

PERA SMART HEARING

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JANUARY 5, 2017



What is Colorado PERA?

As of December 2015



- » 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
- » Administers:
 - 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

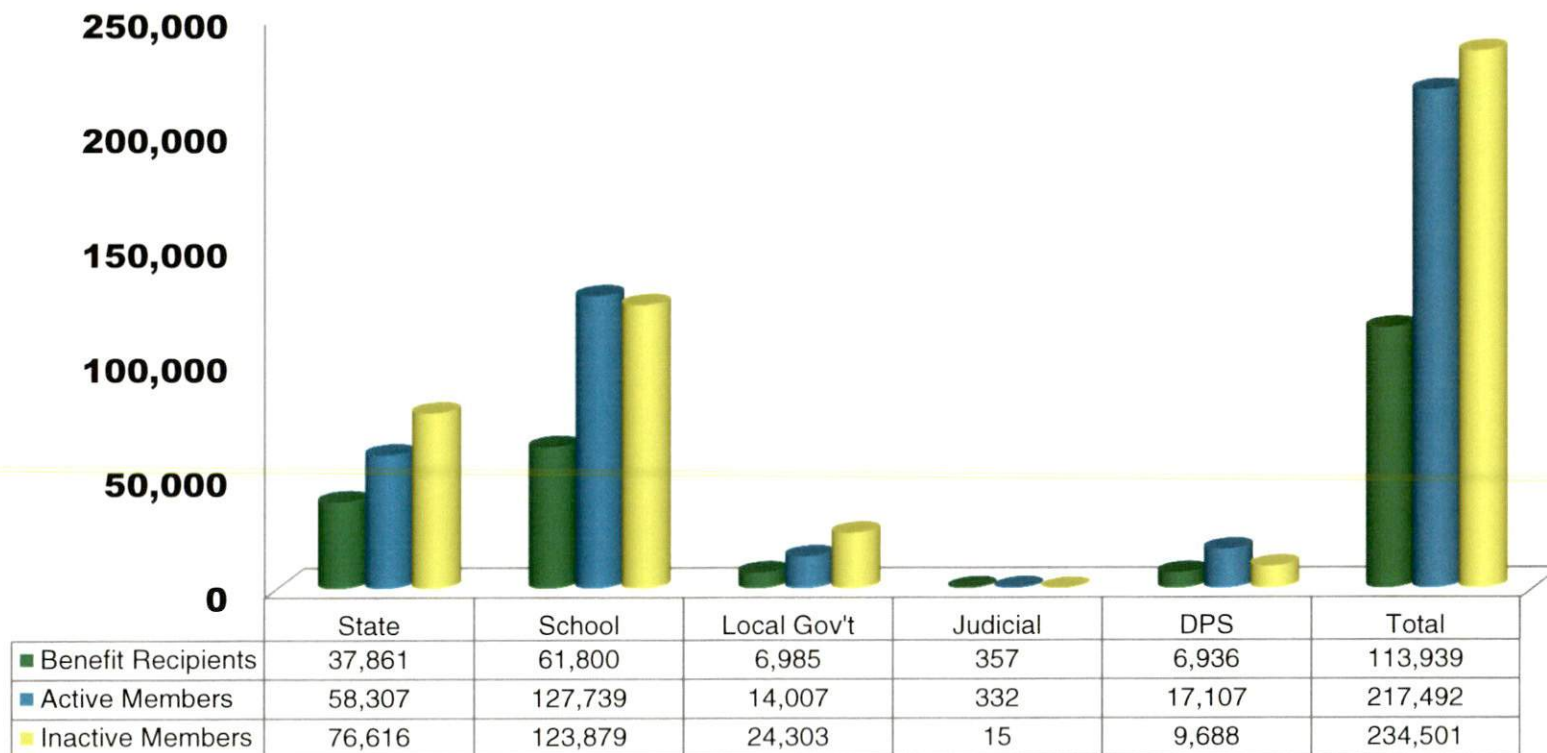


PERA Membership

October 31, 2016



Total: 565,932



PERA's Governance Structure



General Assembly

Sets benefit and contribution structure



Board of Trustees

Oversees investments, benefits administration, and monitors actuarial assumptions and performance



PERA Staff

Implements strategy and policy as well as serves as resource for Legislature and Board

Board of Trustees



16 members as established by state law

- School 4
- State 3
- Retirees 2
- Local Government 1
- Judicial 1
- DPS Division 1*
- State Treasurer 1**
- Governor-appointed 3

* Non-voting ex officio

** Ex officio

Fiduciary Standard of Conduct

“Trustees shall carry out their functions solely in the interest of members and benefit recipients and for the exclusive purpose of providing benefits and defraying reasonable expenses incurred....”

(24-51-207(2), C.R.S.)

PERA Annual Update: Audit



- » CliftonLarsenAllen performed the State Auditor's Office 2015 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 1.5 percent investment return for 2015
 - Return 1 percent above the policy benchmark
- » Total Pension Fund Market Value of Assets Funded Ratio
 - 2015 = 59.9 percent
 - 2014 = 64.2 percent

PERA Annual Update: Legislation



» 2016 Legislative Session

- HB 16-1284: PERA Divest From Companies with Prohibitions Against Israel—Rep. Nordberg (R) and Rep. Moreno (D) with Sen. Hill (R) and Sen. Garcia (D)
- Passed and signed into law
- PERA implementing according to law and on schedule

PERA Financial Recap



\$44,573,464 net assets as of December 31, 2014

(in thousands of dollars; does not include defined contribution plans)

December 2015

Contributions
\$2,278,957

Investments
\$436,119

Benefits Paid
(\$4,563,855)

Employer – Pension – Regular	\$707,927	Net Change in Fair Value	(\$428,171)	Pension Benefits	(\$4,073,789)
Employer – Pension – AED	\$317,218	Interest	\$301,818	Health Care Benefits	(\$256,407)
Employer – Pension – SAED	\$298,442	Dividends	\$505,102	Disability/Life Insurance	(\$6,547)
Employer – Health Care	\$84,771	Real Estate/Opportunity Fund/		Refunds	(\$162,144)
Member	\$665,352	Alternative Investments	\$179,429	Other	(\$8,352)
Purchased Service	\$61,145	Securities Lending	\$10,703	Administrative Expense	(\$56,616)
Retiree Health Care Premiums	\$133,866	Investment Expense	(\$132,762)		
Other Additions	\$10,236				

\$42,724,685 net assets as of December 31, 2015

(unaudited, for internal use only)



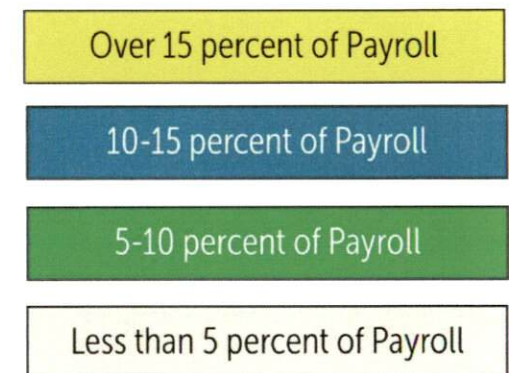
25-Year History of Assets and Distributions

In billions



Beginning Balance January 1, 1991	\$9.6
Employer Contributions	15.7
Member and Other Contributions	13.9
Investment Income	50.9
Denver Public Schools' Plan Transfer	2.8
Benefit and Refund Payments	(49.7)
Administrative Expenses	(0.5)
Ending Balance December 31, 2015	\$42.7

- Total Colorado Distributions = \$3.8 Billion



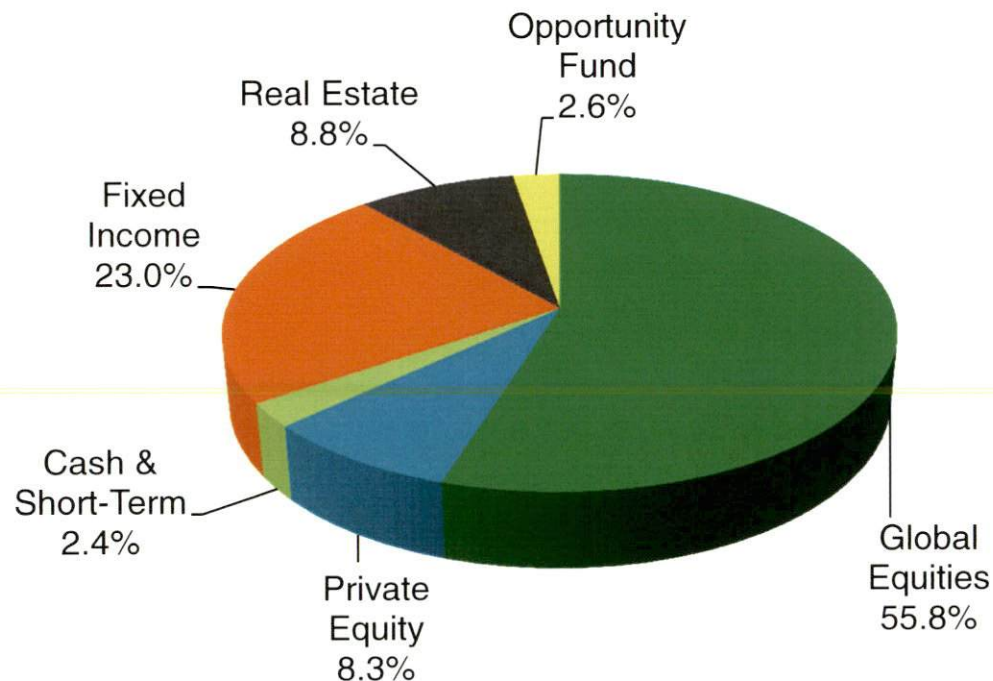
Annual benefit payments and percentage of payroll data from latest County Business Patterns and U.S. Census Bureau, calculation from Pacey & McNulty

Investment Asset Allocation



\$43.0 Billion Market Value

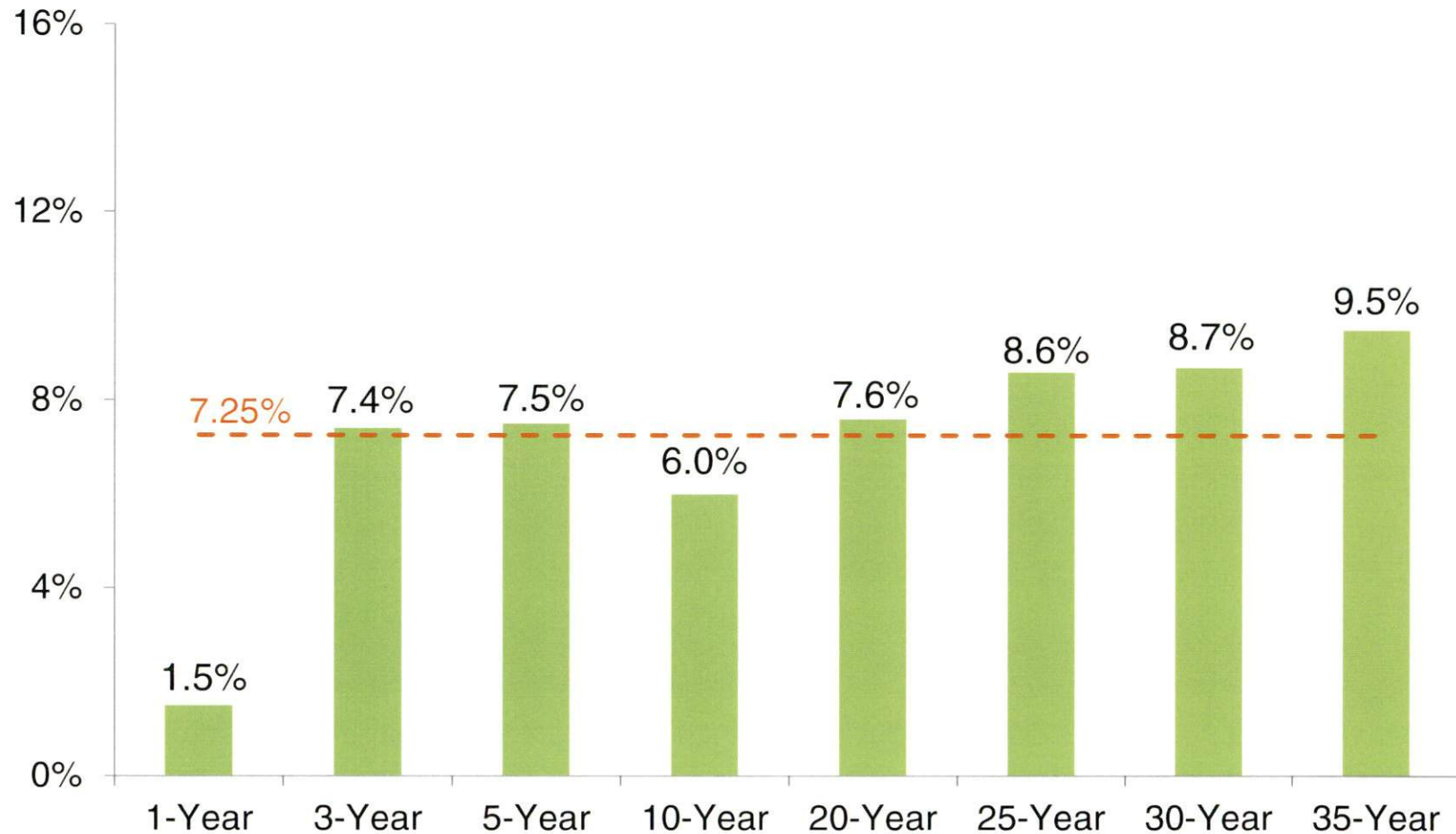
As of October 31, 2016



- » Asset allocation policy unanimously approved by Board on June 21, 2016
- » Over \$447 million invested in Colorado companies
- » More than 55 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

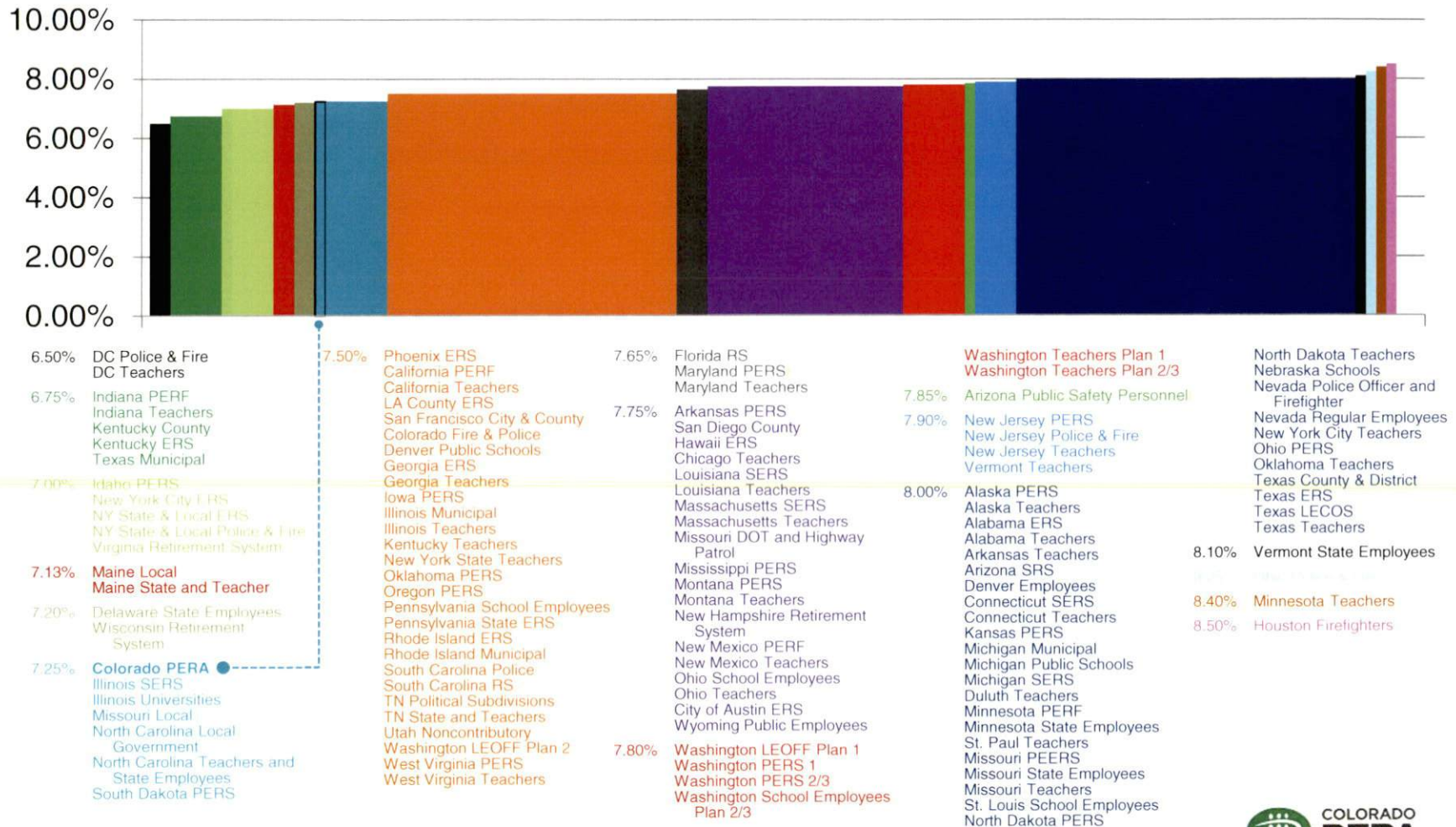
*Annualized investment returns for period ending December 31, 2015**



* 1-, 3-, 5-, and 10-year returns are net of fees
20-, 25-, 30-, and 35-year returns are gross of fees



Comparative Rates of Return – Public



Comparative Rates of Return – Private



Pensions & Investments Database–December 2015



Glossary of Terms



» **Unfunded Actuarial Accrued Liability**

- The amount by which the projected liabilities exceed the current assets

» **Amortization Period**

- The projected period of time, in years, required to pay off the unfunded liability and achieve 100 percent funded status

» **Full Funding**

- The status when the assets of the fund are equal to or greater than the projected liability

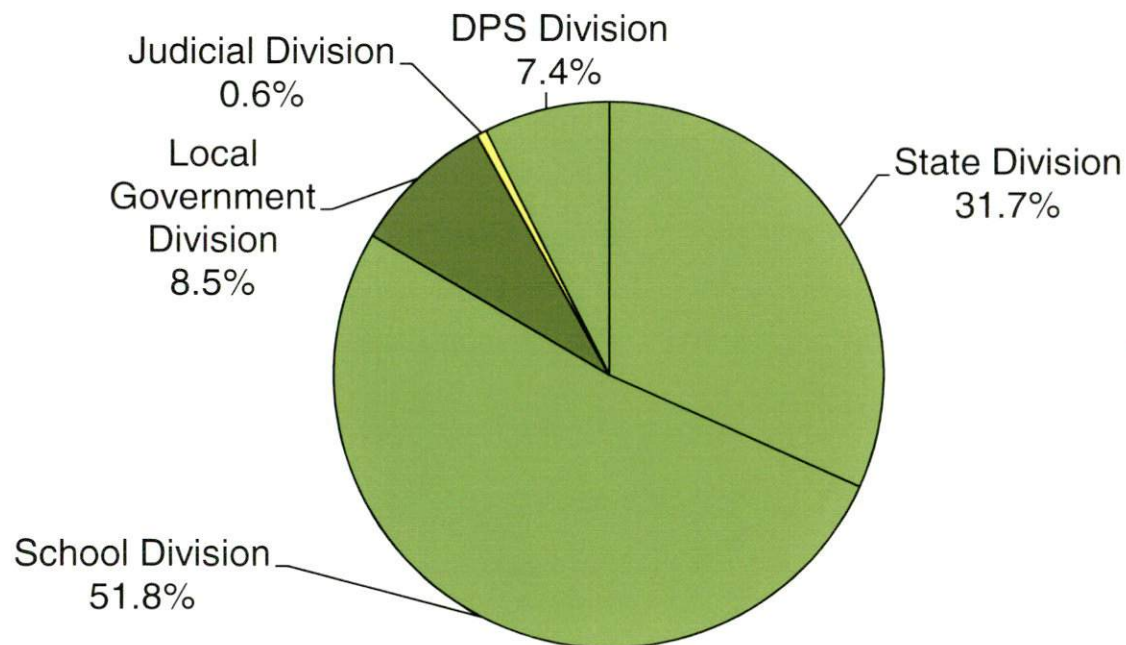
» **Assumed Rate of Return**

- The anticipated annual rate of investment return over time

Review of SB 14-214 Studies – Sensitivity Study



Signal Light Indicator *Weighted by Market Value of Assets*

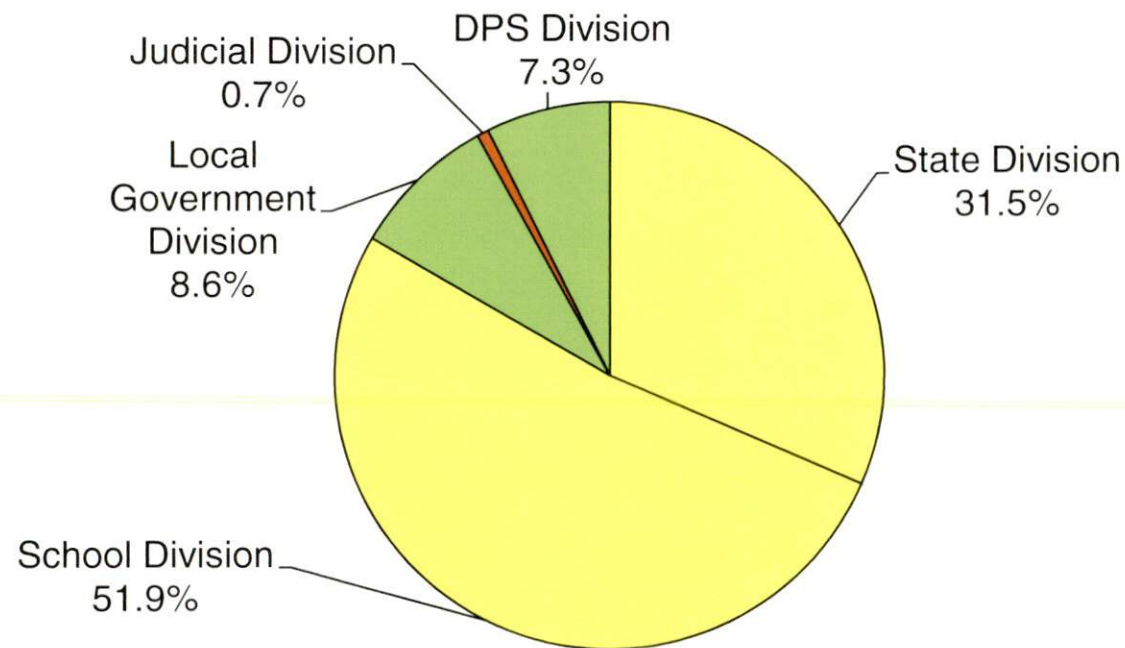


- » As of December 31, 2014, for each PERA division, reflecting the SB 1 reforms and applying PERA's set of actuarial assumptions as of the end of 2014

2015 Signal Light Indicator



Signal Light Indicator *Weighted by Market Value of Assets*



» As of December 31, 2015, for each PERA division, reflecting the SB 1 reforms and applying PERA's set of actuarial assumptions at end of 2015, results may change based upon recent assumption adjustments

2015 Projection Results



- » Factors contributing to increase in projected full funding date

Increase/(Decrease) in Projected Full Funding Date (Years)					
	State	School	Local Government	Judicial	DPS
Investment	4.8	5.7	9.4	25.1	5.5
Population/ Salary Growth	0.3	0.4	1.3	(0.8)	(1.2)
Demographic	0.8	1.3	1.6	1.9	(0.2)
Other*	(0.2)	0.0	0.0	0.0	0.0
Total	5.7	7.4	12.3	26.2	4.1

* DC payroll projections

PERA Annual Update: Recent Board Action



- » At its November 20, 2016, the Board adopted new economic and demographic actuarial assumptions based on the actuarial experience study (conducted periodically) for the years 2012-2015
 - New mortality tables reflecting the anticipated extension of life expectancies of the PERA membership going forward
 - Long-term rate of return assumption lowered from 7.5 percent to 7.25 percent.
 - The actuaries are working to calculate the new amortization periods for each of the Divisions

PERA Next Steps

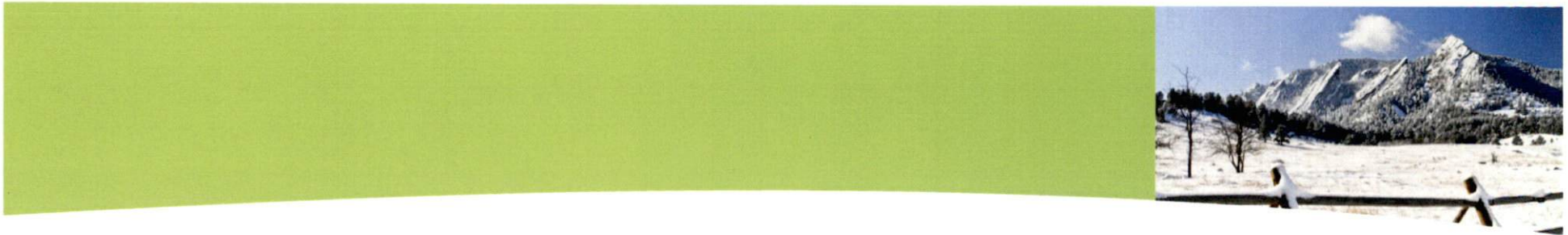


- » 2017 education and outreach effort
 - Engage a range of stakeholders in conversation about PERA's financial condition – members, taxpayers, policymakers, business leaders, and other stakeholders
 - Connect with stakeholders throughout the state both in-person and virtually
 - Provide fact-based information
- » Additional actuarial information
 - After the January 2017 Board meeting, PERA will make available amortization impact information to the members of the General Assembly and other stakeholders
- » Judicial Division

Contact Us



- » Web address
 - www.copera.org
- » Social media
 - PERA on the Issues, www.peraontheissues.com
 - The Dime, www.thedimecolorado.com
 - Twitter, @ColoradoPERA and @thedimeCO
 - Facebook, www.facebook.com/thedimecolorado
- » Office locations
 - 1301 Pennsylvania Street, Denver
 - 1120 West 122nd Avenue, Westminster
 - 10457 Park Meadows Dr., Suite 102, Lone Tree
- » Phone number
 - 1-800-759-PERA (7372)



Appendix



Timeline



Amortization Period *

State Division	Infinite
School Division	Infinite
Local Gov't Division	Infinite
Judicial Division	Infinite

Assumed Rate of Return

8.50%

December 31,
2003

Board Actions

- Increased cost of purchasing service credit
- Conducted Asset Liability Study
- Reviewed actuarial assumptions
- Decreased assumed rate of return to 8.5% from 8.75%

Board Legislative Recommendations

- Place 10-year limit on service credit purchase
- Increase contributions, add contribution rate corridors, suspend MatchMaker

Legislative Actions

- Passed SB 03-90 to limit service credit purchase
- Passed SB 03-101 to increase contributions, suspend MatchMaker (vetoed by the Governor)

* Valuation Results

Timeline



Amortization Period

State Division	Infinite
School Division	Infinite
Local Gov't Division	Infinite
Judicial Division	Infinite

Assumed Rate of Return

8.50%

Infinite*
8.50%

2003

December 31,
2004

* School Division

Board Actions

- Increased service credit purchase to full actuarial cost

Board Legislative Recommendations

- Suspend MatchMaker immediately for all employees
- Increase employer contribution rate
- Begin AED contribution in 2006, full phase-in to 3% by 2012
- Create new hire Tier with indexed AI and modified rule of 85

Legislative Actions

- Passed SB 04-132 to suspend MatchMaker and modify early retirement provisions
- Passed SB 04-257 to begin AED contributions. Beyond Board recommendation, also included DC plan election in State Division

Timeline



Amortization Period

State Division	Infinite
School Division	Infinite
Local Gov't Division	Infinite
Judicial Division	Infinite

Assumed Rate of Return

8.50%

Infinite
8.50%

Infinite
8.50%

December 31,
2005

2003

2004

Board Actions

- Conducted Asset Liability Study
- Conducted Experience Study
- Performed actuarial audit

Board Legislative Recommendations

- Close loopholes for 110-day post retirement employment limit

Legislative Actions

- Passed SB 05-73 to close 110-day loopholes

Timeline



Amortization Period

State Division	Infinite
School Division	52
Local Gov't Division	17
Judicial Division	28

Assumed Rate of Return

8.50%



Board Legislative Recommendations

- Limit "spiking" of salaries for HAS calculation
- Accelerate AED phase-in schedule
- Establish Tier 2 benefits for new employees with 2.1% multiplier, no guaranteed AI with the creation of the AI reserve, 7% contribution
- Reduce health premium subsidy for members under 65 and new members
- Change statute to reflect amortization period of 30 years for sound system

Legislative Actions

- Passed SB 06-235 to implement Supplemental AED and new benefit tier

Timeline



Amortization
Period *

State Division	40 years
School Division	31 years
Local Gov't Division	12 years
Judicial Division	12 years

Assumed Rate
of Return

8.50%



Timeline



Amortization
Period

State Division	Exhaustion
School Division	Exhaustion
Local Gov't Division	83 years
Judicial Division	56 years

Assumed Rate
of Return

8.50%



Board Actions

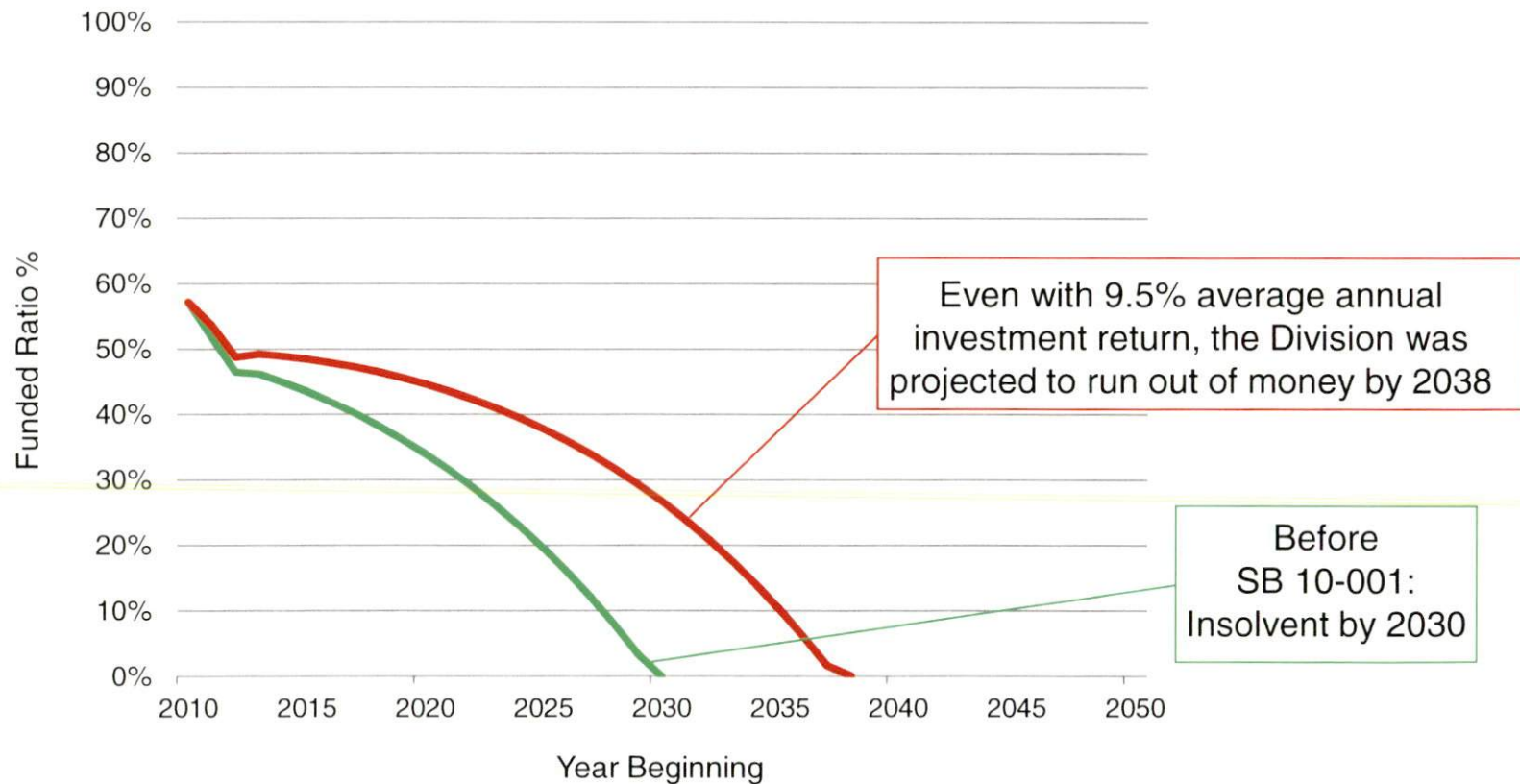
- Began study of 2008 market crisis impact

Projection of Funded Status

Pre-SB 10-001



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]

Timeline

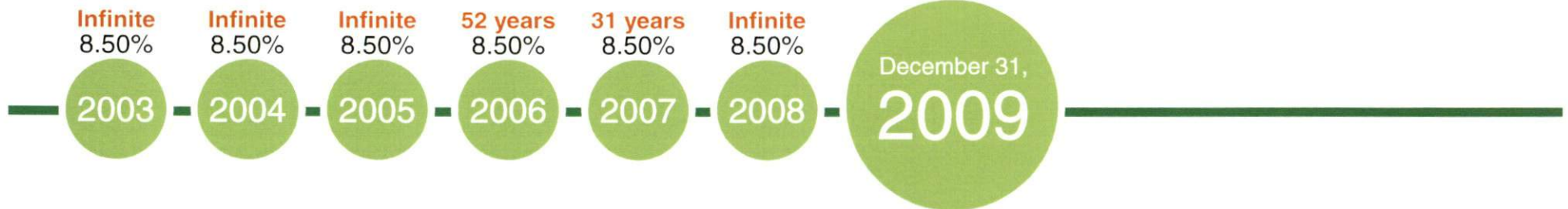


Amortization Period

State Division	36 years
School Division	33 years
Local Gov't Division	30 years
Judicial Division	32 years

8.00%

Assumed Rate of Return



Board Actions

- Decreased assumed rate of return to 8.0%
- Performed actuarial audit
- Conducted Asset Liability Study
- Conducted Experience Study
- Conducted Board listening tour
- Set principals of reform and closed 30-year amortization period goal

Board Legislative Recommendations

- Increase AED and SAED for select divisions, hold current rates for others
- Increase retirement age and service requirements for full benefits for new hires and non-vested members
- Change HAS calculation
- Change the AI for retirees, members, and new hires

Legislative Actions

- Passed SB 09-282 mandating the merger of DPSRS into PERA effective January 1, 2010
- Directed PERA to submit recommendations to address unfunded liability

Timeline

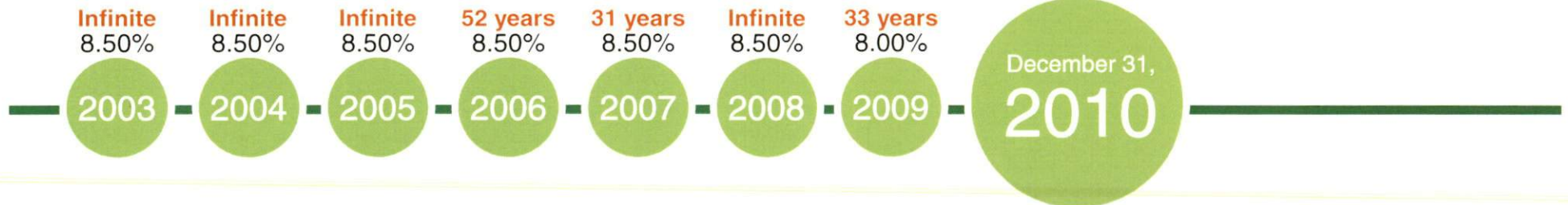


Amortization Period

State Division	35 years
School Division	32 years
Local Gov't Division	26 years
Judicial Division	35 years
DPS Division	22 years

8.00%

Assumed Rate of Return



Board Actions

- Implemented SB 10-001 rules and DPSRS merger

Board Legislative Recommendations

- Support final version of SB 10-001 by majority Board vote
- Endorse SB 10-001

Legislative Actions

- Passed SB 10-001 to eliminate PERA's unfunded liability
- Passed SB 10-146 to increase member, and decrease employer, contribution rates

SB 10-001 Reforms Effect on Benefits



Estimated Decrease in Benefits Received—Early Retirement

	Pre SB 1	Post SB 1*	Difference	% Decrease
Retirement Age	55	55		
Years of Service	25	25		
HAS	\$5,000	\$5,000		
Assumed Years in Receipt	25	25		
Estimated Monthly Benefit	\$3,125	\$2,625	\$500	(16.0%)
Benefits Received During 25-Year Period				
Base Benefits	\$937,500	\$787,500	\$150,000	(16.0%)
Annual Increases	523,120	221,454	301,666	(57.7%)
Total Benefits	\$1,460,620	\$1,008,954	\$451,666	(30.9%)

Equivalent to 12 years of base benefits

* Membership prior to January 1, 2007, and not vested as of January 1, 2011



Timeline

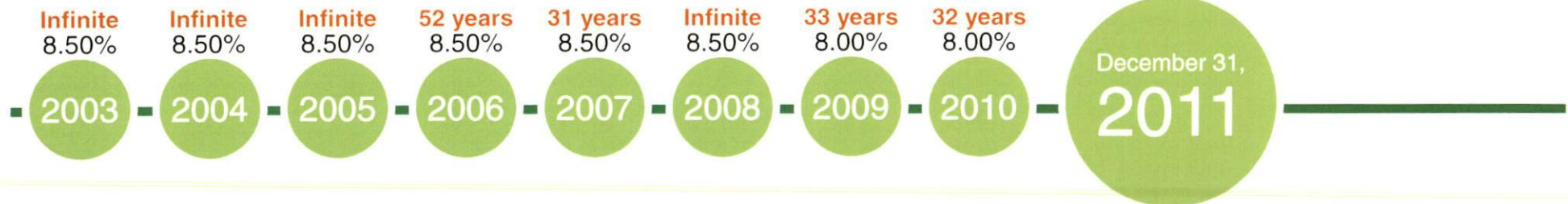


Amortization
Period

State Division	36 years
School Division	35 years
Local Gov't Division	25 years
Judicial Division	52 years
DPS Division	28 years

Assumed Rate
of Return

8.00%



Board Actions

- Conducted Actuarial Assumptions Workshop

Legislative Actions

- Passed SB 11-076 to continue 2.5% reduction for State and Judicial for another fiscal year

Timeline

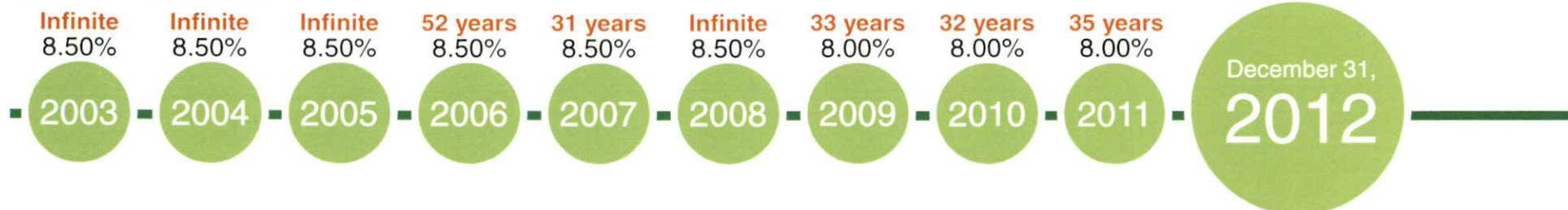


Amortization
Period

State Division	35 years
School Division	32 years
Local Gov't Division	26 years
Judicial Division	43 years
DPS Division	22 years

Assumed Rate
of Return

8.00%



Board Actions

- Performed Experience Study
- Conducted Actuarial Assumptions Workshop

Timeline



Amortization
Period

State Division	35 years
School Division	34 years
Local Gov't Division	28 years
Judicial Division	45 years
DPS Division	22 years

Assumed Rate
of Return

7.50%

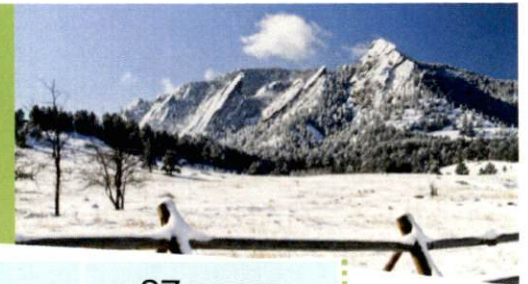
Infinite 8.50%	Infinite 8.50%	Infinite 8.50%	52 years 8.50%	31 years 8.50%	Infinite 8.50%	33 years 8.00%	32 years 8.00%	35 years 8.00%	32 years 8.00%
2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

December 31,
2013

Board Actions

- Conducted Actuarial Assumption Workshop
- Decreased assumed rate of return to 7.5%

Timeline



Amortization
Period

State Division	37 years
School Division	38 years
Local Gov't Division	25 years
Judicial Division	48 years
DPS Division	33 years

Assumed Rate
of Return

7.50%



Board Actions

- Conducted actuarial audit

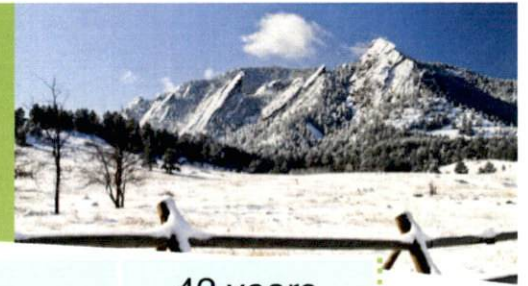
Board Legislative Recommendations

- Endorsed SB 14-214

Legislative Actions

- Passed SB 14-214 providing for three independent studies on PERA

Timeline



Amortization
Period

State Division	42 years
School Division	44 years
Local Gov't Division	36 years
Judicial Division	73 years
DPS Division	36 years

7.50%

Assumed Rate
of Return

Infinite	Infinite	Infinite	52 years	31 years	Infinite	33 years	32 years	35 years	32 years	34 years	38 years
8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.00%	8.00%	8.00%	8.00%	7.50%	7.50%
2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014

December 31,
2015

Board Actions

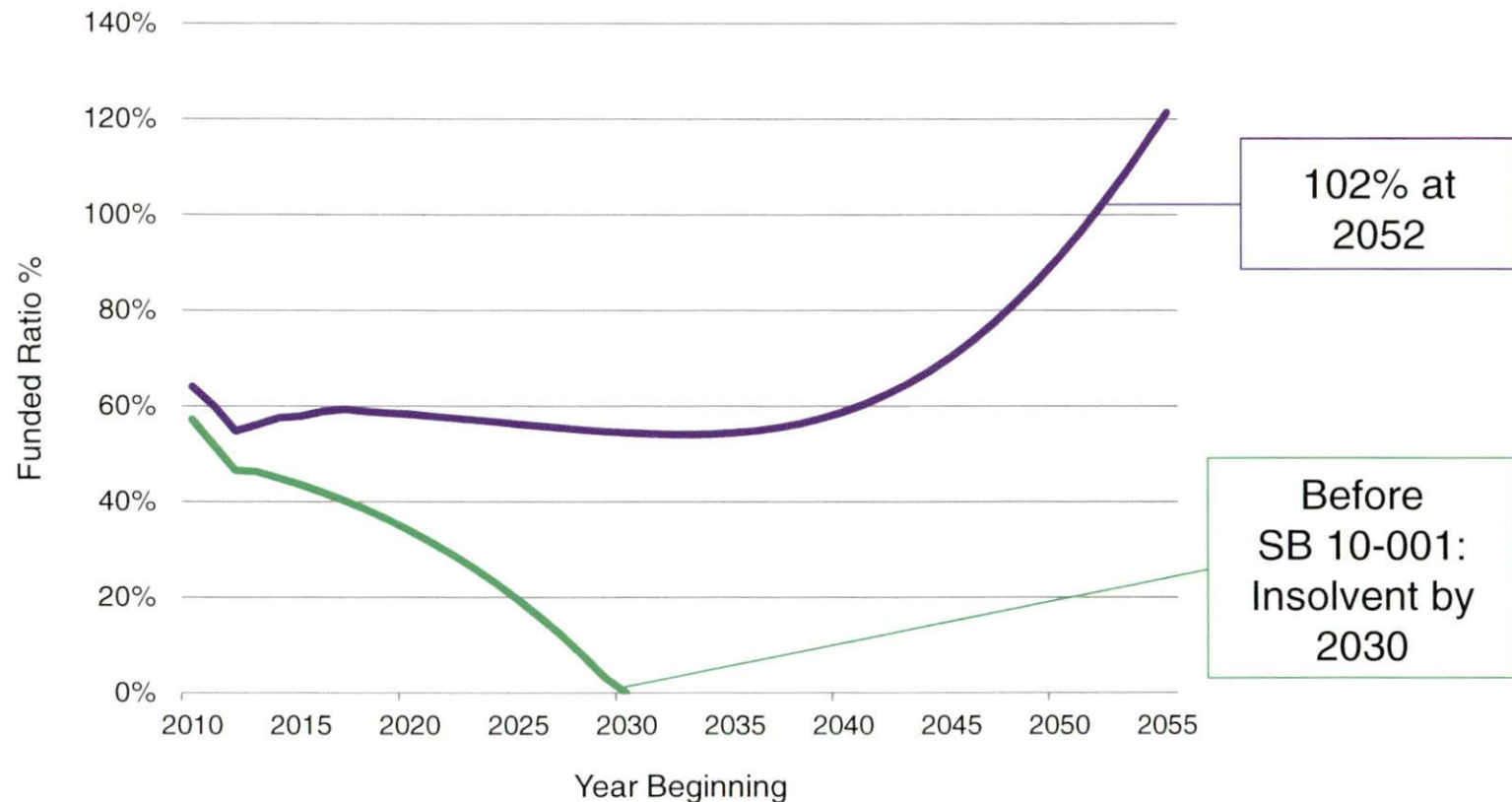
- Conducted Actuarial Assumptions Workshop
- Conducted Asset Liability Study

Projection of Funded Status

Pre- and Post-SB 10-001



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]

— D [Post-SB 1, Projections using current asset values and data at a 7.5% discount rate and assumed LTROR, Run at 12/31/2015]

Proposed Timeline for 2017 Milestones



Planning and
Outreach

January

- Timeline for outreach
- Educational materials
- Other legislative action

Proposed Timeline for 2017 Milestones



Planning and
Outreach

Stakeholder
Conversations

January

March

- In-person, geographically dispersed meetings
- Telephone town halls and other virtual forums
- Up-to-date resource library available

Proposed Timeline for 2017 Milestones



Planning and
Outreach

January

Stakeholder
Conversations

March

Reporting

June

- Key findings provided to Board
- Stakeholders apprised

Proposed Timeline for 2017 Milestones



Planning and
Outreach

Stakeholder
Conversations

Reporting

Summer
Listening Tour

January

March

June

July/August

- Meetings with members, employers, other stakeholders
- Trustee participation

Proposed Timeline for 2017 Milestones



Planning and Outreach

Stakeholder Conversations

Reporting

Summer Listening Tour

Board Planning Session

January

March

June

July/August

September

- Assimilate insights
- Determine next steps