

**PUBLIC EMPLOYEES'
RETIREMENT ASSOCIATION
OF COLORADO**

*Actuarial Report
As of December 31, 2004
May 2005*

Submitted By:
buckconsultants, an ACS company
1200 Seventeenth Street, Suite 1200
Denver, CO 80202

May 23, 2005

The Board of Trustees
Public Employees' Retirement Association of Colorado
1300 Logan Street
Denver, Colorado 80203-2386

Dear Trustees:

Subject: Actuarial Valuation for the Public Employees' Retirement Association of Colorado (PERA) as of December 31, 2004

This report summarizes the results of the December 31, 2004 actuarial valuation for the Public Employees' Retirement Association of Colorado (PERA) as well as the results of the December 31, 2004 actuarial valuation of the postretirement health care program.

These valuations are based on the financial and member data provided by PERA and the plan provisions, actuarial assumptions and methods in effect on the valuation date.

There were two Legislative Bills passed in 2004 that impacted PERA funding and benefits. SB 04-132 affected PERA members with these provisions:

- Suspension of MatchMaker contributions.
- Reduction in the interest rate credited to member contribution accounts from 80% of the actuarial valuation interest rate to a rate determined by the PERA Board, such rate not to exceed 5% per annum.
- For benefits payable in the future to new employees hired on or after July 1, 2005, a reduction in the post-retirement annual increase and elimination of retirement with full benefits at age 50 with 30 years of service (this change has no material impact on the December 31, 2004 valuation). Also sets the annual increase in benefits for these members at 3% per year or the increase in the CPI, whichever is less.
- A reduction in the allocation of the employer contribution rate to the Health Care Trust Fund from 1.10% to 1.02% of salary, with the difference increasing pension funding.

SB 04-257 affected PERA funding and future benefits as follows:

- Gradual increases in payments toward PERA's unfunded liability starting January 1, 2006 at 0.5% of salary and reaching 3% of salary by 2012 known as the Amortization Equalization Disbursement (AED).
- Payment of employer contributions to PERA on salaries paid to PERA retirees.
- A defined contribution plan option to new state employees hired in 2006 or later.
- School division employer contribution rate is increased from 10.15% to 10.55% in 2013.
- Separates the State and School division into two separate divisions effective January 1, 2006.

The Board of Trustees
Public Employees' Retirement Association of Colorado
May 23, 2005

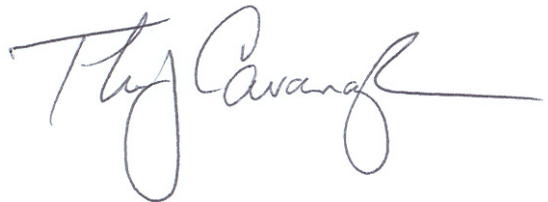
All actuarial methods and assumptions used in last year's actuarial valuation remain unchanged. Please see page 24 for a summary of these methods and assumptions.

The valuations were completed in accordance with generally accepted actuarial methods. Our analysis indicates the funded position for both plans is sufficient to pay promised benefits for decades, but without strong investment returns, future contribution increases will be necessary to maintain the long-term viability of the pension system.

Respectfully submitted,



David H. Sliskinsky, A.S.A.
Principal and Consulting Actuary



Thomas Cavanaugh, F.S.A.
Principal and Consulting Actuary

Enclosure

**PUBLIC EMPLOYEES' RETIREMENT
ASSOCIATION OF COLORADO**

Actuarial Report as of December 31, 2004

submitted to
The Board of Trustees
Public Employees' Retirement Association of Colorado

buckconsultants, an ACS company

May 2005

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VALUATION HIGHLIGHTS

The December 31, 2004 actuarial valuation indicates the following:

1. Due to recognition of investment losses experienced in prior years, the unfunded liability (UAAL) has increased in all Divisions.
2. Due to the incidence of members purchasing service in 2004 at a cost less than actuarial cost, the unfunded liability increased in all Divisions.
3. For the State and School Division, the Judicial Division, and the Municipal (Local Government) Division, the combined employer and member contribution rates are sufficient to fund the costs of the benefit commitments being made to the members for their service currently being rendered (normal cost) of the system, but are not sufficient to fully fund the normal cost and amortize the unfunded actuarial accrued liability over 40 years.
4. For the Health Care Trust Fund, the employer contribution rate is not sufficient to fund the costs of the benefit commitments being made to members for their service currently being rendered and amortize the unfunded actuarial accrued liability over 40 years.

Key valuation results are summarized below.

Member Information

	Active Members			Retired Members	
	Number	Annual Payroll (\$ Millions)	Normal Cost Rate ¹	Number	Annual Benefits (\$ Millions)
State and School	161,383	\$ 5,303.4	16.24%	64,334	\$ 1,748.3
Municipal (Local Government)	15,184	549.6	16.95%	3,323	82.0
Judicial	<u>273</u>	<u>26.3</u>	17.89%	<u>243</u>	<u>9.1</u>
Totals	176,840	\$ 5,879.3	16.31%	67,900	\$ 1,839.4

Actuarial Information

	Asset Value Basis					
	Actuarial Value			Market Value		
	Employer Contribution Rate ²	UAAL (\$ Millions)	Funded Ratio	Employer Contribution Rate ²	UAAL (\$ Millions)	Funded Ratio
State and School	16.91%	\$ 12,188.8	70.1%	15.59%	\$10,763.6	73.6%
Municipal (Local Government)	11.73%	586.3	77.2%	10.86%	489.3	81.0%
Judicial	14.87%	<u>39.8</u>	81.0%	13.30%	<u>31.4</u>	85.0%
Totals	16.41%	\$ 12,814.9	70.6%	15.14%	\$ 11,284.3	74.1%

¹ Cost of the accruing benefits allocated to the current year, expressed as a percent of total salary.

² Employer portion of cost to pay normal cost and amortize UAAL over 40 years, expressed as a percent of total salary.

VALUATION HIGHLIGHTS

Overall Condition: Based upon this December 31, 2004 valuation, the Public Employees' Retirement Association of Colorado funded ratio has declined to 70.6% (based on the actuarial value of assets). Strong investment returns in 2003 and 2004 have increased assets on market value to a level which now exceeds the actuarial value. When using the market value of assets, the funded ratio of the System exceeds 74%. Although the current funding is sufficient to pay expected benefit payments for decades, the contribution rates are not currently sufficient to support all the current benefit structures of the System. Employer contribution rate increases as well as changes to certain benefit provisions were proposed and adopted during the 2004 legislative session. These changes helped improve PERA's long-term financial position. However, if there is not a significant recovery in the investment markets in the near future, the long-term ability of the System to support the benefits will be challenged in the absence of a significant increase in the contribution rates.

VALUATION HIGHLIGHTS

State and School Division Allocation of Statutory Contribution Rates

	Percent of Covered Payroll	
	2006 Rates	2005 Rates
1. Statutory Employer Contribution Rate ¹	10.17%	10.17%
2. Amortization Equalization Disbursement	0.50%	N/A
3. Less: Statutory HCTF Allocation	<u>(1.02%)</u>	<u>(1.02%)</u>
4. Contribution Available for PERA Pre-Funded Benefits 1. + 2. + 3.	9.65%	9.15%
5. Normal Cost of Pre-Funded Benefits		
a) Service Retirement Benefits	11.80%	11.85%
b) Disability Retirement Benefits	0.96%	0.96%
c) Survivor Benefits	0.46%	0.49%
d) Separation Benefits	<u>3.02%</u>	<u>3.20%</u>
e) Total Normal Cost	16.24%	16.50%
6. Member Contributions ¹	<u>8.02%</u>	<u>8.02%</u>
7. Employer Normal Cost	8.22%	8.48%
8. Percent Available to Amortize UAAL 4. – 7.	1.43%	0.67%
9. Number of Years to Amortize UAAL	Infinite ²	Infinite

¹ Weighted average of more than one statutory rate.

² Includes Amortization Equalization Disbursement scheduled during the amortization period.

Determination of Employer Contribution Rates (\$ in Thousands)

<u>December 31, Valuation Results:</u>	2004	2003
Actuarial Accrued Liability	\$40,783,531	\$37,914,502
Actuarial Value of Assets	<u>28,594,699</u>	<u>28,522,222</u>
Unfunded/(Overfunded) Actuarial Accrued Liability	\$12,188,832	\$9,392,280
Forty-Year Amortization of UAAL	\$588,961	\$453,832
Valuation Payroll	\$5,303,439	\$5,140,918
Amortization Rate	11.11%	8.83%
Employer Normal Cost Rate	8.22%	8.48%
Reduction for AED	<u>(2.42%)</u>	N/A
Total Employer Contribution Rate	16.91%	17.31%

VALUATION HIGHLIGHTS

Municipal (Local Government) Division Allocation of Statutory Contribution Rates

	Percent of Covered Payroll	
	2006 Rates	2005 Rates
1. Statutory Employer Contribution Rate	10.00%	10.00%
2. Amortization Equalization Disbursement	0.50%	N/A
3. Less: Statutory HCTF Allocation	<u>(1.02%)</u>	<u>(1.02%)</u>
4. Contribution Available for PERA Pre-Funded Benefits 1. + 2. + 3.	9.48%	8.98%
5. Normal Cost of Pre-Funded Benefits		
a) Service Retirement Benefits	11.08%	11.07%
b) Disability Retirement Benefits	1.67%	1.64%
c) Survivor Benefits	0.58%	0.59%
d) Separation Benefits	<u>3.62%</u>	<u>3.93%</u>
e) Total Normal Cost	16.95%	17.23%
6. Member Contributions	<u>8.00%</u>	<u>8.00%</u>
7. Employer Normal Cost	8.95%	9.23%
8. Percent Available to Amortize UAAL 4. – 7.	0.53%	(0.25%)
9. Number of Years to Amortize UAAL	Infinite ¹	Infinite

¹ Includes Amortization Equalization Disbursement scheduled during the amortization period.

Determination of Employer Contribution Rates (\$ in Thousands)

December 31, Valuation Results:	2004	2003
Actuarial Accrued Liability	\$2,576,988	\$2,379,229
Actuarial Value of Assets	<u>1,990,652</u>	<u>1,907,786</u>
Unfunded/(Overfunded) Actuarial Accrued Liability	\$586,336	\$471,443
Forty-Year Amortization of UAAL	\$28,332	\$22,780
Valuation Payroll	\$549,607	\$479,098
Amortization Rate	5.15%	4.75%
Employer Normal Cost Rate	8.95%	9.23%
Reduction for AED	<u>(2.37%)</u>	<u>N/A</u>
Total Employer Contribution Rate	11.73%	13.98%

SUMMARY OF RETIRED AND INACTIVE DATA INCLUDED IN VALUATION

Judicial Division

Allocation of Statutory Contribution Rates

	<u>Percent of Covered Payroll</u>	
	<u>2006 Rates</u>	<u>2005 Rates</u>
1. Statutory Employer Contribution Rate	13.66%	13.66%
2. Amortization Equalization Disbursement	0.50%	N/A
3. Less: Statutory HCTF Allocation	<u>(1.02%)</u>	<u>(1.02%)</u>
4. Contribution Available for PERA Pre-Funded Benefits 1. + 2. + 3.	13.14%	12.64%
5. Normal Cost of Pre-Funded Benefits		
a) Service Retirement Benefits	13.07%	13.14%
b) Disability Retirement Benefits	2.30%	2.32%
c) Survivor Benefits	1.14%	1.25%
d) Separation Benefits	<u>1.38%</u>	<u>1.48%</u>
e) Total Normal Cost	17.89%	18.19%
6. Member Contributions	<u>8.00%</u>	<u>8.00%</u>
7. Employer Normal Cost	9.89%	10.19%
8. Percent Available to Amortize UAAL 4. – 7.	3.25%	2.45%
9. Number of Years to Amortize UAAL	Infinite ¹	Infinite

¹ Includes Amortization Equalization Disbursement scheduled during the amortization period.

Determination of Employer Contribution Rates (\$ in Thousands)

<u>December 31, Valuation Results:</u>	<u>2004</u>	<u>2003</u>
Actuarial Accrued Liability	\$209,954	\$198,377
Actuarial Value of Assets	<u>170,111</u>	<u>166,654</u>
Unfunded/(Overfunded) Actuarial Accrued Liability	\$39,843	\$31,723
Forty-Year Amortization of UAAL	\$2,214	\$1,533
Valuation Payroll	\$26,309	\$25,452
Amortization Rate	7.32%	6.03%
Employer Normal Cost Rate	9.89%	10.19%
Reduction for AED	<u>(2.34%)</u>	<u>N/A</u>
Total Employer Contribution Rate	14.87%	16.22%

SUMMARY OF RETIRED AND INACTIVE DATA INCLUDED IN VALUATION

Benefit recipients on rolls included in the December 31, 2004 valuation totaled 67,900 with annual benefits of \$1,839,310,356 distributed as follows (\$ in thousands):

<u>Divisions</u>	<u>Retirement Benefits</u>		<u>Survivor Benefits</u>		<u>Total</u>	
	<u>Number</u>	<u>Annual Benefits</u>	<u>Number</u>	<u>Annual Benefits</u>	<u>Number</u>	<u>Annual Benefits</u>
State and School Municipal (Local Government)	62,530	\$1,721,670	1,804	\$26,584	64,334	\$1,748,254
Judicial	<u>229</u>	<u>8,731</u>	<u>14</u>	<u>331</u>	<u>243</u>	<u>9,062</u>
Totals	65,943	\$1,810,513	1,957	\$28,797	67,900	\$1,839,310

Inactive members and deferred survivor beneficiaries totaled 12,548 as follows:

<u>Divisions</u>	<u>Inactive Members</u>	<u>Deferred Survivors</u>	<u>Total</u>
State and School Municipal (Local Government)	11,361	282	11,643
Judicial	<u>15</u>	<u>1</u>	<u>16</u>
Totals	12,251	297	12,548

RETIREMENT SYSTEM TOTALS

(\$ in Millions)

Division	Actuarial Accrued Liabilities			Actuarial Value of Assets	Unfunded (Overfunded) Accrued Liabilities	Ratio of Assets/Liabilities
	Active Members	Retired Lives*	Totals			
State and School	\$17,155.3	\$23,628.2	\$40,783.5	\$28,594.7	\$12,188.8	0.70
Municipal (Local Government)	1,382.3	1,194.7	2,577.0	1,990.7	586.3	0.77
Judicial	<u>99.8</u>	<u>110.1</u>	<u>209.9</u>	<u>170.1</u>	<u>39.8</u>	0.81
Totals	\$18,637.4	\$24,933.0	\$43,570.4	\$30,755.5	\$12,814.9	0.71

*Includes deferred benefits for inactive members and survivors.

Divisions	UAAL/Active Member Payroll December 31									
	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995
State and School	2.30	1.83	.74	.11	*	*	.21	.44	.19	.49
State	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.42	.72
School	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.02	.33
Municipal (Local Government)	1.07	.98	.27	*	*	*	.003	.07	*	.05
Judicial	1.51	1.25	.11	*	*	*	*	.10	*	.26

*Division was in surplus this year.

ANALYSIS OF CHANGES IN THE UNFUNDED ACTUARIAL ACCRUED LIABILITIES DURING 2004

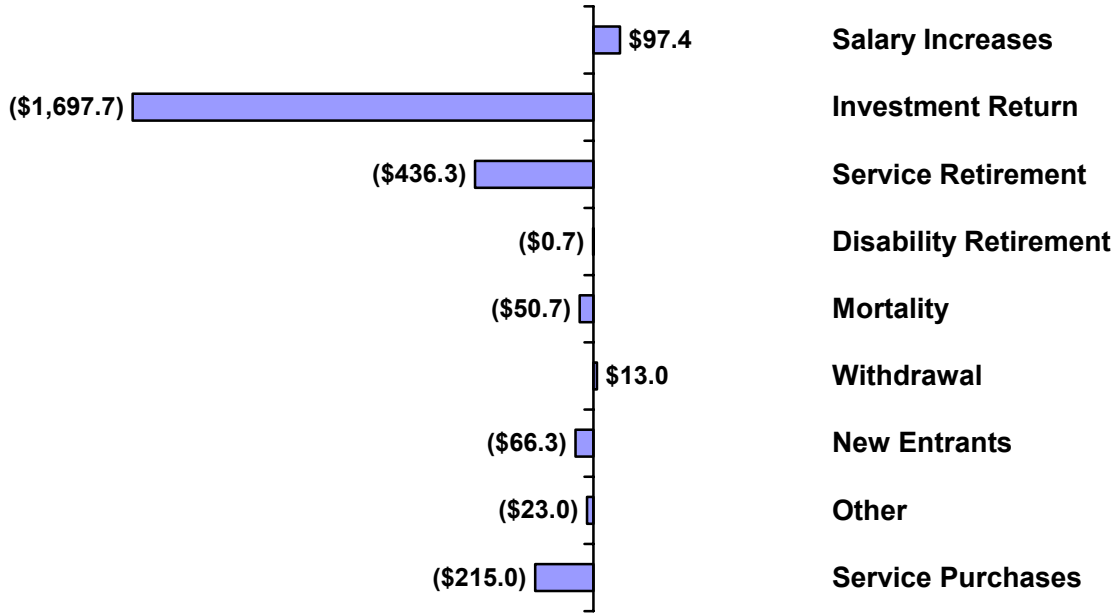
(\$ in Millions)

	State and School	Municipal (Local Government)	Judicial	Total
1. Beginning of Year:				
a) Unfunded actuarial accrued liabilities (UAAL)	\$ 9,392.3	\$ 471.4	\$ 31.7	\$ 9,895.4
b) Normal Cost	848.3	82.5	4.6	935.4
c) Total contribution required to pay Normal Cost and amortize the UAAL over 40 years	1,302.1	105.3	6.2	1,413.6
d) Actual Total Contribution (excluding service purchases)	864.4	90.6	4.7	959.7
2. Unfunded actuarial accrued liabilities, end of year:				
a) Expected UAAL, from last year's valuation: (1a) x 1.085 + (1b) x 1.0425 - (1c) x 1.0425	\$ 9,717.6	\$ 487.7	\$ 32.7	\$ 10,238.0
b) Expected UAAL based on actual contribution (1a) x 1.085 + (1b) x 1.0425 - (1d) x 1.0425	10,173.9	503.0	34.3	10,711.2
c) Increase in UAAL due to contribution deficiency (2b)-(2a)	456.3	15.3	1.6	473.2
3. Gains (Losses) on year's activities:				
a) From differences between assumed and actual experience on liabilities	\$ (475.8)	\$ 8.3	\$ 0.9	\$ (466.6)
b) From differences between assumed and actual experience on assets	(1,591.8)	(97.2)	(8.7)	(1,697.7)
c) From service purchases	(195.8)	(18.0)	(1.2)	(215.0)
d) From change in interest credit rate on member contributions	<u>248.5</u>	<u>23.6</u>	<u>3.5</u>	<u>275.6</u>
e) Total (a) + (b) + (c) + (d)	\$ (2,014.9)	\$ (83.3)	\$ (5.5)	\$ (2,103.7)
4. Actual UAAL at end of year (2a) + (2c) - (3e)	\$ 12,188.8	\$ 586.3	\$ 39.8	\$ 12,814.9

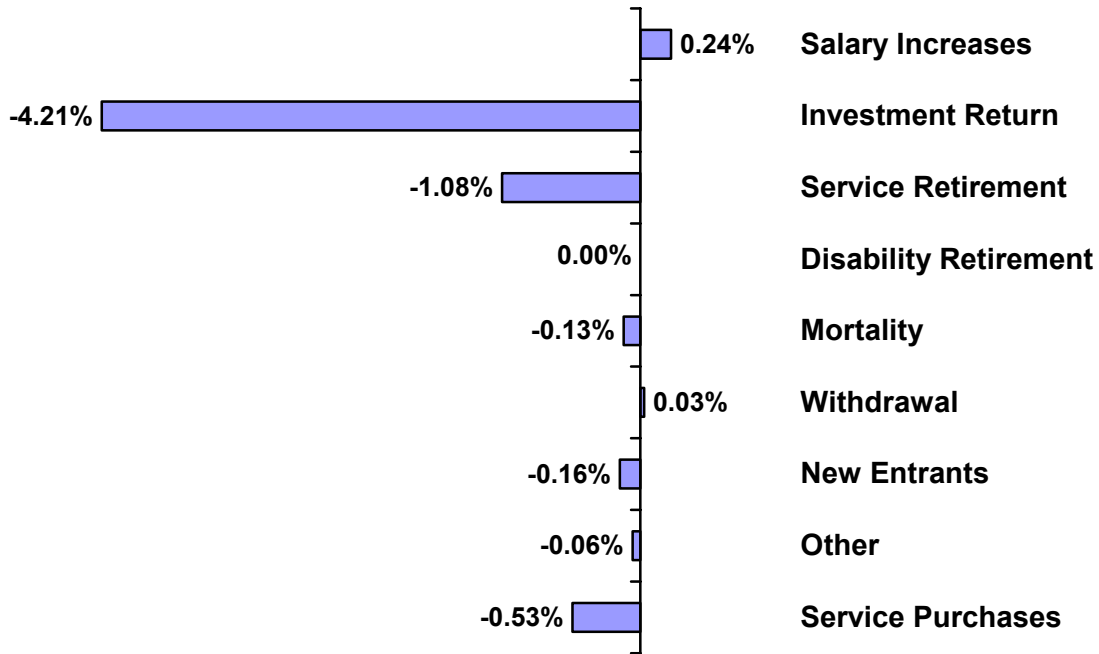
GAIN/(LOSS) ANALYSIS

2004 Experience: Divisions Combined

(\$ in Millions)



% of Beginning of Year Accrued Liabilities



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BENEFIT PROVISIONS EVALUATED

BENEFIT PROVISIONS EVALUATED

PENSION PLAN

Effective Date	Established in 1931, most recently amended during 2000.
Definitions	
Affiliated Employers	State agencies, political subdivisions of the state, school districts, courts, cities and municipalities and any other public entities which affiliate with PERA.
Covered Members	Employees of Affiliated Employers who work in a position subject to membership and for whom contributions are made.
Division	One of three separate divisions which include: State and School, Municipal (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, 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 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	The total of all earned, purchased, (disability) projected, and military service credit.

Contributions

Member Contributions	Members, except for State Troopers, contribute 8.0% of salary. State Troopers contribute 10.0% of salary.				
Employer Contributions	<p>State and School Division (except State Troopers): 10.04% of salary, through 6/30/2003, 10.15% after 7/1/2003, and School Division further increased to 10.55% on 1/1/2013</p> <p>State Troopers: 12.74% of salary through 6/30/2003, 12.85% after 7/1/2003</p> <p>Municipal (Local Government) Division: 9.60% of salary through 12/31/2003, 10.00% on and after 1/1/2004</p> <p>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</p> <p>These contribution rates include the contributions allocated to the Health Care Trust Fund for all divisions as follows:</p> <table border="0" style="margin-left: 40px;"> <tr> <td>Before 7/1/2004</td> <td style="text-align: right;">1.10%</td> </tr> <tr> <td>On and after 7/1/2004</td> <td style="text-align: right;">1.02%</td> </tr> </table>	Before 7/1/2004	1.10%	On and after 7/1/2004	1.02%
Before 7/1/2004	1.10%				
On and after 7/1/2004	1.02%				

BENEFIT PROVISIONS EVALUATED PENSION PLAN

Matching Employer
Contributions

A percentage of the member contribution account 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 refund is paid, or for payments made to survivors or beneficiaries of members who die before retirement, the percentage is 100%.

For members who receive a refund prior to meeting the requirements for a service or reduced service retirement, the percentage is 50%.

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:

<u>Year</u>	<u>Percent of Total Payroll</u>
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 amortization period of the liabilities for a division is less than 40 years, then the amount of the disbursement is reduced in the following year to an amount necessary to meet the 40-year amortization standard.

BENEFIT PROVISIONS EVALUATED PENSION PLAN

Eligibility for Benefits or Other Payments

Service Retirement Retire with one of the following age and Service Credit requirements:

-- Members except State Troopers

<u>Age</u>	<u>Service Credit</u>
50	30
55	Age and Service = 80 years or more
65	5

-- State Troopers

<u>Age</u>	<u>Service Credit</u>
Any Age	30
50	25
55	20
65	5

Reduced Service Retirement Retire with one of the following age and Service Credit requirements:

-- Members except State Troopers

<u>Age</u>	<u>Service Credit</u>
50	25
55	20
60	5

-- State Troopers

<u>Age</u>	<u>Service Credit</u>
50	20
60	5

BENEFIT PROVISIONS EVALUATED PENSION PLAN

Vested Benefit	Terminate with five or more years of Service Credit and leave member contributions in the plan.
Disability Retirement	Become permanently disabled prior to being eligible for service retirement with five or more years of Service Credit (at least 6 months being earned during the last period of membership). The five-year service requirement is waived for State Troopers disabled because of job-related injuries and for members of the Judicial Division who are found to be permanently disabled by the Colorado Supreme Court.
Survivor Benefits	Die prior to retirement with at least one year of Service Credit. (The one-year Service Credit requirement is waived if death is job-related.)

Monthly Benefit Amounts

Service Retirement

- The greater of a or b
- State and School and Municipal (Local Government) Divisions and Members of the Judicial Division with no Service Credit prior to July 1, 1973
 - 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.
- The greater of c or d
- Members of the Judicial Division with Service Credit prior to July 1, 1973
 - c) The greater of a or b above
 - d)
 1. 4% of HAS times years of Service Credit up to 10, plus
 2. 1 2/3% of HAS times years of Service Credit in excess of 10 up to 16, plus
 3. 1.5% of HAS times years of Service Credit in excess of 16 up to 20, plus
 4. 2.5% of HAS times years of Service Credit in excess of 20, the total not to exceed 100% of HAS.

BENEFIT PROVISIONS EVALUATED PENSION PLAN

Reduced Service Retirement

For 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.

Vested Benefit

The greater of the benefit calculated based on Service Credit and HAS at the date of termination or the money purchase benefit based on the value of the member contribution account and the matching employer contribution account on the date payments begin. The vested benefit is payable upon reaching the age required for a reduced service retirement benefit. If the member elects to begin receiving payments prior to reaching the age required for a service retirement benefit, the benefit calculated based on Service Credit and HAS will be reduced in accordance with the reduced service retirement provisions.

Disability Retirement

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.

BENEFIT PROVISIONS EVALUATED PENSION PLAN

Survivor Benefits

- Not Eligible for Reduced Service Retirement

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 matching employer 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 matching employer contribution, plus interest.

- Eligible for Reduced or Service Retirement

The benefit that would have been payable had the member retired on the date of death and elected the 100% joint and survivor option. If there is no designated co-beneficiary or surviving spouse, then qualified children, dependent parents, named beneficiary or estate are eligible for the same benefits payable on behalf of a deceased member who was not eligible for reduced service retirement.

Refund of Member Contributions

In the event a member leaves service for a reason other than death or retirement, member contribution accounts including interest plus matching employer contributions with interest are refunded upon request. The interest credit rate is determined by the PERA Board, such rate not to exceed 5% per annum.

BENEFIT PROVISIONS EVALUATED PENSION PLAN

Benefit Options

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

Post-Retirement Benefit Increases

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.

Changes in Plan Provisions Since Prior Year

Changes made by SB 04-132 and SB 04-257 included in this valuation report are:

- The interest credit rate on member contributions was changed from 80% of the actuarial valuation interest rate to a rate set by the PERA Board, not to exceed 5%.
- Suspension of Matchmaker contributions.
- School division employer contribution rate increased from 10.15% to 10.55% in 2013.
- Gradual increases in payments toward PERA's unfunded liability starting in 2006 at 0.5% of salary, increasing to 3% of salary by 2012. These payments are known as the Amortization Equalization Disbursement (AED).

BENEFIT PROVISIONS EVALUATED POSTRETIREMENT HEALTH CARE PROGRAM

Effective Date	On July 1, 1985, employer contributions to the Program commenced. Premium subsidy payments began July 1, 1986.	
Type of Program	Partially pre-funded postretirement health care plan covering PERA benefit recipients and other eligible persons.	
Eligibility for Health Care Program Coverage	<p>Anyone receiving a monthly PERA benefit, spouses, and unmarried, dependent children under age 19 (under age 24 if enrolled in school full-time).</p> <p>Members receiving short-term disability payments.</p> <p>Guardians of children receiving PERA survivor benefits if children are enrolled in Program.</p> <p>Retirees temporarily not receiving PERA benefits.</p> <p>Surviving spouses of deceased retirees who are not receiving PERA benefits but were enrolled in the Program when death occurred.</p> <p>Divorced spouses of retirees who are not receiving PERA benefits, but were enrolled in the Program when the divorce occurred.</p>	
Employer Contributions to Health Care Trust Fund (HCTF)	Before 7/1/2004	1.10%
	On and after 7/1/2004	1.02%
Enrollment	Enrollment in the Program is voluntary. Open enrollment is held annually for coverage effective January 1.	
Program Premium Subsidy	<p>The Program pays a portion or all of the monthly premium for health care coverage up to \$5.75 times the benefit recipient's years of service credit, with a maximum subsidy of \$115 per month if the benefit recipient is over age 65, or \$11.50 times the service credit, with a maximum of \$230 per month, if the benefit recipient is under age 65. The subsidy, known as the fixed subsidy, is paid from the HCTF. Any additional cost of the health insurance coverage, except for members not fully covered by Medicare Part A, is paid by the benefit recipient. Eligible persons not receiving a monthly benefit from PERA do not receive the subsidy. They pay the entire cost of the health insurance coverage.</p>	

BENEFIT PROVISIONS EVALUATED POSTRETIREMENT HEALTH CARE PROGRAM

For members not fully covered by Medicare Part A, the HCTF pays an implicit subsidy. Under the self-insured program, the implicit subsidy is equal to the difference between claims paid for Part A services and what Medicare would have paid had such retirees been enrolled in Part A. For retirees participating in an HMO, the additional subsidy paid by the HCTF for members not covered by Part A is equal to the difference in the premiums the HMO's charge for retirees without Part A coverage, and those covered by Part A.

Health Care Plans Offered Eligible persons are offered choices of health plans and plan designs. All plans include comprehensive prescription drug benefits. Premiums are established annually for each plan, and vary based upon geographic region for some plans. Premiums for Medicare plans generally are lower than premiums for pre-Medicare plans, as all benefit recipients age 65 or older must be enrolled in Medicare Part B.

Note: All actuarial calculations and analyses made in this report assume no future fixed subsidy increases. Increases in Medicare Part A costs for members not fully covered by Part A are assumed to increase at 5.50% per annum.

Changes in Plan Provisions Since Prior Year

No changes in benefits were legislated since the last actuarial valuation was completed as of December 31, 2003.

Per SB 04-132, the employer contribution rate allocation to the Health Care Trust Fund was reduced from 1.10% to 1.02% of salary.

The valuation considers the implicit subsidy provided to retired members over age 65 who are not fully covered by Medicare Part A.

ACTUARIAL METHODS AND ASSUMPTIONS

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

ACTUARIAL METHODS

The ultimate cost of a retirement plan (such as PERA) is equal to the benefits paid plus the expenses resulting from the administration and financing of the plan. These plan costs are paid for through contributions to the plan as well as through investment earnings on the plan's assets.

Using the plan's schedule of benefits, the member data and a carefully selected set of actuarial assumptions, the plan's actuary estimates the cost of the benefits which will be paid from the plan. Then using a particular actuarial funding method, the actuary will allocate these costs and determine a systematic manner to fund for future plan benefits.

In the case of PERA (as well as most other public sector plans), the objective is to fund in a manner which keeps contribution rates approximately level from generation to generation. The funding method best designed to keep annual costs level (as a percentage of pay) is the Entry Age Actuarial Cost Method. This method is described briefly below.

Entry Age Actuarial Cost Method

Under the Entry Age Actuarial Cost Method, projected pension, termination, disability and death benefits are determined for all active members. Cost factors, which are developed to produce level annual costs in each year from the age at hire (entry age) to the assumed retirement age are applied to the projected benefits to determine the "normal cost." The normal cost is the portion of the total cost of the plan allocated to the current year. The normal cost for contribution refunds is assumed to end in the last year of assumed eligibility, and is spread over all years of service.

The "actuarial accrued liability" for active members is then calculated as the portion of the total cost of the plan allocated to prior years, i.e., the value of the prior years' normal cost amounts. The actuarial accrued liability for members currently receiving benefits and for active members beyond the assumed retirement age is equal to the present value of the benefits expected to be paid. No accrued benefits are available for members entitled to deferred benefits. The present value of benefits expected to be paid to deferred vested members is approximated as 185% of the accumulated member contribution balance with interest. No normal costs are now payable for these participants.

The excess of the total actuarial accrued liability over the value of the plan assets is called the "unfunded actuarial accrued liability." Funding requirements under the Entry Age Actuarial Cost Method are determined as the sum of a) the normal cost and b) an amortization of the unfunded liability.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The actuarial assumptions discussed below are used in determining the projected benefits and cost factors. The effect of differences between these assumptions and the actual experience of the plan is calculated each year when the annual actuarial valuation is performed. These differences produce either actuarial gains or losses which result in adjusting the unfunded liability discussed above.

Asset Valuation Method

The method for 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 actuarial value is recognized over a four-year period. A transitional amount, established in 1992 when the asset method was changed, is being recognized over a 30-year period.

ACTUARIAL ASSUMPTIONS

The following economic actuarial assumptions were adopted in 2003 by the Board of Trustees based on advice from the actuary. The non-economic assumptions were adopted in 2001 on the advice of the actuary based on the results of an experience analysis. The assumptions, which are reviewed in depth every four or five years, are used to project the Plan’s future experience.

Economic Assumptions

The investment return rate used in the valuations is 8.50 percent per year compounded annually (net of administrative expenses). The inflation assumption is 3.75 percent per year.

The overall member payroll is assumed to increase 4.50 percent annually. Pay increase assumptions for individual members are shown for sample ages in Exhibits A, B, and C. Judicial Division pay increases are determined by the State Legislature.

The interest credit rate assumed on member contribution balances is 5 percent per annum.

Non-Economic Assumptions

The mortality table is based on PERA experience. The table is used to estimate the value of benefits expected to be paid. Related values are shown in Exhibit E. For disability retirement, impaired longevity is recognized by basing benefit values on an adjusted age midway between attained age and normal retirement age.

The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages in Exhibits A, B, C, and D. It was assumed that 35 percent of the vested members who terminate elect to withdraw their contributions and matching employer contributions while the remaining 65 percent elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date, except for Judicial.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Other Assumptions for the Postretirement Health Care Program

Percent of Members electing to participate in Health Care Program:

Member	Assumption	
Current PERA benefit recipients under age 65	Current participants to age 65 plus 75% of all PERA benefit recipients at age 65.	
Current PERA benefit recipients over age 65	Current participants	
Active Members under age 65.	55% of eligible to age 65, and 75% over age 65	
Vested Deferred Members:	<u>Under Age 65</u>	<u>Over Age 65</u>
- 5-10 years service	30%	30%
- 10-20 years service	30%	30%
- Over 20 years service	30%	30%

Percent of Active Members electing Option 2 or Option 3: 44%

For purposes of this report, the no-Part A subsidy is valued using 2004 census information, standard valuation assumptions and methods from the December 31, 2004 HCTF valuation, and additional statistics and assumptions as follows:

- **Base Claim Cost Rates**

Additional base-year medical claims paid by the HCTF attributable to the absence of Part A coverage are projected forward with Health Care Cost Trend (HCCTR) for each no-Part A plan member. For 2005 this base claim cost rate under self-funded plans equals \$384.55 per month for gross Part A type claims less \$22.68 per month in average Part A deductibles, etc., not paid by Medicare. For HMOs the difference between 2005 insured rates applicable to no-Part A members and full-Medicare members is used. The 2005 Medicare Part A premium prior to a 10% late-enrollment penalty is \$375.00 per month.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

- **Health Care Cost Trend Rates**

The set of HCCTR assumptions used grades down from recent experience for each plan to an ultimate level 200 basis points below the assumed discount rate, as follows:

Year	Self-Funded Plans		Kaiser		RMHP	
	Part A Type Claims	Part A Deductibles, Etc.	No-Part A Premiums	A & B Premiums	No-Part A Premiums	A & B Premiums
2005	15.50%	6.25%	10.50%	8.80%	5.50%	1.20%
2006	14.60%	6.28%	10.10%	8.57%	5.60%	1.73%
2007	13.70%	6.30%	9.70%	8.34%	5.70%	2.26%
2008	12.80%	6.33%	9.30%	8.11%	5.80%	2.79%
2009	11.90%	6.35%	8.90%	7.88%	5.90%	3.32%
2010	11.00%	6.38%	8.50%	7.65%	6.00%	3.85%
2011	10.10%	6.40%	8.10%	7.42%	6.10%	4.38%
2012	9.20%	6.43%	7.70%	7.19%	6.20%	4.91%
2013	8.30%	6.45%	7.30%	6.96%	6.30%	5.44%
2014	7.40%	6.48%	6.90%	6.73%	6.40%	5.97%
2015+	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%

Medicare Part A premiums are projected to increase at 5.50% per annum for all years.

- **Morbidity**

Morbidity assumptions account for the growth in average claims as a population ages. Morbidity is typically applied to each covered member for self-funded groups and may or may not be applied in the case of insured plans, depending on the rating mechanisms used by the insurer for the coverage included in the valuation. Because it is assumed that PERA will pay Part A premiums at the point in time when Part A premiums are less than net no-Part A type claims, no morbidity has been assumed. In relation to PERA, Medicare may be thought of as a fully insured, community-rated plan.

- **HCTF Participation and Plan Election**

Participation in the HCTF is a function of premiums paid by retirees, net of the fixed subsidy based on years of service. Therefore our no-Part A subsidy valuation uses the same conservative participation rates as used for fixed subsidy purposes. Further, current benefit recipients are assumed to remain in the self-funded or HMO plan currently elected. Pre-Medicare retirees and active employees projected to be no-Part A HCTF members are assumed to enroll in self-funded and HMO plans in the same ratio as current no-Part A retirees.

- **Active Members Included**

Active membership included in our valuation of PERA's no-Part A subsidy is limited to members with dates of PERA-covered employment prior to March 31, 1986 and who did not have the potential employment prior to joining PERA sufficient to obtain future Medicare Part A coverage free of charge. Determination of hire date for each member is based on earned service reported. Members with at least 10 years between age 20 and their date of PERA-covered employment are assumed to have 40 quarters of Social Security coverage and are therefore excluded from the valuation. Members with at least 7.5 years between age 20 and their date of PERA-covered employment are assumed to have 30-39 quarters of Social Security coverage and are therefore eligible for Medicare Part A coverage at premiums 45%

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

lower than required of active members with less than 30 quarters of coverage. Actual Social Security payroll tax records for active members are required to replace these assumptions with corresponding data elements.

- **Inactive Members with Vested Rights to Deferred PERA Pensions**

Inactive membership is excluded from this valuation on the assumption that, between potential employment prior to and after their PERA-covered careers, they will obtain at least 40 quarters of coverage. Actual Social Security payroll tax records for inactive members are required to replace these assumptions with corresponding data elements.

- **Pre-Medicare PERA Pensioners**

7.5% of HCTF benefit recipients enrolled in pre-Medicare coverage are assumed to ultimately qualify for the no-Part A subsidy. This assumption reflects the current percentage of Medicare-eligible benefit recipients enrolled in no-Part A coverage categories. Actual Social Security payroll tax records for benefit recipients are required to replace these assumptions with corresponding data elements.

- **Medicare Assumptions for Current Benefit Recipients**

25% of both pre-Medicare pensioners and benefit recipients enrolled in no-Part A coverage categories are assumed to have 30-39 quarters of coverage for Medicare purposes and thereby qualify for Part A premiums that are 45% lower than required of retirees with less than 30 quarters of coverage. This assumption reflects the current percentage of active members assumed eligible for “partial Part A coverage” as derived from census data and described above. Actual Social Security payroll tax records for benefit recipients are required to replace these assumptions with corresponding data elements.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Exhibit A – State and School Division

Separations from Employment Before Retirement and Individual Pay Increase Assumptions

Sample Ages	Percent of Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Member		
	Ultimate Withdrawal ¹		Death ²		Disability		Merit & Seniority	Inflation & Productivity (Economy)	Increase (Next Year)
	Men	Women	Men	Women	Men	Women			
STATE MEMBERS CONTRIBUTING 8%									
20	21.00	18.00	0.025	0.015	0.01	0.01	4.95%	4.50%	9.45%
25	8.50	10.25	0.030	0.015	0.04	0.03	4.45	4.50	8.95
30	5.00	6.70	0.040	0.025	0.05	0.05	3.60	4.50	8.10
35	3.52	4.93	0.055	0.035	0.18	0.16	2.80	4.50	7.30
40	2.81	3.63	0.095	0.058	0.24	0.22	2.10	4.50	6.60
45	2.49	3.12	0.210	0.102	0.39	0.34	1.40	4.50	5.90
50	2.39	2.97	0.425	0.176	0.75	0.66	0.75	4.50	5.25
55	2.39	2.89	0.598	0.252	1.01	0.90	0.35	4.50	4.85
60	2.39	2.84	0.755	0.383	1.08	0.96	0.00	4.50	4.50
65	2.39	2.84	1.179	0.670	1.08	0.96	0.00	4.50	4.50
STATE MEMBERS CONTRIBUTING 10.0% (STATE TROOPERS)									
20	6.00	6.00	0.025	0.015	0.02	0.02	5.50%	4.50%	10.00%
25	6.00	6.00	0.030	0.015	0.08	0.08	4.20	4.50	8.70
30	5.10	5.10	0.040	0.025	0.12	0.12	3.20	4.50	7.70
35	2.70	2.70	0.055	0.035	0.40	0.40	2.50	4.50	7.00
40	1.60	1.60	0.095	0.058	0.54	0.54	1.90	4.50	6.40
45	1.10	1.10	0.210	0.102	0.86	0.86	1.50	4.50	6.00
50	1.00	1.00	0.425	0.176	1.66	1.66	1.30	4.50	5.80
55	1.00	1.00	0.598	0.252	2.24	2.24	1.10	4.50	5.60
60	1.00	1.00	0.755	0.383	2.40	2.40	0.90	4.50	5.40
65	-	-	1.179	0.670	2.40	2.40	0.50	4.50	5.00
SCHOOL MEMBERS									
20	21.00	18.00	0.025	0.015	0.01	0.01	4.95%	4.50%	9.45%
25	8.50	10.25	0.030	0.015	0.01	0.02	4.45	4.50	8.95
30	5.00	6.70	0.040	0.025	0.01	0.03	3.60	4.50	8.10
35	3.52	4.93	0.055	0.035	0.04	0.05	2.80	4.50	7.30
40	2.81	3.63	0.095	0.058	0.11	0.08	2.10	4.50	6.60
45	2.49	3.12	0.210	0.102	0.18	0.10	1.40	4.50	5.90
50	2.39	2.97	0.425	0.176	0.40	0.30	0.75	4.50	5.25
55	2.39	2.89	0.598	0.252	0.65	0.50	0.35	4.50	4.85
60	2.39	2.84	0.755	0.383	0.80	0.50	0.00	4.50	4.50
65	2.39	2.84	1.179	0.670	0.80	0.50	0.00	4.50	4.50

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

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

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Exhibit B – Municipal (Local Government) Division

Sample Ages	Percent of Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Member		
	Ultimate Withdrawal		Death ¹		Disability		Merit & Seniority	Inflation & Productivity (Economy)	Increase (Next Year)
	Men	Women	Men	Women	Men	Women			
20	12.00	15.00	0.025	0.015	0.01	0.01	8.40%	4.50%	12.90%
25	7.00	10.30	0.030	0.015	0.04	0.04	6.00	4.50	10.50
30	5.06	7.63	0.040	0.025	0.07	0.05	4.40	4.50	8.90
35	3.77	6.29	0.055	0.035	0.22	0.18	3.20	4.50	7.70
40	2.97	4.80	0.095	0.058	0.30	0.24	2.40	4.50	6.90
45	2.62	4.12	0.210	0.102	0.47	0.39	1.90	4.50	6.40
50	2.56	3.92	0.425	0.176	0.91	0.75	1.60	4.50	6.10
55	2.56	3.72	0.598	0.252	1.23	1.01	1.50	4.50	6.00
60	2.56	3.60	0.755	0.383	1.32	1.08	1.30	4.50	5.80
65	2.56	3.60	1.179	0.670	1.32	1.08	1.00	4.50	5.50

Exhibit C – Judicial Division

Sample Ages	Percent of Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Member		
	Withdrawal		Death ¹		Disability		Seniority	Inflation & Productivity (Economy)	Increase (Next Year)
	Men	Women	Men	Women	Men	Women			
30	2.00	2.00	0.040	0.025	0.06	0.06	1.51%	4.50%	6.01%
35	2.00	2.00	0.055	0.035	0.07	0.07	1.20	4.50	5.70
40	2.00	2.00	0.095	0.058	0.10	0.10	0.70	4.50	5.20
45	2.00	2.00	0.210	0.102	0.17	0.17	0.50	4.50	5.00
50	2.00	2.00	0.425	0.176	0.31	0.31	0.50	4.50	5.00
55	2.00	2.00	0.598	0.252	0.56	0.56	0.50	4.50	5.00
60	2.00	2.00	0.755	0.383	1.19	1.19	0.50	4.50	5.00
65	2.00	2.00	1.179	0.670	1.65	1.65	0.50	4.50	5.00

Exhibit D

Percent of Members With Less Than Five Years of Service Withdrawing from Employment Next Year²

Completed Years of Service	State and School Division						Municipal (Local Government) Division	
	State Members			School Members			Men	Women
	Men	Women	Men	Women	Men	Women		
0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	
1	15.0	16.0	15.0	16.0	14.0	16.0		
2	12.0	12.5	12.0	12.5	11.0	14.0		
3	9.0	9.5	9.0	9.5	9.0	13.0		
4	7.5	7.5	7.5	7.5	7.0	11.0		

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

² There are no select withdrawal assumptions for the State Troopers or the Judicial Division.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Exhibit E – State and School, Municipal (Local Government), and Judicial Divisions

Single Life Retirement Values

Sample Attained Ages	Present Value of \$1.00 Monthly for Life		Present Value of \$1.00 Monthly Increasing 3.5% Annually		Future Life Expectancy (Years)	
	Men	Women	Men	Women	Men	Women
40	\$137.77	\$141.42	\$206.51	\$217.02	40.79	46.04
45	133.88	138.90	196.16	208.84	36.05	41.20
50	129.19	135.54	184.57	199.07	31.53	36.45
55	123.79	131.14	171.94	187.52	27.27	31.81
60	116.53	125.05	156.88	173.51	23.09	27.23
65	106.81	117.21	139.09	157.35	19.01	22.84
70	95.62	107.39	120.36	139.12	15.32	18.68
75	83.48	95.38	101.61	119.03	12.09	14.80
80	70.97	81.84	83.66	98.31	9.36	11.35
85	58.90	66.53	67.42	77.00	7.13	8.29

Exhibit F

Percent of Eligible Members Retiring Next Year

Retirement Ages	State and School Division						Municipal (Local Government) Division		Judicial Division
	State Members		State Troopers	School Members		Men	Women		
	Men	Women		Men	Women				
50	12	14	20	14	14	10	11	10	
51	12	14	20	14	14	10	11	10	
52	12	14	20	14	14	10	11	10	
53	12	14	20	14	14	10	11	10	
54	18	20	20	24	23	15	16	10	
55	18	20	20	24	23	15	16	10	
56	18	20	20	24	23	15	16	10	
57	18	20	20	24	23	15	16	10	
58	18	20	20	24	23	15	16	10	
59	18	20	20	24	23	15	16	10	
60	14	14	20	16	16	15	12	10	
61	14	14	36	16	16	15	12	10	
62	14	14	52	16	16	15	12	10	
63	14	14	68	16	16	15	12	10	
64	14	14	84	16	16	15	12	10	
65	23	22	100	21	21	22	19	25	
66	23	22	100	21	21	22	19	15	
67	23	22	100	21	21	22	19	15	
68	23	22	100	21	21	22	19	15	
69	23	22	100	21	21	22	19	15	
70	100	100	100	100	100	100	100	40	
71	100	100	100	100	100	100	100	40	
72	100	100	100	100	100	100	100	100	
73	100	100	100	100	100	100	100	100	
74	100	100	100	100	100	100	100	100	
75	100	100	100	100	100	100	100	100	

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Notes to Required Supplementary Information Under GASB No. 25 and 26

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

	State and School Division Trust Fund	Municipal (Local Government) Division Trust Fund	Judicial Division Trust Fund	Health Care Trust Fund
Valuation date	12/31/04	12/31/04	12/31/04	12/31/04
Actuarial cost method	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Amortization method	Level percent, Open	Level percent, Open	Level percent, Open	Level percent, Open
Remaining amortization period used in ARC calculation	40	40	40	40
Remaining amortization period with current funding	Infinite	Infinite	Infinite	58
Asset valuation method	4-year smoothed market	4-year smoothed market	4-year smoothed market	4-year smoothed market
2005 Annual Required Contribution (ARC)	16.91%	11.73%	14.87%	1.13%
Actuarial assumptions				
Investment rate of return ¹	8.50%	8.50%	8.50%	8.50%
Projected salary increases ¹	4.5-10.0%	5.5-12.9%	5.0-6.01%	Not applicable
Cost-of-living adjustments	3.5% compounded annually	3.5% compounded annually	3.5% compounded annually	None
Health care inflation factor	Not applicable	Not applicable	Not applicable	5.50% per annum applicable to Medicare Part A costs

¹ Includes inflation at 3.75 percent.

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

Summary of Data Used in Valuation

<u>Group</u>	<u>Number</u>	<u>Annual Payroll/Benefits</u>	
		<u>Total</u> <u>(\$ in Thousands)</u>	<u>Average</u>
Active Members			
Other Than State Troopers	160,643	\$5,259,842	\$32,742
State Troopers	<u>740</u>	<u>43,597</u>	58,915
Total	161,383	\$5,303,439	\$32,862
Retirees and Beneficiaries	64,334	\$1,748,254	\$27,175
Inactive Deferred	11,643		
Nonvested Inactive Due Refunds	<u>94,055</u>		
Total	331,415		

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

Development of Actuarial Value of Assets

	(\$ Thousands)
1. Actuarial Value December 31, 2003	\$ 28,522,222
2. Market Value December 31, 2004	30,019,896
3. Market Value December 31, 2003	27,123,835
4. Cash Flow During 2004	
a. Contributions	\$ 1,056,405
b. Benefit payments and other deductions	(1,803,628)
c. Expenses and fees	(20,949)
d. Transfers	<u>569</u>
e. Net Cash Flow	\$ (767,603)
5. Expected Return During 2004: (1) x .085 + (4e) x .0425	2,391,766
6. Expected Actuarial Value of Assets: (1)+(4e)+(5)	30,146,385
7. 2004 Phase-In Amount: (2)-(3)-(4e)-(5)	1,271,898
8. Prior Years Phase-In	
- 2003	2,709,319
- 2002	(5,616,365)
- 2001	<u>(4,694,113)</u>
- Total	(7,601,159)
9. Recognition of Transition Difference Between Book and Market Value that existed on December 31, 1992 (17 years remaining)	30,630
10. Actuarial Value of Assets, December 31, 2004: (6) + .25 x [(7)+(8)]+(9)	\$ 28,594,699

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

Allocation of Actuarial Present Values

(\$ in Thousands)

Actuarial Present Value, December 31, of	Actuarial Present Value of Future Benefits	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities (2)-(3)
(1)	(2)	(3)	(4)
Active Members			
Service Retirement Benefits	\$ 20,321,663	\$ 5,198,755	\$ 15,122,908
Disability Benefits	845,769	412,948	432,821
Survivor Benefits	621,304	201,430	419,874
Separation Benefits	<u>2,548,545</u>	<u>1,368,802</u>	<u>1,179,743</u>
Active Member Totals	\$ 24,337,281	\$ 7,181,935	\$ 17,155,346
Retirees and Beneficiaries on Rolls	\$ 22,629,338	\$ 0	\$ 22,629,338
Inactive Deferred Benefits			
Member Portion	436,041	0	436,041
Employer Portion	370,635	0	370,635
Nonvested Inactives—Refunds Due	<u>192,171</u>	<u>0</u>	<u>192,171</u>
Total	\$ 47,965,466	\$ 7,181,935	\$ 40,783,531
Assets Used in Valuation			<u>28,594,699</u>
Unfunded/(Overfunded) Actuarial Accrued Liabilities			\$ 12,188,832

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

2005 Employer Contribution Rate

Expressed as Percent of Active Member Payroll

<u>Contribution For</u>	<u>Contributions Expressed as Percent of Payroll</u>
Normal Cost	
Service Retirement Benefits	11.80%
Disability Benefits	0.96
Survivor Benefits	0.46
Separation Benefits	<u>3.02</u>
Total	16.24%
Member Current Contributions ¹	<u>8.02</u>
Employer Normal Cost	8.22%
Employer Contribution Rate ¹	9.15%
Percent Available to Amortize Unfunded Actuarial Accrued Liabilities (UAAL)	0.93%
Number of Years to Amortize UAAL	Infinite
Actuarially Required Employer Contribution Rate to pay Normal Cost and amortize UAAL over 40 years (assuming AED is paid throughout the amortization period)	16.91%

¹Weighted average of more than one statutory rate.

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

Actuarial Present Value of Accumulated Plan Benefits

	<u>\$ in Thousands</u>
Vested Benefits	
For retired lives	\$22,629,338
For others	11,677,317
Non-Vested Benefits	<u>2,828,034</u>
Actuarial Present Value of Accumulated Plan Benefits	\$37,134,689

The actuarial present value of accumulated plan benefits as of December 31, 2003, was \$34,067 million. During the year, the plan experienced a net increase of \$3,068 million in the actuarial present value of accumulated plan benefits.

The actuarial present values presented above were determined using the following assumptions:

- a) Future salary increases were not considered.
- b) Future service was considered only to the extent that it would permit active plan participants to become eligible for benefits attributable to service rendered prior to the date of determination.
- c) Regular valuation assumptions were used as to mortality, withdrawal, retirement ages, disability and investment return.

Active Member Counts

Vested	
Other Than State Troopers	88,846
State Troopers	566
Non-Vested	
Other Than State Troopers	71,797
State Troopers	<u>174</u>
Total	161,383

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

GASB-25 **Schedule of Funding Progress** (in thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL/ Covered Payroll
(1)	(2)	(3)	(4)	(5)	(6)	(7)
12-31-04	\$28,594,699	\$40,783,531	\$12,188,832	70.1%	\$5,303,439	229.8%
12-31-03	\$28,522,222	\$37,914,502	\$9,392,280	75.2%	\$5,140,918	182.7%
12-31-02	\$28,551,607	\$32,463,918	\$3,912,311	87.9%	\$5,278,586	74.1%
12-31-01	\$28,947,935	\$29,469,608	\$521,673	98.2%	\$4,954,605	10.5%
12-31-00	\$27,749,435	\$26,492,574	(\$1,256,861)	104.7%	\$4,561,133	(27.6%)
12-31-99	\$24,976,228	\$24,311,246	(\$664,982)	102.7%	\$4,309,573	(15.4%)

Schedule of Employer Contributions

Fiscal Year	Annual Required Contribution* (ARC)	% ARC Contributed
(1)	(2)	(3)
2004	17.31%	51%
2003	11.11%	69%
2002	6.37%	100%
2001	6.84%	100%
2000	9.82%	100%
1999	10.46%	100%

*As a percent of covered payroll. The amortization period for 2004 is 40 years.

Notes to Schedules

For these schedules, the State and School Divisions have been combined in prior years.

Actuarial Method: Individual Entry Age Normal.

Actuarial Assumptions: Please see pages 24 through 28 for a description of the current assumptions.

Trend Factors: There was no significant change in the population size during 2004. There were no material plan changes since the last valuation.

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

Changes in Unfunded Actuarial Accrued Liabilities

During Calendar 2004

\$ in Millions

1. Beginning of Year:	
a) Unfunded Actuarial Accrued Liabilities (UAAL)	\$ 9,392.3
b) Normal Cost	848.3
c) Total Contribution required to pay Normal Cost and amortize the UAAL over 40 years	1,302.1
d) Actual Total Contribution (excluding service purchases)	864.4
2. End of Year:	
a) Expected UAAL, from last year's valuation: (1a) x 1.085 + (1b) x 1.0425 - (1c) x 1.0425	\$ 9,717.6
b) Expected UAAL based on actual contribution (1a) x 1.085 + (1b) x 1.0425 - (1d) x 1.0425	10,173.9
c) Increase in UAAL due to Contribution Deficiency (2b)-(2a)	456.3
3. Gains (Losses) on year's activities:	
a) From differences between assumed and actual experience on liabilities	\$ (475.8)
b) From differences between assumed and actual experience on assets	(1,591.8)
c) From service purchases	(195.8)
d) From change in interest credit rate on member contributions	<u>248.5</u>
e) Total (a) + (b) + (c) + (d)	\$ (2,014.9)
4. Actual UAAL at end of year (2a) + (2c) - (3e)	\$12,188.8

SUMMARY OF STATE AND SCHOOL DIVISION RESULTS

Gains & Losses in Actuarial Accrued Liabilities During Calendar Year 2004

<u>Type of Activity</u>	<u>Gain (Loss) For Year</u>	<u>% of Beginning of Year Accrued Liabilities</u>
	<u>\$ in Millions</u>	<u>Liabilities</u>
-----Decrement Risk Areas-----		
<u>Service Retirements.</u> If members retire at older ages than assumed, there is a gain. If younger ages, a loss. Service purchases at less than full actuarial cost also produce a loss.	(\$401.2)	(1.06%)
<u>Disability Retirements.</u> If disability claims are less than assumed, there is a gain. If more claims, a loss.	4.8	0.01%
<u>Deaths.</u> If survivor claims are less than assumed, there is a gain. If more claims, a loss. If retirees live longer than assumed, there is a loss; if they die sooner than assumed, there is a gain.	(50.2)	(0.13%)
<u>Withdrawal.</u> If more actuarial liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	19.4	0.05%
<u>New Entrants.</u> New members enter the plan with some service, causing a loss.	(51.3)	(0.14%)
<u>Other.</u> Change in group size, service credit reinstatements, data adjustments and miscellaneous unidentified changes in the UAAL.	(27.6)	(0.07%)
-----Economic Risk Areas-----		
<u>Salary Increases.</u> If there are smaller salary increases than assumed, there is a gain. If greater increases, a loss.	30.3	0.08%
<u>Investment Income.</u> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(1,591.8)	(4.20%)
Experience Gain (or Loss) During Year	(\$2,067.6)	(5.46%)

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

Summary of Data Used in Valuation

<u>Group</u>	<u>Number</u>	<u>Annual Payroll/Benefits</u>	
		<u>Total</u> <u>(\$ in Thousands)</u>	<u>Average</u>
Active Members	15,184	\$549,607	\$36,196
Retirees and Beneficiaries	3,323	\$81,994	\$24,675
Inactive Deferred	889		
Nonvested Inactives Due Refunds	<u>9,712</u>		
Total	29,108		

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

Development of Actuarial Value of Assets

	<u>(\$ Thousands)</u>
1. Actuarial Value December 31, 2003	\$ 1,907,786
2. Market Value December 31, 2004	2,087,710
3. Market Value December 31, 2003	1,819,240
4. Cash Flow During 2004	
a. Contributions	\$ 109,167
b. Benefit payments and other deductions	(93,496)
c. Expenses and fees	(1,943)
d. Transfers	<u>(762)</u>
e. Net Cash Flow	\$ 12,966
5. Expected Return During 2004: (1) x .085 + (4e) x .0425	162,713
6. Expected Actuarial Value of Assets: (1)+(4e)+(5)	2,083,465
7. 2004 Phase-In Amount: (2)-(3)-(4e)-(5)	92,791
8. Prior Years Phase-In	
- 2003	178,181
- 2002	(356,890)
- 2001	<u>(291,830)</u>
- Total	(470,539)
9. Recognition of Transition Difference Between Book and Market Value that existed on December 31, 1992 (17 years remaining)	1,624
10. Actuarial Value of Assets, December 31, 2004 (6) + .25 x [(7)+(8)]+(9)	\$ 1,990,652

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

Allocation of Actuarial Present Values

(\$ in Thousands)

Actuarial Present Value, December 31, of	Actuarial Present Value of Future Benefits	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities (2)-(3)
(1)	(2)	(3)	(4)
Active Members			
Service Retirement Benefits	\$ 1,655,422	\$ 531,743	\$ 1,123,679
Disability Benefits	144,774	79,744	65,030
Survivor Benefits	73,294	27,943	45,351
Separation Benefits	329,352	181,132	148,220
Active Member Totals	\$ 2,202,842	\$ 820,562	\$ 1,382,280
Retirees and Beneficiaries on Rolls	\$ 1,097,449	\$ 0	\$ 1,097,449
Inactive Deferred Benefits			
Member Portion	41,353	0	41,353
Employer Portion	35,150	0	35,150
Nonvested Inactives – Refunds Due	20,756	0	20,756
Total	\$ 3,397,550	\$ 820,562	\$ 2,576,988
Assets Used in Valuation			1,990,652
Unfunded/(Overfunded) Actuarial Accrued Liabilities			\$ 586,336

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

2005 Employer Contribution Rate

Expressed as Percent of Active Member Payroll

<u>Contribution For</u>	<u>Contributions Expressed as Percent of Payroll</u>
Normal Cost	
Service Retirement Benefits	11.08%
Disability Benefits	1.67
Survivor Benefits	0.58
Separation Benefits	<u>3.62</u>
Total	16.95%
Member Current Contributions	<u>8.00</u>
Employer Normal Cost	8.95%
Employer Contribution Rate	8.98%
Percent Available to Amortize Unfunded Actuarial Accrued Liabilities (UAAL)	0.03%
Number of Years to Amortize UAAL	Infinite
Actuarially Required Employer Contribution Rate to pay Normal Cost and amortize UAAL over 40 years (assuming AED is paid throughout the amortization period)	11.73%

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

Actuarial Present Value of Accumulated Plan Benefits

	<u>\$ in Thousands</u>
Vested Benefits	
For retired lives	\$1,097,449
For others	963,091
Non-Vested Benefits	<u>220,830</u>
Actuarial Present Value of Accumulated Plan Benefits	\$2,281,370

The actuarial present value of accumulated plan benefits as of December 31, 2003, was \$2,027.8 million. During the year, the plan experienced a net increase of \$253.6 million in the actuarial present value of accumulated plan benefits.

The actuarial present values presented above were determined using the following assumptions:

- a) Future salary increases were not considered.
- b) Future service was considered only to the extent that it would permit active plan participants to become eligible for benefits attributable to service rendered prior to the date of determination.
- c) Regular valuation assumptions were used as to mortality, withdrawal, retirement ages, disability and investment return.

Active Member Counts

Vested	6,908
Non-Vested	<u>8,276</u>
Total	15,184

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

GASB-25 Schedule of Funding Progress (in thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL/ Covered Payroll
(1)	(2)	(3)	(4)	(5)	(6)	(7)
12-31-04	\$1,990,652	\$2,576,988	\$586,336	77.2%	\$549,607	106.7%
12-31-03	\$1,907,786	\$2,379,229	\$471,443	80.2%	\$479,098	98.4%
12-31-02	\$1,839,632	\$1,966,143	\$126,511	93.6%	\$474,760	26.6%
12-31-01	\$1,822,413	\$1,746,761	(\$75,652)	104.3%	\$436,582	(17.3%)
12-31-00	\$1,717,017	\$1,541,014	(\$176,003)	111.4%	\$399,737	(44.0%)
12-31-99	\$1,524,667	\$1,413,208	(\$111,459)	107.9%	\$380,064	(29.3%)

Schedule of Employer Contributions

Fiscal Year	Annual Required Contribution* (ARC)	% ARC Contributed
(1)	(2)	(3)
2004	13.98%	62%
2003	9.53%	69%
2002	5.02%	100%
2001	6.26%	100%
2000	8.90%	100%
1999	9.05%	100%

*As a percent of covered payroll. The amortization period for 2004 is 40 years.

Notes to Schedules

Actuarial Method: Individual Entry Age Normal.

Actuarial Assumptions: Please see Pages 24 through 28 for a description of the current assumptions.

Trend Factors: There was no significant change in the population size during 2004. There were no significant plan changes since the last valuation.

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

Changes in Unfunded Actuarial Accrued Liabilities

During Calendar 2004

\$ in Millions

1. Beginning of Year:	
a) Unfunded Actuarial Accrued Liabilities (UAAL)	\$ 471.4
b) Normal Cost	82.5
c) Total Contribution required to pay Normal Cost and amortize the UAAL over 40 years	105.3
d) Actual Total Contribution (excluding service purchases)	90.6
2. End of Year:	
a) Expected UAAL, from last year's valuation: (1a) x 1.085 + (1b) x 1.0425 - (1c) x 1.0425	\$ 487.7
b) Expected UAAL based on actual contribution (1a) x 1.085 + (1b) x 1.0425 - (1d) x 1.0425	503.0
c) Increase in UAAL due to Contribution Deficiency (2b)-(2a)	15.3
3. Gains (Losses) on year's activities:	
a) From differences between assumed and actual experience on liabilities	\$ 8.3
b) From differences between assumed and actual experience on assets	(97.2)
c) From service purchases	(18.0)
d) From change in interest credit rate on member contributions	<u>23.6</u>
e) Total (a) + (b) + (c) + (d)	\$ (83.3)
4. Actual UAAL at end of year (2a) + (2c) - (3e)	\$ 586.3

SUMMARY OF MUNICIPAL (LOCAL GOVERNMENT) DIVISION RESULTS

Gains & Losses in Actuarial Accrued Liabilities During Calendar Year 2004

<u>Type of Activity</u>	<u>Gain (Loss) For Year</u>	<u>% of Beginning of Year Accrued Liabilities</u>
	<u>\$ in Millions</u>	
-----Decrement Risk Areas-----		
<u>Service Retirements.</u> If members retire at older ages than assumed, there is a gain. If younger ages, a loss. Service purchases at less than full actuarial cost also produce a loss.	(\$34.4)	(1.45%)
<u>Disability Retirements.</u> If disability claims are less than assumed, there is a gain. If more claims, a loss.	(5.3)	(0.22%)
<u>Deaths.</u> If survivor claims are less than assumed, there is a gain. If more claims, a loss. If retirees live longer than assumed, there is a loss; if they die sooner than assumed, there is a gain.	(0.9)	(0.04%)
<u>Withdrawals.</u> If more actuarial liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	(6.0)	(0.25%)
<u>New Entrants.</u> New members enter the plan with some service, causing a loss.	(13.0)	(0.55%)
<u>Other.</u> Change in group size, service credit reinstatements, data adjustments and miscellaneous unidentified changes in the UAAL.	4.4	0.19%
-----Economic Risk Areas-----		
<u>Salary Increases.</u> If there are smaller salary increases than assumed, there is a gain. If greater increases, a loss.	63.5	2.67%
<u>Investment Income.</u> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(97.2)	(4.09%)
Experience Gain (or Loss) During Year	(\$88.9)	(3.74%)

SUMMARY OF JUDICIAL DIVISION RESULTS

SUMMARY OF JUDICIAL DIVISION RESULTS

Summary of Data Used in Valuation

<u>Group</u>	<u>Number</u>	<u>Annual Payroll/Benefits</u>	
		<u>Total</u> <u>(\$ in Thousands)</u>	<u>Average</u>
Active Members	273	\$26,309	\$96,371
Retirees and Beneficiaries	243	\$9,062	\$37,293
Inactive Deferred	16		
Nonvested Inactives Due Refunds	<u>3</u>		
Total	535		

SUMMARY OF JUDICIAL DIVISION RESULTS

Development of Actuarial Value of Assets

	<u>(\$ Thousands)</u>
1. Actuarial Value December 31, 2003	\$166,654
2. Market Value December 31, 2004	178,504
3. Market Value December 31, 2003	158,609
4. Cash Flow During 2004	
a. Contributions	\$ 6,951
b. Benefit payments and other deductions	(9,015)
c. Expenses and fees	(23)
d. Transfers	<u>193</u>
e. Net Cash Flow	\$ (1,894)
5. Expected Return During 2004: (1) x .085 + (4e) x .0425	14,085
6. Expected Actuarial Value of Assets: (1)+(4e)+(5)	178,845
7. 2004 Phase-In Amount: (2)-(3)-(4e)-(5)	7,704
8. Prior Years Phase-In	
- 2003	15,432
- 2002	(31,879)
- 2001	<u>(26,870)</u>
- Total	(43,317)
9. Recognition of Transition Difference Between Book and Market Value that existed on December 31, 1992 (17 years remaining)	169
10. Actuarial Value of Assets, December 31, 2004: (6) + .25 x [(7)+(8)]+(9)	\$170,111

SUMMARY OF JUDICIAL DIVISION RESULTS

Allocation of Actuarial Present Values

(\$ in Thousands)

Actuarial Present Value, December 31, of (1)	Actuarial Present Value of Future Benefits (2)	Portion Covered by Future Normal Cost Contributions (3)	Actuarial Accrued Liabilities (2)-(3) (4)
Active Members			
Service Retirement Benefits	\$ 110,478	\$ 24,351	\$ 86,127
Disability Benefits	11,368	4,323	7,045
Survivor Benefits	7,880	2,092	5,788
Separation Benefits	<u>3,427</u>	<u>2,583</u>	<u>844</u>
Active Member Totals	\$ 133,153	\$ 33,349	\$ 99,804
Retirees and Beneficiaries on Rolls	\$ 107,171	\$ 0	\$ 107,171
Inactive Deferred Benefits			
Member Portion	\$ 1,526	\$ 0	\$ 1,526
Employer Portion	1,297	0	1,297
Nonvested Inactives-Refunds Due	<u>156</u>	<u>0</u>	<u>156</u>
Total	\$ 243,303	\$ 33,349	\$ 209,954
Assets Used in Valuation			<u>170,111</u>
Unfunded/(Overfunded) Actuarial Accrued Liabilities			\$ 39,843

SUMMARY OF JUDICIAL DIVISION RESULTS

2005 Employer Contribution Rate

Expressed as Percent of Active Member Payroll

<u>Contribution For</u>	<u>Contributions Expressed as Percent of Payroll</u>
Normal Cost	
Service Retirement Benefits	13.07%
Disability Benefits	2.30
Survivor Benefits	1.14
Separation Benefits	<u>1.38</u>
Total	17.89%
Member Current Contributions	<u>8.00</u>
Employer Normal Cost	9.89%
Employer Contribution Rate	12.64%
Percent Available to Amortize Unfunded Actuarial Accrued Liabilities (UAAL)	2.75%
Number of Years to Amortize UAAL	Infinite
Actuarially Required Employer Contribution Rate to pay Normal Cost and amortize UAAL over 40 years (assuming AED is paid throughout the amortization period)	14.87%

SUMMARY OF JUDICIAL DIVISION RESULTS

Actuarial Present Value of Accumulated Plan Benefits

	<u>\$ in Thousands</u>
Vested Benefits	
For retired lives	\$107,171
For others	84,536
Non-vested Benefits	<u>3,751</u>
Actuarial Present Value of Accumulated Plan Benefits	\$195,458

The actuarial present value of accumulated plan benefits as of December 31, 2003 was \$181.3 million. During the year, the plan experienced a net increase of \$14.2 million in the actuarial present value of accumulated plan benefits.

The actuarial present values presented above were determined using the following assumptions:

- a) Future salary increases were not considered.
- b) Future service was considered only to the extent that it would permit active plan participants to become eligible for benefits attributable to service rendered prior to the date of determination.
- c) Regular valuation assumptions were used as to mortality, withdrawal, retirement ages, disability and investment return.

Active Member Counts

Vested	222
Non-Vested	<u>51</u>
Total	273

SUMMARY OF JUDICIAL DIVISION RESULTS

GASB-25 Schedule of Funding Progress (in thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL/ Covered Payroll
(1)	(2)	(3)	(4)	(5)	(6)	(7)
12-31-04	\$170,111	\$209,954	\$39,843	81.0%	\$26,309	151.4%
12-31-03	\$166,654	\$198,377	\$31,723	84.0%	\$25,452	124.6%
12-31-02	\$162,901	\$165,672	\$2,771	98.3%	\$26,357	10.5%
12-31-01	\$165,130	\$150,943	(\$14,187)	109.4%	\$24,140	(58.8%)
12-31-00	\$159,426	\$132,653	(\$26,773)	120.2%	\$21,673	(123.5%)
12-31-99	\$142,499	\$122,237	(\$20,262)	116.6%	\$20,123	(100.7%)

Schedule of Employer Contributions

Fiscal Year	Annual Required Contribution* (ARC)	% ARC Contributed
(1)	(2)	(3)
2004	16.22%	64%
2003	3.98%	100%
2002	1.55%	100%
2001	1.79%	100%
2000	13.40%	100%
1999	14.05%	100%

*As a percent of covered payroll. The amortization period for 2004 is 40 years.

Notes to Schedules

Actuarial Method: Individual Entry Age Normal.

Actuarial Assumptions: Please see pages 24 through 28 for a description of the current assumptions.

Trend Factors: There was no significant change in the population size during 2004. There were no significant plan changes since the last valuation.

SUMMARY OF JUDICIAL DIVISION RESULTS

Changes in Unfunded Actuarial Accrued Liabilities During Calendar 2004

	<u>\$ in Millions</u>
1. Beginning of Year:	
a) Unfunded Actuarial Accrued Liabilities (UAAL)	\$ 31.7
b) Normal Cost	4.6
c) Total Contribution required to pay Normal Cost and amortize the UAAL over 40 years	6.2
d) Actual Total Contribution (excluding service purchases)	4.7
2. End of Year:	
a) Expected UAAL, from last year's valuation: (1a) x 1.085 + (1b) x 1.0425 - (1c) x 1.0425	\$ 32.7
b) Expected UAAL based on actual contribution (1a) x 1.085 + (1b) x 1.0425 - (1d) x 1.0425	34.3
c) Increase in UAAL due to Contribution Deficiency (2b)-(2a)	1.6
3. Gains (Losses) on year's activities:	
a) From differences between assumed and actual experience on liabilities	\$ 0.9
b) From differences between assumed and actual experience on assets	(8.7)
c) From service purchases	(1.2)
d) From change in interest credit rate on member contributions	<u>3.5</u>
e) Total (a) + (b) + (c) + (d)	\$ (5.5)
4. Actual UAAL at end of year (2a) + (2c) - (3e)	\$ 39.8

SUMMARY OF JUDICIAL DIVISION RESULTS

Gains & Losses in Actuarial Accrued Liabilities During Calendar Year 2004

<u>Type of Activity</u>	<u>Gain (Loss) For Year</u>	<u>% of Beginning of Year Accrued Liabilities</u>
	<u>\$ in Millions</u>	<u>Liabilities</u>
----- Decrement Risk Areas -----		
<u>Service Retirements.</u> If members retire at older ages than assumed, there is a gain. If younger ages, a loss. Service purchases at less than full actuarial cost also produce a loss.	(\$0.7)	(0.37%)
<u>Disability Retirements.</u> If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.2)	(0.08%)
<u>Deaths.</u> If survivor claims are less than assumed, there is a gain. If more claims, a loss. If retirees live longer than assumed, there is a loss; if they die sooner than assumed, there is a gain.	0.4	0.21%
<u>Withdrawals.</u> If more actuarial liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	(0.4)	(0.20%)
<u>New Entrants.</u> New members enter the plan with some service, causing a loss.	(2.0)	(1.01%)
<u>Other.</u> Change in group size, service credit reinstatements, data adjustments and miscellaneous unidentified changes in the UAAL.	0.2	0.08%
----- Economic Risk Areas -----		
<u>Salary Increases.</u> If there are smaller salary increases than assumed, there is a gain. If greater increases, a loss.	3.6	1.80%
<u>Investment Income.</u> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(8.7)	(4.37%)
Experience Gain (or Loss) During Year	(\$7.8)	(3.94%)

POSTRETIREMENT HEALTH CARE PROGRAM

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Valuation Highlights

Fixed Dollar Subsidy

The December 31, 2004 actuarial valuation of the postretirement Health Care Trust Fund (HCTF) indicates that the contribution rate is sufficient to fully fund the costs of benefit commitments for fixed-dollar subsidies being made to members and benefit recipients. After satisfying normal cost requirements, the remainder of the employer rate is sufficient to fund the unfunded portion of the actuarial accrued liabilities over 34 years; however, current contributions are not sufficient to meet the 40 year amortization policy for the implicit no-Part A subsidy, as described below. During the 2004 legislative session, SB 04-132 was passed, reducing the employer contribution rate from 1.10% to 1.02%. In addition, future credits to the HCTF for members who are not retired and have purchased service credit are considered.

No-Part A Subsidy

PERA retirees who have not participated in Social Security are generally not covered by Medicare Part A for hospital-related services. Per section 24-51-1206(4) of the Colorado Revised Statutes, PERA may not charge premiums to retirees without Part A that are any greater than premiums charged to retirees with Part A, for the same plan option and coverage level. Presently, PERA interprets this mandate to require that total premiums for Medicare coverage be determined assuming plan participants have both Medicare Parts A and B. Retirees then pay the difference between the total premium and their service-related fixed-dollar subsidy from the HCTF. Implicit in this process is an additional subsidy paid by the HCTF on behalf of retirees who are not covered for Part A. Under the self-insured program, the implicit subsidy is equal to the difference between claims paid for Part A services and what Medicare would have paid had such retirees enrolled in Part A. For retirees participating in an HMO, the additional subsidy paid by the HCTF for no Part A members is equal to the difference in the premiums the HMO's charge for retirees without Part A coverage, and those covered by Part A. This implicit subsidy has been included in the December 31, 2004 actuarial valuation due to the material impact this subsidy has on the HCTF and increases the funding period to 58 years.

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Summary of Data Used in Valuation

<u>Group</u>	<u>Total Number</u>	<u>No Part A Member Number</u>
Active Members	176,840	14,429 ¹
Inactive Members	12,251	0 ²
Benefit Recipients	<u>38,795</u>	<u>2,881</u> ³
Total	227,886	17,310
Average Age – Active Members	44.1 years	50.9 years
Average Service – Active Members	8.2 years	26.0 years
Average Age – Benefit Recipients	70.0 years	73.4 years
Average Age – Pre-Medicare Retirees	N/A	50.5 years

¹Active no-Part A membership is limited to employees with earned service that implies hire date prior to March 31, 1986 and who could not have earned 40 quarters of coverage between age 20 and their PERA date of hire.

²Inactive members are assumed to attain Medicare eligibility prior to becoming Benefit Recipients.

³Includes 1,928 benefit recipients enrolled in a “No-Part A” coverage category and 953 benefit recipients enrolled in pre-Medicare coverage who are assume to ultimately enroll in “No-Part A” coverage.

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Development of Actuarial Value of Assets

	<u>(\$ Thousands)</u>
1. Actuarial Value December 31, 2003	\$160,416
2. Market Value December 31, 2004	181,559
3. Market Value December 31, 2003	159,959
4. Cash Flow During 2004	
a. Contributions	\$ 76,817
b. Benefit payments and other deductions	(76,410)
c. Expenses and fees	(1,924)
d. Transfers	<u>0</u>
e. Net Cash Flow	\$ (1,517)
5. Expected Return During 2004: (1) x .085 + (4e) x .0425	13,571
6. Expected Actuarial Value of Assets: (1)+(4e)+(5)	172,470
7. 2004 Phase-In Amount: (2)-(3)-(4e)-(5)	9,546
8. Prior Years Phase-In	
- 2003	19,503
- 2002	(30,846)
- 2001	<u>(21,606)</u>
- Total	(32,949)
9. Actuarial Value of Assets, December 31, 2004: (6) + .25 x [(7)+(8)]	\$166,619

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Allocation of Actuarial Present Values (\$ in Thousands)

Actuarial Present Value, December 31, of (1)	Actuarial Present Value of Future Benefits (2)	Portion Covered by Future Normal Cost Contributions (3)	Actuarial Accrued Liabilities (2)-(3) (4)
Active Members	\$638,265	\$121,854	\$516,411
Benefit Recipients	567,385	0	567,385
Inactive Members	<u>18,801</u>	<u>0</u>	<u>18,801</u>
Total	\$ 1,224,451	\$121,854	\$1,102,597
Assets Used in Valuation			<u>166,619</u>
Unfunded Actuarial Accrued Liabilities			\$935,978
Ratio of Assets to Liabilities			15.1%

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Changes in Unfunded Actuarial Accrued Liabilities

During Calendar Year 2004

	<u>\$ in Millions</u>
1. Beginning of Year:	
a) Unfunded Actuarial Accrued Liabilities (UAAL)	\$ 737.0
b) Normal Cost	19.6
c) Total Contribution required to pay Normal Cost and amortize the UAAL over 40 years	55.2
d) Actual Total Contribution (excluding service purchases)	61.9
2. End of Year:	
a) Expected UAAL, from last year's valuation: (1a) x 1.085 + (1b) x 1.0425 - (1c) x 1.0425	\$ 762.5
b) Expected UAAL based on actual contribution (1a) x 1.085 + (1b) x 1.0425 - (1d) x 1.0425	755.5
c) (Decrease) in UAAL due to Excess Contribution (2b)-(2a)	(7.0)
3. Gains (Losses) on year's activities:	
a) From differences between assumed and actual experience on liabilities	\$ (17.6)
b) From differences between assumed and actual experience on assets	(7.7)
c) From service purchases	7.8
d) From recognition of subsidy provided for No Part A members and future HCTF purchase service cost credits	<u>(163.0)</u>
e) Total (a) + (b) + (c) + (d)	\$ (180.5)
4. Actual UAAL at end of year (2a) + (2c) - (3e)	\$ 936.0

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Gains & Losses in Actuarial Accrued Liabilities During Calendar Year 2004

<u>Type of Activity</u>	<u>Gain (Loss) For Year</u>	<u>% of Beginning of Year Accrued Liabilities</u>
<u>\$ in Millions</u>		
----- Decrement Risk Areas -----		
<u>Service Retirements.</u> If members retire at older ages than assumed, there is a gain. If younger ages, a loss.	(\$13.5)	(1.50%)
<u>Disability Retirements.</u> If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.6)	(0.07)
<u>Deaths.</u> If survivor claims are less than assumed, there is a gain. If more claims, a loss. If retirees live longer than assumed, there is a loss; if they die sooner than assumed, there is a gain.	(0.9)	(0.10)
<u>Withdrawal.</u> If more actuarial liabilities are released by terminations than assumed, there is a gain. If smaller releases, a loss.	0.5	0.06
<u>New Entrants.</u> New members enter the plan with some service, causing a loss.	(4.0)	(0.45)
<u>Other.</u> Change in group size, participation changes, data adjustments and miscellaneous unidentified changes in the UAAL.	0.9	0.10
----- Economic Risk Areas -----		
<u>Investment Income.</u> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(7.7)	(0.86)
Experience Gain (or Loss) During Year	(\$25.3)	(2.82%)

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Employer Contribution Rate

Expressed as Percent of Active Member Payroll

<u>Contribution For</u>	<u>Contributions Expressed as Percent of Payroll</u>
Normal Cost	0.36%
Member Current Contributions	<u>0.00%</u>
Employer Normal Cost	0.36%
Employer Contribution Rate	
Statutory Rate	1.02%
Additional from Overfunding	<u>0.00%</u>
Total	1.02%
Percent Available to Amortize Unfunded Actuarial Accrued Liabilities (UAAL)	0.66%
Number of Years to Amortize UAAL	58
Actuarially Required Employer Contribution Rate to pay Normal Cost and amortize UAAL over 40 years	1.13%

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Actuarial Present Value of Accumulated Plan Benefits

	<u>\$ in Thousands</u>
Vested Benefits	
For retired lives	\$567,385
For others	315,381
Non-vested Benefits	<u>188,888</u>
Actuarial Present Value of Accumulated Plan Benefits	\$1,071,654

The actuarial present value of accumulated plan benefits as of December 31, 2003, was \$873.4 million. During the year, the plan experienced a net increase of \$198.3 million in the actuarial present value of accumulated plan benefits. Of this amount, \$157.0 million was a result of the recognition of subsidy for No Part A members and HCTF purchase of service cost credits.

The actuarial present values presented above were determined using the following assumptions:

- a) Future salary increases were not considered.
- b) Future service was considered only to the extent that it would permit active plan participants to become eligible for benefits attributable to service rendered prior to the date of determination.
- c) Regular valuation assumptions were used as to mortality, withdrawal, retirement ages, disability and investment return.

Active Member Counts

Vested	96,563
Non-Vested	<u>80,277</u>
Total	176,840

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

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Schedule of Funding Progress (in thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL/ Covered Payroll
(1)	(2)	(3)	(4)	(5)	(6)	(7)
12-31-04*	\$166,619	\$1,102,597	\$935,978	15.1%	\$5,879,355	15.9%
12-31-03	\$160,416	\$897,461	\$737,045	17.9%	\$5,645,468	13.1%
12-31-02	\$161,700	\$813,211	\$651,511	19.9%	\$5,779,703	11.3%
12-31-01	\$138,198	\$782,961	\$644,763	17.7%	\$5,415,327	11.9%
12-31-00	\$116,034	\$809,709	\$693,675	14.3%	\$4,982,543	13.9%
12-31-99	\$100,825	\$782,698	\$681,873	12.9%	\$4,709,760	14.5%

*Reflects first time recognition of subsidy for No Part A members and future HCTF purchase service cost credits.

Schedule of Employer Contributions

<u>Fiscal Year</u>	Annual Required Contribution* (ARC)	<u>% ARC Contributed</u>
2004	1.02%	100%
2003	1.16%	100%
2002	1.71%	100%
2001	1.48%	100%
2000	1.10%	100%
1999	0.95%	100%

*As a percent of covered payroll. The amortization period for 2004 is 34 years.

Notes to Schedules

Actuarial Method: Individual Entry Age Normal.

Actuarial Assumptions: Please see pages 24 through 28 for a description of the assumptions.

Trend Factors: There was no significant change in the population size during 2004. There were no significant plan changes since the last valuation.

SUMMARY OF POSTRETIREMENT HEALTH CARE PROGRAM

Subsidy Analysis

Year	Administration Expenses	Claims & HMO Premiums	Total Costs (2+3)	PERA Subsidy	
				Amount	Percentage (5 ÷ 4)
(1)	(2)	(3)	(4)	(5)	(6)
2004	\$4,708,737	\$130,917,403	\$135,626,140	\$79,198,231	58%
2003	\$4,872,077	\$120,813,632	\$125,685,709	\$67,275,292	54%
2002	\$4,571,820	\$113,897,967	\$118,469,787	\$62,727,337	53%
2001	\$4,564,519	\$98,907,833	\$103,472,352	\$58,476,718	57%
2000	\$3,530,456	\$73,800,252	\$77,330,708	\$47,101,648	61%
1999	\$3,317,163	\$61,661,514	\$64,978,677	\$38,532,513	59%
1998	\$3,191,006	\$59,203,630	\$62,394,636	\$37,406,245	60%
1997	\$3,153,438	\$56,497,909	\$59,651,347	\$36,532,399	61%
1996	\$3,318,988	\$53,783,023	\$57,102,011	\$35,514,502	62%