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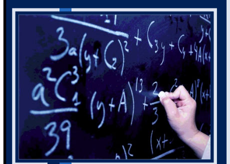

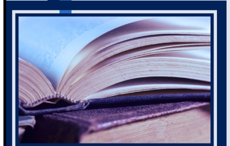

# Preliminary Results, Actuarial Valuation

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State Actuary

June 28, 2012

## Today's Presentation

- Brief "Actuarial 101" to start
- Preliminary 2011 Actuarial Valuation results
- Projected budget impacts
- Other considerations
- No action required today

## Purpose Of Actuarial Valuation

- Determine contribution requirements for 2013-15
- Based on results of June 30, 2011, valuation date
- Consistent with prescribed funding policy
- Provide information on funding progress and developments over the past valuation year
- Certify the data, assumptions, and methods are reasonable and conform with current actuarial standards of practice



## Systematic Actuarial Funding

- Prescribed funding policy
- Regular contributions over time
- Investment returns earned systematically over time
  - WSIB mandate: maximize returns at a prudent level of risk
- Investment risk is spread over time
- Supports intergenerational equity
  - Contributions made over members' careers
  - Today's generation pays for today's generation

## How Does It Work?

- Estimate future pension benefits
  - What will future benefits be?
  - When will they be paid and for how long?
- Estimate returns on future invested contributions?
  - What will future investment returns look like?
- Select an actuarial cost method
  - What are the regular contributions required over time?

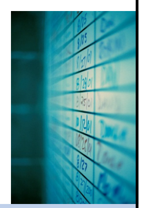


## Actuarial Cost Method

- Allocates a pension plan's cost over a member's working career
- Determines annual and on-going cost while member works
  - "Normal cost"
  - The regular contributions over time under systematic actuarial funding
- If everything happens as planned, normal cost will accumulate with investment earnings and completely fund a member's pension at the time of his/her retirement

## Measuring Plan Health

- Has everything happened as planned?
- Are we on track with our systematic actuarial funding plan?
- Two key measurements
  - Funded status
  - Unfunded Actuarial Accrued Liability (the "UAAL")





## Funded Status

- Comparison of plan assets to today's value of earned pensions
  - Point-in-time measurement
- A funded status of at least 100 percent means a plan has at least $1 in actuarial assets for each $1 of earned pension liability
  - On track with systematic actuarial funding plan

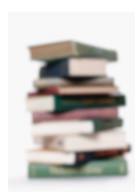
## Unfunded Actuarial Accrued Liability

- Occurs when a plan does not have sufficient assets to cover earned pension liabilities
  - Funded status less than 100 percent
- Off track with systematic actuarial funding plan
- Requires additional contributions to get back on track
  - Normal cost plus UAAL contributions
  - Intergenerational equity is weakened
- If you don’t get back on track, funding plan will ultimately become pay-as-you-go



## 2011 Actuarial Valuation Results Are Preliminary

- Concurrent outside actuarial audit underway
- 2011 actuarial valuation finalized following completion of audit and PFC rate adoption in July



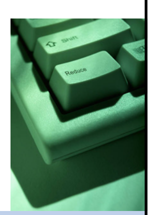
## Comments On 2011 Results

- PERS 2/3, TRS 2/3, SERS, PSERS, LEOFF, and WSPRS on track with systematic actuarial funding plan
- PERS 1 and TRS 1 remain off track with systematic funding plan
  - Phasing-in larger Plan 1 UAAL contributions to get back on track
  - Full requirements begin in 2015
  - See Appendix for further details



## Recent Efforts To Reduce Pension Costs

- Repeal of future gain-sharing benefits
- Repeal of Plan 1 Uniform COLA
- Adoption of new economic assumptions
  - Reduces long-term costs
  - Increases short-term costs
- Reduced early retirement benefits for new hires in PERS, TRS, and SERS
  - Lowers long-term costs as new hires replace current members

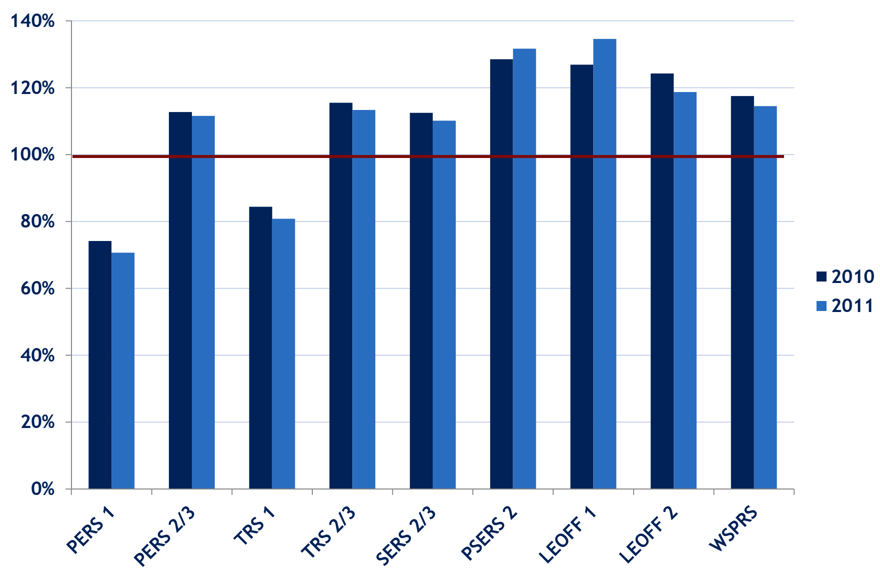


## Short-Term Cost Increases Remain

- Continue to recognize asset losses from the Great Recession under asset smoothing method
  - See Appendix for further details
- Phasing in larger Plan 1 UAAL requirements
- Adopted new economic assumptions
  - With phase-in of lower investment return assumption
  - See Appendix for further details
- In general, all put downward pressure on funded status and upward pressure on contribution rates in the short-term
  - Especially the Plan 1 UAAL rates



## Funded Status By Plan – 2010/2011



## Funded Status And Unfunded Liability At June 30, 2011

| Funded Status on an Actuarial Value Basis* | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *(Dollars in Millions)* | PERS | | TRS | | SERS | PSERS | LEOFF | | WSPRS | Total |
| | Plan 1 | Plans 2/3 | Plan 1 | Plans 2/3 | Plans 2/3 | Plan 2 | Plan 1 | Plan 2 | | |
| Accrued Liability | $12,567 | $18,815 | $9,258 | $6,299 | $2,607 | $107 | $4,135 | $5,576 | $829 | $60,193 |
| Valuation Assets | $8,883 | $20,997 | $7,485 | $7,141 | $2,872 | $141 | $5,565 | $6,621 | $949 | $60,654 |
| Unfunded Liability | $3,684 | ($2,182) | $1,773 | ($842) | ($265) | ($34) | ($1,430) | ($1,044) | ($120) | ($461) |
| Funded Ratio | | | | | | | | | | |
| **2011** | **71%** | **112%** | **81%** | **113%** | **110%** | **132%** | **135%** | **119%** | **115%** | **101%** |

*Note: Totals may not agree due to rounding.*

**Accrued liabilities represent the present value of future benefits for current members earned at the valuation date assuming an expected rate of return on assets of 7.9% per year (7.5% for LEOFF 2). All assets have been valued under the actuarial asset method (the "smoothing" method).*



## Employer Contribution Rates*

| | Current | 2013-15 |
|---|---|---|
| PERS | 6.92% | 9.03% |
| TRS | 7.88% | 10.21% |
| SERS | 7.42% | 9.64% |
| PSERS | 8.58% | 10.22% |
| LEOFF 1 | 0.00% | 0.00% |
| WSPRS | 7.91% | 7.63% |

- PERS, SERS, and PSERS employers pay for the PERS 1 UAAL and employer normal cost
- TRS employers pay for the TRS 1 UAAL and employer normal cost

**Excludes administrative expense rate of 0.16%. Current rates based on 2009 AVR plus subsequent legislative changes.*

## Plan 2 Member Contribution Rates

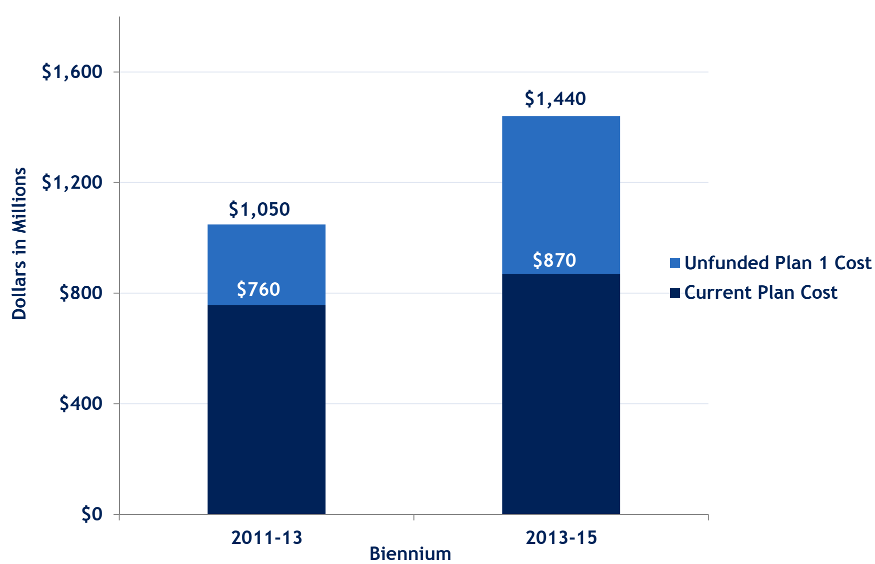
| | Current | 2013-15 |
|---|---|---|
| PERS | 4.64% | 4.92% |
| TRS | 4.69% | 4.96% |
| SERS | 4.09% | 4.64% |
| PSERS | 6.36% | 6.22% |
| LEOFF 1 | 0.00% | 0.00% |
| WSPRS* | 6.59% | 6.31% |

** Rate applies to Plan 1 and Plan 2 members.*

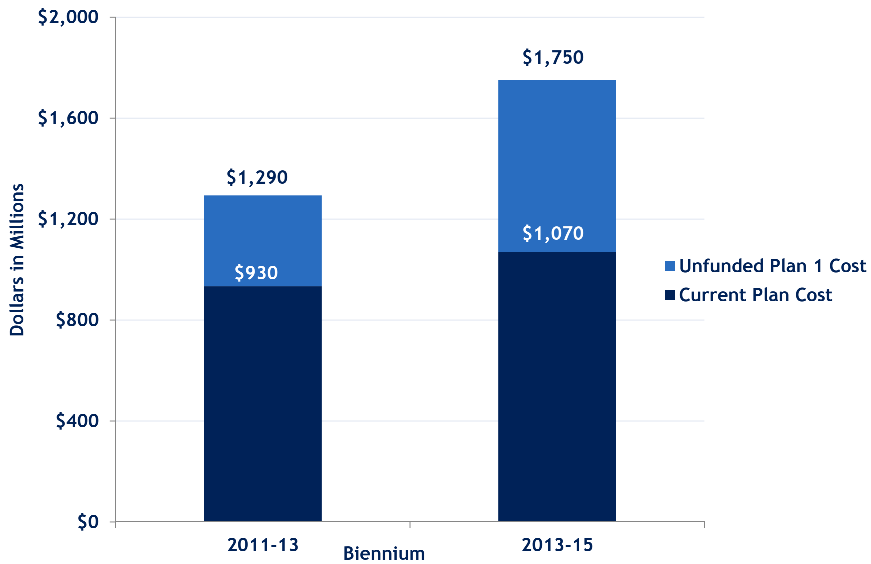
- Plan 2 members do not pay for the Plan 1 UAAL (employee normal cost only)



## Estimated General Fund State (GF-S) Contributions



## Estimated Local Government Contributions



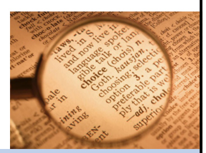



## Actuarial Certification - Preliminary

- All data, assumptions, and methods are reasonable and conform with current actuarial standards of practice
- New Plan 1 funding method includes minimum contribution rates beginning 2015
- All contributions under this method are required to fully amortize Plan 1 UAAL near the previous target date of June 30, 2024
- Failure to make all future required contributions may result in premature pay-go funding in the future

## Other Considerations

- The choice: pay now or pay more later
- Investment returns in 2012 below long-term expectations thus far
  - -1.02 percent ROR from July 1, 2011 through May 31, 2012
  - 13.2 and 21.1 percent RORs for previous two fiscal years
  - 8.77 percent average annual ROR over 20 years ending June 30, 2011
- Full funding and adoption of new economic assumptions support the on-going soundness of the systems and help manage financial risks
- Opportunity to prevent a temporary decrease in normal cost rates for PSERS and WSPRS





## Recap

- 2011 Actuarial Valuation results are preliminary
- All plans except PERS 1 and TRS 1 currently on track with systematic actuarial funding plan
- Phasing in higher Plan 1 UAAL contribution requirements to get back on track
- Recent efforts to reduce pension costs
- Short-term cost increases remain
- The choice: pay now or pay more later
- Full funding and adoption of new economic assumptions support the on-going soundness of the systems

## Questions?



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## Appendix

## Amortization of Plan 1 UAAL

- Phasing in higher Plan 1 UAAL contribution requirements under new method adopted in 2009
- Full requirements begin in 2015
  - Increase from 2.34 (current) to at least 3.50 percent (2015) in PERS
  - Increase from 2.42 (current) to at least 5.75 percent (2015) in TRS
- Paid by employers only
- Expected amortization dates
  - 2025 in PERS 1
  - 2022 in TRS 1
  - Will occur sooner/later under optimistic/pessimistic outcomes



## Actuarial Value Of Assets At June 30, 2011

| Calculation of Actuarial Value of Assets All Plans | | |
|---|---|---|
| *(Dollars in Millions)* | | Total |
| a. | Market Value of Assets | $57,350 |
| b. | Deferred Gains and (Losses) | |
| | Plan Year Ending | |
| | 6/30/2011 | 5,547 |
| | 6/30/2010 | 1,531 |
| | 6/30/2009 | (11,090) |
| | 6/30/2008 | (2,724) |
| | 6/30/2007 | 2,058 |
| | 9/30/2006 | 892 |
| | 9/30/2005 | 482 |
| | Total Deferral | ($3,304) |
| c. | Market Value less Deferral (a-b) | $60,654 |
| d. | 70% of Market Value of Assets | $40,145 |
| e. | 130% of Market Value of Assets | $74,555 |
| f. | Actuarial Value of Assets* | $60,654 |

*Note: Totals may not agree due to rounding.*

**Actuarial Value of Assets can never be less than 70% or greater than 130% of the Market Value of Assets.*

## New Economic Assumptions Established In 2ESB 6378

| | Prior | 2ESB 6378 |
|---|---|---|
| Investment Return | 8.00% | 7.90% |
| Inflation | 3.50% | 3.00% |
| General Salary Increase | 4.00% | 3.75% |

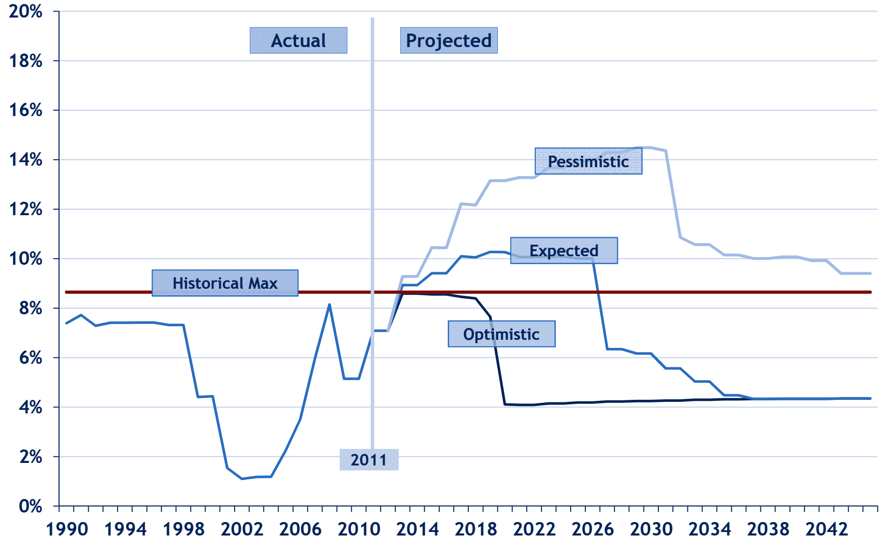
- 2ESB 6378 assumption changes effective for contribution rate requirements beginning July 1, 2013
- Assumed ROR becomes 7.8 percent beginning July 1, 2015 and 7.7 percent beginning July 1, 2017
- 2ESB 6378 assumed to not revise the 2011 actions of the Pension Funding Council



## Projected Contribution Rates

- The next six slides reflect projected employer contribution rates based on
  - Asset returns through June 30, 2011
  - June 30, 2010, Actuarial Valuation Report
  - Legislative changes through the 2011 Legislative Session
- We plan to update these projections in the fall with our latest data
- Please replace these projections when more recent projections become available
- Please see the 2010 Risk Assessment for further information on projected contribution rates

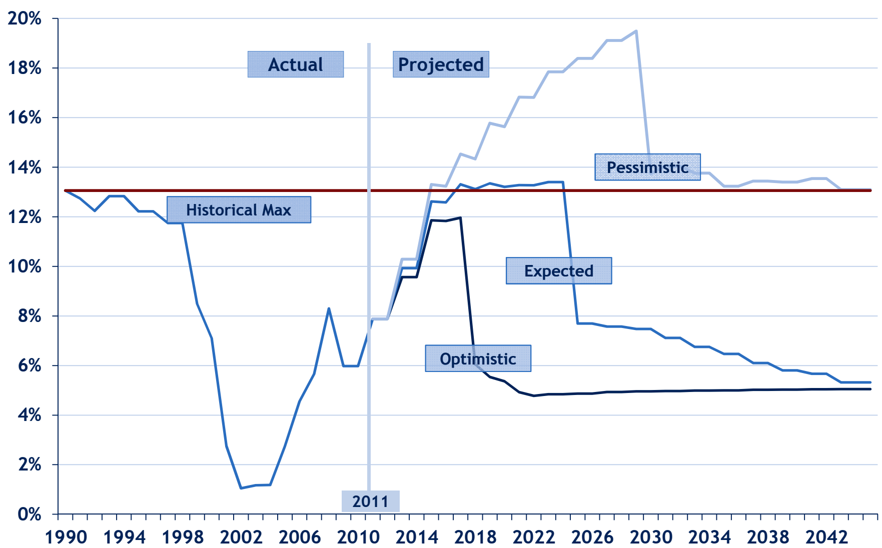
## Projected Employer Contribution Rates – PERS*



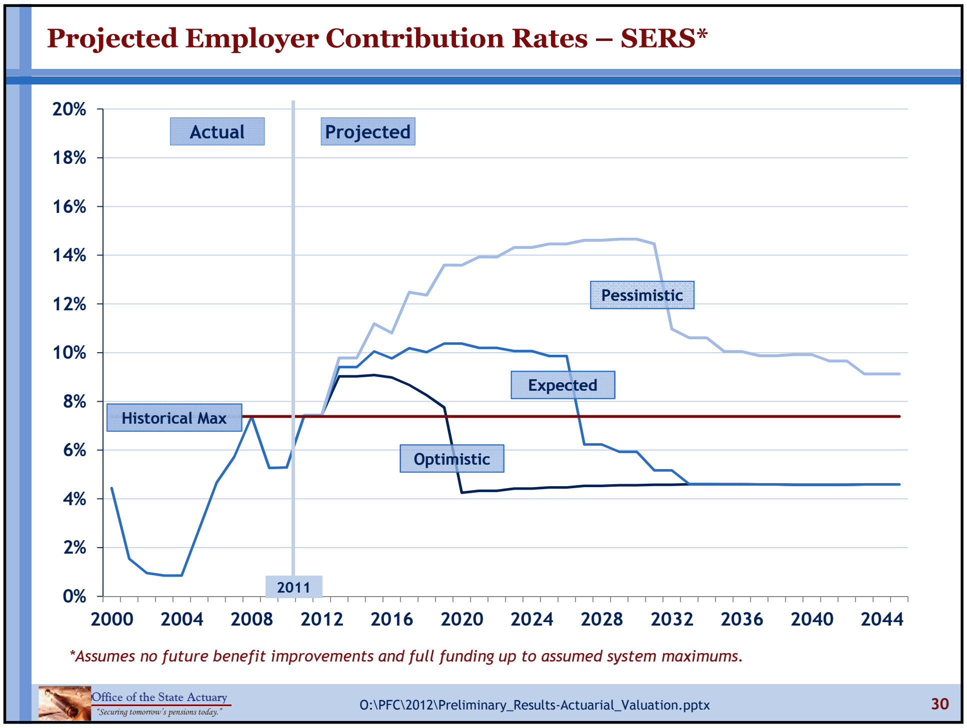

*Assumes no future benefit improvements and full funding up to assumed system maximums.



## Projected Employer Contribution Rates – TRS*




*Assumes no future benefit improvements and full funding up to assumed system maximums.


Projected Employer Contribution Rates – SERS*
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Actual
Projected
Pessimistic
Expected
Historical Max
Optimistic
2011
2000
2004
2008
2012
2016
2020
2024
2028
2032
2036
2040
2044
*Assumes no future benefit improvements and full funding up to assumed system maximums.
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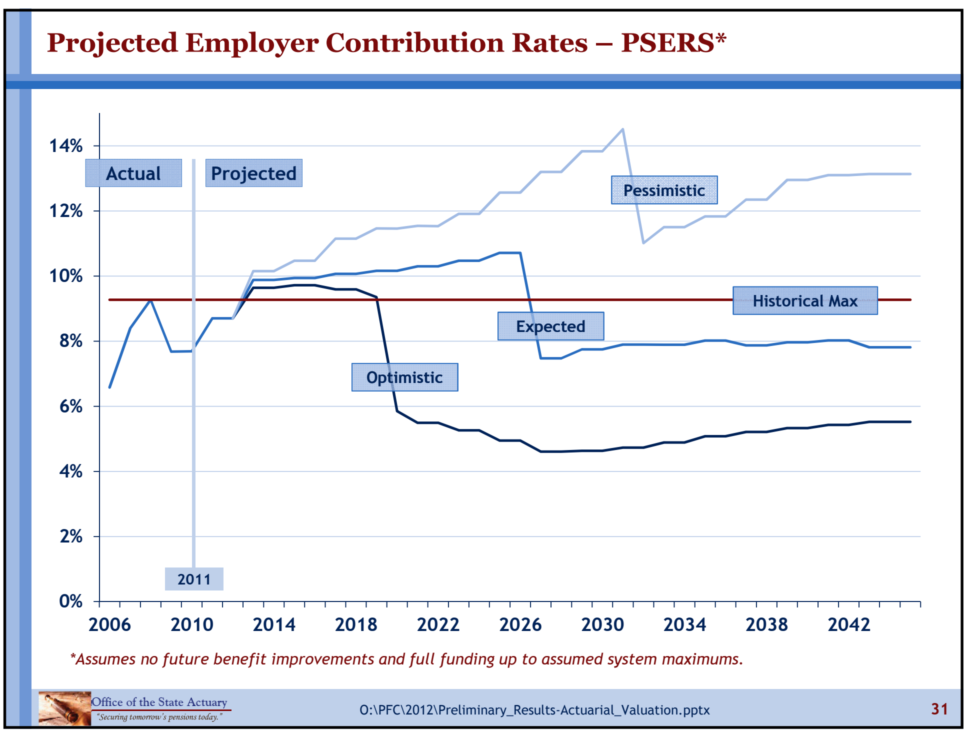
Projected Employer Contribution Rates – PSERS*
14%
12%
10%
8%
6%
4%
2%
0%
Actual
Projected
Pessimistic
Historical Max
Expected
Optimistic
2011
2006
2010
2014
2018
2022
2026
2030
2034
2038
2042
*Assumes no future benefit improvements and full funding up to assumed system maximums.
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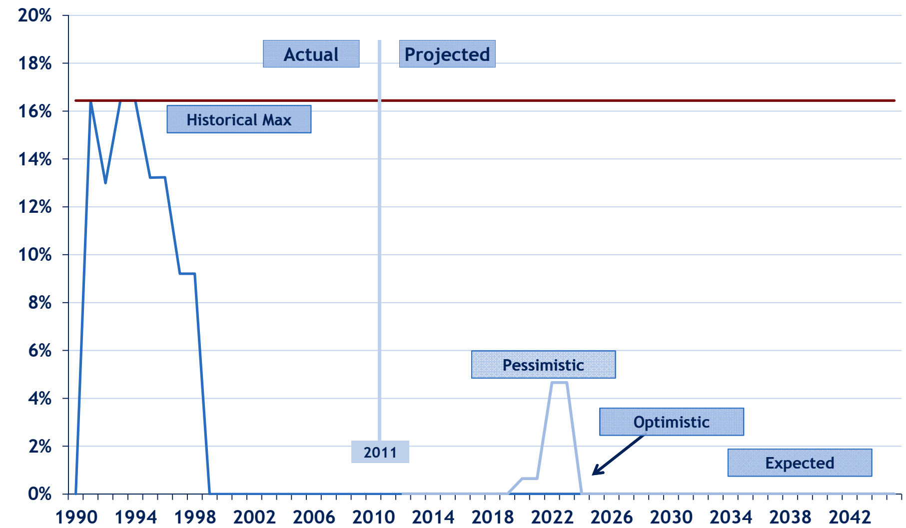
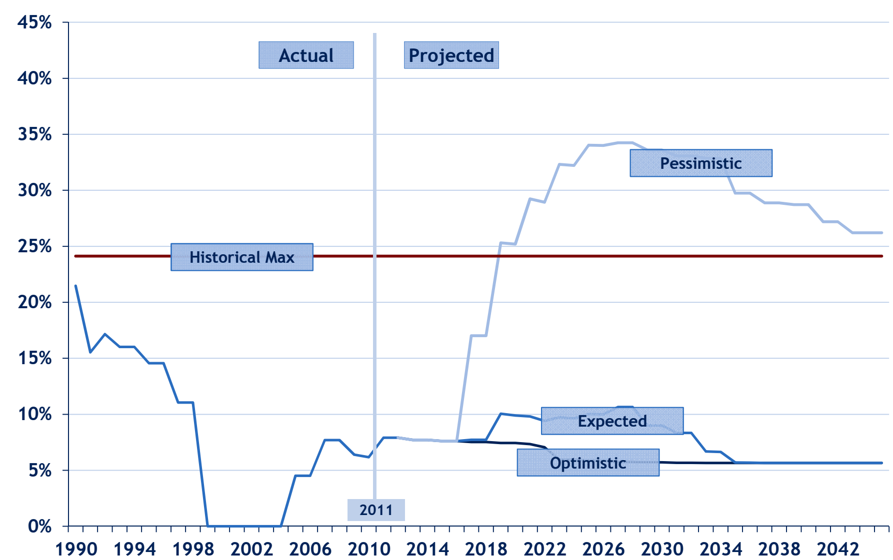
## Projected UAAL Contribution Rates – LEOFF 1*




*Assumes no future benefit improvements and full funding up to assumed system maximums. Also assumes reinstatement of previous state funding policy should a UAAL re-emerge.*



## Projected Employer Contribution Rates – WSPRS*




*Assumes no future benefit improvements and full funding up to assumed system maximums.*