**	**1,202**	**5,663**	**0**	**880**	**15**	**20,737**

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 value of the benefit that accrued 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 accrued liability could be viewed as the sum of all past normal costs. Thus, the accrued liability grows in proportion to the growth in the projected-pay accrued benefit.

Finally, for all funding methods, the 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. For members currently in DROP II, they are valued as retirees with an accrued liability based on their current benefit plus the value of their accrued DROP II balances. 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, 2009 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.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section. Both the economic and decrement assumptions were established following the January 1, 2009 actuarial valuation.

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 macro economic 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 macro economic 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.

Sample Ages	% Increase in Salary for the Year		
	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 assumption is used to measure the probabilities of dying after leaving employment as a vested terminated member/retiree or beneficiary.

	% 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 assumption is used for active members to measure 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, the probabilities of dying at sample attained ages were as follows:

Ages	% Dying Within Next Year Disabled Men	% Dying Within Next Year Disabled 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%

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

	Percent of Eligible Active Members Retiring Within Next Year	
Ages	**Early Retirement**	**Normal Retirement**
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%

	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 is defined as the first age at which a member is eligible to retire under the Rule of 75 (Refer to Section G). Rates continue at 40.00% until member reaches age 70, then retirement rate assumption is 100.00% at age 70.

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).

Years of Service	Select Period % of Active Members Separating Within Next Year	
	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%

Ages	Ultimate Rates % of Active Members Separating Within Next Year*	
	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

For inactive members, the assumed age at retirement is age 65. If an inactive member is not vested, the liability valued is their employee contributions with interest.

Rates are not applied after the member is eligible for reduced or unreduced retirement benefits.

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):

Ages	% Becoming Disabled Within Next Year	
	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%

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.
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.
Forfeitures	For vested separations from service, it is assumed that none of the members separating will withdraw their contributions and forfeit an employer financed benefit.
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	75.00% of males and 60.00% of females are assumed to be married for purposes of death-in-service benefits and 75.00% of males and 60.00% of females are assumed to be married for purposes of retiree medical benefits. Male spouses are assumed to be 3 years older than female spouses for active member valuation purposes.
Normal Form of Benefit	A straight life benefit 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.
Terminal Pay	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.

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. 402, Series of 2008, August 2008.
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 single employer 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 successive calendar months of covered service.
I. Normal Retirement	1. Eligibility: Attainment of age 65, or attainment of age 55 with age plus credited service equal to 75 (Rule of 75). 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 and completion of 5 years.
2. Benefit: Benefit accrued to date of retirement, reduced by 3% 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. 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.

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

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.

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) 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. 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.

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 it cannot be changed. If the spouse or designated beneficiary pre-deceases 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. Effective January 1, 2008, the Plan will contribute $6.25 for each year of service for members age 65 and over. The Plan contributes $12.50 for each year of service for members under age 65. In addition, the benefit is calculated on the age of the member or joint and survivor beneficiary, whoever is younger. 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

2.50% of compensation

V. Employer Contributions

8.5% of compensation for each member, or an actuarially determined annual required contribution, less member contributions, necessary to fund the current cost of benefits.

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

1. DROP - Effective January 1, 2001, in lieu of immediate termination of employment and receipt of a normal retirement benefit, a member may continue employment for four years and have the member's normal retirement benefit paid into the deferred retirement option plan (DROP) account until the end of such period of the member's participation, at which time the participant may either terminate employment or continue to be employed and resume regular membership with the retirement plan. Subject to the conditions and provisions set forth in the Ordinance, a member may elect to become a participant in the DROP and defer the commencement and receipt of the member's retirement benefit. No member was eligible for entry into DROP after April 30, 2003.
2. DROP II - Effective May 1, 2003, in lieu of immediate termination of employment and receipt of a normal retirement benefit, a member may continue employment for five years and have the member's normal retirement benefit paid into the DROP II account until the end of such period of the member's participation, at which time the participant must terminate employment. Subject to the conditions and provisions, a member may elect to become a participant in DROP II and defer the commencement and receipt of the member's retirement benefit. No member was eligible for entry into DROP II after September 1, 2003.

Z. Other Ancillary Benefits

Social Security Make-Up Benefit – For members retiring on or after January 1, 1996, an additional retirement benefit equal to the applicable percentage 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

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. Under GASB 25, 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 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.
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.
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

	2009	2008
Average Age for Active Members at Hospital	50.16	49.36
Number of Active Members at Hospital	1,131	1,228
Average Age for Active Members Non-Hospital	44.88	44.85
Number of Active Members Non-Hospital	8,192	8,076
Normal Cost for Hospital	$10,589,227	$11,035,299
Estimated Payroll for Hospital	88,033,718	94,378,411
Normal Cost as a Percent of Hospital Payroll	12.03%	11.69%
Normal Cost for Non-Hospital	$45,299,135	$42,787,188
Estimated Payroll for Non-Hospital	476,952,942	451,456,982
Normal Cost as a Percent of Non-Hospital Payroll	9.50%	9.48%
Difference in Normal Cost as a Percent of Payroll	2.53%	2.21%
Estimated Payroll for Hospital	$88,033,718	$94,378,411
Difference in Normal Cost as a Dollar Amount	2,227,253	2,085,763

Determination of DHHA
Supplemental Contributions
Retiree Medical Plan

	2009	2008
Average Age for Active Members at Hospital	50.16	49.36
Number of Active Members at Hospital	1,131	1,228
Average Age for Active Members Non-Hospital	44.88	44.85
Number of Active Members Non-Hospital	8,192	8,076
Normal Cost for Hospital	$424,556	$444,681
Estimated Payroll for Hospital	88,033,718	94,378,411
Normal Cost as a Percent of Hospital Payroll	0.48227%	0.47117%
Normal Cost for Non-Hospital	$2,152,684	$2,122,580
Estimated Payroll for Non-Hospital	476,952,942	451,456,982
Normal Cost as a Percent of Non-Hospital Payroll	0.45134%	0.47016%
Difference in Normal Cost as a Percent of Payroll	0.030924%	0.001006%
Estimated Payroll for Hospital	$88,033,718	$94,378,411
Difference in Normal Cost as a Dollar Amount	$27,224	$949