



# Kentucky Teachers' Retirement System Funding Work Group

Discussion of Alternatives

October 16, 2015

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*Goal: Make recommendations to strengthen the solvency of the KTRS*

# Agenda

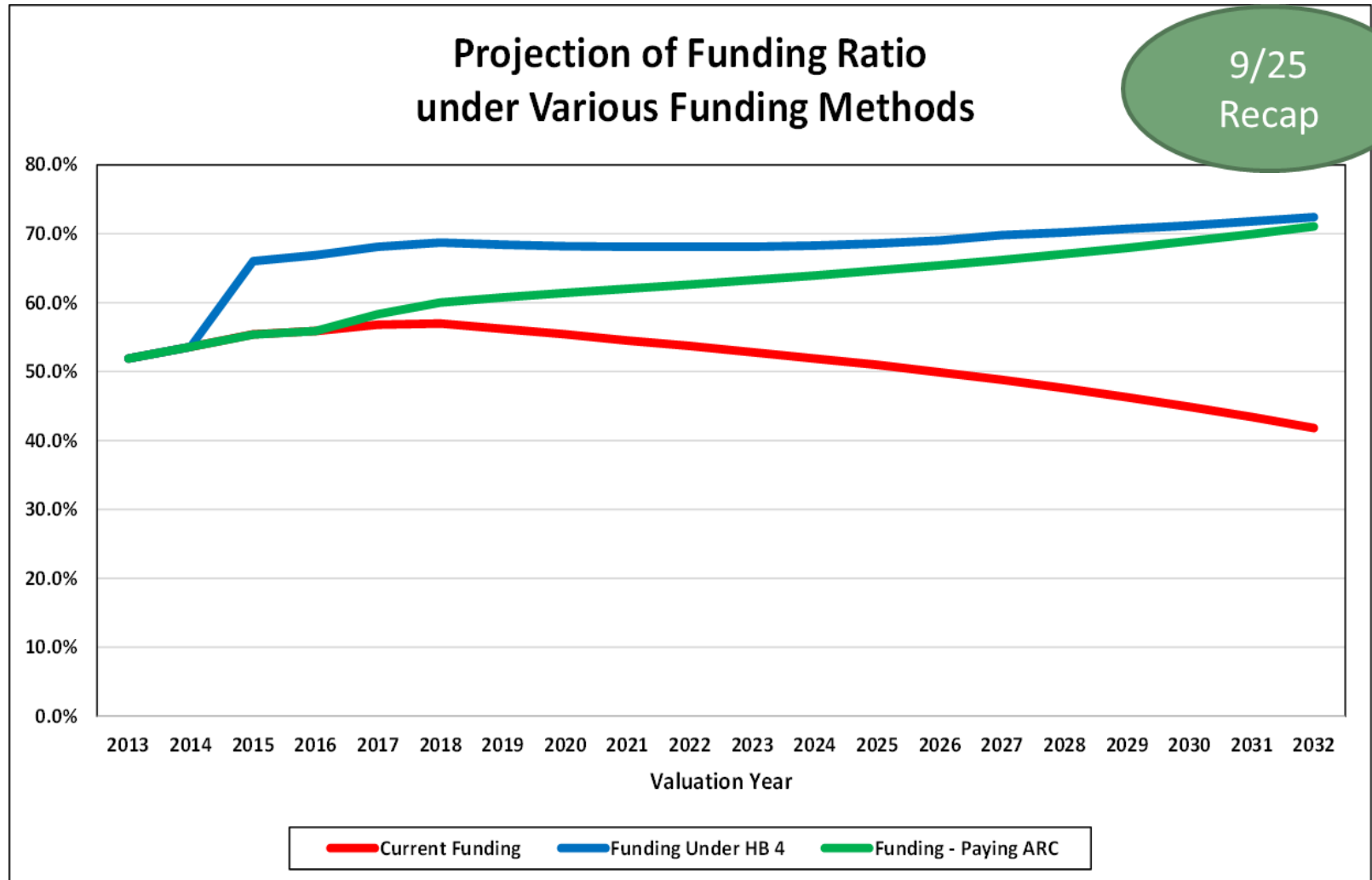
- Recap from September 16 broad alternatives to strengthen solvency
- Further discussion of alternatives
  - Chamber of Commerce Proposal
  - Other scenarios
- Overview of future meetings

# Broad Alternatives to Strengthen Solvency

- Increase contributions
  - By the State
  - With or without Pension Obligation Bonds
  - By teachers
  - Contribution of other assets
- Reduce benefits
  - For future teachers
  - For current members to the extent not part of inviolable contract
- Combination of above
- Partial solution only

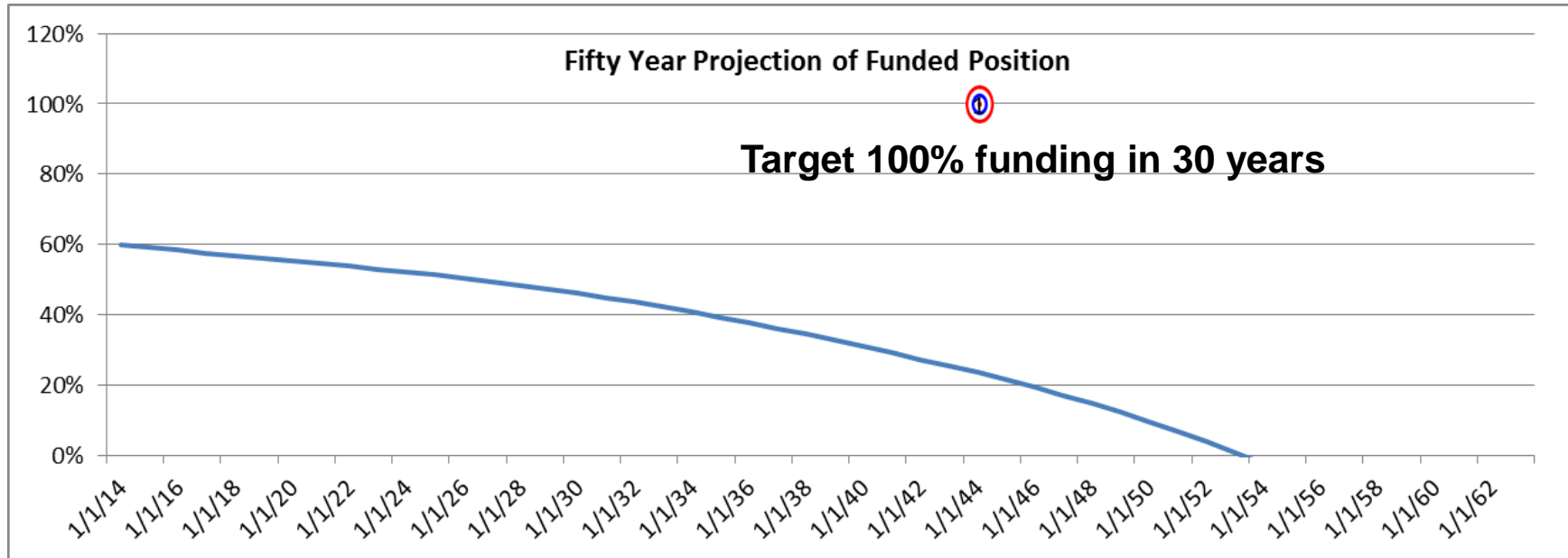
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# Phase into ARC to prevent insolvency



# Where Are We Now?

- Without action , will run out of money



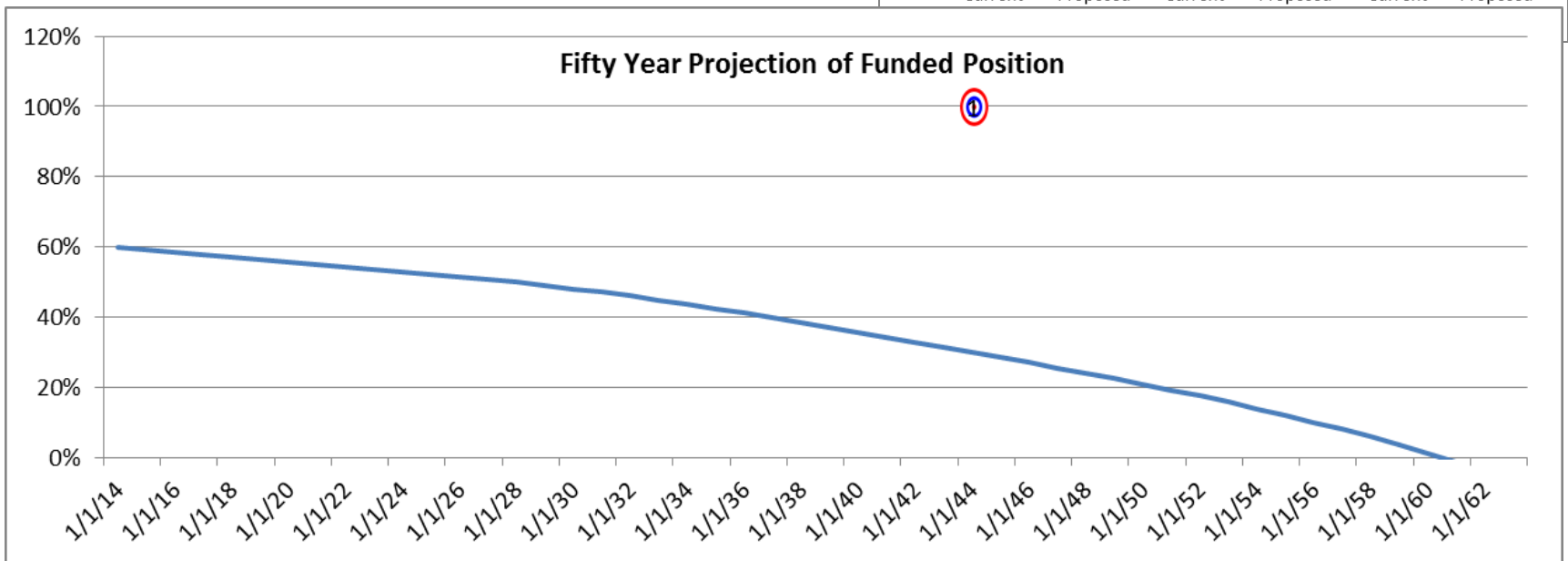
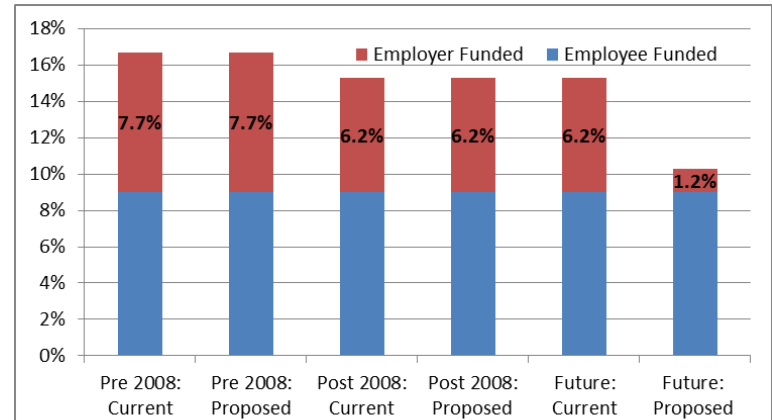
- No increased contributions
- No benefit reductions

Note that this projection model is an estimate of future experience. Once the work group is closer to a proposed solution, KTRS actuary can true-up these estimates

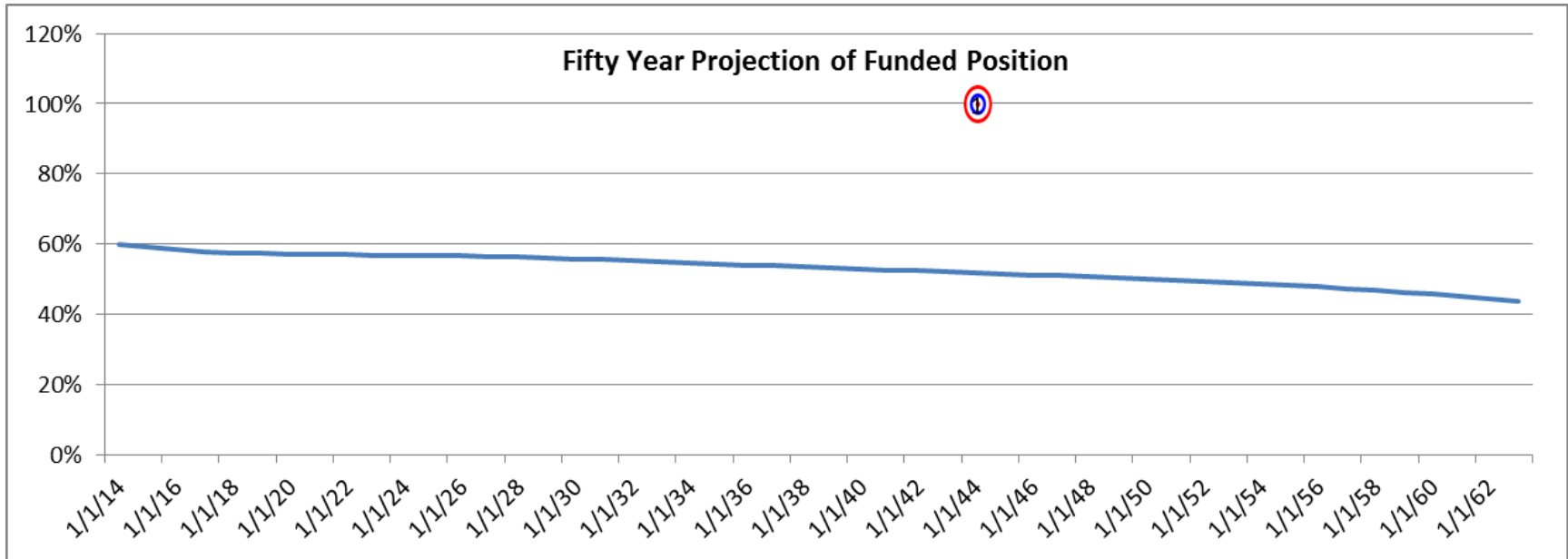
# Even with reduction for future teachers, will run out of money

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- No increased contributions
- 5% benefit reductions for future teachers



# Modest contribution Increase (5% of pay) will stretch solvency for over a decade

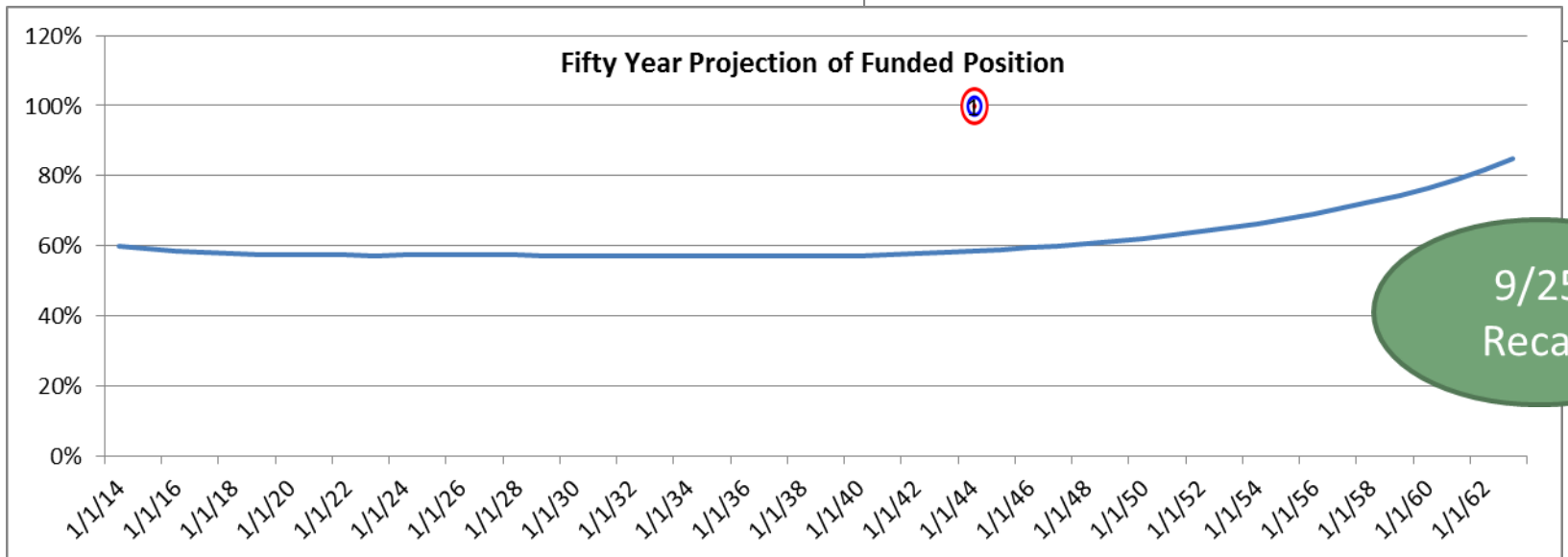
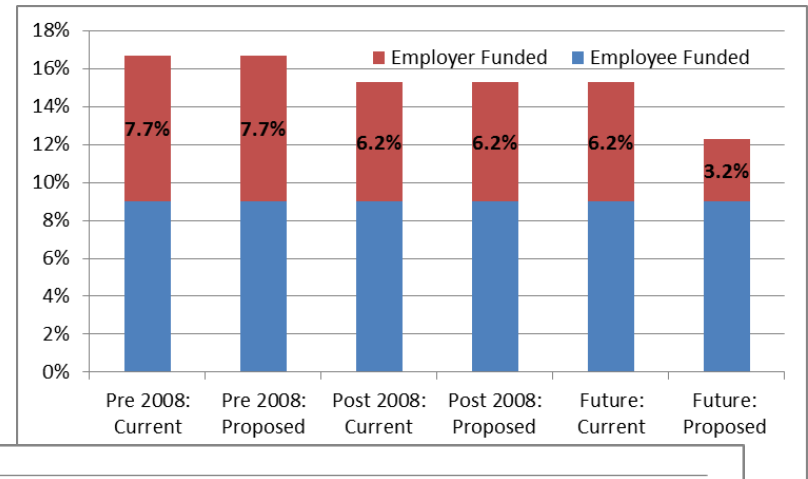


- 5% contribution increase
- Phased in over 5 years
- No benefit reductions

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# Combine contribution Increase (5% of pay) with future benefit reductions (3% of pay) can create solvency for good

- 5% increased contributions
- Phase in over 5 years
- 3% benefit reductions for future teachers

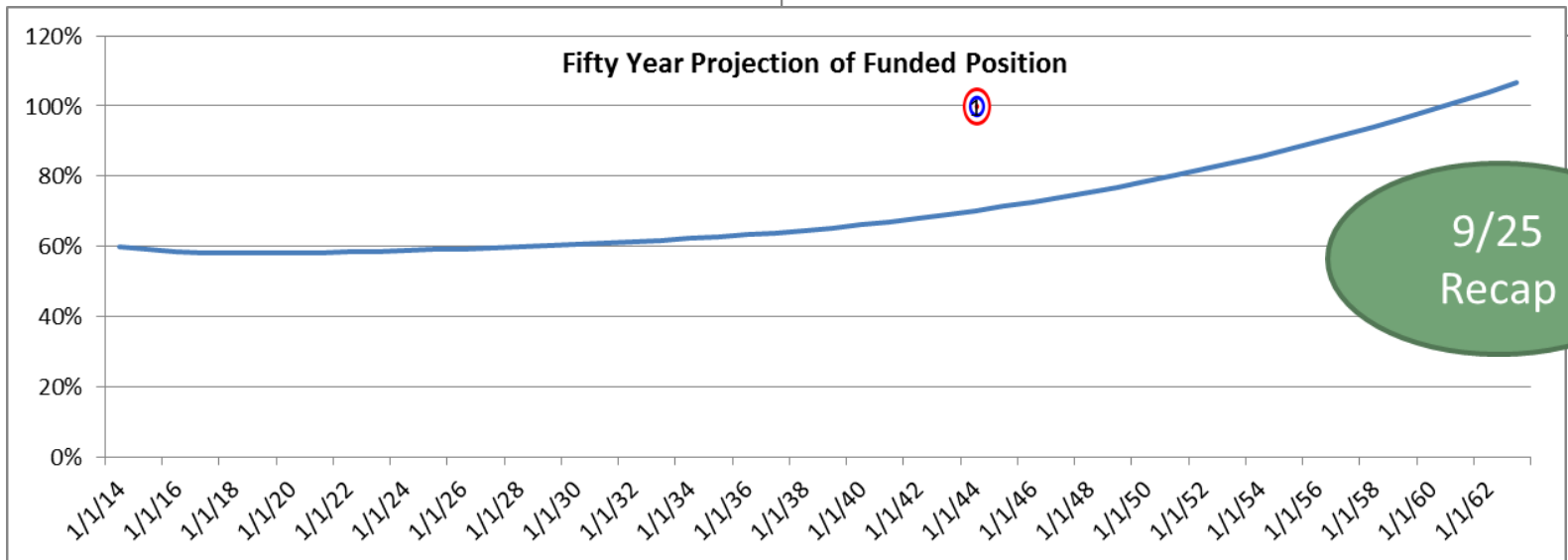
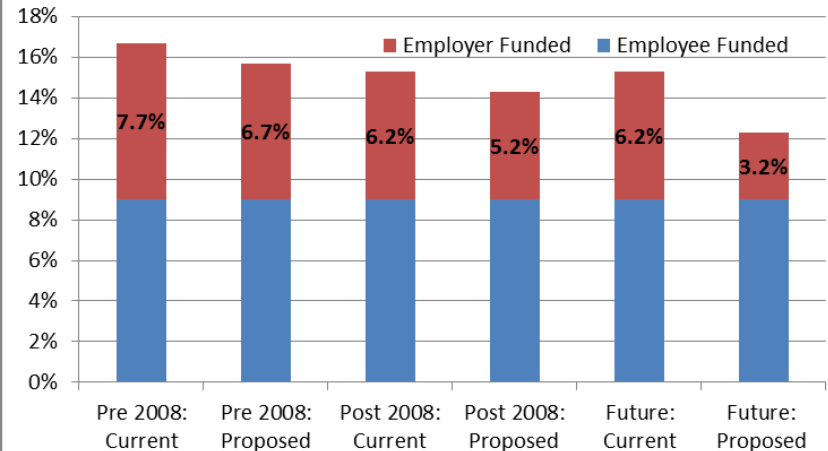


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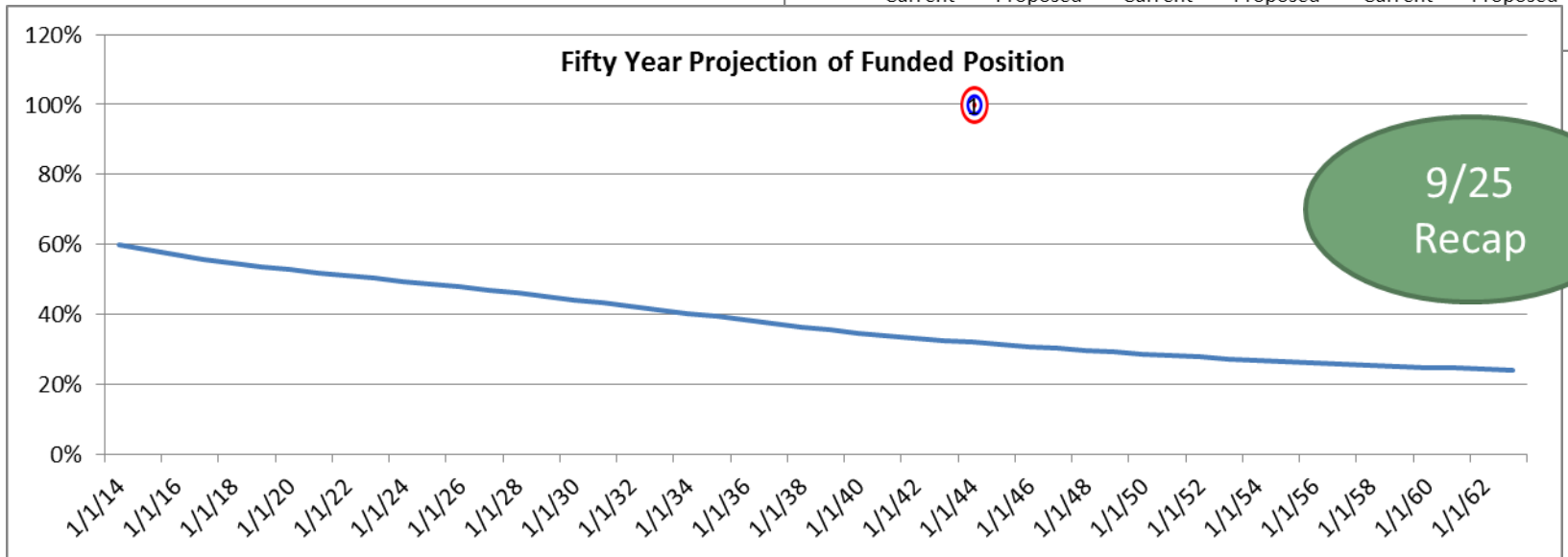
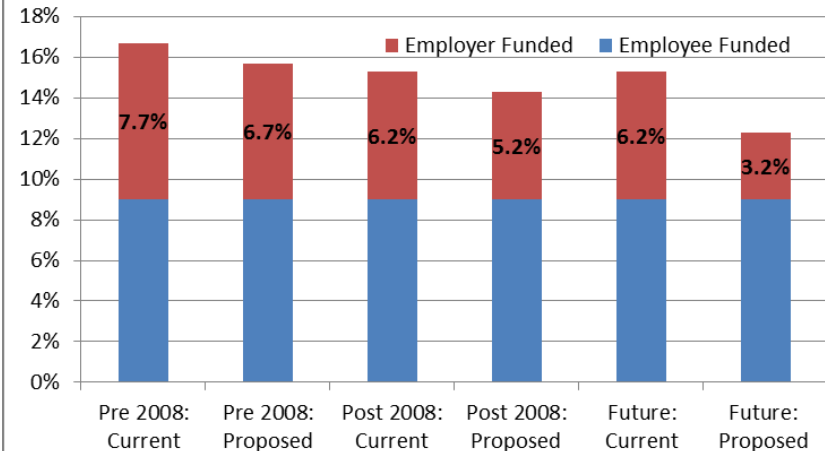
# Especially with 1% cut for current members

- 5% increased contributions
- Phase in over 5 years
- 3% benefit reductions for future teachers
- 1% benefit reductions for current



# But this gives little margin of error if we don't hit investment return target

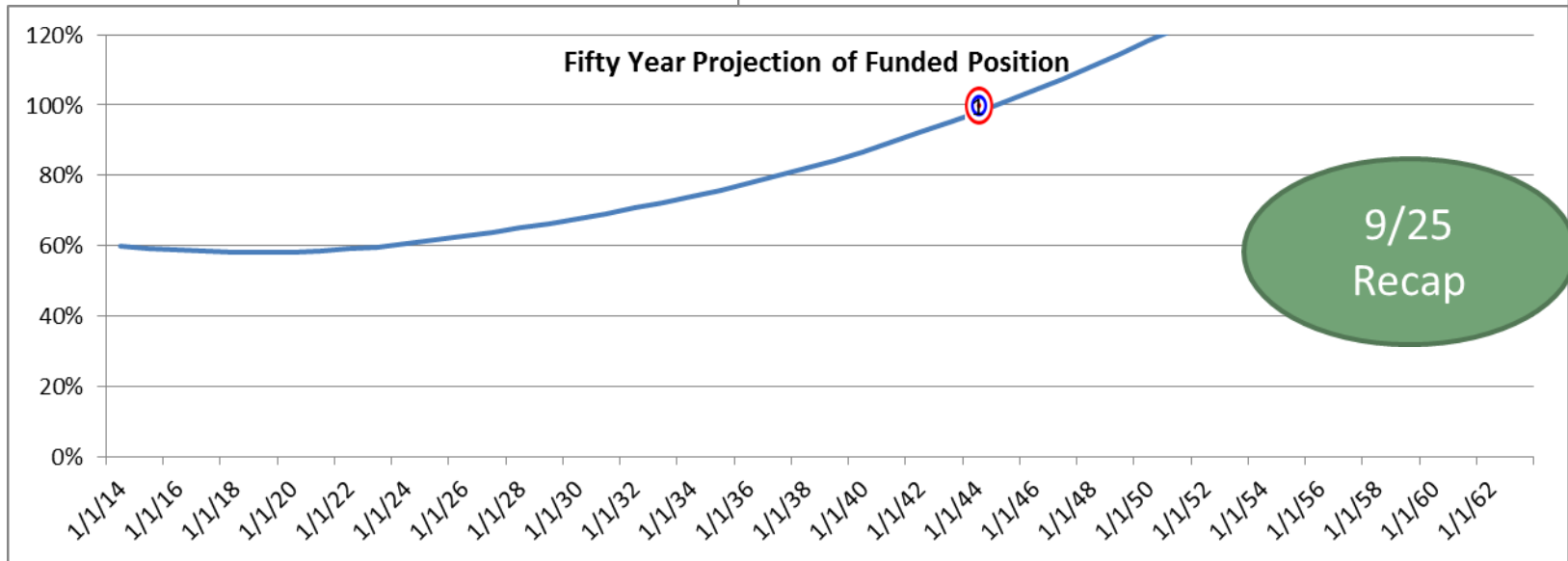
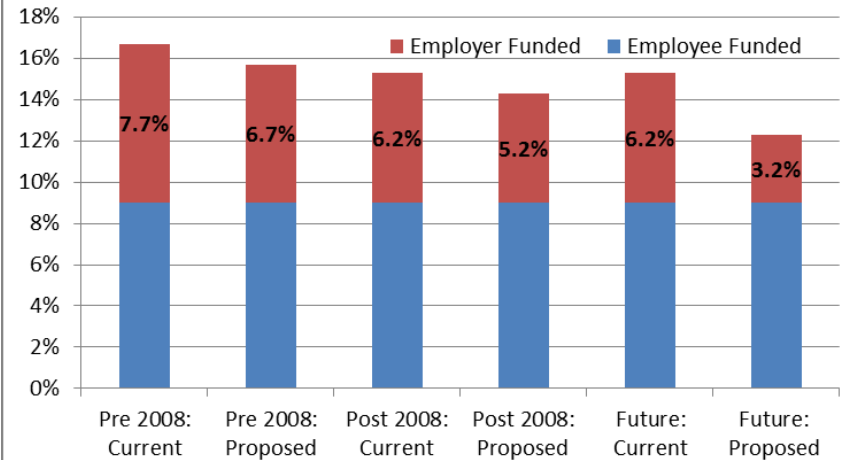
- 5% increased contributions
- Phase in over 5 years
- 3% benefit reductions for future teachers
- 1% benefit reductions for current
- 6% investment return



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# Getting to actuarial soundness requires more

- 10% increased contributions
- Phase in over 10 years
- Extend 2.7% special assessment
- 3% benefit reductions for future teachers
- 1% benefit reductions for current



KTRS Work Group – October 16

Goal: Make recommendations to strengthen the solvency of the KTRS

# Cost Savings – Current Members

Potential Change	Cost Savings
Remove feature where highest average salary is based on three years instead of five years for those 55 with 27 years of service	0.65% of pay
Remove 3.0% formula multiplier service beyond 30 years of service. Continue with 2.7%	0.25% of pay
Sick Leave treatment (shift from salary credit to service credit)	0.66% of pay
Return to Work	None
Part time and substitutes	None

Note: Costs savings are for KTRS pension impact only. Does not reflect potential increase in labor costs or retiree health care costs. Also does not reflect potential change in retirement ages. These should be considered the maximum possible savings.



# Normal Cost Savings – Future Members (composite University & Non-University)

Potential Change	Cost Savings
Require minimum age 60 for full retirement	1.55% of pay
Require Rule of 90 for full retirement	1.10% of pay
Require Rule of 85 for full retirement	0.53% of pay
Require minimum age 55 for full retirement	0.48% of pay
Some other type of benefit reduction by 10% of full value	1.58% of pay
<b>Current Costs (blended University &amp; Non-University)</b>	
Current Total Normal Cost	15.84% of pay
Amount Paid by Member Contributions	9.01% of pay
Net amount paid by Employer	6.83% of pay

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# Rough Estimates of other Normal Cost Savings – Future Members

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Potential Change	Cost Savings
Require minimum age 61 for full retirement	1.7% - 1.8% of pay
Require minimum age 62 for full retirement	1.9% - 2.0% of pay
Require Rule of 87 for full retirement	0.7% - 0.8% of pay
Increase Employee Contribution Rate by 1.0%	0.6% - 0.8% of pay
Reduce Multiplier to 2.0% for all service	2.9% - 3.7% of pay
Remove feature where highest average salary is based on three years instead of five years for those 55 with 27 years	0.3% of pay
Remove 3.0% formula multiplier service beyond 30 years of service. Continue with 2.7%	0.1% of pay
Sick Leave treatment	0.3% of pay
Increase final average salary period from 5 to 7 years	0.6% of pay

# Potential Major Changes

- Some do not help with costs
  - Enter Social Security
  - Create Defined Contribution Plan
  - Create Hybrid Plan
- This is because current employer contribution toward future benefits is 6.83% on the average
- Pension Obligation Bonds best analyzed in tandem with State contribution increase

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# Paying off Unfunded Liability Remains Necessary Regardless

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- Cost to pay off current Unfunded Liabilities is about 21% of pay
- That cost cannot be reduced or eliminated by different benefits for new members



# Additional Scenarios and Information

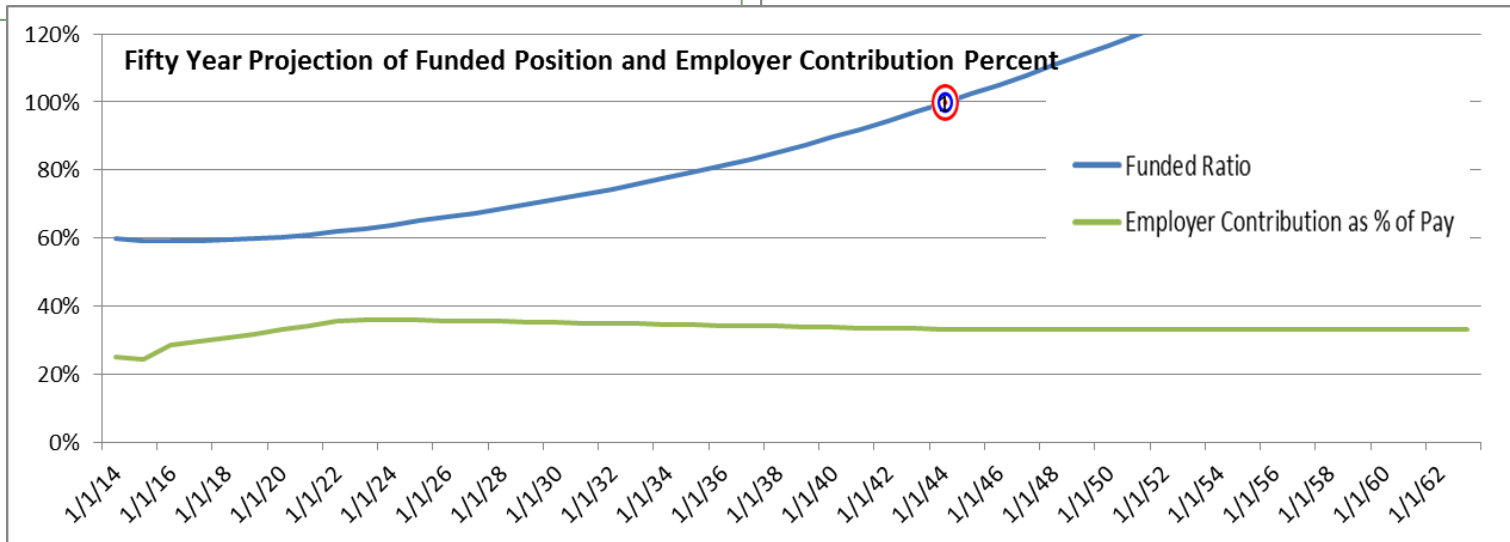
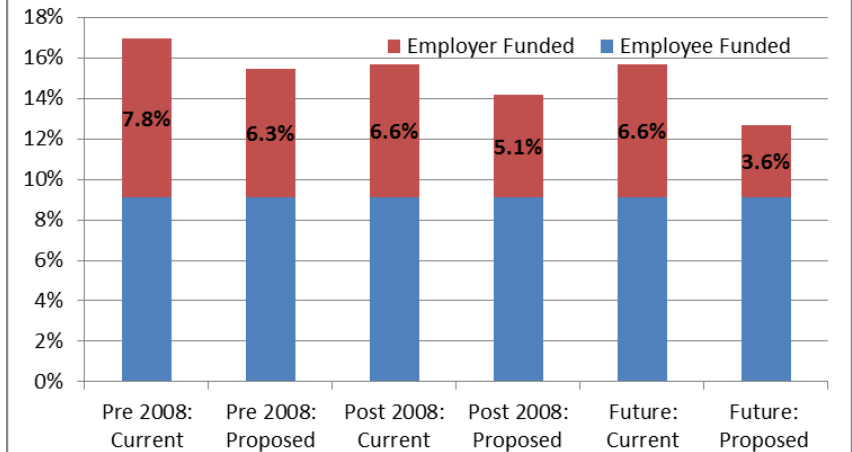
- Expansion of projection model
- Chamber of Commerce Request
- Potential future teacher benefit changes were presented to Senators and discussed during 2015 legislative session
- What is Normal Cost (and other costs) if 7.5% rate of return is unrealistic?

# Chamber of Commerce Request – Shared Responsibility Model

- Requires 50% new money (to help fill 14% gap)
- Plus 50% savings from benefit cuts to current teachers & retirees (outside inviolable contract) and future teachers
- PTA Analysis:
  - Unless inviolable contract were broken:
    - Maximum savings from current teachers is 1.5% of pay
    - No “violable” benefits can be reduced from retirees – right?
  - In order to accomplish target funding, about 3% reduction from future members is necessary
    - This would result in net pension benefit of about 3.6% of pay (teachers)

# Chamber of Commerce Request – Shared Responsibility Model – Cost Projections

- 7% increased contributions
- Phase in over 7 years
- Extend 2.7% special assessment
- 3% benefit reductions for future teachers
- 1.5% benefit reductions for current



# Chamber of Commerce Request – Shared Responsibility Model – Possible Specifics

- Current and future teachers:
  - Increase employee contribution rate by 1.0%
  - Change treatment of sick leave
  - Remove feature where highest average salary is based on high 3 instead of high 5 for those 55 with 27 years of service
  - Remove 3.0% multiplier beyond 30 years of service
- Future teachers only:
  - Require minimum age of 62 for full retirement
  - Increase final average salary period from 5 to 7 years
  - Change the COLA (estimate not yet available)

# Chamber Request – Possible Specifics – Rough Estimates Cost Savings

Potential Change	Current Teacher Savings	Future Teacher Savings
Require minimum age 62 for full retirement	Not Applicable	2.0% of pay
Increase Employee Contribution Rate by 1.0%	Inviolable?	0.7% of pay
Remove feature where average salary is based on 3 years instead of 5 for those 55 & 27	0.65% of pay	0.3% of pay
Remove 3.0% formula multiplier service beyond 30 years of service; continue with 2.5%	0.25% of pay	0.1% of pay
Sick Leave treatment – time instead of pay	0.66% of pay	0.3% of pay
Increase final avg salary period from 5 to 7 years	Not Applicable	0.6% of pay
Reduce COLA	Not Applicable	Up to 2% pay
Approximate Total	1.5% of pay	4% to 6% of pay

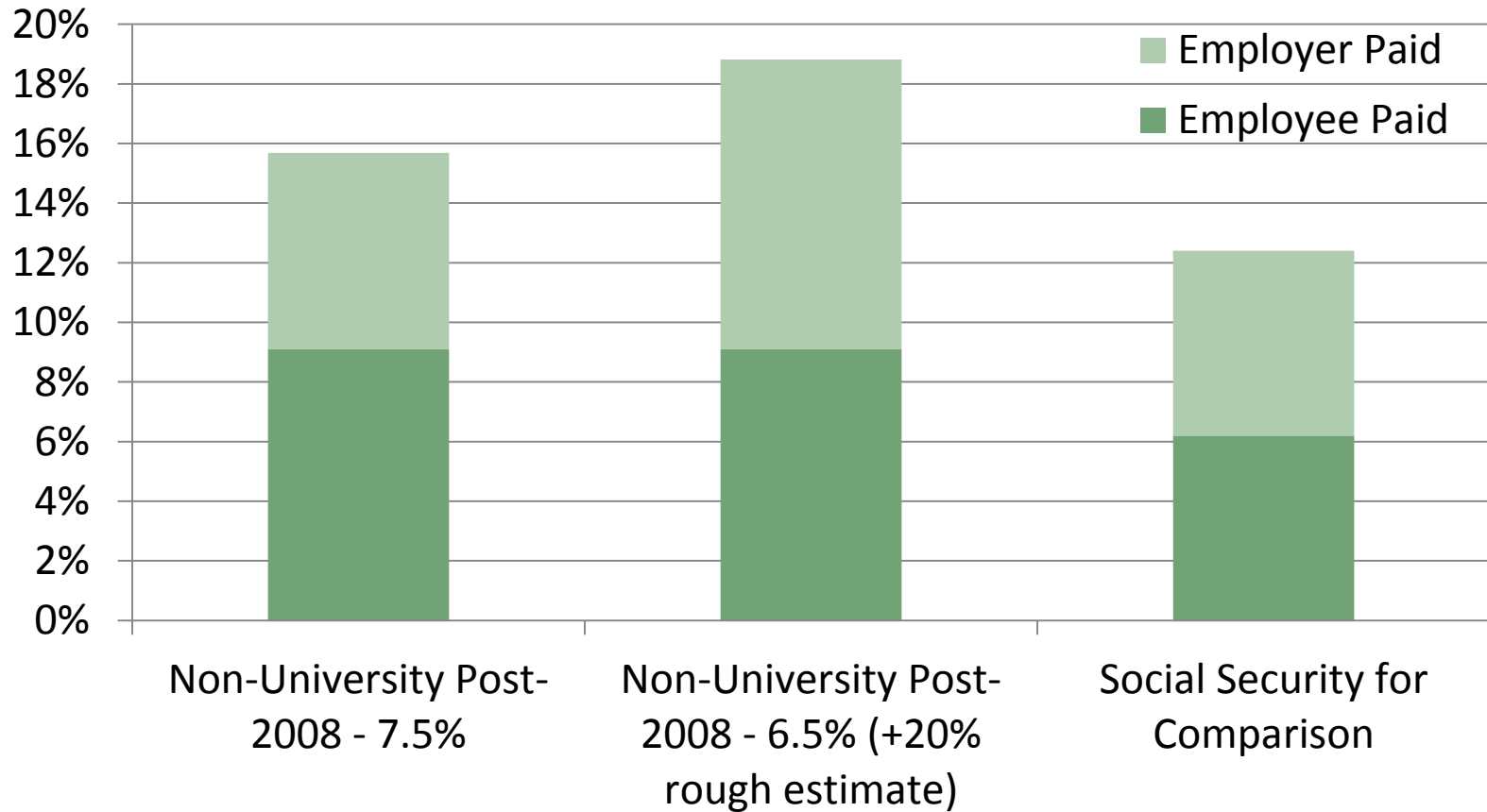
## Potential future teacher benefit changes were presented to Senators during 2015 session

- Increase age for service retirement to 62 & 5 (Currently 60 & 5)
- Increase age/service for minimum benefit to age 60 & 10 (Now 55 & 10)
- Increase age for early retirement discount to 62. Discount will be 6% for each year below 62 or below 27 years, whichever less (Currently 60)
- Increase service to 30 to use the 3 year average salaries (Now 27)
- Establish minimum age of 60 to qualify for 3.0% multiplier for each year of service over 30. (Currently no minimum age)
- Average sick leave payouts over 5 years. (Now either 3 or 5)
- Limit Sick leave payouts in calculating benefits to no more than last annual compensation
  
- KTRS Actuary calculated that this package would reduce normal cost by 0.36%

# What is value of pension if 7.5% is not appropriate discount rate for teachers?

- Recall that total Normal Cost for new tier (teachers) is 15.68%
  - With 9.105% paid by the teacher, that leaves
  - 6.58% as value paid by employer
- But is 7.5% the appropriate rate for measuring value of pension to teacher?
  - Can teacher earn 7.5% on their own?
- If this discount rate drops by 1%, the total Normal Cost grows by about 20%
  - So 15.68% would increase to about 19%
  - After subtracting about 9%, value to teacher is 10% of pay

# Normal Cost Illustration at different discount rates





# What is Normal Cost if 7.5% is not appropriate for KTRS?

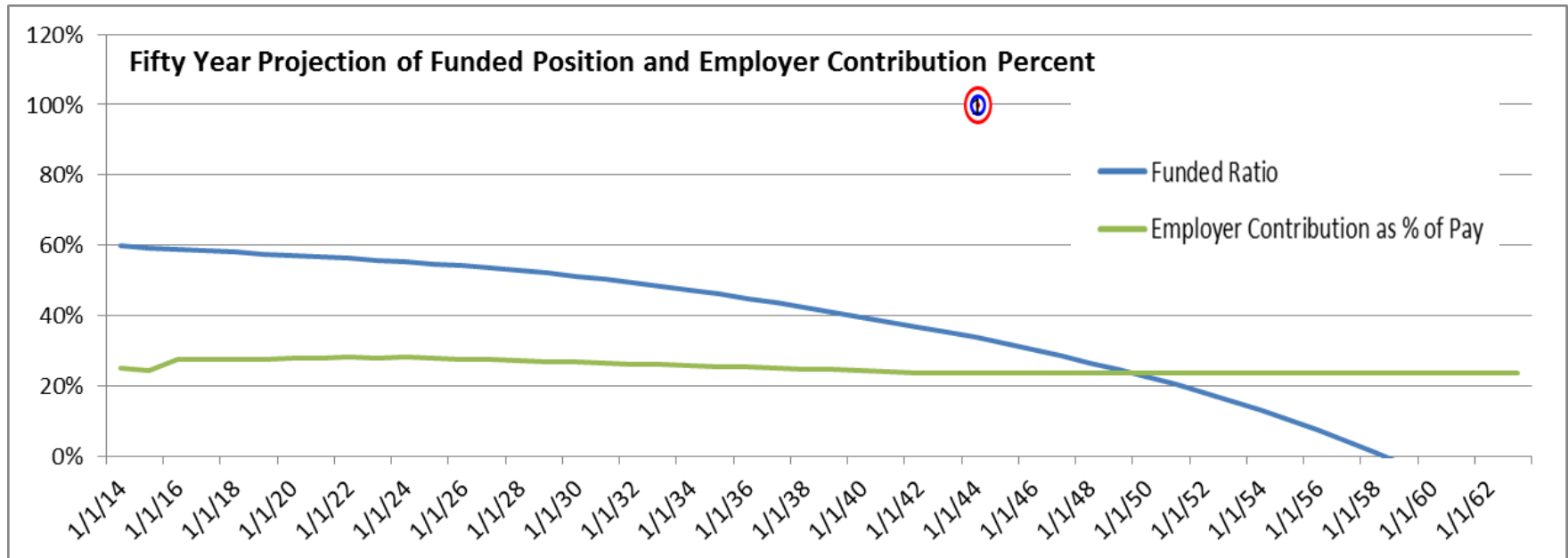
- Costs would increase dramatically
- KTRS discloses in GASB statements that dropping discount rate by 1% increases unfunded liability by \$3.5 billion
- While a lower discount rate might be a reasonable measure for teacher value, if KTRS does not earn 7.5% over long term, pension costs and liabilities are significantly larger than currently anticipated

# Expansion of projection model

- To incorporate Pension Obligation Bonds
  - Illustrates savings in employer costs as a result of POB issuance
- To make impact of employer contributions more visible
  - Show employer contribution as percent of pay through time
- Focus on K12 only for illustrations of benefit value
  - Including University has proven somewhat confusing
  - We will assume comparable benefit adjustments for university as K12
- More precise reflection of special appropriation

# Where Are We Now?

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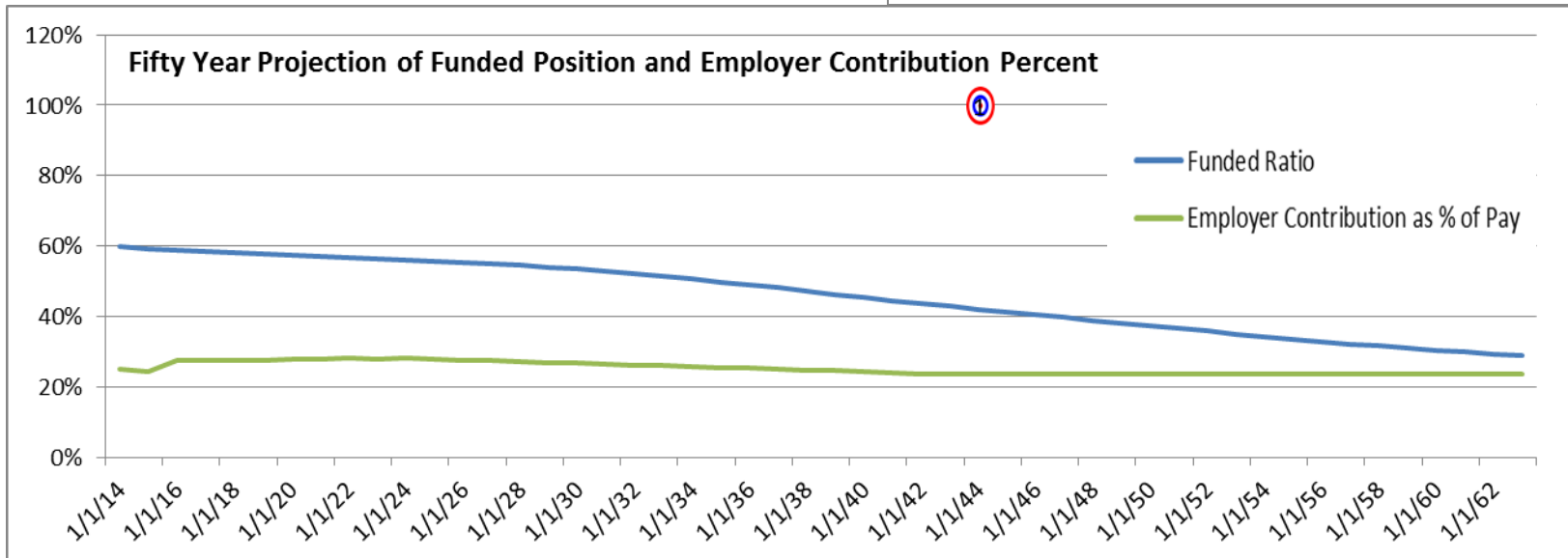
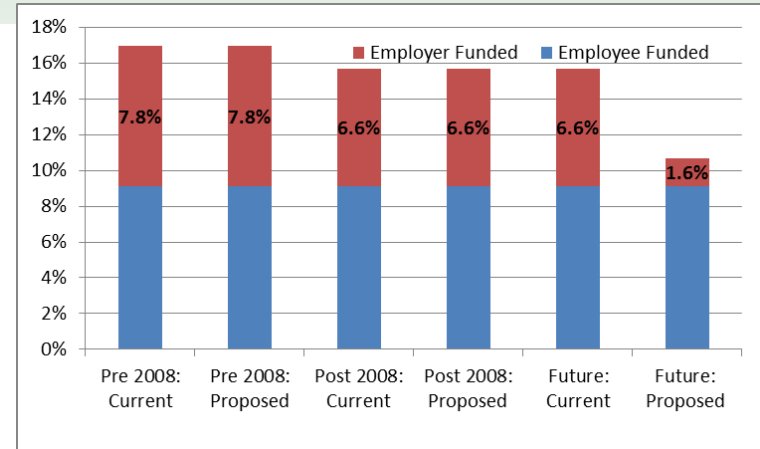


- No increased contributions (actually decrease from 28% of pay to 23% of pay as special appropriation ends)
- No benefit reductions

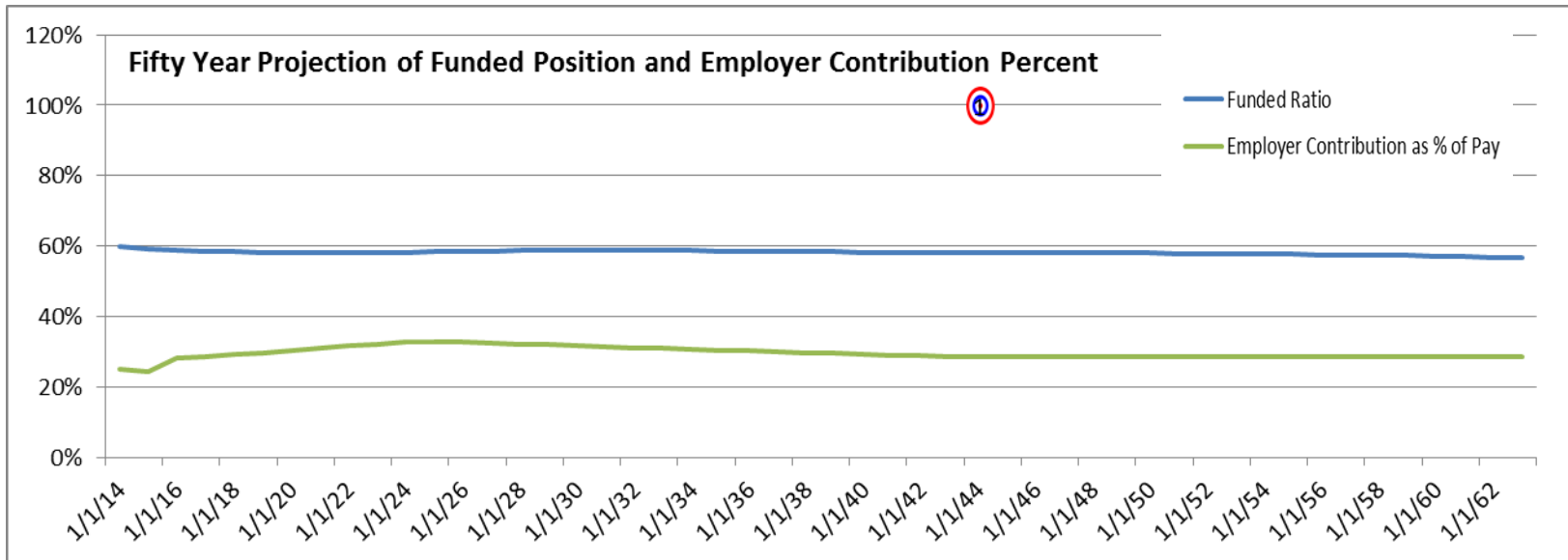
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# Even with reduction for future teachers, will run out of money

- No increased contributions
- 5% benefit reductions for future teachers



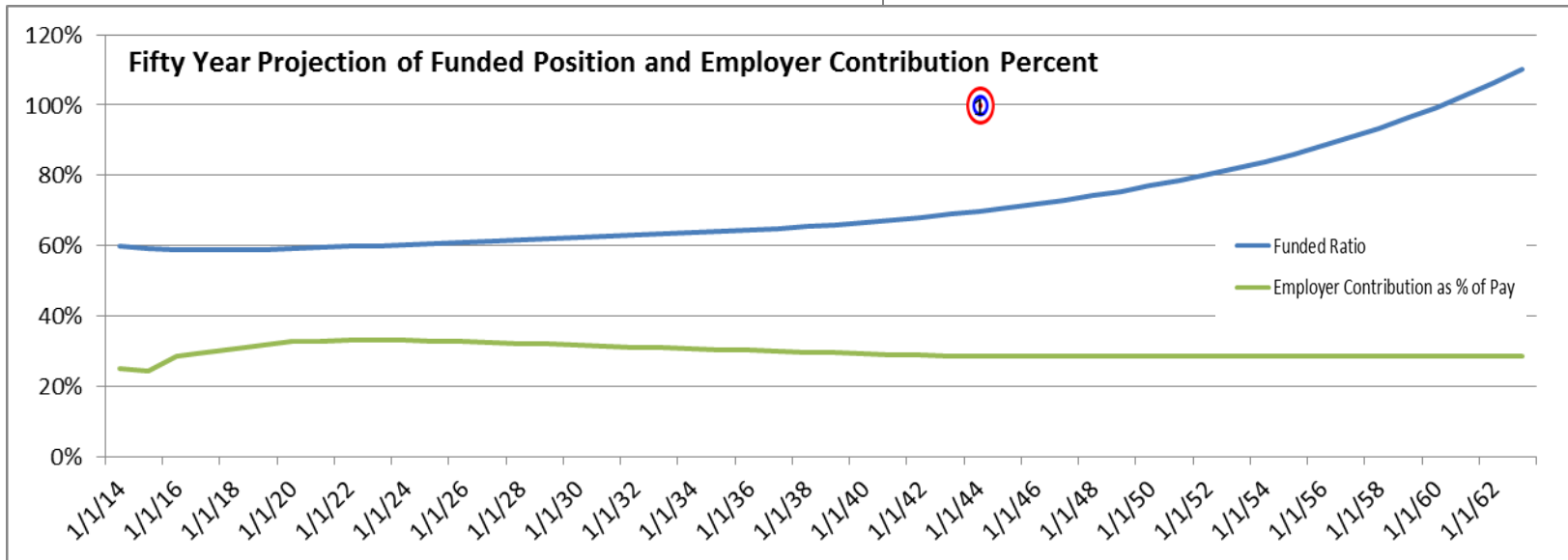
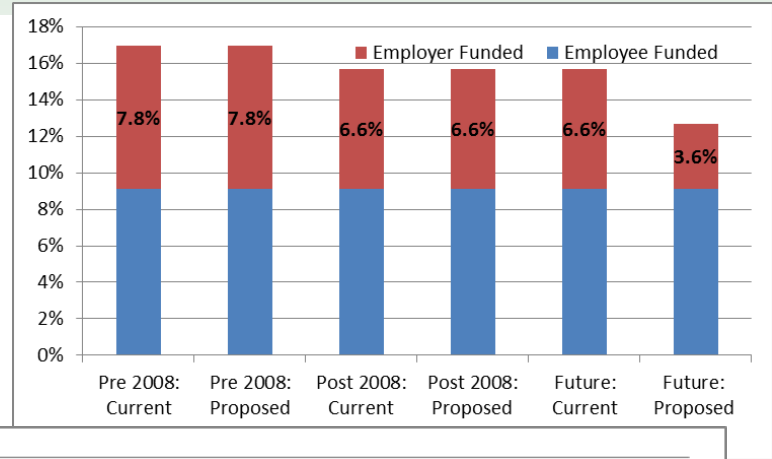
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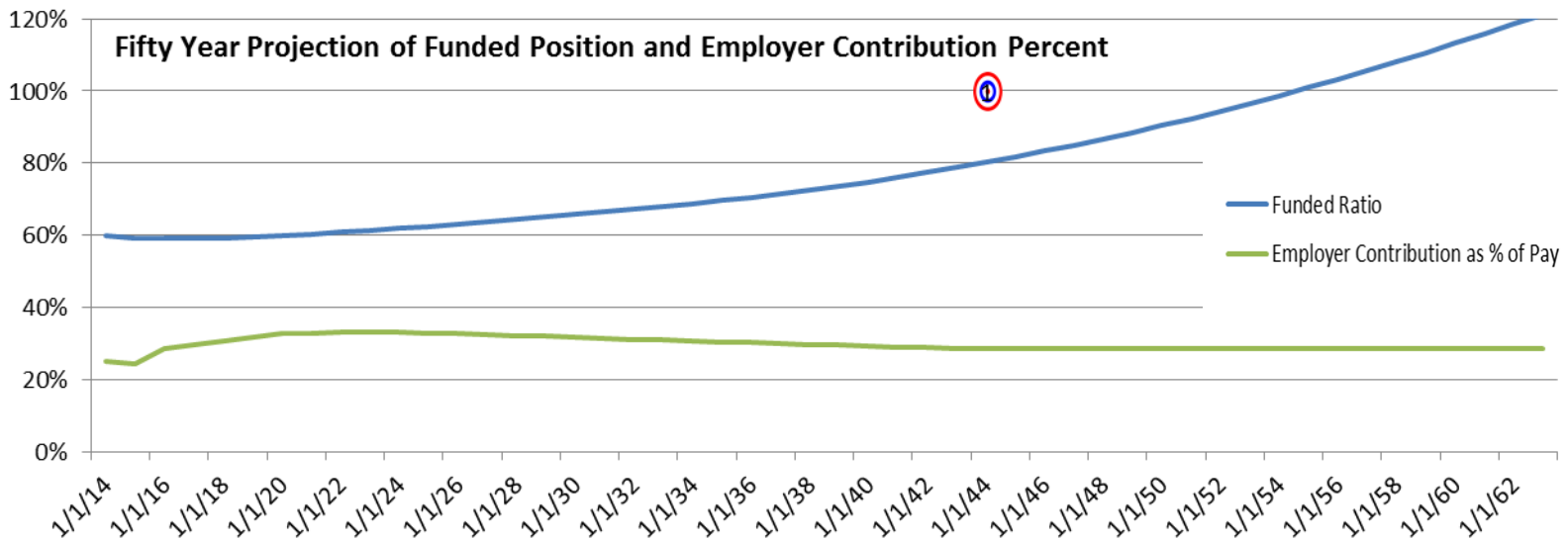
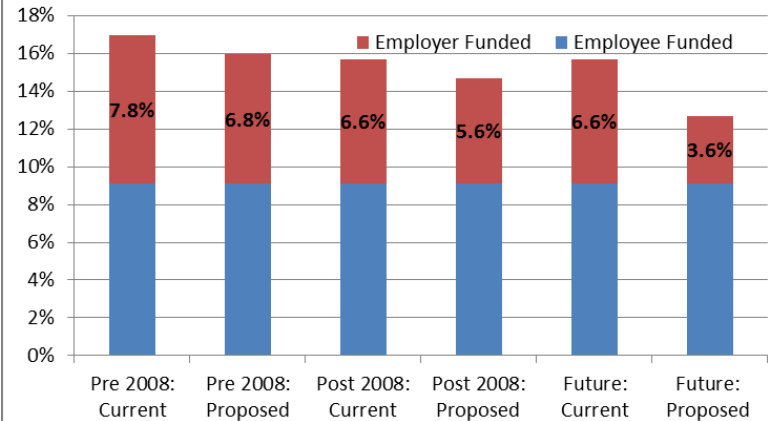
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- 5% increased contributions
- Phase in over 5 years
- 3% benefit reductions for future teachers



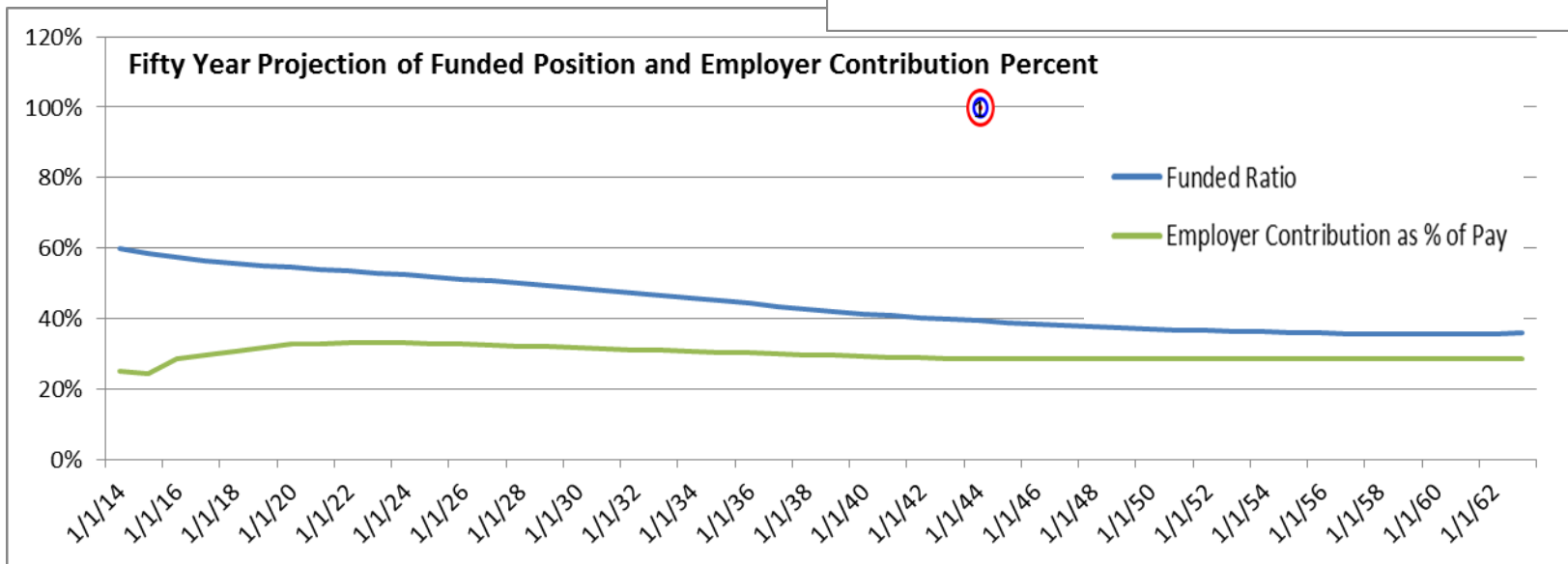
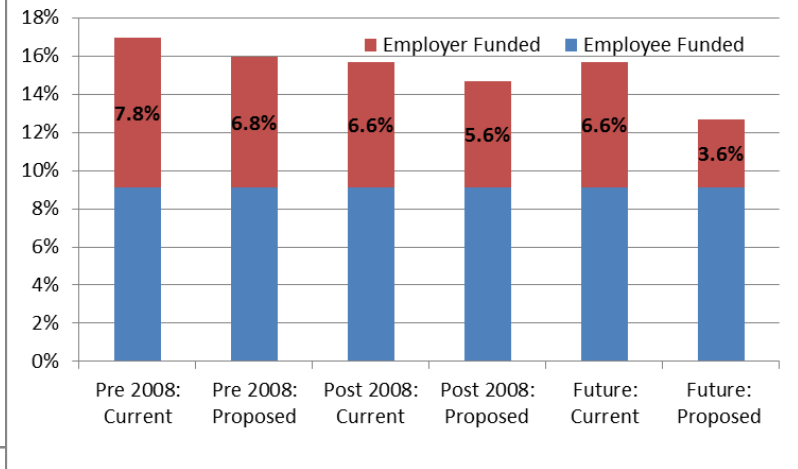
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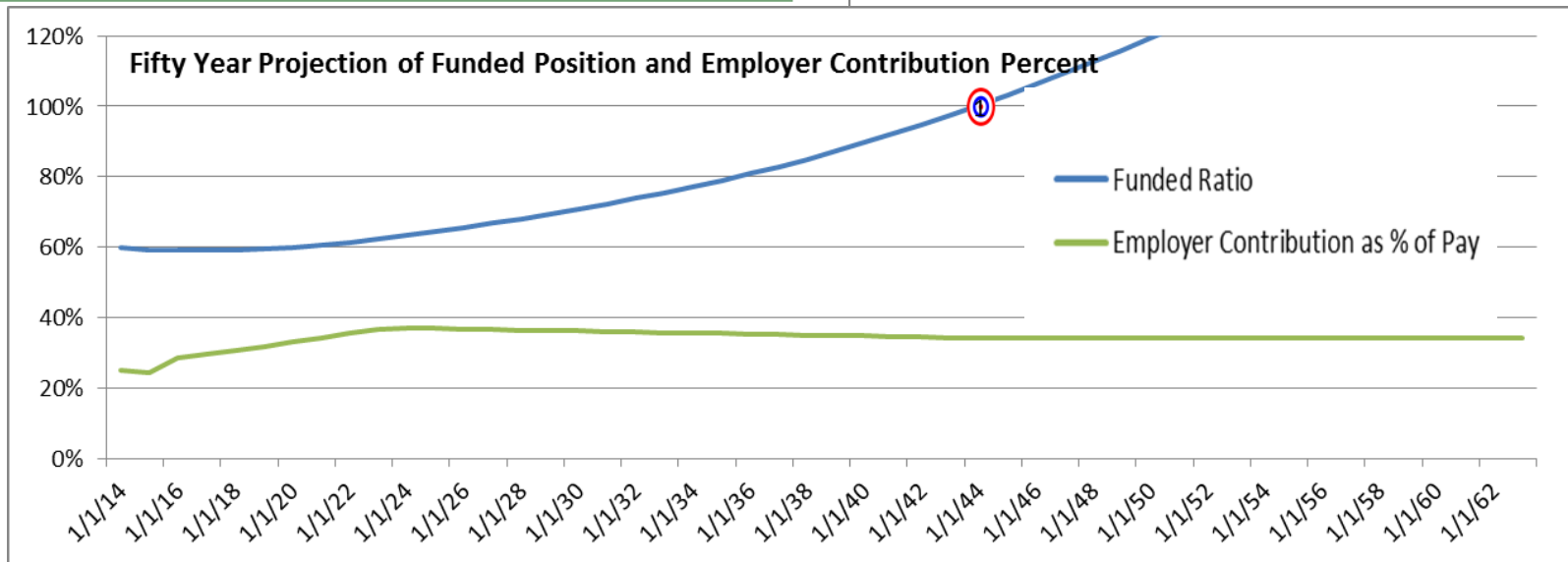
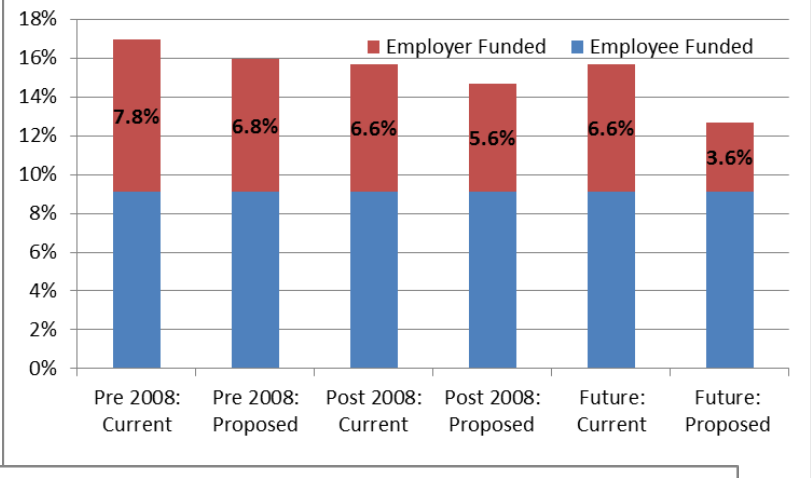
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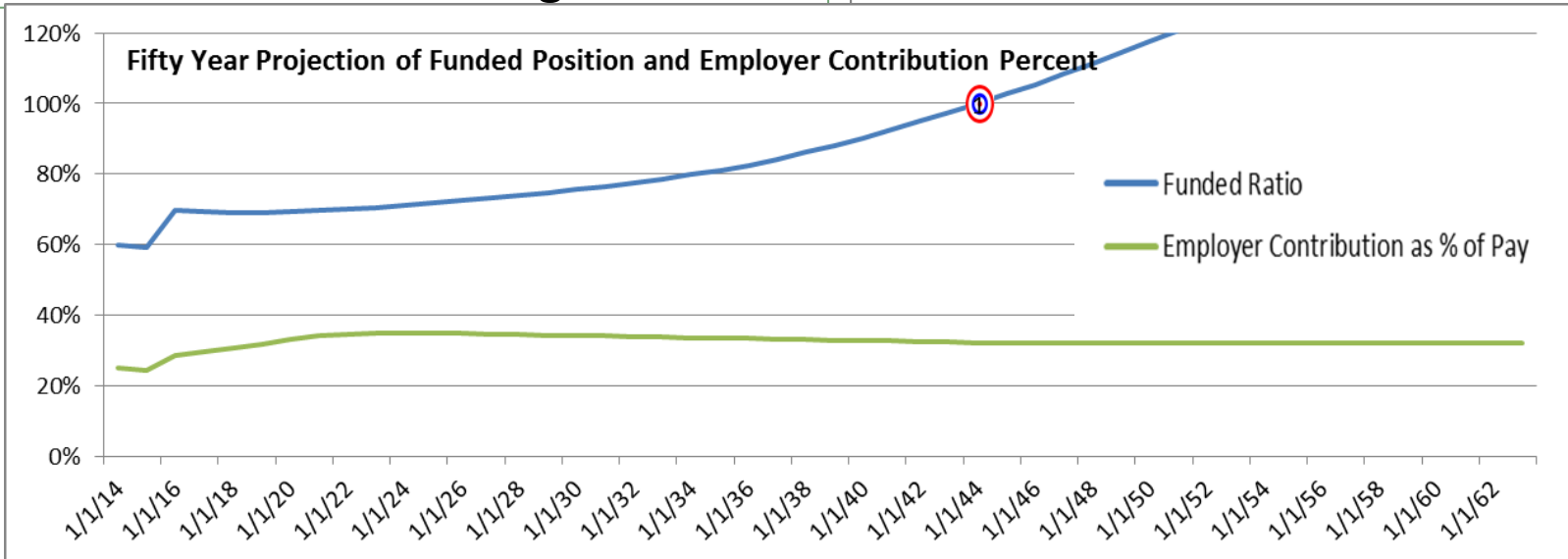
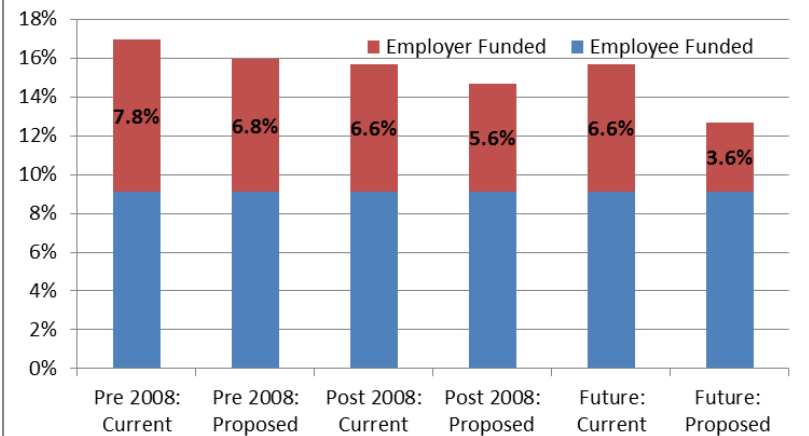
# Getting to actuarial soundness requires more

- 8% increased contributions
- Phase in over 8 years
- Extend 2.7% special assessment
- 3% benefit reductions for future teachers
- 1% benefit reductions for current



# Modest POB could reduce additional employer costs

- **6%** increased contributions
- Phase in over **6** years
- Extend 2.7% special assessment
- 3% benefit reductions for future
- 1% benefit reductions for current
- **\$3.3 billion Pension Obligation Bond**



# What other illustrations would be informative?

- Different POB Scenarios?
  - Larger
  - Higher Bond Rate (baseline has been 4%)
  - Lower Fund Return
- Different Benefit Reductions?
- Different State Contribution Schedules?

# Are there vastly different approaches that could be worthwhile?

- Future employee risk sharing
  - Investment return and possibly mortality improvement
  - Contribution amount sharing
  - Adjustable COLAs
  - Other benefits based on investment return
- Other approaches?

# Meeting Agendas

- November 6 – Draft Report Components
- November 20 – Finalize Report