May 27, 2008

Mr. Karl Paulson
Manager of Strategic Innovation
Public Employees' Retirement Association of Colorado
1300 Logan Street
Denver, Colorado 80203-2386

Dear Mr. Paulson:

Enclosed are 1 unbound and 45 bound copies of the "Report on the Actuarial Valuation of the Public Employees' Retirement Association of Colorado prepared as of December 31, 2007".

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

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

TJC:kc

Enclosure

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

Prepared as of December 31, 2007

May 27, 2008
The Board of Trustees
Public Employees' Retirement Association of Colorado
1300 Logan Street
Denver, Colorado 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, 2007.

The purpose of this report is to provide a summary of the funded status of PERA as of December 31, 2007, to recommend rates of contribution and to provide accounting information under Governmental Accounting Standards Board Statements No. 25, 27, 43 and 45 (GASB 25, 27, 43 and 45). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation results indicate that the combined employer and member contribution rates are sufficient to fund the normal cost for all members and provide additional contributions to help finance the Health Care Trust Fund and each division's unfunded accrued liability. The resulting amortization periods for each division, with and without recognition of the Amortization Equalization Disbursement (AED) and the Supplemental Amortization Equalization Disbursement (SAED), are shown in the table below:

|  | Amortization Period |  |  |
| :--- | :---: | :---: | :---: |
|  | Basic | With AED |  |
| SAED |  |  |  |
| State Division | Infinite | Infinite | 69 years |
| School Division | Infinite | Infinite | 42 years |
| Local Government Division | 25 years | 24 years | 14 years |
| Judicial Division | 94 years | 78 years | 22 years |
| Health Care Trust Fund (HCTF)* | 38 years | 38 years | 38 years |

* The HCTF amortization period shown is calculated based on future contributions equaling the statutory rate. If future expected Medicare Part D Retiree Drug Subsidy payments are also contributed to the fund, the amortization period is 24 years.

The promised benefits of PERA are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method. Four-year smoothed market value of assets is used for actuarial valuation purposes (the value was marked to market as of December 31, 2004, with four year smoothing commencing from that point forward). Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by $4.5 \%$ annually. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 25, 27, 43 and 45.

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

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

The 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.

The employer contribution rate, together with the Medicare Part D Retiree Drug Subsidy, is sufficient to finance the Health Care Trust Fund benefits in accordance with GASB 43 and 45 . Please note that the Local Government Division employer contribution rates are sufficient to finance the promised benefit under GASB 25 and 27. With the addition of the Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions, the Judicial Division employer contribution rates are currently sufficient to finance the promised benefits and eventually meet the required contribution levels under GASB 25 and 27. The AED and SAED contributions, combined with previously projected reductions in liability due to benefit structure changes for future hires, are expected to improve the funded status of the State and School Divisions. However, if additional gains do not materialize in the future, increases in funding may be necessary to fund the State and School Divisions.

The Table of Contents, which immediately follows, outlines the material contained in the report.
Respectfully submitted,

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

Edward J. Koebel, EA, FCA, MAAA
Senior Actuary

Richard Ward, FSA, FCA, MAAA
Senior Health Actuary
TJC/EJK/RW:kc

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## REPORT ON THE ACTUARIAL VALUATION OF <br> THE PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO PREPARED AS OF DECEMBER 31, 2007

## 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 and the Health Care Trust Fund are summarized below:

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

| VALUATION DATE | 12/31/2007 | 12/31/2006 |
| :---: | :---: | :---: |
| Number of Active Non-Troopers | 52,522 | 52,096 |
| Annual Covered Payroll | \$2,182,829 | \$2,050,760 |
| Number of Active Troopers | 802 | 770 |
| Annual Covered Payroll | \$53,689 | \$48,565 |
| Total Number of Active Members | 53,324 | 52,866 |
| Total Annual Covered Payroll | \$2,236,518 | \$2,099,325 |
| Number of Retired Members and Survivors | 29,789 | 28,804 |
| Annual Retirement Benefits | \$948,902 | \$874,223 |
| Total Assets: |  |  |
| Actuarial Value | \$14,220,681 | \$13,327,290 |
| Market Value | \$14,850,919 | \$14,041,260 |
| Actuarial Accrued Liability | \$19,390,296 | \$18,246,010 |
| Unfunded Actuarial Accrued Liability (UAAL) | \$5,169,615 | \$4,918,720 |
| CONTRIBUTIONS FOR FISCAL YEAR ENDING | 12/31/2009 | 12/31/2008 |
| Employer Contribution Rate: |  |  |
| Normal | 5.62 \% | 5.99 \% |
| Accrued Liability | 12.29 \% | 12.46 \% |
| Annual Required Contribution | 17.91 \% | 18.45 \% |
| Reduction for AED and SAED | (5.50)\% | (5.26)\% |
| Total Employer Contribution Rate | 12.41 \% | 13.19 \% |
| Amortization Period | 30 years | 30 years |

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

| VALUATION DATE | 12/31/2007 | 12/31/2006 |
| :---: | :---: | :---: |
| Number of Active Members | 116,245 | 113,288 |
| Annual Covered Payroll | \$3,618,258 | \$3,371,186 |
| Number of Retired Members and Survivors | 44,064 | 42,127 |
| Annual Retirement Benefits | \$1,373,427 | \$1,256,884 |
| Assets: |  |  |
| Actuarial Value | \$22,070,769 | \$20,535,733 |
| Market Value | \$23,042,078 | \$21,635,957 |
| Actuarial Accrued Liability | \$29,241,428 | \$27,708,682 |
| Unfunded Actuarial Accrued Liability (UAAL) | \$7,170,659 | \$7,172,949 |
| CONTRIBUTION FOR FISCAL YEAR ENDING | 12/31/2009 | 12/31/2008 |
| Employer Contribution Rate: |  |  |
| Normal | 6.02 \% | 5.87 \% |
| Accrued Liability | 10.54 \% | 11.31 \% |
| Annual Required Contribution | 16.56 \% | 17.18 \% |
| Reduction for AED and SAED | (5.50)\% | (5.26)\% |
| Total Employer Contribution Rate | 11.06 \% | 11.92 \% |
| Amortization Period | 30 years | 30 years |

## SUMMARY OF PRINCIPAL RESULTS FOR LOCAL GOVERNEMENT DIVISION (\$ IN THOUSANDS)

| VALUATION DATE | 12/31/2007 | 12/31/2006 |
| :---: | :---: | :---: |
| Number of Active Members | 16,977 | 15,959 |
| Annual Covered Payroll | \$680,442 | \$636,300 |
| Number of Retired Members and Survivors | 4,112 | 3,835 |
| Annual Retirement Benefits | \$122,722 | \$107,856 |
| Assets: |  |  |
| Actuarial Value | \$2,892,847 | \$2,613,386 |
| Market Value | \$3,013,807 | \$2,751,071 |
| Actuarial Accrued Liability | \$3,563,199 | \$3,288,421 |
| Unfunded Actuarial Accrued Liability (UAAL) | \$670,352 | \$675,035 |
| CONTRIBUTION FOR FISCAL YEAR ENDING | 12/31/2009 | 12/31/2008 |
| Employer Contribution Rate: |  |  |
| Normal | 5.90 \% | 6.31 \% |
| Accrued Liability | 5.24 \% | 5.64 \% |
| Annual Required Contribution | 11.14 \% | 11.95 \% |
| Reduction for AED and SAED | (5.50)\% | (5.26)\% |
| Total Employer Contribution Rate | 5.64 \% | 6.69 \% |
| Amortization Period | 30 years | 30 years |

## SUMMARY OF PRINCIPAL RESULTS FOR JUDICIAL DIVISION

 (\$ IN THOUSANDS)| VALUATION DATE | 12/31/2007 | $\mathbf{1 2 / 3 1 / 2 0 0 6}$ |
| :--- | ---: | ---: |
| Number of Active Members | 296 | 291 |
| Annual Covered Payroll | $\$ 31,150$ | $\$ 29,151$ |
| Number of Retired Members and Survivors | 279 | 258 |
| Annual Retirement Benefits | $\$ 12,850$ | $\$ 11,095$ |
| Assets: |  |  |
| Actuarial Value | $\$ 231,228$ | $\$ 210,633$ |
| Market Value | $\$ 240,861$ | $\$ 221,663$ |
| Actuarial Accrued Liability | $\$ 264,210$ | $\$ 247,491$ |
| Unfunded Actuarial Accrued Liability (UAAL) | $\$ 32,982$ | $\$ 36,858$ |
| CONTRIBUTION FOR FISCAL YEAR ENDING | $\mathbf{1 2 / 3 1 / 2 0 0 9}$ | $\mathbf{1 2 / 3 1 / 2 0 0 8}$ |
| Employer Contribution Rate: |  |  |
| Normal | $11.45 \%$ | $10.94 \%$ |
| Accrued Liability | $\underline{5.63 \%}$ | $\underline{6.72 \%}$ |
| Annual Required Contribution | $17.08 \%$ | $17.66 \%$ |
| Reduction for AED and SAED |  |  |
| Total Employer Contribution Rate | $\underline{(5.50) \%}$ | $\underline{(5.26) \%}$ |
| Amortization Period | $11.58 \%$ | $12.40 \%$ |

## SUMMARY OF PRINCIPAL RESULTS FOR HEALTH CARE TRUST FUND

 (\$ IN THOUSANDS)| VALUATION DATE | 12/31/2007 | $\mathbf{1 2 / 3 1 / 2 0 0 6}$ |
| :--- | ---: | ---: |
| Number of Active Members | 186,842 | 184,876 |
| Annual Covered Payroll | $\$ 6,566,368$ | $\$ 6,617,218$ |
| Number of Retired Members and Survivors | 43,119 | 41,421 |
| Assets: |  |  |
| Actuarial Value | $\$ 258,775$ | $\$ 214,816$ |
| Market Value | $\$ 269,432$ | $\$ 226,850$ |
| Actuarial Accrued Liability | $\$ 1,303,594$ | $\$ 1,247,950$ |
| Unfunded Actuarial Accrued Liability (UAAL) | $\$ 1,044,819$ | $\$ 1,033,134$ |
| CONTRIBUTION FOR FISCAL YEAR ENDING | $\mathbf{1 2 / 3 1 / 2 0 0 9}$ | $12 / 31 / 2008$ |
| Employer Contribution Rate: |  |  |
| $\quad$ Normal |  |  |
| Accrued Liability | $0.27 \%$ | $0.26 \%$ |
| Annual Required Contribution | $\underline{0.85 \%}$ | $\underline{0.85 \%}$ |
| Amortization Period | 30 years | 30 years |

2. Comments on the valuation results as of December 31, 2007 are given in Section IV and further discussion of the contribution levels is set out in Section V.
3. Schedule B shows the development of the actuarial value of assets. Schedule D of this report outlines the full set of actuarial assumptions and methods used in the current valuation. The following changes have been made to certain health care assumptions since the previous valuation:
> Future plan election rates for retirees age 65 and older have been adjusted to reflect recent election patterns, incorporating the addition of the Secure Horizons (HMO) plan option.
> Expected Inpatient Hospital claims costs for retirees age 65 and older that do not have Part A have been updated to better reflect anticipated changes in the various coverage categories, based on the most recent "no Part A" Report presented to the Board in March 2008.
4. The valuation takes into account the effect of amendments to PERA through the valuation date. The Main Provisions of PERA, as summarized in Schedule F, were taken into account in the current valuation. There were no changes to the provisions since the previous valuation.

## 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 compensation as of December 31, 2007 on the basis of which the valuation was prepared.

## TABLE 1

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF DECEMBER 31, 2007 (\$ IN THOUSANDS)

| GROUP | NUMBER | COMPENSATION |
| :--- | ---: | ---: |
| State Division | 53,324 | $\$ 2,236,518$ |
| School Division | 116,245 | $3,618,258$ |
| Local Government Division | 16,977 | 680,442 |
| Judicial Division | $\underline{296}$ | 31,150 <br> Total |

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

TABLE 2
SCHEDULE OF TOTAL ACTIVE MEMBER VALUATION DATA

| VALUATION <br> DATE | NUMBER | ANNUAL <br> PAYROLL <br> (\$ IN THOUSANDS) | ANNUAL <br> AVERAGE PAY | \% CHANGE IN <br> AVERAGE PAY |
| :---: | :---: | :---: | :---: | :---: |
| $12 / 31 / 2007$ | 186,842 | $\$ 6,566,368$ | $\$ 35,144$ | $4.47 \%$ |
| $12 / 31 / 2006$ | 182,404 | $6,135,962$ | 33,639 | $2.29 \%$ |
| $12 / 31 / 2005$ | 180,630 | $5,940,132$ | 32,886 | $(1.09) \%$ |
| $12 / 31 / 2004$ | 176,840 | $5,879,355$ | 33,247 | $0.70 \%$ |
| $12 / 31 / 2003$ | 170,991 | $5,645,468$ | 33,016 | $(1.31) \%$ |
| $12 / 31 / 2002$ | 172,761 | $5,779,704$ | 33,455 | $4.92 \%$ |

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

TABLE 3

THE NUMBER AND ANNUAL RETIREMENT BENEFITS OF RETIRED MEMBERS AND SURVIVORS OF DECEASED MEMBERS ON THE ROLL AS OF DECEMBER 31, 2007 (\$ IN THOUSANDS)

| TYPE OF RETIREMENT | GROUP |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | STATE DIVISION | SCHOOL DIVISION | LOCAL GOVERNMENT DIVISION | JUDICIAL DIVISION | TOTAL |
| Service: |  |  |  |  |  |
| Number | 25,122 | 39,889 | 3,253 | 242 | 68,506 |
| Annual Benefits | \$855,858 | \$1,300,377 | \$106,246 | \$11,559 | \$2,274,040 |
| Disability: |  |  |  |  |  |
| Number | 3,653 | 3,052 | 683 | 21 | 7,409 |
| Annual Benefits | \$75,412 | \$57,751 | \$13,658 | \$828 | \$147,649 |
| Survivors*: |  |  |  |  |  |
| Number | 1,014 | 1,123 | 176 | 16 | 2,329 |
| Annual Benefits | \$17,632 | \$15,299 | \$2,818 | \$463 | \$36,212 |
| Total: |  |  |  |  |  |
| Number | 29,789 | 44,064 | 4,112 | 279 | 78,244 |
| Annual Benefits | \$948,902 | \$1,373,427 | \$122,722 | \$12,850 | \$2,457,901 |

[^0]4. Tables 1 through 4 of Schedule $G$ show the distribution by age and service of the number and average annual compensation of active members for each division included in the valuation.

## SECTION III - ASSETS

1. Schedule $C$ shows the additions and deductions of PERA for the year preceding the valuation date and a reconciliation of the fund balances at market value. As of December 31, 2007, the market value of assets used to determine the actuarial value of assets for each division is shown below:

TABLE 4
COMPARISON OF MARKET VALUE OF ASSETS AT DECEMBER 31, 2007 AND DECEMBER 31, 2006 (\$ IN THOUSANDS)

| GROUP | DECEMBER 31, 2007 <br> MARKET VALUE | DECEMBER 31, 2006 MARKET VALUE |
| :---: | :---: | :---: |
| State Division | \$14,850,919 | \$14,041,260 |
| School Division | 23,042,078 | 21,635,957 |
| Local Government Division | 3,013,807 | 2,751,071 |
| Judicial Division | 240,861 | 221,663 |
| Health Care Trust Fund | 269,432 | 226,850 |
| Total Market Value of Assets | \$41,417,097 | \$38,876,801 |

2. The four-year market related actuarial value of assets used for the current valuation was $\$ 39,674,299,891$. Schedule $B$ shows the development of the actuarial value of assets as of December 31, 2007. The following table shows the actuarial value of assets allocated among all divisions.

TABLE 5
COMPARISON OF ACTUARIAL VALUE OF ASSETS AT DECEMBER 31, 2007 AND DECEMBER 31, 2006 (\$ IN THOUSANDS)

| GROUP | DECEMBER 31, 2007 <br> ACTUARIAL VALUE | DECEMBER 31, 2006 <br> ACTUARIAL VALUE |
| :--- | :---: | :---: |
| State Division | $\$ 14,220,681$ | $\$ 13,327,290$ |
| School Division | $22,070,769$ | $20,535,733$ |
| Local Government Division | $2,892,847$ | $2,613,386$ |
| Judicial Division | 231,228 | 210,633 |
| Health Care Trust Fund | $\underline{258,775}$ | $\underline{214,816}$ |
| Total Market Value of Assets | $\$ 39,674,300$ | $\$ 36,901,858$ |

## SECTION IV - COMMENTS ON VALUATION

## State Division

1. The total valuation balance sheet on account of benefits shows that the State Division has total prospective benefit liabilities of $\$ 21,700,763,345$, of which $\$ 11,760,140,021$ is for the prospective benefits payable on account of present retired members and survivors of deceased members, $\$ 358,808,237$ is for the prospective benefits payable on account of present inactive members, and $\$ 9,581,815,087$ is for the prospective benefits payable on account of present active members. Against these benefit liabilities the State Division has a total present actuarial value of assets of $\$ 14,220,680,819$ as of December 31, 2007. The difference of $\$ 7,480,082,526$ between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, $\$ 1,361,031,657$ 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 $\$ 6,119,050,869$ 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 hired on or after January 1, 2007, an allocation of the statutory rates of $1.00 \%$ of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

| Year | AED | SAED |
| :---: | :--- | :--- |
| 2007 | $1.00 \%$ | $0.00 \%$ |
| 2008 | 1.40 | 0.50 |
| 2009 | 1.80 | 1.00 |
| 2010 | 2.20 | 1.50 |
| 2011 | 2.60 | 2.00 |
| 2012 | 3.00 | 2.50 |
| 2013 and later | 3.00 | 3.00 |

PERA.

3．The valuation indicates that employer normal contributions at the rate of $5.62 \%$ of salary are required to provide the benefits for the State Division．Prospective employer normal contributions at this rate have a present value of $\$ 949,435,885$ ．When this amount is subtracted from $\$ 6,119,050,869$ ，which is the present value of the total future contributions to be made by the employers，there remains $\$ 5,169,614,984$ as the amount of future accrued liability contributions．

4．After recognizing the required employer normal contribution rates，the remaining basic contribution amounts to $6.29 \%$ of salary．Assuming the aggregate payroll of the State Division increases by $4.50 \%$ each year，contributions at this level will never amortize the unfunded accrued liability of $\$ 5,169,614,984$ ．After recognizing the value of future AED contributions，the amortization period remains infinite．However，after recognizing the value of both future AED and future SAED contributions，the amortization period is reduced to 69 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．No amounts are received from the retirees who are performing the work for the employers．The employer rate is the total rate within the division，including both AED and SAED．

## School Division

1. The total valuation balance sheet on account of benefits shows that the School Division has total prospective benefit liabilities of $\$ 33,425,285,204$, of which $\$ 17,545,019,910$ is for the prospective benefits payable on account of present retired members and survivors of deceased members, $\$ 494,370,095$ is for the prospective benefits payable on account of present inactive members, and $\$ 15,385,895,199$ is for the prospective benefits payable on account of present active members. Against these benefit liabilities the School Division has a total present actuarial value of assets of $\$ 22,070,769,075$ as of December 31, 2007. The difference of $\$ 11,354,516,129$ between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, $\$ 2,397,986,431$ 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 $\$ 8,956,529,698$ 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). This amount will be increased to $9.53 \%$ of salary in 2013 . For members hired on or after January 1, 2007, an allocation of the statutory rates of $1.00 \%$ of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

| Year | AED | SAED |
| :---: | :--- | :--- |
| 2007 | $1.00 \%$ | $0.00 \%$ |
| 2008 | 1.40 | 0.50 |
| 2009 | 1.80 | 1.00 |
| 2010 | 2.20 | 1.50 |
| 2011 | 2.60 | 2.00 |
| 2012 | 3.00 | 2.50 |
| 2013 and later | 3.00 | 3.00 |

PERA.
3. The valuation indicates that employer normal contributions at the rate of $6.02 \%$ of salary are required to provide the benefits for the School Division. Prospective employer normal contributions at this rate have a present value of $\$ 1,785,871,105$. When this amount is subtracted from $\$ 8,956,529,698$, which is the present value of the total future contributions to be made by the employers, there remains $\$ 7,170,658,593$ as the amount of future accrued liability contributions.
4. After recognizing the required employer normal contribution rates, the remaining basic contribution amounts to $5.84 \%$ of salary. Assuming the aggregate payroll of the School Division increases by $4.50 \%$ each year, contributions at this level will never amortize the unfunded accrued liability of $\$ 7,170,658,593$. If the increase in basic contribution effective in 2013 is taken into account, the amortization period remains infinite. After recognizing the value of future AED contributions, the amortization period continues to remain infinite. However, if both the AED and SAED are taken into account, the amortization period is reduced to 42 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. No amounts are received from the retirees who are performing the work for the employers. The employer rate is the total rate within the division, including both AED and SAED.

## Local Government Division

1. The total valuation balance sheet on account of benefits shows that the Local Government Division has total prospective benefit liabilities of $\$ 4,303,232,831$, of which $\$ 1,616,627,195$ is for the prospective benefits payable on account of present retired members and survivors of deceased members, $\$ 90,721,980$ is for the prospective benefits payable on account of present inactive members, and $\$ 2,595,883,656$ is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Local Government Division has a total present actuarial value of assets of $\$ 2,892,846,938$ as of December 31, 2007. The difference of $\$ 1,410,385,893$ between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, $\$ 428,542,715$ 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 $\$ 981,843,178$ 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 hired on or after January 1, 2007, an allocation of the statutory rates of $1.00 \%$ of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

| Year | AED | SAED |
| :---: | :--- | :---: |
| 2007 | $1.00 \%$ | $0.00 \%$ |
| 2008 | 1.40 | 0.50 |
| 2009 | 1.80 | 1.00 |
| 2010 | 2.20 | 1.50 |
| 2011 | 2.60 | 2.00 |
| 2012 | 3.00 | 2.50 |
| 2013 and later | 3.00 | 3.00 |

3．The valuation indicates that employer normal contributions at the rate of $5.90 \%$ of salary are required to provide the benefits for the Local Government Division．Prospective employer normal contributions at this rate have a present value of $\$ 311,491,113$ ．When this amount is subtracted from $\$ 981,843,178$ ，which is the present value of the total future contributions to be made by the employers，there remains $\$ 670,352,065$ as the amount of future accrued liability contributions．

4．After recognizing the required employer normal contribution rates，the remaining basic contribution amounts to $5.79 \%$ of salary．Contributions at this level will amortize the unfunded accrued liability of $\$ 670,352,065$ over 25 years，assuming the aggregate payroll of the Local Government Division increases by $4.50 \%$ each year．If the value of future AED contributions is taken into account，the amortization period is reduced to 24 years．If both the future AED and future SAED contributions are taken into account，the amortization period is further reduced to 14 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．No amounts are received from the retirees who are performing the work for the employers．The employer rate is the total rate within the division，including both AED and SAED．

## Judicial Division

1. The total valuation balance sheet on account of benefits shows that the Judicial Division has total prospective benefit liabilities of $\$ 312,028,779$, of which $\$ 150,291,424$ is for the prospective benefits payable on account of present retired members and survivors of deceased members, $\$ 1,781,395$ is for the prospective benefits payable on account of present inactive members, and $\$ 159,955,960$ is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Judicial Division has a total present actuarial value of assets of $\$ 231,228,304$ as of December 31, 2007. The difference of $\$ 80,800,475$ between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, $\$ 20,003,288$ 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 $\$ 60,797,187$ 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 hired on or after January 1, 2007, an allocation of the statutory rates of $1.00 \%$ of salary is made each year to an Annual Increase Reserve which will provide post-retirement increases for these members in the future. In addition, employers will make Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions in the future at the following rates:

| Year | AED | SAED |
| :---: | :---: | :---: |
| 2007 | $1.00 \%$ | $0.00 \%$ |
| 2008 | 1.40 | 0.50 |
| 2009 | 1.80 | 1.00 |
| 2010 | 2.20 | 1.50 |
| 2011 | 2.60 | 2.00 |
| 2012 | 3.00 | 2.50 |
| 2013 and later | 3.00 | 3.00 |

3．The valuation indicates that employer normal contributions at the rate of $11.45 \%$ of salary are required to provide the benefits for the Judicial Division．Prospective employer normal contributions at this rate have a present value of $\$ 27,814,994$ ．When this amount is subtracted from $\$ 60,797,187$ ，which is the present value of the total future contributions to be made by the employers，there remains $\$ 32,982,193$ as the amount of future accrued liability contributions．

4．After recognizing the required employer normal contribution rates，the remaining basic contribution amounts to $3.94 \%$ of salary．Contributions at this level will amortize the unfunded accrued liability of $\$ 32,982,193$ over 94 years，assuming the aggregate payroll of the Judicial Division increases by $4.50 \%$ each year．If the value of future AED contributions is taken into account，the amortization period is reduced to 78 years．If both the future AED and future SAED contributions are taken into account，the amortization period is further reduced to 22 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．No amounts are received from the retirees who are performing the work for the employers．The employer rate is the total rate within the division，including both AED and SAED．

## Health Care Trust Fund

1. The total valuation balance sheet on account of health care benefits shows that PERA has total prospective health care benefit liabilities of $\$ 1,402,738,993$, of which $\$ 912,130,721$ is for the prospective benefits payable on account of present benefit recipients enrolled in PERA Care and receiving a health care subsidy pursuant to law, $\$ 14,049,246$ is for the prospective benefits payable on account of present deferred vested members, and $\$ 476,559,026$ is for the prospective benefits payable on account of present active members. These amounts are net of any member premiums required during retirement for enrollment in the Health Care Plan. Against these health care benefit liabilities PERA has a total present actuarial value of assets of $\$ 258,774,755$ as of December 31, 2007. The difference of $\$ 1,143,964,238$ between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of health care benefits. Of this amount, $\$ 0$ is the present value of future contributions expected to be made by members, and the balance of $\$ 1,143,964,238$ represents the present value of future contributions payable by the employers.
2. The employers' contributions to the Health Care Trust Fund consist of a statutory mandated 1.02\% of salary plus an expected additional contribution resulting from PERA qualifying for the Retiree Drug Subsidy under Medicare Part D. The valuation indicates that employer normal contributions at the rate of $0.27 \%$ of salary are required to provide the health care benefits of PERA.
3. Prospective employer normal contributions at the rate noted in paragraph 2 have a present value of $\$ 99,144,757$. When this amount is subtracted from $\$ 1,143,964,238$, which is the present value of the total future contributions to be made by the employers, there remains $\$ 1,044,819,481$ as the amount of future accrued liability contributions.
4. After recognizing the required normal contribution rate, the remaining statutory contribution amounts to $0.75 \%$ of salary. Contributions at this level will amortize the unfunded accrued liability of $\$ 1,044,819,481$ over 38 years. If anticipated RDS payments are contributed to the HCTF, the amortization period will be 24 years.

## SECTION V - CONTRIBUTIONS PAYABLE BY EMPLOYERS

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

TABLE 6

| Division | Employer Contribution Rate |
| :--- | :--- |
| State |  |
| Non-Troopers | $10.15 \%$ |
| Troopers | 12.85 |
| School | $10.15^{*}$ |
| Local Government | 10.00 |
| Judicial | 13.66 |

* $10.55 \%$ on and after January 1, 2013

2. For each division, $1.02 \%$ of the statutory rates shown above are allocated to the Health Care Trust Fund. Additional contributions to the HCTF resulting from RDS payments are considered to be made on behalf of the employer(s).
3. In addition to the statutory rates shown in paragraph 1, Amortization Equalization Disbursements (AED) contributions and Supplemental Amortization Equalization Disbursement (SAED) contributions are to be made by all employers in amounts shown below:

| Year | AED | SAED |
| :---: | :---: | :---: |
| 2007 | $1.00 \%$ | $0.00 \%$ |
| 2008 | 1.40 | 0.50 |
| 2009 | 1.80 | 1.00 |
| 2010 | 2.20 | 1.50 |
| 2011 | 2.60 | 2.00 |
| 2012 | 3.00 | 2.50 |
| 2013 and later | 3.00 | 3.00 |

These amounts are continued in each division until the division's actuarial funded ratio exceeds $100 \%$. At that time, the amount of the AED and SAED is reduced in the following years to an amount necessary to maintain a 100\% funded ratio.
4. The table below shows the development of the normal contribution rate, the unfunded accrued liability (UAL), amortization period and the actuarially required contribution rate with a 30 -year amortization period for each division as well as for the Health Care Trust Fund.

Table 7
Employer Contribution Rate
Expressed as Percent of Active Member Payroll


* Weighted average for State Division.
${ }^{* *}$ Reflects value of increased statutory rate for School Division from $10.15 \%$ to $10.55 \%$ effective January 1, 2013.


## SECTION VI - ACCOUNTING INFORMATION

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

NUMBER OF ALL MEMBERS
AS OF DECEMBER 31, 2007

| GROUP | NUMBER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | State Division | School Division | Local Government Division | Judicial Division | Health Care Trust Fund |
| Retirees and survivors currently receiving benefits | 29,789 | 44,064 | 4,112 | 279 | 43,119 |
| Terminated employees entitled to benefits but not yet receiving benefits | 4,528 | 9,191 | 1,049 | 11 | 14,108 |
| Inactive Members | 48,266 | 71,520 | 13,674 | 5 | N/A |
| Active Members |  |  |  |  |  |
| Vested |  |  |  |  |  |
| General employees | 28,625 | 59,371 | 7,288 | 220 |  |
| State troopers | 573 | 0 | 0 | 0 |  |
| Non-vested |  |  |  |  |  |
| General employees | 23,897 | 56,874 | 9,689 | 76 |  |
| State troopers | 229 | 0 | 0 | 0 |  |
| Total Active Members* | 53,324 | 116,245 | 16,977 | 296 | 186,842 |
| Totals | 135,907 | 241,020 | 35,812 | 591 | 244,069 |

* For current active employees, the liability only includes potential future health care benefits provided by PERA during the employees' retirement. The costs of any health care coverage during active employment are not included in this valuation.

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

SCHEDULE OF FUNDING PROGRESS
(\$ IN THOUSANDS)

| Actuarial Valuation Date | Actuarial Value of Plan Assets (a) | Actuarial Accrued Liability (AAL) Entry Age (b) | Unfunded <br> AAL <br> (UAAL) <br> (b-a) | Funded <br> Ratio <br> (a/b) | Covered Payroll (c) | UAAL as a <br> Percentage of Covered Payroll ( $(b-a) / c$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATE DIVISION* |  |  |  |  |  |  |
| 12/31/2007 | \$14,220,681 | \$19,390,296 | \$5,169,615 | 73.3 \% | \$2,236,518 | 231.1 \% |
| 12/31/2006 | 13,327,290 | 18,246,010 | 4,918,720 | 73.0 \% | 2,099,325 | 234.3 \% |
| 12/31/2005 | 12,536,916 | 17,541,744 | 5,004,828 | 71.5 \% | 2,064,764 | 242.4 \% |
| 12/31/2004 | 28,594,699 | 40,783,531 | 12,188,832 | 70.1 \% | 5,303,439 | 229.8 \% |
| 12/31/2003 | 28,522,222 | 37,914,502 | 9,392,280 | 75.2 \% | 5,140,918 | 182.7 \% |
| 12/31/2002 | 28,551,607 | 32,463,918 | 3,912,311 | 87.9 \% | 5,278,586 | 74.1 \% |
| SCHOOL DIVISION* |  |  |  |  |  |  |
| 12/31/2007 | \$22,070,769 | \$29,241,428 | \$7,170,659 | 75.5 \% | \$3,618,258 | 198.2 \% |
| 12/31/2006 | 20,535,733 | 27,708,682 | 7,172,949 | 74.1 \% | 3,371,186 | 212.8 \% |
| 12/31/2005 | 19,184,225 | 25,963,972 | 6,779,747 | 73.9 \% | 3,241,214 | 209.2 \% |
| 12/31/2004 | 28,594,699 | 40,783,531 | 12,188,832 | 70.1 \% | 5,303,439 | 229.8 \% |
| 12/31/2003 | 28,522,222 | 37,914,502 | 9,392,280 | 75.2 \% | 5,140,918 | 182.7 \% |
| 12/31/2002 | 28,551,607 | 32,463,918 | 3,912,311 | 87.9 \% | 5,278,586 | 74.1 \% |
| LOCAL GOVERNMENT DIVISION |  |  |  |  |  |  |
| 12/31/2007 | \$2,892,847 | \$3,563,199 | \$670,352 | 81.2 \% | \$680,442 | 98.5 \% |
| 12/31/2006 | 2,613,386 | 3,288,421 | 675,035 | 79.5 \% | 636,300 | 106.1 \% |
| 12/31/2005 | 2,358,719 | 3,022,624 | 663,905 | 78.0 \% | 607,217 | 109.3 \% |
| 12/31/2004 | 1,990,652 | 2,576,988 | 586,336 | 77.2 \% | 549,607 | 106.7 \% |
| 12/31/2003 | 1,907,786 | 2,379,229 | 471,443 | 80.2 \% | 479,098 | 98.4 \% |
| 12/31/2002 | 1,839,632 | 1,966,143 | 126,511 | 93.6 \% | 474,760 | 26.6 \% |
| JUDICIAL DIVISION |  |  |  |  |  |  |
| 12/31/2007 | \$231,228 | \$264,210 | \$32,982 | 87.5 \% | \$31,150 | 105.9 \% |
| 12/31/2006 | 210,633 | 247,491 | 36,858 | 85.1 \% | 29,151 | 126.4 \% |
| 12/31/2005 | 193,305 | 223,955 | 30,650 | 86.3 \% | 26,937 | 113.8 \% |
| 12/31/2004 | 170,111 | 209,954 | 39,843 | 81.0 \% | 26,309 | 151.4 \% |
| 12/31/2003 | 166,654 | 198,377 | 31,723 | 84.0 \% | 25,452 | 124.6 \% |
| 12/31/2002 | 162,901 | 165,672 | 2,771 | 98.3 \% | 26,357 | 10.5 \% |
| HEALTH CARE TRUST FUND |  |  |  |  |  |  |
| 12/31/2007 | \$258,775 | \$1,303,594 | \$1,044,819 | 19.9 \% | \$6,566,368 | 15.9 \% |
| 12/31/2006 | 214,816 | 1,247,950 | 1,033,134 | 17.2 \% | 6,617,218 | 15.6 \% |
| 12/31/2005 | 191,264 | 1,116,627 | 925,363 | 17.1 \% | 5,940,132 | 15.6 \% |
| 12/31/2004 | 166,619 | 1,102,597 | 935,978 | 15.1 \% | 5,879,355 | 15.9 \% |
| 12/31/2003 | 160,416 | 897,461 | 737,045 | 17.9 \% | 5,645,468 | 13.1 \% |
| 12/31/2002 | 161,700 | 813,211 | 651,511 | 19.9 \% | 5,779,703 | 11.3 \% |

[^1]3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at December 31, 2007.

|  | State Division | School Division | Local Government Division | Judicial Division | Health Care Trust Fund |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | 12/31/2007 | 12/31/2007 | 12/31/2007 | 12/31/2007 | 12/31/2007 |
| Actuarial cost method | Entry age | Entry age | Entry age | Entry age | Entry age |
| Amortization method | Level percent Open | Level percent Open | Level percent Open | Level percent Open | Level percent Open |
| Remaining amortization period | 30 years | 30 years | 30 years | 30 years | 30 years |
| Asset valuation method | $\begin{aligned} & 4 \text { year } \\ & \text { smoothed } \\ & \text { Market } \end{aligned}$ | $\begin{aligned} & 4 \text { year } \\ & \text { smoothed } \\ & \text { Market } \end{aligned}$ | $\begin{aligned} & 4 \text { year } \\ & \text { smoothed } \\ & \text { Market } \end{aligned}$ | 4 year smoothed Market | 4 year smoothed Market |
| Actuarial assumptions: |  |  |  |  |  |
| Investment rate of return* | 8.50\% | 8.50\% | 8.50\% | 8.50\% | 8.50\% |
| Projected salary increases* | 4.50-10.17\% | 4.50-10.70\% | 4.50-11.47\% | 5.00-6.00\% | $4.50 \% \text { in }$ aggregate |
| Post-Retirement Benefit Increases: |  |  |  |  |  |
| Members hired prior to 7/1/05 | 3.50\% compounded annually | 3.50\% compounded annually | $3.50 \%$ compounded annually | 3.50\% compounded annually | None |
| Members hired on or after 7/1/05 but before 1/1/07 | 3.00\% compounded annually | $\begin{aligned} & 3.00 \% \\ & \text { compounded } \\ & \text { annually } \end{aligned}$ | $\begin{aligned} & 3.00 \% \\ & \text { compounded } \\ & \text { annually } \end{aligned}$ | 3.00\% compounded annually | None |
| Members hired on or after 1/1/07 | None** | None** | None** | None** | None |
| Health Care Inflation Factor | N/A | N/A | N/A | N/A | 4.50\%, applicable to Medicare Part A costs |

* Includes inflation at $4.50 \%$.
** Post-Retirement Benefit Increases are provided by a separate fund subject to monies being available.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

| Fiscal Year | Annual Required Contribution (ARC)* | Percent of ARC Contributed |
| :---: | :---: | :---: |
| State Division |  |  |
| $\begin{aligned} & 2007 \\ & 2006 \\ & 2005 \\ & 2004 \\ & 2003 \\ & 2002 \end{aligned}$ | $18.45 \%$ <br> 17.23 \% <br> 19.33 \% <br> 17.31 \% <br> 11.11 \% <br> 6.37 \% | $\begin{array}{r} 56 \% \\ 58 \% \\ 48 \% \\ 51 \% \\ 69 \% \\ 100 \% \end{array}$ |
| School Division |  |  |
| $\begin{aligned} & 2007 \\ & 2006 \\ & 2005 \\ & 2004 \\ & 2003 \\ & 2002 \end{aligned}$ | 17.18 \% 16.06 \% 19.33 \% 17.31 \% 11.11 \% 6.37 \% | $\begin{array}{r} 60 \% \\ 62 \% \\ 48 \% \\ 51 \% \\ 69 \% \\ 100 \% \end{array}$ |
| Local Government Division |  |  |
| $\begin{aligned} & 2007 \\ & 2006 \\ & 2005 \\ & 2004 \\ & 2003 \\ & 2002 \end{aligned}$ | $\begin{gathered} 11.95 \% \\ 11.21 \% \\ 14.11 \% \\ 13.98 \% \\ 9.53 \% \\ 5.02 \% \end{gathered}$ | $\begin{array}{r} 84 \% \\ 85 \% \\ 64 \% \\ 62 \% \\ 69 \% \\ 100 \% \end{array}$ |
| Judicial Division |  |  |
| $\begin{aligned} & 2007 \\ & 2006 \\ & 2005 \\ & 2004 \\ & 2003 \\ & 2002 \end{aligned}$ | 17.66 \% <br> 15.33 \% <br> 17.21 \% <br> 16.22 \% <br> 3.98 \% <br> $1.55 \%$ | $\begin{array}{r} 77 \% \\ 84 \% \\ 74 \% \\ 64 \% \\ 100 \% \\ 100 \% \end{array}$ |

* As a percentage of Covered Payroll without consideration of future increases in AED and SAED. The amortization period for 2007 is 30 years.


## SCHEDULE OF EMPLOYER CONTRIBUTIONS HEALTH CARE TRUST FUND

| Fiscal Year | Annual <br> Required <br> Contribution <br> (ARC) | PERA <br> Payroll <br> Allocations <br> (b) | Retiree Drug <br> Subsidy (RDS) <br> Contribution <br> (c) | Total <br> Contribution <br> (d) $=(b)+(c)$ | Percentage of <br> ARC <br> Contributed <br> (e) $=(d) /(a)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | $\$ 73,345,970$ | $\$ 68,507,982$ | $\$ 12,396,777$ | $\$ 80,904,759$ | $110 \%$ |
| 2006 | $\$ 70,687,571$ | $\$ 64,546,501$ | $\$ 12,481,068$ | $\$ 77,027,569$ | $109 \%$ |

Beginning in 2006, the following changes were implemented to comply with GASB 43 and GASB Technical Bulletin 2006-1:

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

HISTORICAL SCHEDULE OF EMPLOYER CONTRIBUTIONS HEALTH CARE TRUST FUND

| Fiscal <br> Year | Annual <br> Required Contribution <br> (ARC) | Percent <br> of ARC <br> Contributed |
| :---: | :---: | :---: |
| 2005 | $1.13 \%$ | $90 \%$ |
| 2004 | $1.02 \%$ | $100 \%$ |
| 2003 | $1.16 \%$ | $100 \%$ |
| 2002 | $1.71 \%$ | $100 \%$ |

Note: ARCs through 2005 are determined in accordance with GASB 26 and are expressed as a percentage of pay. Beginning in 2006, ARCs are determined in accordance with GASB 43/45.

## SECTION VII - DERIVATION OF EXPERIENCE GAINS AND LOSSES

Changes in Unfunded Actuarial Accrued Liabilities (UAAL)
During Calendar Year 2007
(\$ in Millions)

|  | State Division | School Division | Local Government Division | Judicial Division | Health Care Trust Fund* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1) Beginning of Year: |  |  |  |  |  |
| a) Unfunded Actuarial Accrued Liability | \$4,918.7 | \$7,172.9 | \$675.0 | \$36.9 | \$1,033.1 |
| b) Normal Cost | 308.0 | 488.8 | 95.1 | 5.8 | 17.7 |
| c) Required Employer Contributions | 592.7 | 911.1 | 135.7 | 8.0 | 73.3 |
| d) Actual Employer Contributions | 411.9 | 663.6 | 123.1 | 6.7 | 80.9 |
| 2) End of Year: |  |  |  |  |  |
| a) Expected UAAL from previous valuation $\text { (1a) } \times 1.085+(1 b) \times 1.0425-(1 c) \times 1.0425$ | \$5,040.0 | \$7,342.3 | \$690.0 | \$37.7 | \$1,062.9 |
| b) Expected UAAL on actual contributions <br> (1a) $\times 1.085+(1 b) \times 1.0425-(1 d) \times 1.0425$ | 5,228.5 | 7,600.4 | 703.2 | 39.1 | 1,055.0 |
| c) Increase in UAAL due to Deficiency $(2 b)-(2 a)$ | 188.5 | 258.1 | 13.2 | 1.4 | (7.9) |
| 3) Gains (Losses) on Year's Activities |  |  |  |  |  |
| a) Liability - Assumed vs. Actual | (\$241.3) | (\$37.5) | (\$25.5) | (\$1.5) | \$9.2 |
| b) Assets - Assumed vs. Actual | 300.2 | 467.2 | 58.3 | 7.6 | 5.2 |
| c) Change in Plan Assumptions | 0.0 | 0.0 | 0.0 | 0.0 | (4.2) |
| d) Change in Plan Provisions | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| e) Change in Methods | 0.0 | 0.0 | $\underline{0.0}$ | 0.0 | $\underline{0.0}$ |
| f) Total | \$58.9 | \$429.7 | \$32.8 | \$6.1 | \$10.2 |
| 4) Actual UAAL at End of Year |  |  |  |  |  |
| $(2 a)+(2 c)-(3 f)$ | \$5,169.6 | \$7,170.7 | \$670.4 | \$33.0 | \$1,044.8 |

[^2]
## Gains \& Losses in Actuarial Accrued Liabilities

During Calendar Year 2007
(\$ in Millions)

| Type of Activity | State Division | School Division | Local Government Division | Judicial Division | Health Care Trust Fund |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age \& Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss. | (\$18.2) | (\$28.7) | (\$7.2) | (\$2.8) | (\$1.5) |
| Disability Retirements. If dis ability claims are less than assumed, there is a gain. If more claims, a loss. | 14.0 | 7.9 | 4.3 | 0.4 | 0.7 |
| Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss. | (1.0) | (3.2) | (0.3) | 0.1 | (0.1) |
| Withdrawal from Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss. | (31.1) | (68.1) | (7.5) | (1.0) | (2.8) |
| Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. | (86.1) | (141.6) | 6.7 | (0.3) | 0.0 |
| New Members. Additional unfunded accrued liability will produce a loss. | (47.8) | (49.7) | (12.6) | (3.4) | (3.0) |
| Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss. | 300.2 | 467.2 | 58.3 | 7.6 | 5.2 |
| Death after Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain. | (6.0) | 20.3 | 0.0 | (0.5) | 0.4 |
| Other. Mis cellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc. | (65.1) | $\underline{225.6}$ | (8.9) | 6.0 | 15.5 |
| Gain (or Loss) During Year from Financial Experience | \$58.9 | \$429.7 | \$32.8 | \$6.1 | \$14.4 |

## SECTION VIII - ADDITIONAL HEALTH CARE TRUST FUND INFORMATION

## Subsidy Analysis

|  |  |  |  |  | PERA Subsidy |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Administrative <br> Expenses | Claims \& HMO <br> Premiums | Total Costs <br> $\mathbf{( 2 ) + ( 3 ) ~}$ | Amount | Percentage <br> $\mathbf{( 5 ) / ( 4 )}$ |  |
| $\mathbf{( 1 )}$ | $\mathbf{( 2 )}$ | $\mathbf{( 3 )}$ | $\mathbf{( 4 )}$ | $\mathbf{( 5 )}$ | $\mathbf{( 6 )}$ |  |
| 2007 | $\$ 7,348,821$ | $\$ 216,848,936$ | $\$ 224,197,757$ | $\$ 58,986,436$ | $26 \%$ |  |
| 2006 | $4,174,575$ | $233,101,402$ | $237,275,977$ | $71,155,481$ | $30 \%$ |  |
| 2005 | $4,725,201$ | $230,726,860$ | $235,452,061$ | $77,899,386$ | $33 \%$ |  |
| 2004 | $4,708,737$ | $211,610,778$ | $216,319,515$ | $76,409,691$ | $35 \%$ |  |
| 2003 | $4,872,077$ | $192,262,017$ | $197,134,094$ | $70,215,907$ | $36 \%$ |  |
| 2002 | $4,571,820$ | $169,354,992$ | $173,926,812$ | $70,008,246$ | $40 \%$ |  |
| 2001 | $4,564,519$ | $125,038,014$ | $129,602,533$ | $59,506,374$ | $46 \%$ |  |
| 2000 | $3,530,456$ | $111,292,369$ | $114,822,825$ | $48,577,022$ | $42 \%$ |  |

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 healthcare cost for retirees, beneficiaries and covered dependents. Also, claims experience gains and losses have been included in the actual PERA subsidy.


## 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, 2007

## STATE DIVISION

| PRESENT AND PROSPECTIVE ASSETS |  |  |
| :---: | :---: | :---: |
| Actuarial Value of Present Assets |  | \$14,220,680,819 |
| Present value of future members' contributions |  | 1,361,031,657 |
| Present value of future employer contributions |  |  |
| Normal contributions | \$949,435,885 |  |
| Unfunded accrued liability contributions | 5,169,614,984 |  |
| Total prospective employer contributions |  | 6,119,050,869 |
| Total Present and Prospective Assets |  | \$21,700,763,345 |
| ACTUARIAL LIABILITIES |  |  |
| Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits |  | \$11,760, 140,021 |
| Present value of prospective benefits payable on account of inactive members |  | 358,808,237 |
| Present value of prospective benefits payable on account of present active members: |  |  |
| Service retirement benefits | \$7,599,250,257 |  |
| Disability retirement benefits | 383,822,409 |  |
| Survivor benefits | 246,445,064 |  |
| Separation benefits | 1,352,297,357 |  |
| Total |  | 9,581,815,087 |
| Total Actuarial Liabilities |  | \$21,700,763,345 |

## 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, 2007

## SCHOOL DIVISION

| PRESENT AND PROSPECTIVE ASSETS |  |  |
| :---: | :---: | :---: |
| Actuarial Value of Present Assets |  | \$22,070,769,075 |
| Present value of future members' contributions |  | 2,397,986,431 |
| Present value of future employer contributions |  |  |
| Normal contributions | \$1,785,871,105 |  |
| Unfunded accrued liability contributions | 7,170,658,593 |  |
| Total prospective employer contributions |  | 8,956,529,698 |
| Total Present and Prospective Assets |  | \$33,425,285,204 |
| ACTUARIAL LIABILITIES |  |  |
| Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits |  | \$17,545,019,910 |
| Present value of prospective benefits payable on account of inactive members |  | 494,370,095 |
| Present value of prospective benefits payable on account of present active members: |  |  |
| Service retirement benefits | \$12,561,602,726 |  |
| Disability retirement benefits | 281,546,173 |  |
| Survivor benefits | 315,051,205 |  |
| Separation benefits | 2,227,695,095 |  |
| Total |  | 15,385,895,199 |
| Total Actuarial Liabilities |  | \$33,425,285,204 |

## 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, 2007

## LOCAL GOVERNMENT DIVISION

| PRESENT AND PROSPECTIVE ASSETS |  |  |
| :---: | :---: | :---: |
| Actuarial Value of Present Assets |  | \$2,892,846,938 |
| Present value of future members' contributions |  | 428,542,715 |
| Present value of future employer contributions |  |  |
| Normal contributions | \$311,491,113 |  |
| Unfunded accrued liability contributions | 670,352,065 |  |
| Total prospective employer contributions |  | 981,843,178 |
| Total Present and Prospective Assets |  | $\underline{\$ 4,303,232,831}$ |
| ACTUARIAL LIABILITIES |  |  |
| Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits |  | \$1,616,627,195 |
| Present value of prospective benefits payable on account of inactive members |  | 90,721,980 |
| Present value of prospective benefits payable on account of present active members: |  |  |
| Service retirement benefits | \$1,946,629,765 |  |
| Disability retirement benefits | 121,837,308 |  |
| Survivor benefits | 69,033,238 |  |
| Separation benefits | 458,383,345 |  |
| Total |  | 2,595,883,656 |
| Total Actuarial Liabilities |  | \$4,303,232,831 |

## 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, 2007

## JUDICIAL DIVISION

| PRESENT AND PROSPECTIVE ASSETS |  |  |
| :---: | :---: | :---: |
| Actuarial Value of Present Assets |  | \$231,228,304 |
| Present value of future members' contributions |  | 20,003,288 |
| Present value of future employer contributions |  |  |
| Normal contributions | \$27,814,994 |  |
| Unfunded accrued liability contributions | 32,982,193 |  |
| Total prospective employer contributions |  | $\underline{60,797,187}$ |
| Total Present and Prospective Assets |  | \$312,028,779 |
| ACTUARIAL LIABILITIES |  |  |
| Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits |  | \$150,291,424 |
| Present value of prospective benefits payable on account of inactive members |  | 1,781,395 |
| Present value of prospective benefits payable on account of present active members: |  |  |
| Service retirement benefits | \$130,416,237 |  |
| Disability retirement benefits | 9,128,599 |  |
| Survivor benefits | 8,840,512 |  |
| Separation benefits | 11,570,612 |  |
| Total |  | 159,955,960 |
| Total Actuarial Liabilities |  | \$312,028,779 |

## 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, 2007
HEALTH CARE TRUST FUND

| PRESENT AND PROSPECTIVE ASSETS |  |  |
| :---: | :---: | :---: |
| Actuarial Value of Present Assets |  | \$258,774,755 |
| Present value of future members' contributions |  | 0 |
| Present value of future employer contributions |  |  |
| Normal contributions | \$99,144,757 |  |
| Unfunded accrued liability contributions | $\underline{1,044,819,481}$ |  |
| Total prospective employer contributions |  | 1,143,964,238 |
| Total Present and Prospective Assets |  | \$1,402,738,993 |
| 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 the law |  | \$912,130,721 |
| Present value of prospective benefits payable on account of inactive members |  | 14,049,246 |
| Present value of prospective benefits payable on account of present active members: |  |  |
| Service retirement benefits | \$423,137, 122 |  |
| Disability retirement benefits | 33,533,112 |  |
| Survivor benefits | 1,099,884 |  |
| Separation benefits | 18,788,908 |  |
| Total |  | 476,559,026 |
| Total Actuarial Liabilities |  | \$1,402,738,993 |

## SCHEDULE A

(continued)
SOLVENCY TEST
(\$ IN THOUSANDS)

| Valuation Date | Aggregate Accrued Liabilities For* |  |  |  | Portion of Accrued Liabilities Covered by Reported Asset |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) <br> Active <br> Member Contributions | (2) <br> Retirees, Survivors and Inactive Members | (3) <br> Active Members (Employer Financed Portion) | Reported Assets | (1) | (2) | (3) |
| 12/31/2007 | \$6,834,261 | \$32,017,760 | \$13,607,112 | \$39,415,525 | 100\% | 100\% | 4.1\% |
| 12/31/2006 | 6,742,437 | 29,674,682 | 13,073,485 | 36,687,042 | 100\% | 100\% | 2.1\% |
| 12/31/2005 | 5,755,118 | 26,382,911 | 14,614,267 | 34,273,165 | 100\% | 100\% | 14.6\% |
| 12/31/2004 | 6,365,516 | 23,833,958 | 13,370,998 | 30,755,462 | 100\% | 100\% | 4.2\% |
| 12/31/2003 | 6,316,579 | 20,844,058 | 13,291,470 | 30,596,662 | 100\% | 100\% | 25.9\% |

* Results do not include the Health Care Trust Fund.


## SCHEDULE B

DEVELOPMENT OF THE DECEMBER 31, 2007 ACTUARIAL VALUE OF ASSETS

## STATE DIVISION

| (1) | Actuarial Value Beginning of Year | \$ | 13,327,290,139 |
| :---: | :---: | :---: | :---: |
| (2) | Market Value End of Year | \$ | 14,850,919,254 |
| (3) | Market Value Beginning of Year | \$ | 14,041,260,113 |
| (4) | Cash Flow |  |  |
|  | a. Contributions | \$ | 420,139,761 |
|  | b. Benefit Payments |  | $(988,865,261)$ |
|  | c. Administrative Expenses |  | $(6,963,329)$ |
|  | d. Net Transfers |  | $(2,898,035)$ |
|  | e. Net Cash Flow: [(4)a + (4)b+(4)c + (4)d] | \$ | $(578,586,864)$ |
| (5) | Investment Income |  |  |
|  | a. Market total: (2) - (3) - (4)e | \$ | 1,388,246,005 |
|  | b. Assumed Rate |  | 8.50\% |
|  | c. Amount of Immediate Recognition |  |  |
|  | [(3) $\times(5) b]+[(4) e \times(5) b \times 0.5]$ | \$ | 1,168,917,168 |
|  | d. Amount for Phased-in Recognition: (5)a-(5)c | \$ | 219,328,837 |
| (6) | Phased-In Recognition of Investment Income |  |  |
|  | a. Current Year: $0.25 \times(5) \mathrm{d}$ | \$ | 54,832,209 |
|  | b. First Prior Year |  | 217,513,634 |
|  | c. Second Prior Year |  | 30,714,533 |
|  | d. Third Prior Year |  | 0 |
|  | e. Total Recognized Investment Gain | \$ | 303,060,376 |
| (7) | Actuarial Value End of Year: |  |  |
|  | (1) $+(4) \mathrm{e}+(5) \mathrm{c}+(6) \mathrm{e}$ | \$ | 14,220,680,819 |

## SCHEDULE B

(Continued)

## DEVELOPMENT OF THE DECEMBER 31, 2007

 ACTUARIAL VALUE OF ASSETS
## SCHOOL DIVISION

| (1) | Actuarial Value Beginning of Year | \$ | 20,535,732,606 |
| :---: | :---: | :---: | :---: |
| (2) | Market Value End of Year | \$ | 23,042,077,727 |
| (3) | Market Value Beginning of Year | \$ | 21,635,957,329 |
| (4) | Cash Flow |  |  |
|  | a. Contributions | \$ | 677,948,090 |
|  | b. Benefit Payments |  | (1,405,783,991) |
|  | c. Administrative Expenses |  | $(11,941,592)$ |
|  | d. Net Transfers |  | $(57,170)$ |
|  | e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d] | \$ | $(739,834,663)$ |
| (5) | Investment Income |  |  |
|  | a. Market total: $(2)-(3)-(4) e$ | \$ | 2,145,955,061 |
|  | b. Assumed Rate |  | 8.50\% |
|  | c. Amount of Immediate Recognition |  |  |
|  | [(3) $\times(5) \mathrm{b}]+[(4) \mathrm{e} \times(5) \mathrm{b} \times 0.5]$ | \$ | 1,807,613,400 |
|  | d. Amount for Phased-in Recognition: (5)a - (5)c | \$ | 338,341,661 |
| (6) | Phased-In Recognition of Investment Income |  |  |
|  | a. Current Year: 0.25 x (5)d | \$ | 84,585,415 |
|  | b. First Prior Year |  | 334,880,090 |
|  | c. Second Prior Year |  | 47,792,227 |
|  | d. Third Prior Year |  | 0 |
|  | e. Total Recognized Investment Gain | \$ | 467,257,732 |
| (7) | Actuarial Value End of Year: |  |  |
|  | $(1)+(4) e+(5) c+(6) e$ | \$ | 22,070,769,075 |

## SCHEDULE B

(Continued)

## DEVELOPMENT OF THE DECEMBER 31, 2007

ACTUARIAL VALUE OF ASSETS
LOCAL GOVERNMENT DIVISION

| (1) | Actuarial Value Beginning of Year | \$ | 2,613,386,001 |
| :---: | :---: | :---: | :---: |
| (2) | Market Value End of Year | \$ | 3,013,806,957 |
| (3) | Market Value Beginning of Year | \$ | 2,751,070,678 |
| (4) | Cash Flow |  |  |
|  | a. Contributions | \$ | 125,581,415 |
|  | b. Benefit Payments |  | $(135,865,832)$ |
|  | c. Administrative Expenses |  | $(1,917,808)$ |
|  | d. Net Transfers |  | $(53,411)$ |
|  | e. Net Cash Flow: [(4)a + (4)b+(4)c + (4)d] | \$ | $(12,255,636)$ |
| (5) | Investment Income |  |  |
|  | a. Market total: $(2)-(3)-(4) \mathrm{e}$ | \$ | 274,991,915 |
|  | b. Assumed Rate |  | 8.50\% |
|  | c. Amount of Immediate Recognition |  |  |
|  | [(3) $\times(5) \mathrm{b}]+[(4) \mathrm{e} \times(5) \mathrm{b} \times 0.5]$ | \$ | 233,320,143 |
|  | d. Amount for Phased-in Recognition: (5)a - (5)c | \$ | 41,671,772 |
| (6) | Phased-In Recognition of Investment Income |  |  |
|  | a. Current Year: $0.25 \mathrm{x}(5) \mathrm{d}$ | \$ | 10,417,943 |
|  | b. First Prior Year |  | 41,727,704 |
|  | c. Second Prior Year |  | 6,250,783 |
|  | d. Third Prior Year |  | 0 |
|  | e. Total Recognized Investment Gain | \$ | 58,396,430 |
|  | Actuarial Value End of Year: |  |  |
|  | $(1)+(4) e+(5) c+(6) e$ | \$ | 2,892,846,938 |

## SCHEDULE B

(Continued)

## DEVELOPMENT OF THE DECEMBER 31, 2007

 ACTUARIAL VALUE OF ASSETS
## JUDICIAL DIVISION

|  | Actuarial Value Beginning of Year | \$ | 210,632,896 |
| :---: | :---: | :---: | :---: |
| (2) | Market Value End of Year | \$ | 240,861,140 |
| (3) | Market Value Beginning of Year | \$ | 221,663,432 |
| (4) | Cash Flow |  |  |
|  | a. Contributions | \$ | 6,770,097 |
|  | b. Benefit Payments |  | $(12,526,242)$ |
|  | c. Administrative Expenses |  | $(19,087)$ |
|  | d. Net Transfers |  | 3,008,616 |
|  | e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d] | \$ | $(2,766,616)$ |
| (5) | Investment Income |  |  |
|  | a. Market total: $(2)-(3)-(4) \mathrm{e}$ | \$ | 21,964,324 |
|  | b. Assumed Rate |  | 8.50\% |
|  | c. Amount of Immediate Recognition |  |  |
|  | [(3) x (5)b] + [(4)e $\times$ (5)b $\times 0.5]$ | \$ | 18,723,811 |
|  | d. Amount for Phased-in Recognition: (5)a - (5)c | \$ | 3,240,513 |
| (6) | Phased-In Recognition of Investment Income |  |  |
|  | a. Current Year: $0.25 \times(5) \mathrm{d}$ | \$ | 810,128 |
|  | b. First Prior Year |  | 3,374,369 |
|  | c. Second Prior Year |  | 453,716 |
|  | d. Third Prior Year |  | 0 |
|  | e. Total Recognized Investment Gain | \$ | 4,638,213 |
|  | Actuarial Value End of Year: |  |  |
|  | $(1)+(4) e+(5) c+(6) e$ | \$ | 231,228,304 |

## SCHEDULE B

(Continued)

## DEVELOPMENT OF THE DECEMBER 31, 2007

ACTUARIAL VALUE OF ASSETS

HEALTH CARE TRUST FUND

|  | Actuarial Value Beginning of Year | \$ | 214,816,145 |
| :---: | :---: | :---: | :---: |
| (2) | Market Value End of Year | \$ | 269,432,145 |
| (3) | Market Value Beginning of Year | \$ | 226,849,686 |
| (4) | Cash Flow |  |  |
|  | a. Contributions | \$ | 79,695,881 |
|  | b. Benefit Payments |  | $(58,986,437)$ |
|  | c. Administrative Expenses |  | $(1,994,693)$ |
|  | d. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d] | \$ | 18,714,751 |
| (5) | Investment Income |  |  |
|  | a. Market total: $(2)-(3)-(4) \mathrm{e}$ | \$ | 23,867,708 |
|  | b. Assumed Rate |  | 8.50\% |
|  | c. Amount of Immediate Recognition |  |  |
|  | [(3) $\times(5) b]+[(4) \mathrm{e} \times(5) \mathrm{b} \times 0.5]$ | \$ | 20,077,600 |
|  | d. Amount for Phased-in Recognition: (5)a - (5)c | \$ | 3,790,108 |
| (6) | Phased-In Recognition of Investment Income |  |  |
|  | a. Current Year: 0.25 x (5)d | \$ | 947,527 |
|  | b. First Prior Year |  | 3,596,079 |
|  | c. Second Prior Year |  | 622,653 |
|  | d. Third Prior Year |  | 0 |
|  | e. Total Recognized Investment Gain | \$ | 5,166,259 |
| (7) | Actuarial Value End of Year: |  |  |
|  | $(1)+(4) e+(5) c+(6) e$ | \$ | 258,774,755 |

## SCHEDULE C

## SUMMARY OF CHANGES IN NET ASSETS FOR THE YEAR ENDING DECEMBER 31, 2007

## STATE DIVISION

| Additions for the Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Contributions: |  |  |  |  |
| Members (including purchased service) | \$ | 188,230,776 |  |  |
| Employers |  | 231,908,985 |  |  |
| Total |  |  | \$ | 420,139,761 |
| Net Investment Income |  |  |  | 1,388,246,005 |
| TOTAL |  |  | \$ | 1,808,385,766 |
| Deductions for the Year |  |  |  |  |
| Benefit Payments (including refunds and disability insurance) | \$ | 984,172,630 |  |  |
| Transfers |  | 2,898,035 |  |  |
| Other deductions |  | 4,692,631 |  |  |
| Administrative Expenses |  | 6,963,329 |  |  |
| TOTAL |  |  | \$ | 998,726,625 |
| Excess of Additions Over Deductions |  |  | \$ | 809,659,141 |
| $\underline{\text { Reconciliation of Asset Balances }}$ |  |  |  |  |
| Market Value of Assets as of 12/31/2006 |  |  |  | 4,041,260,113 |
| Excess of Additions over Deductions |  |  |  | 809,659,141 |
| Market Value of Assets as of 12/31/2007* |  |  |  | 4,850,919,254 |

* 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 $\$ 14,852,029,092$ and includes the amount in the Annual Increase Reserve of $\$ 1,109,838$ for post-retirement benefit increases for members hired on or after January 1, 2007.


## SCHEDULE C

(Continued)

## SUMMARY OF CHANGES IN NET ASSETS FOR THE YEAR ENDING DECEMBER 31, 2007

## SCHOOL DIVISION

| Additions for the Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Contributions: |  |  |  |  |
| Members (including purchased service) | \$ | 303,562,370 |  |  |
| Employers |  | 374,385,720 |  |  |
| Total |  |  | \$ | 677,948,090 |
| Net Investment Income |  |  |  | 2,145,955,061 |
| TOTAL |  |  | \$ | 2,823,903,151 |
| Deductions for the Year |  |  |  |  |
| Benefit Payments (including refunds and disability insurance) | \$ | 1,400,495,258 |  |  |
| Transfers |  | 57,170 |  |  |
| Other deductions |  | 5,288,733 |  |  |
| Administrative Expenses |  | 11,941,592 |  |  |
| TOTAL |  |  | \$ | 1,417,782,753 |
| Excess of Additions Over Deductions |  |  | \$ | 1,406,120,398 |
| $\underline{\text { Reconciliation of Asset Balances }}$ |  |  |  |  |
| Market Value of Assets as of 12/31/2006 |  |  |  | 21,635,957,329 |
| Excess of Additions over Deductions |  |  |  | 1,406,120,398 |
| Market Value of Assets as of 12/31/2007* |  |  |  | 23,042,077,727 |

* 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 $\$ 23,043,186,201$ and includes the amount in the Annual Increase Reserve of $\$ 1,108,474$ for post-retirement benefit increases for members hired on or after January 1, 2007.


## SCHEDULE C

(Continued)

## SUMMARY OF CHANGES IN NET ASSETS FOR THE YEAR ENDING DECEMBER 31, 2007

## LOCAL GOVERNMENT DIVISION

Additions for the Year
Contributions:

| Members (including purchased service) | $\$ \quad 57,326,973$ |
| :--- | :--- | ---: |
| Employers |  |

Total
Net Investment Income

TOTAL

Deductions for the Year

Benefit Payments (including refunds and disability insurance) \$ 134,594,050
Transfers
Other deductions
Administrative Expenses

TOTAL

Excess of Additions Over Deductions

Reconciliation of Asset Balances
Market Value of Assets as of 12/31/2006
Excess of Additions over Deductions
Market Value of Assets as of 12/31/2007*
\$ 125,581,415

274,991,915
\$ 400,573,330
\$ 137,837,051
$\$ \quad 262,736,279$
\$ 2,751,070,678
262,736,279
$\xlongequal{\$ 3,013,806,957}$

* 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 $\$ 3,014,273,587$ and includes the amount in the Annual Increase Reserve of $\$ 466,630$ for post-retirement benefit increases for members hired on or after January 1, 2007.


## SCHEDULE C

(Continued)

## SUMMARY OF CHANGES IN NET ASSETS FOR THE YEAR ENDING DECEMBER 31, 2007

## JUDICIAL DIVISION

| Additions for the Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Contributions: |  |  |  |  |
| Members (including purchased service) | \$ | 2,559,064 |  |  |
| Employers |  | 4,211,033 |  |  |
| Total |  |  | \$ | 6,770,097 |
| Net Investment Income |  |  |  | 21,964,324 |
| TOTAL |  |  | \$ | 28,734,421 |
| Deductions for the Year |  |  |  |  |
| Benefit Payments (including refunds and disability insurance) | \$ | 12,425,503 |  |  |
| Transfers |  | $(3,008,616)$ |  |  |
| Other deductions |  | 100,739 |  |  |
| Administrative Expenses |  | 19,087 |  |  |
| TOTAL |  |  | \$ | 9,536,713 |
| Excess of Additions Over Deductions |  |  | \$ | 19,197,708 |
| $\underline{\text { Reconciliation of Asset Balances }}$ |  |  |  |  |
| Market Value of Assets as of 12/31/2006 |  |  | \$ | 221,663,432 |
| Excess of Additions over Deductions |  |  |  | 19,197,708 |
| Market Value of Assets as of 12/31/2007* |  |  | \$ | 240,861,140 |

* 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 $\$ 240,872,539$ and includes the amount in the Annual Increase Reserve of $\$ 11,399$ for post-retirement benefit increases for members hired on or after January 1, 2007.


## SCHEDULE C

(Continued)

## SUMMARY OF CHANGES IN NET ASSETS FOR THE YEAR ENDING DECEMBER 31, 2007

## HEALTH CARE TRUST FUND

| Contributions: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Members' Purchase Service Transfers | \$ | 11,187,899 |  |  |
| Employers |  | 68,507,982 |  |  |
| Total |  |  | \$ | 79,695,881 |
| Net Investment Income |  |  |  | 23,867,708 |
| TOTAL |  |  | \$ | 103,563,589 |
| Deductions for the Year |  |  |  |  |
| Benefit Payments | \$ | 58,986,437 |  |  |
| Other Income and Expenses |  | $(1,707,341)$ |  |  |
| PERA Internal Administrative Expenses |  | 3,702,034 |  |  |
| TOTAL |  |  | \$ | 60,981,130 |
| Excess of Additions Over Deductions |  |  | \$ | 42,582,459 |
| $\underline{\text { Reconciliation of Asset Balances }}$ |  |  |  |  |
| Market Value of Assets as of 12/31/2006 |  |  | \$ | 226,849,686 |
| Excess of Additions over Deductions |  |  |  | 42,582,459 |
| Market Value of Assets as of 12/31/2007 |  |  | \$ | 269,432,145 |

## SCHEDULE D

## OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INVESTMENT RATE OF RETURN: 8.50\% per annum, compounded annually (net of administrative expenses).

INFLATION ASSUMPTION: 4.50\% per year.
PERCENT MARRIED: $100 \%$ of employees are assumed to be married, with the wife 3 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. The actuarial value of assets was reinitialized at Market Value as of December 31, 2004. There will be three years of smoothing in the December 31, 2007 valuation as the method is phased in.

INTEREST CREDIT: 5\% per annum on member contribution account balances.

WITHDRAWAL ASSUMPTION: It was assumed that $35 \%$ of the vested members who terminate elect to withdraw their contributions and matching employer contributions while the remaining $65 \%$ elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date. The only 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.

## SCHEDULE D

(Continued)

## STATE DIVISION NON-TROOPERS

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation $4.50 \%$ per annum:

|  | Pay Increase Assumptions <br> for an Individual Member <br>  |  |  |
| :---: | :---: | :---: | :---: |
| Sample <br> Ages |  <br> Seniority | Productivity <br> (Economy) | Increase <br> (Next Year) |
| 20 | $5.67 \%$ | $4.50 \%$ | $10.17 \%$ |
| 25 | 3.75 | 4.50 | 8.25 |
| 30 | 2.80 | 4.50 | 7.30 |
| 35 | 2.05 | 4.50 | 6.55 |
| 40 | 1.50 | 4.50 | 6.00 |
| 45 | 0.85 | 4.50 |  |
| 50 | 0.50 | 4.50 | 5.35 |
| 55 | 0.10 | 4.50 | 5.00 |
| 60 | 0.00 | 4.50 | 4.60 |
| 65 | 0.00 | 4.50 | 4.50 |
|  |  |  | 4.50 |

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

| $\begin{gathered} \text { Sample } \\ \text { Ages } \end{gathered}$ | Percent of Members Separating Within the Next Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ultimate Withdrawal |  | Death ${ }^{1}$ |  | Disability |  |
|  | Males | Females | Males | Females | Males | Females |
| 20 | 21.00\% | 18.00\% | 0.025\% | 0.015\% | 0.01\% | 0.01\% |
| 25 | 7.20 | 7.60 | 0.030 | 0.015 | 0.04 | 0.03 |
| 30 | 6.30 | 6.90 | 0.040 | 0.025 | 0.05 | 0.05 |
| 35 | 5.40 | 6.20 | 0.055 | 0.035 | 0.18 | 0.16 |
| 40 | 4.40 | 5.60 | 0.095 | 0.058 | 0.24 | 0.22 |
| 45 | 4.30 | 5.00 | 0.200 | 0.097 | 0.39 | 0.34 |
| 50 | 4.20 | 5.00 | 0.383 | 0.158 | 0.55 | 0.50 |
| 55 | 4.20 | 5.00 | 0.538 | 0.227 | 0.90 | 0.84 |
| 60 | 4.20 | 5.00 | 0.680 | 0.345 | 1.06 | 0.94 |
| 65 | 4.20 | 5.00 | 1.061 | 0.603 | 1.08 | 0.96 |

${ }^{1}$ Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.

## SCHEDULE D <br> (Continued)

## STATE DIVISION

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

| Completed Years of Service | Males | Females |
| :---: | :---: | :---: |
| 0 | $40.0 \%$ | $40.0 \%$ |
| 1 | 18.0 | 20.0 |
| 2 | 12.0 | 14.0 |
| 3 | 9.0 | 11.0 |
| 4 | 8.0 | 10.0 |

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

| Retirement <br> Ages | Percent of Members <br> Who Are Eligible for Reduced <br> Benefits Retiring Next Year | Percent of Members <br> Who Are Eligible for Unreduced <br> Benefits Retiring Next Year |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Females | Males | Females |

## SCHEDULE D <br> (Continued) <br> STATE DIVISION TROOPERS

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at $4.50 \%$ per annum:

| Pay Increase Assumptions <br> for an Individual Member <br>  |  |  |  |
| :---: | :---: | :---: | :---: |
| Sample <br> Ages |  <br> Seniority | Total <br> (Economy) | Increase <br> (Next Year) |
| 20 | $5.50 \%$ | $4.50 \%$ | $10.00 \%$ |
| 25 | 3.75 | 4.50 | 8.25 |
| 30 | 2.80 | 4.50 | 7.30 |
| 35 | 2.05 | 4.50 | 6.55 |
| 40 | 1.50 | 4.50 | 6.00 |
| 45 | 1.20 | 4.50 | 5.70 |
| 50 | 0.80 | 4.50 | 5.30 |
| 55 | 0.40 | 4.50 | 4.90 |
| 60 | 0.00 | 4.50 | 4.50 |
| 65 | 0.00 | 4.50 | 4.50 |

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

| Sample <br> Ages | Percent of Members Separating Within the Next Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ultimate Withdrawal ${ }^{1}$ |  | Death ${ }^{2}$ |  | Disability |  |
|  | Males | Females | Males | Females | Males | Females |
| 20 | 5.00\% | 5.00\% | 0.025\% | 0.015\% | 0.02\% | 0.02\% |
| 25 | 5.00 | 5.00 | 0.030 | 0.015 | 0.08 | 0.08 |
| 30 | 3.80 | 3.80 | 0.040 | 0.025 | 0.12 | 0.12 |
| 35 | 2.50 | 2.50 | 0.055 | 0.035 | 0.40 | 0.40 |
| 40 | 1.60 | 1.60 | 0.095 | 0.058 | 0.54 | 0.54 |
| 45 | 1.10 | 1.10 | 0.200 | 0.097 | 0.86 | 0.86 |
| 50 | 1.00 | 1.00 | 0.383 | 0.158 | 1.28 | 1.28 |
| 55 | 1.00 | 1.00 | 0.538 | 0.227 | 1.85 | 1.85 |
| 60 | 1.00 | 1.00 | 0.680 | 0.345 | 2.00 | 2.00 |
| 65 | 1.00 | 1.00 | 1.061 | 0.603 | 2.00 | 2.00 |

${ }^{1}$ There are no select withdrawal 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 <br> Ages | Percent of Members <br> Who Are Eligible for Reduced <br> Benefits Retiring Next Year | Percent of M <br> Who Are Eligible for <br> Benefits Retiring |
| :---: | :---: | :---: |
| 50 | $20 \%$ | $30 \%$ |
| 51 | 20 | 30 |
| 52 | 20 | 30 |
| 53 | 20 | 30 |
| 54 | 20 | 25 |
| 55 | 10 | 25 |
| 56 | 10 | 15 |
| 57 | 10 | 15 |
| 58 | 10 | 35 |
| 59 | 10 | 35 |
| 60 | 25 | 35 |
| 61 | 25 | 35 |
| 62 | 25 | 50 |
| 63 | 25 | 50 |
| 64 | 25 | 50 |
| $65 \&$ over | 0 | 100 |

## SCHEDULE D

(Continued)

## SCHOOL DIVISION

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at $4.50 \%$ per annum:

| Sample |  <br> Say Increase Assumptions <br> for an Individual Member <br>  | Total <br> Productivity <br> (Economy) | Increase <br> (Next Year) |
| :---: | :---: | :---: | :---: |
| 20 | $6.20 \%$ | $4.50 \%$ | $10.70 \%$ |
| 25 | 4.10 | 4.50 | 8.60 |
| 30 | 2.95 | 4.50 | 7.45 |
| 35 | 2.50 | 4.50 | 7.00 |
| 40 | 1.95 | 4.50 | 6.45 |
| 45 | 1.35 | 4.50 | 5.85 |
| 50 | 0.80 | 4.50 | 5.30 |
| 55 | 0.35 | 4.50 | 4.85 |
| 60 | 0.00 | 4.50 | 4.50 |
| 65 | 0.00 | 4.50 | 4.50 |

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

| Sample <br> Ages | Percent of Members Separating Within the Next Year <br> Death ${ }^{1}$ <br> Disability |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females | Males | Females |
| 20 | 21.00\% | 18.00\% | 0.025\% | 0.015\% | 0.01\% | 0.01\% |
| 25 | 7.63 | 8.99 | 0.030 | 0.015 | 0.01 | 0.02 |
| 30 | 5.24 | 7.79 | 0.040 | 0.025 | 0.01 | 0.03 |
| 35 | 4.36 | 6.80 | 0.055 | 0.035 | 0.04 | 0.05 |
| 40 | 3.59 | 5.40 | 0.095 | 0.058 | 0.11 | 0.08 |
| 45 | 3.27 | 5.00 | 0.200 | 0.097 | 0.18 | 0.11 |
| 50 | 3.90 | 4.60 | 0.383 | 0.158 | 0.30 | 0.20 |
| 55 | 3.90 | 4.60 | 0.538 | 0.227 | 0.55 | 0.36 |
| 60 | 3.90 | 4.60 | 0.680 | 0.345 | 0.70 | 0.40 |
| 65 | 3.90 | 4.60 | 1.061 | 0.603 | 0.70 | 0.40 |

[^3]
## SCHEDULE D <br> (Continued)

## SCHOOL DIVISION

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

| Completed Years of Service | Males | Females |
| :---: | :---: | :---: |
| 0 | $40.0 \%$ | $40.0 \%$ |
| 1 | 16.0 | 16.5 |
| 2 | 12.0 | 12.5 |
| 3 | 9.0 | 10.5 |
| 4 | 8.0 | 10.0 |

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

| Retirement Ages | Percent of Members <br> Who Are Eligible for Reduced Benefits Retiring Next Year |  | Percent of Members Who Are Eligible for Unreduced Benefits Retiring Next Year |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females |
| 50 | 10\% | 12\% | 40\% | 40\% |
| 51 | 10 | 12 | 40 | 40 |
| 52 | 10 | 12 | 35 | 35 |
| 53 | 10 | 12 | 35 | 35 |
| 54 | 18 | 20 | 35 | 35 |
| 55 | 18 | 20 | 25 | 25 |
| 56 | 18 | 20 | 25 | 25 |
| 57 | 18 | 20 | 25 | 22 |
| 58 | 18 | 20 | 25 | 22 |
| 59 | 18 | 20 | 25 | 22 |
| 60 | 14 | 15 | 25 | 22 |
| 61 | 14 | 15 | 22 | 17 |
| 62 | 14 | 15 | 22 | 17 |
| 63 | 14 | 15 | 22 | 17 |
| 64 | 14 | 15 | 22 | 17 |
| 65 | 0 | 0 | 30 | 25 |
| 66 | 0 | 0 | 19 | 17 |
| 67 | 0 | 0 | 19 | 17 |
| 68 | 0 | 0 | 19 | 17 |
| 69 | 0 | 0 | 19 | 17 |
| 70 \& over | 0 | 0 | 100 | 100 |

## SCHEDULE D

(Continued)

## LOCAL GOVERNMENT DIVISION

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at $4.50 \%$ per annum:

| Sample |  <br> Sges | Pay Increase Assumptions <br> for an Individual Member <br>  <br> Productivity <br> (Economy) | Total <br> Increase <br> (Next Year) |
| :---: | :---: | :---: | :---: |
| 20 | $6.97 \%$ | $4.50 \%$ | $11.47 \%$ |
| 25 | 4.31 | 4.50 | 8.81 |
| 30 | 2.65 | 4.50 | 7.15 |
| 35 | 1.72 | 4.50 | 6.22 |
| 40 | 1.23 | 4.50 | 5.73 |
| 45 | 0.99 | 4.50 | 5.49 |
| 50 | 0.79 | 4.50 | 5.29 |
| 55 | 0.60 | 4.50 | 5.10 |
| 60 | 0.25 | 4.50 | 4.75 |
| 65 | 0.00 | 4.50 | 4.50 |

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

| $\begin{gathered} \text { Sample } \\ \text { Ages } \end{gathered}$ | Percent of Members Separating Within the Next Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ultimate Withdrawal |  | Death ${ }^{1}$ |  | Disability |  |
|  | Males | Females | Males | Females | Males | Females |
| 20 | 12.00\% | 15.00\% | 0.025\% | 0.015\% | 0.01\% | 0.01\% |
| 25 | 9.50 | 12.35 | 0.030 | 0.015 | 0.04 | 0.04 |
| 30 | 7.20 | 9.58 | 0.040 | 0.025 | 0.07 | 0.07 |
| 35 | 4.40 | 8.00 | 0.055 | 0.035 | 0.18 | 0.18 |
| 40 | 3.90 | 7.10 | 0.095 | 0.058 | 0.27 | 0.24 |
| 45 | 3.40 | 6.30 | 0.200 | 0.097 | 0.41 | 0.39 |
| 50 | 3.40 | 6.30 | 0.383 | 0.158 | 0.61 | 0.65 |
| 55 | 3.40 | 6.30 | 0.538 | 0.227 | 1.02 | 0.90 |
| 60 | 3.40 | 6.30 | 0.680 | 0.345 | 1.10 | 1.03 |
| 65 | 3.40 | 6.30 | 1.061 | 0.603 | 1.10 | 1.03 |

## SCHEDULE D

(Continued)

## LOCAL GOVERNMENT DIVISION

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

| Completed Years of Service | Males | Females |
| :---: | :---: | :---: |
| 0 | $40.0 \%$ | $40.0 \%$ |
| 1 | 16.0 | 18.0 |
| 2 | 12.0 | 12.0 |
| 3 | 9.0 | 9.0 |
| 4 | 7.0 | 7.0 |

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

| Retirement Ages | Percent of Members <br> 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 | 12\% | 15\% | 15\% | 15\% |
| 51 | 12 | 15 | 15 | 15 |
| 52 | 12 | 15 | 15 | 15 |
| 53 | 12 | 15 | 15 | 15 |
| 54 | 12 | 15 | 15 | 25 |
| 55 | 12 | 15 | 15 | 25 |
| 56 | 15 | 15 | 25 | 25 |
| 57 | 15 | 15 | 25 | 25 |
| 58 | 15 | 15 | 25 | 25 |
| 59 | 15 | 15 | 25 | 25 |
| 60 | 15 | 10 | 20 | 12 |
| 61 | 15 | 10 | 20 | 12 |
| 62 | 15 | 12 | 20 | 15 |
| 63 | 15 | 12 | 20 | 15 |
| 64 | 15 | 12 | 20 | 15 |
| 65 | 0 | 0 | 25 | 30 |
| 66 | 0 | 0 | 30 | 25 |
| 67 | 0 | 0 | 30 | 25 |
| 68 | 0 | 0 | 30 | 25 |
| 69 | 0 | 0 | 30 | 25 |
| 70 \& over | 0 | 0 | 100 | 100 |

## SCHEDULE D

(Continued)

## JUDICIAL DIVISION

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at $4.50 \%$ per annum:

|  | Pay Increase Assumptions <br> for an Individual Member <br>  |  |  |
| :---: | :---: | :---: | :---: |
| Sample <br> Ages |  <br> Seniority | Productivity <br> (Economy) | Total <br> Increase <br> (Next Year) |
| 30 | $1.50 \%$ | $4.50 \%$ | $6.00 \%$ |
| 35 | 1.50 | 4.50 | 6.00 |
| 40 | 0.67 | 4.50 | 5.17 |
| 45 | 0.50 | 4.50 | 5.00 |
| 50 | 0.50 | 4.50 | 5.00 |
| 55 | 0.50 | 4.50 | 5.00 |
| 60 | 0.50 | 4.50 | 5.00 |
| 65 | 0.50 | 4.50 | 5.00 |

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


## SCHEDULE D

(Continued)

## JUDICIAL DIVISION

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

| Retirement <br> Ages | Percent of Members <br> Who Are Eligible for Reduced <br> Benefits Retiring Next Year | Percent of Me <br> Who Are Eligible for <br> Benefits Retiring |
| :---: | :---: | :---: |
| 50 | $10 \%$ | $10 \%$ |
| 51 | 10 | 10 |
| 52 | 10 | 10 |
| 53 | 10 | 10 |
| 54 | 10 | 10 |
| 55 | 10 | 10 |
| 56 | 10 | 10 |
| 57 | 10 | 10 |
| 58 | 10 | 10 |
| 59 | 10 | 10 |
| 60 | 10 | 10 |
| 61 | 10 | 10 |
| 62 | 10 | 10 |
| 63 | 10 | 10 |
| 64 | 10 | 10 |
| 65 | 10 | 10 |
| 66 | 10 | 10 |
| 67 | 10 | 10 |
| 68 | 15 | 15 |
| 69 | 20 | 20 |
| 70 | 40 | 40 |
| 2ver | 100 | 40 |
|  |  | 100 |

## SCHEDULE D

(Continued)

## SINGLE LIFE RETIREMENT VALUES

| Sample Ages | Present Value of \$1.00 Monthly for Life |  | Present Value of $\$ 1.00$ Monthly Increasing 3.5\% Annually |  | Future Life Expectancy (Years) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females | Males | Females |
| 40 | \$138.39 | \$141.51 | \$206.81 | \$214.96 | 41.93 | 45.71 |
| 45 | 134.80 | 139.02 | 197.32 | 207.10 | 37.19 | 40.86 |
| 50 | 130.42 | 135.64 | 186.57 | 197.55 | 32.65 | 36.09 |
| 55 | 125.29 | 131.12 | 174.65 | 186.07 | 28.35 | 31.41 |
| 60 | 118.37 | 124.79 | 160.31 | 171.98 | 24.11 | 26.78 |
| 65 | 109.07 | 116.45 | 143.22 | 155.38 | 19.98 | 22.32 |
| 70 | 98.28 | 105.86 | 125.02 | 136.43 | 16.62 | 18.08 |
| 75 | 86.47 | 93.08 | 106.56 | 115.73 | 12.91 | 14.19 |
| 80 | 74.16 | 79.29 | 88.65 | 95.06 | 10.08 | 10.82 |
| 85 | 62.15 | 63.82 | 72.23 | 73.84 | 7.76 | 7.84 |

## SCHEDULE D

(Continued)

## Methods and Assumptions Specific to the Health Care Trust Fund

Current PERA benefit recipients age 65 and older are assumed to maintain current benefit elections in perpetuity. Current PERA benefit recipients not yet age 65 are assumed to maintain current elections until age 65, with $70 \%$ of all PERA benefit recipients assumed to participate age 65 and older. For deferred vested members, $20 \%$ are assumed to elect coverage upon commencement of their PERA monthly benefit. For active members retiring directly from PERA, the following participation rates are assumed:

| Not yet Age 65: | $50 \%$ |
| :--- | :--- |
| Age 65 and older: | $70 \%$ |

Plan elections for future members are assumed as follows:
Self Funded Plans: 60\%
Kaiser Permanente: 25\%
Rocky Mountain Health Plans (RMHP): 10\%
Secure Horizons: 5\%

## Health Care Cost Trend Rates:

|  | Self Funded Plans |  | Kaiser |  |
| :---: | :---: | ---: | ---: | ---: |
|  |  |  |  |  |
| "Part A" | Part A <br> Deductible | No Part A <br> Premiums | With Part A <br> Premiums |  |
| 2008 | Claims | $11.00 \%$ | $4.50 \%$ | $10.00 \%$ |
| 2009 | $10.00 \%$ | $4.50 \%$ | $9.00 \%$ | $7.75 \%$ |
| 2010 | $9.00 \%$ | $4.50 \%$ | $8.00 \%$ | $7.25 \%$ |
| 2011 | $8.00 \%$ | $4.50 \%$ | $7.00 \%$ | $7.00 \%$ |
| 2012 | $7.00 \%$ | $4.50 \%$ | $6.50 \%$ | $6.75 \%$ |
| $2013+$ | $6.50 \%$ | $4.50 \%$ | $6.50 \%$ | $6.50 \%$ |


| Year | RMHP |  | Secure Horizons |  | Part A Premiums | RDS <br> Payments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No Part A Premiums | With Part A Premiums | No Part A Premiums | With Part A Premiums |  |  |
| 2008 | 7.75\% | 6.50\% | 13.00\% | 6.50\% | 5.50\% | 6.50\% |
| 2009 | 7.50\% | 6.50\% | 11.00\% | 6.50\% | 5.50\% | 6.50\% |
| 2010 | 7.25\% | 6.50\% | 9.00\% | 6.50\% | 5.50\% | 6.50\% |
| 2011 | 7.00\% | 6.50\% | 8.00\% | 6.50\% | 5.50\% | 6.50\% |
| 2012 | 6.75\% | 6.50\% | 7.00\% | 6.50\% | 5.50\% | 6.50\% |
| 2013+ | 6.50\% | 6.50\% | 6.50\% | 6.50\% | 5.50\% | 6.50\% |

The service-based PERA subsidy is assumed to remain constant.

## SCHEDULE D

(Continued)

The following monthly costs are assumed for 2007, and subject to the Health Care Cost Trend Rates:


## Monthly Retiree Drug Subsidy Payments

| Medicare Supplement Plan \#1: | $\$ 48.90$ |
| :--- | :--- |
| Medicare Supplement Plan \#2: | $\$ 33.16$ |
| Rocky Mountain Health Plan | $\$ 37.40$ |
| Kaiser | $\$ 0.00$ |
| Secure Horizons* | $\$ 0.00$ |

* Members eligible for Medicare Part D that are enrolled in Kaiser Permanente or Secure Horizons receive prescription drug benefits in a Medicare Prescription Drug Plan and do not qualify to generate an RDS for PERA.


## 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 a morbidity, or aging, curve that models the growth in assumed claims as a member ages. Benefits funded by the Health Care Trust Fund are defined to be the service based monthly subsidy, which does not result in annually changing costs to the Trust as a member ages (not counting the subsidy reduction at age 65 or disability Medicare eligibility), and the "no-Part A" and RDS subsidies, which are assumed to not vary materially as a member ages. Therefore, no morbidity assumptions are utilized in the determination of Health Care Trust Fund liabilities.

## SCHEDULE D

(Continued)

## Assumptions Specific to the "no-Part A" subsidy:

For retired members currently age 65 and older, Part A eligibility status is provided by PERA and is assumed to be maintained in perpetuity. For current retirees not yet age 65, and for active employees hired prior to April 1, 1986, 20\% are assumed to not qualify for Medicare Part A; thus qualifying for the "no-Part A" subsidy from the Health Care Trust Fund.

The $20 \%$ assumption is based on the results of a survey, conducted by PERA of its membership in 2007, designed specifically to measure the portion of its membership that will not be eligible for Medicare Part A coverage either through their own work history or that of their spouse or ex-spouse.
$100 \%$ of members receiving health care benefits as a result of disability retirement are assumed to qualify for Medicare Part A.
$100 \%$ of vested, but deferred, retirements, are assumed to pay the 40 quarters of Medicare taxes required by CMS for free Part A coverage as a result of subsequent employment.

Members that qualify for the "no-Part A" subsidy are assumed to drop coverage at a rate of $7.5 \%$ annually in all years.

Costs for the "no-Part A" subsidy are currently less than the costs of PERA paying the Part A premium on behalf of its members that do not qualify for free Part A coverage. However, future increases in the "noPart A" subsidy may result in it becoming more cost effective in the future for PERA to pay the Part A premium as an alternative to continuing the "no-Part A" subsidy in its current configuration. This valuation assumes PERA will make the decision to pay the Part A premium (on a "whole group basis") when and if it becomes cost effective to do so.

At that time, it is assumed PERA will also pay any premium penalties associated with enrollment of its members after first eligibility, which 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 first eligibility at age 65.

## Retiree Drug Subsidy (RDS) under Medicare Part D:

Due to the service-based premium subsidy not increasing over time, retirees are required to pay the entire increase in annual costs each year, resulting in monthly contributions that increase more rapidly over time than the total costs of coverage. This is expected to result in the prescription drug benefit provided to those members eligible for Medicare Part D to cease being Actuarially Equivalent (by failing the net test component of the Actuarial Equivalency Attestation) at some point in the future, resulting in a termination of the RDS. This valuation is based on the assumption that PERA will last qualify for an RDS payment in 2017, assuming no changes in plan design are made.

## SCHEDULE E

## ACTUARIAL COST METHOD

1. The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently $8.50 \%$ ). 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 contribution and an accrued liability contribution.
3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf. For health care benefits, the calculation of the normal contribution is similar but is determined based on total expected career service and is independent of compensation.
4. The unfunded accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the PERA. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.

## SCHEDULE F

## SUMMARY OF MAIN PERA PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

Effective Date Pension: Established in 1931, most recently amended during 2006.
Health Care Trust Fund (HCTF): On July 1, 1985, employer contributions to the HCTF commenced. Plan coverage and premium subsidy payments began July 1, 1986.

## DEFINITIONS

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

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

One of four separate divisions which include: State, School, Local Government and Judicial. Upon affiliation, employers are assigned to one of these divisions. The financial activities of each division are accounted for in separate trust funds.

Highest Average Salary (HAS)

For members, not in the Judicial Division, who were hired prior to January 1, 2007 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, not in the Judicial Division, who were hired on and after January 1, 2007, one-twelfth of the average of the highest annual salaries upon which contributions were made during three periods of twelve consecutive months of Service Credit; or for a member with less than three years of Service Credit, one-twelfth of the average of the annual salaries upon which contributions were made. Annual salary increases recognized in the determination of HAS are limited to $8 \%$ a year.

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

## Service Credit

## Vested

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

Members who accrue five or more years of Service Credit are vested for benefits. If these members leave service they may leave their Member Contribution Accounts with the Plan for a future benefit when reaching eligibility (deferred vested in this report).

## CONTRIBUTIONS

Member Contributions

Employer Contributions State Division (except State Troopers): 10.04\% of salary through 6/30/2003, 10.15\% after 7/1/2003

School Division: 10.04\% of salary through 6/30/2003, 10.15\% after $7 / 1 / 2003$ and further increased to $10.55 \%$ on $1 / 1 / 2013$

State Troopers: 12.74\% of salary through 6/30/2003, 12.85\% after 7/1/2003
Local Government Division: 9.60\% of salary through 12/31/2003, 10.00\% on and after 1/1/2004

Judicial Division: $11.82 \%$ of salary through 6/30/2003, 12.66\% from 7/1/2003 to 6/30/2004, 13.66\% after 7/1/2004

These contribution rates include the contributions allocated to the Health Care Trust Fund for all divisions as follows:
$\begin{array}{ll}\text { Before } 7 / 1 / 2004 & 1.10 \% \\ \text { On and after } 7 / 1 / 2004 & 1.02 \%\end{array}$

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

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

Amortization Equalization Disbursement (AED)

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

| Year | Percent of Total Payroll |
| :---: | :---: |
| 2006 | $0.50 \%$ |
| 2007 | $1.00 \%$ |
| 2008 | $1.40 \%$ |
| 2009 | $1.80 \%$ |
| 2010 | $2.20 \%$ |
| 2011 | $2.60 \%$ |
| $2012 \&$ after | $3.00 \%$ |

If, at any time, the actuarial funded ratio for a division is $100 \%$ or more, then the amount of the disbursement is reduced in the following year to an amount necessary to maintain the $100 \%$ funded ratio.

## Supplemental Amortization

 EqualizationDisbursement (SAED)

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

| Year | Percent of Total Payroll |
| :---: | :---: |
| 2008 | $0.50 \%$ |
| 2009 | $1.00 \%$ |
| 2010 | $1.50 \%$ |
| 2011 | $2.00 \%$ |
| 2012 | $2.50 \%$ |
| $2013 \&$ after | $3.00 \%$ |

If, at any time, the actuarial funded ratio for a division is $100 \%$ or more, then the amount of the disbursement is reduced in the following year to an amount necessary to maintain the $100 \%$ funded ratio.

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 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 members who receive a refund or retire prior to meeting the requirements for a service or reduced service retirement, the match is $50 \%$ of eligible amounts.

## ELIGIBILITY FOR BENEFITS

Refund of Member Contributions

Service Retirement

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

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

| 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

| Age | Service Credit |
| :---: | :---: |
| Any Age | 35 |
| 55 | 30 |
| 55 | Age and Service $=85$ 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

| Age | Service Credit |
| :---: | :---: |
| Any Age | 35 |
| 55 | 30 |
| 60 | 25 |
| 65 | 5 |
| 65 | Less than 5 but 60 payroll postings |

- State Troopers, regardless of date of hire

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

Reduced Service Retirement

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

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

| Age | Service Credit |
| :---: | :---: |
| 50 | 25 |
| 55 | 20 |
| 60 | 5 |

- State Troopers, regardless of date of hire

| Age | Service Credit |
| :---: | :---: |
| 50 | 20 |
| 60 | 5 |

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 covered (vested) for disability retirement. To be eligible, the member must be found to be totally and permanently disabled (mentally ore 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

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

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

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

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

The greater of c) or d)
c) The greater of a) or b) above
d) 1. $4 \%$ of HAS times years of Service Credit up to 10 , plus
2. $12 / 3 \%$ of HAS times years of Service Credit in excess of 10 up to 16 , plus
3. $1.5 \%$ of HAS times years of Service Credit in excess of 16 up to 20 , plus
4. $2.5 \%$ of HAS times years of Service Credit in excess of 20, the total not to exceed 100\% of HAS.

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

Reduced Service Retirement Benefit

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

## For State Troopers:

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

## Disability Retirement Benefit

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

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

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

## Survivor Benefits

$>$ If the deceased was not Eligible for Reduced Service Retirement at the time of Death
Benefits are payable in the following order:
a) Qualified Children Under Age 23: 40\% of HAS for one child, an equal share of $50 \%$ of HAS if there are two or more children.
b) Spouse: If no qualified children in (a) exist: i) less than 10 years of Service Credit, $25 \%$ of HAS, benefits begin at age 60; ii) 10 or more years of Service Credit, the greater of $25 \%$ of HAS or the benefit which would have been payable as a $100 \%$ joint and survivor option if the deceased member had been eligible for service retirement and retired on the date of death, benefits begin immediately.
c) Qualified Children Age 23 or Over: If no persons in (a) or (b) exist, $40 \%$ of HAS for one child, an equal share of $50 \%$ of HAS if there are two or more children.
d) Dependent Parents: If no persons in (a) to (c) exist, 25\% of HAS for one dependent parent or $40 \%$ of HAS for two dependent parents (minimum of $\$ 100$ per month for each dependent parent). Benefits begin immediately and continue until the death of the parent(s).
e) Named Beneficiary: If no persons in (a) to (d) exist, single payment equal to the member contribution account plus the appropriate matching contribution, plus interest.
f) Estate of Deceased Member: If no persons in (a) to (e) exist, single payment equal to the member contribution account plus the appropriate matching contribution, plus interest.
$>$ If the deceased was eligible for Reduced or Service Retirement at the time of Death
The co-beneficiary is eligible for the amount that would have been payable had the member retired on the date of death and elected the $100 \%$ joint and survivor option. The order of payment is:
a) Co-beneficiary - If the deceased member designated a cobeneficiary 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<br>Post-Retirement<br>Benefit Increases

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.

For members hired prior to January 1, 2007, each year on March 1, benefits which have been paid for at least three months preceding March 1 are increased. The increase is $3.5 \%$ compounded annually for each year of retirement for members hired before July 1, 2005 and $3.0 \%$ compounded annually for each year of retirement for members hired on or after July 1, 2005.

For members hired on or after January 1, 2007, each year on July 1, benefits which have been paid for at least the full preceding calendar year and who retired on disability, survivor benefits, the rule of 85 service retirement or has attained age 60 as of the previous January 1 are increased. The increase shall be determined by valuations of the Annual Increase Reserve and only to the extent such increases can be funded through transfers from that Reserve.

## OTHER PROVISIONS SPECIFIC TO THE HEALTH CARE TRUST FUND

## Eligibility for Health Care Coverage

## Enrollment

Premium Subsidy

Anyone receiving a monthly PERA benefit, spouses, and unmarried, dependent children under age 25.

Members receiving short-term disability payments.
Guardians of children receiving PERA survivor benefits if children are receiving health care benefits.

Retirees temporarily not receiving PERA benefits.
Surviving spouses of deceased retirees who are not receiving PERA benefits but were receiving health care benefits at the time when death occurred.

Divorced spouses of retirees who are not receiving PERA benefits, but were receiving health care benefits, when the divorce occurred.

Enrollment is voluntary, with annual open enrollment for coverage effective each January 1.

A monthly subsidy is allocated to each benefit recipient only electing health care coverage. The following monthly amounts are allocated per year of credited service, up to a maximum of 20 years of service:

- \$ 5.75 if age 65 and older or eligible for Medicare hospital insurance benefits
- $\$ 11.50$ if not yet age 65 or eligible for Medicare hospital insurance benefits

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

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

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

This premium subsidy is only available to those electing health care coverage.

## Special Note on those Members not qualifying for Medicare Part A:

The Fund pays an implicit subsidy for members without Medicare Part A. For members in fully-insured HMOs, this amount is the difference in premiums charged for those without Part A and for those with Part A. For the self-funded plans, this amount is the assumed difference in claims costs for services covered under Part A between members without Part A coverage and those with Part A coverage.

## Special Note on those Members eligible for Medicare Part D:

For members electing coverage in a plan option that produces a Retiree Drug Subsidy (RDS), which is payable to PERA, under Part D of the Medicare Modernization Act of 2003 (MMA), PERA has reduced the full cost of coverage by the estimated RDS. GASB Statements 43 and 45 do not allow for future assumed RDS payments to be used as a direct offset for future liabilities. Therefore, a liability for these payments has been included in the total Health Care Trust Fund liability. Plan options producing an RDS for PERA in 2007 are the self-funded Medicare Supplement plans and the Rocky Mountain Health Plan HMO.

## SCHEDULE G

## SCHEDULE OF ACTIVE MEMBER DATA AS OF DECEMBER 31, 2007

## 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 |  | Payroll |
| Under 20 | 402 | 0 | 0 | 0 | 0 | 0 | 0 | 402 | \$ | 3,136,962 |
| 20 to 24 | 1,740 | 18 | 0 | 0 | 0 | 0 | 0 | 1,758 | \$ | 34,181,805 |
| 25 to 29 | 3,287 | 497 | 10 | 0 | 0 | 0 | 0 | 3,794 | \$ | 113,158,952 |
| 30 to 34 | 2,995 | 1,469 | 265 | 11 | 0 | 0 | 0 | 4,740 | \$ | 172,349,431 |
| 35 to 39 | 2,913 | 1,706 | 1,061 | 326 | 15 | 0 | 0 | 6,021 | \$ | 251,183,810 |
| 40 to 44 | 2,412 | 1,563 | 1,015 | 811 | 444 | 47 | 0 | 6,292 | \$ | 279,411,205 |
| 45 to 49 | 5,021 | 1,671 | 1,145 | 1,007 | 861 | 736 | 106 | 10,547 | \$ | 454,771,115 |
| 50 to 54 | 2,231 | 1,519 | 1,097 | 1,092 | 987 | 935 | 418 | 8,279 | \$ | 401,399,509 |
| 55 to 59 | 1,682 | 1,222 | 908 | 916 | 859 | 589 | 451 | 6,627 | \$ | 318,294,172 |
| 60 | 279 | 200 | 125 | 155 | 121 | 93 | 68 | 1,041 | \$ | 48,813,759 |
| 61 | 221 | 182 | 121 | 105 | 102 | 75 | 53 | 859 | \$ | 38,756,733 |
| 62 | 162 | 130 | 76 | 64 | 71 | 68 | 55 | 626 | \$ | 30,168,261 |
| 63 | 115 | 89 | 74 | 78 | 47 | 39 | 44 | 486 | \$ | 23,583,055 |
| 64 | 123 | 60 | 67 | 61 | 42 | 30 | 34 | 417 | \$ | 18,203,905 |
| 65 | 93 | 69 | 51 | 54 | 29 | 25 | 41 | 362 | \$ | 15,862,608 |
| 66 | 67 | 38 | 26 | 22 | 23 | 19 | 21 | 216 | \$ | 8,401,326 |
| 67 | 61 | 31 | 18 | 18 | 13 | 12 | 6 | 159 | \$ | 5,872,483 |
| 68 | 62 | 13 | 21 | 15 | 8 | 8 | 12 | 139 | \$ | 4,756,077 |
| 69 | 60 | 30 | 12 | 16 | 4 | 4 | 9 | 135 | \$ | 4,100,148 |
| 70 \& Over | 200 | 91 | 43 | 36 | 23 | 16 | 15 | 424 | \$ | 10,112,512 |
| Total | 24,126 | 10,598 | 6,135 | 4,787 | 3,649 | 2,696 | 1,333 | 53,324 | \$ | 2,236,517,828 |

Average Age (Non-Trooper):
45.52

Average Service (Non-Trooper):
8.95

Average Age (Trooper):
39.57

Average Service (Trooper): 10.68

## SCHEDULE G

## SCHEDULE OF ACTIVE MEMBER DATA AS OF DECEMBER 31, 2007

## 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 |  | Payroll |
| Under 20 | 1,352 | 0 | 0 | 0 | 0 | 0 | 0 | 1,352 | \$ | 8,102,893 |
| 20 to 24 | 4,756 | 82 | 0 | 0 | 0 | 0 | 0 | 4,838 | \$ | 83,483,794 |
| 25 to 29 | 9,488 | 1,621 | 28 | 0 | 0 | 0 | 0 | 11,137 | \$ | 305,237,835 |
| 30 to 34 | 6,867 | 4,326 | 635 | 17 | 0 | 0 | 0 | 11,845 | \$ | 376,131,193 |
| 35 to 39 | 7,183 | 3,763 | 2,553 | 512 | 16 | 0 | 0 | 14,027 | \$ | 443,732,959 |
| 40 to 44 | 8,604 | 3,766 | 2,087 | 1,715 | 529 | 39 | 0 | 16,740 | \$ | 494,212,917 |
| 45 to 49 | 6,759 | 4,409 | 2,490 | 1,807 | 1,747 | 893 | 67 | 18,172 | \$ | 595,076,134 |
| 50 to 54 | 4,662 | 3,444 | 2,425 | 2,049 | 1,797 | 1,778 | 573 | 16,728 | \$ | 608,087,093 |
| 55 to 59 | 3,473 | 2,138 | 1,560 | 1,785 | 1,501 | 1,184 | 686 | 12,327 | \$ | 462,554,822 |
| 60 | 603 | 347 | 224 | 219 | 208 | 153 | 89 | 1,843 | \$ | 62,286,646 |
| 61 | 509 | 281 | 164 | 181 | 171 | 137 | 61 | 1,504 | \$ | 48,400,488 |
| 62 | 355 | 199 | 125 | 102 | 117 | 89 | 45 | 1,032 | \$ | 32,701,723 |
| 63 | 339 | 160 | 85 | 76 | 83 | 72 | 33 | 848 | \$ | 24,590,954 |
| 64 | 322 | 141 | 80 | 82 | 60 | 52 | 31 | 768 | \$ | 20,538,329 |
| 65 | 241 | 128 | 67 | 48 | 37 | 32 | 23 | 576 | \$ | 14,082,902 |
| 66 | 227 | 95 | 50 | 37 | 33 | 19 | 14 | 475 | \$ | 9,092,845 |
| 67 | 197 | 44 | 32 | 32 | 22 | 20 | 12 | 359 | \$ | 6,758,934 |
| 68 | 163 | 68 | 21 | 21 | 13 | 9 | 9 | 304 | \$ | 5,153,791 |
| 69 | 154 | 63 | 18 | 21 | 13 | 9 | 12 | 290 | \$ | 4,971,406 |
| 70 \& Over | 620 | 242 | 86 | 59 | 30 | 29 | 14 | 1,080 | \$ | 13,060,710 |
| Total | 56,874 | 25,317 | 12,730 | 8,763 | 6,377 | 4,515 | 1,669 | 116,245 | \$ | 3,618,258,368 |

Average Age:
43.87

Average Service:
7.83

## SCHEDULE G

## SCHEDULE OF ACTIVE MEMBER DATA

 AS OF DECEMBER 31, 2007
## 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 |  | Payroll |
| Under 20 | 553 | 0 | 0 | 0 | 0 | 0 | 0 | 553 | \$ | 2,853,251 |
| 20 to 24 | 1,012 | 28 | 0 | 0 | 0 | 0 | 0 | 1,040 | \$ | 18,671,034 |
| 25 to 29 | 1,275 | 187 | 13 | 0 | 0 | 0 | 0 | 1,475 | \$ | 43,580,258 |
| 30 to 34 | 1,213 | 348 | 78 | 1 | 0 | 0 | 0 | 1,640 | \$ | 59,612,348 |
| 35 to 39 | 1,203 | 458 | 220 | 77 | 8 | 0 | 0 | 1,966 | \$ | 81,922,581 |
| 40 to 44 | 1,397 | 478 | 307 | 147 | 96 | 18 | 0 | 2,443 | \$ | 98,395,433 |
| 45 to 49 | 1,025 | 515 | 332 | 272 | 233 | 208 | 34 | 2,619 | \$ | 130,823,980 |
| 50 to 54 | 791 | 418 | 283 | 273 | 211 | 186 | 106 | 2,268 | \$ | 114,279,945 |
| 55 to 59 | 610 | 281 | 205 | 191 | 157 | 132 | 97 | 1,673 | \$ | 84,621,132 |
| 60 | 96 | 38 | 16 | 37 | 22 | 16 | 17 | 242 | \$ | 11,212,934 |
| 61 | 85 | 39 | 18 | 23 | 14 | 13 | 14 | 206 | \$ | 8,567,450 |
| 62 | 56 | 29 | 22 | 11 | 12 | 9 | 7 | 146 | \$ | 6,275,636 |
| 63 | 57 | 31 | 8 | 12 | 6 | 9 | 13 | 136 | \$ | 5,148,029 |
| 64 | 53 | 32 | 14 | 11 | 7 | 8 | 4 | 129 | \$ | 5,329,337 |
| 65 | 40 | 14 | 6 | 5 | 10 | 7 | 6 | 88 | \$ | 3,066,485 |
| 66 | 37 | 3 | 4 | 5 | 2 | 0 | 0 | 51 | \$ | 1,166,086 |
| 67 | 22 | 9 | 9 | 6 | 1 | 1 | 0 | 48 | \$ | 1,151,203 |
| 68 | 21 | 9 | 3 | 2 | 1 | 2 | 0 | 38 | \$ | 657,080 |
| 69 | 21 | 2 | 2 | 2 | 3 | 0 | 0 | 30 | \$ | 475,272 |
| 70 \& Over | 122 | 36 | 14 | 7 | 1 | 1 | 5 | 186 |  | 2,632,646 |
| Total | 9,689 | 2,955 | 1,554 | 1,082 | 784 | 610 | 303 | 16,977 |  | 680,442,121 |

Average Age:
42.94

Average Service:

SCHEDULE G

## SCHEDULE OF ACTIVE MEMBER DATA

 AS OF DECEMBER 31, 2007
## 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 |  | Payroll |
| Under 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$ | 0 |
| 20 to 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$ | 0 |
| 25 to 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$ | 0 |
| 30 to 34 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | \$ | 180,014 |
| 35 to 39 | 6 | 2 | 0 | 1 | 0 | 0 | 0 | 9 | \$ | 779,850 |
| 40 to 44 | 16 | 4 | 2 | 1 | 1 | 0 | 0 | 24 | \$ | 2,552,241 |
| 45 to 49 | 14 | 9 | 12 | 6 | 3 | 1 | 0 | 45 | \$ | 4,736,047 |
| 50 to 54 | 13 | 9 | 6 | 10 | 5 | 4 | 1 | 48 | \$ | 5,057,295 |
| 55 to 59 | 15 | 15 | 14 | 19 | 16 | 14 | 6 | 99 | \$ | 10,422,677 |
| 60 | 1 | 0 | 0 | 3 | 2 | 2 | 1 | 9 | \$ | 1,028,838 |
| 61 | 5 | 3 | 1 | 2 | 2 | 2 | 0 | 15 | \$ | 1,549,460 |
| 62 | 0 | 1 | 1 | 0 | 4 | 0 | 4 | 10 | \$ | 1,163,023 |
| 63 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 5 | \$ | 480,303 |
| 64 | 0 | 2 | 1 | 2 | 2 | 1 | 1 | 9 | \$ | 979,506 |
| 65 | 2 | 0 | 0 | 2 | 0 | 1 | 2 | 7 | \$ | 715,176 |
| 66 | 0 | 1 | 0 | 1 | 2 | 0 | 3 | 7 | \$ | 813,902 |
| 67 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 3 | \$ | 324,704 |
| 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$ | 0 |
| 69 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | \$ | 241,129 |
| 70 \& Over | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | \$ | 126,063 |
| Total | 76 | 48 | 40 | 48 | 39 | 25 | 20 | 296 | \$ | 31,150,228 |

Average Age:
54.65
Average Service:
13.77


[^0]:    * Includes deferred survivors

[^1]:    * Results prior to 12/31/2005 are for the State and School Divisions combined.

[^2]:    * Required Employer Contributions are based on the Annual Required Contribution (ARC). The ARC is based on amortizing the UAL over 30 years and reflects liabilities that are not reduced for future Medicare Part D Retiree Drug Subsidy payments to PERA. Actual Employer Contributions include 2007 RDS payments to PERA of $\$ 12.4$ million.

[^3]:    ${ }^{1}$ Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.

