Attachment B

A rebound to full funding relies on investment returns that many economists doubt.

By Jennifer Brown The Denver Post The Denver Post
Posted:

DenverPost.com

Colorado raised the retirement age for teachers and state workers, cut benefits and upped taxpayer contributions — all to avoid an eventual bailout of the $39 billion public pension system.

Now the retirement fund is on target to rally within about 30 years.

At least on paper.

A Denver Post review of the fund's financial records found that the three-decade recovery is based on higher investment returns than many economists say are realistic, and that the fund isn't likely to bounce back from generous benefits promised a decade ago or the crushing 2008 recession until today's retirees — and many of the people managing the fund — are dead.

Recovery also hinges on whether the legislature continues to force schools, the State Patrol and other state agencies to make steep increases in contributions.

Meanwhile, the Colorado Public Employees' Retirement Association is spending up to $2.2 million annually on attorneys' fees, $364,000 on lobbying and $2.8 million in salaries for its dozen top-paid executives. Also, the retirement system recently cut checks for such events as a $20,000 board work session at the Grand Hyatt Denver and a $1,750 working dinner at Maggiano's Little Italy.

Treasurer warns of bailout

Tension over the fund's future has escalated into a politically charged fight that has critics challenging a retirement system in which almost everyone making decisions is also a beneficiary.

"To declare victory and say you solved the pension problem is not realistic at all," said state Treasurer Walker Stapleton, warning that Colorado is headed toward a bailout because taxpayers are the ones "on the hook" to pay promised retirement benefits.

Three trustees on the 16-member board that manages PERA essentially gave the annual financial report a vote of no confidence last month because they said its outlook is too optimistic.

At the same time, school districts and state agencies are furloughing workers, increasing classroom sizes and forgoing raises to help pay the PERA beast. To save the pension fund from drying up, the legislature in 2010 raised the retirement age from 50 to 55 or 60, depending on years worked so far (58 for teachers), and ordered school districts and state offices to dramatically boost the amount of money they contribute per employee.

The state pension fund is now 66.1 percent funded — meaning that for every dollar in benefits earned, the fund has 66.1 cents available to pay them. That compares with 68.9 percent last year.

It's a big drop from the fund's healthy status of 105.2 percent in 2000.

PERA executive director Meredith Williams is confident the fund will rebound over the long haul.

"We are the ultimate long-term investor," Williams said. "I sleep pretty good at night thinking about PERA's future."

A sticking point in the debate over the pension fund's solvency is the 8 percent rate of return it uses to predict investment growth over the next 30 years.

The fund's investment returns over the past 10 years were just 3.3 percent. PERA executives more often cite the fund's 25-year investment returns — 9.3 percent.

But numerous financial economists interviewed for this story said it's dangerous to assume investment growth in future decades will rival the prosperity of the 1980s and 1990s. More realistic, they suggest, is 6.5 percent to 7.5 percent.

"If I was to give PERA advice, I'd say you can't go forward looking through the rearview mirror of your car," said Michael Kingston, chief investment officer at Investors Independent Trust Co. in Boulder. "What happened in '08 was not an event. It was the beginning of an era."

8% rate similar to peers'

Colorado's 8 percent rate of return tracks with peers nationally; the average rate among public pension funds is from 7.5 to 8 percent.

But public pensions across the country are under scrutiny by economists who argue trustees are refusing to lower that rate because it would make their funds appear even less stable.

If Colorado were to use 6.5 percent, for example, the state pension fund would slip to a funded status of 52 percent.

The change also would trigger the need for increased contributions from taxpayers — in the form of payments from school districts, the State Patrol, the Judicial Branch and other state agencies.

The other statewide pension fund in Colorado — the much smaller, 103 percent-funded Fire & Police Pension Association of Colorado — will vote on lowering its rate of return to 7.5 percent this month on the advice of its actuary.

The largest public pension fund in the country, the California Public Employees' Retirement System, rejected a plan to lower its rate of return from 7.75 percent to 7.5 percent in March in part because the state could not afford steeper contributions for employees.

Economists also are challenging public pension funds for using a "discount rate" equal to their expected rate of return, a calculation method allowed by the Governmental Accounting Standards Board but one that economists argue lets funds mask their liabilities.

The discount rate is used to calculate what a retiree's pension will cost in today's dollars, which is much smaller than the pension checks eventually sent to the retiree over a lifetime. If a retiree's total pension is estimated to cost $1.2 million, for example, the fund can discount that to today's dollars using an 8 percent rate, compounded annually, meaning the fund is liable — on paper — for as little as $300,000.

"Covering up the liability by using bad accounting is not solving the problem," said Andrew Biggs, a scholar at the American Enterprise Institute for Public Policy Research, a right-leaning Washington, D.C., think tank. "They pretend they don't have a problem. That's just dumb."

Orin Kramer, former chairman of New Jersey's pension fund, said in a Bloomberg column that there are powerful incentives for public pension trustees to "rely on fantasy math."

But public-pension-fund managers, including Colorado's Williams, say public systems should have different rules because they are more sustainable than a corporation.

"The state of Colorado is not going to go out of business," Williams said. "The state of Colorado is probably not going to merge with New Mexico. The state of Colorado is not going to file for bankruptcy."

Colorado's pension reforms are among the toughest in the nation, although some states are going further. Rhode Island's proposal call for raising the retirement age to 67 and freezing cost-of-living adjustments.

Colorado's fund has "turned the corner," said Keith Brainard, research director for the National Association of State Retirement Administrators. "It's possible that somewhere along the line they may have to tweak the benefit structure further, but they are light-years ahead of where they were."

Others are skeptical.

"There is a very high probability that they will not meet their obligations over the next decade," said retired University of Colorado economics professor Barry Poulson. "The taxpayer is ultimately the underwriter."

Giveaways by lawmakers

Colorado's pension fund will struggle for years to make up for the benefits promised to government workers in the late 1990s.

Times were different then — the pension system was earning more money than it was slated to pay out in retirement benefits.

And state lawmakers began giving things away.

Pensions were sweetened; some speculate it was an effort by a Republican administration to push out stale workers left over from two decades of Democratic reign. Workers were allowed to purchase years of retirement for less than it would cost the pension fund to send those additional checks.

In 2002, a 30-year-old worker earning $37,327 a year could buy one year of retirement for $5,785. That same worker would have to pay $9,342 for a year of retirement in 2010, after workers were forced to pay what that extra year would actually cost the pension system.

PERA sold 87,148 years of retirement in 2003 alone.

"They promised employees benefit increases when they couldn't pay for them," said Stephen Fehr, a researcher at the Pew Center on the States. "They did this without thinking, 'We may not have it this good forever.' "

In the late 1990s, the Colorado legislature also lowered the retirement age to 50, decreased employer contributions to the fund and provided an annual, automatic 3.5 percent cost-of-living adjustment.

"The result was pretty predictable — we became a pretty expensive plan," said Williams, who was hired as PERA's director in 2000. "We were going in the wrong direction, and that was evident."

As the costs climbed, the country was struck by the worst recession since the Great Depression. The market value of the fund's assets sank from $41 billion in 2007 to $29 billion in 2008.

Benefits were severely scaled back, but many of those changes affect only employees hired after 2010. The reforms stripped all workers — even those already retired — of the automatic 3.5 percent cost-of-living increase. New hires will not receive more than 2 percent, and money earned by the fund will determine their adjustments.

A group of retirees and workers who were eligible to retire sued Colorado to restore those cost-of-living increases, but the suit was thrown out of court last week. Their attorney, Stephen Pincus, said it was unconstitutional to "reach into retirees' benefits" to spare the pension fund.

Senate President Brandon Shaffer, a Longmont Democrat, said pension-fund critics — chiefly the Republican state treasurer — are aligning themselves with a national movement to pare public pension benefits, reforming them into something like 401(k) plans that don't have guaranteed payouts.

"We fixed our state pension system," Shaffer said. "We are different. This was a long-term strategy and not something that was designed to fix everything overnight."

State workers also hope that Colorado gives the fix a chance to work and that concern over the fund's future doesn't translate to backlash against them.

"It's a sad state of affairs when they are looking at government employees as the bad guys in all of this and saying, 'Look! They have pensions. Let's go after them,' " said Doug Wilhelm, a Denver teacher who plans to retire in 10 years. "That's the problem with the economy? Give me a break."

House Speaker Frank McNulty, a Highlands Ranch Republican, wants the PERA board to have more financial expertise and fewer members who are pension beneficiaries — 12 of 15 voting members are beneficiaries.

"What we simply cannot afford is a program that continues down a path that could lead us to a taxpayer bailout," said McNulty, adding that he wants an outside review of pension finances.

The pension board also raised the ire of Attorney General John Suthers after its lobbyists persuaded lawmakers on the last day of the 2010 legislative session to strip the attorney general of his authority to advise the board.

"It was apparent to us then that PERA was not interested in the additional accountability that comes from having the attorney general's office as legal counsel," Suthers said.

PERA executives counter that Suthers' office had not provided legal counsel for the fund in several years.

State's poor record

Rescuing the pension system has a shot at working only if state lawmakers can stomach steeper contributions in future years, said Lynn Turner, a governor-appointed PERA board member and former chief accountant for the Securities and Exchange Commission.

But the state's track record isn't impressive: State employers have contributed $3.5 billion less since 2003 than what actuaries said was needed to stabilize the pension fund within 30 years. State employers were following law set by the legislature, which until recently did not require state agencies to pay as much as actuaries recommended.

"Senate Bill 1 will not fix the problem unless the contributions are made and an 8 percent return is achieved," Turner said. "If that does not occur, all they did was whack the employees good and allow the employers to be a deadbeat on their bill. At this time, I believe that is the most likely outcome."

School districts and state agencies already are feeling the hit.

Colorado Springs schools will shut down two extra days next year to save money. One of those furlough days nearly balances out the district's increased contribution to the state pension fund.

District No. 11's chief financial officer, Glenn Gustafson, said he is hopeful the pension system's 30-year fix will work, but he criticized PERA managers for having an "aloof attitude" and burdening schools with steep contributions.

"This story is not about PERA," Gustafson said. "This story is about what is going to happen to public education in Colorado."

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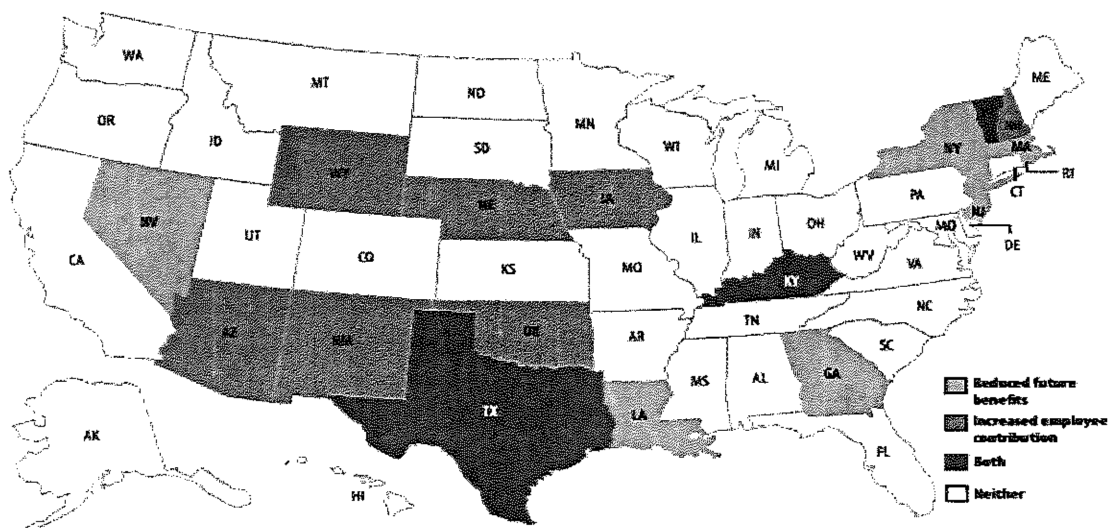
Coming Monday: Serving on the PERA board comes with some perksfree Internet service at home and plenty of meals and hotel stays.

The Denver Post is interested in your tips. You can reach our investigative reporters at 303-893-TIPS (8477) or toll-free at 866-748-TIPS, or e-mail us at TIPS@denverpost.com.

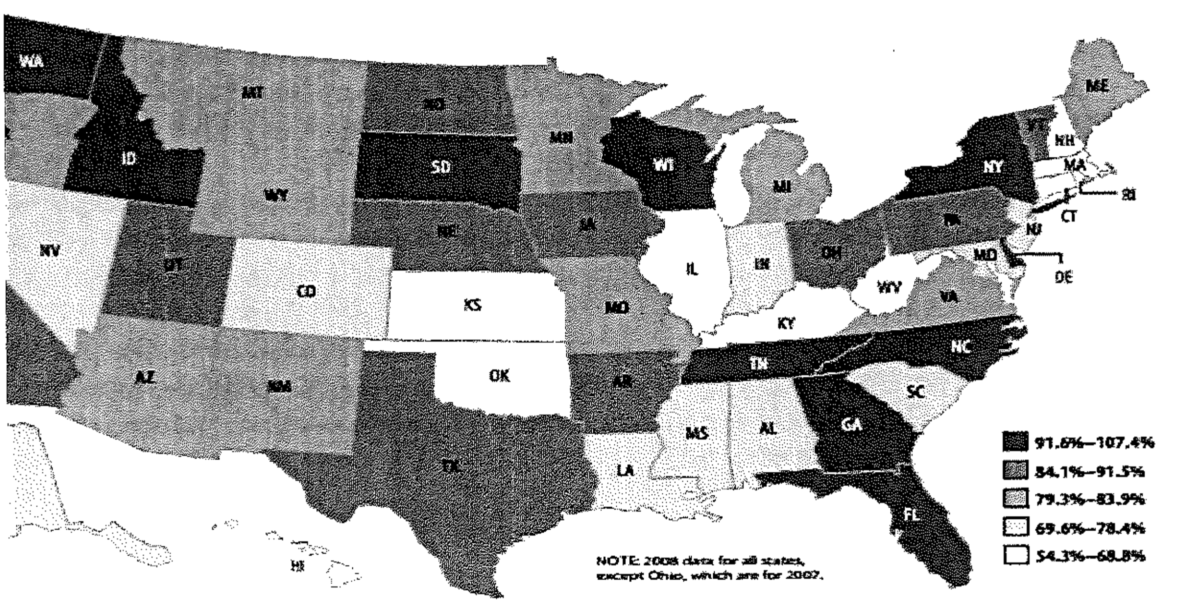
Nationally

Exhibit 4
STATE PENSION POLICY REFORMS, 2008–2009



(PEW 2010)

Exhibit 1
STATE PENSION FUNDING LEVELS



(Pew February 2011)

Exhibit 5

HOW ARE STATES DOING?

PENSIONS

Grade	Number of states	
SOLID PERFORMER	16	AZ, AR, DE, FL, GA, ID, ME, MT, NE, NY, NC, OH, SD, TN, UT, WI
NEEDS IMPROVEMENT	15	AL, CA, IA, MI, MN, MO, NM, ND, OR, PA, TX, VT, VA, WA, WY
SERIOUS CONCERNS	19	AK, CO, CT, HI, IL, IN, KS, KY, LA, MD, MA, MS, NV, NH, NJ, OK, RI, SC, WV

RETIREE HEALTH CARE AND NON-PENSION BENEFITS

Grade	Number of states	
SOLID PERFORMER	9	AK, AZ, CO, KY, ND, OH, OR, VA, WI
NEEDS IMPROVEMENT	40	AL, AR, CA, CT, DE, FL, GA, HI, ID, IL, IN, IA, KS, LA, ME, MD, MA, MI, MN, MS, MO, MT, NV, NH, NJ, NM, NY, NC, OK, PA, RI, SC, SD, TN, TX, UT, VT, WA, WV, WY

NOTE: Nebraska does not provide any estimates of its retiree health care and other non-pension benefits obligation.

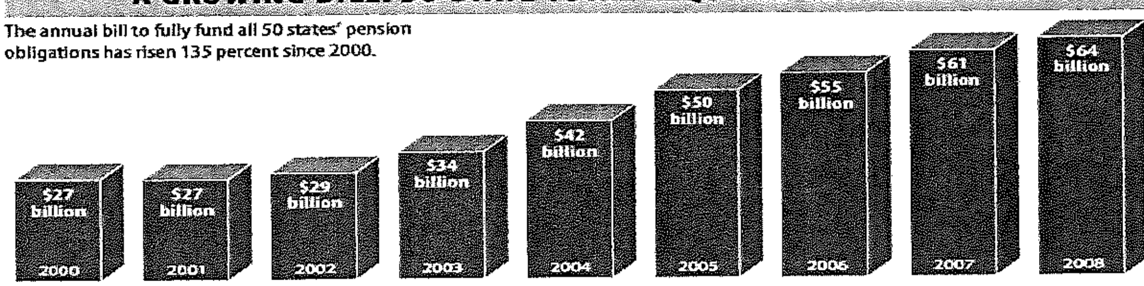
Figures are in thousands.

State	Latest liability	Latest unfunded liability	Annual required contribution	Latest actual contribution
Alabama	$15,950,194	$15,549,411	$1,313,998	$1,107,831
Alaska	9,146,629	4,032,052	558,041	600,003
Arizona	2,322,720	808,818	146,198	146,198
Arkansas	1,822,241	1,822,241	170,177	38,119
California	62,466,000	62,463,000	5,178,789	1,585,295
Colorado	1,385,954	1,127,179	81,523	25,877
Connecticut	26,018,800	26,018,800	1,718,862	484,467
Delaware	5,489,000	5,409,600	464,600	176,548
Florida	3,081,834	3,081,834	200,973	87,825
Georgia	19,100,171	18,322,123	1,583,008	422,157
Hawaii	10,791,300	10,791,300	822,454	299,466
Idaho	493,746	489,421	45,494	17,695
Illinois	40,022,030	39,946,678	1,192,336	159,751
Indiana	442,268	442,268	45,963	10,218
Iowa	404,300	404,300	42,991	16,613
Kansas	316,640	316,640	16,039	5,105
Kentucky	13,008,572	11,660,245	1,051,372	259,912

Exhibit 10

A GROWING BILL: 50-STATE TOTAL REQUIRED CONTRIBUTION

The annual bill to fully fund all 50 states' pension obligations has risen 135 percent since 2000.

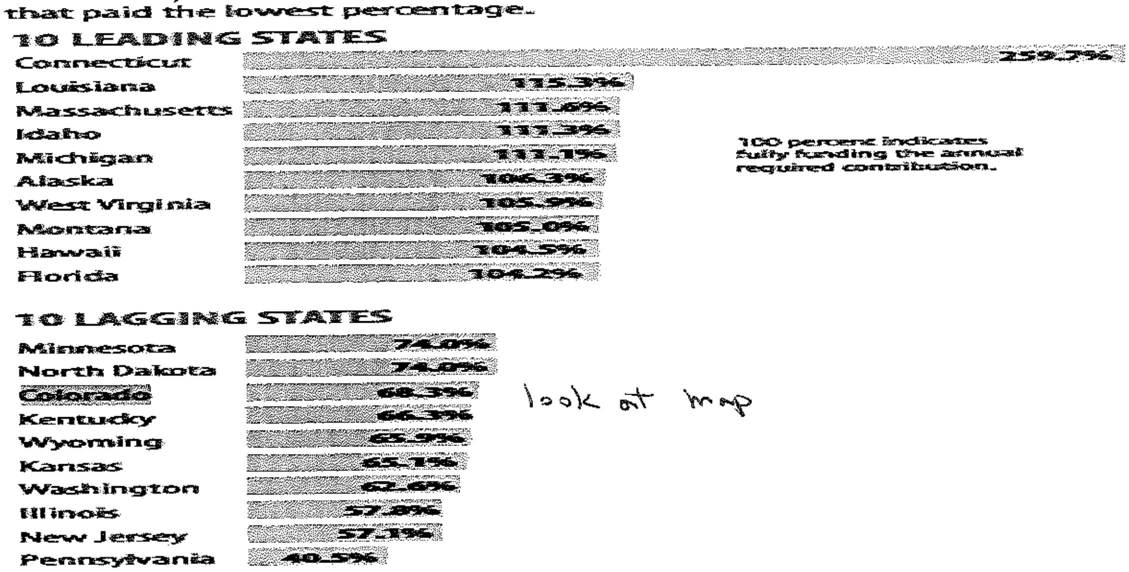


SOURCE: Pew Center on the States, 2010.

Exhibit 11

PAYING THE BILL, OR NOT

The 10 states that most recently paid the highest percentage of their annual required contribution for pension plans——and the 10 states that paid the lowest percentage.



look at map

SOURCE: Pew Center on the States, 2010.

Colorado http://www.copera.org/pdf/5/5-20-11.pdf

TRUST DIVISION	MEMBER CONTRIBUTION RATE JANUARY 1–DECEMBER 31, 2011
State	10.50%
State Troopers	12.50%
School	8.00%
Local Government	8.00%
Judicial	10.50%
Denver Public Schools	8.00%
Health Care	0.00%
Denver Public Schools Health Care	0.00%

Member contributions for the Division Trust Funds increased from $637 million in 2010 to $677 million in 2011. Over the past 30 years, member contributions represent 19 percent of the inflows into the Division Trust Funds.

Employer Contribution Rates for 2011

TRUST FUND	ANNUAL REQUIRED CONTRIBUTION[1]	ACTUAL EMPLOYER CONTRIBUTION RATE	HEALTH CARE CONTRIBUTION RATE	AED	SAED	DENVER PUBLIC SCHOOLS PCOP OFFSET	CONTRIBUTION RATE AVAILABLE FOR FUNDING
State Division	13.63%	7.65%	(1.02%)	2.60%	2.00%	-	11.23%
State Troopers	-	10.35%	(1.02%)	2.60%	2.00%	-	13.93%
School Division	15.73%	10.15%	(1.02%)	2.60%	2.00%	-	13.73%
Local Government Division	8.98%	10.00%	(1.02%)	2.20%	1.50%	-	12.68%
Judicial Division	16.30%	11.16%	(1.02%)	2.20%	1.50%	-	13.84%
Denver Public Schools Division	11.85%	13.75%	(1.02%)	2.60%	2.00%	(14.72%)	2.61%
Health Care	1.28%	-	1.02%	-	-	-	1.02%
Denver Public Schools Health Care	0.92%	-	1.02%	-	-	-	1.02%

[1] Annual Required Contribution rates for 2011 contributions are based on the 2009 Actuarial Valuation.

Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

Actuarial Trend Information

Funded Ratio—The funded ratio for the plan is determined by dividing the actuarial value of assets by the actuarial accrued liability. The actuarial value of assets is not the current market value but a market-related value, as mandated by GASB, which smoothes changes in the market value over four years. The actuarial value of the assets as of December 31, 2011, was $37.5 billion compared to a market value of assets of $37.5 billion, and to the actuarial accrued liability of $62.5 billion. The funded ratio for each of the funds, based on the actuarial value of assets, at December 31 for each of the last five years is shown below.

TRUST FUND	2007	2008	2009	2010	2011
State Division	73.3%	67.9%	67.0%	62.8%	57.7%
School Division	75.5%	70.1%	69.2%	64.8%	60.2%
Local Government Division	81.2%	76.4%	76.2%	73.0%	69.3%
Judicial Division	87.5%	80.2%	77.3%	75.0%	69.3%
Denver Public Schools Division	–	–	–	88.9%	81.5%
Total Defined Benefit Plans[1]	75.1%	69.8%	68.9%	66.1%	61.2%
Health Care	19.9%	18.7%	14.8%	17.5%	16.5%
Denver Public Schools Health Care	–	–	–	17.9%	18.6%
Total Other Postemployment Benefit Plans[1]	19.9%	18.7%	14.8%	17.6%	16.6%
Total all funds[1]	73.8%	68.5%	67.2%	64.7%	59.9%

[1] The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

Financial Highlights

Net Position—The fair value of the net position for all funds administered by Colorado PERA decreased $1.2 billion during calendar year 2011.

	2011 CHANGE IN NET POSITION	2011 ENDING NET POSITION
State Division Trust Fund	($464,444)	$12,022,661
School Division Trust Fund	(595,697)	19,274,580
Local Government Division Trust Fund	9	2,883,513
Judicial Division Trust Fund	(2,700)	221,189
Denver Public Schools Division Trust Fund	(120,855)	2,820,071
Voluntary Investment Program	(10,978)	1,891,347
Defined Contribution Retirement Plan	10,213	63,597
Deferred Compensation Plan	25,084	483,965
Health Care Trust Fund	(3,884)	281,786
Denver Public Schools Health Care Trust Fund	(416)	14,375
Life Insurance Reserve	(617)	14,416
Total	($1,164,285)	$39,971,500

Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

At December 31, 2011, and December 31, 2010, Colorado PERA had the following funded status for all of its Division Trust Funds and the HCTFs.

	MARKET VALUE OF ASSETS		ACTUARIAL VALUE OF ASSETS	
	12/31/2010	12/31/2011	12/31/2010	12/31/2011
STATE DIVISION TRUST FUND[1]				
Actuarial accrued liability	$20,356,176	$20,826,543	$20,356,176	$20,826,543
Assets held to pay those liabilities[2]	12,472,407	12,001,770	12,791,946	12,010,045
Unfunded actuarial accrued liability	7,883,769	8,824,773	7,564,230	8,816,498
Funded Ratio	61.3%	57.6%	62.8%	57.7%
SCHOOL DIVISION TRUST FUND[1]				
Actuarial accrued liability	$31,339,754	$31,986,199	$31,339,754	$31,986,199
Assets held to pay those liabilities[2]	19,851,425	19,247,853	20,321,736	19,266,110
Unfunded actuarial accrued liability	11,488,329	12,738,346	11,018,018	12,720,089
Funded Ratio	63.3%	60.2%	64.8%	60.2%
LOCAL GOVERNMENT DIVISION TRUST FUND[1]				
Actuarial accrued liability	$4,005,566	$4,160,015	$4,005,566	$4,160,015
Assets held to pay those liabilities[2]	2,878,016	2,875,756	2,926,045	2,882,691
Unfunded actuarial accrued liability	1,127,550	1,284,259	1,079,521	1,277,324
Funded Ratio	71.9%	69.1%	73.0%	69.3%
JUDICIAL DIVISION TRUST FUND[1]				
Actuarial accrued liability	$303,839	$319,437	$303,839	$319,437
Assets held to pay those liabilities[2]	223,738	220,963	227,814	221,515
Unfunded actuarial accrued liability	80,101	98,474	76,025	97,922
Funded Ratio	73.6%	69.2%	75.0%	69.3%
DENVER PUBLIC SCHOOLS DIVISION TRUST FUND[1]				
Actuarial accrued liability	$3,332,814	$3,442,527	$3,332,814	$3,442,527
Assets held to pay those liabilities[2]	2,940,091	2,818,096	2,961,720	2,804,706
Unfunded actuarial accrued liability	392,723	624,431	371,094	637,821
Funded Ratio	88.2%	81.9%	88.9%	81.5%

	2011	3-YEAR	5-YEAR	10-YEAR
Colorado PERA Total Portfolio	1.9%	10.9%	2.1%	5.7%
Total Fund Policy Benchmark[1]	1.3%	11.9%	1.9%	–
Median Plan (BNY Mellon Performance and Risk Analytics' Median Public Fund Universe)	0.3%	10.7%	1.6%	5.3%
Global Stocks	(2.8%)	13.5%	(0.4%)	4.4%
Global Equity Custom Benchmark[1]	(3.9%)	13.7%	(0.7%)	–
Fixed Income	8.1%	8.2%	7.0%	6.5%
Fixed Income Custom Benchmark[1]	7.7%	7.8%	6.4%	5.9%
Alternative Investments	6.0%	14.1%	5.5%	10.2%
Alternative Custom Benchmark[2]	4.1%	18.2%	3.2%	6.9%
Real Estate	14.7%	(1.3%)	(1.5%)	8.1%
Real Estate Custom Benchmark[3]	16.0%	(1.7%)	(0.1%)	6.9%
Opportunity Fund	(3.2%)	3.6%	–	–
Public Markets Benchmark[4]	(0.2%)	12.4%	–	–

Note: Performance calculations were prepared using net-of-fee time-weighted rates of return.

Investment Summary

Does Not Include the Defined Contribution Plans

(In Thousands of Dollars)

	FAIR VALUE PER FINANCIAL STATEMENT DECEMBER 31, 2011	REALLOCATION[1]	FAIR VALUE PER INVESTMENT PORTFOLIO DECEMBER 31, 2011	TARGET[2]	PERCENT OF TOTAL FAIR VALUE 2011	2010	2009
Global Equity	$20,679,847	$133,283	$20,813,130	56.0%	55.5%	57.7%	58.9%
Fixed Income	8,683,198	164,013	8,847,211	25.0%	23.6%	22.9%	22.4%
Alternative Investments	3,460,708	32,398	3,493,106	7.0%	9.3%	9.3%	9.6%
Real Estate Investments	3,267,644	(40,880)	3,226,764	7.0%	8.6%	7.4%	6.0%
Opportunity Fund	512,185	259,885	772,070	5.0%	2.1%	2.1%	1.9%
Cash and Short-Term Investments							
Operating Cash	1,896	(1,896)	–				
Investment Cash and Short-Term	859,671	(502,618)	357,053	–	0.9%	0.6%	1.2%
Net Investment Receivables and Payables	46,081	(46,081)	–				
Total Investments	$37,511,230	($1,896)	$37,509,334	100.0%	100.0%	100.0%	100.0%

[1] Investment receivables, payables, accruals and cash and short-term have been reallocated back to the investment portfolios that hold them.

[2] An Asset/Liability Study was undertaken in 2010, after the enactment of Senate Bill 10-001, with the objective of determining the optimal strategic asset allocation policy. In September 2010, based on the study, the Board approved the asset allocation targets and ranges.

Benefit Payments to Contributions Ratio

TRUST FUND	EMPLOYER CONTRIBUTIONS	MEMBER CONTRIBUTIONS	TOTAL CONTRIBUTIONS	BENEFIT PAYMENTS	RATIO OF BENEFITS/CONTRIBUTIONS			
					2011	2010	2009	2008
State Division	$283,222	$258,678	$541,900	$1,174,707	2.2	2.2	2.2	2.2
School Division	541,962	315,958	857,920	1,731,348	2.0	2.0	2.0	2.0
Local Government Division	91,780	58,590	150,370	179,449	1.2	1.1	1.1	1.0
Judicial Division	5,430	4,120	9,550	16,809	1.8	1.7	1.7	1.7
Denver Public Schools Division	12,859	39,422	52,281	221,113	4.2	5.0	-	-

Actuarial Summary

(Morningstar 2012)

		'07	'08	'09	'10	'11
Colorado	Assets	14,220,681	13,914,371	13,382,736	12,791,946	12,010,045
	AAL	19,390,296	20,498,668	19,977,217	20,356,176	20,826,543
	UAAL	5,169,615	6,584,297	6,594,481	7,564,230	8,816,498
	Funded Ratio	73.3%	67.9%	67.0%	62.8%	57.7%
	UAAL Per Capita	1,058	1,347	1,349	1,548	1,804

Colorado

PERA- State Division Fund	12/31/2011	Contributory	DB	CSME	12,010,045	20,826,543	8,816,498	57.7
PERA-School Division Fund	12/31/2011	Administrative	DB	CSME	19,266,110	31,986,199	12,720,089	60.2
PERA- Local Division Fund	12/31/2011	Administrative	DB	CSME	2,882,691	4,160,015	1,277,324	69.3
PERA-Judicial Fund	12/31/2011	N/A	DB	CSME	221,515	319,437	97,922	69.3
PERA-Denver Public Schools Fund	12/31/2011	Administrative	DB	CSME	2,804,706	3,442,527	637,821	81.5
PERA- Defined Contribution Fund	N/A	N/A	DC	CSME	N/A	N/A	N/A	N/A
PERA-401K	N/A	Administrative	DC	CSME	N/A	N/A	N/A	N/A

Connecticut

Highest Average Salary (HAS) Calculations for 40 Large US Public Pension Plans - January 2013

System Name	HAS
The Retirement Systems of Alabama	Highest 3 of last 10 years
Alaska Public Employees' Retirement System	Average of highest 5 consecutive years
Alaska Teachers' Retirement System	Average of highest 3 school years
Arizona State Retirement System	Hired on or after 7/1/11: highest consecutive 60 months of last 120, prior to 7/1/11 was 36 months of last 120
California Public Employees' Retirement System	Highest average pay rate and special compensation during any consecutive one-year or three-year period; depends on membership date and employer's contract with CalPERS.
California State Teachers' Retirement System	For 25+ years service: highest average annual compensation earnable in a consecutive 12-month period. Less than 25 years of service credit: highest average earnable compensation during any period of 3 consecutive years
Los Angeles County Employees' Retirement Association	Highest year or the average of any one year (consecutive 12-month period) of service
Florida Retirement System	Average of the highest 5, or (if hired after 7/1/11), 8 fiscal years of salary
Teachers' Retirement System of Georgia	Average monthly salary for the highest consecutive 24 months of membership service
Teachers' Retirement System of the State of Illinois	Average of the 4 highest consecutive annual salary rates within the last 10 years
Teacher's Retirement System of the State of Kentucky	5 highest annual salaries, or 3 highest with 27 years and age 55
Kentucky Employees' Retirement System	Average of last 5 fiscal years (hired post 7/1/2008)

Louisiana State Employees' Retirement System	Highest successive 60 months (hired post 7/1/2006)
Teachers' Retirement System of Louisiana	3 highest consecutive years
Maryland State Retirement and Pension System	Highest 3 years, or if hired after 7/1/11, 5 year average
Michigan Public School Employees' Retirement System	Highest 3 consecutive years
Michigan State Employees' Retirement System	Highest 3 consecutive years
Public Employees' Retirement System of Minnesota (General Employees Retirement Fund)	Highest 60 consecutive months
Minnesota State Retirement System (State Employees Retirement Fund)	Highest 60 consecutive months
Teachers Retirement Association	Highest 5 successive annual salaries
Missouri State Employees' Retirement System	Highest 36 consecutive months
Montana Public Employees' Retirement Board (Public Employees Retirement System)	Highest 36 consecutive months; hired after 7/1/11 is 60 months
Montana Teachers' Retirement System	Highest 3 consecutive years
New Jersey Public Employees' Retirement System	Average annual for the 5 years immediately preceding retirement or the highest 3 fiscal years of membership service. Hired on/after 5/22/10 is 5 and 5 years.
Public Employees Retirement Association of New Mexico (Public Employees Retirement Fund)	Highest 36 consecutive months
New Mexico Educational Retirement Board	Last 5 consecutive years, or other 5 consecutive year period that gives the largest average.
New York State and Local Retirement System (Employees' Retirement System)	Highest 3 consecutive years
New York State Teachers' Retirement System	Highest 3 consecutive school years

The State Teachers Retirement System of Ohio	Highest 3 paid years
Oklahoma Public Employees Retirement System	Highest 36 months in the last 10 years
Pennsylvania Public School Employees' Retirement System	Highest 3 school years' salaries
Pennsylvania State Employees' Retirement System	High 3 year average salary
South Carolina Retirement Systems (State and Teachers)	Class 2: 12 highest consecutive quarters, Class 3: 20 highest consecutive quarters
South Dakota Retirement System	Highest 12 consecutive calendar quarters of the last 40 quarters
Tennessee Consolidated Retirement System (State Employees, Teachers, and Higher Ed - SETHEEPP)	Highest 5 consecutive years
Employees Retirement System of Texas	Highest 48 months for members hired on or after September 1, 2009.
Teacher Retirement System of Texas	Highest 5 annual creditable salaries
Virginia Retirement System	Hired before 7/1/10: highest 36 consecutive months; Hired Post 7/1/10: Highest 60 consecutive months
Washington State Department of Retirement Systems	Public Employees Plan 2 or 3 (post 2002): HIghest 60 consecutive service months
Wisconsin Retirement System	Highest 3 years of earnings, does not have to be consecutive

All data from plan CAFRs or plan website

COLORADO PERA

Colorado PERA Benefit Payments

July 2012

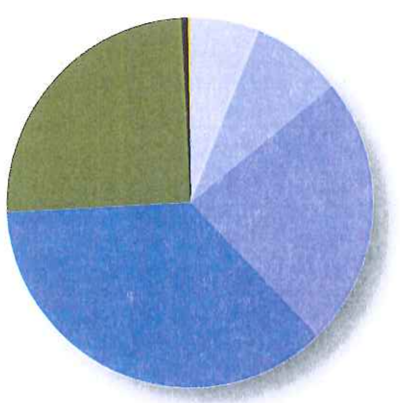
At of the end of 2011, Colorado PERA was paying benefits to more than 96,000 retired public employees and their beneficiaries who received an average benefit of $2,931* per month. For most benefit recipients, this is the only source of income in retirement as most PERA benefit recipients and their beneficiaries do not qualify for Social Security payments. The median monthly PERA benefit is $2,721* ($32,652 a year), which means that half of all monthly benefits paid are lower than $2,721 and half are higher than that amount.

The PERA service retirement formula for calculating benefits, specified in State law, is 2.5 percent multiplied by years of service multiplied by Highest Average Salary (HAS). HAS** is also defined in State law as one-twelfth of the average of the highest annual salaries on which contributions were paid that are associated with three periods of 12 consecutive months of service credit. The three 12-month periods do not have to be consecutive, nor do they have to be the last three years of employment.

These three periods are tied to a fourth 12-month period which becomes the base year used as a starting point for the annual limit on salary increases. The annual limit for members who were eligible to retire on January 1, 2011, and hired before January 1, 2007, is 15 percent. All other members are subject to an 8 percent annual limit in their HAS calculation. This annual limit is designed to moderate salary "spiking" for HAS calculation purposes.

About three out of every four PERA benefit recipients receive less than $50,000 a year in retirement, as the graphic below demonstrates. Less than 1 percent (696) of PERA benefit recipients receive an annual benefit payment of $100,000 or more. Generally, these benefit recipients had high salaries and many years of service credit.

PERA Benefit Payments by Dollar Amount of Annual Benefit/ Number of Benefit Recipients in that Range



Benefit Range	Benefit Recipients
$0-$4,999	5,943
$5,000-$9,999	7,762
$10,000-$24,999	23,071
$25,000-$49,999	35,099
$50,000-$99,999	24,127
$100,000-$149,999	655
$150,000-$199,999	38
$200,000+	3
Total Number of Benefit Recipients	**96,698**

* *Does not include benefits that ended in 2011 or retirements suspended in 2011. Includes only benefits being paid at the end of 2011.*

** *Some members of the Denver Public Schools benefit structure and members in the Judicial Division have different HAS calculations.*

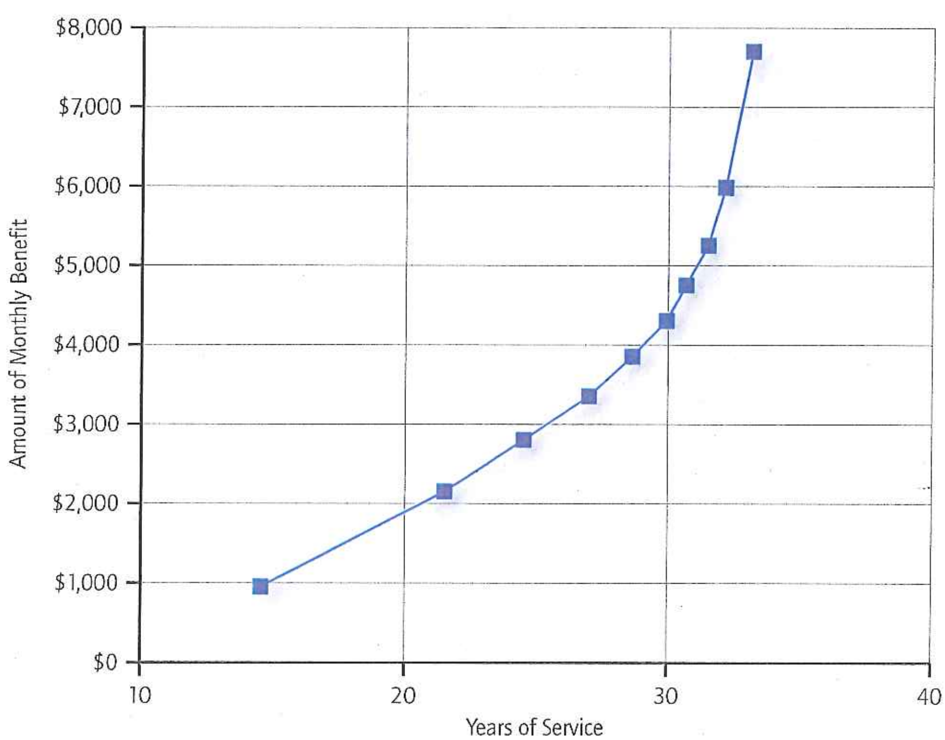
Benefit Payments by Decile

Another way to examine the data is to group benefit recipients and the benefits they receive into benefit payment ranges as a percentage of the total. The table below shows that, for the one-third of PERA benefit recipients (31,476) in the lowest decile, the average benefit is $11,364 a year. This group retired at an average age of 59 with 14½ years of service credit. For the top decile, on the other end of the scale, the average benefit is $92,808 a year. However, this group, on average, had over 33 years of service credit, which is more than twice the length of the average service credit of those in the lowest decile.

Decile	Number of Benefit Recipients	Percent of Benefit Recipients	Average Monthly Benefit	Average Age at Retirement	Average Service Credit
1%-10%	31,476	32.55%	$947	59	14.68
11%-20%	13,154	13.60%	2,157	57	21.74
21%-30%	10,127	10.47%	2,801	57	24.77
31%-40%	8,481	8.77%	3,340	57	27.04
41%-50%	7,373	7.63%	3,840	57	28.74
51%-60%	6,570	6.80%	4,311	57	29.92
61%-70%	5,938	6.14%	4,778	57	30.74
71%-80%	5,370	5.55%	5,272	56	31.43
81%-90%	4,727	4.89%	5,992	57	32.19
91%-100%	3,482	3.60%	7,734	57	33.11
Totals	**96,698**	**100.00%**	**$2,931 ***	**58**	**23.33**

For the 4,756 new retirees in 2011, the average monthly benefit was $2,715. These members retired at an average age of 60 with 22 years of service credit.

Average Monthly Benefit Payment by Years of Service Credit



* *Does not include benefits that ended in 2011 or retirements suspended in 2011. Includes only benefits being paid at the end of 2011.*

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COLORADO SPRINGS The Gazette

GUEST COLUMN: PERA may be most troubled pension in the country

BARRY POULSON
2011-07-15 17:57:07

In a July 3 Denver Post article, "PERA paints a rosy future", Colorado Senate President Brandon Shaffer is quoted as saying, "We fixed our state pension system." Nothing could be further from thef truth. Recent research reveals that Colorado's Public Employee Retirement Association (PERA) is the most underfunded pension plan in the nation, even after the reforms enacted in 2010 in Senate Bill 1.

PERA discounts the liabilities in the pension plan at 8 percent, the rate of return it assumes on investments. Most financial experts argue that pension plans should use a rate of discount that reflects the market risk inherent in those liabilities. For example, a recent study by finance professors Robert Novy-Marx and Joshua D. Rauh, "The Revenue Demands of Public Employee Pension Promises," uses actual Treasury yields to calculate the present value of liabilities in state and local pension pans.

They then calculate the contributions that state and local governments would have to make to pay off these liabilities over a 30-year period.

To pay off liabilities in the pension plan over a 30-year period, annual contributions to PERA would have to more than quadruple from the current 11.3 percent of payroll to 53.9 percent of payroll.

There is no other pension plan in the country that imposes such a financial burden on future taxpayers. Every household in Colorado would have to pay $1,739 more in taxes annually, just to meet pension obligations.

It should be emphasized that these estimates reflect the reduction in cost-of-living adjustments enacted in Senate Bill 1, and recently upheld in Denver District Court.

If more than half of every salary dollar must be earmarked to pay off liabilities in the pension system, this would not leave much revenue for government services. Fully funding the PERA pension plan would require more layoffs of teachers, firefighters, police and other public sector workers. In recent years 10 states have replaced their defined benefit plan with a defined contribution plan. In a "soft freeze" the defined benefit plan is closed to new employees who are then required to enroll in a defined contribution plan, or a hybrid plan combining defined contributions and defined benefits. In their analysis, Novy-Marx and Rauh estimate that in most states a "soft freeze" has moderate revenue saving effects. However, in seven states, including Colorado, a soft freeze increases the fiscal burden of the pension plan on the state. That is because in these states the government must bear the cost of the defined contribution plan plus the entire Social Security contribution.

In states such as Colorado only a hard freeze will generate revenue savings in the pension plan. In a hard freeze all employees, including current employees, are required to enroll in a defined contribution plan; all future benefits in the defined benefit plan are terminated. The benefits already earned by current employees and retirees in the defined benefit plan are fully funded, and Social Security benefits are extended to all employees.

In Colorado such a hard freeze would reduce the required increase in PERA contributions from 42.5 to 32.6 percent of payroll.

Even with this reform, significant increases in taxes or reductions in government services would be required to fully fund the pension plan, but the financial burden would be much less than that required by the current defined benefit plan.

Most private employers have in fact implemented either a soft freeze or hard freeze to constrain the cost of their private pension plans. Novy-Marx and Rauh maintain that there is a high probability that defined benefit plans with significant unfunded liabilities, such as PERA, will default on their obligations. The risk of bankruptcy is what has led Utah and other states to enact a soft freeze, replacing their defined benefit pension plans with defined contribution plans.

It would be more difficult and costly for Colorado to enact such a reform because of the magnitude of unfunded liabilities that have already been incurred in PERA; but that is all the more reason to enact reforms now, rather than wait for the funding crisis in PERA to bankrupt the state.

Barry W. Poulson Ph.D. is Senior Fellow in Fiscal Policy at the Independence Institute in Golden.

Hawaii Lawmakers Agree to Pension Reform for New Hires

By Nanea Kalani | *05/05/2011*

Updated: 5/6/2011 11:15 a.m.

New employees will have to work longer to earn retirement benefits, chip in more toward their plans and receive smaller pensions compared to existing employees.

Adding a new tier of benefits for members of the Hawaii Employees Retirement System is expected to save the state $440 million over the first five years, according to Rep. Kari Rhoads.

The changes are seen as a way to help address the sorely underfunded pension fund, which faces a $9 billion unfunded liability.

House lawmakers on Thursday, the last day of the legislative session, agreed to the Senate's version of House Bill 1038, which outlined the changes. The bill had stalled in conference committee last week, but House leaders agreed to put it up for a vote.

HB 1038 calls for the following:

- **Raises the retirement age for new hires:** Under HB 1038, those hired after June 2012 would be able to retire at 60 with at least 10 years of service, or at 55 years with 25 years of service.

Updated According to the state's benefits plan, current employees hired before June 30, 1984 can retire at 55 with at least five years of service. Employees hired after June 30, 1984 can retire at 62 with at least 10 years of service, or at 55 with 30 years of service. Employees hired after June 30, 2006 can retire at 62 with five years of service, or at 55 after 30 years of service[1].

Police officers, corrections officers and firefighters can retire at any age after 25 years of service.

- **Increases how much employees contribute to their plans:** The calculation is a percentage of payroll. Employees hired after June 30, 2012 would contribute 9.8 percent of their compensation. Firefighters, police officers and corrections officers hired after that date would contribute 14.2 percent of their compensation.

The employee contribution rates for current employees are 12.2 percent for police officers, firefighters and corrections officers, and 7.8 percent for all other employees.

- **Counts an employee's highest five year's of compensation when calculating their pensions (versus the highest three for current employees):** Current benefits (for employees hired before 1984 and after 2006) are calculated by multiplying an employee's years of service by 2 percent and multiplying that by what's known as their "average final compensation," defined as the average monthly earnings for their three highest paid years. That means an employee who retired after working 25 years would receive a pension of 50 percent of their "high three" earnings.

Updated Benefits for employees hired after 1984, but before 2006, are based on years of service multiplied by 1.25 percent of an employee's average final compensation[2].

Lawmaker Cautions Impact on Recruiting

The measure now heads to Gov. Neil Abercrombie's desk. But Rhoads said if the bill becomes law, it could have a negative impact on recruiting efforts.

"There are downsides too," he told Civil Beat last month. "It could make it harder to recruit because the benefits package will be stingier than they are now ... But I think we have to do it because otherwise, what would happen is the ERS would get to a point of pay-as-you-go on a cash basis, and that would be very hard to do."

State, Counties Will Chip in More

HB 1038 would also increase employer (meaning the state and counties) contributions to the ERS fund over the next four years. The increases had previously been part of another bill.

Employer contributions are based on a percentage of payroll, and current rates are 19.7 percent for police officers, firefighters and corrections officers, and 15 percent for all other employees.

Each percentage point represents approximately $40 million annually. The state's share of the costs are about 75 percent, while the counties share the remaining 25 percent.

The proposed increases are:

- 2012-2013: 22 percent for police officers, firefighters and corrections officers, 15.5 percent for all other employees.
- 2013-2014: 23 percent for police officers, firefighters and corrections officers, 16 percent for all other employees.
- 2014-2015: 24 percent for police officers, firefighters and corrections officers, 16.5 percent for all other employees.
- 2015-2016: 25 percent for police officers, firefighters and corrections officers, 17 percent for all other employees.

The proposed increase of 5.3 percentage points for police officers, firefighters and corrections officers would cost a total of $212 million over the next four years. The proposed increase of 2 percentage points for all other employees would cost a total of $80 million over the four years.

ERS Administrator Wes Machida has said that without the gradual increases, an actuarial report recommends an immediate increase in the employer contribution rate to 28 percent for police, firefighters and corrections officers, 19 percent for all other employees to ensure the ERS is totally funded within 30 years.

DISCUSSION: *Did legislators make the right decision to create another tier of benefits?* Jump into the conversation.

1. A previous version of this story only included the retirement age requirements for employees hired before 1984. ↩
2. A previous version of this story did not include the retirement calculation for employees hired after 1984, but before 2006. ↩

Discussion

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January 29, 2013

Representative Spencer Swalm
House Finance Committee
State Capitol
200 East Colfax
Denver, CO 80203

Dear Representative Swalm,

I am asking for your support as a member of the House Finance Committee to change the method PERA uses determine the HAS (highest average salary) used in determining retirement benefits. I realize this letter is quite lengthy, as is the copy of the letter I sent to PERA's Board of Directors, which is enclosed. But PERA pensions, Social Security, and the interplay of PERA and Social Security are complicated. I thank you in advance for your attention to this complicated matter.

I worked for Jeffco Schools for eight years from 2001 to 2009. After five years as a para-educator, I entered a Teacher-in-Residence program and taught for three years. My teaching position was eliminated and I was laid off.

F.I.C.A taxes are 6.3% of wages. Employee PERA contributions are 8% of wages. **Although I contributed thousands of dollars more to PERA than I would have to Social Security while I worked for Jeffco Schools, my retirement benefits from PERA and Social Security together are less than what they would be if I had paid into Social Security rather than into PERA.**

Social Security has a very user friendly website where benefits can be calculated under different contribution scenarios. Without accounting for future increases in my Social Security benefit due to adjustments for inflation, if I had contributed to Social Security instead of PERA during my eight years working for Jeffco Schools, my social security retirement benefit at age 65 would be $1576/month. Because PERA received contributions rather than Social Security and because of the Windfall Elimination Provision in Social Security, my Social Security benefit will be $1245/month at age 65, rather than $1576/month. Using PERA's current methods to determine a retirement benefit, my PERA benefit will be $356/month at age 65.

The total of my Social Security and PERA benefits at age 65 will be $1601/month, without accounting for future increases in my Social Security benefit due to inflation.. **Because Social Security and PERA account for inflation in different ways, by the time I am 65, the retirement benefit I would have received from Social Security had I been contributing only to Social Security throughout my working career, would be larger than my combined retirement benefits from Social Security and PERA.** The exact amount of my benefits from Social Security depend upon the rate of inflation in the next few years. **Yet because PERA contributions are 8% of salary in comparison to 6.3% of salary for Social Security, I paid thousands of dollars more and 27% more to PERA for lower retirement benefits.**

PERA retirement benefits are determined by two factors. These are: years of employment (service) and the HAS (highest average salary) Currently, in most but not all cases, PERA uses the average of the highest three years of salary to determine the pension amount. **In my case, the HAS used by PERA to calculate my pension benefits is $1788/month. The actual average of my three highest years of salary is $3634/month. So the HAS used by PERA to calculate my retirement benefits is 49% of my actual three year HAS.** There are two causes of the huge disparity between the actual average salary of my highest three years of salary and the PERA calculation of my HAS. Firstly, PERA considers a fourth year of salary to determine the average salary for the highest three years of salary. In other words, the amount of salary in the fourth highest year of salary is used to determine the average of the three highest years of salary. Secondly, PERA has a limit or cap of an 8% increase in salary from year to year to determine the salaries used in the three year average. In other words, any salary increase of over 8% from the previous year is not considered when calculating the HAS.

Please review the the table below of my salary history.

School Year	Approximate Actual Salary (per month)	Salary with 8% Cap (per month)	Amount of Salary Not Used for Pension Determination (per month)
2001-2002	$360		
2002-2003	$1,230		
2003-2004	$1,260		
2004-2005	$1,360		
2005-2006	$1,530		
2006-2007	$3,210	$1,652	$1,558
2007-2008	$3,770	$1,785	$1,985
2008-2009	$3,950	$1,927	$2,023

Actual Average of Highest 3 Years of Salary: $3634

3 Year Average Used by PERA: $1788

I have talked to several officials at PERA to determine the rationale for the salary cap. Most