

PERA SMART HEARING

GREGORY W. SMITH, EXECUTIVE DIRECTOR
 DECEMBER 11, 2015



PERA Annual Update



- » KPMG performed the State Auditor's Office 2014 annual audit of PERA
 - No findings or recommendations for best practices or improvements
 - No material weaknesses in internal controls or accounting policies and practices
- » Audited financial statements showed a 5.7 percent investment return for 2014
- » Total Pension Fund Market Value of Assets Funded Ratio
 - 2014 = 64.2 percent
 - 2013 = 65.2 percent
- » 2014 CAFR reflects full implementation of GASB 67, *Financial Reporting for Pension Plans*
 - Assisted PERA employers regarding implementation of GASB 68, *Accounting and Financial Reporting for Pensions*
 - PERA Board updated Pension Funding Policy in March of 2015

PERA Annual Update

(continued)



- » PERA Board performed asset/liability study in 2014 and 2015
 - Objective was to determine optimal strategic asset allocation that align investment market risks with the need to meet distributions
 - Resulted in minor reductions in Global Equity and Fixed Income and increases in Private Equity and Real Estate
- » PERA Board hired independent actuarial firm to perform actuarial audit
 - Audit confirmed that the retained actuary's assumptions and December 31, 2013, actuarial valuation results are reasonable
- » SB 14-214 Legislated Studies were performed during 2015
 - Total Compensation Study
 - Plan Design Study
 - Sensitivity Study
- » C.R.S. § 24-51-220—Report on Progress of SB 10-001 Reforms
 - Conducted by PERA and delivered to the General Assembly and Governor on December 11, 2015

What is Colorado PERA?

As of December 2014



- » Instrumentality of the State, founded on August 1, 1931
- » Hybrid defined benefit retirement plan qualified under IRC 401(a)
- » Substitute for Social Security
 - Members contribute 8.0 percent or more
- » Administrators:
 - Defined benefit plan, including disability and survivor benefit programs
 - One of the country's largest public 401(k), 457, and DC Choice Plans (combined assets of \$3.5 billion)
 - Health care, dental, and vision plans for largest coverage group in the state (over 155,000 lives)
 - Life insurance plan
- » Largest pension fund in Colorado
 - 22nd largest public plan in United States

PERA is Transparent

- » All board meetings are public and include time for public comment
- » PERA reports annually to the Governor and to the General Assembly through the
 - Legislative Audit Committee (July)
 - Joint Finance Committee (December SMART Hearing)
 - Joint Budget Committee (December)
- » PERA is audited annually by a firm selected by the State Auditor whose findings are reported to the Legislative Audit Committee
- » PERA's *Comprehensive Annual Financial Report (CAFR)* is used as a model for other public pension plans, winning the GFOA financial reporting excellence award for 30 consecutive years
- » PERA's website is an excellent resource for plan and financial information



PERA Board Authority



- » Limited to implementing statutes adopted by the General Assembly
- » PERA Board oversight includes
 - Investment of assets
 - Administration of benefits
 - Collection of contributions
 - Selection and monitoring of actuarial assumptions
 - Rulemaking
- » Benefit provisions and contribution structures are
 - Set by General Assembly
 - Not subject to change via collective bargaining arrangements or employer and labor union negotiations
 - Consistently applied to all employers within a PERA Division

2015 Legislative Update



- » 2015 Legislative session
 - Senate Bill 15-097: Supplemental Needs Trust For Certain PERA Benefits
 - » Signed by Governor on April 16, 2015
 - House Bill 15-1391: Denver Public Schools Division 5-Year True-Up
 - » Signed by Governor on June 3, 2015

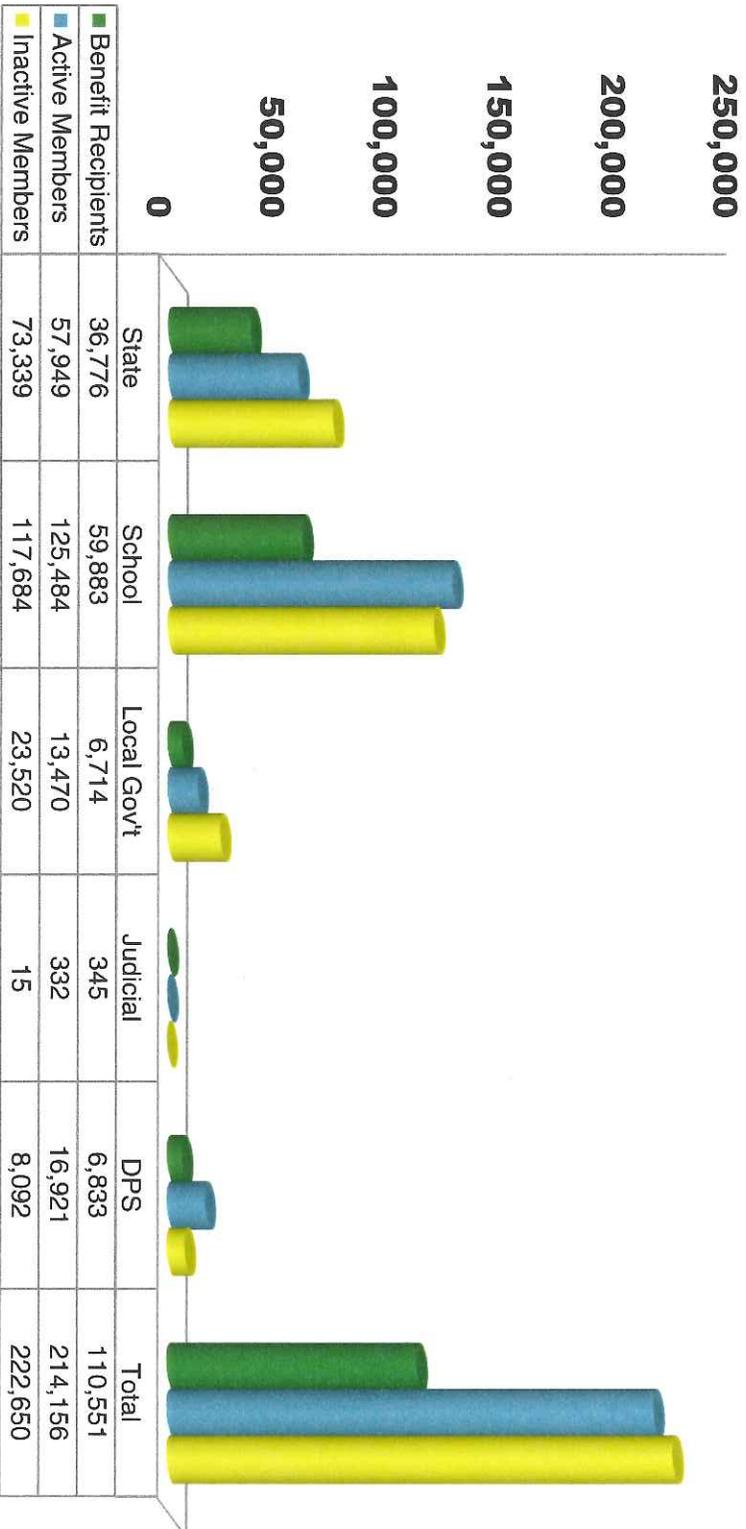


PERA Membership

October 31, 2015



Total: 547,357



25-Year History of Assets and Distributions

In billions



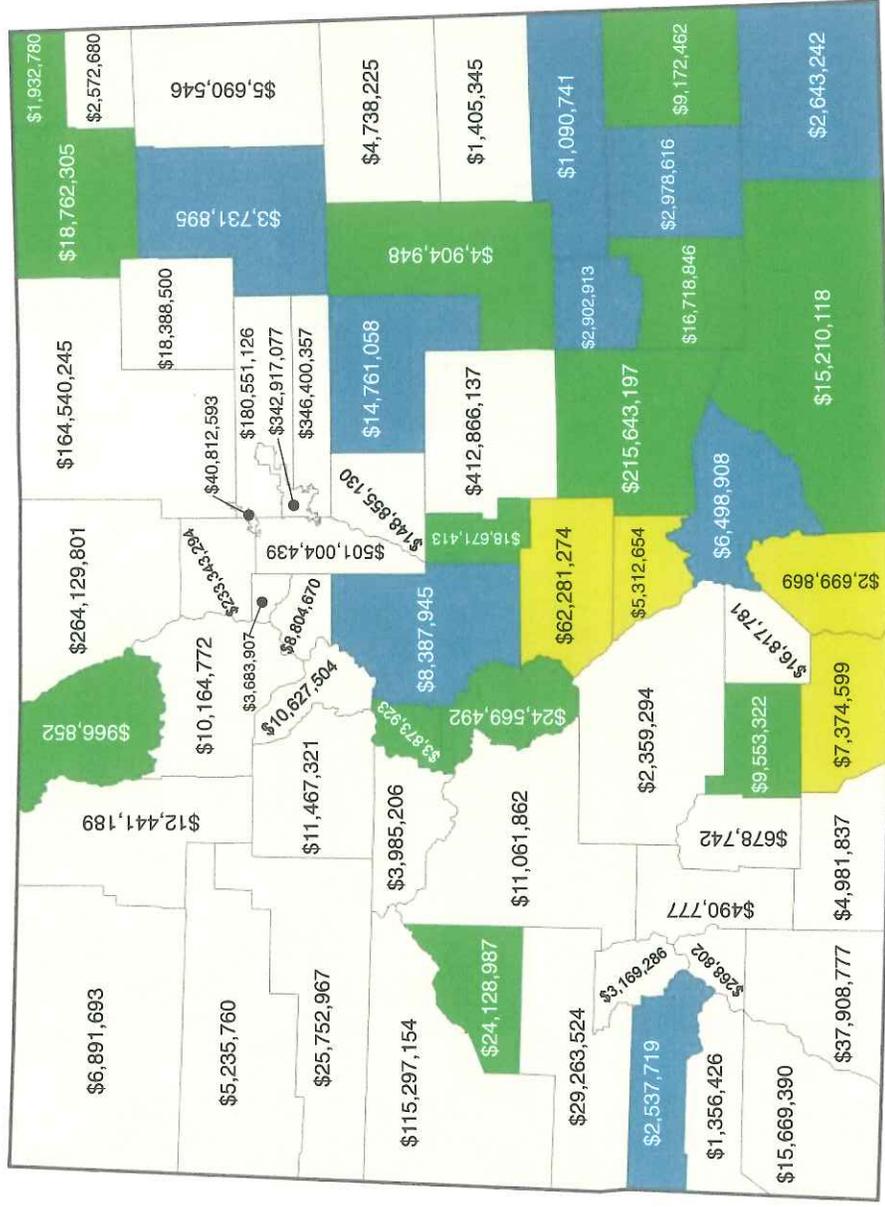
Beginning Balance January 1, 1990	\$9.4
Employer Contributions	14.7
Member and Other Contributions	13.4
Investment Income	50.2
Denver Public Schools' Plan Transfer	2.8
Benefit and Refund Payments	(45.8)
Administrative Expenses	(0.5)
Ending Balance December 31, 2014	\$44.2

PERA Benefit Distributions and Distributions Relative to Payroll by County

Total Distributions = \$3,506,760,242



- \$5.2 billion economic output
- \$267 million state and local tax revenue
- 29,000 jobs statewide



Over 25 percent of Payroll

15-25 percent of Payroll

10-15 percent of Payroll

Less than 10 percent of Payroll

Percentage of payroll data from 2014 County Business Patterns and U.S. Census Bureau, calculation from Pacey & McNulty

Annual benefit payments as of December 31, 2014 (unaudited)

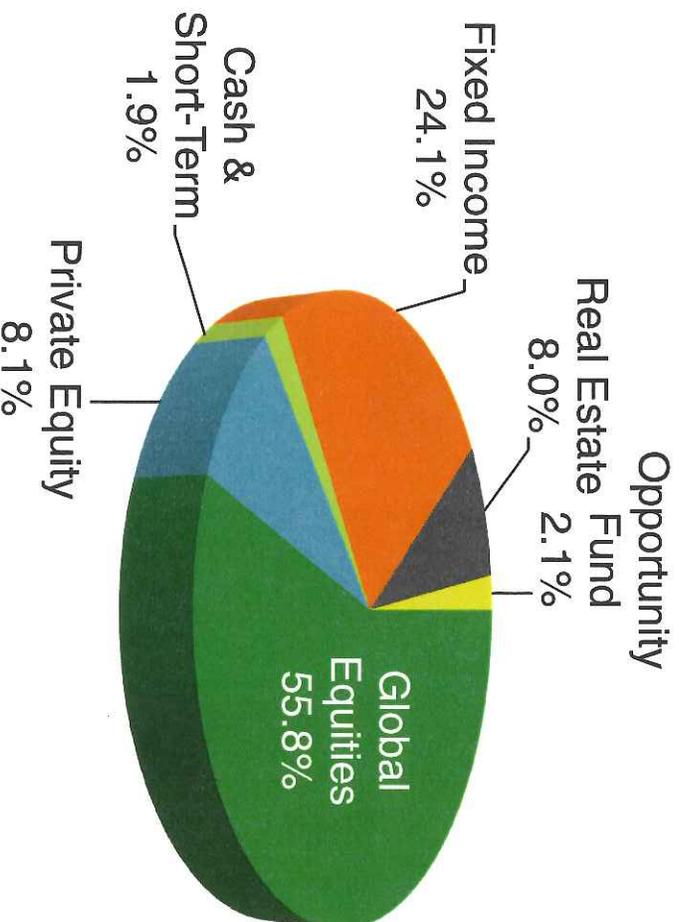


Investment Asset Allocation

October 31, 2015



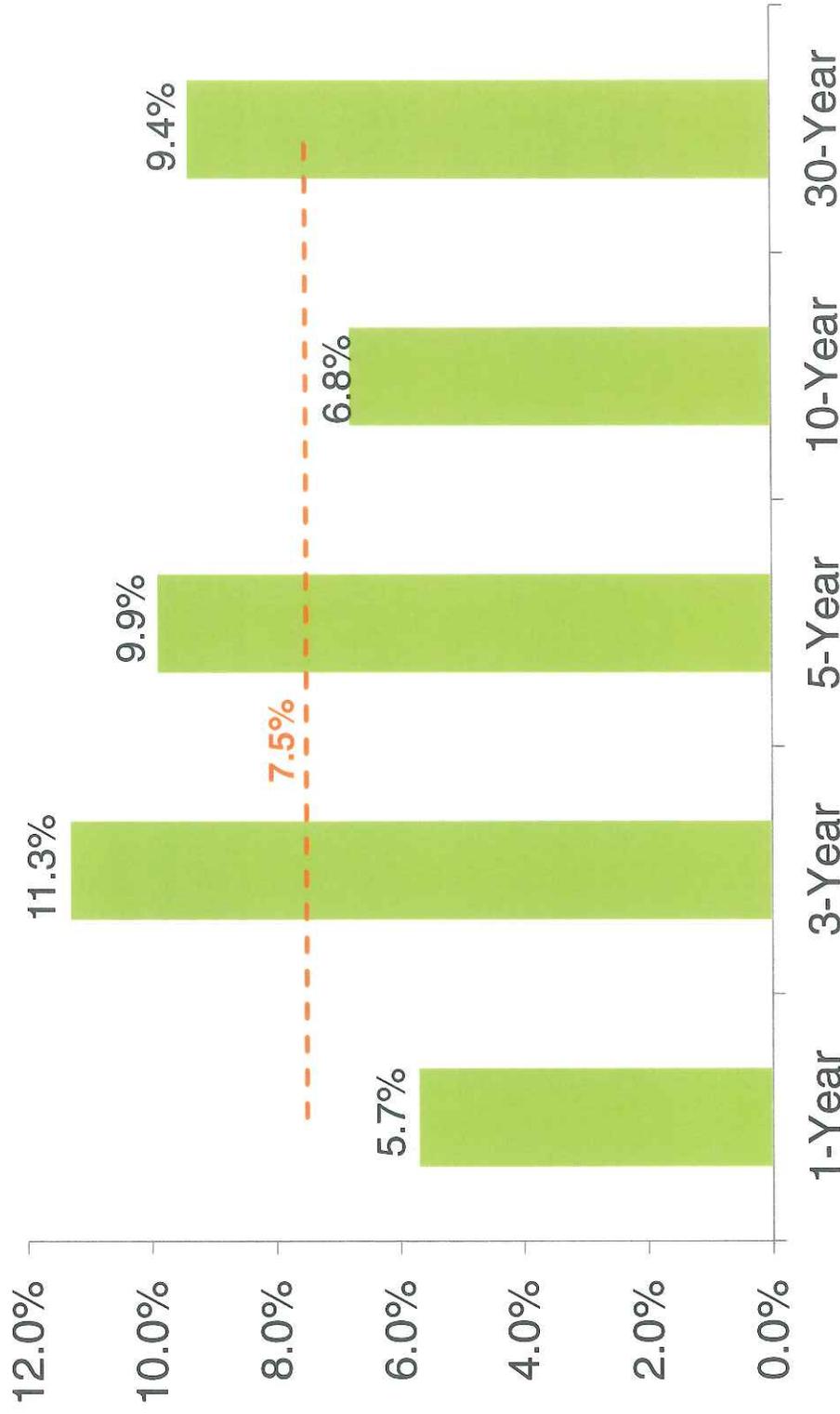
\$43.6 Billion Market Value



- » Over \$585 million invested in companies and properties domiciled in the State
- » More than 60 percent of assets managed directly by PERA staff
- » An additional \$50 million is allocated to the Colorado Mile High Fund for private equity investments in the state

Investing for Long Term

Annualized investment returns for periods ending December 31, 2014



Funded Status

Market Value of Assets Basis



Division	December 31	
	2013	2014
State	61.0%	59.6%
School	64.0%	62.8%
Local Government	77.6%	81.0%
Judicial	77.4%	75.1%
DPS	86.3%	85.3%

Colorado General Assembly Senate Bill 14-214 Studies



Study	Contracted By	Conducted By
Total Compensation Study	Department of Personnel and Administration	Milliman, Inc.
Plan Design Study	Office of the State Auditor	Gabriel, Roeder, Smith and Company (GRS)
Sensitivity Study	Office of the State Auditor	Pension Trustee Advisors (PTA)



Review of SB 14-214 Studies Total Compensation Study



- » The 2015 analysis included a comparison of the value of benefits for Colorado State employees to the value of benefits offered to employees in similar workforce structures
- » Milliman’s analysis included employee compensation and employer-provided retirement and retiree health benefits
- » The benefits, valued separately, resulted in a value above the prevailing market
- » Based on the findings of Milliman Inc.:
 - “When the total compensation package is valued, the State is just slightly below the prevailing market (0.2%).”
 - “In order for the State to continue to align its total compensation package with the prevailing market, adjustments to individual employee compensation and the overall salary structure should be considered.”
 - “Changes to benefits are not recommended at this time.”

Review of SB 14-214 Studies Plan Design Study



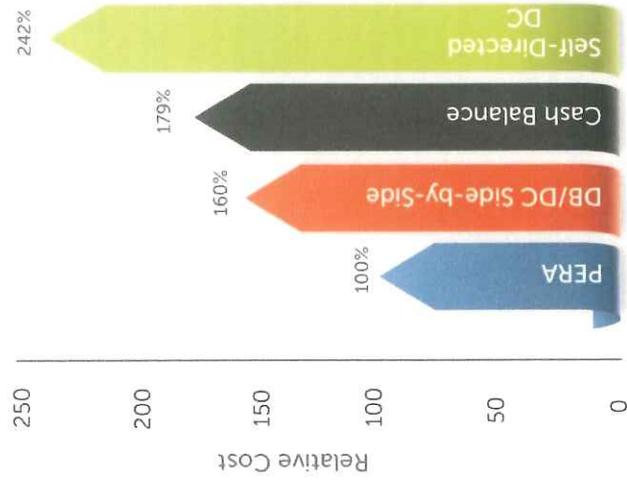
- » Study compares cost and effectiveness of the design of the Colorado PERA Hybrid Defined Benefit Plan to alternative plan designs in the public and private sector
- » The results show the reforms to the benefit provisions of Colorado PERA, contained in

- » SB 1, created a plan design that *“is more efficient and uses dollars more effectively than the other types of plans in use today.”*¹
- » The next most efficient retirement plan structure was **60 percent more costly**

¹ GRS Plan Design Study Report, June 2015, page 2.

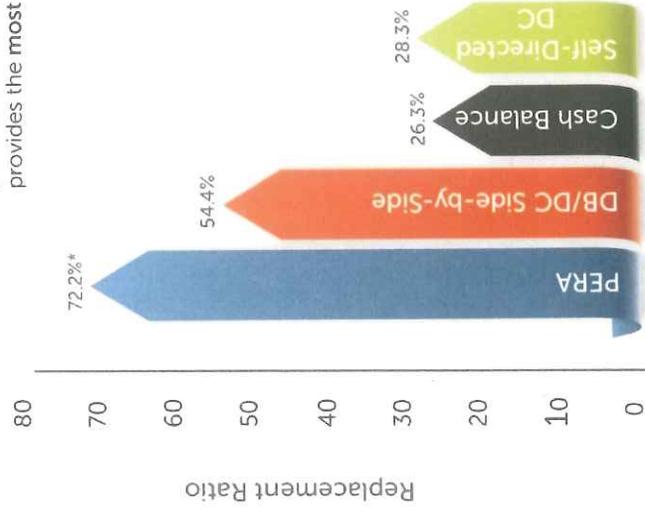
Benefit Costs

When holding benefits constant, PERA's current plan provides benefits at a lower cost.



Income Replacement

When holding costs constant, PERA's Hybrid DB Plan provides the most income replacement.



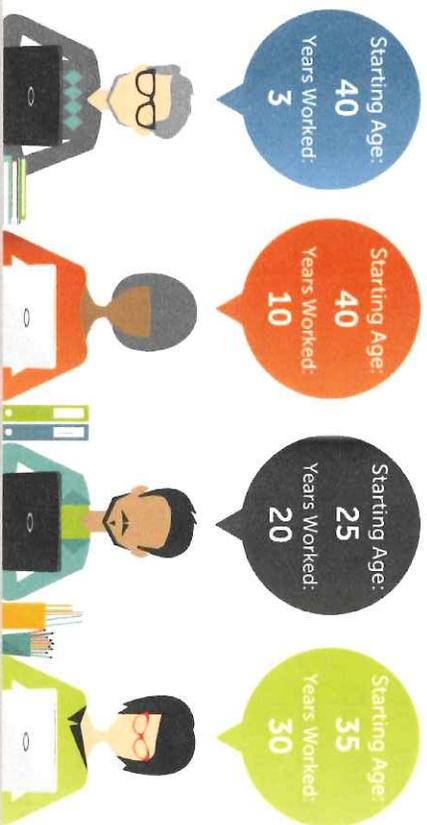
*Assumes age 35 at hire with 30 years of service and retiring at age 65.

Review of SB 14-214 Studies

Plan Design Study



WHAT PERCENT OF INCOME WILL I GET AT RETIREMENT?



- » PERA provides better income replacement considering:
- All other plan designs in use
- All starting ages and career lengths

PERA	4.4%	13.0%	20.6%	72.2%
DB/DC Side-by-Side	0.8%	11.7%	20.1%	54.4%
Cash Balance	2.7%	9.1%	17.1%	26.3%
Self-Directed DC	3.0%	10.0%	19.7%	28.3%

PERA Hybrid Defined Benefit Plan

This type of plan blends the defined benefit structure (uses a formula which creates the promised benefit at retirement) and defined contribution features (employer match on a member's account balance, payable at termination or retirement).

Defined Benefit (DB) and Defined Contribution (DC) Side-by-Side Plan

This type of plan provides a smaller defined benefit and defined contribution benefit with the goal that both benefits combined will provide adequate retirement resources.

Cash Balance Plan

This type of plan functions like a defined contribution plan, building a member's account balance year- by-year through the addition of mandated employer and employee contributions as well as the addition of a guaranteed rate of return.

Self-Directed Defined Contribution (DC) Plan

This type of plan builds a member's account balance year- by-year through the addition of employee contributions with an employer match and grows with actual investment returns.



Review of SB 14-214 Studies Plan Design Study



- » *“The study finds that the existing PERA Hybrid Plan provides a higher level of benefits at the current cost than all alternative plans.”²*
- » *“...the retirement benefits provided by the PERA Hybrid Plan are neither too generous nor too low when compared to other similarly situated public sector employers.”³*
- » *“When comparing the PERA Hybrid Plan to the private sector, those private sector plans that combine Social Security with a defined contribution plan do not replace as much income as PERA.”⁴*
- » *“The State cannot eliminate the unfunded liability by moving new hires to an alternative plan...”⁵*
- » SB 1 reforms reduced the cost of providing benefits for employees hired on or after January 1, 2011—where the majority of the cost of the accruing benefit is funded by the member, while maintaining the highest retirement replacement income of any plan design in use.

² GRS Plan Design Study Report, June 2015, page 59.

³ GRS Plan Design Study Report, June 2015, page 65.

⁴ GRS Plan Design Study Report, June 2015, page 65.

⁵ GRS Plan Design Study Report, June 2015, page 83.

Review of SB 14-214 Studies Sensitivity Study



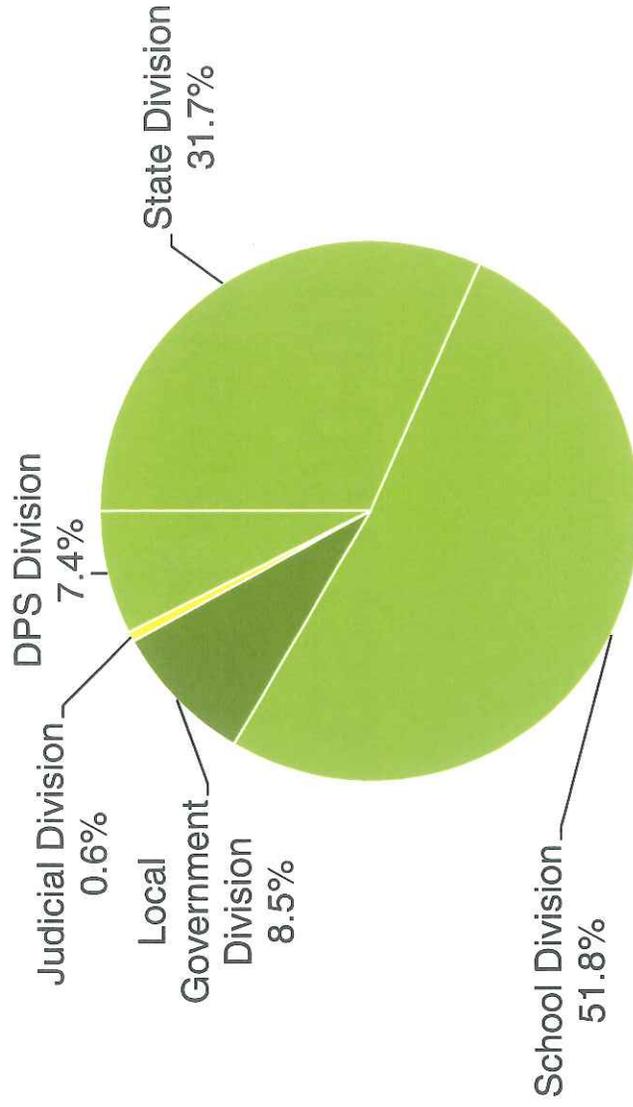
- » Principal objective is **to develop an early warning mechanism** to identify and communicate whether model actuarial assumptions used by PERA are meeting targets and achieving sustainability
- » PTA confirmed
 - **“The PERA Hybrid Defined Benefit Plan is currently on track to be fully funded...Prior to the changes in Senate Bill 10-001, the PERA Plan was projected to become insolvent.”**¹ [emphasis added]
 - The reasonableness of PERA’s actuarial assumptions including the 7.5 percent long-term rate of return
 - The assumed long-term investment rate is by far the most significant variable in determining when PERA will achieve full-funded status
- » **PTA’s report encompassed three recommendations** related to enhanced disclosure and use of the proposed mechanism, each of **which PERA agreed to implement**

¹ Sensitivity Analysis of Colorado PERA Hybrid Defined Benefit Plan Actuarial Assumptions, October 2015, page 98.

Review of SB 14-214 Studies Sensitivity Study



Signal Light Indicator Weighted by Market Value of Assets as of December 31, 2014



- » As of December 31, 2014, for each PERA division, reflecting the SB 1 reforms and applying PERA's current set of actuarial assumptions, all result in positive (green) indicators with the exception of the Judicial Division which shows a warning (yellow) indicator



SB 1 Study Report



Colorado PERA Senate Bill 10-001 (SB 1) Report



SB 1 Study Report Objectives



- » Main objectives [C.R.S. § 24-51-220]
 - To report to the General Assembly regarding:
 - » The economic impact of the 2010 legislative changes to the annual increase provisions on retirees and benefit recipients as compared to the actual rate of inflation, and
 - » The progress made toward eliminating the unfunded liabilities of each division of the association
 - Timing requirement
 - » To be performed every five years
 - » First report due to the General Assembly by January 1, 2016



SB 1 Study Report

Key Findings



Item	Message
1	PERA is sustainable into the foreseeable future
2	SB 1 reforms significantly reversed PERA's predicted course from running out of money within 20 to 25 years to projections of full funding in approximately 30 to 36 years
3	SB 1 reforms reduced benefits for all active and retired members; consequently PERA employers and taxpayers are saving money by providing a more affordable benefit
4	Over the past five years, SB 1 reforms saved PERA approximately \$15 billion in unfunded actuarial accrued liability (UAAL)
5	Over the last five years, the reduction in the Annual Increase (AI) provisions had the most significant impact on the UAAL—accounting for 90 percent of the \$15 billion in savings
6	Even recognizing the AI reforms, PERA retirees retained their purchasing power over the last five-year period.

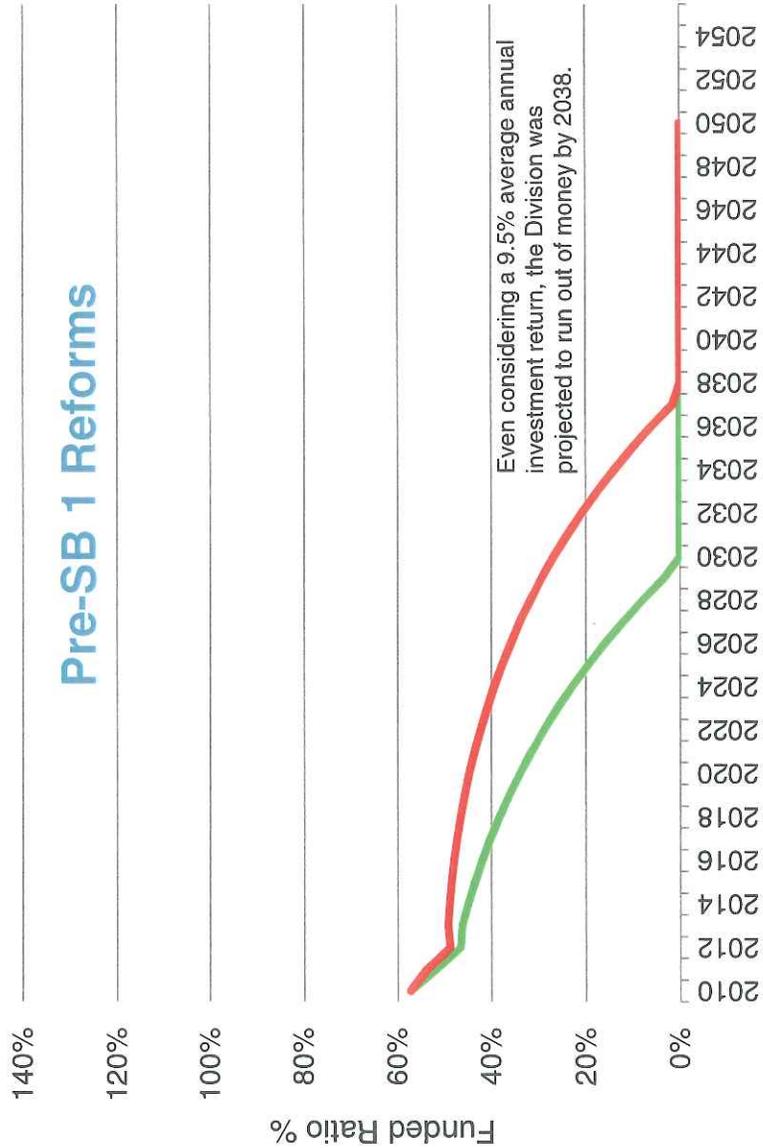
SB 1 Study Report

Key Findings



State Division

Pre-SB 1 Reforms

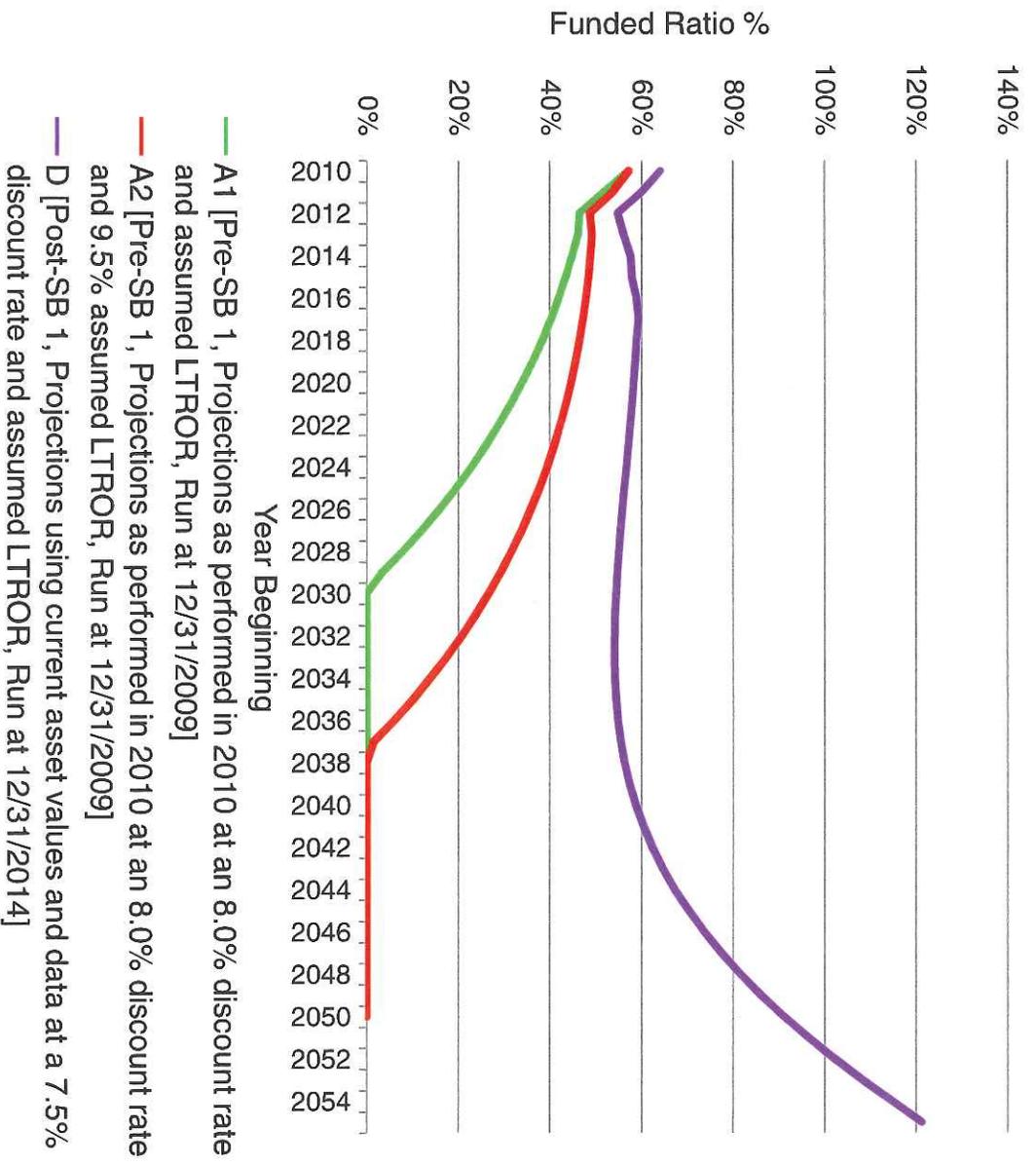


- A1 [Pre-SB 1, Projections as performed in 2010 at an 8.0% discount rate and assumed LTROR, Run at 12/31/2009]
- A2 [Pre-SB 1, Projections as performed in 2010 at an 8.0% discount rate and 9.5% assumed LTROR, Run at 12/31/2009]

» Funded ratio projection graphs originally illustrated that PERA was not going to solve sustainability issues by simply relying on investment performance—evident, particularly for the two largest divisions—the State and the School Divisions, which represent approximately 84 percent of PERA’s pension asset base

SB 1 Study Report Key Findings

State Division



- A1 [Pre-SB 1, Projections as performed in 2010 at an 8.0% discount rate and assumed LTROR, Run at 12/31/2009]
- A2 [Pre-SB 1, Projections as performed in 2010 at an 8.0% discount rate and 9.5% assumed LTROR, Run at 12/31/2009]
- D [Post-SB 1, Projections using current asset values and data at a 7.5% discount rate and assumed LTROR, Run at 12/31/2014]



SB 1 Study Report

Key Findings



	As of December 31, 2014	
Division	Estimated Funding Period at the Board's 7.5% Assumed Rate of Return	Estimated Funding Period at an 8.0% Assumed Rate of Return
State	37 years	30 years
School	38 years	29 years
Local Government	25 years	15 years
Judicial	48 years	30 years
DPS*	33 years	26 years

* SB 09-282: Set provisions that the DPS Division Funded Ratio equal the School Division Funded Ratio in 2040



SB 1 Study Report

Key Findings



» Current Funded Ratios are slightly ahead of predictions from five years ago

Division	Post-SB 1 Projected Funded Ratio as of December 31, 2014 (AVA * Basis)	Actual Funded Ratio as of December 31, 2014 (AVA * Basis)
State	57.6%	57.8%
School	60.7%	60.9%
Local Government	73.1%	78.7%
Judicial	67.7%	73.0%
DPS *	76.6%	82.6%

* Funded ratios are typically presented with regard to the Actuarial Value of Assets (AVA) or “smoothed” asset values, as is shown here, unless otherwise indicated.

SB 1 Study Report

Key Findings



» Even recognizing the AI reforms, PERA retirees retained their purchasing power over the last five-year period

Summary of Annual Increase (AI) Provision Increases Compared to National Inflation

	Increase for 2010			Increase for 2011			Increase for 2012			Increase for 2013			Increase for 2014		
	PERA	CPI-W*	PERA	PERA	CPI-W	PERA									
Applicable Annual Increase	0.0%	-0.7%	2.0%	2.0%	2.1%	2.0%	2.0%	3.6%	2.0%	2.0%	2.0%	2.0%	2.1%	2.0%	1.4%
Cumulative Increase	0.0%	-0.7%	2.0%	2.0%	1.4%	4.0%	4.0%	5.0%	6.1%	6.1%	7.2%	7.2%	8.2%	8.2%	8.7%
Average Increase	0.0%	-0.7%	1.0%	1.0%	0.7%	1.3%	1.3%	1.7%	1.5%	1.5%	1.8%	1.6%	1.6%	1.6%	1.7%

* For purposes of determining purchasing power, CPI-W was allowed to reflect a negative value in these calculations even though PERA would never apply a reduction to benefits if/when in an indexing scenario

SB 1 Study Report

Key Findings



- » The PERA membership embraced considerable sacrifice through benefit provision changes to ensure the plan's sustainability, representing approximately 90 percent of the burden
 - A typical retiree receiving a \$3,000 monthly benefit as of January 1, 2010, will sacrifice the equivalent of about seven years of retirement payments over a 25-year retirement
 - A typical new hire with a membership date on or after January 1, 2011, generally will work longer, pay more, and receive less over a shorter period of time in retirement than an individual with a prior membership date

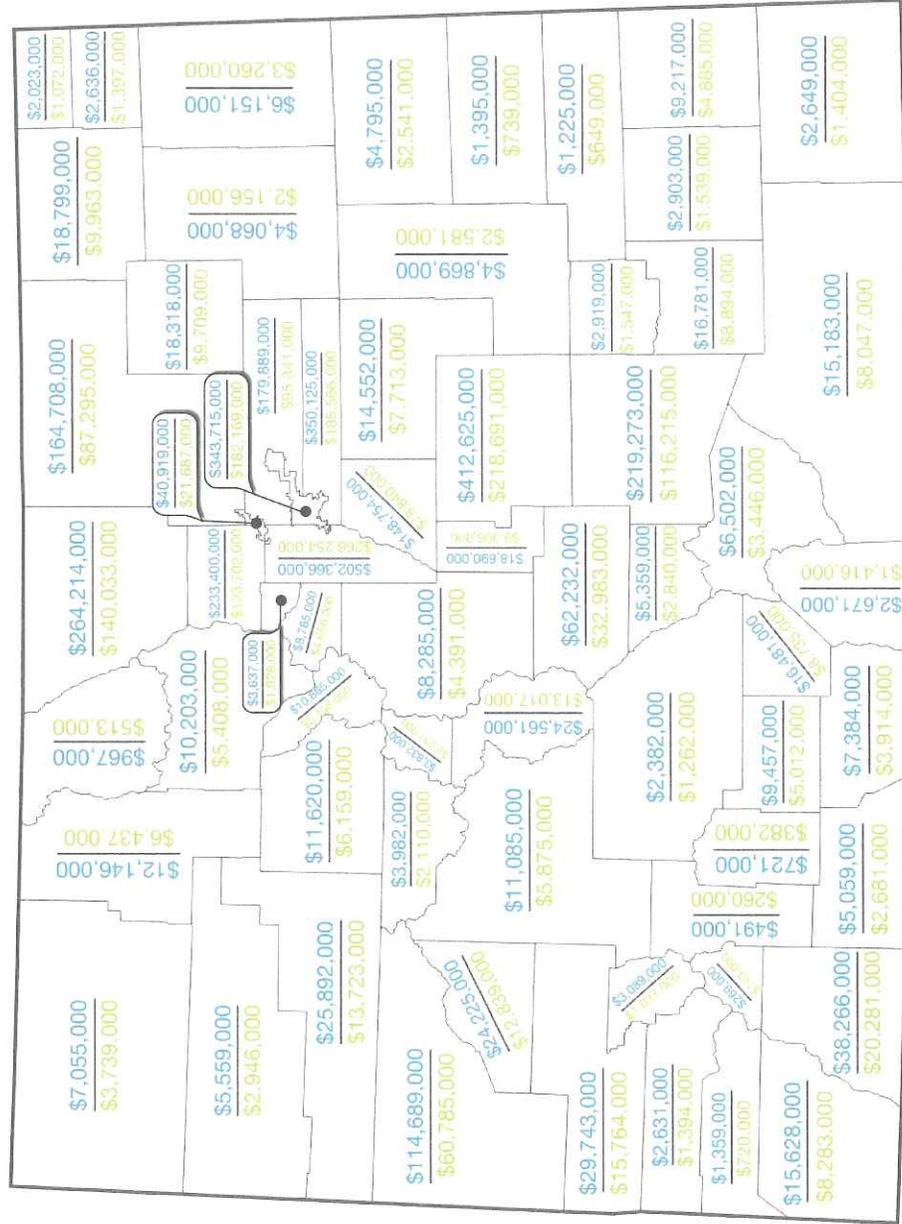
SB 1 Study Report

Key Findings



PERA Benefit Distributions by County

- PERA Hybrid DB Plan Distributions*
- Self-Directed DC Plan Distributions† (had it been implemented in 1984)



- >> Historical simulation if, in 1984, PERA had been converted to a self-directed DC plan
- >> PERA distributions by county vs. distributions under a self-directed DC plan

* Colorado PERA Economic and Fiscal Impacts, Pacey Economics, Inc., April 2015. Reflects PERA distributions as of September 2014.
 † Information provided by Pacey Economics, Inc., using scaling factor of 53.0%.



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