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June 5, 2013

Mr. Karl Paulson
Manager of Strategic Innovation
Public Employees' Retirement Association of Colorado
1301 Pennsylvania Street
Denver, CO 80203-2386

Dear Mr. Paulson:

Enclosed are 1 unbound and 40 bound copies of the "Report on the Actuarial Valuation of the Public Employees' Retirement Association of Colorado prepared as of December 31, 2012.

Please let us know if you have any questions concerning the report.

Sincerely,

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA
Chief Executive Officer

TJC:kc

Enclosure

S:\Colorado PERA\Pension\Valuations\12-31-2012\Valuation COPERA 12312012 Report MERGE DOCUMENT.docx

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**Report on the Actuarial Valuation of the
Public Employees' Retirement Association
of Colorado**

Prepared as of December 31, 2012





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June 5, 2013

The Board of Trustees
Public Employees' Retirement Association of Colorado
1301 Pennsylvania Street
Denver, CO 80203-2386

Dear Trustees:

We are pleased to submit the results of the annual actuarial valuation of the Public Employees' Retirement Association of Colorado (PERA), prepared as of December 31, 2012.

The purpose of this report is to provide a summary of the funded status of PERA as of December 31, 2012, to recommend rates of contribution and to provide accounting information under Governmental Accounting Standards Board Statements No. 25, 27, 43 and 45 (GASB 25, 27, 43 and 45). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation incorporates revised economic and demographic assumptions and the recognition of the disaffiliation of the Memorial Health System as described in more detail below. The results indicate that the combined employer and member contribution rates are sufficient to fund the normal cost for all members and provide additional contributions to help finance both Health Care Trust Funds, each division's unfunded accrued liability and the Annual Increase Reserve (AIR) Fund. The resulting amortization periods for each division, with and without recognition of future increases to the Amortization Equalization Disbursement (AED) and the Supplemental Amortization Equalization Disbursement (SAED), are shown in the table on the next page:



	Amortization Period	
	With Current AED & SAED	With Future Increases to AED & SAED
State Division	53 years	36 years
School Division	49 years	34 years
Local Government Division*	27 years	27 years
Judicial Division	Infinite	Infinite
Denver Public Schools Division	Infinite	Infinite**
PERA Health Care Trust Fund (PERA HCTF)***	66 years	66 years
DPS Health Care Trust Fund (DPS HCTF)***	21 years	21 years

* The actuarial valuation results reflect the disaffiliation of Memorial Health System, formerly the largest employer of the Local Government Division, as of October 1, 2012. The increase in amortization periods shown above, predominately are attributable to the disaffiliation. For purposes of the December 31, 2012 actuarial valuation, no additional incoming dollars were assumed added to the Local Government Trust Fund as there is ongoing litigation regarding the potential dollars owed to the Trust Fund due to the disaffiliation. Valuation assets and results will be adjusted accordingly in subsequent years depending on the outcome of the litigation.

** Considering anticipated reductions in the future offset to DPS contribution requirements to PERA for the cost of certain Pension Certificates of Participation (PCOP) as currently structured, the amortization period is expected to be below 30 years. Colorado statutes call for a "true-up" in 2015, and every five years following, with the expressed purpose of adjusting the total DPS Contribution rate to ensure equalization of the ratio of unfunded actuarial accrued liability over payroll between the DPS and School Divisions at the end of the 30-year period beginning January 1, 2010.

*** The HCTF amortization periods shown are calculated based on future contributions equaling the statutory rate. If future expected Medicare Part D Retiree Drug Subsidy payments are also contributed to the PERA HCTF, the amortization period is 42 years. If future expected Medicare Part D Retiree Drug Subsidy payments are also contributed to the DPS HCTF, the amortization period is 19 years. The actuarial valuation results reflect the disaffiliation of Memorial Health System. For purposes of the December 31, 2012 actuarial valuation, no additional incoming dollars were assumed added to the PERA HCTF, as there is ongoing litigation regarding the potential dollars owed to the PERA HCTF due to the disaffiliation. Valuation assets and results will be adjusted accordingly in subsequent years depending on the outcome of the litigation.



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Board of Trustees
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The promised benefits of PERA are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method. Four-year smoothed market value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 4.25% annually. The 2012 valuation results reflect changes in economic and demographic actuarial assumptions recommended by the actuary and adopted by the board, effective as of December 31, 2012. The assumptions were revised as a result of an experience analysis covering the prior four years of plan experience (i.e., 2008 – 2011, inclusive) with the intent to better represent plan experience. We believe the assumptions are, in the aggregate, reasonably related to the experience and to expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 25, 27, 43 and 45.

We have prepared the Schedule of Funding Progress and Trend Information shown in the financial section of the Comprehensive Annual Financial Report, and all supporting schedules including the Schedule of Active Member Data, the Solvency Test and the Analysis of Financial Experience shown in the actuarial section of the Comprehensive Annual Financial Report. All PERA historical information that references a valuation date prior to December 31, 2006 was prepared by the previous actuarial firm. All Denver Public School Retirement System (DPSRS) historical information that references a valuation date prior to December 31, 2010 was prepared by the previous actuarial firm.

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

The employer contribution rate, together with Medicare Part D Retiree Drug Subsidy receipts and anticipated future employee growth and service purchase transfers, is sufficient to eventually finance the PERA and DPS Health Care Trust Funds benefits in accordance with GASB 43 and 45.

The Local Government Division employer contribution rates are sufficient to finance the promised benefits under GASB 25 and 27. Considering the offsets of PCOP Credits as a percentage of payroll, applicable to the DPS Division only, the Denver Public Schools Division employer contribution rate is currently sufficient to finance the promised benefits and eventually meet the required contribution levels under GASB 25 and 27. Considering the addition of the AED and SAED contributions and projected reductions in liability due to benefit structure changes for newer hires, the State and School Divisions' employer contribution rates are expected to be sufficient to finance the promised benefits. The total employer contributions, combined with projected reductions in liability due to benefit structure changes for newer hires, are expected to fund the Judicial Division.



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Board of Trustees
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The Table of Contents, which immediately follows, outlines the material contained in the report. The undersigned 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 herein.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Thomas J. Cavanaugh'.

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA
Chief Executive Officer

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel'.

Edward J. Koebel, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Eric H. Gary'.

Eric H. Gary, FSA, FCA, MAAA
Chief Health Actuary

TJC/EJK/EHG:kc



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**REPORT ON THE ACTUARIAL VALUATION OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
PREPARED AS OF DECEMBER 31, 2012**

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results for State Division, School Division, Local Government Division, Judicial Division, Denver Public Schools (DPS) Division, the PERA Health Care Trust Fund and the DPS Health Care Trust Fund are summarized below:

**SUMMARY OF PRINCIPAL RESULTS FOR STATE DIVISION
(\$ IN THOUSANDS)**

VALUATION DATE	12/31/2012	12/31/2011
Number of Active Non-Troopers	53,993	54,145
Annual Covered Payroll	\$ 2,328,360	\$ 2,336,179
Number of Active Troopers	811	811
Annual Covered Payroll	\$ 56,574	\$ 57,612
Total Number of Active Members	54,804	54,956
Total Annual Covered Payroll	\$ 2,384,934	\$ 2,393,791
Number of Retired Members and Survivors	34,125	33,212
Annual Retirement Benefits	\$ 1,261,435	\$ 1,199,816
Total Assets:		
Actuarial Value	\$ 12,538,675	\$ 12,010,045
Market Value	\$ 12,766,459	\$ 12,001,770
Actuarial Accrued Liability	\$ 21,191,495	\$ 20,826,543
Unfunded Actuarial Accrued Liability (UAAL)	\$ 8,652,820	\$ 8,816,498
CONTRIBUTIONS FOR YEAR ENDING	12/31/2014	12/31/2013
Employer Contribution Rate:		
Normal*	1.64%	1.52%
Accrued Liability	<u>18.81%</u>	<u>18.49%</u>
Annual Required Contribution	20.45%	20.01%
Reduction for AED and SAED	<u>(9.72)%</u>	<u>(9.51)%</u>
Total Employer Contribution Rate	10.73%	10.50%
Amortization Period	30 years	30 years

* Starting with the December 31, 2012 valuation, estimated budgeted administrative expenses are included in the normal rate.



**SUMMARY OF PRINCIPAL RESULTS FOR SCHOOL DIVISION
(\$ IN THOUSANDS)**

VALUATION DATE	12/31/2012	12/31/2011
Number of Active Members	115,294	114,820
Annual Covered Payroll	\$ 3,819,066	\$ 3,821,603
Number of Retired Members and Survivors	53,952	51,898
Annual Retirement Benefits	\$ 1,878,147	\$ 1,778,342
Assets:		
Actuarial Value	\$ 20,266,574	\$ 19,266,110
Market Value	\$ 20,636,677	\$ 19,247,853
Actuarial Accrued Liability	\$ 32,619,033	\$ 31,986,199
Unfunded Actuarial Accrued Liability (UAAL)	\$ 12,352,459	\$ 12,720,089
CONTRIBUTION FOR YEAR ENDING	12/31/2014	12/31/2013
Employer Contribution Rate:		
Normal*	2.88%	3.08%
Accrued Liability	<u>16.77%</u>	<u>16.71%</u>
Annual Required Contribution	19.65%	19.79%
Reduction for AED and SAED	<u>(9.67)%</u>	<u>(9.47)%</u>
Total Employer Contribution Rate	9.98%	10.32%
Amortization Period	30 years	30 years

* Starting with the December 31, 2012 valuation, estimated budgeted administrative expenses are included in the normal rate.



**SUMMARY OF PRINCIPAL RESULTS FOR LOCAL GOVERNMENT DIVISION
(\$ IN THOUSANDS)**

VALUATION DATE	12/31/2012*	12/31/2011
Number of Active Members	12,097	16,065
Annual Covered Payroll	\$ 523,668	\$ 718,169
Number of Retired Members and Survivors	5,901	5,320
Annual Retirement Benefits	\$ 209,574	\$ 184,867
Assets:		
Actuarial Value	\$ 3,098,721	\$ 2,882,691
Market Value	\$ 3,154,897	\$ 2,875,756
Actuarial Accrued Liability	\$ 4,157,621	\$ 4,160,015
Unfunded Actuarial Accrued Liability (UAAL)	\$ 1,058,900	\$ 1,277,324
CONTRIBUTIONS FOR YEAR ENDING	12/31/2014	12/31/2013
Employer Contribution Rate:		
Normal**	1.29%	1.69%
Accrued Liability	<u>10.49%</u>	<u>8.93%</u>
Annual Required Contribution	11.78%	10.62%
Reduction for AED and SAED	<u>(3.70)%</u>	<u>(3.70)%</u>
Total Employer Contribution Rate	8.08%	6.92%
Amortization Period	30 years	30 years

* The decreases in active member count and annual covered payroll, as well as the increases in retiree count, primarily are attributable to the disaffiliation of Memorial Health System, effective October 1, 2012.

** Starting with the December 31, 2012 valuation, estimated budgeted administrative expenses are included in the normal rate.



**SUMMARY OF PRINCIPAL RESULTS FOR JUDICIAL DIVISION
(\$ IN THOUSANDS)**

VALUATION DATE	12/31/2012	12/31/2011
Number of Active Members	329	329
Annual Covered Payroll	\$ 39,045	\$ 39,033
Number of Retired Members and Survivors	321	312
Annual Retirement Benefits	\$ 18,401	\$ 17,347
Assets:		
Actuarial Value	\$ 238,807	\$ 221,515
Market Value	\$ 242,877	\$ 220,963
Actuarial Accrued Liability	\$ 326,897	\$ 319,437
Unfunded Actuarial Accrued Liability (UAAL)	\$ 88,090	\$ 97,922
CONTRIBUTIONS FOR YEAR ENDING	12/31/2014	12/31/2013
Employer Contribution Rate:		
Normal*	8.37%	8.93%
Accrued Liability	<u>11.70%</u>	<u>12.60%</u>
Annual Required Contribution	20.07%	21.53%
Reduction for AED and SAED	<u>(3.70)%</u>	<u>(3.70)%</u>
Total Employer Contribution Rate	16.37%	17.83%
Amortization Period	30 years	30 years

* Starting with the December 31, 2012 valuation, estimated budgeted administrative expenses are included in the normal rate.



**SUMMARY OF PRINCIPAL RESULTS FOR DENVER PUBLIC SCHOOLS DIVISION
(\$ IN THOUSANDS)**

VALUATION DATE	12/31/2012	12/31/2011
Number of Active Members with DPS Structure	5,831	6,517
Annual Covered Payroll	\$ 310,570	\$ 338,635
Number of Active Members with PERA Structure	8,080	7,054
Annual Covered Payroll	\$ 200,302	\$ 153,011
Total Number of Active Members	13,911	13,571
Total Annual Covered Payroll	\$ 510,872	\$ 491,646
Number of Retired Members and Survivors	6,415	6,311
Annual Retirement Benefits	\$ 233,009	\$ 225,123
Assets:		
Actuarial Value	\$ 2,936,695	\$ 2,804,706
Market Value	\$ 2,992,217	\$ 2,818,096
Actuarial Accrued Liability	\$ 3,495,549	\$ 3,442,527
Unfunded Actuarial Accrued Liability (UAAL)	\$ 558,854	\$ 637,821
CONTRIBUTIONS FOR YEAR ENDING	12/31/2014	12/31/2013
Employer Contribution Rate:		
Normal*	4.00%	5.02%
Accrued Liability	<u>5.67%</u>	<u>6.51%</u>
Annual Required Contribution	9.67%	11.53%
Reduction for AED/SAED	<u>(9.67)%</u>	<u>(9.47)%</u>
Total Employer Contribution Rate	0.00%	2.06%
Amortization Period	30 years	30 years

* Starting with the December 31, 2012 valuation, estimated budgeted administrative expenses are included in the normal rate.



**SUMMARY OF PRINCIPAL RESULTS FOR PERA HEALTH CARE TRUST FUND
(\$ IN THOUSANDS)**

VALUATION DATE	12/31/2012*	12/31/2011
Number of Active Members	182,524	186,170
Annual Covered Payroll	\$6,766,713	\$6,972,596
Number of Retired Members and Survivors	51,681	50,217
Assets:		
Actuarial Value	\$285,097	\$282,228
Market Value	\$291,737	\$281,786
Actuarial Accrued Liability	\$1,723,495	\$1,710,790
Unfunded Actuarial Accrued Liability (UAAL)	\$1,438,398	\$1,428,562
CONTRIBUTIONS FOR YEAR ENDING	12/31/2014	12/31/2013
Employer Contribution Rate:		
Normal	0.22%	0.21%
Accrued Liability	<u>1.10%</u>	<u>1.03%</u>
Annual Required Contribution	1.32%	1.24%
Amortization Period	30 years	30 years

* The decreases in active member count and annual covered payroll are primarily attributable to the disaffiliation of Memorial Health System, effective October 1, 2012.



**SUMMARY OF PRINCIPAL RESULTS FOR DPS HEALTH CARE TRUST FUND
(\$ IN THOUSANDS)**

VALUATION DATE	12/31/2012	12/31/2011
Number of Active Members	13,911	13,571
Annual Covered Payroll	\$510,872	\$491,646
Number of Retired Members and Survivors	3,963	3,958
Assets:		
Actuarial Value	\$14,443	\$14,448
Market Value	\$14,843	\$14,375
Actuarial Accrued Liability	\$77,669	\$77,475
Unfunded Actuarial Accrued Liability (UAAL)	\$63,226	\$63,027
CONTRIBUTIONS FOR YEAR ENDING	12/31/2014	12/31/2013
Employer Contribution Rate:		
Normal	0.23%	0.22%
Accrued Liability	<u>0.64%</u>	<u>0.64%</u>
Annual Required Contribution	0.87%	0.86%
Amortization Period	30 years	30 years



2. Comments on the valuation results as of December 31, 2012 are given in Section IV and further discussion of the contribution levels is set out in Section V.
3. Schedule B shows the development of the actuarial value of assets. Schedule D of this report outlines the full set of actuarial assumptions and methods used in the current valuation.

The 2012 valuation results reflect changes listed below which were recommended to and adopted by the board as of November 2012, to be effective with the December 31, 2012 actuarial valuation. The assumptions were revised as a result of an experience analysis encompassing the prior four years of plan experience, 2008 through 2011, inclusive. The following changes in actuarial assumptions or methods were made since the last valuation:

- The price inflation assumption was lowered from 3.75% to 3.50%.
- The wage inflation assumption was lowered from 4.50% to 4.25%.
- The rates of retirement, withdrawal, mortality and disability have been revised to more closely reflect actual experience.
- The investment rate of return is now net of investment expenses only, not all expenses, to better represent investment consultant assumptions and predictions and also to better align with recent changes in GASB accounting and reporting requirements. An estimated administrative expense level of 0.35% of payroll for the December 31, 2012 valuation is added to the normal cost for all pension divisions.

The following changes have been made to certain health care methods and assumptions since the previous valuation:

- The rates of participation in PERACare for current participants of the PERA Divisions and the DPS Division, future participants of the PERA Divisions and the DPS Division, and DPS Division deferred vested members have been revised to more closely reflect actual experience.
- The percentage of PERACare enrollees who will become age 65 and older and are assumed to not qualify for premium-free Medicare Part A coverage have been revised to more closely reflect actual experience.
- The average age difference between covered male and female spouses has been updated to reflect actual experience.



- Initial per capita health care costs for PERACare enrollees under the PERA Structure who are age 65 and older and are not eligible for premium-free Medicare Part A benefits have been updated to reflect the change in costs for the 2013 plan year.
 - The initial per capita payments estimated to be made by the Centers for Medicare & Medicaid Services (CMS) under the Retiree Drug Subsidy Program (RDS) have been updated based upon the most recent attestation of actuarial equivalence.
 - The assumed rates of inflation for health care costs for Medicare Part A premiums and RDS payments have been revised to reflect the current expectation of future increases.
 - The last year in which the prescription drug benefit provided to those members eligible for Medicare Part D is deemed to be Actuarially Equivalent has been increased to 2023.
4. The valuation takes into account the effect of amendments to PERA and DPS benefit structures through the valuation date. The Main Provisions of PERA and DPS, as summarized in Schedule F, were taken into account in the current valuation. There were no changes to the main provisions since the prior valuation.
5. Actual employer contributions to the DPS Division are reduced by an amount equal to the principal payments plus interest necessary each year to finance the pension certificates of participation (PCOPs) issued in 1997 and 2008 and refinanced during 2011 and 2012. The amount of the credit for the 2014 fiscal year is 14.01% of salary. This credit is expected to decline as a percentage of payroll, as currently structured, resulting in an expected amortization period to be below 30 years. Colorado statutes call for a “true-up” in 2015, and every five years following, with the expressed purpose of adjusting the total DPS Contribution rate to ensure equalization of the ratio of unfunded actuarial accrued liability over payroll between the DPS and School Divisions at the end of the 30-year period beginning January 1, 2010.
6. There was a short-term contribution “swap” between employers and employees in the State and Judicial Divisions covering the period July 1, 2010 through June 30, 2012. Employee contributions for this period were increased by 2.5% of payroll and employer contributions were reduced by that amount. The annual required contributions (ARCs) for those years shown in exhibits regarding GASB requirements have been adjusted to reflect this swap for the 2010, 2011 and 2012 calendar years.



SECTION II – MEMBERSHIP DATA

- Data regarding the membership of PERA for use as a basis of the valuation were furnished by PERA. The following table shows the number of active members and their annual covered payroll as of December 31, 2012 on the basis of which the valuation was prepared.

THE NUMBER AND ANNUAL COVERED PAYROLL OF ACTIVE MEMBERS AS OF DECEMBER 31, 2012 (\$ IN THOUSANDS)

GROUP	NUMBER	ANNUAL COVERED PAYROLL
State Division	54,804	\$ 2,384,934
School Division	115,294	3,819,066
Local Government Division	12,097	523,668
Judicial Division	329	39,045
Denver Public Schools Division	<u>13,911</u>	<u>510,872</u>
Total	196,435	\$ 7,277,585

- The following table shows a six-year history of active member valuation data.

SCHEDULE OF TOTAL ACTIVE MEMBER VALUATION DATA*

VALUATION DATE	NUMBER	ANNUAL COVERED PAYROLL (\$ IN THOUSANDS)	AVERAGE ANNUAL COVERED PAYROLL	% CHANGE IN AVERAGE PAYROLL
12/31/2012	196,435	\$ 7,277,585	\$ 37,048	(0.86)%
12/31/2011	199,741	7,464,242	37,370	0.12%
12/31/2010	201,095	7,506,193	37,327	0.72%
12/31/2009	190,206	7,048,993	37,060	1.95%
12/31/2008	190,684	6,931,405	36,350	3.43%
12/31/2007	186,842	6,566,368	35,144	4.47%

*Starting with the December 31, 2010 valuation, the numbers include the Denver Public Schools Division which was merged into PERA on January 1, 2010.



3. The following table shows the number and annual retirement benefits payable to retired members and survivors on the roll of PERA as of the valuation date.

**THE NUMBER AND ANNUAL RETIREMENT BENEFITS
OF RETIRED MEMBERS AND SURVIVORS OF DECEASED MEMBERS
ON THE ROLL AS OF DECEMBER 31, 2012
(\$ IN THOUSANDS)**

TYPE OF RETIREMENT	GROUP					TOTAL
	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION	
Service:						
Number	29,659	49,695	5,027	286	5,915	90,582
Annual Benefits	\$1,162,102	\$1,796,432	\$190,899	\$16,988	\$222,953	\$3,389,374
Disability:						
Number	3,471	3,032	691	19	344	7,557
Annual Benefits	\$79,927	\$63,370	\$15,451	\$ 905	\$7,173	\$166,826
Survivors*:						
Number	995	1,225	183	16	156	2,575
Annual Benefits	\$19,406	\$18,345	\$3,224	\$ 508	\$2,883	\$44,366
Total:						
Number	34,125	53,952	5,901	321	6,415	100,714
Annual Benefits	\$1,261,435	\$1,878,147	\$209,574	\$18,401	\$233,009	\$3,600,566

* Includes deferred survivors

4. Tables 1 through 5 of Schedule G show the distribution by age and service of the number and total annual compensation of active members for each division included in the valuation.



SECTION III - ASSETS

- Schedule C shows the additions and deductions of PERA for the year preceding the valuation date and a reconciliation of the fund balances at market value. As of December 31, 2012, the market value of assets for each division is shown below:

**COMPARISON OF MARKET VALUE OF ASSETS AT
DECEMBER 31, 2012 AND DECEMBER 31, 2011
(\$ IN THOUSANDS)**

GROUP	DECEMBER 31, 2012 MARKET VALUE	DECEMBER 31, 2011 MARKET VALUE
State Division	\$ 12,766,459	\$ 12,001,770
School Division	20,636,677	19,247,853
Local Government Division	3,154,897	2,875,756
Judicial Division	242,877	220,963
Denver Public Schools Division	2,992,217	2,818,096
PERA Health Care Trust Fund	291,737	281,786
DPS Health Care Trust Fund	<u>14,843</u>	<u>14,375</u>
Total Market Value of Assets	\$ 40,099,707	\$ 37,460,599

- The four-year market related actuarial value of assets used for the current valuation was \$39,379,011,675. Schedule B shows the development of the actuarial value of assets as of December 31, 2012. The following table shows the actuarial value of assets allocated among all divisions.

**COMPARISON OF ACTUARIAL VALUE OF ASSETS AT
DECEMBER 31, 2012 AND DECEMBER 31, 2011
(\$ IN THOUSANDS)**

GROUP	DECEMBER 31, 2012 ACTUARIAL VALUE	DECEMBER 31, 2011 ACTUARIAL VALUE
State Division	\$ 12,538,675	\$ 12,010,045
School Division	20,266,574	19,266,110
Local Government Division	3,098,721	2,882,691
Judicial Division	238,807	221,515
Denver Public Schools	2,936,695	2,804,706
Health Care Trust Fund	285,097	282,228
DPS Health Care Trust Fund	<u>14,443</u>	<u>14,448</u>
Total Actuarial Value of Assets	\$ 39,379,012	\$ 37,481,743



SECTION IV - COMMENTS ON VALUATION

State Division

1. The total valuation balance sheet on account of benefits shows that the State Division has total prospective benefit liabilities of \$22,897,164,046, of which \$13,755,592,415 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$435,876,310 is for the prospective benefits payable on account of present inactive members, and \$8,705,695,321 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the State Division has a total present actuarial value of assets of \$12,538,675,449 as of December 31, 2012. The difference of \$10,358,488,597 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$1,483,328,971 is the present value of future contributions expected to be made by members (at the rate of 8.0% of salary for non-state troopers and 10.0% of salary for state troopers), and the balance of \$8,875,159,626 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the State Division on account of benefits consist of three amounts set by statute. The basic amount is 9.13% of salary for non-state troopers and 11.83% of salary for state troopers (after reduction for the Health Care Trust Fund Contribution of 1.02% of salary). For members of the PERA benefit structure hired on or after January 1, 2007, an allocation of the statutory rates of 1.00% of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

Year	AED	SAED
2012	3.00%	2.50%
2013	3.40	3.00
2014	3.80	3.50
2015	4.20	4.00
2016	4.60	4.50
2017 and later	5.00	5.00



3. The valuation indicates that employer normal contributions at the rate of 1.64% of salary are required to provide the benefits for the State Division. After adjusting for administrative expenses, prospective employer normal contributions at this rate have a present value of \$222,339,950. When this amount is subtracted from \$8,875,159,626, which is the present value of the total future contributions to be made by the employers, there remains \$8,652,819,676 as the amount of future accrued liability contributions.
4. After recognizing the required employer normal contribution rates, the remaining basic contribution amounts to 14.54% of salary. Contributions at this level will amortize the unfunded accrued liability of \$8,652,819,676 over 53 years, assuming the aggregate payroll of the State Division increases by 4.25% each year. After recognizing the value of both future AED and future SAED contributions, the amortization period is reduced to 36 years.
5. Effective July 1, 2005, Colorado PERA began receiving employer contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The employer rate is the total rate within the division, including both AED and SAED. Effective January 1, 2011, Colorado PERA began receiving employee contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The working retiree does not accrue an additional benefit and is not eligible for a refund of these contributions.
6. The valuation results reflect the impact of a two-year contribution rate swap of 2.5% of payroll in for the period July 1, 2010 through June 30, 2012 decreasing the employer contribution rate.



School Division

1. The total valuation balance sheet on account of benefits shows that the School Division has total prospective benefit liabilities of \$36,016,483,246, of which \$20,807,934,705 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$658,143,077 is for the prospective benefits payable on account of present inactive members, and \$14,550,405,464 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the School Division has a total present actuarial value of assets of \$20,266,573,925 as of December 31, 2012. The difference of \$15,749,909,321 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$2,628,138,790 is the present value of future contributions expected to be made by members (at the rate of 8.0% of salary), and the balance of \$13,121,770,531 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the School Division on account of benefits consist of three amounts set by statute. The basic amount is 9.13% of salary (after reduction for the Health Care Trust Fund Contribution of 1.02% of salary). For members of the PERA benefit structure hired on or after January 1, 2007, an allocation of the statutory rates of 1.00% of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

Year	AED	SAED
2012	3.00%	2.50%
2013	3.40	3.00
2014	3.80	3.50
2015	4.20	4.00
2016	4.50	4.50
2017	4.50	5.00
2018 and later	4.50	5.50



3. The valuation indicates that employer normal contributions at the rate of 2.88% of salary are required to provide the benefits for the School Division. After adjusting for administrative expenses, prospective employer normal contributions at this rate have a present value of \$769,311,308. When this amount is subtracted from \$13,121,770,531, which is the present value of the total future contributions to be made by the employers, there remains \$12,352,459,223 as the amount of future accrued liability contributions.
4. After recognizing the required employer normal contribution rates, the remaining basic contribution amounts to 13.29% of salary. Contributions at this level will amortize the unfunded accrued liability of \$12,352,459,223 over 49 years, assuming the aggregate payroll of the School Division increases by 4.25% each year. After recognizing the value of both future AED and future SAED contributions, the amortization period is reduced to 34 years.
5. Effective July 1, 2005, Colorado PERA began receiving employer contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The employer rate is the total rate within the division, including both AED and SAED. Effective January 1, 2011, Colorado PERA began receiving employee contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The working retiree does not accrue an additional benefit and is not eligible for a refund of these contributions.



Local Government Division

1. The total valuation balance sheet on account of benefits shows that the Local Government Division has total prospective benefit liabilities of \$4,508,550,323, of which \$2,477,293,438 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$273,662,085 is for the prospective benefits payable on account of present inactive members, and \$1,757,594,800 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Local Government Division has a total present actuarial value of assets of \$3,098,721,347 as of December 31, 2012. The difference of \$1,409,828,976 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$320,687,666 is the present value of future contributions expected to be made by members (at the rate of 8.0% of salary), and the balance of \$1,089,141,310 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the Local Government Division on account of benefits consist of three amounts set by statute. The basic amount is 8.98% of salary (after reduction for the Health Care Trust Fund Contribution of 1.02% of salary). For members of the PERA benefit structure hired on or after January 1, 2007, an allocation of the statutory rates of 1.00% of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

Year	AED	SAED
2012 and later	2.20%	1.50%



3. The valuation indicates that employer normal contributions at the rate of 1.29% of salary are required to provide the benefits for the Local Government Division. After adjusting for administrative expenses, prospective employer normal contributions at this rate have a present value of \$30,242,119. When this amount is subtracted from \$1,089,141,310, which is the present value of the total future contributions to be made by the employers, there remains \$1,058,899,191 as the amount of future accrued liability contributions.
4. After recognizing the required employer normal contribution rates, the remaining basic contribution amounts to 11.06% of salary. Contributions at this level will amortize the unfunded accrued liability of \$1,058,899,191 over 27 years, assuming the aggregate payroll of the Local Government Division increases by 4.25% each year.
5. Effective July 1, 2005, Colorado PERA began receiving employer contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The employer rate is the total rate within the division, including both AED and SAED. Effective January 1, 2011, Colorado PERA began receiving employee contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The working retiree does not accrue an additional benefit and is not eligible for a refund of these contributions.
6. The actuarial valuation results reflect the disaffiliation of Memorial Health System, formerly the largest employer of the Local Government Division, as of October 1, 2012. The impact of the disaffiliation on the valuation results of the Local Government Division can be noted in the decrease in active member count and annual covered payroll and the increase in retirement and refund activity leading up to disaffiliation. Although the actuarial accrued liability attributable to active members decreased, in part, due to the disaffiliation, there is a notable increase in the amortization period over which it is projected the unfunded actuarial accrued liability will be paid. For purposes of the December 31, 2012, actuarial valuation, no additional incoming dollars were assumed added to the Local Government Trust Fund as there is ongoing litigation regarding the potential dollars owed to the Trust Fund due to the disaffiliation. Sufficient funds to discharge the liability in the amount of \$259 million have been placed in a court supervised escrow account pending resolution of the litigation. Valuation assets and results will be adjusted accordingly in subsequent years depending on the outcome of the litigation.



Judicial Division

1. The total valuation balance sheet on account of benefits shows that the Judicial Division has total prospective benefit liabilities of \$375,544,656, of which \$191,957,731 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$1,815,982 is for the prospective benefits payable on account of present inactive members, and \$181,770,943 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Judicial Division has a total present actuarial value of assets of \$238,806,614 as of December 31, 2012. The difference of \$136,738,042 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$24,250,315 is the present value of future contributions expected to be made by members (at the rate of 8.0% of salary), and the balance of \$112,487,727 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the Judicial Division on account of benefits consist of three amounts set by statute. The basic amount is 12.64% of salary (after reduction for the Health Care Trust Fund Contribution of 1.02% of salary). For members of the PERA benefit structure hired on or after January 1, 2007, an allocation of the statutory rates of 1.00% of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

Year	AED	SAED
2012 and later	2.20%	1.50%



3. The valuation indicates that employer normal contributions at the rate of 8.37% of salary are required to provide the benefits for the Judicial Division. After adjusting for administrative expenses, prospective employer normal contributions at this rate have a present value of \$24,397,199. When this amount is subtracted from \$112,487,727, which is the present value of the total future contributions to be made by the employers, there remains \$88,090,528 as the amount of future accrued liability contributions.
4. After recognizing the required employer normal contribution rates, the remaining basic contribution amounts to 7.75% of salary. Contributions at this level will never amortize the unfunded accrued liability of \$88,090,528, assuming the aggregate payroll of the Judicial Division increases by 4.25% each year.
5. Effective July 1, 2005, Colorado PERA began receiving employer contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The employer rate is the total rate within the division, including both AED and SAED. Effective January 1, 2011, Colorado PERA began receiving employee contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The working retiree does not accrue an additional benefit and is not eligible for a refund of these contributions.
6. The valuation results reflect the impact of a two-year contribution rate swap of 2.5% of payroll for the period July 1, 2010 through June 30, 2012 decreasing the employer contribution rate.



Denver Public Schools Division

1. The total valuation balance sheet on account of benefits shows that the Denver Public Schools Division has total prospective benefit liabilities of \$4,019,182,790, of which \$2,430,042,147 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$49,664,167 is for the prospective benefits payable on account of present inactive members, and \$1,539,476,476 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Denver Public Schools Division has a total present actuarial value of assets of \$2,936,695,129 as of December 31, 2012. The difference of \$1,082,487,661 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$365,888,327 is the present value of future contributions expected to be made by members (at the rate of 8.0% of salary), and the balance of \$716,599,334 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the Denver Public Schools Division on account of benefits consist of three amounts set by statute. The basic amount is 12.73% of salary (after reduction for the Health Care Trust Fund Contribution of 1.02% of salary). For members of the PERA benefit structure hired on or after January 1, 2010, an allocation of the statutory rates of 1.00% of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

Year	AED	SAED
2012	3.00%	2.50%
2013	3.40	3.00
2014	3.80	3.50
2015	4.20	4.00
2016	4.50	4.50
2017	4.50	5.00
2018 and later	4.50	5.50



3. The valuation indicates that employer normal contributions at the rate of 4.00% of salary are required to provide the benefits for the Denver Public Schools Division. After adjusting for administrative expenses, prospective employer normal contributions at this rate have a present value of \$157,745,151. When this amount is subtracted from \$716,599,334, which is the present value of the total future contributions to be made by the employers, there remains \$558,854,183 as the amount of future accrued liability contributions.
4. Actual employer contributions are reduced by an amount equal to the principal payments plus interest necessary each year to finance the pension certificates of participation (PCOPs) issued in 1997 and 2008 and refinanced during 2011 and 2012. The amount of the credit for the 2013 fiscal year is 14.88% of salary and for the 2014 fiscal year is 14.01% of salary, not considering any refinancing that may happen in the future.
5. After recognizing the required employer normal contribution rates and the PCOP credit, the remaining basic contribution amounts to 1.29% of salary. Contributions at this level will never amortize the unfunded accrued liability of \$558,854,183, assuming the aggregate payroll of the Denver Public Schools Division increases by 4.25% each year. The PCOP credit is expected to decline as a percentage of payroll as currently structured, resulting in an expected amortization period of less than 30 years. Colorado statutes call for a “true-up” in 2015, and every five years following, with the expressed purpose of adjusting the total DPS Contribution rate to ensure equalization of the ratio of unfunded actuarial accrued liability over payroll between the DPS and School Divisions at the end of the 30-year period beginning January 1, 2010.
6. Effective January 1, 2010, Colorado PERA began receiving employer contributions on compensation paid to DPS benefit structure retirees who are working at PERA affiliated employers. The employer rate is the total rate within the division, including both AED and SAED. Effective January 1, 2011, Colorado PERA began receiving employee contributions on compensation paid to PERA retirees who are working at PERA affiliated employers. The working retiree does not accrue an additional benefit and is not eligible for a refund of these contributions.



PERA Health Care Trust Fund (PERA HCTF)

1. The total valuation balance sheet on account of health care benefits shows the PERA HCTF has total prospective health care benefit liabilities of \$1,804,250,265, of which \$1,230,601,024 is for the prospective benefits payable on account of present PERACare enrollees receiving a health care subsidy pursuant to law, \$28,955,984 is for the prospective benefits payable on account of present eligible inactive members, and \$544,693,257 is for the prospective benefits payable on account of present active members. These amounts are net of any PERACare enrollee premiums required for enrollment in PERACare. Against these health care benefit liabilities, the PERA HCTF has a total present actuarial value of assets of \$285,096,629 as of December 31, 2012. The difference of \$1,519,153,636 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of health care benefits. Of this amount, \$0 is the present value of future contributions expected to be made by members, and the balance of \$1,519,153,636 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the PERA HCTF consist of a statutory mandated 1.02% of salary, plus an expected additional contribution resulting from PERACare qualifying for the Retiree Drug Subsidy under Medicare Part D. The valuation indicates that employer normal contributions at the rate of 0.22% of salary are required to provide the health care benefits funded by the PERA HCTF.
3. Prospective employer normal contributions at the rate noted in paragraph 2 have a present value of \$80,755,577. When this amount is subtracted from \$1,519,153,636, which is the present value of the total future contributions to be made by the employers, there remains \$1,438,398,059 as the amount of future accrued liability contributions.
4. After recognizing the required normal contribution rate, the remaining contribution amounts to 0.80% of salary. Contributions at this level will amortize the unfunded accrued liability of \$1,438,398,059 over 66 years. The Government Accounting Standards Board (GASB) does not allow a plan sponsor to count Retiree Drug Subsidy (RDS) amounts to be projected to be received from CMS as "prefunding" of the GASB 43/45 liability. However, if anticipated future RDS payments are contributed to the PERA HCTF, the resulting unfunded accrued liability amortization period will be 42 years.
5. The actuarial valuation results reflect the disaffiliation of Memorial Health System. The impact of the disaffiliation on the valuation results of the PERA HCTF can be noted in the decrease in active



member count and annual covered payroll, as well as the increase in retirees and terminated employees entitled to benefits but not yet receiving benefits attributable to the Local Government Division. These changes generated by the disaffiliation are partially responsible for the 17 year increase in the amortization period over which it is projected the unfunded actuarial accrued liability will be paid. For purposes of the December 31, 2012 actuarial valuation, no additional incoming dollars were assumed added to the PERA HCTF as there is ongoing litigation regarding the potential dollars owed to the PERA HCTF due to the disaffiliation. Sufficient funds to discharge the liability in the amount of \$259 million have been placed in a court supervised escrow account pending resolution of the litigation. Valuation assets and results will be adjusted accordingly in subsequent years depending on the outcome of the litigation.



DPS Health Care Trust Fund (DPS HCTF)

1. The total valuation balance sheet on account of health care benefits shows the DPS HCTF has total prospective health care benefit liabilities of \$84,691,811, of which \$54,338,130 is for the prospective benefits payable on account of present PERACare enrollees receiving a health care subsidy pursuant to law, \$389,239 is for the prospective benefits payable on account of present deferred vested members, and \$29,964,442 is for the prospective benefits payable on account of present active members. These amounts are net of any PERACare enrollee premiums required for enrollment in PERACare. Against these health care benefit liabilities, the DPS HCTF has a total present actuarial value of assets of \$14,442,582 as of December 31, 2012. The difference of \$70,249,229 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of health care benefits. Of this amount, \$0 is the present value of future contributions expected to be made by members, and the balance of \$70,249,229 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the DPS HCTF consist of a statutory mandated 1.02% of salary plus an expected additional contribution resulting from PERACare qualifying for the Retiree Drug Subsidy under Medicare Part D. The valuation indicates that employer normal contributions at the rate of 0.23% of salary are required to provide the health care benefits funded by the DPS HCTF.
3. Prospective employer normal contributions at the rate noted in paragraph 2 have a present value of \$7,023,124. When this amount is subtracted from \$70,249,229, which is the present value of the total future contributions to be made by the employers, there remains \$63,226,105 as the amount of future accrued liability contributions.
4. After recognizing the required normal contribution rate, the remaining contribution amounts to 0.79% of salary. Contributions at this level will amortize the unfunded accrued liability of \$63,226,105 over 21 years. The Government Accounting Standards Board (GASB) does not allow a plan sponsor to count Retiree Drug Subsidy (RDS) amounts to be projected to be received from CMS as "prefunding" of the GASB 43/45 liability. However, if anticipated future RDS payments are contributed to the DPS HCTF, the resulting unfunded accrued liability amortization period will be 19 years.



SECTION V - CONTRIBUTIONS PAYABLE BY EMPLOYERS

1. The statutory employer contribution rates for each division are shown in the following table:

Division	Employer Contribution Rate
State	
Non-Troopers	10.15%
Troopers	12.85
School	10.15
Local Government	10.00
Judicial	13.66
Denver Public Schools	13.75

2. For each division, 1.02% of the statutory rates shown above are allocated to the Health Care Trust Funds. Additional contributions to the HCTFs resulting from RDS payments are considered to be made on behalf of the employer(s).
3. In addition to the statutory rates shown in paragraph 1, Amortization Equalization Disbursements (AED) contributions and Supplemental Amortization Equalization Disbursement (SAED) contributions are to be made by all employers in amounts shown in the tables from Section IV. Those amounts are continued in each division until the division's actuarial funded ratio exceeds 103%. At that time, the amount of the AED and SAED will be reduced by 0.5% of pay each.
4. For the DPS Division, the statutory rates, including AED and SAED contributions are being offset annually by an amount equivalent to that which Denver Public Schools pays to finance principal and interest payments on Pension Certificates of Participation (PCOPs) issued in 1997 and 2008 and refinanced during 2011 and 2012.
5. For the State and Judicial Divisions, the valuation results reflect the impact of a two-year contribution rate swap of 2.5% of payroll for the period July 1, 2010 through June 30, 2012 decreasing the employer contribution rate.
6. The following tables show the development of the normal contribution rate, the unfunded accrued liability (UAL), amortization period and the actuarially required contribution rate with a 30-year amortization period for each division as well as for the Health Care Trust Funds.



**Employer Contribution Rate
Expressed as Percent of Active Member Payroll**

	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division
<u>Contribution For</u>					
Normal Cost					
Service Retirement Benefits	7.07%	8.24%	6.65%	13.64%	8.46%
Disability Benefits	0.24%	0.15%	0.16%	0.59%	1.46%
Survivor Benefits	0.12%	0.10%	0.12%	0.38%	0.25%
Separation Benefits	1.91%	2.04%	2.01%	1.41%	1.48%
Administrative Expense Load	<u>0.35%</u>	<u>0.35%</u>	<u>0.35%</u>	<u>0.35%</u>	<u>0.35%</u>
Total	9.69%	10.88%	9.29%	16.37%	12.00%
Member Current Contributions*	<u>8.05%</u>	<u>8.00%</u>	<u>8.00%</u>	<u>8.00%</u>	<u>8.00%</u>
Employer Normal Cost	1.64%	2.88%	1.29%	8.37%	4.00%
Employer Contribution Rate*	16.18%	16.17%	12.35%	16.12%	5.29%**
Percent Available to Amortize Unfunded Actuarial Accrued Liability (UAAL)	14.54%	13.29%	11.06%	7.75%	1.29%
Number of Years to Amortize UAAL					
▪ Current Contributions	53 years	49 years	27 years	Infinite	Infinite
▪ With Future Increases to AED and SAED	36 years	34 years	27 years	Infinite	Infinite***
Actuarially Required Employer Contribution Rate to pay Normal Cost and amortize UAAL over 30 years (assuming AED and SAED are paid throughout the amortization period)	10.73%	9.98%	8.08%	16.37%	0.00%

* Weighted average for State Division and Employer Contribution Rate is adjusted by contributions to the AIR for all divisions.

** For DPS Division:

Employer Statutory	13.02%	(weighted)
AED and SAED	7.30	
DPS HCTF	(1.02)	
PCOP Credit	<u>(14.01)</u>	
Net	5.29%	

*** With anticipated reductions in the future offset to DPS contribution requirements to PERA for the cost of certain Pension Certificates of Participation (PCOP) as currently structured, the amortization period is expected to be below 30 years. Colorado statutes call for a "true-up" in 2015, and every five years following, with the expressed purpose of adjusting the total DPS Contribution rate to ensure equalization of the ratio of unfunded actuarial accrued liability over payroll between the DPS and Schools Division at the end of the 30-year period beginning January 1, 2010.



**Employer Contribution Rate
Expressed as Percent of Active Member Payroll**

	PERA Health Care Trust Fund	DPS Health Care Trust Fund
<u>Contribution For</u>		
Normal Cost		
Service Retirement Benefits	0.18%	0.20%
Disability Benefits	0.01%	0.01%
Survivor Benefits	0.00%	0.00%
Separation Benefits	<u>0.03%</u>	<u>0.02%</u>
Total	0.22%	0.23%
Member Current Contributions	<u>0.00%</u>	<u>0.00%</u>
Employer Normal Cost	0.22%	0.23%
Employer Contribution Rate	1.02%	1.02%
Percent Available to Amortize Unfunded Actuarial Accrued Liability (UAAL)	0.80%	0.79%
Number of Years to Amortize UAAL		
▪ Current Contributions	66 years	21 years
Actuarially Required Employer Contribution Rate to pay Normal Cost and amortize UAAL over 30 years	1.32%	0.87%



SECTION VI - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 25, 27, 43 and 45 set forth certain items of required supplementary information to be disclosed in the financial statements of PERA and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ALL MEMBERS
AS OF DECEMBER 31, 2012**

GROUP	NUMBER					Total
	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division	
Retirees and survivors currently receiving benefits	34,125	53,952	5,901	321	6,415	100,714
Terminated employees entitled to benefits but not yet receiving benefits	5,029	11,942	3,075	7	645	20,698
Inactive Members	61,293	93,097	20,104	5	4,414	178,913
Active Members						
Vested						
General employees	31,512	67,597	6,495	266	5,228	111,098
State troopers	630	0	0	0	0	630
Non-vested						
General employees	22,481	47,697	5,602	63	8,683	84,526
State troopers	<u>181</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>181</u>
Total Active Members	54,804	115,294	12,097	329	13,911	196,435
Totals	155,251	274,285	41,177	662	25,385	496,760



**NUMBER OF ALL MEMBERS
AS OF DECEMBER 31, 2012**

GROUP	NUMBER		Total
	PERA Health Care Trust Fund	DPS Health Care Trust Fund	
Retirees and survivors currently receiving benefits	51,681	3,963	55,644
Terminated employees entitled to benefits but not yet receiving benefits	20,053	645	20,698
Inactive Members	N/A	N/A	N/A
Active Members	182,524	13,911	196,435
Totals	254,258	18,519	272,777



2. Another such item is the schedule of funding progress as shown below.

**SCHEDULE OF FUNDING PROGRESS
(\$ IN THOUSANDS)**

Actuarial Valuation Date	Actuarial Value of Plan Assets (a)	Actuarial Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
STATE DIVISION						
12/31/2012	\$ 12,538,675	\$ 21,191,495	\$ 8,652,820	59.2%	\$ 2,384,934	362.8%
12/31/2011	12,010,045	20,826,543	8,816,498	57.7%	2,393,791	368.3%
12/31/2010	12,791,946	20,356,176	7,564,230	62.8%	2,392,080	316.2%
12/31/2009	13,382,736	19,977,217	6,594,481	67.0%	2,384,137	276.6%
12/31/2008	13,914,371	20,498,668	6,584,297	67.9%	2,371,639	277.6%
12/31/2007	14,220,681	19,390,296	5,169,615	73.3%	2,236,518	231.1%
SCHOOL DIVISION						
12/31/2012	\$ 20,266,574	\$ 32,619,033	\$ 12,352,459	62.1%	\$ 3,819,066	323.4%
12/31/2011	19,266,110	31,986,199	12,720,089	60.2%	3,821,603	332.8%
12/31/2010	20,321,736	31,339,754	11,018,018	64.8%	3,900,662	282.5%
12/31/2009	21,054,910	30,412,815	9,357,905	69.2%	3,922,175	238.6%
12/31/2008	21,733,329	31,000,202	9,266,873	70.1%	3,804,927	243.5%
12/31/2007	22,070,769	29,241,428	7,170,659	75.5%	3,618,258	198.2%
LOCAL GOVERNMENT DIVISION						
12/31/2012	\$ 3,098,721	\$ 4,157,621	\$ 1,058,900	74.5%	\$ 523,668	202.2%
12/31/2011	2,882,691	4,160,015	1,277,324	69.3%	718,169	177.9%
12/31/2010	2,926,045	4,005,566	1,079,521	73.0%	705,265	153.1%
12/31/2009	2,932,628	3,850,821	918,193	76.2%	705,097	130.2%
12/31/2008	2,933,296	3,838,083	904,787	76.4%	718,902	125.9%
12/31/2007	2,892,847	3,563,199	670,352	81.2%	680,442	98.5%
JUDICIAL DIVISION						
12/31/2012	\$ 238,807	\$ 326,897	\$ 88,090	73.1%	\$ 39,045	225.6%
12/31/2011	221,515	319,437	97,922	69.3%	39,033	250.9%
12/31/2010	227,814	303,839	76,025	75.0%	37,412	203.2%
12/31/2009	228,714	295,696	66,982	77.3%	37,583	178.2%
12/31/2008	230,967	288,058	57,091	80.2%	35,937	158.9%
12/31/2007	231,228	264,210	32,982	87.5%	31,150	105.9%
DENVER PUBLIC SCHOOLS DIVISION						
12/31/2012	\$ 2,936,695	\$ 3,495,549	\$ 558,854	84.0%	\$ 510,872	109.4%
12/31/2011	2,804,706	3,442,527	637,821	81.5%	491,646	129.7%
12/31/2010	2,961,720	3,332,814	371,094	88.9%	470,774	78.8%



**SCHEDULE OF FUNDING PROGRESS
(\$ IN THOUSANDS)**

Actuarial Valuation Date	Actuarial Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
<u>PERA HEALTH CARE TRUST FUND</u>						
12/31/2012	\$ 285,097	\$1,723,495	\$1,438,398	16.5%	\$6,766,713	21.3%
12/31/2011	282,228	1,710,790	1,428,562	16.5%	6,972,596	20.5%
12/31/2010	288,193	1,642,993	1,354,800	17.5%	7,035,419	19.3%
12/31/2009	260,341	1,763,241	1,502,900	14.8%	7,048,992	21.3%
12/31/2008	255,976	1,368,633	1,112,657	18.7%	6,931,405	16.1%
12/31/2007	258,775	1,303,594	1,044,819	19.9%	6,566,368	15.9%
<u>DPS HEALTH CARE TRUST FUND</u>						
12/31/2012	\$ 14,443	\$77,669	\$63,226	18.6%	\$510,872	12.4%
12/31/2011	14,448	77,475	63,027	18.6%	491,646	12.8%
12/31/2010	14,086	78,513	64,427	17.9%	470,774	13.7%



3. The information presented in the required supplementary schedules for pension was determined as part of the actuarial valuation at December 31, 2012.

	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division
Valuation date	12/31/2012	12/31/2012	12/31/2012	12/31/2012	12/31/2012
Actuarial cost method	Entry age	Entry age	Entry age	Entry age	Entry age
Amortization method	Level percent Open	Level percent Open	Level percent Open	Level percent Open	Level percent Open
Remaining amortization period	30 years	30 years	30 years	30 years	30 years
Asset valuation method	4 year smoothed Market	4 year smoothed Market	4 year smoothed Market	4 year smoothed Market	4 year smoothed Market
Actuarial assumptions:					
Investment rate of return*	8.00%	8.00%	8.00%	8.00%	8.00%
Projected salary increases*	4.25 – 9.92%	4.25 – 10.45%	4.25 – 11.20%	4.75 – 5.75%	4.25 – 10.45%
Post-Retirement Benefit Increases:					
Members hired prior to 1/1/2007	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually
Members hired between 1/1/2007 and 1/1/2010	None**	None**	None**	None**	2.00% compounded annually
Members hired on or after 1/1/2010	None**	None**	None**	None**	None**

* Includes inflation at 4.25%.

** Post-Retirement Benefit Increases are provided by a separate fund subject to monies being available.



4. The information presented in the required supplementary schedules for health care was determined as part of the actuarial valuation at December 31, 2012.

	PERA Health Care Trust Fund	DPS Health Care Trust Fund
Valuation date	12/31/2012	12/31/2012
Actuarial cost method	Entry age (Level Dollar)	Entry age (Level Dollar)
Amortization method	Level percent Open	Level percent Open
Remaining amortization period	30 years	30 years
Asset valuation method	4 year smoothed Market	4 year smoothed Market
Actuarial assumptions:		
Investment rate of return*	8.00%	8.00%
Projected salary increases*	4.25% in aggregate	4.25% in aggregate
Health Care Inflation Factor		
Service-Based Premium Subsidy	0.00%	0.00%
Medicare Part A Premiums	1.25% Initial 3.75% Ultimate	n/a
Carrier Premiums	5.41% - 6.36% Initial 5.00% Ultimate	n/a
Retiree Drug Subsidy Payments	4.00% Initial 5.00% Ultimate	4.00% Initial 5.00% Ultimate

* Includes inflation at 4.25%.



5.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Calendar Year	Annual Required Contribution in Dollars (\$ in thousands)	Annual Required Contribution as a Percent of Pay	Percent Of ARC Contributed
State Division			
2012	\$393,991	16.52%*	83%
2011	326,274	13.63%*	85%
2010	452,821	18.93%*	62%
2009	426,999	17.91%	69%
2008	437,567	18.45%	61%
2007	385,352	17.23%	60%
School Division			
2012	\$672,156	17.60%	84%
2011	601,138	15.73%	89%
2010	731,374	18.75%	70%
2009	649,512	16.56%	73%
2008	653,686	17.18%	65%
2007	581,092	16.06%	64%
Local Government Division			
2012	\$ 51,267	9.79%	163%
2011	64,492	8.98%	139%
2010	86,818	12.31%	101%
2009	78,548	11.14%	106%
2008	85,909	11.95%	91%
2007	76,278	11.21%	89%
Judicial Division			
2012	\$ 7,137	18.28%*	82%
2011	6,362	16.30%*	84%
2010	6,970	18.63%*	80%
2009	6,419	17.08%	90%
2008	6,346	17.66%	80%
2007	4,775	15.33%	88%
Denver Public Schools Division			
2012	\$ 49,044	9.60%	27%
2011	58,260	11.85%**	20%
2010	68,780	14.61%***	8%

* The State Division and the Judicial Division 2010, 2011 and 2012 ARCs have been adjusted to reflect the contribution rate swap of 2.5% of payroll for the period July 1, 2010 through June 30, 2012 decreasing the employer contribution rate.

** Blended Rate for 2011 from 2008 and 2009 Annual Valuations from previous DPSRS actuary

*** Blended Rate for 2010 from 2007 and 2008 Annual Valuations from previous DPSRS actuary



SCHEDULE OF EMPLOYER CONTRIBUTIONS

PERA HEALTH CARE TRUST FUND

Calendar Year	Annual Required Contribution (ARC) (a)	PERA Payroll Allocations (b)	Retiree Drug Subsidy (RDS) Contribution (c)	Total Contribution (d) = (b)+(c)	Percentage of ARC Contributed (e) = (d)/(a)
2012	\$79,847,213	\$72,556,763	\$14,197,649	\$86,754,412	109%
2011	\$89,249,242	\$73,448,775	\$14,151,366	\$87,600,141	98%
2010	\$78,796,693	\$74,047,581	\$14,168,745	\$88,216,326	112%
2009	\$78,948,710	\$74,072,676	\$13,633,368	\$87,706,044	111%
2008	\$76,938,596	\$72,599,167	\$13,742,749	\$86,341,916	112%
2007	\$78,139,779	\$68,507,982	\$12,396,777	\$80,904,759	104%

DPS HEALTH CARE TRUST FUND

Calendar Year	Annual Required Contribution (ARC) (a)	PERA Payroll Allocations (b)	Retiree Drug Subsidy (RDS) Contribution (c)	Total Contribution (d) = (b)+(c)	Percentage of ARC Contributed (e) = (d)/(a)
2012	\$4,700,022	\$5,243,219	\$488,054	\$5,731,273	122%
2011	\$4,523,143	\$5,029,151	\$498,974	\$5,528,125	122%
2010	\$4,465,261	\$4,761,581	\$536,814	\$5,298,395	119%

Beginning with the results of the December 31, 2005 valuation, the following changes were implemented to comply with GASB 43 and GASB Technical Bulletin 2006-1:

- All liabilities are determined without a reduction for expected future RDS payments.
- The unfunded accrued liability (UAL) is amortized over 30 years.
- The total HCTF contribution is determined to be the statutory employer contribution plus that year's actual RDS payments.



SECTION VII – DERIVATION OF EXPERIENCE GAINS AND LOSSES

Pension Changes in Unfunded Actuarial Accrued Liabilities (UAAL)

During Calendar Year 2012

(\$ in Millions)

	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division	Total Pension
1) Beginning of Year:						
a) Unfunded Actuarial Accrued Liability	\$8,816.5	\$12,720.1	\$1,277.3	\$ 97.9	\$ 637.8	\$23,549.6
b) Normal Cost	239.4	442.6	72.7	6.9	66.9	828.5
c) Total Required Contributions	615.8	977.7	93.2	10.7	89.9	1,787.3
d) Total Actual Contributions	555.1	878.4	138.6	9.5	54.3	1,635.9
2) End of Year:						
a) Expected UAAL from previous valuation (1a) x 1.08 + (1b) x 1.04 – (1c) x 1.04	\$9,130.4	\$13,181.2	\$1,358.2	\$101.8	\$664.9	\$24,436.5
b) Expected UAAL on actual contributions (1a) x 1.08 + (1b) x 1.04 – (1d) x 1.04	9,193.5	13,284.5	1,310.9	103.0	701.9	24,593.8
c) Increase in UAAL due to Deficiency (2b) – (2a)	63.1	103.3	(47.3)	1.2	37.0	157.3
3) Gains (Losses) on Year's Activities						
a) Liability – Assumed vs. Actual	\$(36.4)	\$46.6	\$146.9	\$2.2	\$(2.8)	\$156.5
b) Assets – Assumed vs. Actual	341.3	542.6	77.3	5.9	95.3	1,062.4
c) Change in Plan Assumptions	235.8	342.8	27.8	6.8	50.5	663.7
d) Change in Plan Provisions	0.0	0.0	0.0	0.0	0.0	0.0
e) Change in Methods	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
f) Total	\$540.7	\$932.0	\$252.0	\$14.9	\$143.0	\$1,882.6
4) Actual UAAL at End of Year (2a) + (2c) – (3f)	\$8,652.8	\$12,352.5	\$1,058.9	\$ 88.1	\$ 558.9	\$22,711.2



SECTION VII – DERIVATION OF EXPERIENCE GAINS AND LOSSES

**PERA HCTF and DPS HCTF Changes in Unfunded Actuarial Accrued Liabilities (UAAL)
During Calendar Year 2012
(\$ in Millions)**

	PERA HCTF	DPS HCTF
1) Beginning of Year:		
a) Unfunded Actuarial Accrued Liability (UAAL)	\$1,428.6	\$63.0
b) Normal Cost	15.2	1.1
c) Total Required Contributions	79.8	4.7
d) Total Actual Contributions	86.8	5.7
2) End of Year:		
a) Expected UAAL from previous valuation (1a) x 1.08 + (1b) x 1.04 – (1c) x 1.04	\$1,475.7	\$64.3
b) Expected UAAL on actual contributions (1a) x 1.08 + (1b) x 1.04 – (1d) x 1.04	1,468.4	63.3
c) Increase in UAAL due to Deficiency (2b) – (2a)	(7.3)	(1.0)
3) Gains (Losses) on Year's Activities		
a) Liability – Assumed vs. Actual	\$17.6	\$0.7
b) Assets – Assumed vs. Actual	8.1	0.2
c) Change in Plan Assumptions	4.3	(0.8)
d) Change in Plan Provisions	0.0	0.0
e) Change in Methods	<u>0.0</u>	<u>0.0</u>
f) Total	\$30.0	\$0.1
4) Actual UAAL at End of Year (2a) + (2c) – (3f)	\$1,438.4	\$63.2

Note: The Total Required Employer Contributions are based on the Annual Required Contribution (ARC). The ARC is based on amortizing the UAAL over 30 years and reflects liabilities that are not reduced for future Medicare Part D Retiree Drug Subsidy payments to the PERA HCTF and the DPS HCTF. Actual Employer Contributions include RDS payments to the PERA HCTF and the DPS HCTF.



Pension Gains & Losses in Actuarial Accrued Liabilities
During Calendar Year 2012
(\$ in Millions)

Type of Activity	State Division	School Division	Local Gov't Division	Judicial Division	Denver Public Schools Division	Total
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$(9.3)	\$(31.0)	\$(13.3)	\$0.7	\$3.9	\$(49.0)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	4.4	4.7	0.9	0.2	(0.3)	9.9
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.7)	(1.7)	(0.2)	0.0	(0.5)	(3.1)
Withdrawal from Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(41.3)	(80.8)	163.7	(0.1)	2.6	44.1
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	106.9	248.6	12.4	4.1	13.3	385.3
New Members. Additional unfunded accrued liability will produce a loss.	(60.3)	(61.0)	(11.3)	(2.8)	(24.6)	(160.0)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	341.3	542.6	77.3	5.9	95.3	1,062.4
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	17.3	(29.4)	4.5	1.5	4.0	(2.1)
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(53.4)</u>	<u>(2.8)</u>	<u>(9.8)</u>	<u>(1.4)</u>	<u>(1.2)</u>	<u>(68.6)</u>
Gain (or Loss) During Year from Financial Experience	\$304.9	\$589.2	\$224.2	\$8.1	\$92.5	\$1,218.9



PERA HCTF and DPS HCTF Gains & Losses in Actuarial Accrued Liabilities
During Calendar Year 2012
(\$ in Millions)

Type of Activity	PERA HCTF	DPS HCTF
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$(1.6)	\$0.1
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.3	0.0
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.1)	0.0
Withdrawal from Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	1.2	0.1
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	0.0	0.0
New Members. Additional unfunded accrued liability will produce a loss.	(4.0)	(0.6)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	8.1	0.2
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	(0.2)	0.1
Other. Gains and losses resulting from claims experience, changes in plan participation, changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>22.0</u>	<u>1.0</u>
Gain (or Loss) During Year from Financial Experience	\$25.7	\$0.9



Pension Gains & Losses as a Percentage of Actuarial Accrued Liabilities
During Calendar Year 2012
(\$ in Millions)

Type of Activity	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division	Total Pension
Actuarial Accrued Liability at the Beginning of the Year	\$20,826.5	\$31,986.2	\$4,160.0	\$ 319.4	\$3,442.5	\$60,734.6
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	(0.0)%	(0.1)%	(0.3)%	0.2%	0.1%	(0.1)%
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Withdrawal from Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(0.2)%	(0.3)%	3.9%	0.0%	0.1%	0.1%
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	0.5%	0.8%	0.3%	1.3%	0.4%	0.6%
New Members. Additional unfunded accrued liability will produce a loss.	(0.3)%	(0.2)%	(0.3)%	(0.9)%	(0.7)%	(0.3)%
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	1.6%	1.7%	1.9%	1.8%	2.8%	1.7%
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	0.1%	(0.1)%	0.1%	0.5%	0.1%	0.0%
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	(0.3)%	(0.0)%	(0.2)%	(0.4)%	(0.0)%	(0.1)%
Gain (or Loss) During Year from Financial Experience	1.5%	1.8%	5.4%	2.5%	2.7%	2.0%



**PERA HCTF and DPS HCTF Gains & Losses as a Percentage of Actuarial Accrued Liabilities
During Calendar Year 2012
(\$ in Millions)**

Type of Activity	PERA HCTF	DPS HCTF
Actuarial Accrued Liability at the Beginning of the Year	\$1,710.8	\$77.5
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	(0.1)%	0.1%
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.0%	0.0%
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0%	0.0%
Withdrawal from Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	0.1%	0.1%
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	0.0%	0.0%
New Members. Additional unfunded accrued liability will produce a loss.	(0.2)%	(0.8)%
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	0.5%	0.3%
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	0.0%	0.1%
Other. Gains and losses resulting from claims experience, changes in plan participation, changes in valuation software, data adjustments, timing of financial transactions, etc.	1.3%	1.3%
Gain (or Loss) During Year from Financial Experience	1.6%	1.1%



SECTION VIII – ADDITIONAL HEALTH CARE TRUST FUND INFORMATION

PERA HCTF Subsidy Analysis

Calendar Year	Administrative Expenses	Claims & HMO Premiums	Total Costs (2)+(3)	PERA Subsidy	
				Amount	Percentage (5)/(4)
				(1)	(2)
2012	\$11,238,351	\$320,746,116	\$331,984,467	\$109,059,949	33%
2011	11,009,812	296,318,871	307,328,683	91,816,866	30%
2010	9,711,601	273,798,971	283,510,572	77,565,425	27%
2009	7,878,395	261,533,889	269,412,284	80,110,149	30%
2008	7,839,386	258,685,119	266,524,505	88,469,990	33%
2007	7,348,821	216,848,936	224,197,757	58,986,436	26%
2006	4,174,575	233,101,402	237,275,977	71,155,481	30%
2005	4,725,201	230,726,860	235,452,061	77,899,386	33%
2004	4,708,737	211,610,778	216,319,515	76,409,691	35%
2003	4,872,077	192,262,017	197,134,094	70,215,907	36%
2002	4,571,820	169,354,992	173,926,812	70,008,246	40%
2001	4,564,519	125,038,014	129,602,533	59,506,374	46%

DPS HCTF Subsidy Analysis

Calendar Year	Administrative Expenses	Claims & HMO Premiums	Total Costs (2)+(3)	DPS Subsidy	
				Amount	Percentage (5)/(4)
				(1)	(2)
2012	\$383,943	\$22,993,959	\$23,377,902	\$6,652,676	28%
2011	392,263	23,026,025	23,418,288	6,165,753	26%
2010	460,196	22,531,118	22,991,314	6,233,170	27%

Notes:

- Administrative Expenses total includes expenses associated with claims administration.
- Claims and HMO Premiums total reflects actual claims and premiums paid (net of any premium variance).
- The subsidy analysis schedule presented above was revised, beginning with the December 31, 2006 valuation report, for all years shown to include the premiums paid by retirees for HMOs in the claims and HMO premiums and in the total cost columns. The total cost includes all health care costs for retirees, beneficiaries and actives. Also, claims experience gains and losses are now included in the actual PERA and DPS subsidies.



SCHEDULE A

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
AS OF DECEMBER 31, 2012**

STATE DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		\$ 12,538,675,449
Present value of future members' contributions		1,483,328,971
Present value of future employer contributions		
Normal contributions	\$ 222,339,950	
Unfunded accrued liability contributions	<u>8,652,819,676</u>	
Total prospective employer contributions		<u>8,875,159,626</u>
Total Present and Prospective Assets		<u>\$ 22,897,164,046</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	\$ 13,600,227,700	
Survivors	<u>155,364,715</u>	
Total		\$ 13,755,592,415
Present value of prospective benefits payable on account of inactive members		435,876,310
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 7,601,984,700	
Disability retirement benefits	124,529,667	
Survivor benefits	84,903,753	
Separation benefits	<u>894,277,201</u>	
Total		<u>8,705,695,321</u>
Total Actuarial Liabilities		<u>\$ 22,897,164,046</u>



SCHEDULE A

(Continued)

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
AS OF DECEMBER 31, 2012**

SCHOOL DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		\$ 20,266,573,925
Present value of future members' contributions		2,628,138,790
Present value of future employer contributions		
Normal contributions	\$ 769,311,308	
Unfunded accrued liability contributions	<u>12,352,459,223</u>	
Total prospective employer contributions		<u>\$ 13,121,770,531</u>
Total Present and Prospective Assets		<u>\$ 36,016,483,246</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	\$ 20,662,809,418	
Survivors	<u>145,125,287</u>	
Total		\$ 20,807,934,705
Present value of prospective benefits payable on account of inactive members		658,143,077
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 12,747,796,255	
Disability retirement benefits	124,835,578	
Survivor benefits	107,525,310	
Separation benefits	<u>1,570,248,321</u>	
Total		<u>\$ 14,550,405,464</u>
Total Actuarial Liabilities		<u>\$ 36,016,483,246</u>



SCHEDULE A

(Continued)

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
AS OF DECEMBER 31, 2012**

LOCAL GOVERNMENT DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		\$ 3,098,721,347
Present value of future members' contributions		320,687,666
Present value of future employer contributions		
Normal contributions	\$ 30,242,119	
Unfunded accrued liability contributions	<u>1,058,899,191</u>	
Total prospective employer contributions		<u>\$ 1,089,141,310</u>
Total Present and Prospective Assets		<u>\$ 4,508,550,323</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	\$ 2,449,412,991	
Survivors	<u>27,880,447</u>	
Total		\$ 2,477,293,438
Present value of prospective benefits payable on account of inactive members		273,662,085
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 1,511,164,033	
Disability retirement benefits	18,171,865	
Survivor benefits	17,912,791	
Separation benefits	<u>210,346,111</u>	
Total		<u>\$ 1,757,594,800</u>
Total Actuarial Liabilities		<u>\$ 4,508,550,323</u>



SCHEDULE A

(Continued)

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
AS OF DECEMBER 31, 2012**

JUDICIAL DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		\$ 238,806,614
Present value of future members' contributions		24,250,315
Present value of future employer contributions		
Normal contributions	\$ 24,397,199	
Unfunded accrued liability contributions	<u>88,090,528</u>	
Total prospective employer contributions		<u>\$ 112,487,727</u>
Total Present and Prospective Assets		<u>\$ 375,544,656</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	\$ 189,065,849	
Survivors	<u>2,891,882</u>	
Total		\$ 191,957,731
Present value of prospective benefits payable on account of inactive members		1,815,982
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 169,605,279	
Disability retirement benefits	3,273,553	
Survivor benefits	3,449,224	
Separation benefits	<u>5,442,887</u>	
Total		<u>\$ 181,770,943</u>
Total Actuarial Liabilities		<u>\$ 375,544,656</u>



SCHEDULE A

(Continued)

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
AS OF DECEMBER 31, 2012**

DENVER PUBLIC SCHOOLS DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		\$ 2,936,695,129
Present value of future members' contributions		365,888,327
Present value of future employer contributions		
Normal contributions	\$ 157,745,151	
Unfunded accrued liability contributions	<u>558,854,183</u>	
Total prospective employer contributions		<u>\$ 716,599,334</u>
Total Present and Prospective Assets		<u>\$ 4,019,182,790</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	\$ 2,406,553,237	
Survivors	<u>23,488,910</u>	
Total		\$ 2,430,042,147
Present value of prospective benefits payable on account of inactive members		49,664,167
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 1,329,278,726	
Disability retirement benefits	19,860,507	
Survivor benefits	13,097,152	
Separation benefits	<u>177,240,091</u>	
Total		<u>\$ 1,539,476,476</u>
Total Actuarial Liabilities		<u>\$ 4,019,182,790</u>



SCHEDULE A

(Continued)

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
AS OF DECEMBER 31, 2012**

PERA HEALTH CARE TRUST FUND

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		\$285,096,629
Present value of future members' contributions		0
Present value of future employer contributions		
Normal contributions	\$80,755,577	
Unfunded accrued liability contributions	<u>1,438,398,059</u>	
Total prospective employer contributions		<u>\$1,519,153,636</u>
Total Present and Prospective Assets		<u>\$1,804,250,265</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of present benefit recipients enrolled in PERA Care and receiving a health care subsidy pursuant to law		
Retired members	\$1,186,440,149	
Survivors	<u>44,160,875</u>	
Total		\$1,230,601,024
Present value of prospective benefits payable on account of eligible inactive members		28,955,984
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$495,750,680	
Disability retirement benefits	15,493,744	
Survivor benefits	1,885,130	
Separation benefits	<u>31,563,703</u>	
Total		<u>\$544,693,257</u>
Total Actuarial Liabilities		<u>\$1,804,250,265</u>



SCHEDULE A

(Continued)

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
AS OF DECEMBER 31, 2012**

DPS HEALTH CARE TRUST FUND

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		\$14,442,582
Present value of future members' contributions		0
Present value of future employer contributions		
Normal contributions	\$7,023,124	
Unfunded accrued liability contributions	<u>63,226,105</u>	
Total prospective employer contributions		<u>\$70,249,229</u>
Total Present and Prospective Assets		<u>\$84,691,811</u>
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of present benefit recipients enrolled in PERA Care and receiving a health care subsidy pursuant to law		
Retired members	\$54,222,633	
Survivors	<u>115,497</u>	
Total		\$54,338,130
Present value of prospective benefits payable on account of deferred vested members		389,239
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$27,501,565	
Disability retirement benefits	1,193,963	
Survivor benefits	30,721	
Separation benefits	<u>1,238,193</u>	
Total		<u>\$29,964,442</u>
Total Actuarial Liabilities		<u>\$84,691,811</u>



SCHEDULE A

(continued)

**SOLVENCY TEST
BY DIVISION AS OF DECEMBER 31, 2012
(\$ IN THOUSANDS)**

Division	Aggregate Accrued Liabilities For*				Portion of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
	State	\$2,668,942	\$14,191,469	\$4,331,084	\$12,538,675	100%	69.5%
School	3,823,348	21,466,078	7,329,607	20,266,574	100%	76.6%	0.0%
Local	528,029	2,750,956	878,636	3,098,721	100%	93.4%	0.0%
Judicial	57,762	193,774	75,361	238,807	100%	93.4%	0.0%
DPS	348,739	2,479,706	667,104	2,936,695	100%	100%	16.2%
TOTAL	\$7,426,820	\$41,081,983	\$13,281,792	\$39,079,472	100%	77.0%	0.0%

SOLVENCY TEST
HISTORICAL TOTALS
(\$ IN THOUSANDS)**

Valuation Date	Aggregate Accrued Liabilities For*				Portion of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
	12/31/2012	\$7,426,820	\$41,081,983	\$13,281,792	\$39,079,472	100%	77.0%
12/31/2011	7,468,008	39,328,881	13,937,832	37,185,067	100%	75.6%	0.0%
12/31/2010	7,377,837	37,530,979	14,429,335	39,229,261	100%	84.9%	0.0%
12/31/2009	7,068,660	33,621,499	13,846,390	37,598,988	100%	90.8%	0.0%
12/31/2008	6,992,382	34,524,824	14,107,805	38,811,962	100%	92.2%	0.0%
12/31/2007	6,834,261	32,017,760	13,607,112	39,415,525	100%	100%	4.1%

* Results do not include the Health Care Trust Funds.

** Results prior to 12/31/2010 do not include DPS Division.



SCHEDULE A

(continued)

**SOLVENCY TEST
PERA HEALTH CARE TRUST FUND
(\$ IN THOUSANDS)**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
	12/31/2012	\$0	\$1,259,557				
12/31/2011	0	1,251,580	459,210	282,228	N/A	22.5%	0.0%
12/31/2010	0	1,179,809	463,184	288,193	N/A	24.4%	0.0%
12/31/2009	0	1,241,349	521,892	260,341	N/A	21.0%	0.0%
12/31/2008	0	969,288	399,345	255,976	N/A	26.4%	0.0%
12/31/2007	0	926,180	377,414	258,775	N/A	27.9%	0.0%

**SOLVENCY TEST
DPS HEALTH CARE TRUST FUND
(\$ IN THOUSANDS)**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
	12/31/2012	\$0	\$54,727				
12/31/2011	0	57,093	20,382	14,448	N/A	25.3%	0.0%
12/31/2010	0	58,432	20,081	14,086	N/A	24.1%	0.0%



SCHEDULE B

**DEVELOPMENT OF THE DECEMBER 31, 2012
ACTUARIAL VALUE OF ASSETS**

STATE DIVISION

(1)	Actuarial Value Beginning of Year	\$ 12,010,044,704
(2)	Market Value End of Year	\$ 12,766,458,781
(3)	Market Value Beginning of Year	\$ 12,001,769,795
(4)	Cash Flow	
	a. Contributions	\$ 571,470,636
	b. Benefit Payments	(1,306,163,249)
	c. Administrative Expenses	(8,567,960)
	d. Net Transfers	<u>(453,726)</u>
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$ (743,714,299)
(5)	Investment Income	
	a. Market total: (2) – (3) – (4)e	\$ 1,508,403,285
	b. Assumed Rate	8.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	\$ 930,393,012
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$ 578,010,273
(6)	Phased-In Recognition of Investment Income	
	a. Current Year: 0.25 x (5)d	\$ 144,502,568
	b. First Prior Year	(184,186,032)
	c. Second Prior Year	162,647,682
	d. Third Prior Year	<u>218,987,814</u>
	e. Total Recognized Investment Gain	\$ 341,952,032
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	\$ 12,538,675,449



SCHEDULE B

(Continued)

**DEVELOPMENT OF THE DECEMBER 31, 2012
ACTUARIAL VALUE OF ASSETS**

SCHOOL DIVISION

(1)	Actuarial Value Beginning of Year	\$ 19,266,110,172
(2)	Market Value End of Year	\$ 20,636,677,134
(3)	Market Value Beginning of Year	\$ 19,247,853,318
(4)	Cash Flow	
	a. Contributions	\$ 895,773,249
	b. Benefit Payments	(1,916,697,713)
	c. Administrative Expenses	(16,087,408)
	d. Net Transfers	<u>(4,765,798)</u>
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$ (1,041,777,670)
(5)	Investment Income	
	a. Market total: (2) – (3) – (4)e	\$ 2,430,601,486
	b. Assumed Rate	8.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	\$ 1,498,157,159
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$ 932,444,327
(6)	Phased-In Recognition of Investment Income	
	a. Current Year: 0.25 x (5)d	\$ 233,111,082
	b. First Prior Year	(294,676,926)
	c. Second Prior Year	260,123,815
	d. Third Prior Year	<u>345,526,293</u>
	e. Total Recognized Investment Gain	\$ 544,084,264
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	\$ 20,266,573,925



SCHEDULE B

(Continued)

**DEVELOPMENT OF THE DECEMBER 31, 2012
ACTUARIAL VALUE OF ASSETS**

LOCAL GOVERNMENT DIVISION

(1)	Actuarial Value Beginning of Year	\$	2,882,691,014
(2)	Market Value End of Year	\$	3,154,896,908
(3)	Market Value Beginning of Year	\$	2,875,755,598
(4)	Cash Flow		
	a. Contributions	\$	152,569,184
	b. Benefit Payments		(241,367,090)
	c. Administrative Expenses		(2,034,615)
	d. Net Transfers		<u>2,527,057</u>
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(88,305,464)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	367,446,774
	b. Assumed Rate		8.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	\$	226,528,229
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	140,918,545
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.25 x (5)d	\$	35,229,636
	b. First Prior Year		(43,710,640)
	c. Second Prior Year		37,907,931
	d. Third Prior Year		<u>48,380,641</u>
	e. Total Recognized Investment Gain	\$	77,807,568
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	\$	3,098,721,347



SCHEDULE B

(Continued)

**DEVELOPMENT OF THE DECEMBER 31, 2012
ACTUARIAL VALUE OF ASSETS**

JUDICIAL DIVISION

(1)	Actuarial Value Beginning of Year	\$	221,514,844
(2)	Market Value End of Year	\$	242,877,176
(3)	Market Value Beginning of Year	\$	220,962,997
(4)	Cash Flow		
	a. Contributions	\$	9,647,973
	b. Benefit Payments		(18,258,046)
	c. Administrative Expenses		(60,842)
	d. Net Transfers		<u>2,555,785</u>
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(6,115,130)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	28,029,309
	b. Assumed Rate		8.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	\$	17,432,435
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	10,596,874
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.25 x (5)d	\$	2,649,219
	b. First Prior Year		(3,378,447)
	c. Second Prior Year		2,879,801
	d. Third Prior Year		<u>3,823,892</u>
	e. Total Recognized Investment Gain	\$	5,974,465
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	\$	238,806,614



SCHEDULE B

(Continued)

**DEVELOPMENT OF THE DECEMBER 31, 2012
ACTUARIAL VALUE OF ASSETS**

DENVER PUBLIC SCHOOLS DIVISION

(1)	Actuarial Value Beginning of Year	\$	2,804,705,933
(2)	Market Value End of Year	\$	2,992,217,469
(3)	Market Value Beginning of Year	\$	2,818,096,176
(4)	Cash Flow		
	a. Contributions	\$	56,193,457
	b. Benefit Payments		(234,836,300)
	c. Administrative Expenses		(1,919,047)
	d. Net Transfers		<u>136,682</u>
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(180,425,208)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	354,546,501
	b. Assumed Rate		8.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	\$	218,230,686
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	136,315,815
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.25 x (5)d	\$	34,078,954
	b. First Prior Year		(43,241,231)
	c. Second Prior Year		39,767,941
	d. Third Prior Year		<u>63,578,054</u>
	e. Total Recognized Investment Gain	\$	94,183,718
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	\$	2,936,695,129



SCHEDULE B

(Continued)

**DEVELOPMENT OF THE DECEMBER 31, 2012
ACTUARIAL VALUE OF ASSETS**

PERA HEALTH CARE TRUST FUND

(1)	Actuarial Value Beginning of Year	\$	282,228,196
(2)	Market Value End of Year	\$	291,737,156
(3)	Market Value Beginning of Year	\$	281,786,418
(4)	Cash Flow		
	a. Contributions	\$	203,021,363
	b. Benefit Payments		(218,768,224)
	c. Other Income and Expenses		2,499,994
	d. Administrative Expenses		<u>(13,513,572)</u>
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(26,760,439)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	36,711,177
	b. Assumed Rate		8.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	\$	21,472,496
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	15,238,681
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.25 x (5)d	\$	3,809,670
	b. First Prior Year		(4,332,792)
	c. Second Prior Year		3,877,105
	d. Third Prior Year		<u>4,802,393</u>
	e. Total Recognized Investment Gain	\$	8,156,376
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	\$	285,096,629



SCHEDULE B

(Continued)

**DEVELOPMENT OF THE DECEMBER 31, 2012
ACTUARIAL VALUE OF ASSETS**

DPS HEALTH CARE TRUST FUND

(1)	Actuarial Value Beginning of Year	\$	14,447,950
(2)	Market Value End of Year	\$	14,842,667
(3)	Market Value Beginning of Year	\$	14,374,589
(4)	Cash Flow		
	a. Contributions	\$	10,079,056
	b. Benefit Payments		(11,026,749)
	c. Other Income and Expenses		163,152
	d. Administrative Expenses		<u>(547,095)</u>
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(1,331,636)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	1,799,714
	b. Assumed Rate		8.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	\$	1,096,702
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	703,012
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.25 x (5)d	\$	175,753
	b. First Prior Year		(180,986)
	c. Second Prior Year		234,799
	d. Third Prior Year		<u>0</u>
	e. Total Recognized Investment Gain	\$	229,566
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	\$	14,442,582



SCHEDULE C

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2012**

STATE DIVISION

Additions for the Year

Contributions:		
Members (including purchased service)	\$ 243,415,632	
Employers	<u>328,055,004</u>	
Total		\$ 571,470,636
Net Investment Income		<u>1,508,403,285</u>
TOTAL		\$ 2,079,873,921

Deductions for the Year

Benefit Payments (including refunds and disability insurance)	\$ 1,302,713,096	
Transfers	453,726	
Other deductions	3,450,153	
Administrative Expenses	<u>8,567,960</u>	
TOTAL		\$ <u>1,315,184,935</u>

Excess of Additions Over Deductions \$ 764,688,986

Reconciliation of Asset Balances

Market Value of Assets as of 12/31/2011	\$ 12,001,769,795
Excess of Additions over Deductions	<u>764,688,986</u>
Market Value of Assets as of 12/31/2012*	<u>\$ 12,766,458,781</u>

* The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B). Final Market Value of Assets is \$12,797,351,762 and includes the amount in the Annual Increase Reserve of \$30,892,981 for post-retirement benefit increases for members of the PERA benefit structure hired on or after January 1, 2007.



SCHEDULE C

(Continued)

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2012**

SCHOOL DIVISION

Additions for the Year

Contributions:		
Members (including purchased service)	\$ 331,329,187	
Employers	<u>564,444,062</u>	
Total		\$ 895,773,249
Net Investment Income		<u>2,430,601,486</u>
TOTAL		\$ 3,326,374,735

Deductions for the Year

Benefit Payments (including refunds and disability insurance)	\$ 1,912,318,444	
Transfers	4,765,798	
Other deductions	4,379,269	
Administrative Expenses	<u>16,087,408</u>	
TOTAL		\$ <u>1,937,550,919</u>

Excess of Additions Over Deductions \$ 1,388,823,816

Reconciliation of Asset Balances

Market Value of Assets as of 12/31/2011	\$ 19,247,853,318
Excess of Additions over Deductions	<u>1,388,823,816</u>
Market Value of Assets as of 12/31/2012*	<u>\$ 20,636,677,134</u>

* The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B). Final Market Value of Assets is \$20,676,354,675 and includes the amount in the Annual Increase Reserve of \$39,677,541 for post-retirement benefit increases for members of the PERA benefit structure hired on or after January 1, 2007.



SCHEDULE C

(Continued)

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2012**

LOCAL GOVERNMENT DIVISION

Additions for the Year

Contributions:		
Members (including purchased service)	\$ 68,753,235	
Employers	<u>83,815,949</u>	
Total		\$ 152,569,184
Net Investment Income		<u>367,446,774</u>
TOTAL		\$ 520,015,958

Deductions for the Year

Benefit Payments (including refunds and disability insurance)	\$ 239,296,184	
Transfers	(2,527,057)	
Other deductions	2,070,906	
Administrative Expenses	<u>2,034,615</u>	
TOTAL		\$ <u>240,874,648</u>

Excess of Additions Over Deductions \$ 279,141,310

Reconciliation of Asset Balances

Market Value of Assets as of 12/31/2011	\$ 2,875,755,598
Excess of Additions over Deductions	<u>279,141,310</u>
Market Value of Assets as of 12/31/2012*	<u>\$ 3,154,896,908</u>

* The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B). Final Market Value of Assets is \$3,166,131,782 and includes the amount in the Annual Increase Reserve of \$11,234,874 for post-retirement benefit increases for members of the PERA benefit structure hired on or after January 1, 2007.



SCHEDULE C
(Continued)

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2012**

JUDICIAL DIVISION

Additions for the Year

Contributions:		
Members (including purchase service)	\$ 3,808,100	
Employers	<u>5,839,873</u>	
Total		\$ 9,647,973
Net Investment Income		<u>28,029,309</u>
TOTAL		\$ 37,677,282

Deductions for the Year

Benefit Payments (including refunds and disability insurance)	\$ 18,237,422	
Transfers	(2,555,785)	
Other deductions	20,624	
Administrative Expenses	<u>60,842</u>	
TOTAL		<u>\$ 15,763,103</u>

Excess of Additions Over Deductions \$ 21,914,179

Reconciliation of Asset Balances

Market Value of Assets as of 12/31/2011	\$ 220,962,997
Excess of Additions over Deductions	<u>21,914,179</u>
Market Value of Assets as of 12/31/2012*	<u>\$ 242,877,176</u>

* The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B). Final Market Value of Assets is \$243,217,429 and includes the amount in the Annual Increase Reserve of \$340,253 for post-retirement benefit increases for members of the PERA benefit structure hired on or after January 1, 2007.



SCHEDULE C
(Continued)

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2012**

DENVER PUBLIC SCHOOLS DIVISION

Additions for the Year

Contributions:		
Members (including purchase service)	\$ 43,048,726	
Employers	<u>13,144,731</u>	
Total		\$ 56,193,457
Net Investment Income		<u>354,546,501</u>
TOTAL		\$ 410,739,958

Deductions for the Year

Benefit Payments (including refunds and disability insurance)	\$ 234,783,407	
Transfers	(136,682)	
Other deductions	52,893	
Administrative Expenses	<u>1,919,047</u>	
TOTAL		\$ <u>236,618,665</u>

Excess of Additions Over Deductions \$ 174,121,293

Reconciliation of Asset Balances

Market Value of Assets as of 12/31/2011	\$ 2,818,096,176
Excess of Additions over Deductions	<u>174,121,293</u>
Market Value of Assets as of 12/31/2012*	<u>\$ 2,992,217,469</u>

* The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B). Final Market Value of Assets is \$2,996,078,163 and includes the amount in the Annual Increase Reserve of \$3,860,694 for post-retirement benefit increases for those who became members of the PERA benefit structure on or after January 1, 2010.



SCHEDULE C
(Continued)

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2012**

PERA HEALTH CARE TRUST FUND

Additions for the Year

Contributions:		
Members' Purchased Service Transfer	\$	9,163,267
Employers		72,556,763
Retiree Health Care Premiums		107,103,684
Medicare Retiree Drug Subsidy		<u>14,197,649</u>
Total		\$ 203,021,363
Net Investment Income		<u>36,711,177</u>
TOTAL		\$ 239,732,540

Deductions for the Year

Benefit Payments	\$	218,768,224
Other Income and Expenses		(2,499,994)
Administrative Expenses		<u>13,513,572</u>
TOTAL		\$ 229,781,802

Excess of Additions Over Deductions \$ 9,950,738

Reconciliation of Asset Balances

Market Value of Assets as of 12/31/2011	\$	281,786,418
Excess of Additions over Deductions		<u>9,950,738</u>
Market Value of Assets as of 12/31/2012		<u>\$ 291,737,156</u>



SCHEDULE C
(Continued)

**SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2012**

DPS HEALTH CARE TRUST FUND

Additions for the Year

Contributions:		
Members' Purchased Service Transfer	\$	52,829
Employers		5,243,219
Retiree Health Care Premiums		4,294,954
Medicare Retiree Drug Subsidy		<u>488,054</u>
Total		\$ 10,079,056
Net Investment Income		<u>1,799,714</u>
TOTAL		\$ 11,878,770

Deductions for the Year

Benefit Payments	\$	11,026,749
Other Income and Expenses		(163,152)
Administrative Expenses		<u>547,095</u>
TOTAL		\$ 11,410,692

Excess of Additions Over Deductions \$ 468,078

Reconciliation of Asset Balances

Market Value of Assets as of 12/31/2011	\$	14,374,589
Excess of Additions over Deductions		<u>468,078</u>
Market Value of Assets as of 12/31/2012		<u>\$ 14,842,667</u>



SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INVESTMENT RATE OF RETURN: 8.00% per annum, compounded annually (net of investment expenses only).

PRICE INFLATION ASSUMPTION: 3.50% per year.

WAGE INFLATION ASSUMPTION: 4.25% per year.

PERCENT MARRIED: 100% of employees (80% of Denver Public Schools Division) are assumed to be married, with the wife 2 years younger than the husband.

ACTUARIAL METHOD: Entry age normal cost method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability. See Schedule E for a detailed explanation.

ASSETS: The method of valuing assets is intended to recognize a “smoothed” market value of assets. Under this method, the difference between actual return on market value from investment experience and the expected return on market value is recognized over a four-year period.

INTEREST CREDIT: 3% per annum on member contribution account balances.

WITHDRAWAL ASSUMPTION: It was assumed that 35% of the vested members who terminate elect to withdraw their contributions and matching employer contributions while the remaining 65% elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date. The only exceptions to this are the Judicial Division, which assumes 100% elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date.

OPTIONAL BENEFIT LOADS: 1.00% for active member retirement liability to reflect the availability of a pop-up option and 0.75% to reflect the value of the modified cash refund normal form.

INACTIVE MEMBERS: It was assumed that 100% of inactive members who terminated employment with less than five years of service elect to withdraw their contributions and matching employer contributions.

DEATH AFTER RETIREMENT: The mortality table, for post-retirement healthy mortality, used in evaluating allowances to be paid is the RP-2000 Combined Mortality Table projected with Scale AA to 2020 (set back 1 year for males and set back 2 years for females). The RP-2000 Disabled Mortality Table (set back 2 years for males and set back 2 years for females) was used for the period after disability retirements. These assumptions are used to measure the probabilities of each benefit payment being made after retirement. Mortality improvement is anticipated under these assumption as recent mortality experience shows actual deaths 4-12% greater than expected under the selected tables.



SCHEDULE D

(Continued)

**STATE DIVISION
NON-TROOPERS**

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation 4.25% per annum:

Sample Ages	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	5.67%	4.25%	9.92%
25	3.75	4.25	8.00
30	2.80	4.25	7.05
35	2.05	4.25	6.30
40	1.50	4.25	5.75
45	0.85	4.25	5.10
50	0.50	4.25	4.75
55	0.10	4.25	4.35
60	0.00	4.25	4.25
65	0.00	4.25	4.25

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, death and disability are shown in the following tables:

Sample Ages	Percent of Members Separating Within the Next Year					
	Ultimate Withdrawal		Death ¹		Disability	
	Males	Females	Males	Females	Males	Females
20	21.00%	18.00%	0.0124%	0.0054%	0.01%	0.01%
25	9.00	14.00	0.0169	0.0059	0.01	0.01
30	6.00	9.00	0.0205	0.0077	0.02	0.02
35	5.50	7.00	0.0349	0.0126	0.03	0.03
40	4.50	5.75	0.0478	0.0177	0.06	0.06
45	4.00	5.00	0.0591	0.0271	0.10	0.10
50	4.00	5.00	0.0763	0.0407	0.17	0.17
55	4.00	5.00	0.1198	0.0752	0.25	0.25
60	4.00	5.00	0.2368	0.1420	0.35	0.35
65	4.00	5.00	0.4680	0.2767	0.45	0.45

¹Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.



SCHEDULE D

(Continued)

**STATE DIVISION
NON-TROOPERS**

The select withdrawal assumptions for members with less than five years of service are shown in the following table:

Completed Years of Service	Males	Females
0	43.0%	43.0%
1	20.0	21.0
2	14.0	15.0
3	11.0	12.0
4	9.0	11.0

RETIREMENT: Representative values of the assumed annual rates of service retirement are shown in the following table:

Retirement Ages	Percent of Members Who Are Eligible for Reduced Benefits Retiring Next Year		Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year	
	Males	Females	Males	Females
50	10%	10%	55%	50%
51	10	10	48	40
52	10	10	42	38
53	10	10	38	30
54	10	10	32	30
55	10	10	27	30
56	10	10	25	24
57	10	10	22	22
58	10	10	21	22
59	10	10	20	22
60	10	10	21	22
61	10	10	18	18
62	10	10	25	25
63	10	10	21	22
64	10	10	21	22
65	0	0	24	22
66	0	0	26	28
67	0	0	24	24
68	0	0	19	20
69	0	0	22	22
70 & over	0	0	100	100



SCHEDULE D

(Continued)

**STATE DIVISION
TROOPERS**

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.25% per annum:

Sample Ages	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	5.50%	4.25%	9.75%
25	3.75	4.25	8.00
30	2.80	4.25	7.05
35	2.05	4.25	6.30
40	1.50	4.25	5.75
45	1.20	4.25	5.45
50	0.80	4.25	5.05
55	0.40	4.25	4.65
60	0.00	4.25	4.25
65	0.00	4.25	4.25

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, death and disability are shown in the following tables:

Sample Ages	Percent of Members Separating Within the Next Year					
	Ultimate Withdrawal ¹		Death ²		Disability	
	Males	Females	Males	Females	Males	Females
20	10.00%	10.00%	0.0124%	0.0054%	0.02%	0.02%
25	8.00	8.00	0.0169	0.0059	0.04	0.04
30	4.25	4.25	0.0205	0.0077	0.06	0.06
35	3.75	3.75	0.0349	0.0126	0.10	0.10
40	3.50	3.50	0.0478	0.0177	0.18	0.18
45	3.50	3.50	0.0591	0.0271	0.28	0.28
50	3.50	3.50	0.0763	0.0407	0.40	0.40
55	3.50	3.50	0.1198	0.0752	0.56	0.56
60	3.50	3.50	0.2368	0.1420	0.80	0.80
65	3.50	3.50	0.4680	0.2767	1.20	1.20

¹There are no select withdrawal assumptions for the State Troopers.

²Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.



SCHEDULE D
(Continued)

STATE DIVISION
TROOPERS

RETIREMENT: Representative values of the assumed annual rates of service retirement are shown in the following table:

Retirement Ages	Percent of Members Who Are Eligible for Reduced Benefits Retiring Next Year	Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year
50	14%	45%
51	14	32
52	14	32
53	14	32
54	14	32
55	10	32
56	10	32
57	10	32
58	10	32
59	10	32
60	10	32
61	10	32
62	10	32
63	10	32
64	10	32
65 & over	0	100



SCHEDULE D

(Continued)

SCHOOL DIVISION

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.25% per annum:

Sample Ages	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	6.20%	4.25%	10.45%
25	4.10	4.25	8.35
30	2.95	4.25	7.20
35	2.50	4.25	6.75
40	1.95	4.25	6.20
45	1.35	4.25	5.60
50	0.80	4.25	5.05
55	0.35	4.25	4.60
60	0.00	4.25	4.25
65	0.00	4.25	4.25

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, death and disability are shown in the following tables:

Sample Ages	Percent of Members Separating Within the Next Year					
	Ultimate Withdrawal		Death ¹		Disability	
	Males	Females	Males	Females	Males	Females
20	12.00%	14.50%	0.0124%	0.0054%	0.01%	0.01%
25	9.00	11.00	0.0169	0.0059	0.01	0.01
30	5.50	7.50	0.0205	0.0077	0.01	0.01
35	4.25	6.25	0.0349	0.0126	0.02	0.02
40	4.00	4.50	0.0478	0.0177	0.04	0.04
45	4.00	4.50	0.0591	0.0271	0.06	0.06
50	4.00	4.50	0.0763	0.0407	0.09	0.09
55	4.00	4.50	0.1198	0.0752	0.15	0.15
60	4.00	4.50	0.2368	0.1420	0.22	0.22
65	4.00	4.50	0.4680	0.2767	0.32	0.32

¹Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.



SCHEDULE D

(Continued)

SCHOOL DIVISION

The select withdrawal assumptions for members with less than five years of service are shown in the following table:

Completed Years of Service	Males	Females
0	38.0%	35.0%
1	20.0	19.0
2	15.0	14.5
3	11.0	11.5
4	10.0	10.0

RETIREMENT: Representative values of the assumed annual rates of service retirement are shown in the following table:

Retirement Ages	Percent of Members Who Are Eligible for Reduced Benefits Retiring Next Year		Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year	
	Males	Females	Males	Females
50	10%	10%	55%	55%
51	10	10	46	50
52	10	10	44	42
53	10	10	42	40
54	10	10	40	38
55	10	10	28	30
56	10	10	26	27
57	10	10	25	25
58	10	10	26	24
59	10	10	26	24
60	10	10	26	25
61	10	10	28	26
62	10	10	25	28
63	10	10	25	28
64	10	10	27	30
65	0	0	27	27
66	0	0	28	28
67	0	0	23	23
68	0	0	19	19
69	0	0	20	20
70 & over	0	0	100	100



SCHEDULE D

(Continued)

LOCAL GOVERNMENT DIVISION

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.25% per annum:

Sample Ages	Pay Increase Assumptions for an Individual Member			Total Increase (Next Year)
	Merit & Seniority	Inflation & Productivity (Economy)		
20	6.95%	4.25%		11.20%
25	4.30	4.25		8.55
30	2.64	4.25		6.89
35	1.72	4.25		5.97
40	1.23	4.25		5.48
45	0.99	4.25		5.24
50	0.79	4.25		5.04
55	0.60	4.25		4.85
60	0.25	4.25		4.50
65	0.00	4.25		4.25

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, death and disability are shown in the following tables:

Sample Ages	Percent of Members Separating Within the Next Year					
	Ultimate Withdrawal		Death ¹		Disability	
	Males	Females	Males	Females	Males	Females
20	12.00%	20.00%	0.0124%	0.0054%	0.01%	0.01%
25	10.00	15.00	0.0169	0.0059	0.01	0.01
30	7.25	11.00	0.0205	0.0077	0.01	0.01
35	5.50	8.75	0.0349	0.0126	0.02	0.02
40	5.00	6.25	0.0478	0.0177	0.04	0.04
45	4.50	6.00	0.0591	0.0271	0.08	0.08
50	4.50	6.00	0.0763	0.0407	0.14	0.14
55	4.50	6.00	0.1198	0.0752	0.18	0.18
60	4.50	6.00	0.2368	0.1420	0.24	0.24
65	4.50	6.00	0.4680	0.2767	0.30	0.30

¹Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.



SCHEDULE D
(Continued)

LOCAL GOVERNMENT DIVISION

The select withdrawal assumptions for members with less than five years of service are shown in the following table:

Completed Years of Service	Males	Females
0	40.0%	38.0%
1	22.0	22.0
2	15.0	17.0
3	11.5	13.0
4	9.0	11.0

RETIREMENT: Representative values of the assumed annual rates of service retirement are shown in the following table:

Retirement Ages	Percent of Members Who Are Eligible for Reduced Benefits Retiring Next Year		Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year	
	Males	Females	Males	Females
50	10%	12%	60%	60%
51	10	12	45	50
52	10	12	35	45
53	10	12	32	42
54	10	12	30	35
55	10	12	30	33
56	10	12	25	25
57	10	12	25	22
58	10	12	20	22
59	10	12	20	25
60	10	12	25	22
61	10	12	25	20
62	10	12	22	24
63	10	12	22	24
64	10	12	28	25
65	0	0	28	25
66	0	0	28	25
67	0	0	18	25
68	0	0	25	12
69	0	0	27	20
70 & over	0	0	100	100



SCHEDULE D

(Continued)

JUDICIAL DIVISION

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.25% per annum:

Sample Ages	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
30	1.50%	4.25%	5.75%
35	1.50	4.25	5.75
40	0.67	4.25	4.92
45	0.50	4.25	4.75
50	0.50	4.25	4.75
55	0.50	4.25	4.75
60	0.50	4.25	4.75
65	0.50	4.25	4.75

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, death and disability are shown in the following tables:

Sample Ages	Percent of Members Separating Within the Next Year					
	Ultimate Withdrawal ¹		Death ²		Disability	
	Males	Females	Males	Females	Males	Females
30	1.80%	1.80%	0.0205%	0.0077%	0.02%	0.02%
35	1.80	1.80	0.0349	0.0126	0.03	0.03
40	1.80	1.80	0.0478	0.0177	0.06	0.06
45	1.80	1.80	0.0591	0.0271	0.10	0.10
50	1.80	1.80	0.0763	0.0407	0.17	0.17
55	1.80	1.80	0.1198	0.0752	0.25	0.25
60	1.80	1.80	0.2368	0.1420	0.35	0.35
65	1.80	1.80	0.4680	0.2767	0.45	0.45

¹There are no select withdrawal assumptions for the Judicial Division.

²Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.



SCHEDULE D
(Continued)

JUDICIAL DIVISION

RETIREMENT: Representative values of the assumed annual rates of service retirement are shown in the following table:

Retirement Ages	Percent of Members Who Are Eligible for Reduced Benefits Retiring Next Year	Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year
50	5%	5%
51	5	5
52	5	5
53	5	5
54	5	5
55	5	5
56	5	5
57	5	5
58	5	5
59	5	5
60	12	12
61	12	12
62	12	12
63	12	12
64	12	12
65	0	12
66	0	12
67	0	12
68	0	12
69	0	12
70 & over	0	100



SCHEDULE D
(Continued)

ALL DIVISIONS (DPS STRUCTURE)

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.25% per annum:

Sample Ages	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	3.50%	4.25%	7.75%
25	3.50	4.25	7.75
30	3.20	4.25	7.45
35	2.76	4.25	7.01
40	2.12	4.25	6.37
45	1.34	4.25	5.59
50	0.80	4.25	5.05
55	0.42	4.25	4.67
60	0.20	4.25	4.45
65	0.00	4.25	4.25

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, death and disability are shown in the following tables:

Sample Ages	Percent of Members Separating Within the Next Year					
	Ultimate Withdrawal		Death ¹		Disability	
	Males	Females	Males	Females	Males	Females
20	7.00%	10.00%	0.0124%	0.0054%	0.01%	0.01%
25	7.00	10.00	0.0169	0.0059	0.01	0.01
30	6.00	8.00	0.0205	0.0077	0.01	0.01
35	6.00	7.00	0.0349	0.0126	0.02	0.02
40	4.50	5.75	0.0478	0.0177	0.05	0.05
45	3.50	4.25	0.0591	0.0271	0.08	0.08
50	3.50	3.50	0.0763	0.0407	0.12	0.12
55	3.50	3.50	0.1198	0.0752	0.25	0.25
60	3.50	3.50	0.2368	0.1420	0.40	0.40
65	3.50	3.50	0.4680	0.2767	0.60	0.60

¹Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.



SCHEDULE D
(Continued)

ALL DIVISIONS (DPS STRUCTURE)

The select withdrawal assumptions for members with less than five years of service are shown in the following table:

Completed Years of Service	Males	Females
0	22.0%	23.0%
1	20.0	20.0
2	17.0	16.0
3	13.0	12.0
4	10.0	9.0

RETIREMENT: Representative values of the assumed annual rates of service retirement are shown in the following table:

Retirement Ages	Percent of Members Who Are Eligible for Reduced Benefits Retiring Next Year		Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year	
	Males	Females	Males	Females
50	10%	5%	30%	30%
51	10	5	30	30
52	10	5	30	30
53	10	5	30	30
54	10	5	30	30
55	10	5	30	25
56	10	5	20	25
57	10	5	20	20
58	11	9	20	20
59	12	9	20	20
60	13	9	20	22
61	14	9	20	30
62	15	9	30	25
63	15	9	35	25
64	15	15	25	25
65	0	0	25	30
66	0	0	30	25
67	0	0	25	30
68	0	0	30	30
69	0	0	30	20
70 & over	0	0	100	100



SCHEDULE D

(Continued)

**SINGLE LIFE RETIREMENT VALUES AND
RATES OF POST-RETIREMENT MORTALITY**

Sample Ages	Present Value of \$1.00 Monthly for Life		Present Value of \$1.00 Monthly Increasing 2.0% Annually		Future Life Expectancy (Years)	
	Males	Females	Males	Females	Males	Females
40	\$147.87	\$149.38	\$188.34	\$191.40	43.24	46.22
45	144.65	146.50	182.01	185.65	38.43	41.34
50	140.12	142.50	173.81	178.25	33.65	36.49
55	133.78	137.02	163.25	168.87	28.91	31.71
60	125.41	129.85	150.27	157.40	24.30	27.07
65	114.98	120.84	135.06	143.84	19.94	22.65
70	102.67	110.23	118.06	128.69	15.92	18.56
75	87.93	97.82	98.88	111.87	12.20	14.80
80	71.61	83.65	78.77	93.66	8.95	11.39
85	55.65	68.04	59.97	74.61	6.32	8.40

Sample Ages	Rates of Post-Retirement Mortality	
	Males	Females
40	0.087%	0.044%
45	0.108	0.068
50	0.139	0.102
55	0.218	0.188
60	0.431	0.355
65	0.851	0.692
70	1.464	1.216
75	2.557	1.956
80	4.738	3.267
85	8.670	5.542



SCHEDULE D

(Continued)

METHODS AND ASSUMPTIONS SPECIFIC TO THE PERA DIVISIONS, THE PERA STRUCTURE, AND THE PERA HCTF

PERA Divisions Health Care Participation Rates

Current PERACare participants of the State, School (other than Denver Public Schools), Local Government, and the Judicial Division, are assumed to maintain their current health care benefit elections in perpetuity. For active members retiring directly from the State, School (other than Denver Public Schools), Local Government, and the Judicial Division, the following participation rates are assumed:

Attained Age(s)	Percent Electing Health Care Coverage
15-48	25%
49	30%
50-51	35%
52-53	40%
54-56	45%
57-58	50%
59-64	55%
65-73	60%
74+	65%

The participation of current PERACare enrollees and members retiring directly from active service is adjusted to reflect the increasing rate of participation with age, as described in the above table.

For eligible inactive members of the State, School (other than Denver Public Schools), Local Government, or the Judicial Division, 25% are assumed to elect health care coverage upon commencement of their monthly benefit.

For spousal participation, actual census data and current plan elections of current benefit recipients were used. For spouses of eligible inactive members and future retirees of the State, School (other than Denver Public Schools), Local Government, or the Judicial Division, 25% are assumed to elect coverage for their spouse. For current and future retirees, 70% are assumed to elect a joint and survivor benefit payment form. The age difference between covered male and female spouses is assumed to be 2 years.



SCHEDULE D
(Continued)

PERA Divisions Health Care Plan Election Rates

Plan elections for future, Medicare-eligible retirees of the State, School (other than Denver Public Schools), Local Government, and the Judicial Division, are assumed as follows:

Plan	Percent Electing Plan
Self-Funded Medicare Supplement Plans	60%
Kaiser Permanente Medicare Advantage HMO	25%
Rocky Mountain Health Plans Medicare HMO	10%
UnitedHealthcare Medicare HMO	5%

70% of those PERACare enrollees of the State, School (other than Denver Public Schools), Local Government, or the Judicial Division, who participating in the self-funded plans are assumed to elect MS#1, 28% are assumed to elect MS#2, and 2% are assumed to elect MS#3.

PERA Structure Initial Health Care Cost Rates

In determining the additional liability for PERACare enrollees who are age sixty-five or older and who are not eligible for premium-free Medicare Part A, the following monthly costs/premiums were provided by PERA, and are assumed for 2013. All costs are subject to the Health Care Cost Trend Rates.

Self Funded Medicare Supplement Plans		Kaiser Permanente Medicare Advantage HMO	
Premium for Members without Medicare Part A	Premium for Members with Medicare Part A	Premium for Members without Medicare Part A	Premium for Members with Medicare Part A
\$694	\$302	\$716	\$199

Rocky Mountain Health Plans Medicare HMO		UnitedHealthcare Medicare HMO		Medicare Part A Premium
Premium for Members without Medicare Part A	Premium for Members with Medicare Part A	Premium for Members without Medicare Part A	Premium for Members with Medicare Part A	
\$564	\$212	\$598	\$153	\$441



SCHEDULE D
(Continued)

PERA Structure Health Care Cost Trend Rates

Year	Self Funded Medicare Supplement Plans		Kaiser Permanente Medicare Advantage HMO	
	Premium for Members without Medicare Part A	Premium for Members with Medicare Part A	Premium for Members without Medicare Part A	Premium for Members with Medicare Part A
2013	6.36%	5.86%	6.09%	5.68%
2014	5.91%	5.60%	5.73%	5.45%
2015	5.45%	5.25%	5.36%	5.23%
2016+	5.00%	5.00%	5.00%	5.00%

Year	Rocky Mountain Health Plans Medicare HMO		United Healthcare Medicare HMO	
	Premium for Members without Medicare Part A	Premium for Members with Medicare Part A	Premium for Members without Medicare Part A	Premium for Members with Medicare Part A
2013	5.68%	5.41%	6.05%	5.63%
2014	5.45%	5.27%	5.70%	5.42%
2015	5.23%	5.14%	5.34%	5.21%
2016+	5.00%	5.00%	5.00%	5.00%

Year	Medicare Part A Premiums
2013	1.25%
2014	0.00%
2015	2.25%
2016	2.75%
2017	3.00%
2018	3.50%
2019	3.75%
2020+	3.75%

The service-based premium subsidy is assumed to remain constant at its current level.



SCHEDULE D

(Continued)

PERA Structure Assumptions Specific to the “No Part A” Subsidy

Under Colorado Revised Statute 24-51-1206(4), the premiums charged to a PERACare enrollee who is age sixty-five or older and who is not eligible for premium-free benefits under Medicare Part A shall be no greater than the premium charged to a PERACare enrollee eligible for premium-free benefits under Medicare Part A with the same plan option, coverage level, and service credit. As a result, an additional, “No Part A” subsidy is paid under the PERA Structure on behalf of those PERACare enrollees who are age sixty-five or older and are not eligible for premium-free benefits under Medicare Part A.

For those current PERACare enrollees who are age 65 and older, the premium-free Medicare Part A eligibility status is provided by PERA and is assumed to be maintained in perpetuity. For current PERACare enrollees not yet age 65, hired prior to April 1, 1986, and not assumed eligible for premium-free Medicare Part A coverage through their spouse, and for those active employees hired prior to April 1, 1986, the following percentage of PERACare enrollees are assumed to not qualify for premium-free Medicare Part A benefits; thus qualifying for the “No Part A” subsidy from the PERA Structure:

Hire Age	Percent Qualifying for “No Part A” Subsidy
0-24	23%
25-29	15%
30-34	9%
35-39	5%
40+	3%

The qualifying assumptions are based upon the experience of current, Medicare eligible, PERACare enrollees. Date of hire and hire age are estimated based upon service and date of retirement for current benefit recipients, or service and the valuation date for active members. As a result, those who are re-employed or transfer to another PERA employer may have accumulated the required quarters of Medicare-covered employment.

95% of PERACare enrollees receiving health care benefits as a result of disability retirement are assumed to qualify for premium-free Medicare Part A. 100% of eligible inactive members enrolled in PERACare are assumed to obtain the 40 or more quarters of Medicare-covered employment required for premium-free Medicare Part A coverage as a result of their subsequent employment.

Currently, the additional plan costs or premiums associated with those PERACare enrollees not eligible for premium-free Medicare Part A coverage are less than the costs of PERA paying the Medicare Part A premium on their behalf. However, future increases in the additional costs or premiums associated with PERACare enrollees not eligible for premium-free Medicare Part A coverage may exceed the Medicare Part A premium. As a result, it is assumed PERA will make the decision to pay the Medicare Part A premium when more cost-effective to do so. In making the decision to pay the Medicare Part A premium, it is assumed PERA’s decision will be based upon the level of additional plan costs, include the premium penalties associated with late enrollment in Medicare Part A, and be made when the additional cost, averaged across all plans, for all PERACare enrollees, exceeds the Medicare Part A premium.



SCHEDULE D
(Continued)

PERA Structure Assumptions Specific to the “No Part A” Subsidy (continued)

The premium penalty associated with enrollment in Medicare Part A after initial eligibility is 10% of the Part A premium and is payable for a period that is twice as long as the delay in enrollment. For example, someone enrolling at age 70 would need to pay the premium penalty for 10 years, assuming initial eligibility at age 65.

PERA Structure Morbidity

Under GASB Statements 43 and 45, liabilities for medical and drug post-employment benefits are to be based, in most circumstances, on assumed claims costs that vary by age. This is generally accomplished using rates of morbidity, or, an aging curve, modeling the growth in assumed claims as a PERACare enrollee ages. The service-based premium subsidy for health care does not result in annually increasing costs to the PERA Structure as a PERACare enrollee ages (excluding the subsidy reduction at age 65 or the costs associated with Medicare disability eligibility). Under the assumption the Medicare Part A premium will be paid under the PERA Structure when less than the average “No Part A” claims cost, and the treatment of Medicare as a community-rated plan, no morbidity has been assumed in determining the “No Part A” liability.

PERA HCTF Retiree Drug Subsidy (RDS) under Medicare Part D:

The PERA HCTF receives the Retiree Drug Subsidy (RDS) from the Centers for Medicare & Medicaid Services’ (CMS) Retiree Drug Subsidy Program for those PERACare enrollees participating in the self-insured Medicare supplement plans and the Medicare HMO plan offered by Rocky Mountain Health Plans. The PERA HCTF uses each year’s estimated RDS payments to reduce the premium paid by the PERACare enrollees of these plans, thus creating a liability under GASB Statements No. 43 and No. 45 for those future years the plans are projected to be eligible to receive the RDS.

As the service-based premium subsidy does not increase over time, PERACare enrollees are required to pay the entire increase in annual health care costs each year, resulting in monthly contributions that increase more rapidly over time than the total cost of coverage. As a result, the prescription drug benefit provided to those PERACare enrollees covered under the plans receiving the RDS, and who are eligible for Medicare Part D, is expected to lose its status as a qualified retiree prescription drug plan by failing the Actuarial Equivalence Test at some point in the future, resulting in a termination of the RDS. This valuation assumes PERACare will last qualify for RDS payments in 2023, assuming no changes in plan design are made.



SCHEDULE D
(Continued)

PERA HCTF Monthly RDS Payments

In determining the liability associated with the RDS subsidy, the following monthly payments were provided by PERA, and are assumed for 2013. All payments are subject to the Health Care Cost Trend Rates.

Plan	Estimated Retiree Drug Subsidy Payment
Self- Funded Medicare Supplement Plan #1 (MS#1)	\$44.00
Self- Funded Medicare Supplement Plan #2 (MS#2)	\$28.00
Self- Funded Medicare Supplement Plan #3 (MS#3)	\$12.00
Kaiser Permanente Medicare Advantage HMO*	\$ 0.00
Rocky Mountain Health Plans Medicare HMO	\$37.00
UnitedHealthcare Medicare HMO*	\$ 0.00

*Members eligible for Medicare Part D that are enrolled in Kaiser Permanente or UnitedHealthcare receive prescription drug benefits in a Medicare Advantage Prescription Drug Plan (MA-PDP) and do not qualify to generate an RDS for the PERA HCTF.

PERA HCTF Health Care Cost Trend Rates

Year	Retiree Drug Subsidy Payments
2013	4.00%
2014	4.25%
2015	4.75%
2016	5.00%
2017	5.50%
2018	5.75%
2019	6.25%
2020	6.00%
2021	5.75%
2022	5.50%
2023	5.25%
2024+	5.00%



SCHEDULE D

(Continued)

PERA HCTF Morbidity

Under GASB Statements 43 and 45, liabilities for medical and drug post-employment benefits are to be based, in most circumstances, on assumed claims costs that vary by age. This is generally accomplished using rates of morbidity, or, an aging curve, modeling the growth in assumed claims as a PERACare enrollee ages. RDS premium subsidies are based upon the premium reduction applicable to all PERACare enrollees eligible for Medicare, and are not assumed to be liabilities varying by age. Therefore, no morbidity assumptions are utilized in the determination of PERA HCTF liabilities.

PERA HCTF Dual Status Members and Retirees

Some members and retirees may be represented under both the PERA Structure and the DPS Structure, and are considered as members or retirees in both structures due to their dual status. In calculating the PERA HCTF's liabilities for members with a liability under both the PERA HCTF and the DPS HCTF, recognition is given to the choice of benefit structure, and the allocation of member contributions between the two HCTFs, as set forth in C.R.S. 24-51-1206.5. The choice of benefit structure is based upon what is assumed to be of the highest economic value to the benefit recipient. Current allocation percentages and member contribution account balances were provided by PERA for dual status members and retirees. For active members, member contribution account balances were projected assuming annual interest crediting of 3.00% and member contributions of 8.00% of projected salary.



SCHEDULE D

(Continued)

METHODS AND ASSUMPTIONS SPECIFIC TO THE DPS DIVISION, THE DPS STRUCTURE, AND THE DPS HEALTH CARE TRUST FUND

DPS Division Health Care Participation Rates

Current PERACare enrollees of the Denver Public Schools (DPS) Division are assumed to maintain their current health care benefit elections in perpetuity. For active members retiring directly from the DPS Division, the following participation rates are assumed:

Attained Age(s)	Percent Electing Health Care Coverage
15-50	50%
51-59	60%
60-69	65%
70-71	70%
72+	75%

The participation of current PERACare enrollees and members retiring directly from active service is adjusted to reflect the increasing rate of participation with age, as described in the above table.

For deferred vested members of the DPS Division, 25% are assumed to elect health care coverage upon commencement of their monthly benefit.

For spousal participation, actual census data and current plan elections of current benefit recipients were used. For spouses of deferred vested members and future retirees of the DPS Division, 15% are assumed to elect coverage for their spouse. The age difference between covered male and female spouses is assumed to be 2 years.

DPS Division Health Care Plan Election Rates

Plan elections for future, Medicare-eligible retirees of the DPS Division are assumed as follows:

Plan	Percent Electing Plan
Self-Funded Medicare Supplement Plans	20%
Kaiser Permanente Medicare Advantage HMO	35%
Rocky Mountain Health Plans Medicare HMO	5%
UnitedHealthcare Medicare HMO	40%

84% of those PERACare enrollees of the DPS Division who participating in the self-funded plans are assumed to elect MS#1, 13% are assumed to elect MS#2, and 3% are assumed to elect MS#3.



SCHEDULE D
(Continued)

DPS Structure Additional Premium Subsidy

In determining the additional liability for retirees who are age sixty-five or older and who are not eligible for premium-free Medicare Part A, the following, additional monthly costs are assumed:

Years of Service	Subsidy for Members without Medicare Part A
20+	\$115.00
19	109.25
18	103.50
17	97.75
16	92.00
15	86.25
14	80.50
13	74.75
12	69.00
11	63.25
10	57.50
9	51.75
8	46.00
7	40.25
6	34.50
5	28.75
4	23.00
3	17.25
2	11.50
1	5.75

The additional premium subsidy for retirees who are age sixty-five or older and who are not eligible for premium-free Medicare Part A is assumed to remain constant at its current level.

DPS Structure Assumptions Specific to the “No Part A” Subsidy

For those retirees who are age 65 or older and are not eligible for premium-free benefits under Medicare Part A, an additional, “No Part A” premium subsidy is paid under the DPS Structure.

For those current retirees who are age 65 and older, the premium-free Medicare Part A eligibility status is provided by PERA and is assumed to be maintained in perpetuity. For current retirees not yet age 65, hired prior to April 1, 1986, and not assumed eligible for premium-free Medicare Part A coverage through their spouse, and for those active employees hired prior to April 1, 1986, the following percentage of retirees are assumed to not qualify for premium-free Medicare Part A benefits; thus qualifying for the “No Part A” subsidy from the DPS Structure:

Hire Age	Percent Qualifying for “No Part A” Subsidy
0-24	20%
25-29	12%
30-34	8%
35-39	3%
40+	2%



SCHEDULE D
(Continued)

DPS Structure Assumptions Specific to the “No Part A” Subsidy (continued)

The qualifying assumptions are based upon the experience of current, Medicare eligible, PERACare enrollees. Date of hire and hire age are estimated based upon service and date of retirement for current benefit recipients, or service and the valuation date for active members. As a result, those who are re-employed or transfer to another PERA employer may have accumulated the required quarters of Medicare-covered employment.

95% of members enrolled in PERACare as a result of disability retirement are assumed to qualify for premium-free Medicare Part A.

100% of deferred vested members receiving health care benefits are assumed to obtain the 40 or more quarters of Medicare-covered employment required for premium-free Medicare Part A coverage as a result of their subsequent employment.

DPS Structure Morbidity

Under GASB Statements 43 and 45, liabilities for medical and drug post-employment benefits are to be based, in most circumstances, on assumed claims costs that vary by age. This is generally accomplished using rates of morbidity, or, an aging curve, modeling the growth in assumed claims as a PERACare enrollee ages. As the service-based premium subsidies for health care do not result in annually increasing costs to the DPS Structure as a retiree ages (excluding the subsidy reduction at age 65 or the costs associated with Medicare disability eligibility, no morbidity assumptions are utilized in the determination of DPS Structure liabilities.

DPS HCTF Retiree Drug Subsidy (RDS) under Medicare Part D:

The DPS HCTF receives the Retiree Drug Subsidy (RDS) from the Centers for Medicare & Medicaid Services' (CMS) Retiree Drug Subsidy Program for those PERACare enrollees participating in the self-insured Medicare supplement plans and the Medicare HMO plan offered by Rocky Mountain Health Plans. The DPS HCTF uses each year's estimated RDS payments to reduce the premium paid by the PERACare enrollees of these plans, thus creating a liability under GASB Statements No. 43 and No. 45 for those future years the plans are projected to be eligible to receive the RDS.

As the service-based premium subsidies do not increase over time, PERACare enrollees are required to pay the entire increase in annual health care costs each year, resulting in monthly contributions that increase more rapidly over time than the total cost of coverage. As a result, the prescription drug benefit provided to those PERACare enrollees covered under the plans receiving the RDS, and who are eligible for Medicare Part D, is expected to lose its status as a qualified retiree prescription drug plan by failing the Actuarial Equivalence Test at some point in the future, resulting in a termination of the RDS. This valuation assumes PERACare will last qualify for RDS payments in 2023, assuming no changes in plan design are made.



SCHEDULE D
(Continued)

DPS HCTF Monthly RDS Payments

In determining the liability associated with the RDS subsidy, the following monthly payments were provided by PERA, and are assumed for 2013. All payments are subject to the Health Care Cost Trend Rates.

Plan	Estimated Retiree Drug Subsidy Payment
Self- Funded Medicare Supplement Plan #1 (MS#1)	\$44.00
Self- Funded Medicare Supplement Plan #2 (MS#2)	\$28.00
Self- Funded Medicare Supplement Plan #3 (MS#3)	\$12.00
Kaiser Permanente Medicare Advantage HMO*	\$ 0.00
Rocky Mountain Health Plans Medicare HMO	\$37.00
UnitedHealthcare Medicare HMO*	\$ 0.00

*Members eligible for Medicare Part D that are enrolled in Kaiser Permanente or UnitedHealthcare receive prescription drug benefits in a Medicare Advantage Prescription Drug Plan (MA-PDP) and do not qualify to generate an RDS for the DPS HCTF.

DPS HCTF Health Care Cost Trend Rates

Year	Retiree Drug Subsidy Payments
2013	4.00%
2014	4.25%
2015	4.75%
2016	5.00%
2017	5.50%
2018	5.75%
2019	6.25%
2020	6.00%
2021	5.75%
2022	5.50%
2023	5.25%
2024+	5.00%



SCHEDULE D
(Continued)

DPS HCTF Morbidity

Under GASB Statements 43 and 45, liabilities for medical and drug post-employment benefits are to be based, in most circumstances, on assumed claims costs that vary by age. This is generally accomplished using rates of morbidity, or, an aging curve, modeling the growth in assumed claims as a PERACare enrollee ages. RDS premium subsidies are based upon the premium reduction applicable to all PERACare enrollees eligible for Medicare, and are not assumed to be liabilities varying by age. Therefore, no morbidity assumptions are utilized in the determination of DPS HCTF liabilities.

DPS HCTF Dual Status Members and Retirees

Some members and retirees may be represented under both the PERA Structure and the DPS Structure, and are considered as members or retirees in both structures due to their dual status. In calculating the DPS HCTF's liabilities for members with a liability under both the PERA HCTF and the DPS HCTF, recognition is given to the choice of benefit structure, and the allocation of member contributions between the two HCTFs, as set forth in C.R.S. 24-51-1206.5. The choice of benefit structure is based upon what is assumed to be of the highest economic value to the benefit recipient. Current allocation percentages and member contribution account balances were provided by PERA for dual status members and retirees. For active members, member contribution account balances were projected assuming annual interest crediting of 3.00% and member contributions of 8.00% of projected salary.



SCHEDULE E

ACTUARIAL COST METHOD

1. The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 8.00%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.
2. The employer contributions required to support the benefits of PERA are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf. For health care benefits, the calculation of the normal contribution is similar but is based upon total expected career service and is independent of compensation.
4. The unfunded accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from PERA. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.



SCHEDULE F

SUMMARY OF MAIN PLAN PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

Effective Date

Pension: Established in 1931, most recently amended during 2010. The Denver Public Schools Retirement System (DPSRS) was merged into PERA effective January 1, 2010. On that date all liabilities and assets of DPSRS were transferred to and became liabilities and assets of the DPS Division of PERA. The benefit provisions of DPSRS were incorporated into PERA as the DPS Benefit Structure. The benefit provisions of existing members of PERA on the merger date and all new hires post- merger date are identified as the PERA Benefit Structure.

PERA Health Care Trust Fund (PERA HCTF): On July 1, 1985, employer contributions to the HCTF commenced. Plan coverage and premium subsidy payments began July 1, 1986.

DPS Health Care Trust Fund (DPS HCTF): On January 1, 2010, as part of the merger, the liabilities and assets of the Denver Public Schools health care trust fund were transferred into a newly created DPS Division Health Care Trust Fund and employer contributions from employers in the DPS Division commenced.

DEFINITIONS

Affiliated Employers

State agencies and institutions of higher education, political subdivisions of the state, all school districts, courts, cities and municipalities and any other public entities which affiliate with PERA.

Annual Increase Reserve

Applicable for PERA benefit structure members hired on or after January 1, 2007 and prior non-DPSRS members who became PERA members as of January 1, 2010, a portion of the employer contribution, currently equal to one percent of the salaries of affected members, is accumulated in the Annual Increase Reserve to be paid out in annual increases each July 1, to the extent affordable. The PERA Board is responsible for a separate annual actuarial valuation to determine affordability and the percentage of annual increases to the eligible members within the groups previously defined. The maximum annual increase awarded, if any, by the PERA Board is the least of:

- a) Two percent of current benefits,
- b) The average of the annual CPI-W increase determined each month published for the preceding calendar year, and
- c) An increase that will exhaust ten percent of the year-end market value of the Annual Increase Reserve.

Covered Members

Employees of Affiliated Employers who work in a position subject to membership and for whom contributions are made.



Division One of five separate divisions which include: State, School, Local Government, Judicial and Denver Public Schools (DPS). Only local government entities can voluntarily affiliate with PERA and these entities are assigned to the local government division. The financial activities of each division are accounted for in separate trust funds.

Highest Average Salary For PERA benefit structure members, not in the Judicial Division, who are eligible for retirement as of January 1, 2011, one-twelfth of the average of the highest annual salaries upon which contributions were made during three periods of twelve consecutive months of Service Credit; or for a member with less than three years of Service Credit, one-twelfth of the average of the annual salaries upon which contributions were made. Annual salary increases recognized in the determination of HAS are limited to 15% a year for members who began membership prior to January 1, 2007. For members who began membership on or after January 1, 2007, the annual salary increases recognized in the determination of HAS are limited to 8% a year.

For PERA benefit structure members, not in the Judicial Division, who are not eligible for retirement as of January 1, 2011, one-twelfth of the average of the highest annual salaries upon which contributions were made during three periods of twelve consecutive months of Service Credit; or for a member with less than three years of Service Credit, one-twelfth of the average of the annual salaries upon which contributions were made. Annual salary increases recognized in the determination of HAS are limited to 8% a year.

For Judicial Division members, one-twelfth of the highest annual salary upon which contributions were made during one period of twelve consecutive months of Service Credit.

For DPS benefit structure members, who are eligible for retirement as of January 1, 2011, the greater of the average of the 36 months of highest annual salaries or the career average salary.

For DPS benefit structure members, who are not eligible for retirement as of January 1, 2011, one-twelfth of the average of the highest annual salaries upon which contributions were made during three periods of twelve consecutive months of Service Credit; or for a member with less than three years of Service Credit, one-twelfth of the average of the annual salaries upon which contributions were made. Annual salary increases recognized in the determination of HAS are limited to 8% a year.



Interest Credit Rate

3% per annum, on member contribution account balances.

Service Credit

The total of all earned, purchased, (disability) projected, and military service credit which is used to determine benefit eligibility and amounts.

Vested

DPS Structure: Members who accrue five or more years of Service Credit are vested for benefits.

PERA Structure: Members who accrue five or more years of Service Credit or attain age sixty-five are vested for benefits.



CONTRIBUTIONS

Member Contributions

Members, except for State Troopers, contribute 8.0% of salary. State Troopers contribute 10.0% of salary. Member contributions, together with any purchased service credit payments and interest, are credited to individual Member Contribution Accounts.

Employer Contributions

State Division (except State Troopers): 10.15% of salary on and after 7/1/2003

School Division: 10.15% of salary on and after 7/1/2003

State Troopers: 12.85% of salary on and after 7/1/2003

Local Government Division: 10.00% of salary on and after 1/1/2004

Judicial Division: 13.66% of salary on and after 7/1/2004

DPS Division: 13.75% of salary on and after 1/1/2010. Actual employer contributions are reduced by an amount equal to the principal payments plus interest at 8.5% necessary each year to finance the pension certificates of participation (PCOPs) issued in 1997 and 2008. The amount of the credit for 2012 was 14.66% of salary. The net DPS Division employer contribution rate for 2012 was 3.15% when including the AED and SAED as described on the following page.

The employer contribution rates of the State, School, Local Government, and Judicial Divisions include the contribution of 1.02% allocated to the PERA Health Care Trust Fund

The employer contribution rate of the DPS Division includes the contribution of 1.02% allocated to the DPS Health Care Trust Fund.

For PERA benefit structure members, hired on or after January 1, 2007, these contribution rates also include the 1.00% of payroll contribution earmarked for the Annual Increase Reserve.

Employer contributions to the State and Judicial Divisions are reduced by 2.5% of payroll for the period July 1, 2010 through June 30, 2012 and member contributions are increased by a like amount during the same period.

Employer contributions are credited to the employer reserve of each division.



**Amortization Equalization
Disbursement (AED)***

Beginning January 1, 2006 (January 1, 2010 for DPS Division), each employer shall pay to PERA a disbursement equal to a percent of total payroll in accordance with the following schedule:

Year	State Division	Schools/DPS Division
2006	0.50%	0.50%
2007	1.00%	1.00%
2008	1.40%	1.40%
2009	1.80%	1.80%
2010	2.20%	2.20%
2011	2.60%	2.60%
2012	3.00%	3.00%
2013	3.40%	3.40%
2014	3.80%	3.80%
2015	4.20%	4.20%
2016	4.60%	4.50%
2017 & after	5.00%	4.50%

If, at any time, the actuarial funded ratio for a division is 103% or more, then the amount of the disbursement shall be reduced by 0.5% of pay.

**Supplemental Amortization
Equalization
Disbursement (SAED)***

Beginning January 1, 2008 (January 1, 2010 for DPS Division), each employer shall pay to PERA a supplemental disbursement equal to a percent of total payroll in accordance with the following schedule:

Year	State Division	Schools/DPS Division
2008	0.50%	0.50%
2009	1.00%	1.00%
2010	1.50%	1.50%
2011	2.00%	2.00%
2012	2.50%	2.50%
2013	3.00%	3.00%
2014	3.50%	3.50%
2015	4.00%	4.00%
2016	4.50%	4.50%
2017	5.00%	5.00%
2018 & after	5.00%	5.50%

If, at any time, the actuarial funded ratio for a division is 103% or more, then the amount of the disbursement shall be reduced by 0.5% of pay.

For the Local Government and Judicial Divisions, the AED and SAED contributions are frozen at the 2010 levels. If, at any time, the actuarial funded ratio for a division is 103% or more, then the amount of the disbursement shall be reduced by 0.5% of pay.



Matching Contributions

A match applied to individual Member Contribution Accounts when a refund is made or when a money purchase benefit is calculated. The match is applied to the account balance less:

1. Any amount paid for the purchase of service credit,
2. Any payments in lieu of member contributions, and
3. Any interest accrued on 1 and 2.

For members who receive a refund and meet the requirements for a service or reduced service retirement at the time the match is applied, or for payments made to survivors or beneficiaries of members who die before retirement, the match is 100% of eligible amounts.

For PERA benefit structure members who receive a refund prior to meeting the requirements for a service or reduced service retirement, the match is 50% of eligible amounts. Effective January 1, 2011, members must have five years of earned service credit in order to receive the 50% match on a refund. Contributions received prior to January 1, 2011, are matched regardless if the member has five years of service credit on the refund date.

For DPS benefit structure members who receive a refund prior to meeting the requirements for a service or reduced service retirement, no match is provided.



ELIGIBILITY FOR BENEFITS – PERA BENEFIT STRUCTURE

Refund of Member Contributions

In the event a member leaves service for a reason other than death or retirement, member contribution accounts including interest plus matching employer contributions on eligible amounts with interest are refunded upon request.

Service Retirement

The Age and Service Credit requirements to be eligible for a full Service Retirement are listed below:

- **Members, except State Troopers, hired before 7/1/2005 who have 5 or more years of service credit as of 1/1/2011**

Age	Service Credit
50	30
55	Age and Service = 80 years or more
60	20
65	5
65	Less than 5 but 60 payroll postings

- **Members, except State Troopers, hired on and after 7/1/2005 but before 1/1/2007, and who have 5 or more years of service credit as of 1/1/2011**

Age	Service Credit
Any Age	35
55	Age and Service = 80 years or more
60	20
65	5
65	Less than 5 but 60 payroll postings

- **Members, except State Troopers, hired on and after 1/1/2007 but before 1/1/2011, or who have less than 5 years of service credit as of 1/1/2011**

Age	Service Credit
Any Age	35
55	30
55	Age and Service = 85 years or more
60	25
65	5
65	Less than 5 but 60 payroll postings



- **Members, except State Troopers, hired on and after 1/1/2011 but before 1/1/2017 and Members, except State Troopers, hired on and after 1/1/2017 whose last 10 years of service credit are in either the School or DPS Division**

Age	Service Credit
Any Age	35
58	Age and Service = 88 years or more
65	5
65	Less than 5 but 60 payroll postings

- **Members, except State Troopers hired on and after 1/1/2017 whose last 10 years of service credit are not in either the School of DPS Divisions**

Age	Service Credit
Any Age	35
60	Age and Service = 90 years or more
65	5
65	Less than 5 but 60 payroll postings

- **State Troopers, regardless of date of hire**

Age	Service Credit
Any Age	30
50	25
55	20
65	5
65	Less than 5 but 60 payroll postings

Reduced Service Retirement

The Age and Service Credit requirements to be eligible for a Reduced Service Retirement are listed below:

- **Members, except State Troopers, regardless of date of hire**

Age	Service Credit
50	25
55	20
60	5

- **State Troopers, regardless of date of hire**

Age	Service Credit
50	20
60	5



Disability Retirement

Active members with five or more years of earned service credit, with at least 6 months of this time earned in the most recent period of membership are eligible to apply for disability retirement. To be eligible, the member must be found to be totally and permanently disabled (mentally or physically) from regular and gainful employment. The service credit requirement is waived for state troopers injured in the line of duty and for judges found disabled by the Colorado Supreme Court.

Survivor Benefits

The qualified survivors of members who die before retirement with at least one year of service credit are eligible for monthly survivor benefits. The service credit requirement is waived if the death was job related.

MONTHLY BENEFIT CALCULATIONS – PERA BENEFIT STRUCTURE

Service Retirement Benefit

State including state troopers, School, Local Government, DPS Divisions and Members of the Judicial Division who were on the bench on and after July 1, 1973:

The greater of a) or b)

- a) 2.5% of HAS times years of Service Credit up to 40
- b) The money purchase benefit which is actuarially determined based on the value of the member contribution account and matching employer contributions on the effective date of retirement.

Members age 65 with less than 5 years and less than 60 payroll postings are eligible for the money purchase benefit only.

Members of the Judicial Division who were on the bench prior to July 1, 1973:

The greater of c) or d)

- c) The greater of a) or b) above
- d)
 1. 4% of HAS times years of Service Credit up to 10, plus
 2. 1 2/3% of HAS times years of Service Credit in excess of 10 up to 16, plus
 3. 1.5% of HAS times years of Service Credit in excess of 16 up to 20, plus
 4. 2.5% of HAS times years of Service Credit in excess of 20, the total not to exceed 100% of HAS.

In all cases, the benefit is limited to 100% of HAS.



Reduced Service Retirement Benefit

For all members, except State Troopers:

The service retirement benefit calculated above reduced 4% for each year after age 60, 3% for each year from age 55 to age 60, 6% for each year prior to 55, and proportionately for fractions of a year, from the effective date of reduced service retirement to the date the member would have been eligible for a service retirement benefit.

For State Troopers:

The service retirement benefit calculated above reduced 4% for each year after age 60, 3% for each year from age 50 to age 60, and proportionately for fractions of a year, from the effective date of reduced service retirement to the date the member would have been eligible for a service retirement benefit.

Effective January 1, 2011, for all members that are not retirement eligible on January 1, 2011, the service retirement benefit calculated above shall be reduced using actuarial equivalent factors, from the effective date of reduced service retirement to the date the member would have been eligible for a service retirement benefit.

Disability Retirement Benefit

If years of Service Credit at disability are greater than 20, the disability retirement benefit is calculated based on actual Service Credit at disability; otherwise, the disability retirement benefit is calculated based on actual Service Credit at disability plus Service Credit projected to age 65, but not to exceed a total of 20 years of Service Credit.

Benefits for disability retirees with an effective disability retirement date on or after July 1, 1988 and before January 1, 1999, who work after retirement will be reduced by 1/3 of the amount, if any, by which the initial annual PERA benefit plus earned income exceeds the annualized HAS.

Disability benefits are payable for as long as the disability retiree is disabled. Benefits cease upon recovery.



Survivor Benefits

➤ If the deceased was not Eligible for Reduced or Service Retirement at the time of Death

Benefits are payable in the following order:

- a) Qualified Children Under Age 23: 40% of HAS for one child, an equal share of 50% of HAS if there are two or more children.
- b) Spouse: If no qualified children in (a) exist: i) less than 10 years of Service Credit, 25% of HAS, benefits begin at age 60; ii) 10 or more years of Service Credit, the greater of 25% of HAS or the benefit which would have been payable as a 100% joint and survivor option if the deceased member had been eligible for service retirement and retired on the date of death, benefits begin immediately.
- c) Qualified Children Age 23 or Over: If no persons in (a) or (b) exist, 40% of HAS for one child, an equal share of 50% of HAS if there are two or more children.
- d) Dependent Parents: If no persons in (a) to (c) exist, 25% of HAS for one dependent parent or 40% of HAS for two dependent parents (minimum of \$100 per month for each dependent parent). Benefits begin immediately and continue until the death of the parent(s).
- e) Named Beneficiary: If no persons in (a) to (d) exist, single payment equal to the member contribution account plus the appropriate matching contribution, plus interest.
- f) Estate of Deceased Member: If no persons in (a) to (e) exist, single payment equal to the member contribution account plus the appropriate matching contribution, plus interest.

➤ If the deceased was eligible for Reduced or Service Retirement at the time of Death

The co-beneficiary is eligible for the amount that would have been payable had the member retired on the date of death and elected the 100% joint and survivor option. The order of payment is:

- a) Co-beneficiary – If the deceased member designated a co-beneficiary prior to death, that individual takes precedence in payment of benefits.
- b) Surviving Spouse
- c) Qualified Children
- d) Dependent Parents
- e) Named beneficiary
- f) Estate



Benefit Options

Retirement and disability benefits are payable for the life of the retired member. Optional reduced benefits may be elected at the time of retirement to provide for continuation of 50% or 100% of a reduced benefit amount to a designated co-beneficiary. If the member retires any time after the date on which service retirement eligibility is first met, the reduction for 50% or 100% continuation option will be actuarially determined as of the date the member first became eligible for service retirement.

Post-Retirement Benefit Increases

For members hired prior to January 1, 2007, each year on July 1, benefits which have been paid for at least twelve months preceding July 1 are increased.

For 2010 only, the increase equals the lesser of i) 2% compounded annually or, ii) the average of the annual CPI-W increases determined monthly, published for 2009.

For 2011 and beyond, the increase is 2.0% compounded annually for each year of retirement. If the investment return for the prior year is negative, then the increase will be an amount equal to the average of the annual CPI-W increases determined monthly for the prior year with a cap of 2%.

In addition, the increase will be first paid on the July 1 that is at least 12 months after retirement for those members who retire on or after January 1, 2011. Members not eligible to retire as of January 1, 2011 who retire with a reduced service retirement allowance must reach age 60 or the age and service requirements for unreduced service retirement to be eligible for the Post-Retirement Benefit Increases.

For PERA benefit structure service and disability retirees who were hired on or after January 1, 2007, and for PERA benefit structure survivor benefit recipients of deceased members who were hired on or after January 1, 2007:

- The increase is the lower of 2.0 percent or the average of the CPI-W for each of the months during the prior calendar year. Increases to all benefit recipients in this group are limited to 10 percent of the total funds available in the Annual Increase Reserve in the division from which they retired or were a member before death.
- Members must receive benefits for a full calendar year to be eligible for the increase.
- The increase for service retirees who retire with a reduced service retirement does not begin until the retiree has been receiving benefits for a full calendar year and has on January 1 of the year the increase is paid, either reached age 60, or years of service plus age equal 85, 88, or 90, whichever is applicable.
- No minimum age or service credit requirement shall apply for disability retirees or survivor benefit recipients.



ELIGIBILITY FOR BENEFITS – DPS BENEFIT STRUCTURE

Refund of Member Contributions

In the event a member leaves service for a reason other than death or retirement, member contribution accounts including interest plus applicable matching employer contributions with interest are refunded upon request.

Service Retirement

The Age and Service Credit requirements to be eligible for a full Service Retirement are listed below:

- **Members, hired before 1/1/2010 who have 5 or more years of service credit on 1/1/2011**

Age	Service Credit
50	30
55	25 (must include 15 years of earned service)
65	5

- **Members, hired before 1/1/2010 who have less than 5 years of service credit as of 1/1/2011**

Age	Service Credit
Any Age	35
55	30 (must include 20 years of earned service)
55	Age and Service = 85 years or more
60	25
65	5
65	Less than 5 but 60 payroll postings

Reduced Service Retirement

The Age and Service Credit requirements to be eligible for a Reduced Service Retirement are listed below:

- **Members, regardless of date of hire who have 5 or more years of service credit on 1/1/2011**

Age	Service Credit
55	15
Any Age	25

- **Members, regardless of date of hire who have less than 5 years of service credit on 1/1/2011**

Age	Service Credit
50	25
55	20
60	5



Disability Retirement Active members with five or more years of earned service credit, with at least 6 months of this time earned in the most recent period of membership are eligible to apply for disability retirement. To be eligible, the member must be found to be totally and permanently disabled (mentally or physically) from regular and gainful employment.

Survivor Benefits The qualified survivors of members who die before retirement with at least five years of service credit and are active at time of death are eligible for monthly survivor benefits.

MONTHLY BENEFIT CALCULATIONS – DPS BENEFIT STRUCTURE

Service Retirement Benefit The greater of a) or b)

a) 2.5% of HAS times years of Service Credit

b) \$15 times first 10 years of service credit plus \$20 times service credit over 10 years plus an amount equal to annuitized member balance.*

* May include matching dollars if eligible.

Reduced Service Retirement Benefit

Age	Service	Reduction Amount
Under 50	30 years	4% for each year prior to age 50
Under 50	25 – 30 years	Greater of: <ul style="list-style-type: none"> • 4% for each year of service below 30 years • 4% for each year below age 50
Age 50 - 55	25 – 30 years	Lesser of: <ul style="list-style-type: none"> • 4% for each year under age 50 • 4% for each year of service below 30 years
Over 55	15 years	Lesser of: <ul style="list-style-type: none"> • 4% for each year under age 65 • 4% for each year of service below 25 years

The reduction factor in the table above equals 6% per year for those hired on or after 7/1/2005 but before 1/1/2010.

Effective 1/1/2011, for all members that are not retirement eligible on 1/1/2011, the service retirement benefit calculated above shall be reduced using actuarial equivalent factors, from the effective date of reduced service retirement to the date the member would have been eligible for a service retirement benefit.



Disability Retirement Benefit

If years of Service Credit at disability are greater than 20, the disability retirement benefit is calculated based on actual Service Credit at disability; otherwise, the disability retirement benefit is calculated based on actual Service Credit at disability plus Service Credit projected to age 65, but not to exceed a total of 20 years of Service Credit.

Disability benefits are payable for as long as the disability retiree is disabled. Benefits cease upon recovery.

Survivor Benefits

- a) Child: Greater of 10% of HAS for each child up to a limit of 30%; and \$160 (pro-rated) for each child up to a limit of \$480.
- b) Spouse with eligible children: The greater of the difference between the child benefit above and 30% (40% if 15 years of service plus 2% for each year of service beyond 25 years) of HAS, and \$480.
- c) Dependent Parents: The greater of 10% of HAS for each parent; and \$240 per parent.
- d) Spouse (less than 15 years of service): Lesser of 30% of HAS; and \$480, payable at later of age 60 or when last eligible child loses eligibility.
- e) Spouse (15 years of service or more): Greater of 30% of HAS, plus an additional 1% for each year of service over 15 years; and \$480, payable at later of age 50 or when last eligible child loses eligibility.

Benefit Options

- Option A: Single life annuity (SLA) with residual refund of member contributions.
- Option B: Single life annuity with guarantee period determined based on accumulated employee contribution balance at retirement.
- Option C: 100% joint and survivor with 10 years certain. – Not available to members retiring post 1/1/2010
- Option D: Cash refund on annuity portion and SLA on pension portion. – Not available to members retiring post 1/1/2010
- Option E: 50% joint and survivor with 10 years certain. – Not available to members retiring post 1/1/2010



Option P2: 50% joint and survivor with pop-up and residual refund of member contributions.

Option P3: 100% joint and survivor with pop-up and residual refund of member contributions.

Post-Retirement Benefit Increases

Each year on July 1, benefits which have been paid for at least twelve months preceding July 1 are increased.

For 2010 only, the increase equals the lesser of i) 2% compounded annually or, ii) the average of the annual CPI-W increases determined monthly, published for 2009.

For 2011 and beyond, the increase is 2.0% compounded annually for each year of retirement. If the investment return for the prior year is negative, then the increase will be an amount equal to the average of the annual CPI-W increases determined monthly for the prior year with a cap of 2%.

In addition, the increase will be first paid on the July 1 that is at least 12 months after retirement for those members who retire on or after January 1, 2011. Members not eligible to retire as of January 1, 2011 who retire with a reduced service retirement allowance must reach age 60 or the age and service requirements for unreduced service retirement to be eligible for the Post-Retirement Benefit Increases.



OTHER PROVISIONS SPECIFIC TO THE PERA HEALTH CARE TRUST FUND

Eligibility for Health Care Coverage The PERA Health Care Trust Fund (PERA HCTF) includes assets for the purpose of paying premium subsidies on behalf of PERA Structure benefit recipients and DPS Structure retirees who worked for an employer in the State, School, Local Government, and Judicial Divisions within PERA who enroll in PERACare.

The following individuals are eligible to enroll in PERACare:

- Anyone receiving a monthly PERA benefit (benefit recipient). If the Benefit Recipient is enrolled in PERACare, the following dependents may be enrolled: spouses, domestic partners, unmarried dependent children under age 25, certain mentally or physically incapacitated adult children, and dependent parents.
- PERA members receiving short-term disability payments.
- Guardians of children receiving PERA survivor benefits, if children are receiving health care benefits.
- PERA retirees temporarily not receiving PERA benefits.
- Surviving spouses of deceased retirees who are not receiving PERA benefits but were enrolled in PERACare at the time when death occurred.
- Divorced spouses of retirees who are not receiving PERA benefits, but were receiving health care benefits when the divorce occurred.

Enrollment Enrollment is voluntary, with annual open enrollment for coverage effective each January 1. If a surviving spouse or divorced spouse discontinues coverage, re-enrollment is not allowed.

Premium Subsidy A monthly subsidy is allocated to each benefit recipient under the PERA Structure and each retiree under the DPS Structure electing health care coverage. Survivors of retirees under the PERA Structure are eligible to receive the subsidy. The following monthly amounts are allocated per year of credited service, up to a maximum of 20 years of service:

DPS Structure Retirees Who Retire On or After July 1, 1994:

- \$5.75 if age 65 or older and eligible for premium-free Medicare Part A.
- \$11.50 if not yet age 65, or if age 65 or older and not eligible for premium-free Medicare Part A.

PERA Structure Benefit Recipients:

- \$5.75 if age 65 or older or eligible for Medicare Part B.
- \$11.50 if not yet age 65 or not eligible for Medicare Part B.



This subsidy is used to determine member premiums, which are the projected full cost of coverage less the premium subsidy. The full costs for claims, administration, premiums, etc., are allocated and paid by the PERA HCTF and the DPS HCTF.

Historically, this has resulted in net costs to the PERA HCTF and the DPS HCTF being very close to the premium subsidy, with all costs of coverage above this subsidy paid by the member. For those benefit recipients who are age 65 or older, the full cost of coverage is considered to be based on the full cost of coverage assuming Medicare Part A eligibility. This is independent of actual Medicare Part A eligibility.

Members not receiving a PERA monthly benefit do not qualify for this subsidy and bear the full cost of coverage.

This premium subsidy is only available to those enrolled in PERACare and meeting the requirements defined by the benefit structure under which they retire.

Special Note on Members not qualifying for Medicare Part A:

Under the PERA Structure, an implicit subsidy is paid for those members not eligible for premium-free Medicare Part A benefits. For members in the fully-insured HMOs, this amount is the difference in premiums charged for those without Medicare Part A and for those enrolled in Medicare Part A. For the self-funded plans, this amount is the assumed difference in claims costs for services covered under Medicare Part A between members without Medicare Part A coverage and those enrolled in Medicare Part A.

Special Note on Members eligible for Medicare Part D:

For members electing coverage in a plan option that produces a Retiree Drug Subsidy (RDS), which is payable to PERA, under Part D of the Medicare Modernization Act of 2003 (MMA), PERA has reduced the full cost of coverage by estimated RDS receipts. GASB Statements 43 and 45 do not allow for future assumed RDS payments to be used as a direct offset for future liabilities. Therefore, a liability for these payments has been included in the total PERA HCTF liability. Plan options producing an RDS for PERA in 2013 are the self-funded Medicare Supplement plans and the Rocky Mountain Health Plan Medicare HMO.

Special Note on Premium Subsidy Funding for Members in both the PERA HCTF and the DPS HCTF:

For members covered under both the PERA HCTF and the DPS HCTF, the allocation of the subsidy amounts is done via an allocation method set forth in C.R.S. 24-51-1206.5.



OTHER PROVISIONS SPECIFIC TO THE DPS HEALTH CARE TRUST FUND

Eligibility for Health Care Coverage The DPS Health Care Trust Fund (DPS HCTF) includes assets for the purpose of paying premium subsidies on behalf of PERA Structure benefit recipients and DPS Structure retirees who worked for employers of the DPS Division and who enroll in PERACare.

The following individuals are eligible to enroll in PERACare:

- Anyone receiving a monthly PERA benefit including; spouses, domestic partners, unmarried dependent children under age 25, certain mentally or physically incapacitated adult children, and dependent parents.
- PERA members receiving short-term disability payments.
- Guardians of children receiving PERA survivor benefits if children are receiving health care benefits.
- PERA retirees temporarily not receiving benefits.
- Surviving spouses of deceased retirees who are not receiving PERA benefits but were receiving health care benefits at the time when death occurred.
- Divorced spouses of retirees who are not receiving PERA benefits, but were receiving health care benefits when the divorce occurred.

Enrollment Enrollment is voluntary, with annual open enrollment for coverage effective each January 1. If a surviving spouse or divorced spouse discontinues coverage, re-enrollment is not allowed.

Premium Subsidy A monthly subsidy is allocated to each benefit recipient under the PERA Structure and each retiree under the DPS Structure electing health care coverage. Survivors receiving benefits under the PERA Structure are eligible to receive the subsidy. The following monthly amounts are based on the date of retirement:

DPS Structure Retirees Who Retired Prior to July 1, 1994:

- \$230 per month for retirees without Medicare Part A.
- \$115 per month for retirees with Medicare Part A.

DPS Structure Retirees Who Retire On or After July 1, 1994:

- \$5.75 if age 65 and older and eligible for Medicare Parts A and B.
- \$11.50 if not yet age 65, or if age 65 and older and not eligible for premium-free Medicare Part A.

The monthly amounts above are allocated per year of credited service up to a maximum of 20 years of service.



PERA Structure Benefit Recipients:

- \$ 5.75 if age 65 and older or eligible for Medicare Part B.
- \$11.50 if not yet age 65 or not eligible for Medicare Part B.

The monthly amounts above are allocated per year of credited service up to a maximum of 20 years of service.

This subsidy is used to determine member premiums, which are the projected full costs of coverage less the premium subsidy. The full costs for claims, administration, premiums, etc., are allocated and paid by the PERA HCTF and the DPS HCTF.

This should result in net costs to the PERA HCTF and DPS HCTF being very close to the premium subsidy, with all costs of coverage above this subsidy paid by the member.

This premium subsidy is only available to those enrolled in PERACare and meeting the requirements defined by the benefit structure under which they retire.

Special Note on DPS Structure Members Not Qualifying for Premium-Free Medicare Part A Coverage:

The DPS HCTF pays an explicit subsidy for those members eligible to receive the premium subsidy and are not eligible for premium-free Medicare Part A coverage. For these members an additional subsidy of \$5.75 per month for each year of credited service (up to a maximum of 20 years of service) is allocated.

Special Note on PERA Structure Members not qualifying for Medicare Part A:

The DPS HCTF pays an implicit subsidy for members not eligible for premium-free Medicare Part A benefits. For members in the fully-insured HMOs, this amount is the difference in premiums charged for those without Medicare Part A and for those enrolled in Medicare Part A. For the self-funded plans, this amount is the assumed difference in claims costs for services covered under Medicare Part A between members without Medicare Part A coverage and those enrolled in Medicare Part A.

Special Note on Members Eligible for Medicare Part D:

For members electing coverage in a plan option that produces a Retiree Drug Subsidy (RDS), which is payable to PERA under Part D of the Medicare Modernization Act of 2003 (MMA), PERA has reduced the full cost of coverage by the estimated RDS. GASB Statements 43 and 45 do not allow for future assumed RDS payments to be used as a direct offset for future liabilities. Therefore, a liability for these payments has been included in the total DPS HCTF liability. Plan options producing an RDS for PERA in 2013 are the Self-Funded Medicare Supplement plans and the Rocky Mountain Health Plan Medicare HMO.



Special Note on Premium Subsidy Funding for Members in both the PERA HCTF and the DPS HCTF:

For members covered under both the PERA HCTF and the DPS HCTF, the allocation of the subsidy amounts is done via an allocation method set forth in C.R.S. 24-51-1206.5.



SCHEDULE G

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2012**

STATE DIVISION

Attained Age	Completed Years of Service							Total	Covered Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	166	0	0	0	0	0	0	166	\$ 1,073,247
20 to 24	1,327	13	0	0	0	0	0	1,340	\$ 23,835,360
25 to 29	3,232	535	5	0	0	0	0	3,772	\$ 114,328,966
30 to 34	3,297	1,724	323	6	0	0	0	5,350	\$ 195,732,748
35 to 39	2,615	1,798	1,112	194	9	0	0	5,728	\$ 237,470,922
40 to 44	2,569	1,783	1,361	887	253	9	0	6,862	\$ 319,506,170
45 to 49	3,943	1,569	1,285	871	742	385	27	8,822	\$ 394,713,199
50 to 54	1,931	1,745	1,297	972	897	748	305	7,895	\$ 389,907,825
55 to 59	1,679	1,547	1,227	907	822	662	382	7,226	\$ 358,731,839
60	323	270	215	184	137	95	64	1,288	\$ 61,145,412
61	243	211	193	160	146	105	59	1,117	\$ 55,216,151
62	227	236	189	123	133	67	70	1,045	\$ 49,647,233
63	196	193	156	102	97	76	44	864	\$ 40,729,760
64	177	167	132	98	59	68	44	745	\$ 35,676,229
65	138	131	110	80	58	45	42	604	\$ 28,743,465
66	135	113	104	55	51	51	48	557	\$ 25,118,088
67	82	69	50	39	30	16	35	321	\$ 14,287,471
68	71	51	42	27	24	17	17	249	\$ 10,525,382
69	52	45	22	27	16	14	16	192	\$ 8,047,615
70 & Over	259	124	95	47	52	34	50	661	\$ 20,496,879
Total	22,662	12,324	7,918	4,779	3,526	2,392	1,203	54,804	\$ 2,384,933,961

Average Age (Non-Trooper): 46.28

Average Service (Non-Trooper): 9.01

Average Age (Trooper): 40.53

Average Service (Trooper): 11.35



SCHEDULE G

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2012**

SCHOOL DIVISION

Attained Age	Completed Years of Service							Total	Covered Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	707	0	0	0	0	0	0	707	\$ 3,661,903
20 to 24	3,923	87	0	0	0	0	0	4,010	\$ 62,755,395
25 to 29	8,458	1,348	36	0	0	0	0	9,842	\$ 256,648,157
30 to 34	6,291	5,111	876	15	0	0	0	12,293	\$ 400,898,461
35 to 39	5,384	3,980	3,459	409	15	0	0	13,247	\$ 470,086,105
40 to 44	5,953	3,887	3,151	2,280	371	14	0	15,656	\$ 562,225,506
45 to 49	5,918	3,801	2,973	1,878	1,568	437	30	16,605	\$ 581,313,319
50 to 54	4,219	3,668	3,386	2,092	1,664	1,520	350	16,899	\$ 617,665,953
55 to 59	2,977	2,604	2,630	1,940	1,556	1,052	631	13,390	\$ 483,528,727
60	505	396	384	356	254	163	89	2,147	\$ 76,503,922
61	444	377	312	250	254	139	87	1,863	\$ 66,238,405
62	411	340	279	188	184	123	68	1,593	\$ 53,928,976
63	371	273	234	180	151	94	65	1,368	\$ 45,623,571
64	307	240	189	139	107	94	55	1,131	\$ 36,692,675
65	307	219	160	104	92	78	35	995	\$ 29,198,209
66	296	180	146	86	60	40	39	847	\$ 23,294,899
67	186	104	62	39	39	26	13	469	\$ 11,975,444
68	193	99	57	31	20	13	12	425	\$ 8,404,502
69	171	91	45	29	20	19	10	385	\$ 7,915,113
70 & Over	676	360	185	72	44	40	45	1,422	\$ 20,506,356
Total	47,697	27,165	18,564	10,088	6,399	3,852	1,529	115,294	\$ 3,819,065,598

Average Age: 44.62
Average Service: 8.46



SCHEDULE G

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2012**

LOCAL GOVERNMENT DIVISION

Attained Age	Completed Years of Service							Total	Covered Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	376	0	0	0	0	0	0	376	\$ 1,595,491
20 to 24	670	14	0	0	0	0	0	684	\$ 8,581,565
25 to 29	697	137	8	0	0	0	0	842	\$ 24,980,471
30 to 34	648	348	73	4	0	0	0	1,073	\$ 42,409,455
35 to 39	575	425	166	53	1	0	0	1,220	\$ 57,064,415
40 to 44	530	473	234	136	47	5	0	1,425	\$ 71,534,382
45 to 49	609	392	228	186	86	72	6	1,579	\$ 78,457,496
50 to 54	490	424	283	206	164	144	65	1,776	\$ 96,014,119
55 to 59	387	358	216	181	142	108	61	1,453	\$ 77,017,286
60	84	55	42	25	36	11	7	260	\$ 12,470,377
61	76	53	33	23	22	16	11	234	\$ 11,040,406
62	59	50	25	22	17	14	14	201	\$ 9,268,854
63	44	60	30	14	16	4	7	175	\$ 8,203,722
64	45	39	16	10	12	5	6	133	\$ 6,037,368
65	40	35	15	7	11	7	2	117	\$ 4,974,453
66	37	29	14	9	9	7	2	107	\$ 4,275,937
67	26	19	9	6	2	4	0	66	\$ 2,394,164
68	24	12	9	7	1	1	2	56	\$ 1,522,065
69	23	13	7	2	4	0	3	52	\$ 1,636,437
70 & Over	162	60	24	9	5	3	5	268	\$ 4,189,983
Total	5,602	2,996	1,432	900	575	401	191	12,097	\$ 523,668,446

Average Age: 44.75
Average Service: 7.89



SCHEDULE G

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2012**

JUDICIAL DIVISION

Attained Age	Completed Years of Service							Total	Covered Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	0	0	0	0	0	0	0	0	\$ 0
20 to 24	0	0	0	0	0	0	0	0	\$ 0
25 to 29	0	0	0	0	0	0	0	0	\$ 0
30 to 34	2	0	0	0	0	0	0	2	\$ 45,929
35 to 39	2	3	1	0	0	0	0	6	\$ 525,737
40 to 44	7	6	2	1	1	0	0	17	\$ 1,891,234
45 to 49	11	21	8	4	0	1	0	45	\$ 5,342,641
50 to 54	17	13	9	10	15	5	2	71	\$ 8,506,953
55 to 59	13	14	10	7	8	5	0	57	\$ 6,675,158
60	4	4	4	2	4	2	1	21	\$ 2,529,375
61	0	2	2	2	1	0	2	9	\$ 1,135,289
62	2	2	4	2	3	2	2	17	\$ 2,078,978
63	3	4	1	0	4	3	0	15	\$ 1,889,378
64	2	4	3	2	4	2	4	21	\$ 2,384,282
65	0	1	1	3	2	2	2	11	\$ 1,359,837
66	0	4	1	0	0	2	1	8	\$ 1,053,869
67	0	0	3	1	2	0	2	8	\$ 1,003,748
68	0	0	1	3	0	3	0	7	\$ 897,131
69	0	1	0	1	1	1	0	4	\$ 451,896
70 & Over	0	2	1	0	3	1	3	10	\$ 1,273,573
Total	63	81	51	38	48	29	19	329	\$ 39,045,008

Average Age: 56.25

Average Service: 14.00



SCHEDULE G

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2012**

DENVER PUBLIC SCHOOLS DIVISION

Attained Age	Completed Years of Service							Total	Covered Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	51	0	0	0	0	0	0	51	\$ 441,862
20 to 24	794	0	0	0	0	0	0	794	\$ 14,713,859
25 to 29	1,788	102	1	0	0	0	0	1,891	\$ 54,775,723
30 to 34	1,374	412	40	2	0	0	0	1,828	\$ 63,652,377
35 to 39	1,505	431	234	28	1	0	0	2,199	\$ 76,857,286
40 to 44	877	301	288	104	14	0	0	1,584	\$ 65,880,989
45 to 49	636	245	232	113	96	12	2	1,336	\$ 56,857,556
50 to 54	564	207	207	134	132	90	16	1,350	\$ 57,816,535
55 to 59	572	132	196	140	136	100	39	1,315	\$ 55,986,115
60	98	36	34	25	26	15	6	240	\$ 10,681,334
61	80	30	22	25	26	14	6	203	\$ 8,705,517
62	74	30	25	33	26	10	4	202	\$ 9,004,033
63	87	11	29	22	21	7	8	185	\$ 7,983,636
64	64	26	20	12	22	10	7	161	\$ 7,253,124
65	57	12	26	9	12	3	3	122	\$ 4,840,647
66	45	10	13	9	13	7	9	106	\$ 4,800,118
67	33	8	8	8	5	1	1	64	\$ 2,618,334
68	27	7	7	5	6	2	0	54	\$ 2,341,153
69	26	2	4	3	3	0	3	41	\$ 1,491,788
70 & Over	137	10	11	7	9	4	7	185	\$ 4,170,380
Total	8,889	2,012	1,397	679	548	275	111	13,911	\$ 510,872,366

Average Age: 42.14
Average Service: 5.90