

**CALSTRS**

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

# Actuarial Experience Study

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Employer Advisory Committee Meeting

February 8, 2017

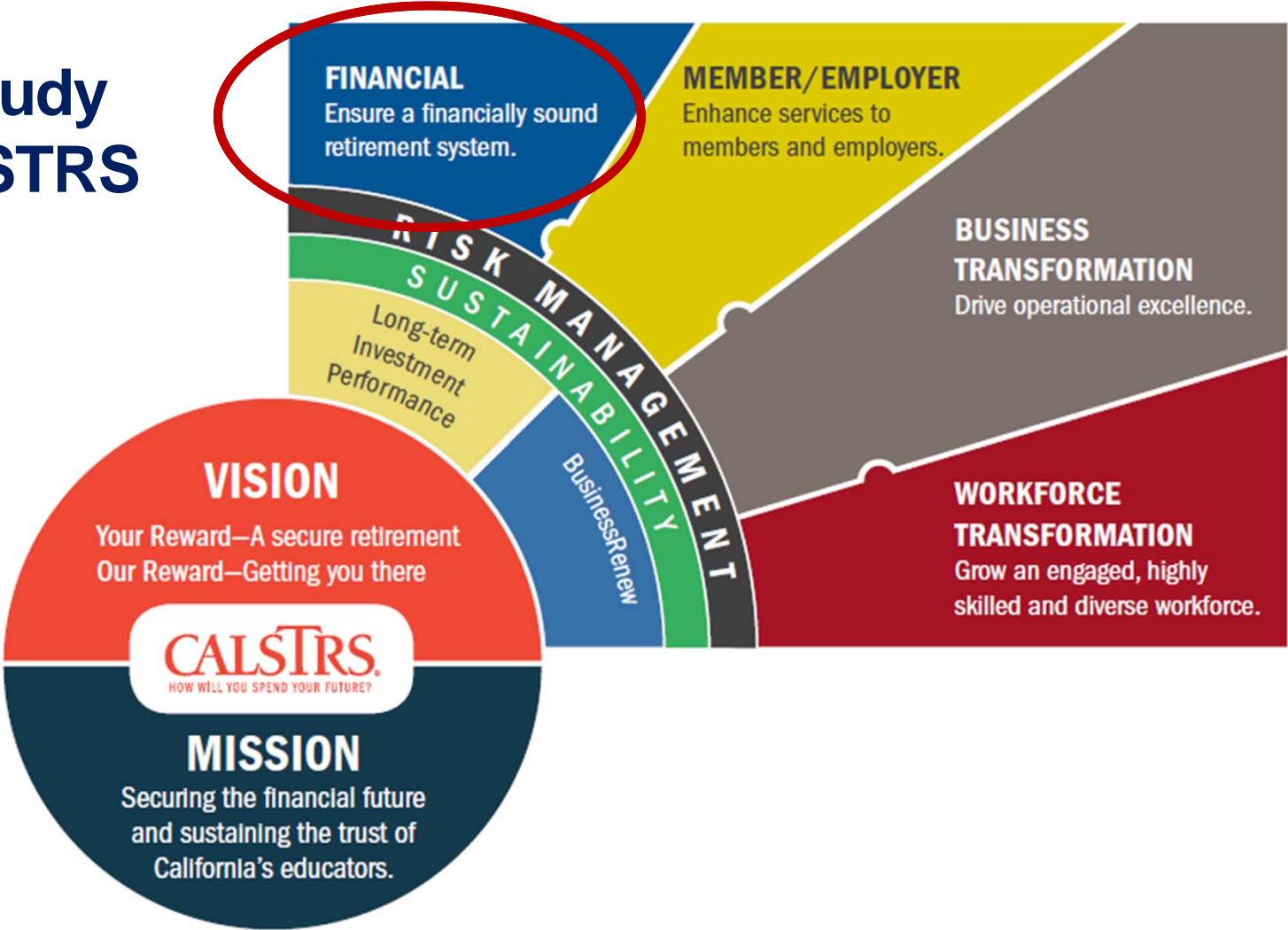


## What is an Experience Study?

- Review of demographic and economic assumptions.
- Determine if revisions are needed.
- Examples:
  - How much will salaries increase over time?
  - When will member retire?
  - How long will people live after retirement?
  - How much investment income will CalSTRS earn?



# Experience Study Supports CalSTRS Strategic Plan



## February Board Meeting

- Teachers' Retirement Board discussed experience study results.
  - Study performed by an outside actuarial firm (Milliman).
  - Independent review performed by a separate actuarial firm (Cheiron).
- The board adopted new assumptions on February 1.



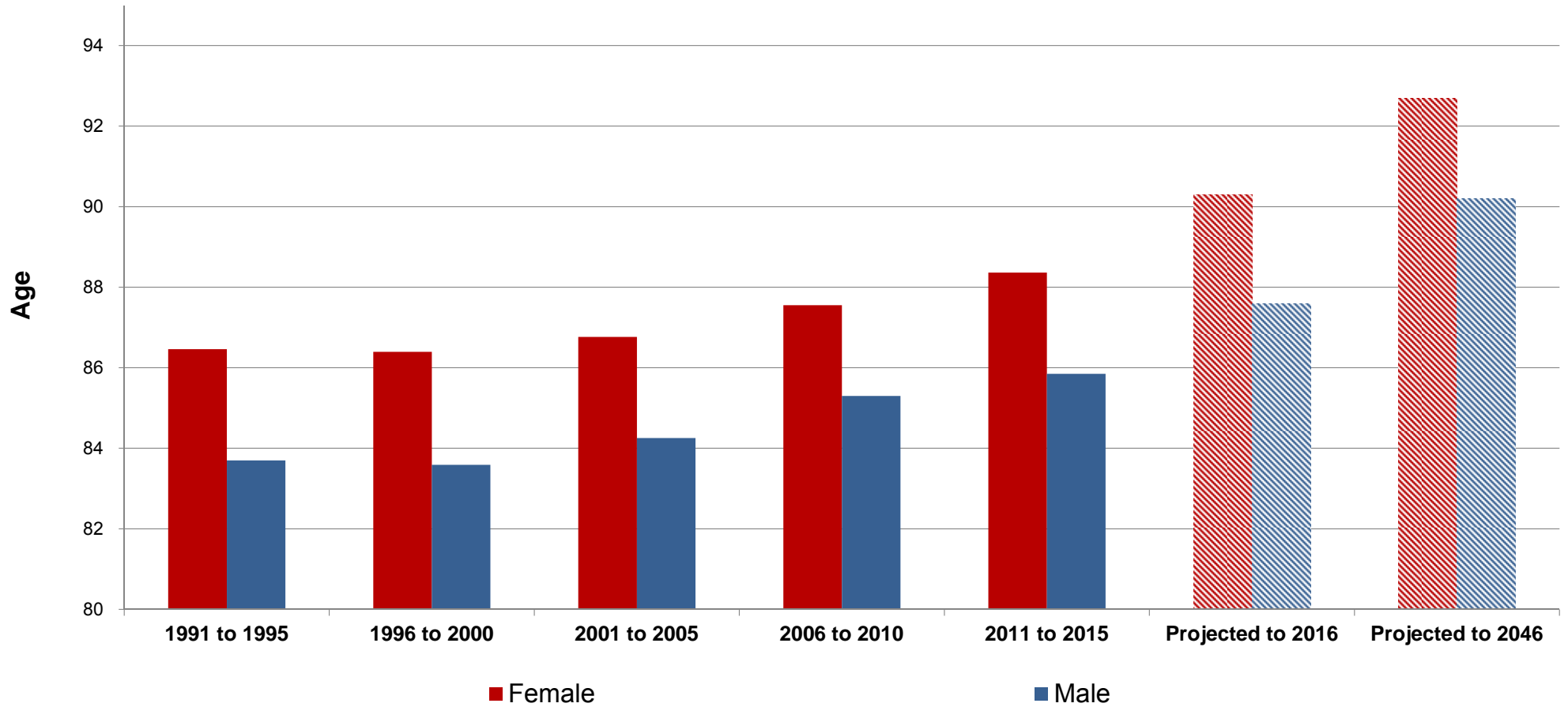
## Adopted Changes to Demographic Assumptions

### Summary of key changes:

Assumption	Recommended Change	Impact on Cost
Life Expectancy	↑	↑
Service Retirement	↑	↑
Salary Increases	↑	↑
Disability	↓	↓
Termination/Refunds	↑	↓



## Observed and Projected Life Expectancy For Age 62 Retired Members



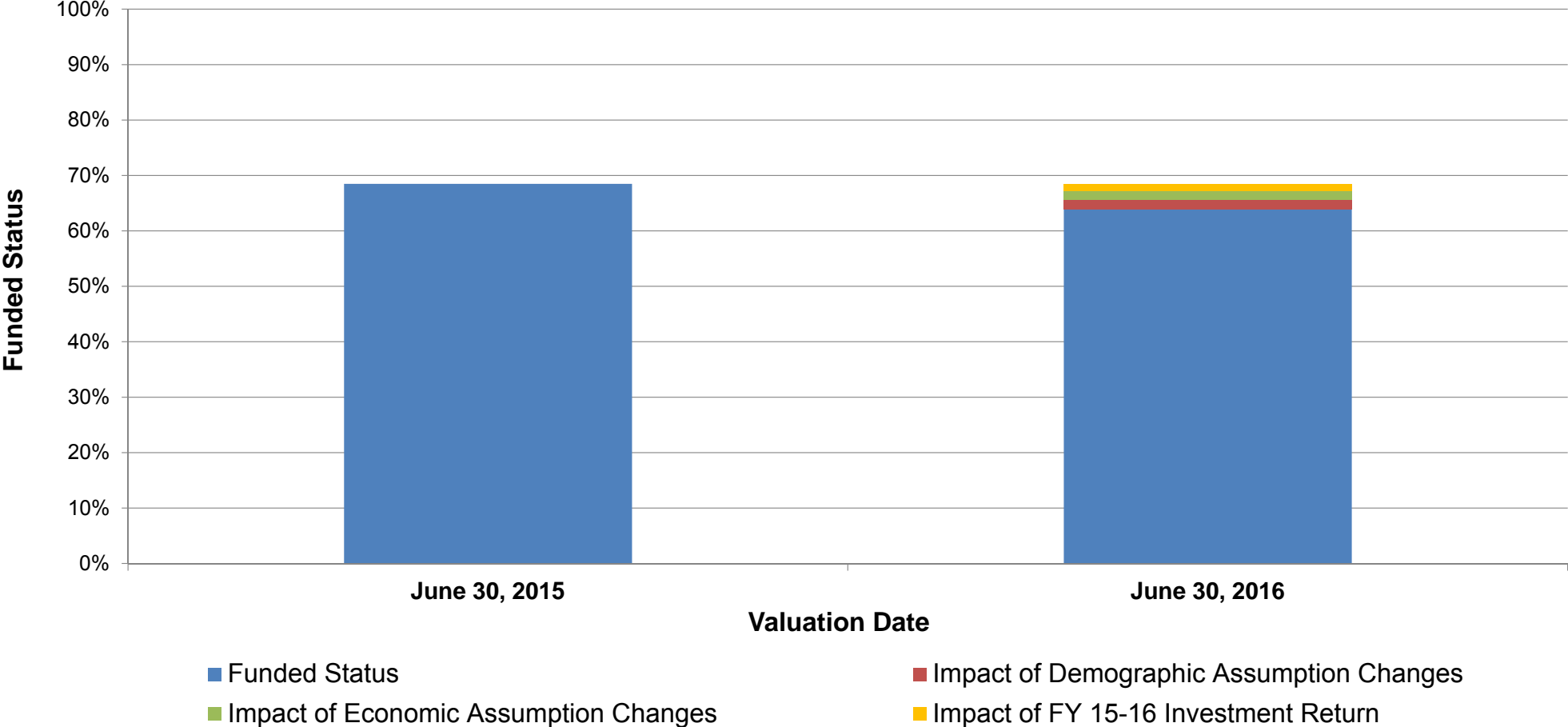
## Adopted Changes to Economic Assumptions

Summary of key changes:

Economic Assumption	Current Assumption	Recommended Assumption	Impact on Cost
Price Inflation	3.00%	2.75%	↓ ↑
Wage Growth	3.75%	3.50%	↓
Investment Return	7.50%	7.25% (2016 Valuation)	↑
		7.00% (2017 Valuation)	↑

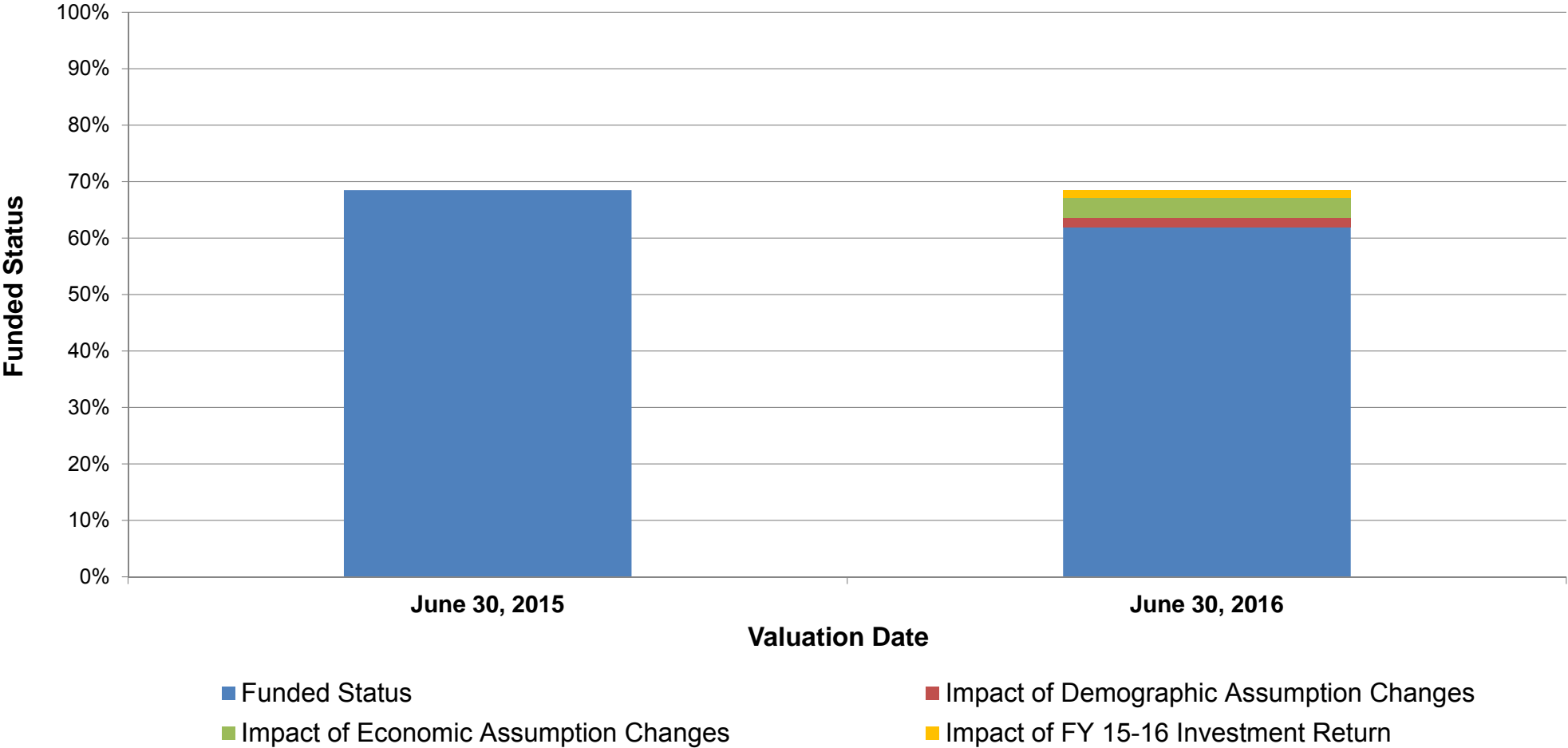


# Estimated Impact of Assumption Changes on Funding Levels (Based on 7.25% Assumption)





# Estimated Impact of Assumption Changes on Funding Levels (Based on 7.00% Assumption)



## Projected Funding Levels

- System still projected to reach full funding by 2046.
- This will require additional contributions.



## Law Changes Since the Last Experience Study (2012)

- **AB 1469 (Bonta, 2014) – CalSTRS Funding Plan**
  - Board has limited authority to adjust State and employer rates.
- **Public Employees’ Pension Reform Act (PEPRA)**
  - PEPRA members (2% at age 62 members) contribution rate linked to normal cost.

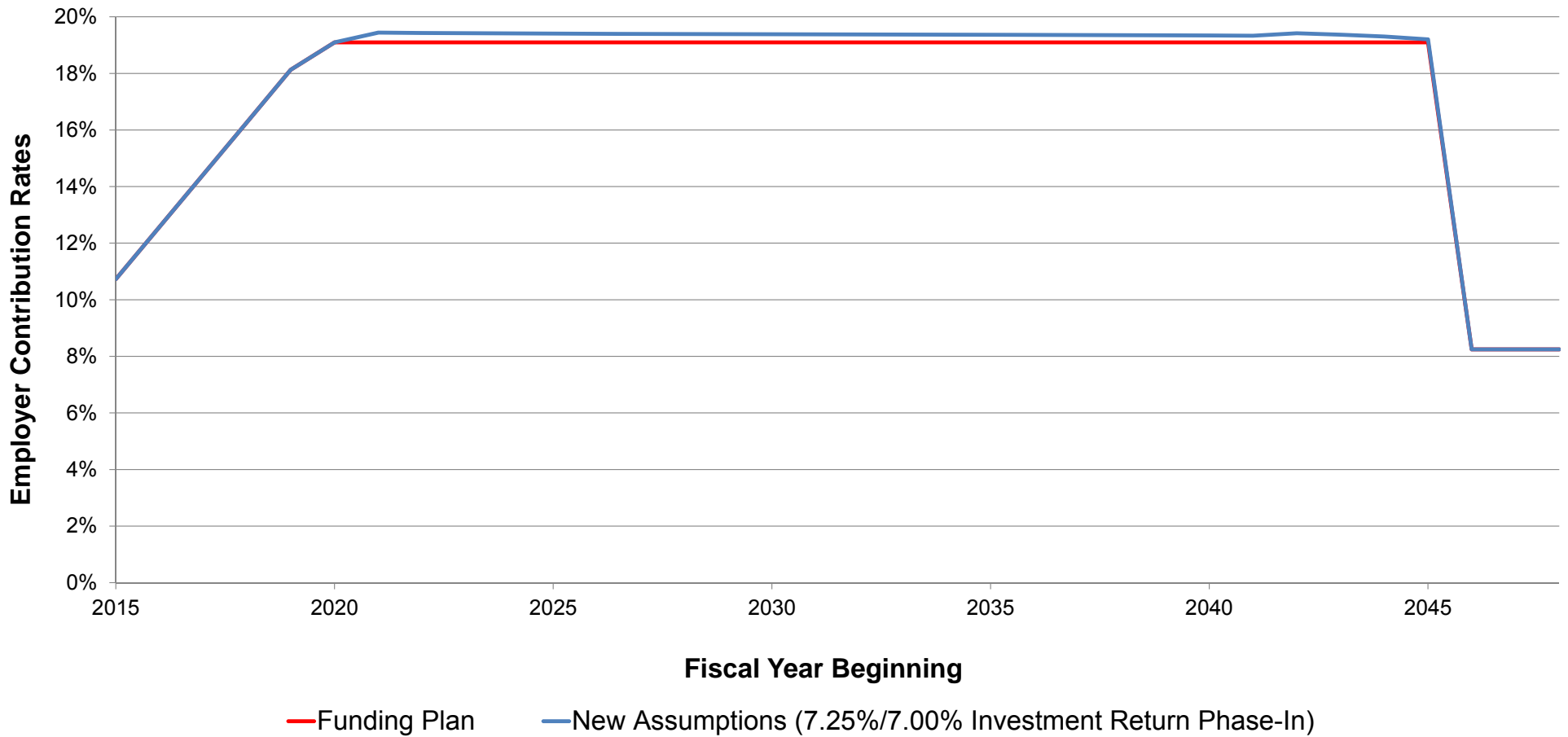


## AB 1469 – Employer Contribution Rate

- Schedule set until FY 20-21.
- Set to increase to 19.1% in FY 20-21.
- Teachers' Retirement Board can adjust contribution rate starting in FY 21-22.
- Contribution rate can be increased/decreased by a maximum of 1% of payroll each year.
- Rate cannot exceed 20.25% of payroll.



# Impact on Employer Contribution Rate (DB Program)



## Estimated Impact on Employer Contributions Amounts

- ≈ \$125 million more in FY 21-22 due to assumption change.
- ≈ \$4 billion over the next 30 years due to assumption change.

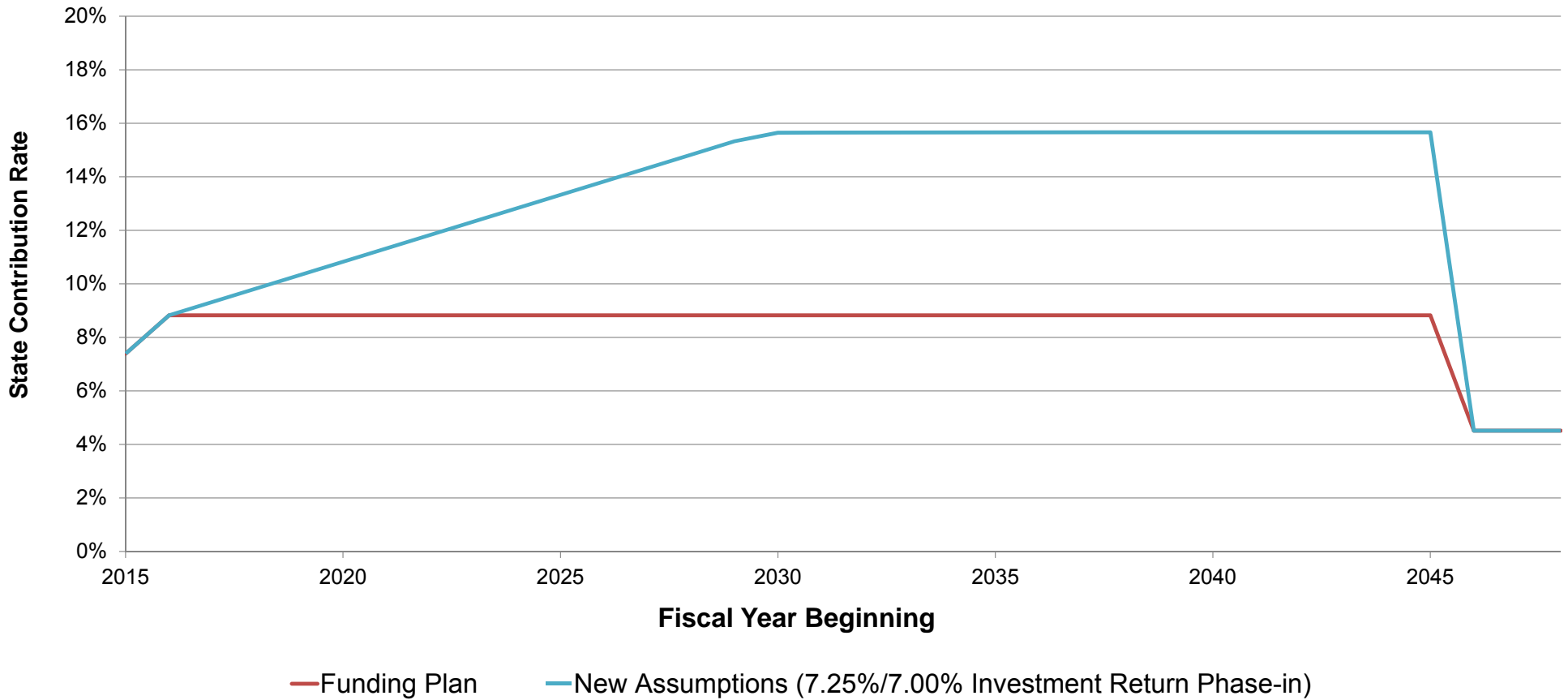


## AB 1469 – State Contribution Rate

- Teachers' Retirement Board can adjust contribution rate starting in FY 17-18.
- Can be increase by a maximum of 0.5% of payroll each year.
- No maximum.



# Impact on State Contribution Rate



*Includes the 2.5% of payroll contribution the State pays to fund the Supplemental Benefit Maintenance Accounts (SBMA) program that provides purchasing power protection to retirees.*



## Estimated Impact on State Contributions Amounts

- Governor's budget:
  - \$2.8 billion set aside for CalSTRS for FY 17-18.
  - Includes \$153 million due to assumption change.
- $\approx$  \$1 billion more in FY 22-23 due to assumption change.
- $\approx$  \$80-85 billion more over the next 30 years.



## PEPRA

- Requires 2% at 62 members (PEPRA) to pay half of normal cost.
- Member contribution rate is adjusted if normal cost changes by more than 1% of payroll.
- By law, members are required to pay for half of the increase rounded to nearest quarter of a percent.



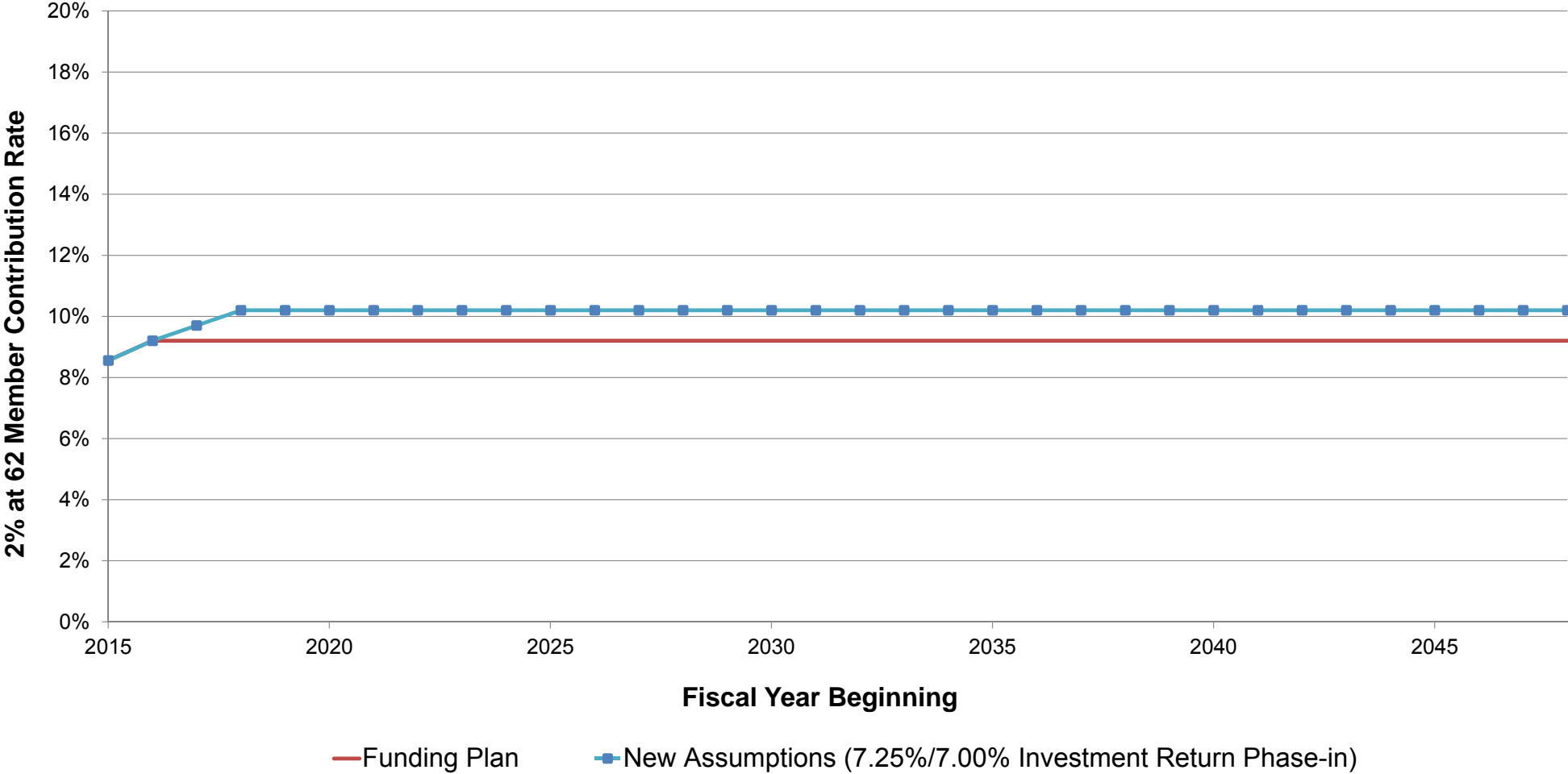
## Impact on 2% at 62 Member Contribution Rate

(Subject to Change After Completion of the 2016 Valuation in April)

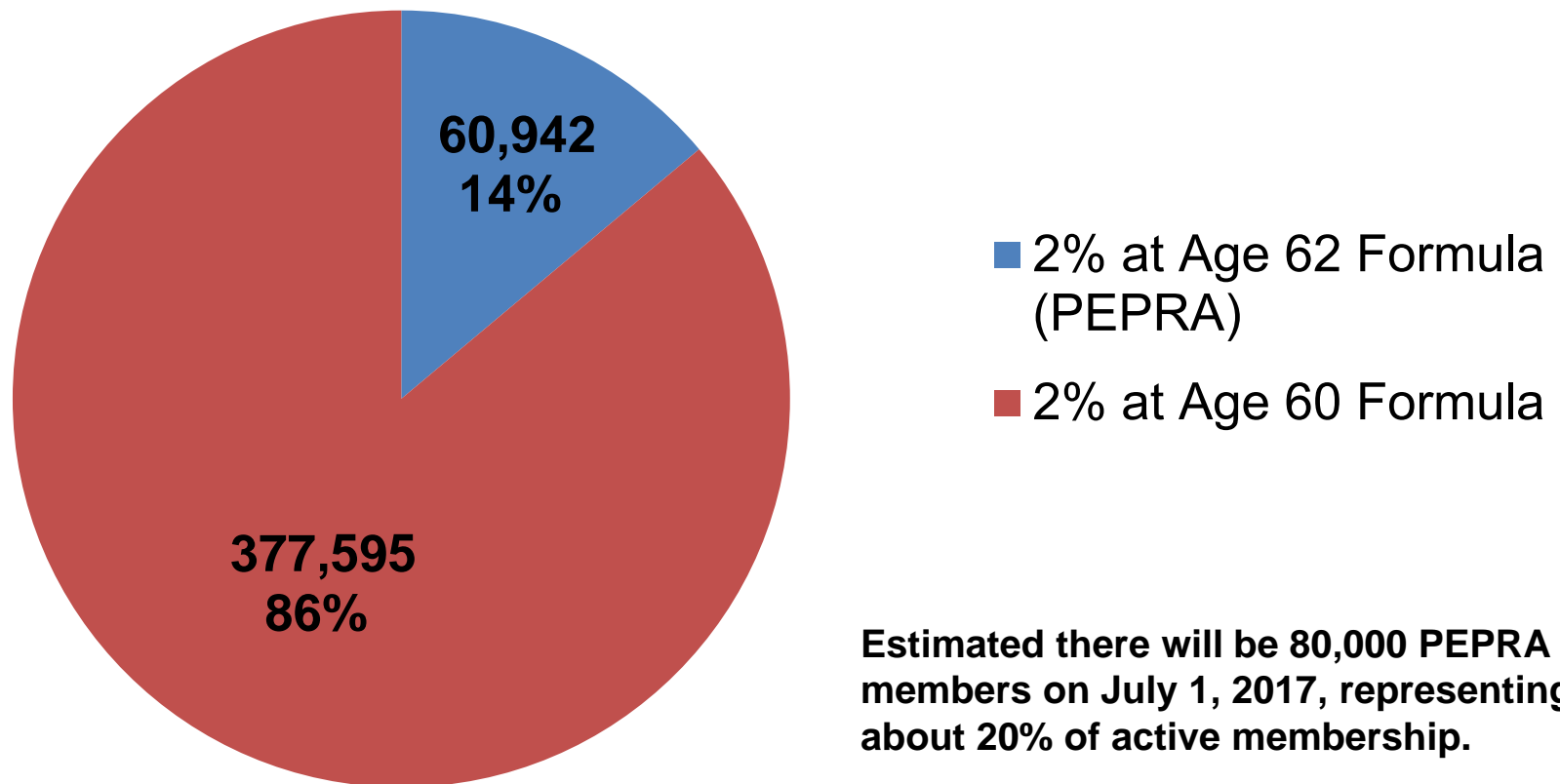
Assumption	Estimated Change in Normal Cost <i>(Since Last Adjustment in Rate)</i>	Increase in Member Contribution Rate
7.25%	+1.01%	Yes 0.5% of Salary (compared to current rate)
7.00%	+2.08%	Yes 1.0% of Salary (compared to current rate)



# Impact on 2% at 62 Member Contribution Rate



## Count of CalSTRS Active Members (As of June 30, 2016)



## Estimated Impact on 2% at 62 Member Take Home Pay (on average)

- Average salary for 2% at 62 members  $\approx$  \$40,000
- 0.5% increase represents  $\approx$  \$200 per year
- 1.0% increase represents  $\approx$  \$400 per year

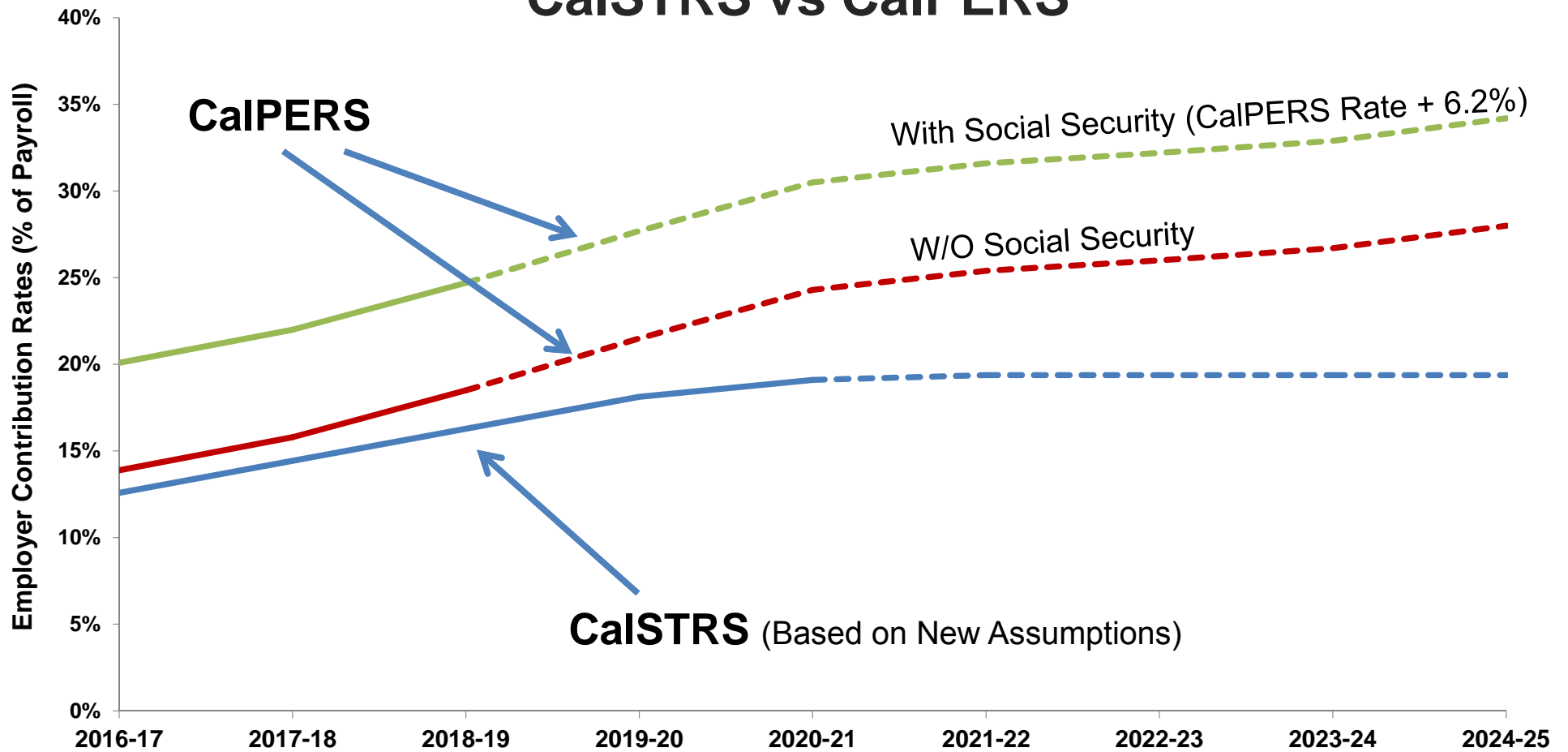


## Recent CalPERS Decision

- CalPERS is lowering their investment return assumption.
- Going to from 7.5% to 7.0% over three years:
  - 7.375% this year.
  - 7.25% next year.
  - 7.00% in two years.



# Projected Employer Contribution Rates CalSTRS vs CalPERS





## Next Steps

### April 5-7, 2017:

- Board will take action on June 30, 2016 valuation using new assumptions.
- Board will set State of California contribution rate for first time.
- Board will adopt the normal cost for the 2% at 62 members, expected to result in an increase in member contributions.

### July 1, 2017:

- Effective date for any potential additional contribution rate increases for 2% at 62 members or the State of California.

### Spring 2021:

- Board will set employer rate for the first time, effective July 1, 2021.





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