PSRS/PEERS

PUBLIC SCHOOL & EDUCATION EMPLOYEE
RETIREMENT SYSTEMS OF MISSOURI

Funding Update

July 12, 2011

Agenda

- Goals
- History
- Recent Activity
- Funding Strategy
- Challenges
- Summary
- Key Dates

GOALS

PSRS/PEERS Goals

- To provide retirement security to Missouri's educators and education employees after a full career of service.

- To help school districts attract and retain the best and brightest educators and employees for Missouri's school children.

- To manage the Systems in a prudent and cost efficient manner.

HISTORY

History

Previous Discussions

Funding Components

Investment Earnings

- Funding Sources
- Asset – Liability Comparison
- Assumed Rate of Return

Contributions

- Rising Contribution Rates
- Statutory Limits

PSRS

Benefits

- Legal Considerations
- Recent Court Rulings
- Tier II Plan Design

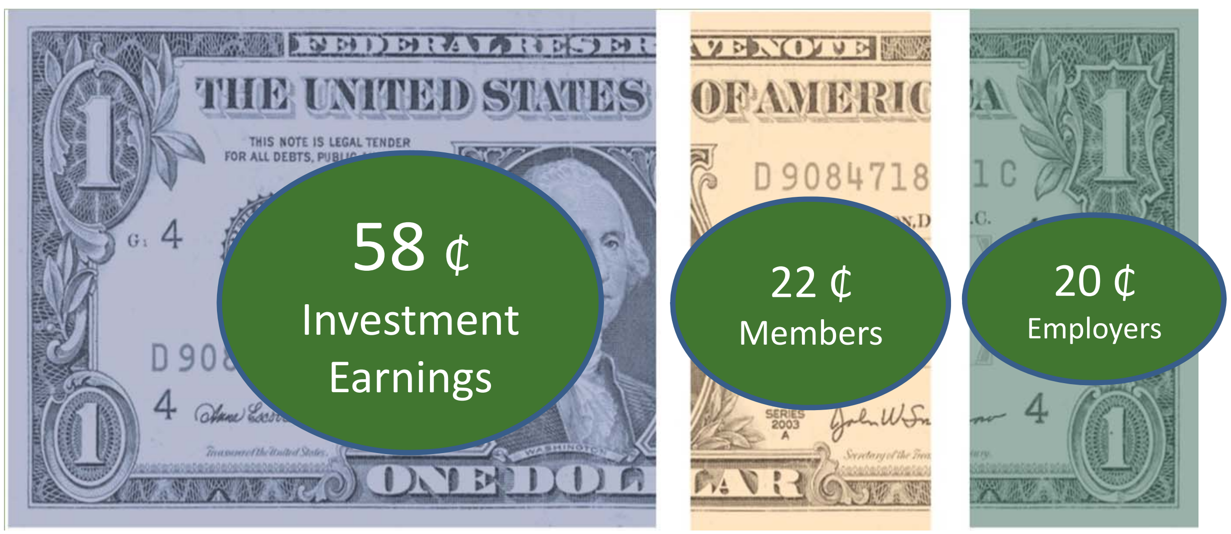
Investment Earnings

Funding Sources

The PSRS/PEERS Dollar:

- Pensions are a shared responsibility
- Every dollar paid to PSRS/PEERS retirees/beneficiaries comes from three sources:

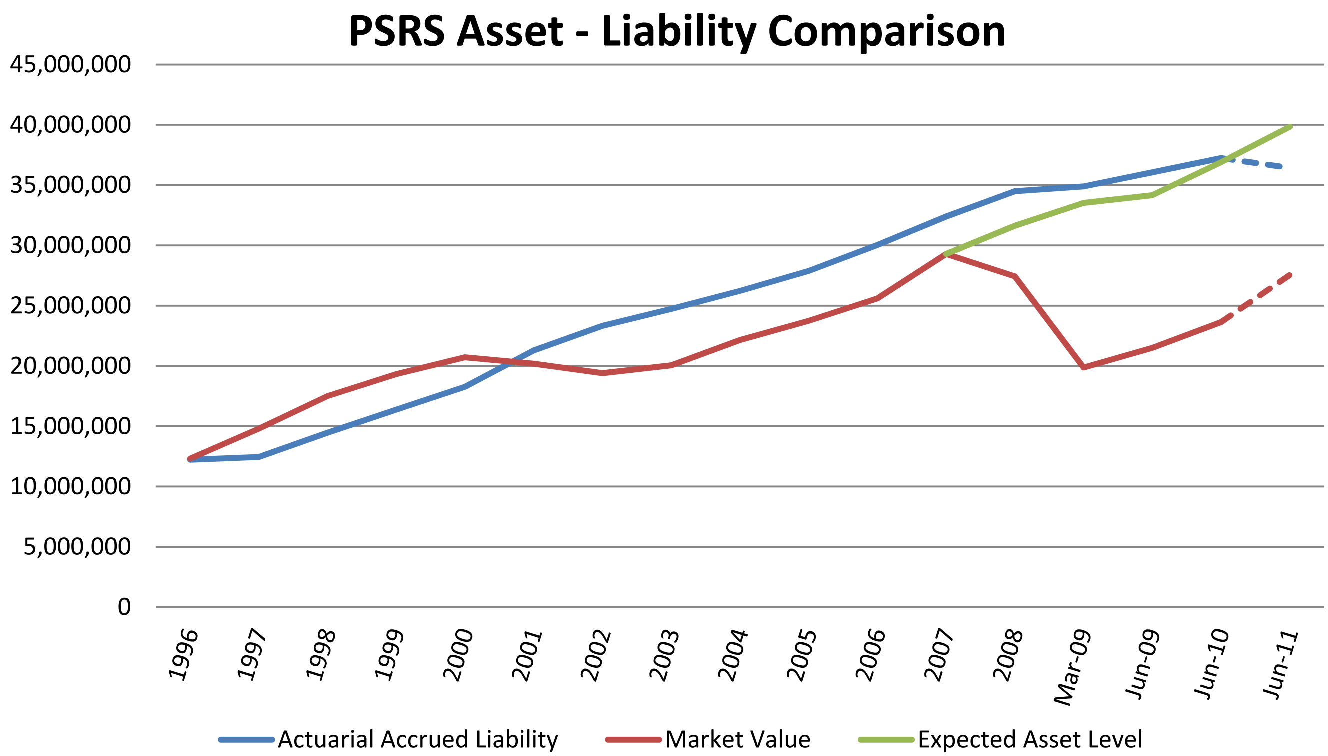
Average – 1995 through 2010



History

Investment Earnings

Asset – Liability Comparison



Note: Actuarial Accrued Liability reflects changes in assumptions from June 2011 Experience Study.

Source: PSRS/PEERS Investment

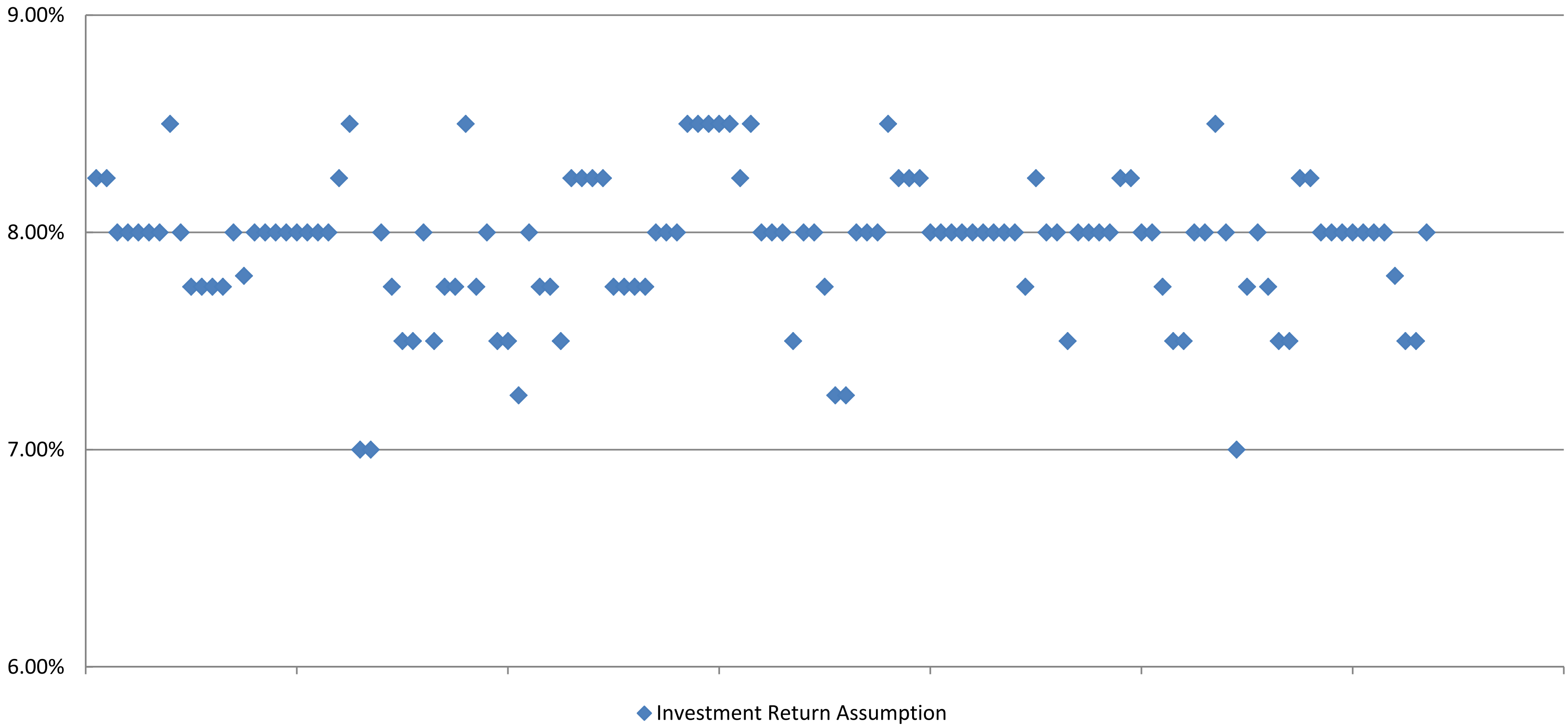
History

Investment Returns

Investment Return Assumption

The median investment return assumption for 127 plans in the nation is 8.00%

- 58 (or 46%) of the 127 plans in the nation use an 8.00% investment return assumption



*Information obtained from most recent NASRA, Public Fund Survey

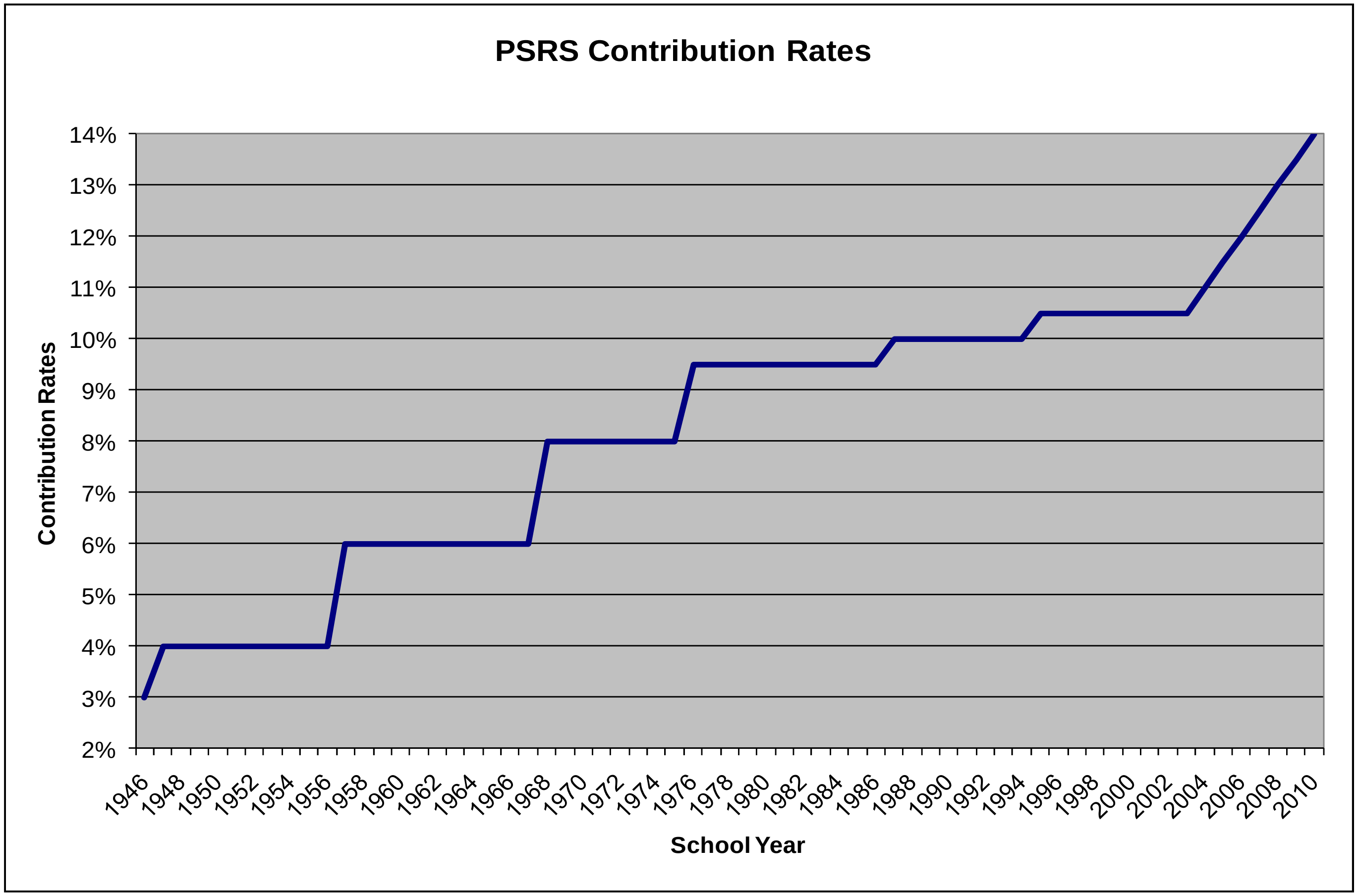
History

Contributions

Rising Contribution Rates

The law limits any change in contribution rates to 1.0% per year (.5% each to the member and the district)

- 14.5% (29% total) effective July 1, 2011



14.5% on 7/1/11 for 11-12 School Year

History

Contributions

Rising Contribution Rates

As of June 2009, contribution rates were projected to rise to nearly 40% of payroll

Projected ARC and Statutory Contribution Rates
2009 - 2011

Valuation	Projected ARC	Year	Highest Statutory Contribution Rate	Year
6/30/2009	39.72%	2016	39%	2021
6/30/2010	37.42%	2016	37.19%	2020
6/30/2011*	31.40%	2013	30.66%	2014

*Projected based on Actuarial Experience Study, expected investment returns through June 2011, current benefit design and 30-year perpetual amortization

Source: PricewaterhouseCoopers

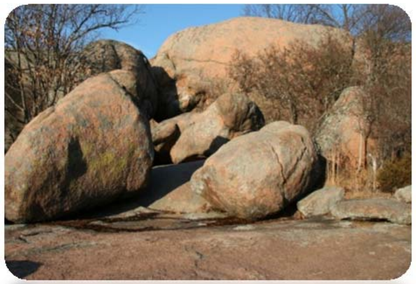
Benefits

Research of Plan Design Changes (2008 – 2010)

Plan Design Goals for Future

- To maintain adequate funding to pay for benefits promised
- Reduce pension costs for members and school districts
- Provide secure and reasonable retirement to educators after a full career of service
- Develop possible changes that comply with the Constitution and have a high probability of withstanding legal challenges

Effects of Plan Changes on the ARC



Boulders
(More than 3.0% decrease)

Rocks
(1.0% to 3.0% decrease)

Pebbles
(0.1% to 1.0% decrease)

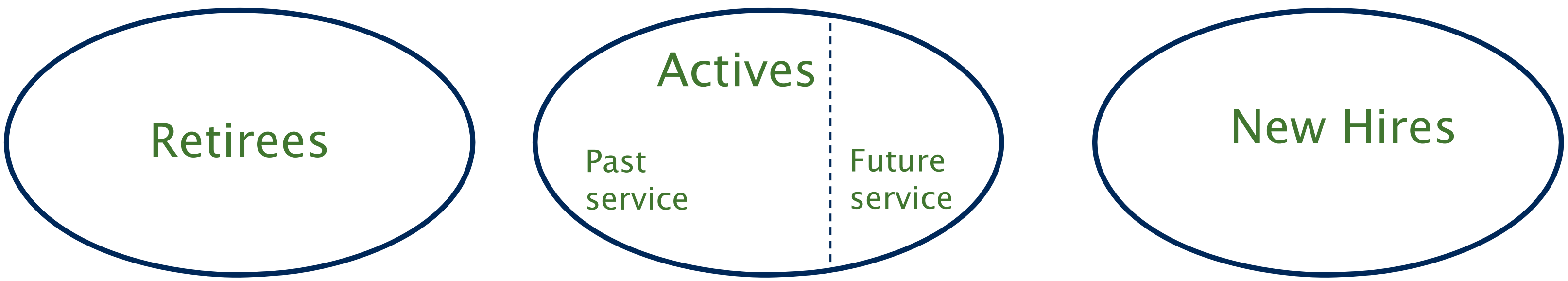
Sand
(less than 0.1% decrease)

Benefits

Legal Considerations and Research

Board of Trustees have fiduciary responsibility to ensure solvency of the fund

- To prudently invest fund assets with a reasonable level of risk versus assumed rate of return
- To maintain adequate funding to pay for benefits promised
- To provide information and guidance regarding the impact on the Systems due to any statutory change



Legal research regarding potential changes to existing members versus new hires only

- PSRS/PEERS General Counsel and external counsel determined that pension benefits create a contract
- Statutory benefit reductions for current retirees are very likely to be found to violate Missouri Constitution
- Statutory benefit reductions for members immediately eligible to retire, vested members and non-vested members are likely to be found to violate the Missouri Constitution

History

Benefits

Recent State Court Ruling

THE WALL STREET JOURNAL.
WSJ.com

Pension Rulings May Boost Cutback Efforts

July 1, 2011
By MICHAEL CORKERY And JEANNETTE NEUMANN

In a pair of rulings that may bolster efforts to roll back public pensions nationwide, judges in Minnesota and Colorado have thrown out lawsuits challenging recent cuts to certain retiree benefits.

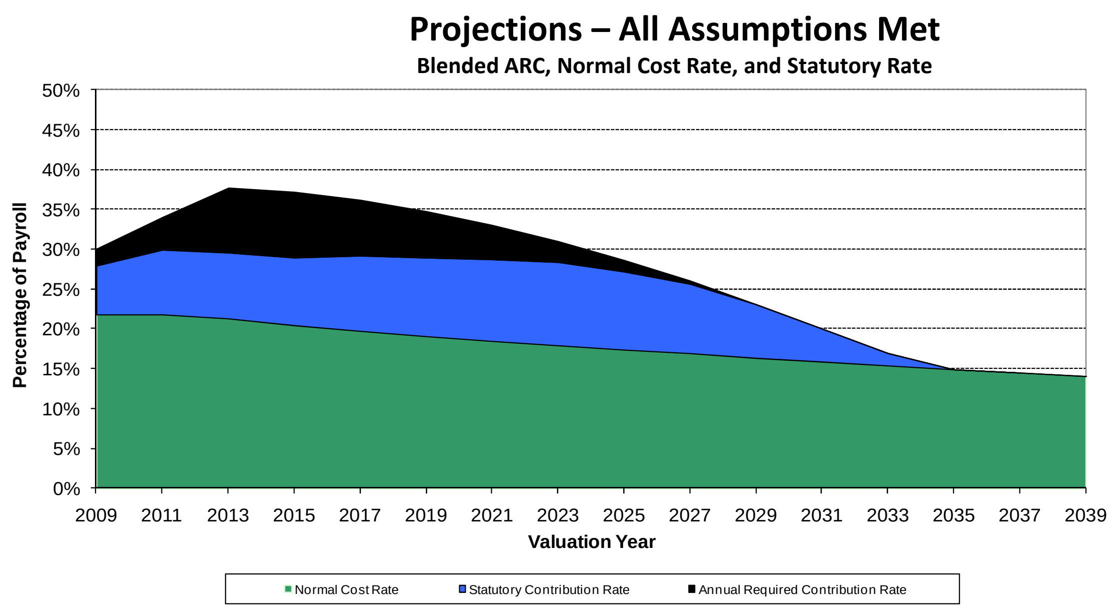
The judges said in separate decisions late Wednesday that the Minnesota and Colorado legislatures had the right to reduce cost-of-living adjustments for retirees, saying the benefits weren't contractually protected.

Benefits

Tier II Plan

A Tier II Plan (reduced benefits) for new hires only would have the following potential implications:

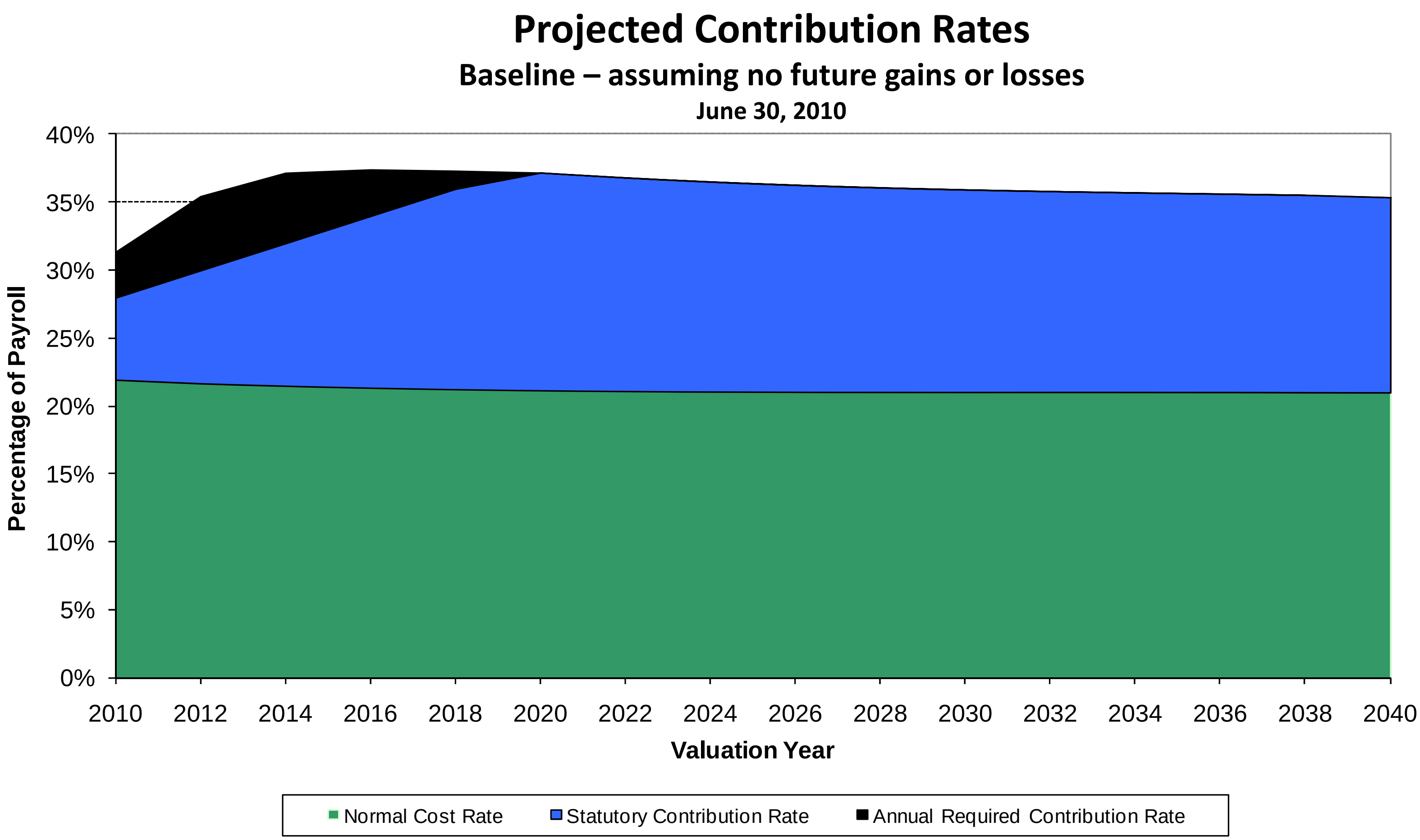
- Reduction in contribution rates for members and employers
- Reduction in formula factor
- Increase in age of retirement eligibility
- Decrease in COLA



Source: PricewaterhouseCoopers, March 24, 2010 report

RECENT ACTIVITY

Outlook: June 30, 2010



Source: PricewaterhouseCoopers

Recent Activity

Investment Returns

- Investment returns have exceeded the 8.0% assumed rate of return for the past two years
  - 2011 Fiscal year return: 21.3%*
  - 2010 Fiscal year return: 13.0%

- PSRS/PEERS is still rolling in investment losses from FY 2008 and FY 2009

- Total assets of the Systems are still below that of October 2007

*Numbers are unaudited and comparable for both systems

Recent Activity

Five-Year Experience Study (2011)

- Required by state statute
- Most recent study completed by PwC in June 2011
- Compares actuarial assumptions to actual experience of the Systems
- Several key findings and recommended changes based on results of the study

Recent Activity Five-Year Experience Study (2011)

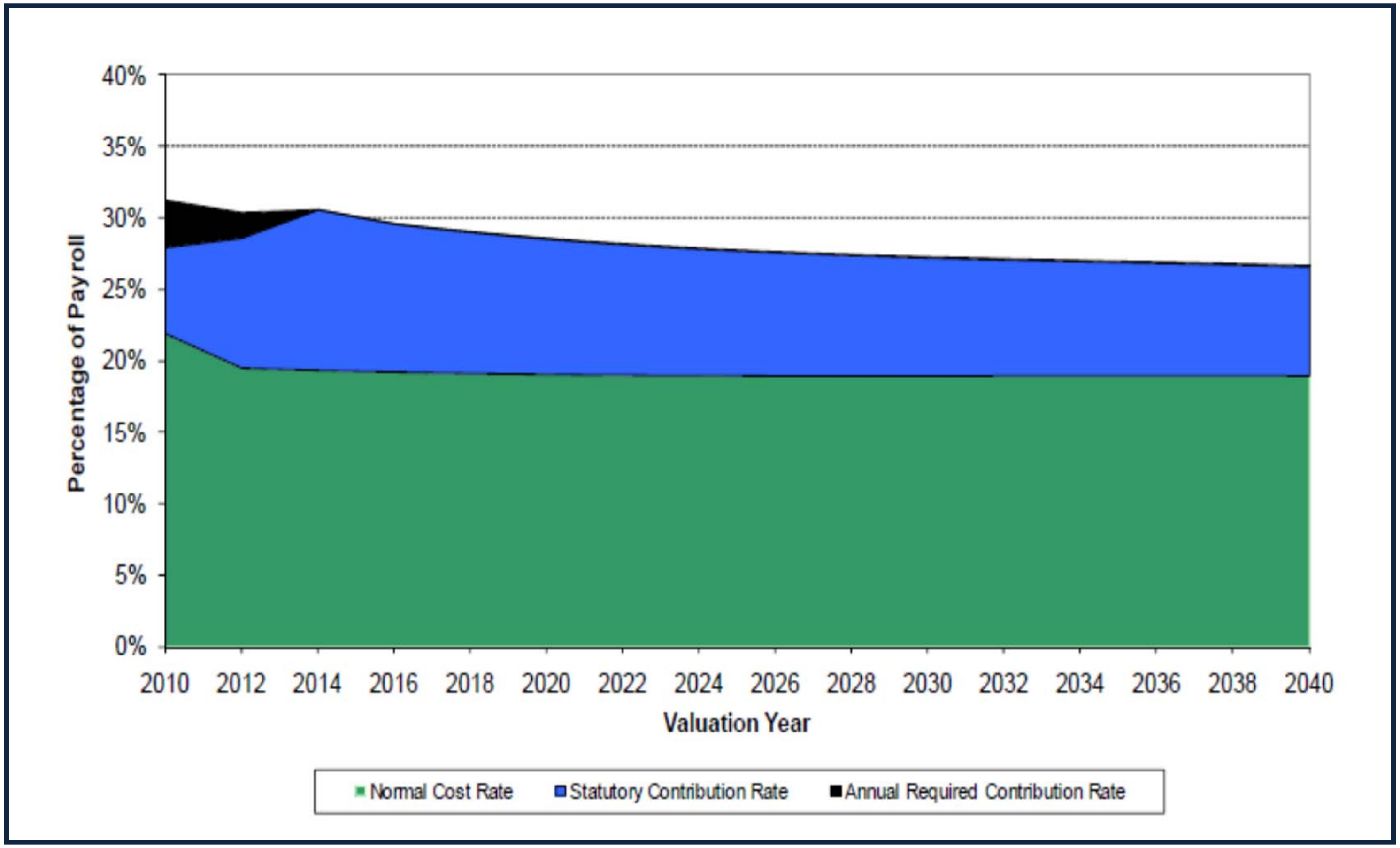
Summary of the projected impact of recommended changes by PwC as a result of the Five-Year Experience Study

Actuarial Assumption (in percentages)	Change to Normal Cost	Change to ARC	Change to Funded Status
Mortality – adjust numbers to reflect current trend updated from 1994 GAM to RP 2000	-0.57%	-1.92%	2.59%
Retirement – trend toward later retirement (31)	-0.07	0.08	-0.27
Disability – incident low, but greater than assumption	0.01	0.01	0
Refunds – vested members less than assumed from 30 % to 12%	-0.06	-0.02	-0.07
Purchases / Reinstatements – adjusted to better reflect experience	0.44	0.44	0
Dependent assumptions – changed due to marriage status, child beneficiaries	0.01	0.02	-0.01
Payroll Growth – reduced from 5.0% to 3.5%	0	1.75	0
Individual Salary Growth – reduce salary growth assumptions to reflect reductions in inflation and real wage growth	-1.25	-1.60	0.66
COLA – reduced to reflect experience from 3.25% to 2.50%	-0.94	-2.51	3.02
Total Combined Savings	**-2.35%**	**-4.17%**	**6.00%**

Source: PricewaterhouseCoopers

Five-Year Experience Study

Projection of 6/30/2010 valuation results, fiscal year 2011 asset returns and recommended assumption changes from the Experience Study



Source: PricewaterhouseCoopers

Five-Year Experience Study

Projected impact of current investment returns and Board adopted Experience Study assumptions

	Maximum ARC	Maximum Statutory Contr. Rate	Funded % in 2040
As of June 30, 2010	37.42%	37.19%	**73.95%**
As of June 13, 2011*	31.40%	30.66%	**88.20%**

***Information is an estimate until completion of the June 30, 2011 Actuarial Valuation. This estimate includes the Experience Study and the expected investment returns through June 2011.**

Source: PricewaterhouseCoopers

FUNDING STRATEGY

Funding Strategy

Cost of Living Adjustment

Missouri statute provides the PSRS/PEERS Board of Trustees some discretion when setting annual benefit increases

Change in Consumer Price Index (CPI-U)	Minimum Adjustment	Maximum Adjustment
<0%	0%	0%
0%-2%	0%	5%
2%-5%	2%	5%
>5%	5%	5%

Funding Strategy

Inflation

Average Inflation for the Period Ending June 30, 2010	
5 Years	2.30%
10 Years	2.37%
15 Years	2.41%
20 Years	2.62%
25 Years	2.86%
30 Years	3.28%

Long-term future inflation expectations based on the yield of Treasuries and TIPS is roughly 2.4%.

Source: PricewaterhouseCoopers

Funding Strategy

Cost of Living Adjustment

Replacement of the current COLA with an 2.0% annual increase would accomplish the following:

- Meet the stated plan design goals
- Establish a shared commitment between both active and retired members for the future financial stability of the system
- Offers retirees peace of mind that the annual benefit increase will be 2.0% even if actual inflation is 0%
- Retain retirees upside protection if inflation is high (5.0+%)

The Impact is Significant

Funding Impact of 2.0% Annual Increase

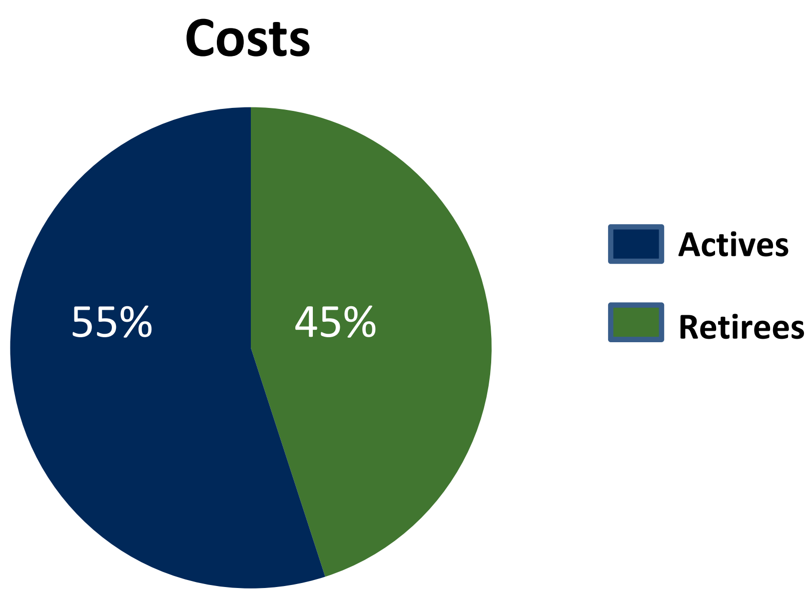
	2.5% Assumed COLA	2.0% Annual Increase	Funding Impact
Unfunded Liability	$7.0 Billion	$5.8 Billion	**$1.21 Billion**
ARC	31.4%	29.0%	**-2.4%**

Source: PricewaterhouseCoopers

Funding Strategy

Shared Commitment

- Because the 2.0% annual increase would be applied to both current and future benefits, the cost is shared by both active and retired members
- A breakdown of current liabilities shows a 55%/45% split of the cost between active and retired members



- In addition, contribution rates would be set at a level 29% for active members

Funding Strategy

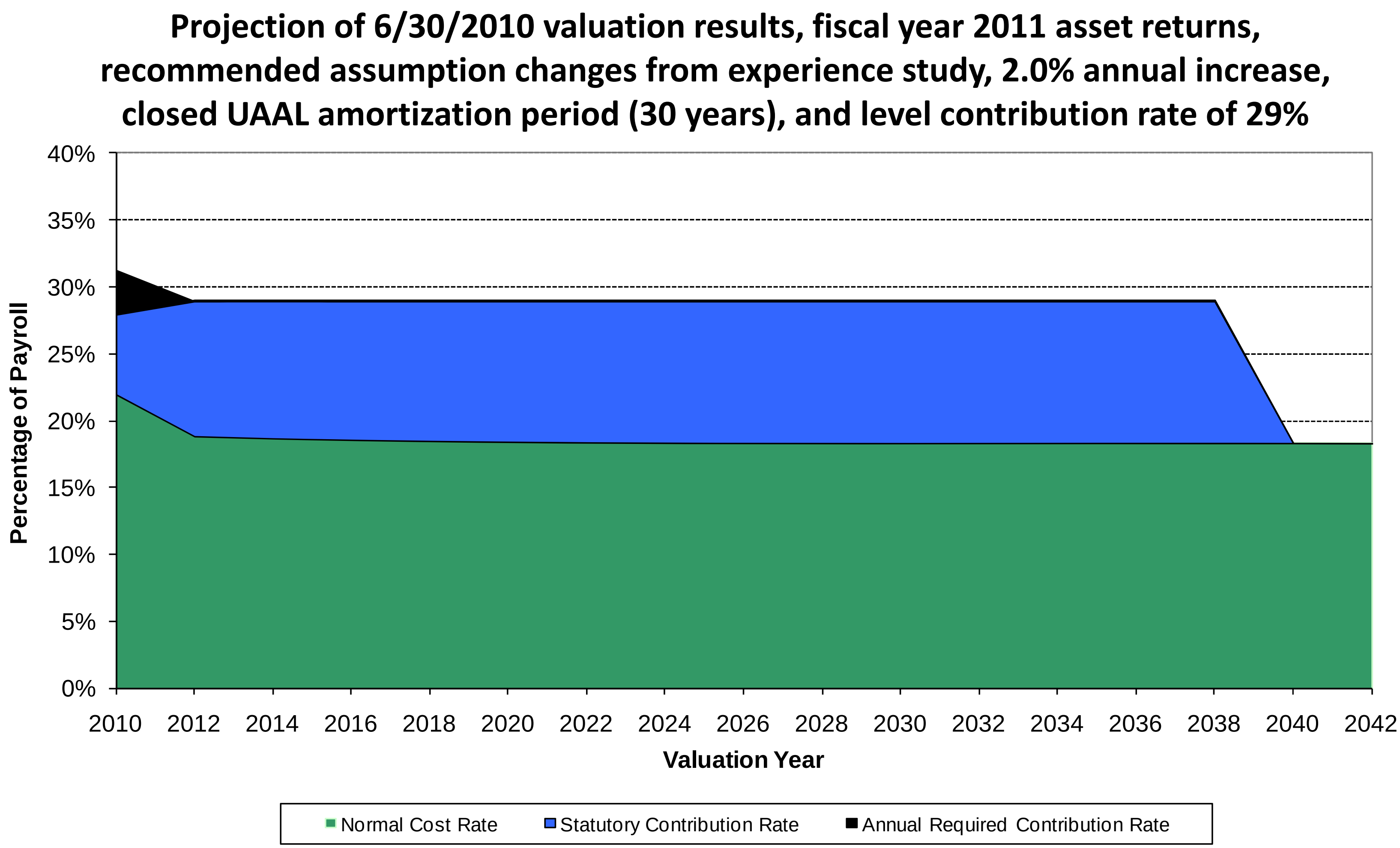
Significant Results

In addition to the impact on the Systems' unfunded liability and ability to fund the ARC, the funding strategy would:

- Stabilize contribution rates at the 2011-2012 rates of 29% for PSRS and 13.72% for PEERS
- Maintain current benefit structure for retirees, active members and new hires
- Fully fund the Systems in 30 years
- Improve funded ratio

Funding Strategy

Projected Impact – Contribution Rates



Source: PricewaterhouseCoopers

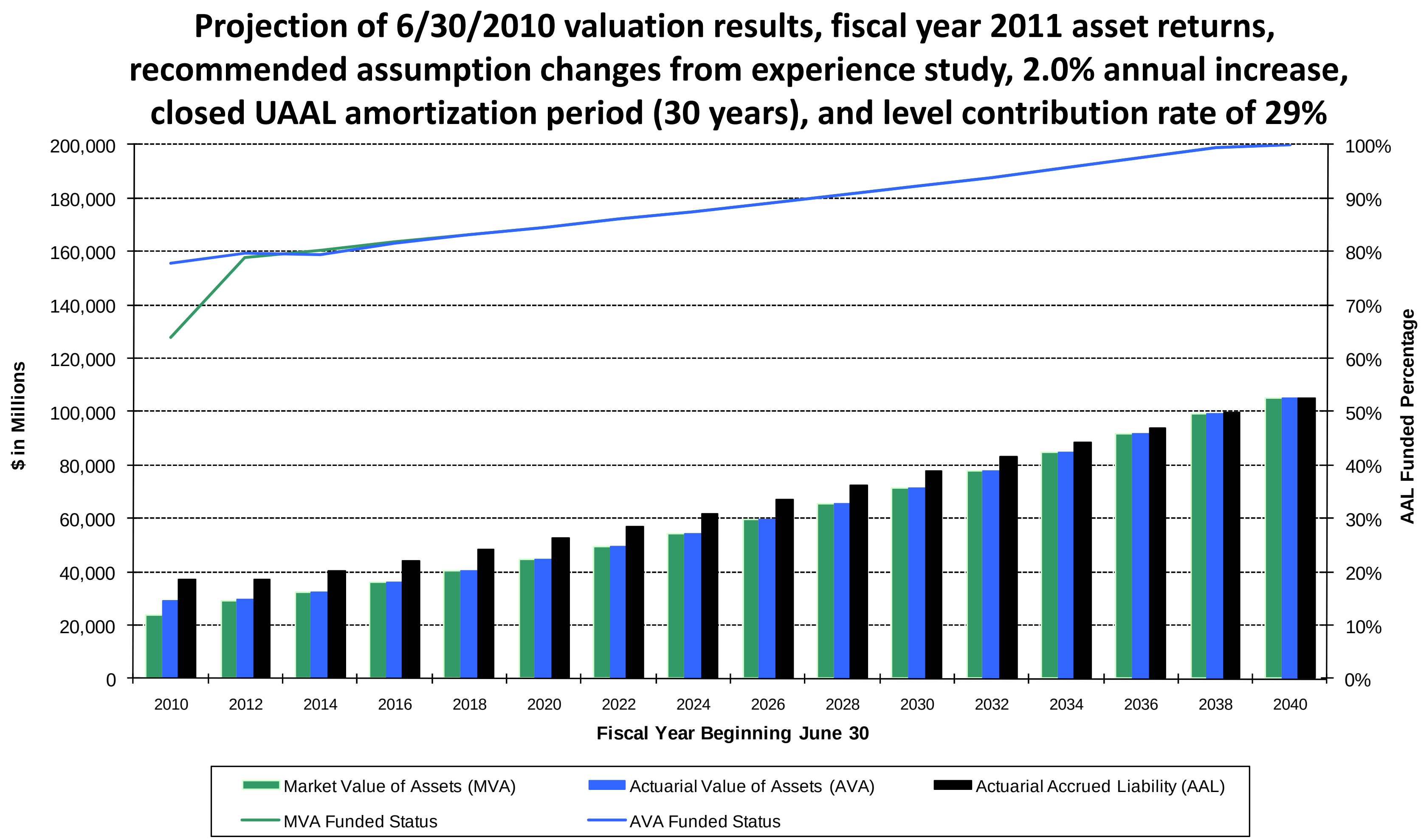
Projected Impact – Contribution Rates

Projection of 6/30/2010 valuation results, fiscal year 2011 asset returns, recommended assumption changes from experience study, 2.0% annual increase, closed UAAL amortization period (30 years), and level contribution rate of 29%

Fiscal Year Beginning June 30	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035	2040
Funded Status ($ in Millions)											
Market Value of Assets ("MVA")	$23,756	$27,545	$29,168	$30,840	$32,573	$34,371	$44,519	$56,973	$71,608	$88,197	$105,220
Actuarial Value of Assets ("AVA")	$28,931	$29,403	$29,414	$30,048	$32,188	$34,345	$44,515	$56,971	$71,606	$88,195	$105,220
Actuarial Accrued Liability ("AAL")	$37,234	$35,222	$36,964	$38,742	$40,565	$42,437	$52,653	$64,514	$77,629	$91,335	$105,220
MVA Funded Status (MVA/AAL)	63.80%	78.20%	78.91%	79.60%	80.30%	80.99%	84.55%	88.31%	92.24%	96.56%	100.00%
AVA Funded Status (AVA/AAL)	77.70%	83.48%	79.57%	77.56%	79.35%	80.93%	84.54%	88.31%	92.24%	96.56%	100.00%
Contribution Rate											
Normal Cost Rate	21.97%	18.97%	18.86%	18.78%	18.70%	18.64%	18.44%	18.36%	18.35%	18.35%	18.35%
UAAL Amortization Rate	9.37%	7.56%	9.64%	10.92%	10.36%	9.87%	9.54%	9.13%	8.50%	6.55%	0.00%
Annual Required Contribution Rate	31.34%	26.53%	28.50%	29.70%	29.06%	28.51%	27.98%	27.49%	26.85%	24.90%	18.35%
Statutory Contribution Rate	28.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	18.35%

Source: PricewaterhouseCoopers

Projected Impact – Funded Status



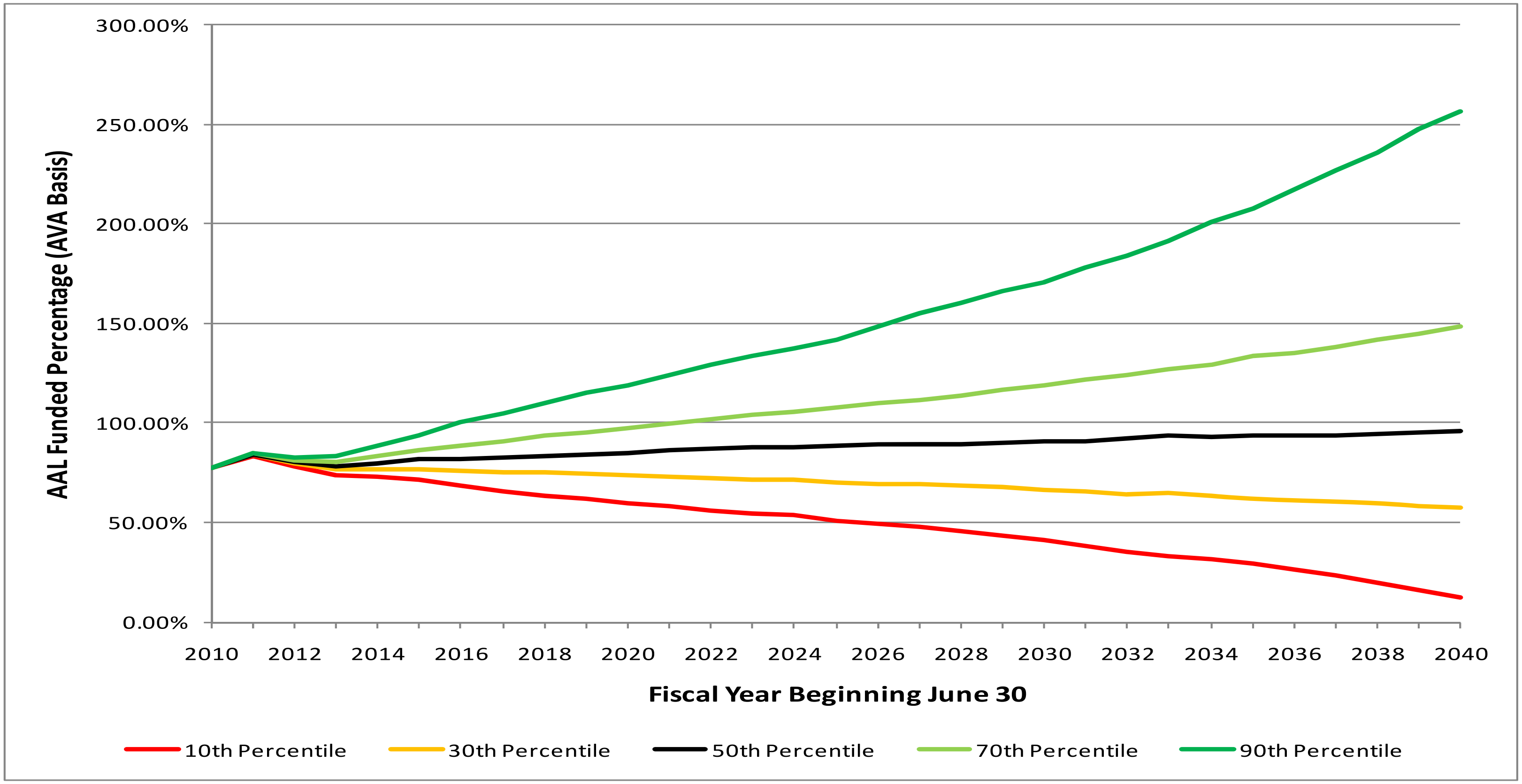
Source: PricewaterhouseCoopers

CHALLENGES

Challenges

Investment Markets

There is no exact science when it comes to predicting the investment market. There are only projections.



Source: PricewaterhouseCoopers

Mandatory Social Security and Defined Contribution Plan

Mandatory Social Security and/or implementation of a defined contribution plan would result in a potential loss of actuarial gains

- Mandatory Social Security
  - Inclusion of just PSRS' new hires in Social Security creates many long-term challenges
  - Push for repeal of WEP/GPO could result in mandatory coverage for all
  - Cost of approximately $80 billion over 10 years

- Defined Contribution Plan
  - Threat for potential legislation which would move all new hires for PSRS/PEERS into a defined contribution plan

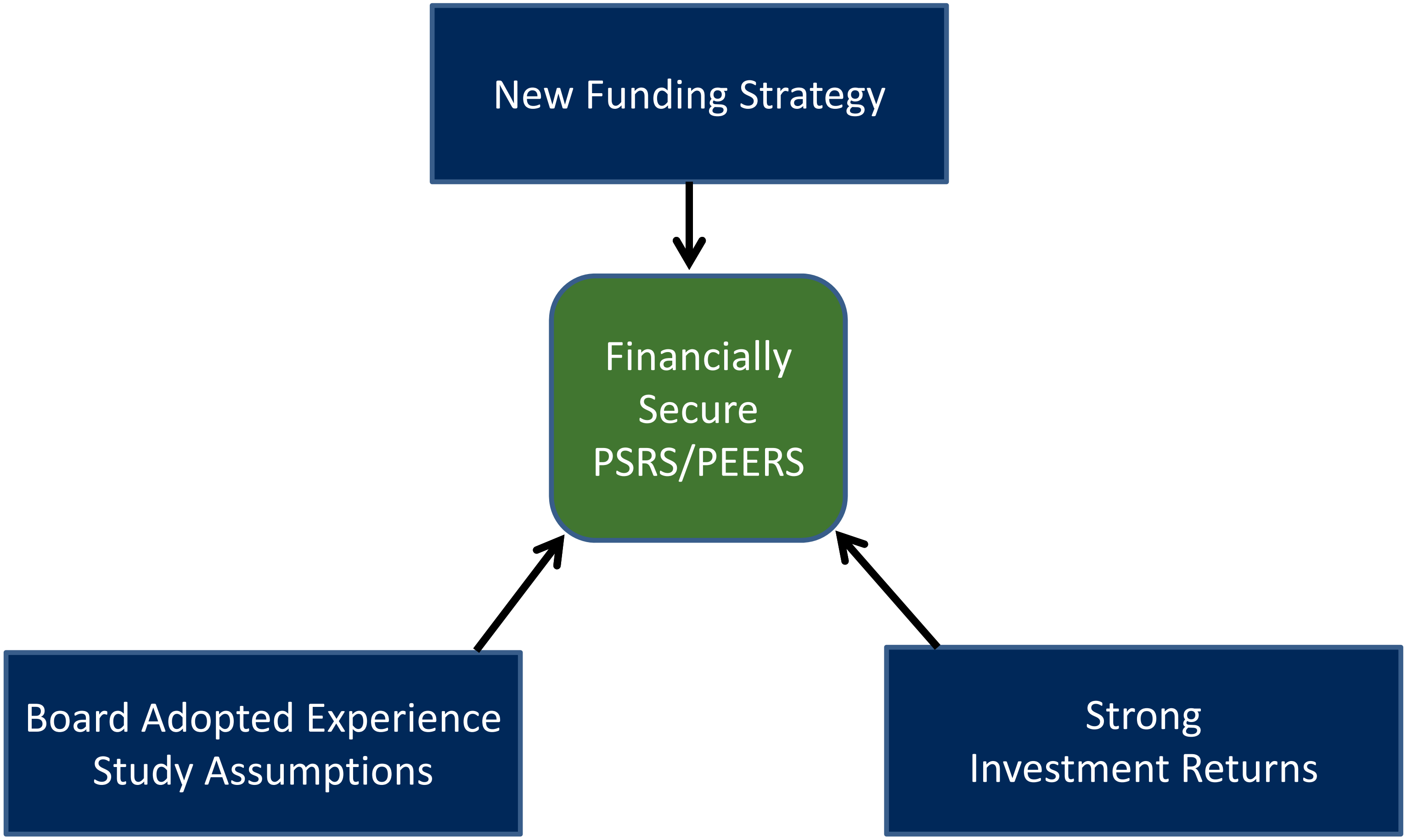
Governmental Accounting Standards Board (GASB)

GASB released its Exposure Draft for pension accounting and financial reporting on July 8, 2011:

- Standards will be effective for the year ended June 30, 2014
- The new standards govern financial statement reporting but not funding
- Each school district will be required to recognize a portion of the Unfunded Actuarial Accrued Liability on its balance sheet
- Plans will be allowed to continue to discount liabilities using assumed long-term investment returns as long as benefits are adequately funded with current and future contributions (similar to meeting the ARC). If not, a lower rate must be used

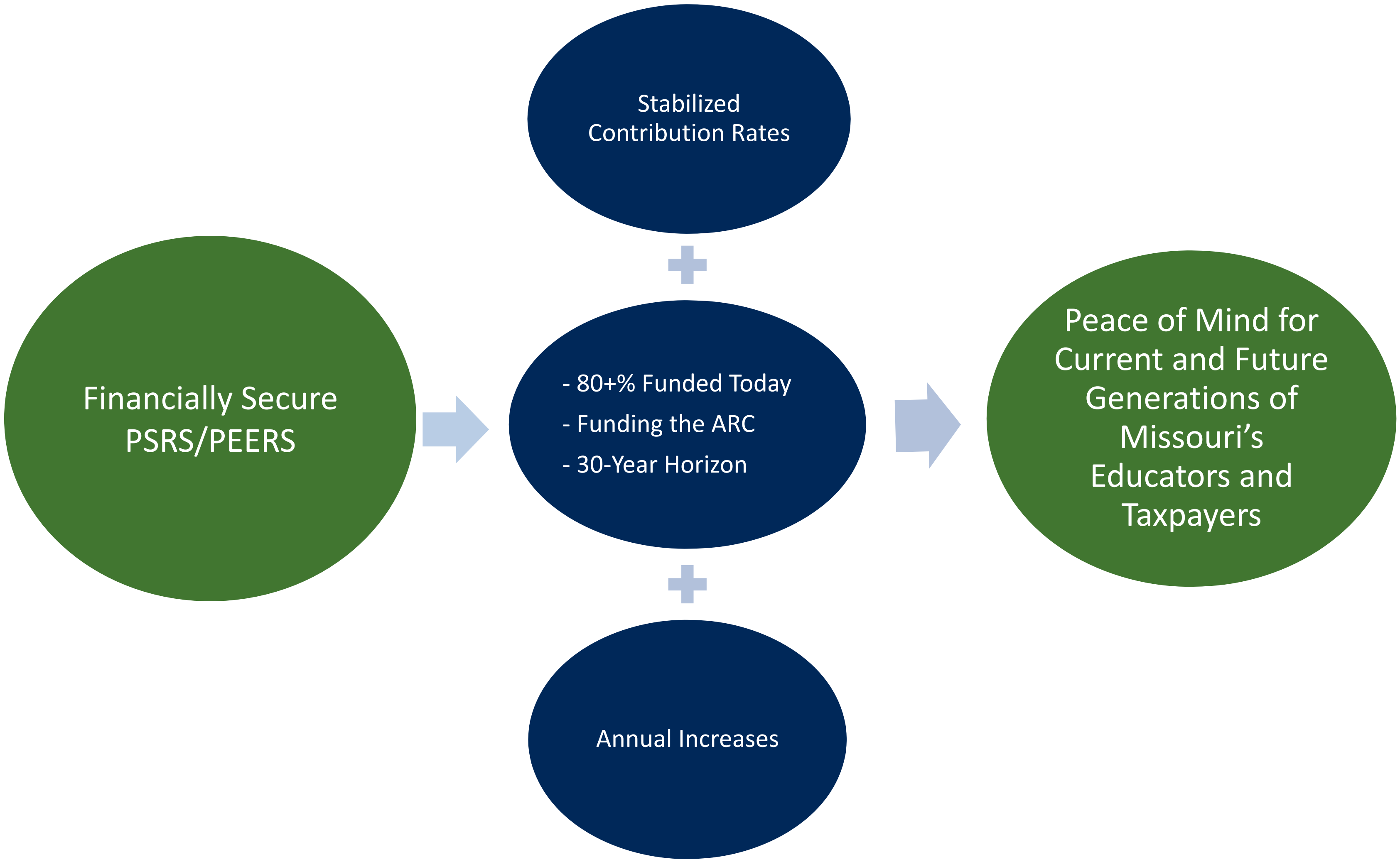
SUMMARY

Financial Security



Summary

Financial Security



Summary

Financial Security

Maintaining financially secure Systems will require PSRS/PEERS to remain vigilant

- Annual Valuations
- Five-Year Experience Studies
- Asset – Liability Studies
- Commitment from the members, school districts, educational associations and PSRS/PEERS Board and staff

KEY DATES

Key Dates

- **August 19** – Associations to provide PSRS/PEERS with input and position on the recommended funding strategy, as well as any suggestions for future legislation

- **August 29** – PSRS/PEERS Board of Trustees to discuss and vote on funding strategy policy

- **October 24** – Annual Valuation and Asset-Liability Study to be presented to PSRS/PEERS Board

As always, if you would like additional information or to discuss details of this funding update further, please contact us.