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COLORADO PERA

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

Prepared as of December 31, 2014

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June 2, 2015

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, 2014.

The purpose of this report is to provide a summary of the funded status of PERA as of December 31, 2014, to determine actuarially determined contribution rates, to evaluate the sufficiency of the current statutory contribution rates, and to provide accounting information under Governmental Accounting Standards Board Statements No. 43 and 45 (GASB 43 and 45). While not verifying the data at the source, the actuary performed tests for consistency and reasonability.

Effective this fiscal year, the State Division, School Division, Local Government Division, Judicial Division, and the Denver Public Schools (DPS) Division were required to comply with the financial reporting requirements of GASB Statement No. 67. The necessary disclosure information has been provided in separate reports.

This valuation reflects several changes from the prior valuation including:

- The new Defined Benefit Pension Plan Funding Policy, which was adopted by the Board of Trustees on March 20, 2015.
- The Local Government Division and the PERA Health Care Trust Fund (PERA HCTF) results reflect the total payment of $190.0 million from the City of Colorado Springs for Colorado Springs Memorial Health System's disaffiliation from PERA. Approximately $186.0 million was allocated to the Local Government Division and approximately $4.0 million was allocated to the PERA HCTF.
- As required under Section 24-51-401(1.7)(e) of Colorado Revised Statutes, PERA calculated and provided to the Colorado General Assembly an adjustment to the DPS Division's employer contribution rate to assure the equalization of the School Division's and the DPS Division's ratios of unfunded actuarial accrued liability (UAAL) to payroll, as of December 31, 2039. Subsequently, the Colorado General Assembly passed HB 15-1391, reducing the employer contribution rate of the DPS Division from 13.75% to 10.15%, effective January 1, 2015.
- Several changes in the valuation methods and programming were implemented as the result of an actuarial audit report issued in January, 2015. Detailed lists of the changes and impact are shown on pages 8 and 9.

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The results of the valuation 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 the PERA HCTF and the DPS Health Care Trust Fund (DPS HCTF), each division's unfunded actuarial 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 following table:

	Amortization Period	
	With Current AED & SAED	With Future Increases to AED & SAED
State Division	51 years	45 years
School Division	57 years	48 years
Local Government Division	28 years	28 years
Judicial Division	Infinite	Infinite
Denver Public Schools (DPS) Division	Infinite	Infinite
PERA Health Care Trust Fund (PERA HCTF)	35 years	35 years
DPS Health Care Trust Fund (DPS HCTF)	16 years	16 years

The amortization periods shown above are based on the results of the December 31, 2014 actuarial valuation and are based on a snapshot measurement that assumes no change in either the normal cost rate or the UAL contribution rate. However, members who began membership after December 31, 2006 are covered by a different benefit structure with a lower normal cost rate, so, as members who began membership prior to January 1, 2007 leave covered employment and are replaced by members in the lower cost benefit structure, the total normal cost rate is expected to decline. As a result, the portion of the total contribution rate available to pay off the UAAL is expected to increase each year in the future until all active members in the valuation are covered by the provisions in the most recent benefit tier. While this is expected to improve the System's financial health in future years, it is impossible to anticipate the long-term funding progress without performing an open group projection of future valuation results. Such projections are performed to assist the Board in evaluating the long-term funding of each division, but the projections are completed after the valuation report is issued.

The employer contribution rate, combined with anticipated future employee growth and service purchase transfers, is sufficient to eventually finance the PERA HCTF's and DPS HCTF's benefits in accordance with GASB 43 and 45.

Colorado statutes call for a "true-up" in 2020, 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 promised benefits of PERA are included in the actuarially determined 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 actuarial accrued liability that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 3.90% annually. We believe the assumptions are reasonably related to the actual experience and to expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 43 and 45.

We have prepared the Schedule of Funding Progress and Trend Information shown in 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. All PERA historical information that references a valuation date prior to December 31, 2006 was prepared by PERA's 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 DPSRS' 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 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,

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REPORT ON THE ACTUARIAL VALUATION OF
THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO
PREPARED AS OF DECEMBER 31, 2014

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	12/31/2014	12/31/2013
Number of Active Non-Troopers	54,471	54,538
Annual Covered Payroll	$ 2,499,957	$ 2,414,307
Number of Active Troopers	829	816
Annual Covered Payroll	$ 64,713	$ 60,658
Total Number of Active Members	55,300	55,354
Total Annual Covered Payroll	$ 2,564,670	$ 2,474,965
Number of Retired Members and Survivors	35,937	34,981
Annual Retirement Benefits	$ 1,370,821	$ 1,318,306
Total Assets:		
Actuarial Value	$ 13,523,488	$ 13,129,460
Market Value	$ 13,956,630	$ 13,935,754
Actuarial Accrued Liability	$ 23,408,321	$ 22,843,725
Unfunded Actuarial Accrued Liability (UAAL)	$ 9,884,833	$ 9,714,265
CONTRIBUTIONS FOR YEAR ENDING	**12/31/2016**	**12/31/2015**
Employer Contribution Rate:		
Total Normal Cost Rate	11.01%	10.30%
Less Member Contribution Rate	(8.05)%	(8.05)%
Employer Normal Cost Rate	2.96%	2.25%
UAAL Contribution Rate	19.35%	20.10%
Actuarially Determined Contribution	22.31%	22.35%
Reduction for AED and SAED	(9.90)%	(9.92)%
Total Employer Contribution Rate	12.41%	12.43%
Amortization Period	30 years	30 years

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

VALUATION DATE	12/31/2014	12/31/2013
Number of Active Members	119,618	117,727
Annual Covered Payroll	$ 4,063,236	$ 3,938,650
Number of Retired Members and Survivors	58,145	55,986
Annual Retirement Benefits	$ 2,068,180	$ 1,976,445
Assets:		
Actuarial Value	$ 22,143,356	$ 21,369,380
Market Value	$ 22,846,249	$ 22,682,339
Actuarial Accrued Liability	$ 36,386,532	$ 35,437,312
Unfunded Actuarial Accrued Liability (UAAL)	$ 14,243,176	$ 14,067,932
CONTRIBUTION FOR YEAR ENDING	**12/31/2016**	**12/31/2015**
Employer Contribution Rate:		
Total Normal Cost Rate	12.33%	11.65%
Less Employee Contribution Rate	(8.00)%	(8.00)%
Employer Normal Cost Rate	4.33%	3.65%
UAAL Contribution Rate	18.03%	18.29%
Actuarially Determined Contribution	22.36%	21.94%
Reduction for AED and SAED	(9.87)%	(9.87)%
Total Employer Contribution Rate	12.49%	12.07%
Amortization Period	30 years	30 years

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

VALUATION DATE	12/31/2014	12/31/2013
Number of Active Members	12,084	11,954
Annual Covered Payroll	$ 540,468	$ 529,003
Number of Retired Members and Survivors	6,466	6,167
Annual Retirement Benefits	$ 233,399	$ 222,050
Assets:		
Actuarial Value	$ 3,629,400	$ 3,291,298
Market Value	$ 3,733,496	$ 3,493,355
Actuarial Accrued Liability	$ 4,610,967	$ 4,502,282
Unfunded Actuarial Accrued Liability (UAAL)	$ 981,567	$ 1,210,984
CONTRIBUTIONS FOR YEAR ENDING	**12/31/2016**	**12/31/2015**
Employer Contribution Rate:		
Total Normal Cost Rate	10.60%	9.90%
Less Employee Contribution Rate	(8.00)%	(8.00)%
Employer Normal Cost Rate	2.60%	1.90%
UAAL Contribution Rate	9.38%	11.72%
Actuarially Determined Contribution	11.98%	13.62%
Reduction for AED and SAED	(3.70)%	(3.70)%
Total Employer Contribution Rate	8.28%	9.92%
Amortization Period	30 years	30 years

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

VALUATION DATE	12/31/2014	12/31/2013
Number of Active Members	334	332
Annual Covered Payroll	$ 42,977	$ 39,942
Number of Retired Members and Survivors	331	323
Annual Retirement Benefits	$ 19,946	$ 19,246
Assets:		
Actuarial Value	$ 270,866	$ 256,800
Market Value	$ 278,860	$ 272,160
Actuarial Accrued Liability	$ 371,253	$ 351,598
Unfunded Actuarial Accrued Liability (UAAL)	$ 100,387	$ 94,798
CONTRIBUTIONS FOR YEAR ENDING	**12/31/2016**	**12/31/2015**
Employer Contribution Rate:		
Total Normal Cost Rate	17.93%	17.30%
Less Employee Contribution Rate	(8.00)%	(8.00)%
Employer Normal Cost Rate	9.93%	9.30%
UAAL Contribution Rate	12.14%	12.15%
Actuarially Determined Contribution	22.07%	21.45%
Reduction for AED and SAED	(3.70)%	(3.70)%
Total Employer Contribution Rate	18.37%	17.75%
Amortization Period	30 years	30 years

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

VALUATION DATE	12/31/2014	12/31/2013
Number of Active Members with DPS Structure	4,580	5,186
Annual Covered Payroll	$ 261,951	$ 281,953
Number of Active Members with PERA Structure	10,834	9,630
Annual Covered Payroll	$ 322,368	$ 265,707
Total Number of Active Members	15,414	14,816
Total Annual Covered Payroll	$ 584,319	$ 547,660
Number of Retired Members and Survivors	6,698	6,564
Annual Retirement Benefits	$ 250,309	$ 242,866
Assets:		
Actuarial Value	$ 3,151,456	$ 3,075,895
Market Value	$ 3,254,064	$ 3,265,768
Actuarial Accrued Liability	$ 3,816,093	$ 3,785,872
Unfunded Actuarial Accrued Liability (UAAL)	$ 664,637	$ 709,977
CONTRIBUTIONS FOR YEAR ENDING	**12/31/2016**	**12/31/2015**
Employer Contribution Rate:		
Total Normal Cost Rate	12.63%	12.42%
Less Employee Contribution Rate	(8.00)%	(8.00)%
Employer Normal Cost Rate	4.63%	4.42%
UAAL Contribution Rate	5.83%	6.64%
Actuarially Determined Contribution	10.46%	11.06%
Reduction for AED and SAED	(9.87)%	(9.87)%
Total Employer Contribution Rate	0.59%	1.19%
Amortization Period	30 years	30 years

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

VALUATION DATE	12/31/2014	12/31/2013
Number of Active Members	187,336	185,367
Annual Covered Payroll	$7,211,351	$6,982,560
Number of Retired Members and Survivors	54,076	53,041
Assets:		
Actuarial Value	$297,377	$293,556
Market Value	$309,638	$314,609
Actuarial Accrued Liability	$1,534,461	$1,557,406
Unfunded Actuarial Accrued Liability (UAAL)	$1,237,084	$1,263,850
CONTRIBUTIONS FOR YEAR ENDING	**12/31/2016**	**12/31/2015**
Employer Contribution Rate:		
Normal Cost Rate	0.21%	0.22%
UAAL Contribution Rate	0.88%	0.93%
Annual Required Contribution (ARC)	1.09%	1.15%
Amortization Period	30 years	30 years

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

VALUATION DATE	12/31/2014	12/31/2013
Number of Active Members	15,414	14,816
Annual Covered Payroll	$584,319	$547,660
Number of Retired Members and Survivors	3,962	3,995
Assets:		
Actuarial Value	$16,502	$15,482
Market Value	$17,021	$16,489
Actuarial Accrued Liability	$76,026	$76,636
Unfunded Actuarial Accrued Liability (UAAL)	$59,524	$61,154
CONTRIBUTIONS FOR YEAR ENDING	**12/31/2016**	**12/31/2015**
Employer Contribution Rate:		
Normal Cost Rate	0.23%	0.24%
UAAL Contribution Rate	0.52%	0.57%
Annual Required Contribution (ARC)	0.75%	0.81%
Amortization Period	30 years	30 years

2. Comments on the valuation results as of December 31, 2014 are given in Section IV and further discussion of the contribution levels is set out in Section V.

3. 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 was one change in the Main Provisions of the DPS Division since the previous valuation. As required under Section 24-51-401(1.7)(e) of Colorado Revised Statutes, PERA calculated and provided to the Colorado General Assembly an adjustment to the DPS Division's employer contribution rate to assure the equalization of the School Division's and the DPS Division's ratios of unfunded actuarial accrued liability (UAAL) to payroll, as of December 31, 2039. Subsequently, the Colorado General Assembly passed HB 15-1391, reducing the employer contribution rate of the DPS Division from 13.75% to 10.15%, effective January 1, 2015.

4. An actuarial audit of the December 31, 2013 valuation was performed by Milliman with results presented to the Board in January, 2015. After a thorough review of Milliman's recommendations and an additional internal review of current valuation procedures, we have made some programming and method changes. A more detailed explanation of the changes and the associated impact on the valuation results will be submitted in a separate letter, however, the total changes in the Present Value of Future Benefits (PVFB), Actuarial Accrued Liability (AAL) and Normal Cost (NC) Rate are summarized in the following tables:

Programming Changes	Changes in PVFB ($ in millions)	Changes in AAL ($ in millions)	Increases in NC Rate
State Division	$ 108.0	$ 3.3	0.51%
Schools Division	141.9	(15.1)	0.43%
Local Government Division	27.3	5.7	0.48%
Judicial Division	1.3	1.8	0.02%
DPS Division	(74.3)	(101.5)	0.30%
Total Pension Divisions	$ 204.2	$ (105.8)	
PERA HCTF	$ 0.0	$ 0.0	0.00%
DPS HCTF	0.0	0.0	0.00%
Total HCTFs	$ 0.0	$ 0.0	

Method Changes	Changes in PVFB ($ in millions)	Changes in AAL ($ in millions)	Increases in NC Rate
State Division	$ 61.4	$ (197.7)	0.33%
Schools Division	174.2	(283.7)	0.35%
Local Government Division	14.6	(42.7)	0.33%
Judicial Division	1.0	(0.6)	0.89%
DPS Division	23.7	(6.4)	0.26%
Total Pension Divisions	$ 274.9	$ (531.1)	
PERA HCTF	$ 0.0	$ 0.0	0.01%
DPS HCTF	0.0	0.0	0.01%
Total HCTFs	$ 0.0	$ 0.0	

The content of the Programming and Method Changes are as follows:

A. Programming Changes
   i. Valuation of the full survivor benefit without any reduction for possible remarriage;
   ii. Reflection of the employer match on separation benefits for all eligible years;
   iii. Reflection of one year of service eligibility for survivor annuity benefit;
   iv. Refinement of the 18 month COLA timing; and
   v. Refinements to directly value certain and life, modified cash refund and pop-up benefit forms.

B. Method Changes
   i. Recognition of merit salary increases in the first projection year;
   ii. Elimination of the assumption that 35% of future disabled members elect to receive a refund;
   iii. Removal of the negative value adjustment for liabilities associated with refunds of future terminating members; and
   iv. Adjustments to the timing of the Normal Cost and UAAL payment calculations to reflect contributions throughout the year.

5. Schedule D of this report outlines the full set of actuarial assumptions and methods used in the current valuation.

   In addition, the following change has been made to certain health care methods and assumptions since the previous valuation:

- Initial health care costs for PERACare enrollees who are age 65 and older, and do not have Medicare Part A, have been updated to reflect the change in costs for the 2015 plan year.

6. On a Market Value of Assets basis, the Plan's investment return for 2014 was 5.74%, resulting in an investment loss when compared to the Plan's assumed investment return of 7.50%. As the Plan recognizes 25% of each year's investment gains or losses, a portion of this investment loss will be recognized in the development of the December 31, 2014 Actuarial Value of Assets (AVA), along with the amounts deferred from the prior three years. As the investment gains and losses to be recognized in the December 31, 2014 AVA were, in aggregate, positive, the investment return on an AVA basis was 1.54% higher than the assumed investment return of 7.50%, or 9.04%. Schedule B shows the development of the actuarial value of assets. The following table shows the reduction in the Unfunded Actuarial Accrued Liability (UAAL) as a result of the AVA return being higher than the assumed rate of 7.50%:

Group	Gain in UAAL ($ in millions)
State Division	$184.5
Schools Division	$300.3
Local Government Division	$46.9
Judicial Division	$3.6
DPS Division	$43.8
Total Pension Divisions	$579.1
PERA HCTF	$5.8
DPS HCTF	$0.3
Total HCTFs	$6.1

7. The net demographic experience for all divisions was an actuarial loss. The actual experience from each source varied by division. Please refer to pages 41 and 42 of this report for a further breakdown of actuarial gains and losses by division.

8. With the exception of the Local Government Division, actual contributions to fund pension benefits were less than the Actuarially Determined Contribution (ADC), resulting in an increase to the UAAL. For the Local Government Division, the payment of $186.0 million from the City of Colorado Springs for Colorado Springs Memorial Health System's disaffiliation from PERA resulted in contributions exceeding the ADC and a decrease to the UAAL. Based upon the valuation results, the total increase in the December 31, 2014 pension UAAL due to contributions, in aggregate, being less than the ADC,

in aggregate, was $55.3 million. The PERA HCTF received contributions below the Annual Required Contribution (ARC), reflecting PERACare's discontinued participation in the Centers for Medicare & Medicaid Services' (CMS) Retiree Drug Subsidy (RDS) Program and the 12-month lag between the ARC's valuation basis and applicable fiscal year. Similarly, the margin by which DPS HCTF contributions exceed the ARC was reduced.

9. 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, 2012 and 2013. The amount of the credit for the 2016 fiscal year is 15.96% of salary. This credit is expected to decline as a percentage of active member payroll, as currently structured, resulting in an expected amortization period to be below 30 years. Colorado statutes call for a "true-up" in 2020, 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

10. For benefit recipients of the PERA Benefit Structure with a membership date after December 31, 2006, the liabilities associated with future post-retirement benefit increases is assumed to be limited to the market value of the AIR, as these future post-retirement benefit increases are granted only to the extent affordable in accordance with Colorado Statutes. This assumption was adopted as of the December 31, 2007 actuarial funding valuation in recognition of annual post-retirement benefit increase provisions enacted in 2006. As such, the assets and liabilities associated with post-retirement benefit increases financed by the AIR are excluded from the assets and liabilities presented in this report.

SECTION II – MEMBERSHIP DATA

1. 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, 2014 on the basis of which the valuation was prepared.

THE NUMBER AND ANNUAL COVERED PAYROLL OF ACTIVE MEMBERS AS OF DECEMBER 31, 2014 ($ IN THOUSANDS)

GROUP	NUMBER	ANNUAL COVERED PAYROLL
State Division	55,300	$ 2,564,670
School Division	119,618	4,063,236
Local Government Division	12,084	540,468
Judicial Division	334	42,977
Denver Public Schools Division	15,414	584,319
Total	202,750	$ 7,795,670

2. 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
12/31/2014	202,750	$ 7,795,670	$ 38,450	2.21%
12/31/2013	200,183	7,530,220	37,617	1.54%
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%

*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 rolls of PERA as of the valuation date.

THE NUMBER AND ANNUAL RETIREMENT BENEFITS OF RETIRED MEMBERS AND SURVIVORS OF DECEASED MEMBERS ON THE ROLLS AS OF DECEMBER 31, 2014 ($ IN THOUSANDS)

	GROUP					
TYPE OF RETIREMENT	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION	TOTAL
Service:						
Number	31,511	53,778	5,595	299	6,203	97,386
Annual Benefits	$1,268,992	$1,982,143	$213,973	$18,640	$239,951	$3,723,699
Avg. Annual Benefits	$40.271	$36.858	$38.244	$62.341	$38.683	$38.236
Avg. Age	71.2	70.4	68.5	74.7	74.0	70.8
Disability:						
Number	3,433	3,113	696	19	346	7,607
Annual Benefits	$81,721	$66,828	$16,189	$ 923	$7,617	$173,278
Avg. Annual Benefits	$23.805	$21.467	$23.260	$48.579	$22.014	$22.779
Avg. Age	69.1	68.9	66.7	70.5	68.8	68.8
Survivors*:						
Number	993	1,254	175	13	149	2,584
Annual Benefits	$20,108	$19,209	$3,237	$ 383	$2,741	$45,678
Avg. Annual Benefits	$20.250	$15.318	$18.497	$29.462	$18.396	$17.678
Avg. Age	59.2	58.8	58.3	77.1	66.4	59.4
Total:						
Number	35,937	58,145	6,466	331	6,698	107,577
Annual Benefits	$1,370,821	$2,068,180	$233,399	$19,946	$250,309	$3,942,655
Avg. Annual Benefits	$38.145	$35.569	$36.096	$60.260	$37.371	$36.650
Avg. Age	70.7	70.1	68.0	74.6	73.6	70.4

* Includes deferred survivors

4. Tables in Schedule G show the distribution by age and service of the number and total annual compensation of active members for each division and the distribution by age of the number and total annual benefit of retired members, beneficiaries and deferred vested for each division included in the valuation.

SECTION III - ASSETS

1. Schedule C shows the additions and deductions to PERA's assets for the year preceding the valuation date and a reconciliation of the fund balances at market value. As of December 31, 2014, the market value of assets for each division is shown below:

COMPARISON OF MARKET VALUE OF ASSETS AT DECEMBER 31, 2014 AND DECEMBER 31, 2013 ($ IN THOUSANDS)

GROUP	DECEMBER 31, 2014 MARKET VALUE	DECEMBER 31, 2013 MARKET VALUE
State Division	$ 13,956,630	$ 13,935,754
School Division	22,846,249	22,682,339
Local Government Division	3,733,496	3,493,355
Judicial Division	278,860	272,160
Denver Public Schools Division	3,254,064	3,265,768
PERA Health Care Trust Fund	309,638	314,609
DPS Health Care Trust Fund	17,021	16,489
Total Market Value of Assets	$ 44,395,958	$ 43,980,474

2. The four-year market related actuarial value of assets used for the current valuation was $43,032,445,045. Schedule B shows the development of the actuarial value of assets as of December 31, 2014. The following table shows the actuarial value of assets allocated among all divisions.

COMPARISON OF ACTUARIAL VALUE OF ASSETS AT DECEMBER 31, 2014 AND DECEMBER 31, 2013 ($ IN THOUSANDS)

GROUP	DECEMBER 31, 2014 ACTUARIAL VALUE	DECEMBER 31, 2013 ACTUARIAL VALUE
State Division	$ 13,523,488	$ 13,129,460
School Division	22,143,356	21,369,380
Local Government Division	3,629,400	3,291,298
Judicial Division	270,866	256,800
Denver Public Schools	3,151,456	3,075,895
Health Care Trust Fund	297,377	293,556
DPS Health Care Trust Fund	16,502	15,482
Total Actuarial Value of Assets	$ 43,032,445	$ 41,431,871

3. The estimated dollar-weighted historical returns for market value of assets and actuarial value of assets for the last five years, as calculated by the actuaries, are as follows:

YEAR ENDING	MARKET VALUE	ACTUARIAL VALUE
December 31, 2014	5.74%	9.04%
December 31, 2013	15.57%	11.09%
December 31, 2012	12.98%	10.94%
December 31, 2011	1.91%	(0.33)%
December 31, 2010	13.84%	0.94%

SECTION IV - COMMENTS ON THE VALUATION

State Division

1. The total valuation balance sheet on account of benefits shows that the State Division has total prospective benefit liabilities of $25,705,097,461, of which $15,309,504,030 is for the prospective benefits payable on account of present retired members and survivors of deceased members, $536,695,612 is for the prospective benefits payable on account of present inactive members, and $9,858,897,819 is for the prospective benefits payable on account of present active members. Against these prospective benefit liabilities the State Division has a total present actuarial value of assets of $13,523,487,577 as of December 31, 2014. The difference of $12,181,609,884 between the total prospective 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, $1,622,388,965 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 $10,559,220,919 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 pre-fund the Annual Increase Reserve which provides post-retirement increases for these members in retirement. 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
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 an employer normal cost rate of 2.96% of salary is required to provide the benefits for the State Division. After adjusting for administrative expenses, prospective employer normal costs at this rate have a present value of $674,387,343. When this amount is subtracted from $10,559,220,919, which is the present value of the total future contributions to be made by the employers, there remains $9,884,833,576 as the amount of future actuarial accrued liability contributions.

4. After recognizing the required employer normal cost rates, the remaining basic contribution amounts to 14.93% of salary. Contributions at this level will amortize the unfunded actuarial accrued liability of $9,884,833,576 over 51 years, assuming the aggregate payroll of the State Division increases by 3.90% each year. After recognizing the value of both future increases in AED and future increases in SAED contributions, the amortization period is reduced to 45 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.

School Division

1. The total valuation balance sheet on account of benefits shows that the School Division has total prospective benefit liabilities of $40,843,128,082, of which $23,421,369,130 is for the prospective benefits payable on account of present retired members and survivors of deceased members, $826,499,010 is for the prospective benefits payable on account of present inactive members, and $16,595,259,942 is for the prospective benefits payable on account of present active members. Against these prospective benefit liabilities the School Division has a total present actuarial value of assets of $22,143,356,419 as of December 31, 2014. The difference of $18,699,771,663 between the total prospective 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, $2,844,905,599 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 $15,854,866,064 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 pre-fund the Annual Increase Reserve which provides post-retirement increases for these members in retirement. 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
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 an employer normal cost rate of 4.33% of salary is required to provide the benefits for the School Division. After adjusting for administrative expenses, prospective employer normal costs at this rate have a present value of $1,611,690,310. When this amount is subtracted from $15,854,866,064, which is the present value of the total future contributions to be made by the employers, there remains $14,243,175,754 as the amount of future actuarial accrued liability contributions.

4. After recognizing the required employer normal cost rates, the remaining basic contribution amounts to 13.45% of salary. Contributions at this level will amortize the unfunded actuarial accrued liability of $14,243,175,754 over 57 years, assuming the aggregate payroll of the School Division increases by 3.90% each year. After recognizing the value of both future increases in AED and future increases in SAED contributions, the amortization period is reduced to 48 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 $5,068,319,719, of which $2,830,421,500 is for the prospective benefits payable on account of present retired members and survivors of deceased members, $284,014,119 is for the prospective benefits payable on account of present inactive members, and $1,953,884,100 is for the prospective benefits payable on account of present active members. Against these prospective benefit liabilities the Local Government Division has a total present actuarial value of assets of $3,629,400,231 as of December 31, 2014. The difference of $1,438,919,488 between the total prospective 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, $332,097,883 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 $1,106,821,605 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 pre-fund the Annual Increase Reserve which provides post-retirement increases for these members in retirement. 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
2014 and later	2.20%	1.50%

3. The valuation indicates an employer normal cost rate of 2.60% of salary is required to provide the benefits for the Local Government Division. After adjusting for administrative expenses, prospective employer normal costs at this rate have a present value of $125,254,317. When this amount is subtracted from $1,106,821,605, which is the present value of the total future contributions to be made by the employers, there remains $981,567,288 as the amount of future actuarial accrued liability contributions.

4. After recognizing the required employer normal cost rates, the remaining basic contribution amounts to 9.66% of salary. Contributions at this level will amortize the unfunded actuarial accrued liability of $981,567,288 over 28 years, assuming the aggregate payroll of the Local Government Division increases by 3.90% 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 Local Government Division results reflect the payment of $186.0 million from the City of Colorado Springs for Colorado Springs Memorial Health System's disaffiliation from PERA.

Judicial Division

1. The total valuation balance sheet on account of benefits shows that the Judicial Division has total prospective benefit liabilities of $427,822,035, of which $212,821,560 is for the prospective benefits payable on account of present retired members and survivors of deceased members, $1,719,827 is for the prospective benefits payable on account of present inactive members, and $213,280,648 is for the prospective benefits payable on account of present active members. Against these prospective benefit liabilities the Judicial Division has a total present actuarial value of assets of $270,866,145 as of December 31, 2014. The difference of $156,955,890 between the total prospective 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, $26,515,789 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 $130,440,101 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 pre-fund the Annual Increase Reserve which provides post-retirement increases for these members in retirement. 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
2014 and later	2.20%	1.50%

3. The valuation indicates an employer normal cost rate of 9.93% of salary is required to provide the benefits for the Judicial Division. After adjusting for administrative expenses, prospective employer normal costs at this rate have a present value of $30,053,006. When this amount is subtracted from $130,440,101, which is the present value of the total future contributions to be made by the employers, there remains $100,387,095 as the amount of future actuarial accrued liability contributions.

4. After recognizing the required employer normal cost rates, the remaining basic contribution amounts to 6.13% of salary. Contributions at this level will never amortize the unfunded actuarial accrued liability of $100,387,095, assuming the aggregate payroll of the Judicial Division increases by 3.90% 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.

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 $4,497,278,987, of which $2,595,746,715 is for the prospective benefits payable on account of present retired members and survivors of deceased members, $69,605,562 is for the prospective benefits payable on account of present inactive members, and $1,831,926,710 is for the prospective benefits payable on account of present active members. Against these prospective benefit liabilities the Denver Public Schools Division has a total present actuarial value of assets of $3,151,455,921 as of December 31, 2014. The difference of $1,345,823,066 between the total prospective 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, $443,673,458 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 $902,149,608 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 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, 2010, an allocation of the statutory rates of 1.00% of salary is made each year to pre-fund the Annual Increase Reserve which provides post-retirement increases for these members in retirement. 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
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 an employer normal cost rate of 4.63% of salary is required to provide the benefits for the Denver Public Schools Division. After adjusting for administrative expenses, prospective employer normal costs at this rate have a present value of $237,512,794. When this amount is subtracted from $902,149,608, which is the present value of the total future contributions to be made by the employers, there remains $664,636,814 as the amount of future actuarial 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, 2012 and 2013. The amount of the credit for the 2015 fiscal year is $95,427,128 and for the 2016 fiscal year is $98,209,675 (estimated to be 16.21% of salary for 2015 and 15.96% of salary for 2016), not considering any refinancing that may happen in the future.

5. After recognizing the required employer normal cost rates and the PCOP credit, the remaining basic contribution amounts to 0.00% of salary. Contributions at this level will never amortize the unfunded actuarial accrued liability of $664,636,814, assuming the aggregate payroll of the Denver Public Schools Division increases by 3.90% each year. As currently structured, the PCOP credit is expected to decline as a percentage of active member payroll, resulting in an expected amortization period of less than 30 years. Colorado statutes call for a "true-up" in 2020, 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 $1,622,034,656, of which $1,054,912,062 is for the prospective benefits payable on account of present PERACare enrollees receiving a health care subsidy pursuant to law, $31,082,611 is for the prospective benefits payable on account of present eligible inactive members, and $536,039,983 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 prospective health care benefit liabilities, the PERA HCTF has a total present actuarial value of assets of $297,376,975 as of December 31, 2014. The difference of $1,324,657,681 between the total prospective 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. As active members do not contribute to the PERA HCTF, the present value of future contributions payable by employers is $1,324,657,681.

2. The employers' contributions to the PERA HCTF consist of a statutorily mandated 1.02% of salary. The valuation indicates an employer normal cost rate of 0.21% of salary is required to provide the health care benefits funded by the PERA HCTF.

3. At the rate noted in paragraph 2, prospective employer normal costs have a present value of $87,573,345. When this amount is subtracted from $1,324,657,681, which is the present value of the total future contributions to be made by the employers, there remains $1,237,084,336 as the amount of future actuarial accrued liability contributions.

4. After recognizing the required normal cost rate, the remaining contribution amounts to 0.81% of salary. Contributions at this level will amortize the unfunded actuarial accrued liability of $1,237,084,336 over 35 years.

5. The PERA Health Care Trust Fund (PERA HCTF) results reflect the payment of $4.0 million from the City of Colorado Springs for Colorado Springs Memorial Health System's disaffiliation from PERA.

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 $84,193,373, of which $50,500,346 is for the prospective benefits payable on account of present PERACare enrollees receiving a health care subsidy pursuant to law, $497,396 is for the prospective benefits payable on account of present deferred vested members, and $33,195,631 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 prospective health care benefit liabilities, the DPS HCTF has a total present actuarial value of assets of $16,501,777 as of December 31, 2014. The difference of $67,691,596 between the total prospective 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. As active members do not contribute to the DPS HCTF, the present value of future contributions payable by employers is $67,691,596.

2. The employers' contributions to the DPS HCTF consist of a statutorily mandated 1.02% of salary. The valuation indicates an employer normal cost rate of 0.23% of salary is required to provide the health care benefits funded by the DPS HCTF.

3. At the rate noted in paragraph 2, prospective employer normal costs have a present value of $8,167,446. When this amount is subtracted from $67,691,596, which is the present value of the total future contributions to be made by the employers, there remains $59,524,150 as the amount of future actuarial accrued liability contributions.

4. After recognizing the required normal cost rate, the remaining contribution amounts to 0.79% of salary. Contributions at this level will amortize the unfunded actuarial accrued liability of $59,524,150 over 16 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	10.15

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 for Medicare Part D benefits prior to January 1, 2014 are considered to be made on behalf of the employer(s).

3. In addition to the statutory rates shown in paragraph 1, AED contributions and 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, 2012 and 2013.

5. The tables on the following pages show the development of the normal cost rate, the unfunded actuarial accrued liability (UAAL) payment, amortization period and the actuarially determined contribution rate with a 30-year amortization period for each division as well as for the Health Care Trust Funds.

2016 Employer Contribution Rate

Expressed as Percent of Active Member Payroll

	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division
Contribution For					
Normal Cost					
Service Retirement Benefits	7.85%	9.22%	7.43%	14.95%	9.04%
Disability Benefits	0.38%	0.25%	0.25%	0.90%	0.33%
Survivor Benefits	0.16%	0.13%	0.16%	0.46%	0.13%
Separation Benefits	2.27%	2.38%	2.41%	1.27%	2.78%
Administrative Expense Load	0.35%	0.35%	0.35%	0.35%	0.35%
Total	11.01%	12.33%	10.60%	17.93%	12.63%
Member Current Contributions*	8.05%	8.00%	8.00%	8.00%	8.00%
Employer Normal Cost	2.96%	4.33%	2.60%	9.93%	4.63%
Employer Contribution Rate*	17.89%	17.78%	12.26%	16.06%	1.69%**
Percent Available to Amortize Unfunded Actuarial Accrued Liability (UAAL)	14.93%	13.45%	9.66%	6.13%	0.00%
Number of Years to Amortize UAAL					
▪ Current Contributions	51 years	57 years	28 years	Infinite	Infinite
▪ With Future Increases to AED and SAED	45 years	48 years	28 years	Infinite	Infinite***
Actuarially Required Employer Contribution Rate to pay Normal Cost and amortize UAAL over 30 years (in addition to assumed AED and SAED payments throughout the amortization period)	12.41%	12.49%	8.28%	18.37%	0.59%

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

** For DPS Division:

Employer Statutory	9.67%	(weighted)
AED and SAED	9.00	
DPS HCTF	(1.02)	
PCOP Credit	(15.96)	
Net	1.69%	

*** 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 2020, 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.

2016 Employer Contribution Rate

Expressed as Percent of Active Member Payroll

	PERA Health Care Trust Fund	DPS Health Care Trust Fund
Contribution For		
Normal Cost		
Service Retirement Benefits	0.17%	0.20%
Disability Benefits	0.01%	0.01%
Survivor Benefits	0.00%	0.00%
Separation Benefits	0.03%	0.02%
Total	0.21%	0.23%
Member Current Contributions	0.00%	0.00%
Employer Normal Cost	0.21%	0.23%
Employer Contribution Rate	1.02%	1.02%
Percent Available to Amortize Unfunded Actuarial Accrued Liability (UAAL)	0.81%	0.79%
Number of Years to Amortize UAAL		
▪ Current Contributions	35 years	16 years
Employer Annual Required Contribution Rate to pay Normal Cost and amortize UAAL over 30 years	1.09%	0.75%

SECTION VI - ACCOUNTING AND HISTORICAL FUNDING INFORMATION

1. The Governmental Accounting Standards Board (GASB) issued Statement No. 67 which replaces Statement No. 25 for plan years beginning after June 15, 2013. The information required under GASB 67 was provided in separate reports. However, GASB 43 and 45 set forth certain items of required supplementary information to be disclosed in the financial statements of PERA and the employers. 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, 2014

GROUP	NUMBER					
	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division	Total
Retirees and survivors currently receiving benefits	35,937	58,145	6,466	331	6,698	107,577
Terminated employees entitled to benefits but not yet receiving benefits	5,678	13,807	2,788	5	850	23,128
Inactive Members	66,330	101,603	20,956	9	6,787	195,685
Active Members						
Vested						
General employees	31,034	67,577	6,253	277	6,090	111,231
State troopers	608	0	0	0	0	608
Non-vested						
General employees	23,437	52,041	5,831	57	9,324	90,690
State troopers	221	0	0	0	0	221
Total Active Members	55,300	119,618	12,084	334	15,414	202,750
Totals	163,245	293,173	42,294	679	29,749	529,140

NUMBER OF ALL MEMBERS
AS OF DECEMBER 31, 2014

GROUP	NUMBER		
	PERA Health Care Trust Fund	DPS Health Care Trust Fund	Total
Retirees and survivors currently receiving benefits	54,076	3,962	58,038
Terminated employees entitled to benefits but not yet receiving benefits	22,278	850	23,128
Inactive Members	N/A	N/A	N/A
Active Members	187,336	15,414	202,750
Totals	263,690	20,226	283,916

2. Another such item to be disclosed 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 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)
			STATE DIVISION			
12/31/2014	$ 13,523,488	$ 23,408,321	$ 9,884,833	57.8%	$ 2,564,670	385.4%
12/31/2013	13,129,460	22,843,725	9,714,265	57.5%	2,474,965	392.5%
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%
			SCHOOL DIVISION			
12/31/2014	$ 22,143,356	$ 36,386,532	$ 14,243,176	60.9%	$ 4,063,236	350.5%
12/31/2013	21,369,380	35,437,312	14,067,932	60.3%	3,938,650	357.2%
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%
			LOCAL GOVERNMENT DIVISION			
12/31/2014	$ 3,629,400	$ 4,610,967	$ 981,567	78.7%	$ 540,468	181.6%
12/31/2013	3,291,298	4,502,282	1,210,984	73.1%	529,003	228.9%
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%
			JUDICIAL DIVISION			
12/31/2014	$ 270,866	$ 371,253	$ 100,387	73.0%	$ 42,977	233.6%
12/31/2013	256,800	351,598	94,798	73.0%	39,942	237.3%
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%
			DENVER PUBLIC SCHOOLS DIVISION			
12/31/2014	$ 3,151,456	$ 3,816,093	$ 664,637	82.6%	$ 584,319	113.7%
12/31/2013	3,075,895	3,785,872	709,977	81.2%	547,660	129.6%
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)
			PERA HEALTH CARE TRUST FUND			
12/31/2014	$ 297,377	$1,534,461	$1,237,084	19.4%	$7,211,351	17.2%
12/31/2013	293,556	1,557,406	1,263,850	18.8%	6,982,560	18.1%
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%
			DPS HEALTH CARE TRUST FUND			
12/31/2014	$ 16,502	$76,026	$59,524	21.7%	$584,319	10.2%
12/31/2013	15,482	76,636	61,154	20.2%	547,660	11.2%
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 financial statements for pension benefits was determined as part of the actuarial valuation at December 31, 2014.

	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division
Valuation date	12/31/2014	12/31/2014	12/31/2014	12/31/2014	12/31/2014
Actuarial cost method	Entry age	Entry age	Entry age	Entry age	Entry age
Amortization method*	Level percent Closed	Level percent Closed	Level percent Closed	Level percent Closed	Level percent Closed
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**	7.50%	7.50%	7.50%	7.50%	7.50%
Projected salary increases**	3.90 – 9.57%	3.90 – 10.10%	3.90 – 10.85%	4.40 – 5.40%	3.90 – 10.10%
Post-Retirement Benefit Increases:					
PERA Benefit Structure and membership prior to 1/1/07; or DPS Benefit Structure	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually
PERA Benefit Structure and membership after 12/31/06	None***	None***	None***	None***	None***

* Effective with the December 31, 2014 valuation, gains and losses are to be amortized over a closed period. See Section H for a full description of the Colorado PERA Defined Benefit Pension Plan Funding Policy.
** Includes inflation at 2.80%.
*** 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 benefits was determined as part of the actuarial valuation at December 31, 2014.

	PERA Health Care Trust Fund	DPS Health Care Trust Fund
Valuation date	12/31/2014	12/31/2014
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*	7.50%	7.50%
Projected salary increases*	3.90% in aggregate	3.90% in aggregate
Health Care Inflation Factor		
Service-Based Premium Subsidy	0.00%	0.00%
Medicare Part A Premiums	2.75% Initial 4.25% Ultimate	n/a
Carrier Premiums	5.14% - 5.45% Initial 5.00% Ultimate	n/a

* Includes inflation at 2.80%.

5. **SCHEDULE OF EMPLOYER CONTRIBUTIONS***

Calendar Year	Actuarially Determined Contribution in Dollars ($ in thousands)	Actuarially Determined Contribution as a Percent of Pay	Percent Of ADC Contributed
State Division			
2014	$524,475	20.45%	83%
2013	495,241	20.01%	79%
2012	393,991	16.52%**	83%
2011	326,274	13.63%**	85%
2010	452,821	18.93%**	62%
2009	426,999	17.91%	69%
School Division			
2014	$798,426	19.65%	84%
2013	779,459	19.79%	79%
2012	672,156	17.60%	84%
2011	601,138	15.73%	89%
2010	731,374	18.75%	70%
2009	649,512	16.56%	73%
Local Government Division			
2014	$ 63,667	11.78%	397%
2013	56,180	10.62%	116%
2012	51,267	9.79%	163%
2011	64,492	8.98%	139%
2010	86,818	12.31%	101%
2009	78,548	11.14%	106%
Judicial Division			
2014	$ 8,625	20.07%	81%
2013	8,599	21.53%	76%
2012	7,137	18.28%**	82%
2011	6,362	16.30%**	84%
2010	6,970	18.63%**	80%
2009	6,419	17.08%	90%
Denver Public Schools Division			
2014	$ 56,504	9.67%	28%
2013	63,145	11.53%	37%
2012	49,044	9.60%	27%
2011	58,260	11.85%***	20%
2010	68,780	14.61%****	8%

* All contribution amounts are exclusive of AIR Contributions.

** The State Division and the Judicial Division 2010, 2011 and 2012 ADCs 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)
2014	$95,189,820	$79,625,680	$ (1,307)	$79,624,373	84%
2013	$86,583,744	$72,785,209	$15,731,044	$88,516,253	102%
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%

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)
2014	$5,083,575	$6,003,241	$ 394	$6,003,635	118%
2013	$4,709,876	$5,557,244	$562,761	$6,120,005	130%
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%

The ARCs shown above reflect a 12-month lag between the valuation date and the beginning of the applicable calendar year.

To comply with GASB 43, beginning with the results of the December 31, 2005 valuation, the unfunded actuarial accrued liability (UAAL) is amortized over 30 years in determining the ARC.

For the results of the valuations from December 31, 2005 through December 31, 2012, the following changes were implemented to comply with GASB 43 as clarified by GASB Technical Bulletin 2006-1:

- All liabilities were determined without a reduction for expected future RDS payments.
- The total HCTF contribution was determined to be the statutory employer contribution plus that year's actual RDS payments.

Effective January 1, 2014, PERACare discontinued its participation in the Centers for Medicare & Medicaid Services' (CMS) Retiree Drug Subsidy (RDS) Program. As of January 1, 2014, PERACare enrollees participating in the self-insured Medicare supplement plans and the Medicare HMO plan offered by Rocky Mountain Health Plans receive their prescription drug benefits through a Medicare Prescription Drug Plan (PDP). As the Medicare Part D subsidies implicit in the lower costs for PDPs may be recognized in the liability under GASB Statements No. 43 and No. 45, the liability associated with the premium subsidies funded by estimated RDS receipts has been eliminated and, therefore, is not included in the results of valuations dated on or after December 31, 2013.

SECTION VII – DERIVATION OF EXPERIENCE GAINS AND (LOSSES)

Pension Changes in Unfunded Actuarial Accrued Liabilities (UAAL)

During Calendar Year 2014

($ 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	$9,714.3	$14,067.9	$1,211.0	$ 94.8	$ 710.0	$25,798.0
b) Normal Cost	255.7	462.6	52.5	7.0	68.7	846.5
c) Total Required Contributions	730.9	1,123.5	106.9	12.1	103.2	2,076.6
d) Total Actual Contributions	646.0	1,007.6	296.3	10.4	62.9	2,023.2
2) End of Year:						
a) Expected UAAL from previous valuation [(1a) + 1(b)] x 1.075 – (1c) x 1.0375	$9,959.4	$14,454.7	$1,247.4	$96.9	$730.0	$26,488.4
b) Expected UAAL on actual contributions [(1a) + 1(b)] x 1.075 – (1d) x 1.0375	10,047.5	14,574.9	1,050.9	98.6	771.8	26,543.7
c) Increase in UAAL due to Deficiency (2b) – (2a)	88.1	120.2	(196.5)	1.7	41.8	55.3
3) Changes on this Year's Activities						
a) Liability Gain/(Loss)	$(216.2)	$(267.4)	$(14.6)	$(4.2)	$(44.5)	$(546.9)
b) Investment Gain/(Loss)	184.5	300.3	46.9	3.6	43.8	579.1
c) Change in Plan Assumptions	0.0	0.0	0.0	0.0	0.0	0.0
d) Change in Plan Provisions	0.0	0.0	0.0	0.0	0.0	0.0
e) Change in Methods	197.7	283.7	42.7	0.6	6.4	531.1
f) Change in Programming	(3.3)	15.1	(5.7)	(1.8)	101.5	105.8
g) Total	$162.7	$331.7	$69.3	$(1.8)	$107.2	$669.1
4) Actual UAAL at End of Year (2a) + (2c) – (3g)	$9,884.8	$14,243.2	$ 981.6	$ 100.4	$ 664.6	$25,874.6

PERA HCTF and DPS HCTF Changes in Unfunded Actuarial Accrued Liabilities (UAAL) During Calendar Year 2014 ($ in Millions)

	PERA HCTF	DPS HCTF
1) Beginning of Year:		
a) Unfunded Actuarial Accrued Liability (UAAL)	$1,263.8	$61.2
b) Normal Cost	15.8	1.4
c) Total Required Contributions	95.2	5.1
d) Total Actual Contributions*	87.9	6.2
2) End of Year:		
a) Expected UAAL from previous valuation [(1a) + 1(b)] x 1.075 – (1c) x 1.0375	$1,276.8	$62.0
b) Expected UAAL on actual contributions [(1a) + 1(b)] x 1.075 – (1d) x 1.0375	1,284.4	60.9
c) Increase in UAAL due to Deficiency (2b) – (2a)	7.6	(1.1)
3) Changes on this Year's Activities		
a) Liability Gain/(Loss)	$21.3	$1.0
b) Investment Gain/(Loss)	5.8	0.3
c) Change in Plan Assumptions	20.2	0.1
d) Change in Plan Provisions	0.0	0.0
e) Change in Methods	0.0	0.0
f) Total	$47.3	$1.4
4) Actual UAAL at End of Year (2a) + (2c) – (3f)	$1,237.1	$59.5

* Includes members' purchased service transfers and net miscellaneous income.

Pension Gains & (Losses) in Actuarial Accrued Liabilities

During Calendar Year 2014

($ 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.	$(52.1)	$(100.5)	$(14.1)	$0.3	$(14.0)	$(180.4)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(11.8)	(8.8)	(1.2)	0.1	(2.2)	$(23.9)
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.1	(1.4)	(0.2)	0.0	(0.2)	$(1.7)
Termination of Employment. If more liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	(70.0)	(125.3)	(12.9)	(0.1)	4.2	$(204.1)
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	(17.9)	60.9	16.2	(3.7)	(2.9)	$52.6
New Members. Additional actuarial accrued liability will produce a loss.	(63.4)	(61.7)	(10.6)	(1.9)	(38.4)	$(176.0)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	184.5	300.3	46.9	3.6	43.8	$579.1
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	(7.2)	(67.9)	8.0	1.0	0.7	$(65.4)
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	6.1	37.3	0.2	0.1	8.3	$52.0
Net Gain/(Loss) During Year from Experience	$(31.7)	$32.9	$32.3	$(0.6)	$(0.7)	$32.2

PERA HCTF and DPS HCTF Gains & (Losses) in Actuarial Accrued Liabilities

During Calendar Year 2014

($ 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.	$(6.0)	$(0.3)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.8)	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
Termination of Employment. If more liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	(7.5)	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 actuarial accrued liability will produce a loss.	(5.0)	(0.8)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	5.8	0.3
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	(2.4)	0.0
Other. Gains and losses resulting from claims experience, changes in plan participation/benefit utilization, changes in valuation software, data adjustments, timing of financial transactions, etc.	43.2	2.0
Net Gain/(Loss) During Year from Experience	$27.1	$1.3

Pension Gains & (Losses) as a Percentage of Actuarial Accrued Liabilities

During Calendar Year 2014

($ 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	$22,843.7	$35,437.3	$4,502.3	$ 351.6	$3,785.9	$66,920.8
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	(0.2) %	(0.3)%	(0.3) %	0.1 %	(0.4)%	(0.3)%
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.1)%	0.0%	0.0%	0.0 %	(0.1)%	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%
Termination from Employment. If more liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	(0.3)%	(0.4)%	(0.3)%	0.0%	0.1 %	(0.3)%
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	(0.1) %	0.2 %	0.4 %	(1.1)%	(0.1)%	0.1 %
New Members. Additional actuarial accrued liability will produce a loss.	(0.3)%	(0.2)%	(0.2)%	(0.5)%	(1.0)%	(0.3)%
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	0.8 %	0.8 %	1.0 %	1.0 %	1.2 %	0.9 %
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	0.0%	(0.2)%	0.2 %	0.3 %	0.0 %	(0.1)%
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	0.0 %	0.1 %	0.0 %	0.0 %	0.2 %	0.1 %
Gain (or Loss) During Year from Financial Experience	(0.1)%	0.1 %	0.7 %	(0.2)%	0.0%	0.0 %

PERA HCTF and DPS HCTF Gains & (Losses) as a Percentage of Actuarial Accrued Liabilities During Calendar Year 2014 ($ in Millions)

Type of Activity	PERA HCTF	DPS HCTF
Actuarial Accrued Liability at the Beginning of the Year	$1,557.4	$76.6
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	(0.4)%	(0.4)%
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.1)%	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%
Termination from Employment. If more liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	(0.5)%	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 actuarial accrued liability will produce a loss.	(0.3)%	(1.0)%
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	0.4%	0.4%
Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	(0.2)%	0.0%
Other. Gains and losses resulting from claims experience, changes in plan participation/benefit utilization, changes in valuation software, data adjustments, timing of financial transactions, etc.	2.8%	2.6%
Gain (or Loss) During Year from Financial Experience	1.7%	1.7%

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	PERA Subsidy Percentage (5)/(4)
(1)	(2)	(3)	(4)	(5)	(6)
2014	$15,039,802	$282,839,340	$297,879,142	$110,208,226	37%
2013	11,432,638	331,655,337	343,087,975	104,492,638	30%
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%

DPS HCTF Subsidy Analysis

Calendar Year	Administrative Expenses	Claims & HMO Premiums	Total Costs (2)+(3)	DPS Subsidy Amount	DPS Subsidy Percentage (5)/(4)
(1)	(2)	(3)	(4)	(5)	(6)
2014	$535,270	$18,568,484	$19,103,754	$6,524,980	34%
2013	397,301	23,483,334	23,880,635	6,366,156	27%
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, 2014

STATE DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		$ 13,523,487,577
Present value of future members' contributions		1,622,388,965
Present value of future employer contributions		
Normal cost	$ 674,387,343	
Unfunded actuarial accrued liability contributions	9,884,833,576	
Total prospective employer contributions		10,559,220,919
Total Present and Prospective Assets		$ 25,705,097,461
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	$ 15,113,163,189	
Survivors	196,340,841	
Total		$ 15,309,504,030
Present value of prospective benefits payable on account of inactive members		536,695,612
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	$ 8,574,756,706	
Disability retirement benefits	203,305,087	
Survivor benefits	97,294,837	
Separation benefits	983,541,189	
Total		9,858,897,819
Total Actuarial Liabilities		$ 25,705,097,461

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, 2014

SCHOOL DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		$ 22,143,356,419
Present value of future members' contributions		2,844,905,599
Present value of future employer contributions		
Normal cost	$ 1,611,690,310	
Unfunded actuarial accrued liability contributions	14,243,175,754	
Total prospective employer contributions		$ 15,854,866,064
Total Present and Prospective Assets		$ 40,843,128,082

ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	$ 23,239,556,297	
Survivors	181,812,833	
Total		$ 23,421,369,130
Present value of prospective benefits payable on account of inactive members		826,499,010
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	$ 14,461,867,969	
Disability retirement benefits	209,066,486	
Survivor benefits	123,101,408	
Separation benefits	1,801,224,079	
Total		$ 16,595,259,942
Total Actuarial Liabilities		$ 40,843,128,082

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, 2014

LOCAL GOVERNMENT DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		$ 3,629,400,231
Present value of future members' contributions		332,097,883
Present value of future employer contributions		
Normal cost	$ 125,254,317	
Unfunded actuarial accrued liability contributions	981,567,288	
Total prospective employer contributions		$ 1,106,821,605
Total Present and Prospective Assets		$ 5,068,319,719
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	$ 2,795,072,741	
Survivors	35,348,759	
Total		$ 2,830,421,500
Present value of prospective benefits payable on account of inactive members		284,014,119
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	$ 1,676,782,518	
Disability retirement benefits	28,094,958	
Survivor benefits	20,066,322	
Separation benefits	228,940,302	
Total		$ 1,953,884,100
Total Actuarial Liabilities		$ 5,068,319,719

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, 2014

JUDICIAL DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		$ 270,866,145
Present value of future members' contributions		26,515,789
Present value of future employer contributions		
Normal cost	$ 30,053,006	
Unfunded actuarial accrued liability contributions	100,387,095	
Total prospective employer contributions		$ 130,440,101
Total Present and Prospective Assets		$ 427,822,035
ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	$ 209,328,152	
Survivors	3,493,408	
Total		$ 212,821,560
Present value of prospective benefits payable on account of inactive members		1,719,827
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	$ 199,636,858	
Disability retirement benefits	5,297,070	
Survivor benefits	4,008,909	
Separation benefits	4,337,811	
Total		$ 213,280,648
Total Actuarial Liabilities		$ 427,822,035

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, 2014

DENVER PUBLIC SCHOOLS DIVISION

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		$ 3,151,455,921
Present value of future members' contributions		443,673,458
Present value of future employer contributions		
Normal cost	$ 237,512,794	
Unfunded actuarial accrued liability contributions	664,636,814	
Total prospective employer contributions		$ 902,149,608
Total Present and Prospective Assets		$ 4,497,278,987

ACTUARIAL LIABILITIES		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		
Retired members	$ 2,569,839,677	
Survivors	25,907,038	
Total		$ 2,595,746,715
Present value of prospective benefits payable on account of inactive members		69,605,562
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	$ 1,551,463,260	
Disability retirement benefits	36,644,907	
Survivor benefits	15,933,429	
Separation benefits	227,885,114	
Total		$ 1,831,926,710
Total Actuarial Liabilities		$ 4,497,278,987

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, 2014

PERA HEALTH CARE TRUST FUND

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		$297,376,975
Present value of future members' contributions		$0
Present value of future employer contributions		
Normal cost	$87,573,345	
Unfunded actuarial accrued liability contributions	1,237,084,336	
Total prospective employer contributions		$1,324,657,681
Total Present and Prospective Assets		$1,622,034,656
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	$1,049,496,345	
Survivors	5,415,717	
Total		$1,054,912,062
Present value of prospective benefits payable on account of eligible inactive members		31,082,611
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	$483,437,785	
Disability retirement benefits	15,764,075	
Survivor benefits	1,895,211	
Separation benefits	34,942,912	
Total		$536,039,983
Total Actuarial Liabilities		$1,622,034,656

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, 2014

DPS HEALTH CARE TRUST FUND

PRESENT AND PROSPECTIVE ASSETS		
Actuarial Value of Present Assets		$16,501,777
Present value of future members' contributions		$0
Present value of future employer contributions		
Normal cost	$8,167,446	
Unfunded actuarial accrued liability contributions	59,524,150	
Total prospective employer contributions		$67,691,596
Total Present and Prospective Assets		$84,193,373
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	$50,500,346	
Survivors	0	
Total		$50,500,346
Present value of prospective benefits payable on account of deferred vested members		497,396
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	$30,002,296	
Disability retirement benefits	1,306,101	
Survivor benefits	45,935	
Separation benefits	1,841,299	
Total		$33,195,631
Total Actuarial Liabilities		$84,193,373

SCHEDULE A
(continued)

SOLVENCY TEST
BY DIVISION AS OF DECEMBER 31, 2014
($ IN THOUSANDS)

Division	Aggregate Accrued Liabilities For* (1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Valuation Assets (1)	(2)	(3)
State	$2,688,514	$15,846,200	$4,873,607	$13,523,488	100.0%	68.4%	0.0%
School	3,915,705	24,247,868	8,222,959	22,143,356	100.0%	75.2%	0.0%
Local	534,695	3,114,436	961,836	3,629,400	100.0%	99.4%	0.0%
Judicial	60,973	214,541	95,739	270,866	100.0%	97.8%	0.0%
DPS	379,240	2,665,352	771,501	3,151,456	100.0%	100.0%	13.9%
TOTAL	$7,579,127	$46,088,397	$14,925,642	$42,718,566	100.0%	76.2%	0.0%

SOLVENCY TEST**
HISTORICAL TOTALS
($ IN THOUSANDS)

Valuation Date	Aggregate Accrued Liabilities For* (1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Valuation Assets (1)	(2)	(3)
12/31/2014	$7,579,127	$46,088,397	$14,925,642	$42,718,566	100.0%	76.2%	0.0%
12/31/2013	7,513,091	44,469,682	14,938,016	41,122,833	100.0%	75.6%	0.0%
12/31/2012	7,426,820	41,081,983	13,281,792	39,079,472	100.0%	77.0%	0.0%
12/31/2011	7,468,008	39,328,881	13,937,832	37,185,067	100.0%	75.6%	0.0%
12/31/2010	7,377,837	37,530,979	14,429,335	39,229,261	100.0%	84.9%	0.0%
12/31/2009	7,068,660	33,621,499	13,846,390	37,598,988	100.0%	90.8%	0.0%

* 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)

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Valuation Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
12/31/2014	$0	$1,085,995	$448,467	$297,377	N/A	27.4%	0.0%
12/31/2013	0	1,092,438	464,968	293,556	N/A	26.9%	0.0%
12/31/2012	0	1,259,557	463,938	285,097	N/A	22.6%	0.0%
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%

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

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Valuation Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
12/31/2014	$0	$50,998	$25,028	$16,502	N/A	32.4%	0.0%
12/31/2013	0	52,106	24,530	15,482	N/A	29.7%	0.0%
12/31/2012	0	54,727	22,942	14,443	N/A	26.4%	0.0%
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, 2014
ACTUARIAL VALUE OF ASSETS

STATE DIVISION

(1)	Actuarial Value Beginning of Year		$ 13,129,459,956
(2)	Market Value End of Year		$ 13,956,630,097
(3)	Market Value Beginning of Year		$ 13,935,753,759
(4)	Cash Flow		
	a.	Contributions	$ 668,422,477
	b.	Benefit Payments	(1,418,924,953)
	c.	Administrative Expenses	(10,066,516)
	d.	Net Transfers	3,339,699
	e.	Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	$ (757,229,293)
(5)	Investment Income		
	a.	Market total: (2) – (3) – (4)e	$ 778,105,631
	b.	Assumed Rate	7.50%
	c.	Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	$ 1,016,785,433
	d.	Amount for Phased-in Recognition: (5)a – (5)c	$ (238,679,802)
(6)	Phased-In Recognition of Investment Income		
	a.	Current Year: 0.25 x (5)d	$ (59,669,951)
	b.	First Prior Year	233,824,896
	c.	Second Prior Year	144,502,568
	d.	Third Prior Year	(184,186,032)
	e.	Total Recognized Investment Gain	$ 134,471,481
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e		$ 13,523,487,577

SCHEDULE B
(Continued)

DEVELOPMENT OF THE DECEMBER 31, 2014
ACTUARIAL VALUE OF ASSETS

SCHOOL DIVISION

(1)	Actuarial Value Beginning of Year		$ 21,369,379,750
(2)	Market Value End of Year		$ 22,846,249,402
(3)	Market Value Beginning of Year		$ 22,682,339,114
(4)	Cash Flow		
	a.	Contributions	$ 1,029,538,024
	b.	Benefit Payments	(2,117,192,491)
	c.	Administrative Expenses	(19,289,856)
	d.	Net Transfers	(574,403)
	e.	Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	$ (1,107,518,726)
(5)	Investment Income		
	a.	Market total: (2) – (3) – (4)e	$ 1,271,429,014
	b.	Assumed Rate	7.50%
	c.	Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	$ 1,659,643,481
	d.	Amount for Phased-in Recognition: (5)a – (5)c	$ (388,214,467)
(6)	Phased-In Recognition of Investment Income		
	a.	Current Year: 0.25 x (5)d	$ (97,053,617)
	b.	First Prior Year	380,471,375
	c.	Second Prior Year	233,111,082
	d.	Third Prior Year	(294,676,926)
	e.	Total Recognized Investment Gain	$ 221,851,914
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e		$ 22,143,356,419

SCHEDULE B
(Continued)

DEVELOPMENT OF THE DECEMBER 31, 2014
ACTUARIAL VALUE OF ASSETS

LOCAL GOVERNMENT DIVISION

(1)	Actuarial Value Beginning of Year		$	3,291,297,571
(2)	Market Value End of Year		$	3,733,495,817
(3)	Market Value Beginning of Year		$	3,493,354,525
(4)	Cash Flow			
	a.	Contributions	$	301,832,863
	b.	Benefit Payments		(257,851,383)
	c.	Administrative Expenses		(2,090,929)
	d.	Net Transfers		(1,265,918)
	e.	Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	$	40,624,633
(5)	Investment Income			
	a.	Market total: (2) – (3) – (4)e	$	199,516,659
	b.	Assumed Rate		7.50%
	c.	Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	$	263,525,013
	d.	Amount for Phased-in Recognition: (5)a – (5)c	$	(64,008,354)
(6)	Phased-In Recognition of Investment Income			
	a.	Current Year: 0.25 x (5)d	$	(16,002,089)
	b.	First Prior Year		58,436,107
	c.	Second Prior Year		35,229,636
	d.	Third Prior Year		(43,710,640)
	e.	Total Recognized Investment Gain	$	33,953,014
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e		$	3,629,400,231

SCHEDULE B
(Continued)

DEVELOPMENT OF THE DECEMBER 31, 2014
ACTUARIAL VALUE OF ASSETS

JUDICIAL DIVISION

(1)	Actuarial Value Beginning of Year	$	256,800,478
(2)	Market Value End of Year	$	278,860,041
(3)	Market Value Beginning of Year	$	272,159,709
(4)	Cash Flow		
	a. Contributions	$	11,248,830
	b. Benefit Payments		(20,003,229)
	c. Administrative Expenses		(71,858)
	d. Net Transfers		255,758
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	$	(8,570,499)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	$	15,270,831
	b. Assumed Rate		7.50%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	$	20,090,584
	d. Amount for Phased-in Recognition: (5)a – (5)c	$	(4,819,753)
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.25 x (5)d	$	(1,204,938)
	b. First Prior Year		4,479,748
	c. Second Prior Year		2,649,219
	d. Third Prior Year		(3,378,447)
	e. Total Recognized Investment Gain	$	2,545,582
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e	$	270,866,145

SCHEDULE B
(Continued)

DEVELOPMENT OF THE DECEMBER 31, 2014
ACTUARIAL VALUE OF ASSETS

DENVER PUBLIC SCHOOLS DIVISION

(1)	Actuarial Value Beginning of Year		$ 3,075,894,894
(2)	Market Value End of Year		$ 3,254,063,981
(3)	Market Value Beginning of Year		$ 3,265,768,053
(4)	Cash Flow		
	a.	Contributions	$ 65,254,237
	b.	Benefit Payments	(255,552,042)
	c.	Administrative Expenses	(2,377,366)
	d.	Net Transfers	(1,426,838)
	e.	Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	$ (194,102,009)
(5)	Investment Income		
	a.	Market total: (2) – (3) – (4)e	$ 182,397,937
	b.	Assumed Rate	7.50%
	c.	Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	$ 237,653,779
	d.	Amount for Phased-in Recognition: (5)a – (5)c	$ (55,255,842)
(6)	Phased-In Recognition of Investment Income		
	a.	Current Year: 0.25 x (5)d	$ (13,813,961)
	b.	First Prior Year	54,985,495
	c.	Second Prior Year	34,078,954
	d.	Third Prior Year	(43,241,231)
	e.	Total Recognized Investment Gain	$ 32,009,257
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e		$ 3,151,455,921

SCHEDULE B
(Continued)

DEVELOPMENT OF THE DECEMBER 31, 2014
ACTUARIAL VALUE OF ASSETS

PERA HEALTH CARE TRUST FUND

(1)	Actuarial Value Beginning of Year		$	293,556,476
(2)	Market Value End of Year		$	309,637,855
(3)	Market Value Beginning of Year		$	314,609,446
(4)	Cash Flow			
	a.	Contributions	$	192,491,883
	b.	Benefit Payments		(202,626,256)
	c.	Other Income and Expenses		2,404,327
	d.	Administrative Expenses		(17,444,129)
	e.	Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	$	(23,174,175)
(5)	Investment Income			
	a.	Market total: (2) – (3) – (4)e	$	18,202,584
	b.	Assumed Rate		7.50%
	c.	Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	$	22,726,677
	d.	Amount for Phased-in Recognition: (5)a – (5)c	$	(4,524,093)
(6)	Phased-In Recognition of Investment Income			
	a.	Current Year: 0.25 x (5)d	$	(1,131,023)
	b.	First Prior Year		5,922,142
	c.	Second Prior Year		3,809,670
	d.	Third Prior Year		(4,332,792)
	e.	Total Recognized Investment Gain	$	4,267,997
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e		$	297,376,975

SCHEDULE B
(Continued)

DEVELOPMENT OF THE DECEMBER 31, 2014
ACTUARIAL VALUE OF ASSETS

DPS HEALTH CARE TRUST FUND

(1)	Actuarial Value Beginning of Year		$	15,481,663
(2)	Market Value End of Year		$	17,020,938
(3)	Market Value Beginning of Year		$	16,488,973
(4)	Cash Flow			
	a.	Contributions	$	10,564,055
	b.	Benefit Payments		(10,432,420)
	c.	Other Income and Expenses		163,986
	d.	Administrative Expenses		(699,257)
	e.	Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	$	(403,636)
(5)	Investment Income			
	a.	Market total: (2) – (3) – (4)e	$	935,601
	b.	Assumed Rate		7.50%
	c.	Amount of Immediate Recognition [(3) x (5)b] + [(4)e x (5)b x 0.5]	$	1,221,537
	d.	Amount for Phased-in Recognition: (5)a – (5)c	$	(285,936)
(6)	Phased-In Recognition of Investment Income			
	a.	Current Year: 0.25 x (5)d	$	(71,484)
	b.	First Prior Year		278,930
	c.	Second Prior Year		175,753
	d.	Third Prior Year		(180,986)
	e.	Total Recognized Investment Gain	$	202,213
(7)	Actuarial Value End of Year: (1) + (4)e + (5)c + (6)e		$	16,501,777

SCHEDULE C

SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2014

STATE DIVISION

Additions for the Year		
Contributions:		
Members (including purchased service)	$ 234,034,099	
Employers	434,388,378	
Total		$ 668,422,477
Net Investment Income		778,105,631
TOTAL		$ 1,446,528,108
Deductions for the Year		
Benefit Payments (including refunds and disability insurance)	$ 1,415,754,080	
Transfers	(3,339,699)	
Other deductions	3,170,873	
Administrative Expenses	10,066,516	
TOTAL		$ 1,425,651,770
Excess of Additions Over Deductions		$ 20,876,338
Reconciliation of Asset Balances		
Market Value of Assets as of 12/31/2013		$ 13,935,753,759
Excess of Additions over Deductions		20,876,338
Market Value of Assets as of 12/31/2014*		$ 13,956,630,097

* 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 $14,013,947,471 and includes the amount in the Annual Increase Reserve of $57,317,374 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, 2014

SCHOOL DIVISION

Additions for the Year		
Contributions:		
Members (including purchased service)	$ 356,495,011	
Employers	673,043,013	
Total		$ 1,029,538,024
Net Investment Income		1,271,429,014
TOTAL		$ 2,300,967,038
Deductions for the Year		
Benefit Payments (including refunds and disability insurance)	$ 2,113,547,055	
Transfers	574,403	
Other deductions	3,645,436	
Administrative Expenses	19,289,856	
TOTAL		$ 2,137,056,750
Excess of Additions Over Deductions		$ 163,910,288
Reconciliation of Asset Balances		
Market Value of Assets as of 12/31/2013		$ 22,682,339,114
Excess of Additions over Deductions		163,910,288
Market Value of Assets as of 12/31/2014*		$ 22,846,249,402

* 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 $22,920,606,798 and includes the amount in the Annual Increase Reserve of $74,357,396 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, 2014

LOCAL GOVERNMENT DIVISION

Additions for the Year		
Contributions:		
Members (including purchased service)	$ 49,287,790	
Employers	252,545,073	
Total		$ 301,832,863
Net Investment Income		199,516,659
TOTAL		$ 501,349,522
Deductions for the Year		
Benefit Payments (including refunds and disability insurance)	$ 256,972,833	
Transfers	1,265,918	
Other deductions	878,550	
Administrative Expenses	2,090,929	
TOTAL		$ 261,208,230
Excess of Additions Over Deductions		$ 240,141,292
Reconciliation of Asset Balances		
Market Value of Assets as of 12/31/2013		$ 3,493,354,525
Excess of Additions over Deductions		240,141,292
Market Value of Assets as of 12/31/2014*		$ 3,733,495,817

* 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 $3,751,467,551 and includes the amount in the Annual Increase Reserve of $17,971,734 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, 2014

JUDICIAL DIVISION

Additions for the Year		
Contributions:		
Members (including purchase service)	$ 4,294,729	
Employers	6,954,101	
Total		$ 11,248,830
Net Investment Income		15,270,831
TOTAL		$ 26,519,661
Deductions for the Year		
Benefit Payments (including refunds and disability insurance)	$ 19,903,131	
Transfers	(255,758)	
Other deductions	100,098	
Administrative Expenses	71,858	
TOTAL		$ 19,819,329
Excess of Additions Over Deductions		$ 6,700,332
Reconciliation of Asset Balances		
Market Value of Assets as of 12/31/2013		$ 272,159,709
Excess of Additions over Deductions		6,700,332
Market Value of Assets as of 12/31/2014*		$ 278,860,041

* 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 $279,498,668 and includes the amount in the Annual Increase Reserve of $638,627 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, 2014

DENVER PUBLIC SCHOOLS DIVISION

Additions for the Year		
Contributions:		
Members (including purchase service)	$ 49,409,178	
Employers	15,845,059	
Total		$ 65,254,237
Net Investment Income		182,397,937
TOTAL		$ 247,652,174
Deductions for the Year		
Benefit Payments (including refunds and disability insurance)	$ 255,433,940	
Transfers	1,426,838	
Other deductions	118,102	
Administrative Expenses	2,377,366	
TOTAL		$ 259,356,246
Excess of Additions Over Deductions		$ (11,704,072)
Reconciliation of Asset Balances		
Market Value of Assets as of 12/31/2013		$ 3,265,768,053
Excess of Additions over Deductions		(11,704,072)
Market Value of Assets as of 12/31/2014*		$ 3,254,063,981

* 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 $3,263,791,259 and includes the amount in the Annual Increase Reserve of $9,727,278 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, 2014

PERA HEALTH CARE TRUST FUND

Additions for the Year		
Contributions:		
Members' Purchased Service Transfer	$ 7,408,373	
Employers	75,631,182	
Disaffiliation	3,994,498	
Retiree Health Care Premiums	105,459,137	
Medicare Retiree Drug Subsidy	(1,307)	
Total		$ 192,491,883
Net Investment Income		18,202,584
TOTAL		$ 210,694,467
Deductions for the Year		
Benefit Payments	$ 200,626,256	
Other Income and Expenses	(2,404,327)	
Administrative Expenses	17,444,129	
TOTAL		$ 215,666,058
Excess of Additions Over Deductions		$ (4,971,591)
Reconciliation of Asset Balances		
Market Value of Assets as of 12/31/2013		$ 314,609,446
Excess of Additions over Deductions		(4,971,591)
Market Value of Assets as of 12/31/2014		$ 309,637,855

SCHEDULE C
(Continued)

SUMMARY OF CHANGES IN NET ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2014

DPS HEALTH CARE TRUST FUND

Additions for the Year		
Contributions:		
Members' Purchased Service Transfer	$ 118,102	
Employers	6,003,241	
Retiree Health Care Premiums	4,442,318	
Medicare Retiree Drug Subsidy	394	
Total		$ 10,564,055
Net Investment Income		935,601
TOTAL		$ 11,499,656
Deductions for the Year		
Benefit Payments	$ 10,432,420	
Other Income and Expenses	(163,986)	
Administrative Expenses	699,257	
TOTAL		$ 10,967,691
Excess of Additions Over Deductions		$ 531,965
Reconciliation of Asset Balances		
Market Value of Assets as of 12/31/2013		$ 16,488,973
Excess of Additions over Deductions		531,965
Market Value of Assets as of 12/31/2014		$ 17,020,938

SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INVESTMENT RATE OF RETURN: 7.50% per annum, compounded annually (net of investment expenses only).

PRICE INFLATION ASSUMPTION: 2.80% per year.

WAGE INFLATION ASSUMPTION: 3.90% per year.

PERCENT MARRIED: 100% of active members (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: 3.00% per annum on member contribution account balances.

POST-RETIREMENT BENEFIT INCREASES: 2.00% per year for members of the DPS Benefit Structure or members of the PERA Benefit Structure with membership prior to 1/1/07; Members of the PERA Benefit Structure with membership after 12/31/06 paid from the AIR. In the determination of the Actuarially Determined Contribution rate, as a percentage of payroll, the AIR balance is excluded from both assets and liabilities.

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 exception to this is 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. Current active members assumed to terminate service and leave their contributions in the plan in order to be eligible for a benefit at their retirement date are assumed to retire with a reduced benefit, if applicable, at an age based upon benefit structure, division, and/or service as shown in the following table:

Assumed Age of Initial Benefit Receipt	Benefit Structure, Division, and/or Service
50	PERA Structure Members (excluding Troopers) with 25 or More Years of Service
50	Troopers with 20 or More Years of Service
55	PERA Structure Members (excluding Troopers) with 20–25 Years of Service
60	PERA Structure Members with Less than 20 Years of Service
65	DPS Structure Members

SCHEDULE D
(Continued)

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. Current inactive members in the PERA Structure who are assumed to leave their contributions in the plan in order to be eligible for a benefit at their retirement date are assumed to retire at age 62 with an unreduced pension benefit. Current inactive members in the DPS Structure who are assumed to leave their contributions in the plan in order to be eligible for a benefit at their retirement date are assumed to retire at age 65 with an unreduced pension benefit. For PERACare subsidies, the assumed age of initial benefit receipt is determined using the same approach used for terminating active members.

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 retirement. 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 wage inflation 3.90% per annum:

	Pay Increase Assumptions for an Individual Member		
Sample Ages	Merit & Seniority*	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	5.67%	3.90%	9.57%
25	3.75	3.90	7.65
30	2.80	3.90	6.70
35	2.05	3.90	5.95
40	1.50	3.90	5.40
45	0.85	3.90	4.75
50	0.50	3.90	4.40
55	0.10	3.90	4.00
60	0.00	3.90	3.90
65	0.00	3.90	3.90

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

	Percent of Members Separating Within the Next Year					
	Ultimate Termination		Death[1]		Disability	
Sample Ages	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

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

SCHEDULE D
(Continued)

STATE DIVISION
NON-TROOPERS

The select termination 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 wage inflation at 3.90% per annum:

Sample Ages	Pay Increase Assumptions for an Individual Member: Merit & Seniority*	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	5.50%	3.90%	9.40%
25	3.75	3.90	7.65
30	2.80	3.90	6.70
35	2.05	3.90	5.95
40	1.50	3.90	5.40
45	1.20	3.90	5.10
50	0.80	3.90	4.70
55	0.40	3.90	4.30
60	0.00	3.90	3.90
65	0.00	3.90	3.90

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

	Percent of Members Separating Within the Next Year					
	Ultimate Termination[1]		Death[2]		Disability	
Sample Ages	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

[1]There are no select termination assumptions for the State Troopers.

[2]Rates 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 wage inflation at 3.90% per annum:

Sample Ages	Merit & Seniority*	Pay Increase Assumptions for an Individual Member Inflation & Productivity (Economy)	Total Increase (Next Year)
20	6.20%	3.90%	10.10%
25	4.10	3.90	8.00
30	2.95	3.90	6.85
35	2.50	3.90	6.40
40	1.95	3.90	5.85
45	1.35	3.90	5.25
50	0.80	3.90	4.70
55	0.35	3.90	4.25
60	0.00	3.90	3.90
65	0.00	3.90	3.90

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

	Percent of Members Separating Within the Next Year					
	Ultimate Termination		Death[1]		Disability	
Sample Ages	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

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

SCHEDULE D
(Continued)

SCHOOL DIVISION

The select termination 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 wage inflation at 3.90% per annum:

	Pay Increase Assumptions for an Individual Member		
Sample Ages	Merit & Seniority*	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	6.95%	3.90%	10.85%
25	4.30	3.90	8.20
30	2.64	3.90	6.54
35	1.72	3.90	5.62
40	1.23	3.90	5.13
45	0.99	3.90	4.89
50	0.79	3.90	4.69
55	0.60	3.90	4.50
60	0.25	3.90	4.15
65	0.00	3.90	3.90

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

	Percent of Members Separating Within the Next Year					
	Ultimate Termination		Death[1]		Disability	
Sample Ages	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

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

SCHEDULE D
(Continued)

LOCAL GOVERNMENT DIVISION

The select termination 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:

	Percent of Members Who Are Eligible for Reduced Benefits Retiring Next Year		Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year	
Retirement Ages	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 wage inflation at 3.90% per annum:

	Pay Increase Assumptions for an Individual Member		
Sample Ages	Merit & Seniority*	Inflation & Productivity (Economy)	Total Increase (Next Year)
30	1.50%	3.90%	5.40%
35	1.50	3.90	5.40
40	0.67	3.90	4.57
45	0.50	3.90	4.40
50	0.50	3.90	4.40
55	0.50	3.90	4.40
60	0.50	3.90	4.40
65	0.50	3.90	4.40

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

	Percent of Members Separating Within the Next Year					
	Ultimate Termination[1]		Death[2]		Disability	
Sample Ages	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

[1]There are no select termination assumptions for the Judicial Division.

[2]Rates 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 wage inflation at 3.90% per annum:

	Pay Increase Assumptions for an Individual Member		
Sample Ages	Merit & Seniority*	Inflation & Productivity (Economy)	Total Increase (Next Year)
20	3.50%	3.90%	7.40%
25	3.50	3.90	7.40
30	3.20	3.90	7.10
35	2.76	3.90	6.66
40	2.12	3.90	6.02
45	1.34	3.90	5.24
50	0.80	3.90	4.70
55	0.42	3.90	4.32
60	0.20	3.90	4.10
65	0.00	3.90	3.90

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

	Percent of Members Separating Within the Next Year					
	Ultimate Termination		Death[1]		Disability	
Sample Ages	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

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

SCHEDULE D
(Continued)

ALL DIVISIONS (DPS STRUCTURE)

The select termination 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	$155.90	$157.66	$200.67	$204.32	43.24	46.22
45	152.14	154.30	193.19	197.49	38.43	41.34
50	146.95	149.70	183.71	188.89	33.65	36.49
55	139.83	143.51	171.74	178.17	28.91	31.71
60	130.59	135.53	157.29	165.29	24.30	27.07
65	119.22	125.64	140.61	150.30	19.94	22.65
70	105.96	114.14	122.21	133.77	15.92	18.56
75	90.31	100.84	101.78	115.65	12.20	14.80
80	73.19	85.83	80.63	96.30	8.95	11.39
85	56.61	69.49	61.07	76.32	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 pension 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 who are not eligible for premium-free Medicare Part A, 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%

For those PERACare enrollees of the State, School (other than Denver Public Schools), Local Government, or the Judicial Division, who are assumed to be ineligible for premium-free Medicare Part A and participate in the self-funded plans, 82% are assumed to elect MS#1, 16% 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 2015. 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
$653	$285	$593	$223

Rocky Mountain Health Plans Medicare HMO		UnitedHealthcare 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	Medicare Part A Premium
$590	$213	$633	$166	$402

SCHEDULE D
(Continued)

PERA Structure Health Care Cost Trend Rates

	Self Funded Medicare Supplement Plans		Kaiser Permanente Medicare Advantage HMO	
Year	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
2015	5.45%	5.25%	5.36%	5.23%
2016+	5.00%	5.00%	5.00%	5.00%

	Rocky Mountain Health Plans Medicare HMO		United Healthcare Medicare HMO	
Year	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
2015	5.23%	5.14%	5.34%	5.21%
2016+	5.00%	5.00%	5.00%	5.00%

Year	Medicare Part A Premiums
2015	2.75%
2016	3.50%
2017	4.25%
2018	3.50%
2019	3.75%
2020	4.00%
2021+	4.25%

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	18%
25-29	12%
30+	6%

Of those PERACare enrollees assumed not to qualify for premium-free Medicare Part A benefits and receive the "No Part A" subsidy from the PERA Structure, 10% are assumed to cover a spouse.

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 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%, future salary increases of 3.90%, 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.

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	18%
25-29	12%
30+	6%

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 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%, future salary increases of 3.90%, 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 7.50%). 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 cost contribution and an actuarial accrued liability contribution.

3. The normal cost 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 cost contribution is similar but is based upon total expected career service and is independent of compensation.

4. The unfunded actuarial accrued liability is determined by subtracting the actuarial value of assets and the present value of prospective employer normal cost contributions and member contributions from the present value of expected benefits to be paid from PERA. The actuarial accrued liability contribution amortizes the balance of the unfunded actuarial 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 2015 to "true-up" the employer contribution rate of the DPS Division. The Denver Public Schools Retirement System (DPSRS) was merged into PERA effective January 1, 2010. As of that date, all liabilities and assets of DPSRS were transferred to and became liabilities and assets of the DPS Division of PERA, including the maintenance of a separate benefit structure for existing members. Therefore, if a DPS division member terminates employment (without refund) and later is reemployed with an affiliated employer in the State Division, he or she may be building on a DPS Benefit Structure within that division. The benefit provisions of existing members of PERA on the merger date and all new hires, post-merger, are building a benefit under 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. A separate, annual actuarial valuation determines the 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.

SCHEDULE F
(Continued)

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 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 all 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.

SCHEDULE F
(Continued)

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.

SCHEDULE F
(Continued)

CONTRIBUTIONS

Member Contributions

Members 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.

Effective January 1, 2011, retirees working for a PERA employer and not working as state legislators, as judges participating in the Senior Judge Program, or in a position covered by an Optional Retirement Plan are required to make member contributions at the same rate as an active member, however; the contributions are not credited to the member's account, do not accrue a benefit, and are non-refundable.

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: 10.15% of salary on and after 1/1/2015. 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 and refinanced thereafter. The amount of the credit for 2014 was 16.89% of salary. The net DPS Division employer contribution rate for 2014 was 4.16% 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.

SCHEDULE F
(Continued)

Due to legislation in 2004 through 2006, employers are required to pay the statutory contribution, including AED and SAED amounts, on the payroll of working retirees.

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%

SCHEDULE F
(Continued)

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.

SCHEDULE F
(Continued)

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

SCHEDULE F
(Continued)

- **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 or 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

SCHEDULE F
(Continued)

- **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.

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

SCHEDULE F
(Continued)

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.

SCHEDULE F
(Continued)

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.

SCHEDULE F
(Continued)

- **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.

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.

SCHEDULE F
(Continued)

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:

- o 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.
- o Members must receive benefits for a full calendar year to be eligible for the increase.
- o 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.
- o No minimum age or service credit requirement shall apply for disability retirees or survivor benefit recipients.

SCHEDULE F
(Continued)

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

SCHEDULE F
(Continued)

- **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.

SCHEDULE F
(Continued)

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: • 4% for each year of service below 30 years • 4% for each year below age 50
Age 50 - 55	25 – 30 years	Lesser of: • 4% for each year under age 50 • 4% for each year of service below 30 years
Over 55	15 years	Lesser of: • 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.

SCHEDULE F
(Continued)

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.

SCHEDULE F

(Continued)

Post-Retirement Benefit Increases

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

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.

SCHEDULE F
(Continued)

OTHER PROVISIONS SPECIFIC TO THE HEALTH CARE TRUST FUNDS

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 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 (benefit becipient). If the benefit recipient is enrolled in PERACare, the following dependents may be enrolled: spouses (including civil union partners recognized under Colorado law), domestic partners, unmarried dependent children under age 25, certain mentally or physically incapacitated adult children, and dependent parents.

- 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 eligibility within 30 days of initial pension benefit payment, upon the occurrence of certain life events, and during an annual open enrollment for coverage effective each January 1. If a surviving spouse or divorced spouse discontinues coverage, re-enrollment is not allowed.

SCHEDULE F
(Continued)

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 based upon the benefit structure elected, date of retirement, Medicare eligibility, and/or credited service:

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 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.

  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 or 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 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 under the PERA Structure who are age 65 or older, the full cost of coverage is considered to be based on the full cost of coverage assuming eligibility for premium-free Medicare Part A. This is independent of actual eligibility for premium-free Medicare Part A.

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.

SCHEDULE F
(Continued)

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.

The DPS Structure pays an explicit subsidy for those members eligible to receive the premium subsidy and who 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 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, 2014

STATE DIVISION

Attained Age	Completed Years of Service								
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	Total	Covered Payroll
Under 20	142	0	0	0	0	0	0	142	$ 748,598
20 to 24	1,459	7	0	0	0	0	0	1,466	$ 27,870,764
25 to 29	3,690	381	4	0	0	0	0	4,075	$ 132,135,994
30 to 34	3,760	1,601	260	12	0	0	0	5,633	$ 222,635,395
35 to 39	2,803	1,786	1,080	248	2	0	0	5,919	$ 267,125,795
40 to 44	2,497	1,639	1,250	959	231	5	0	6,581	$ 326,747,003
45 to 49	4,075	1,651	1,192	1,038	747	334	30	9,067	$ 440,365,455
50 to 54	1,793	1,535	1,222	1,000	857	685	240	7,332	$ 385,688,190
55 to 59	1,556	1,471	1,186	953	835	641	392	7,034	$ 368,095,927
60	294	257	203	169	136	95	66	1,220	$ 63,288,954
61	235	231	206	171	108	103	71	1,125	$ 58,095,413
62	244	237	199	164	111	86	57	1,098	$ 55,544,052
63	180	182	161	130	114	78	66	911	$ 47,286,310
64	174	177	151	114	104	67	56	843	$ 41,971,202
65	141	151	126	94	69	60	43	684	$ 33,824,676
66	122	123	84	73	41	41	38	522	$ 25,097,975
67	92	76	69	48	44	26	31	386	$ 18,472,553
68	86	71	63	37	27	31	35	350	$ 15,607,323
69	57	40	37	20	20	13	21	208	$ 9,157,234
70 & Over	258	131	99	63	52	44	57	704	$ 24,910,905
Total	23,658	11,747	7,592	5,293	3,498	2,309	1,203	55,300	$ 2,564,669,718

Average Age (Non-Trooper): 46.09
Average Service (Non-Trooper): 8.98

Average Age (Trooper): 41.06
Average Service (Trooper): 11.78

SCHEDULE G
(Continued)

SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2014

SCHOOL DIVISION

Attained Age	Completed Years of Service								
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	Total	Covered Payroll
Under 20	863	0	0	0	0	0	0	863	$ 4,248,419
20 to 24	4,488	47	0	0	0	0	0	4,535	$ 73,152,881
25 to 29	9,146	1,182	40	0	0	0	0	10,368	$ 279,653,985
30 to 34	6,828	4,687	878	24	0	0	0	12,417	$ 408,687,769
35 to 39	5,968	3,843	3,640	521	14	0	0	13,986	$ 507,305,746
40 to 44	7,959	3,617	3,103	2,475	409	8	0	17,571	$ 624,680,914
45 to 49	5,316	3,651	2,915	2,241	1,754	362	14	16,253	$ 623,429,909
50 to 54	4,235	3,277	3,295	2,134	1,704	1,442	263	16,350	$ 627,279,873
55 to 59	3,254	2,578	2,755	2,231	1,549	969	558	13,894	$ 507,058,415
60	485	356	413	357	249	152	111	2,123	$ 76,534,206
61	494	330	352	325	247	134	73	1,955	$ 67,524,695
62	430	326	298	256	207	129	75	1,721	$ 58,984,697
63	349	307	247	187	199	109	56	1,454	$ 49,871,909
64	336	240	222	148	131	102	38	1,217	$ 39,508,079
65	307	190	171	134	96	67	38	1,003	$ 31,517,456
66	254	156	139	95	69	43	29	785	$ 21,984,168
67	245	126	112	70	47	37	27	664	$ 16,721,050
68	211	136	86	48	40	23	25	569	$ 13,405,550
69	135	73	44	22	23	17	11	325	$ 7,306,015
70 & Over	738	393	204	90	57	33	50	1,565	$ 24,380,021
Total	52,041	25,515	18,914	11,358	6,795	3,627	1,368	119,618	$ 4,063,235,757

Average Age: 44.49
Average Service: 8.29

SCHEDULE G
(Continued)

SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2014

LOCAL GOVERNMENT DIVISION

Attained Age	Completed Years of Service								
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	Total	Covered Payroll
Under 20	402	0	0	0	0	0	0	402	$ 1,753,487
20 to 24	663	6	0	0	0	0	0	669	$ 8,592,724
25 to 29	792	104	7	0	0	0	0	903	$ 27,565,735
30 to 34	761	264	85	7	0	0	0	1,117	$ 44,447,154
35 to 39	620	322	196	63	2	0	0	1,203	$ 58,854,584
40 to 44	514	346	319	134	41	4	0	1,358	$ 71,359,406
45 to 49	628	319	316	160	97	44	6	1,570	$ 79,374,658
50 to 54	461	299	326	205	146	126	61	1,624	$ 91,434,629
55 to 59	398	291	284	192	167	116	76	1,524	$ 82,974,008
60	56	37	48	42	23	13	13	232	$ 13,264,234
61	50	44	43	24	20	14	4	199	$ 10,448,943
62	63	48	36	27	27	19	4	224	$ 11,589,693
63	61	35	35	23	14	12	9	189	$ 9,489,917
64	51	27	31	9	21	6	6	151	$ 6,635,080
65	42	36	41	8	10	7	6	150	$ 6,709,864
66	34	24	24	7	7	4	4	104	$ 4,280,718
67	39	15	17	7	4	3	2	87	$ 3,194,626
68	30	14	14	4	5	3	3	73	$ 2,598,842
69	23	12	3	3	3	2	0	46	$ 1,475,192
70 & Over	143	51	38	13	9	1	4	259	$ 4,424,543
Total	5,831	2,294	1,863	928	596	374	198	12,084	$ 540,468,037

Average Age: 44.67
Average Service: 7.89

SCHEDULE G
(Continued)

SCHEDULE OF ACTIVE MEMBER DATA
AS OF DECEMBER 31, 2014

JUDICIAL DIVISION

Attained Age	Completed Years of Service								
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	Total	Covered Payroll
Under 20	0	0	0	0	0	0	0	0	$ -
20 to 24	0	0	0	0	0	0	0	0	$ -
25 to 29	0	0	0	0	0	0	0	0	$ -
30 to 34	2	0	0	0	0	0	0	2	$ 58,595
35 to 39	4	0	0	0	0	0	0	4	$ 418,569
40 to 44	5	7	2	0	0	0	0	14	$ 1,613,538
45 to 49	12	17	10	5	2	1	0	47	$ 6,154,094
50 to 54	14	20	7	10	6	4	3	64	$ 8,290,434
55 to 59	10	20	12	9	13	9	1	74	$ 9,432,073
60	1	1	3	2	1	1	0	9	$ 1,099,237
61	3	4	3	0	2	1	1	14	$ 1,856,871
62	1	5	4	4	3	1	1	19	$ 2,400,948
63	0	1	3	0	3	0	2	9	$ 1,227,215
64	2	2	3	4	1	3	2	17	$ 2,263,195
65	1	3	2	1	4	3	0	14	$ 1,887,336
66	1	1	3	2	2	3	2	14	$ 1,607,600
67	0	1	0	3	3	1	3	11	$ 1,476,775
68	0	0	3	0	0	0	3	6	$ 854,873
69	1	0	0	2	2	0	1	6	$ 846,623
70 & Over	0	0	0	2	2	2	4	10	$ 1,489,003
Total	57	82	55	44	44	29	23	334	$ 42,976,979

Average Age: 56.54
Average Service: 14.36

SCHEDULE G
(Continued)

SCHEDULE OF ACTIVE MEMBER DATA AS OF DECEMBER 31, 2014

DENVER PUBLIC SCHOOLS DIVISION

Attained Age	Completed Years of Service								
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	Total	Covered Payroll
Under 20	38	0	0	0	0	0	0	38	$ 408,816
20 to 24	896	6	0	0	0	0	0	902	$ 16,917,271
25 to 29	2,172	198	0	0	0	0	0	2,370	$ 72,563,386
30 to 34	1,623	666	32	2	0	0	0	2,323	$ 88,948,204
35 to 39	1,617	627	220	28	1	0	0	2,493	$ 92,308,584
40 to 44	794	453	282	142	12	1	0	1,684	$ 73,287,738
45 to 49	632	357	226	168	85	12	2	1,482	$ 65,161,590
50 to 54	510	323	188	145	123	99	10	1,398	$ 63,178,840
55 to 59	458	253	170	141	99	95	28	1,244	$ 52,357,626
60	93	35	32	25	23	12	6	226	$ 10,007,047
61	74	35	31	24	22	22	4	212	$ 8,736,181
62	58	35	27	25	15	12	4	176	$ 7,987,809
63	53	30	25	15	8	11	5	147	$ 5,952,018
64	47	30	16	31	17	6	1	148	$ 6,846,211
65	44	24	15	17	13	4	2	119	$ 4,855,640
66	37	26	10	9	7	8	4	101	$ 4,164,195
67	32	16	8	3	3	4	0	66	$ 2,204,540
68	30	10	3	7	3	4	5	62	$ 2,577,786
69	16	8	6	5	4	1	0	40	$ 1,548,939
70 & Over	105	44	11	5	9	1	8	183	$ 4,306,848
Total	9,329	3,176	1,302	792	444	292	79	15,414	$ 584,319,269

Average Age (DPS Structure):	47.74	Average Age (PERA Structure):	38.15
Average Service (DPS Structure):	12.86	Average Service (PERA Structure):	2.81

SCHEDULE H

COLORADO PERA DEFINED BENEFIT PENSION PLAN

FUNDING POLICY

I. Introduction—

The Colorado Public Employees' Retirement Association (PERA) maintains five pre-funded, hybrid defined benefit pension plans (i.e., State, School, Local Government, Judicial, and Denver Public Schools). Each defined benefit pension plan is funded through PERA-affiliated employer contributions, employee contributions, and the investment earnings resulting from those contributions. The fixed contribution rate at which each division's employers contribute is determined by the Colorado General Assembly and defined within the statutes governing PERA.

The purposes of this funding policy are to state the overall funding goals and annual actuarial metrics and to guide the PERA Board of Trustees (Board) when considering whether to pursue or support proposed contribution and benefit legislation. Finally, the policy will include a brief list of governance responsibilities regarding the commissioning, collection, and review of actuarial information, as described in the Board's *Governance Manual*.

PERA also maintains two pre-funded retiree health care subsidy plans, classified as other postemployment benefit (OPEB) plans. The funding policy regarding the retiree health care subsidy plans will be revised and updated after the completion and release of the anticipated GASB Financial and Accounting Standards applicable to OPEB. Until that time, the current funding policy will remain in force with regard to the health care subsidy plans administered by PERA.

It is the intention of the Board that this funding policy be considered a working document, reviewed periodically and, as necessary, altered in the future through formal action of the Board. The final page of this document contains the review and revision/adoption history pertaining to the funding policy of the PERA defined benefit pension plans.

II. Background—

In response to the unfavorable investment market of 2008, and in addition to the funding policy adopted in November 2007, the Board set the following guiding principles in 2009 in the development of a comprehensive package to maintain long-term sustainability:

- Shared responsibility among members, retirees, and employers;
- Intergenerational equity;
- Preservation of the defined benefit plan;
- Preservation of portability through the maintenance of existing benefit structures for the different divisions; and
- Development of recommendations that would have little-to-no short-term impact on member behavior.

SCHEDULE H
(Continued)

In 2009 and 2010, these guiding principles benefited the Board and all the stakeholders associated with the pension plan as solutions to the immediate funding situation were explored. The Board constructed a series of plan provision changes, enlisting the philosophy of the guiding principles—under the umbrella of shared responsibility—and communicated their recommendations to the General Assembly. Senate Bill 10-001 was the culmination of all the provisional and contribution changes that were to set PERA's course toward sustainability. Senate Bill 10-001 also contained the following funding and annual increase requirements, which now are embedded in Colorado Statute and will be implemented regardless of the Board's pension funding policy:

- Per C.R.S. § 24-51-411(8), and § 24-51-411(9), the AED and the SAED are adjusted based on the year-end actuarial funded ratio within a particular division;
    - If a division trust fund's actuarial funded ratio;
        - Reaches 103 percent, a decrease in the AED and SAED is mandated, and,
        - Subsequently falls below 90 percent, an increase is mandated.
    - For the Local Government and Judicial Divisions, if the actuarial funded ratio reaches 90 percent and subsequently falls below 90 percent, an increase in the AED and SAED is mandated.
    - Increases in AED and SAED cannot exceed the statutory maximum allowable limitation.
- Per C.R.S. § 24-51-1009.5, if the combined pension divisions' trust fund actuarial funded ratio;
    - Reaches 103 percent, the upper limit of the annual increase shall be increased by one-quarter of one percent, and,
    - Subsequently falls below 90 percent, the upper limit of the annual increase shall be decreased by one-quarter of one percent.

These statutory elements, in addition to the current schedule of employer contribution rates, assist in the ongoing balance of shared responsibility. It is not the intention of this Board, through the development of this funding policy, to undermine or circumvent the work accomplished by Senate Bill 10-001, but rather to ensure continued fiduciary commitment through sound governance practices and recognition of these statutory funding policies.

III. Funding Goals—

- Preservation of the **defined benefit plan structure** of providing lifetime benefits to the employees of PERA-affiliated employers, reflecting the fact that PERA members are not covered under Social Security.
- Demonstration of **transparency and accountability** through the continued maintenance of a defined benefit pension plan funding policy for the stakeholders of PERA.

SCHEDULE H
(Continued)

- **Achievement of a combined divisions' trust fund actuarial funded ratio greater than or equal to 110%.** Once the 110% combined funded ratio is achieved, following (1) the complete discontinuance of AED and SAED contributions, and (2) the restoration of the annual increase to pre-2010 levels pursuant to C.R.S. § 24-51-1009.5, the Board will consider and/or support the following actions, as ordered, as long as the funded ratio, either combined or individual by division, does not fall below 100% after consideration of the proposed change:
  - Examination and possible action of de-risking the entire plan, including all divisions
  - Reduction in the base contribution rate(s)
  - Adoption of a benefit enhancement, beyond restoration of the annual increase as described above.

  If the 110% funded ratio benchmark is attained through the assistance of certain funding arrangements where assets, outside of statutory contributions, are added to the plan, and results in additional tax-payer obligation, the payment method and duration of this debt should be considered prior to any supportive action taken regarding benefit enhancements.

- Dedication to the balance between:
  - **Contribution rate stability**—keeping contributions relatively stable over time, and
  - **Intergenerational equity—**allocating costs over the employees' period of active service.
- Dedication to the systematic **reduction of the unfunded actuarial accrued liabilities** (UAAL), subject to the required action by the state legislature as described in C.R.S. § 24-51-411(8), § 24-51-411(9), and § 24-51-1009.5, and as briefly summarized above in Section II.
- Recognition that within a multiple-employer cost-sharing defined benefit plan there are **beneficial elements of pooled risk**, both in the accrual of plan liabilities, recognizing actuarial gains and loss by division, rather than by employer; and in the accumulation of plan assets through the engagement of an appropriate level of asset risk management.

IV. Annual Actuarial Metrics—

Below is a list of actuarial metrics to be assessed on an **annual basis as of the actuarial valuation date**. The Board recognizes that a single year's results may not be indicative of long-term trends and projected results.

- **Funded ratios**—Calculate and review by division:
  - The actuarial funded ratio based on the actuarial value of plan assets divided by the defined benefit pension plan's actuarial accrued liability (AAL), and
  - The market value funded ratio based on the market value of plan assets divided by the defined benefit pension plan's AAL.

SCHEDULE H
(Continued)

- **Funding period**—To be determined for each division with respect to the division's contribution rates. A funding period is the amortization period required to pay off that division's UAAL considering the resources available. Funding periods for each division will be determined in the annual actuarial valuation in relationship to both
  - Statutory contribution rates, and
  - Actuarially determined contribution (ADC) rates.
- **Contribution rate comparison—**
  - Calculate and review by division.
- **Actuarial Projections—**
  - Perform and review, by division,
    - Actuarial projections considering appropriate benefit provisions, salary and demographic data, actuarial assumptions, membership growth, and statutory contribution rates in order to determine the sustainability of each division under their benefit provisions and statutory contribution rate structure.
    - Projection modeling that allows for the testing of projection results under various economic and demographic stress conditions.

V. Funding Valuation Elements—

Annually, the Board's actuary will perform an actuarial valuation for funding purposes, and calculate ADC rates against which to compare contribution rates mandated under State statute. The ADC will be the sum of a payment based on normal cost and a payment on the UAAL. The normal cost and the amount of payment on the UAAL are determined by the following three major components of a funding valuation:

- **Actuarial Cost Method:** This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with the projected benefits.
  - The Entry Age Normal Cost Method (EAN), as is used for PERA's annual actuarial valuation purposes, is to be used for the determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the ADC.
  - Under this method, normal cost is calculated using benefits based on projected service and salary at retirement and is allocated over an individual's career as a level percent of payroll. Because EAN normal cost rates are level for each participant, the normal cost pattern for the entire plan under EAN is more stable in the face of demographic shifts in the workforce. It is this normal cost stability that makes the EAN method the preferred funding method for the majority of public defined benefit pension plans.

SCHEDULE H
(Continued)

- **Asset Valuation Method:** This component dictates the method by which the asset value, used in the determination of the UAAL, is determined, which could be a market value or a smoothed actuarial value of trust assets.
    - Because investment markets are volatile and defined benefit pension plans typically have long investment horizons, application of an asset-smoothing technique can be an effective tool to manage contribution volatility and provide a more consistent measure of pension plan funding over time. Asset-smoothing methods reduce the effect of short-term market volatility on contributions, while still tracking the overall movement of the market value of plan assets, by recognizing the effects of investment gains and losses over a period of years.
    - The asset valuation method to be used shall be a four-year *smoothed* market value of assets. The difference between actual market value investment returns and the expected actuarial investment returns is recognized equally over a four-year period.
- **Amortization Method:** This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the actuarial accrued liability and the actuarial value of assets is reduced.
    - Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
    - The amortization payment will be determined on a level percentage of pay basis.
    - The length of the amortization periods will be as follows:
        - Existing UAAL on December 31, 2014 – 30 years.
        - Any increase (or decrease) in the UAAL existing as of December 31, 2014 – remaining period of the initial 30-year period from the date of the valuation.
        - Annual future actuarial experience gains and losses – 30 years from the date of the valuation.
        - Future assumption changes – 30 years from the date of the valuation.
        - Future benefit enhancements/reductions – the number of years, as determined by the Board, to represent the anticipated duration of payment of the enhancement or, if a reduction, duration of the benefit to the plan. This determination will be based on the nature of the benefit change and the demographics of the membership group affected by the change, not to exceed 25 years from the date of the valuation.
    - If any future annual actuarial valuation indicates a division has a negative UAAL, the ADC shall be set equal to the Normal Cost until such time as the funded ratio equals or exceed 120%. At that time, the ADC shall be equal to the Normal Cost less an amount equal to 15 year amortization of the portion of the negative UAAL above the 120% funded ratio.
    - The target amortization period noted above regarding new UAAL will be applied for funding benchmark and RSI reporting purposes. Alternative ADCs, will be determined by division, by applying the layered amortization methodology as described above, using a 25-year closed period, a 20-year closed period, and a 15-year closed period, in lieu of the 30-year period, for amortization of new UAAL. These comparatives are to appear in the Comprehensive Annual Financial Report (CAFR) as a demonstration of the transparency and accountability funding goal delineated in Section III of this document.

SCHEDULE H
(Continued)

In conjunction with the three major components discussed above, a number of actuarial assumptions are used to develop the annual actuarial metrics, as well as the ADC rates, and are described in detail in the annual actuarial valuation report. The actuarial assumptions are derived and proposed by the Board's actuary and adopted by the PERA Board of Trustees in conformity with the *Actuarial Standards of Practice* issued by the Actuarial Standards Board. The assumptions represent the Board's best estimate of anticipated experience under the benefit provisions of PERA and are intended to be long-term in nature. In the development of actuarial assumptions, the Board considers not only past experience but also trends, external economic forces, and future demographic and economic expectations.

- **Actuarial Assumptions—**Actuarial assumptions are generally grouped into two major categories:
  - **Demographic assumptions**, which include rates of termination, retirement, disability, mortality, etc., and
  - **Economic assumptions**, which include investment return, salary increase, payroll growth, and inflation, etc.

Actuarial assumptions do not impact the total cost of the plan (benefit payments and expenses), but rather the timing of prescribed contributions. To the extent that actuarial experience deviates from the assumptions, and actual contributions deviate from projected, experience gains and losses will occur. These gains (or losses) then serve to reduce (or increase) the projected future contributions necessary to achieve or sustain a certain actuarial standard. It is in this vein that the ADC rates may help indicate if the statutory contribution rates are adequate to meet the future cost requirements of the plan, although the ADC calculated in valuation results has limitations due to changing costs over time. In Colorado PERA's situation, until future scheduled contribution increases are fully realized, the results of the actuarial projections will be the best indication of the adequacy of the statutorily prescribed contribution schedule.

VI. Governance Policy/Processes—

As delineated in the **PERA *Governance Manual***, below is a list of specific actuarial and/or funding-related studies, the frequency at which they should be commissioned/requested by the Board, and additional responsibilities relating to the studies:

- **Actuarial Valuation** (perform annually)—The Board is responsible for reviewing PERA's annual actuarial valuation report; and submitting a summary report to the Legislative Audit Committee and the Joint Budget Committee of the General Assembly, together with any recommendations concerning such liabilities that have accrued. In addition, the Board, in consultation with the pension actuary, will provide recommendations to the Colorado General Assembly regarding any necessary adjustments to the statutory employer and member contribution rates.
- **Experience Analysis** (perform periodically, historically performed approximately every four years)—The Board is responsible for ensuring that an experience analysis is performed as prescribed, for reviewing the results of that study, and for approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plans.
- **Actuarial Audit** (perform every five years, or the appointment of a new actuarial firm will satisfy requirement)—The Board is responsible for ensuring that an actuarial audit is performed as prescribed and for reviewing the results of that audit.

SCHEDULE H
(Continued)

- **Asset Liability Study** (perform at least every three to five years, or more frequently if necessary)—The Board is responsible for ensuring that a study of the relationship between the defined benefit trust assets and liabilities is performed as prescribed and for reviewing the results of that study.
- Review of the **Defined Benefit Pension Plan Funding Policy** (perform periodically)—The Board is responsible for the periodic review of the defined benefit pension plan funding policy, as is deemed necessary.

VII. Glossary of Funding Policy Terms—

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met. For each of the PERA defined benefit plans, the AAL includes the balance in the affiliated annual increase reserve.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Annual Increase Reserve (AIR):** As of January 1, 2007, an AIR was created for each division trust fund for the purpose of funding annual increases for PERA Benefit Structure members hired on or after January 1, 2007. A portion of the employer contribution, equal to one percent of the salaries of affected members, is accumulated in the AIR to be paid out in annual increases each July 1, to the extent affordable. Although invested with the affiliated division assets, the reserve balances are accounted for separately.
- **Asset Values**: For each of the PERA defined benefit plans, the actuarial and market asset values include the balance in the affiliated AIR.
    - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
    - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.
- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
    - **Actuarial Value Funded Ratio:** is the ratio of the AVA to the AAL.
    - **Market Value Funded Ratio:** is the ratio of the MVA to the AAL.
- **Normal Cost**: The normal cost is the cost allocated under the actuarial cost method to each year of active member service.

SCHEDULE H
(Continued)

- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members, plus the balance in the affiliated AIR. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. PERA's annual valuation date is December 31st.

Adopted: March 20, 2015
Amended: n/a