PTA PENSION TRUSTEE ADVISORS

Kentucky Teachers' Retirement System Funding Work Group

Broad Solution Alternatives

September 25, 2015

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

Agenda

- Recap from September 11 constituents meeting
- Broad alternatives to strengthen solvency
- Overview of future meetings

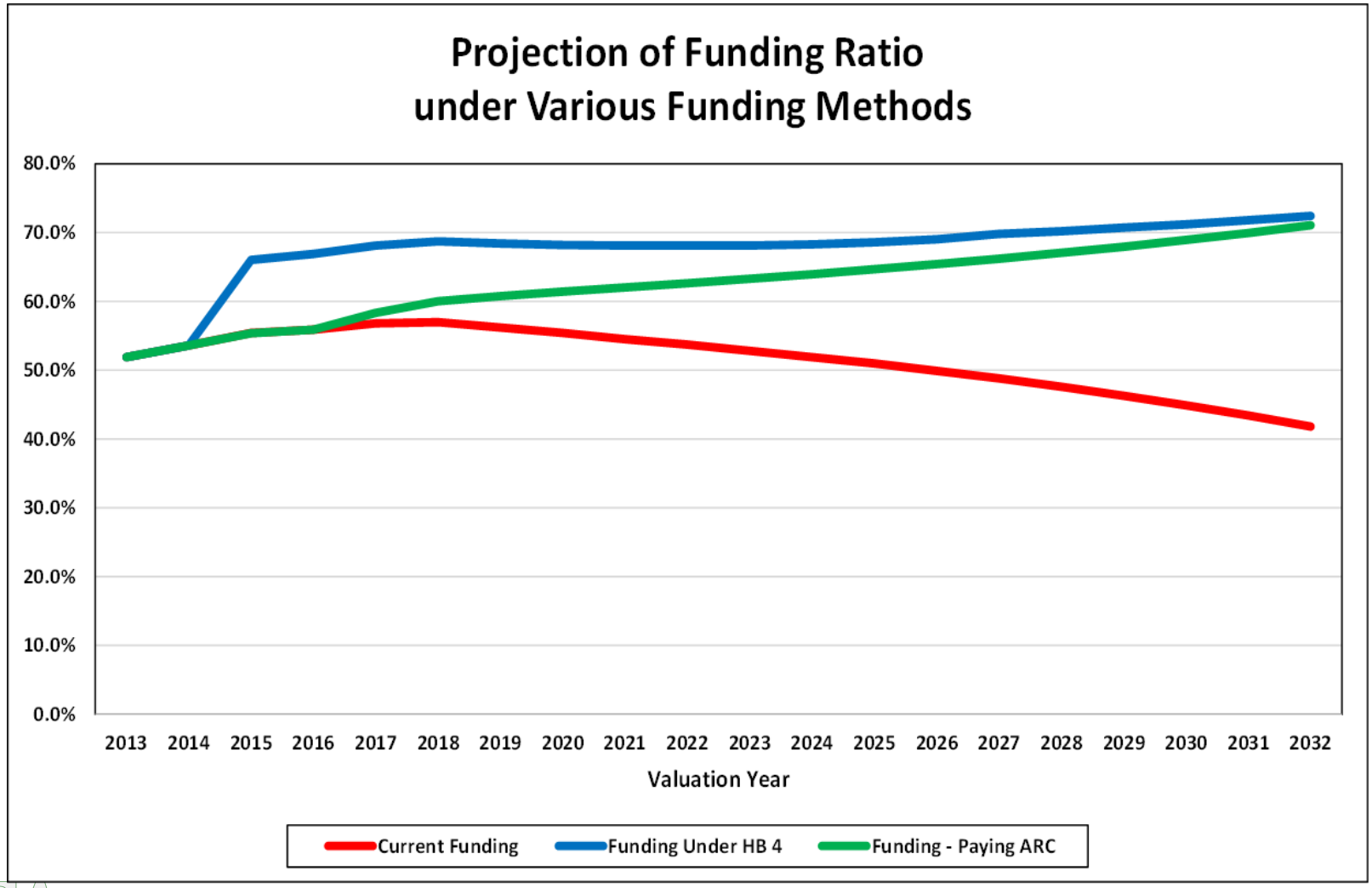
Key Points Made by Constituents on September 11

- Teachers rely on pensions
  - Teacher compensation is limited and stretched, particularly for new teachers with student loan debt
  - Weaker pensions could jeopardize recruiting and education quality
- Pension situation is a serious problem for Kentucky
  - Longer service teachers could receive benefits nearly as high as pre-retirement salaries
  - Unfunded liabilities place Kentucky's economy, budget, and schools at risk
- Need to consider all options to solve this problem

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

Phase into ARC to prevent insolvency



Goal: Make recommendations to strengthen the solvency of the KTRS

Thoughts on Pension Obligation Bonds

- Not a stand-alone solution
- POB most effective when combined with general employer contribution increase
- Could be helpful in negotiation for benefit reductions because helps guarantee that State will increase funding
- Provides cushion for investment flexibility
  - Is expected to enhance returns
- Further reduces likelihood of insolvency
- We recommend that POBs be addressed only after rough tentative agreement is made on increased State contributions

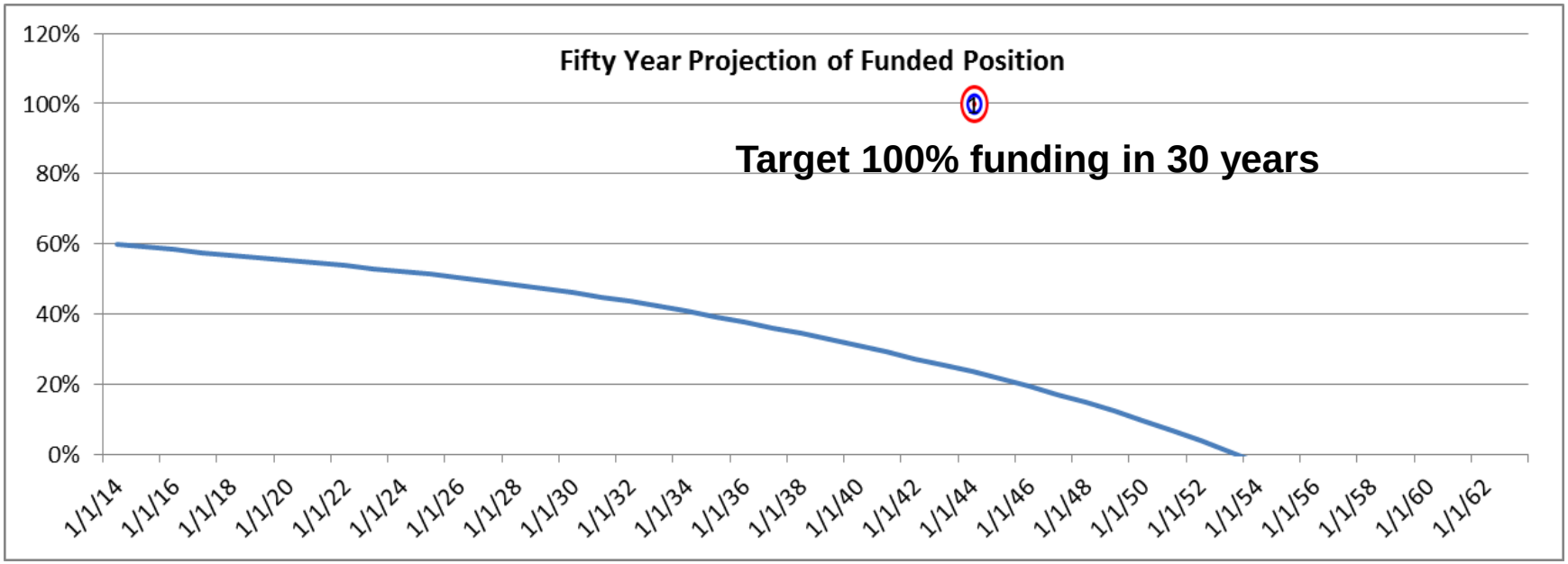
What does it mean to phase into ARC (for Non-University Members hired before 2008)

- Current Statutory State Contribution for pensions is 12.325% of pay, plus 2.7% of pay special appropriation
- This is in addition to 9.105% paid by teachers for pensions
- But total contribution needed is:
  - 16.72% for current benefits (Normal Cost)
  - 22.21% to pay off unfunded liability within 30 years
  - 38.93% Total
- We are currently getting about 24%
- So we are short by about 14%
- A “phase-in” over ten years, for example, would increase employer contributions by 1.4% each year for ten years
- For total groups, 1% in today’s dollars is about $35 million, total shortfall is nearly $500 million per year

Why is it important to completely solve problem now rather than waiting

- An incomplete solution pushes costs onto future Kentuckians
  - Do you want your grandchildren to pay for your parents education?
- It's less expensive in the long run to pre-fund these pensions
  - Power of compound interest and time value of money
- It's risky to have a poorly funded retirement system
  - If returns are less than expected, insolvency is more likely
  - Lack of investment flexibility if assets need to be liquidated for cash flow of benefit payments
- We recommend minimum target of 100% funded within 30 years

Where Are We Now?
- Without action , will run out of money

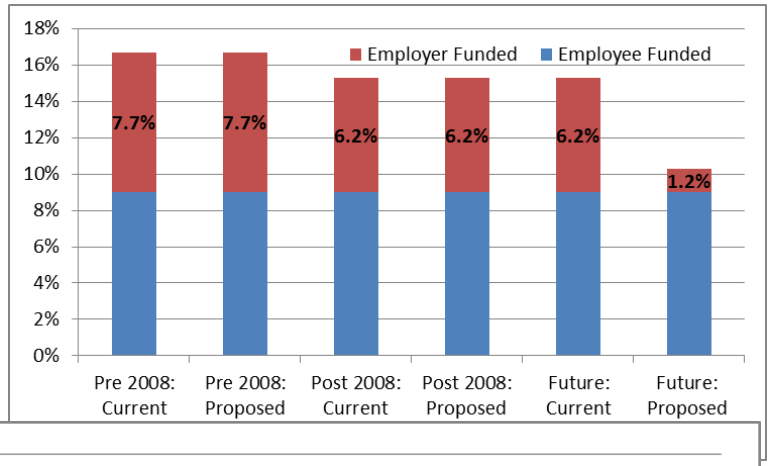


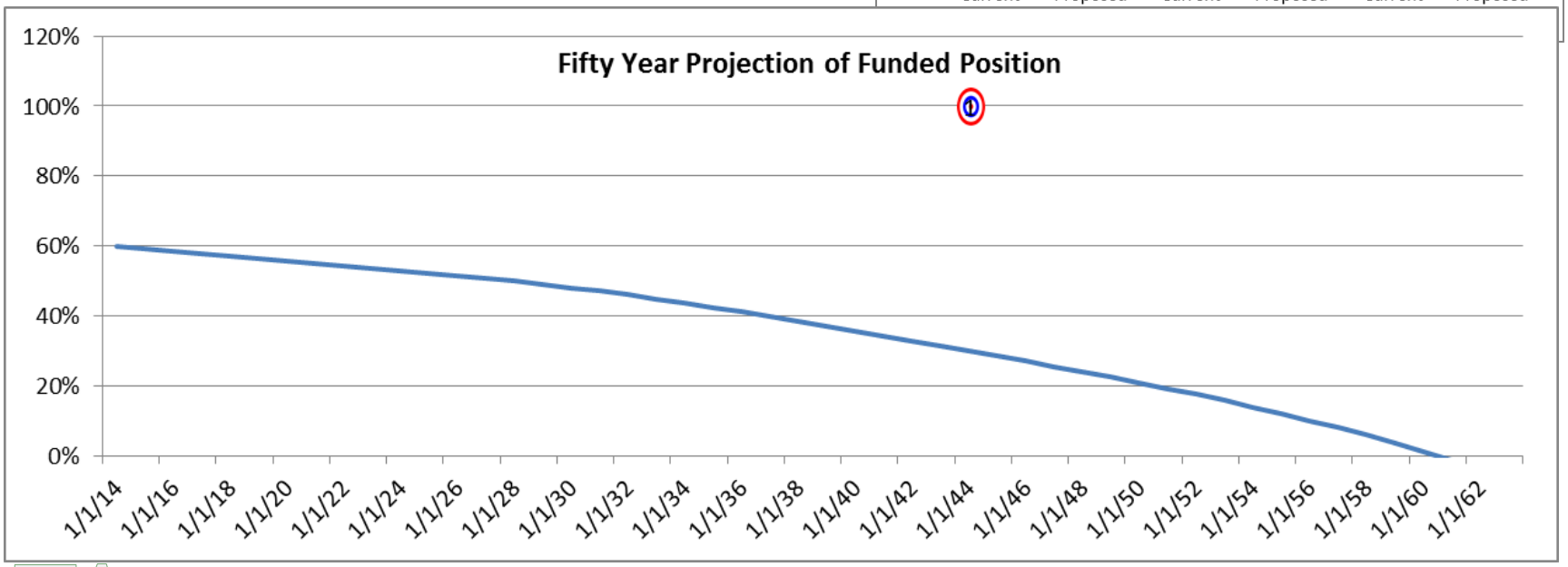
- No increased contributions
- No benefit reductions

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

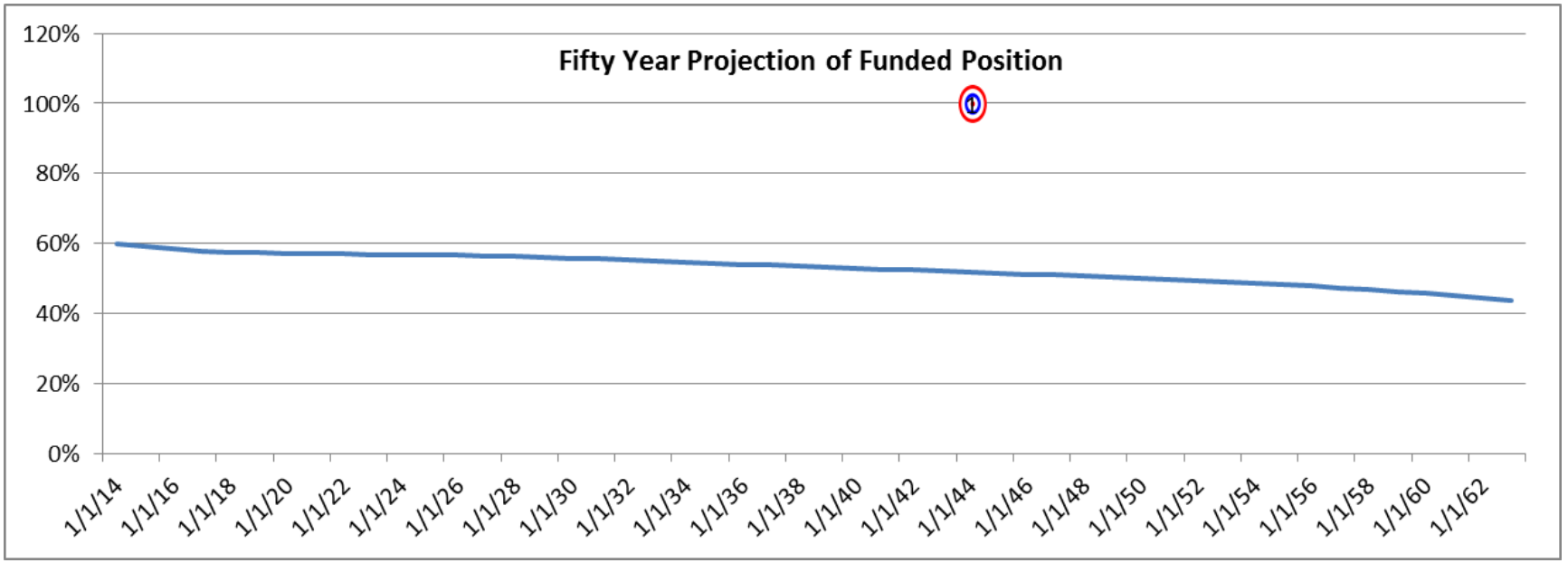
Even with reduction for future teachers, will run out of money

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





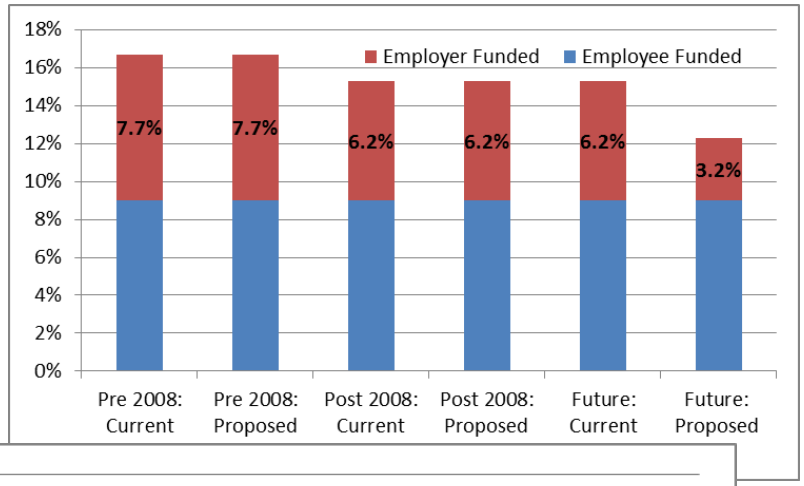
Modest contribution Increase (5% of pay) will stretch solvency for over a decade

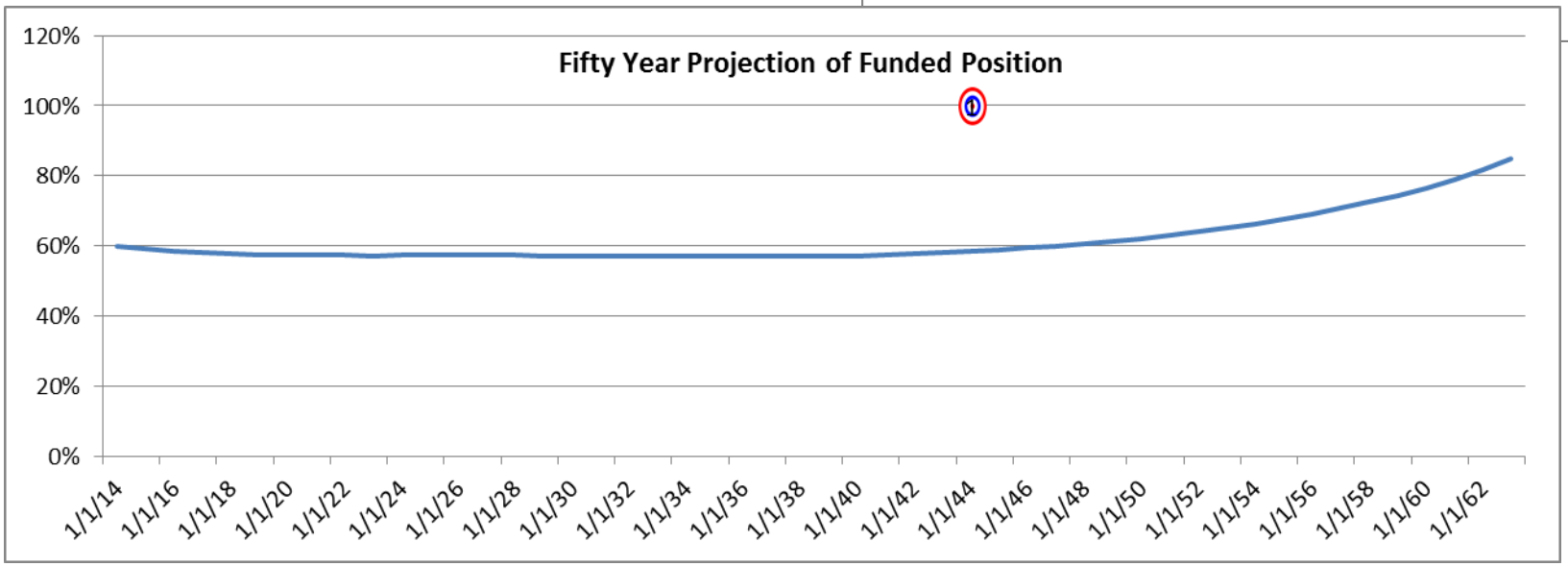


- 5% contribution increase
- Phased in over 5 years
- No benefit reductions

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

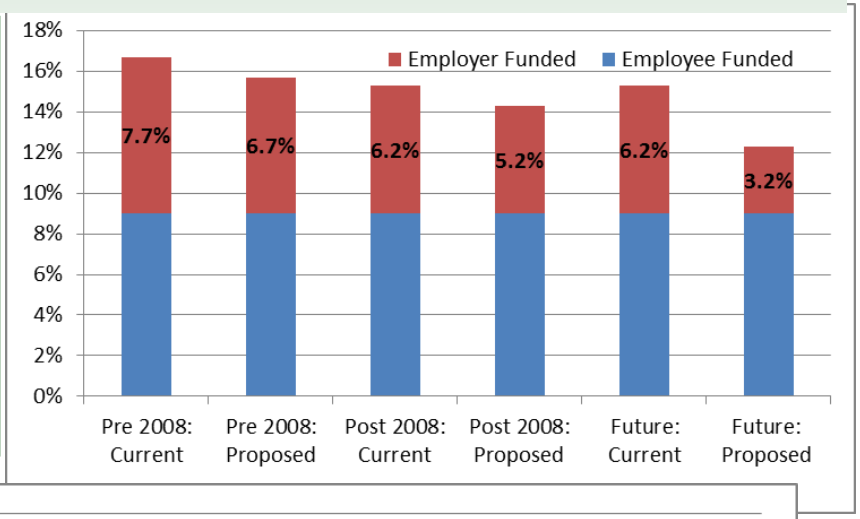


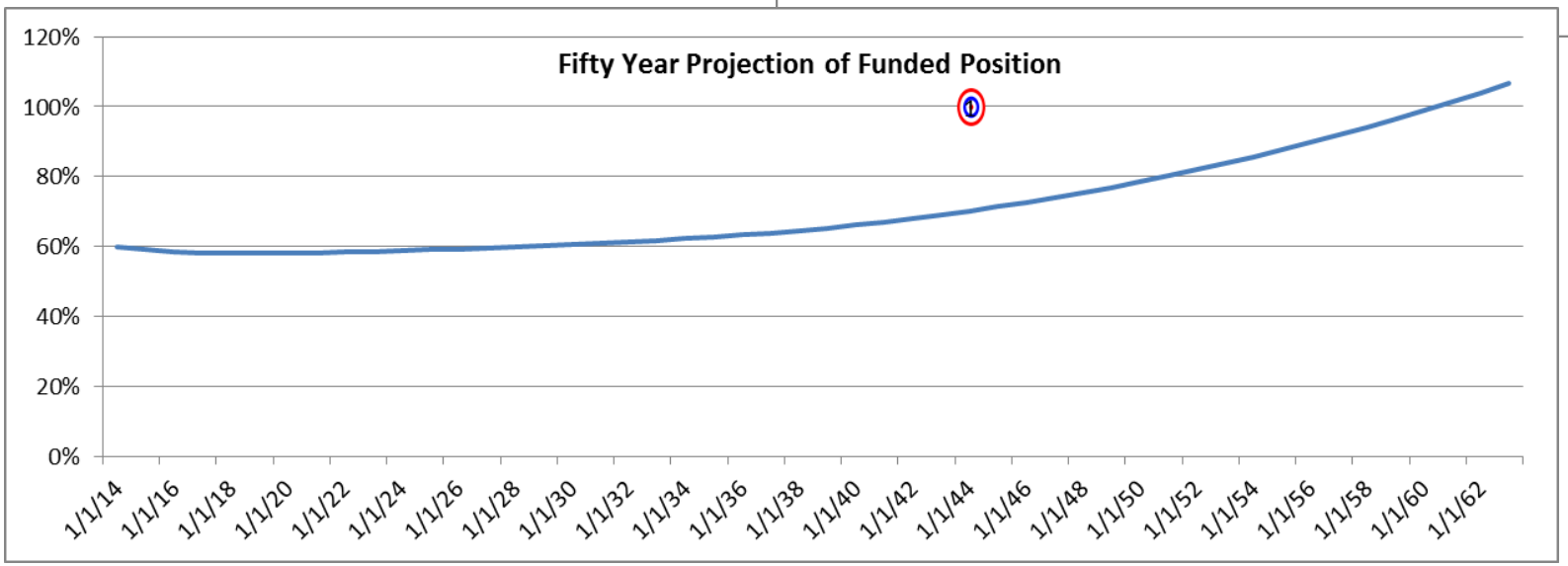


Goal: Make recommendations to strengthen the solvency of the KTRS

Especially with 1% cut for current members

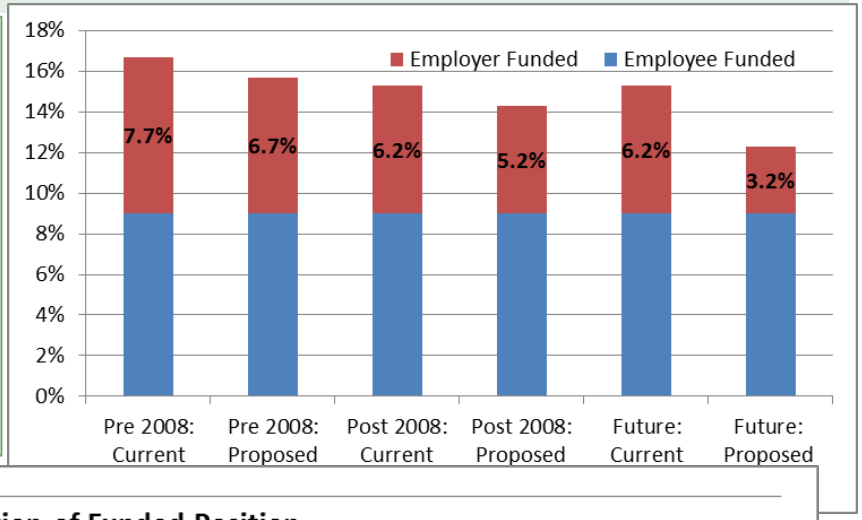
- 5% increased contributions
- Phase in over 5 years
- 3% benefit reductions for future teachers
- 1% benefit reductions for current

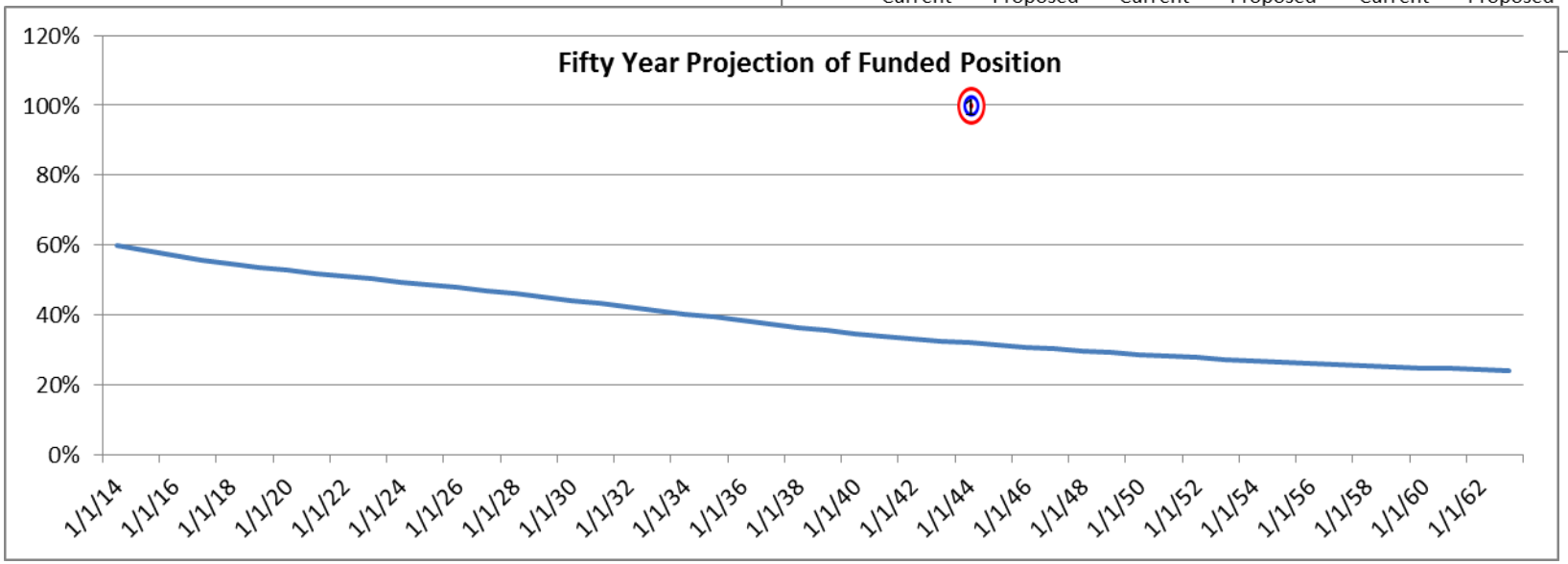




But this gives little margin of error if we don't hit investment return target

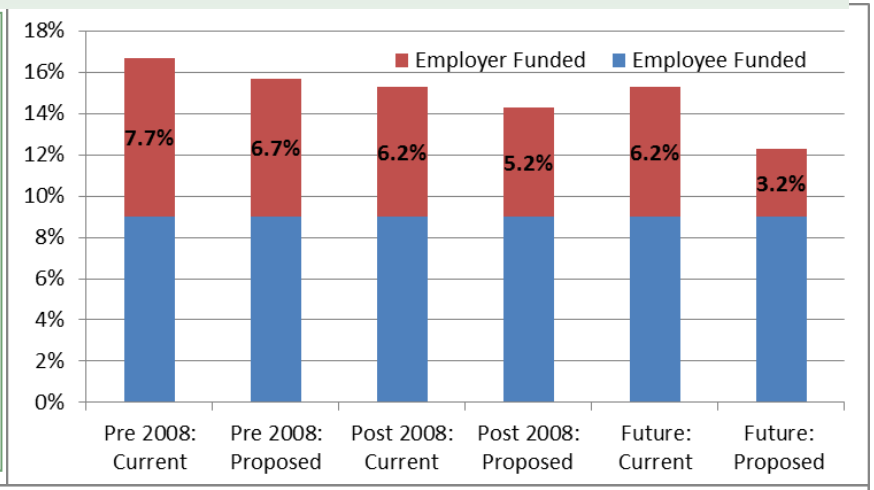
- 5% increased contributions
- Phase in over 5 years
- 3% benefit reductions for future teachers
- 1% benefit reductions for current
- 6% investment return

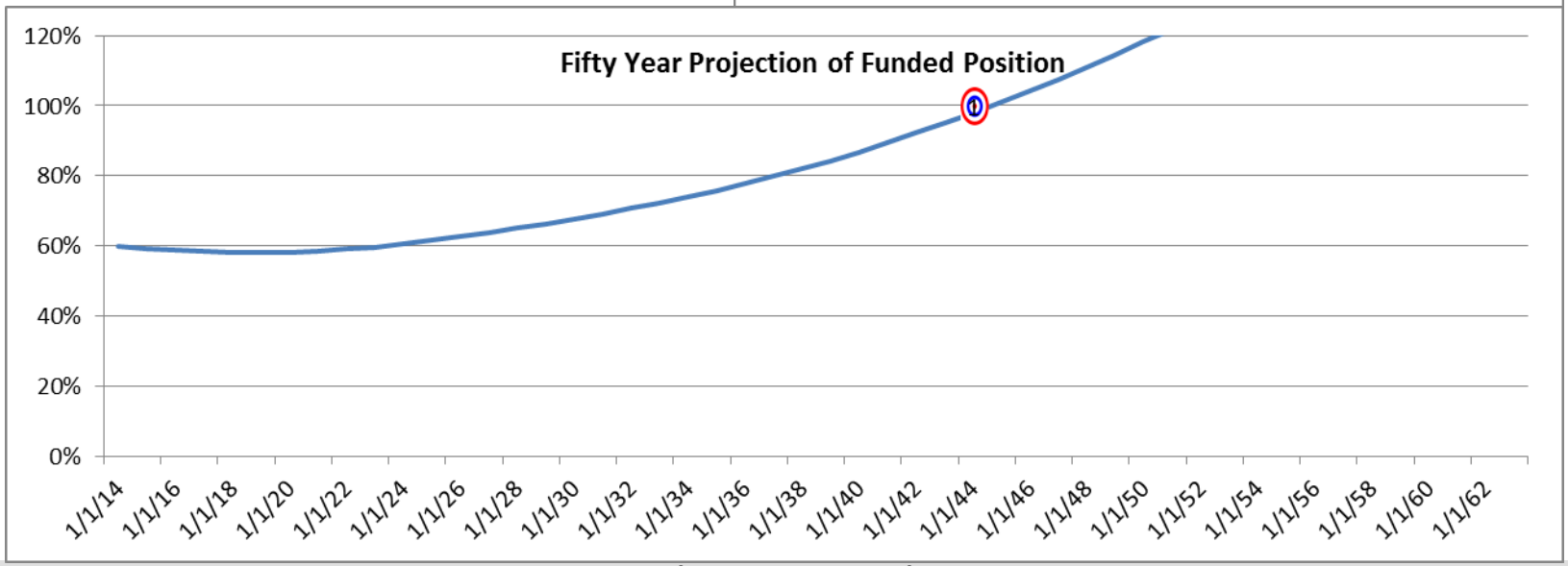




Getting to actuarial soundness requires more

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

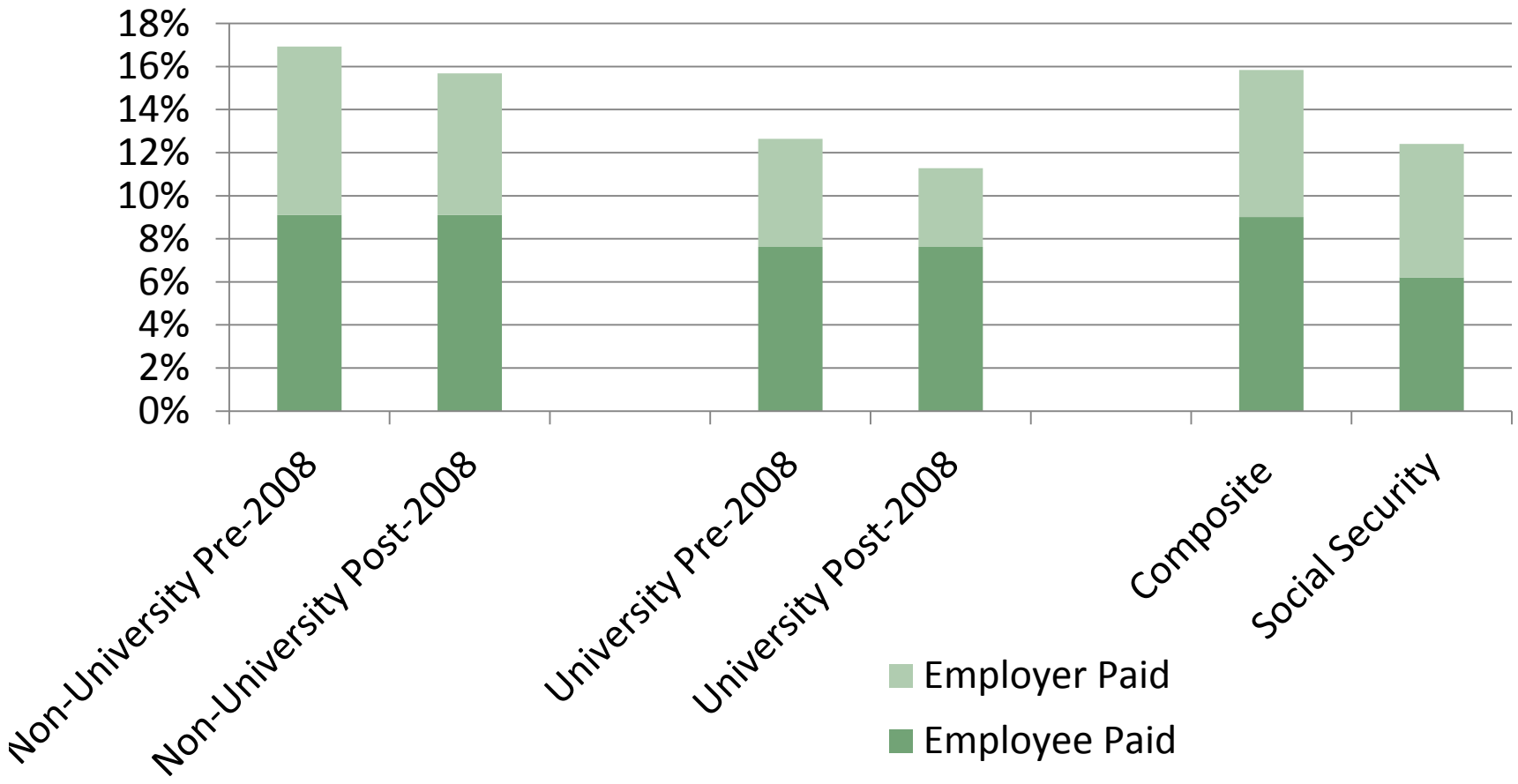




What are the levers for reducing Normal Cost – Current Members

- Only benefits which are not subject to "inviolable contract" may be reduced:
  - Sick Leave
  - Higher accrual rate (3.0%) for years of service beyond 30
  - Final Pay Adjustment after age 55 with 27 years
- Costs reductions do not reflect non-pension:
  - Reduced Retiree Health Care Costs
  - Reduced Overtime Costs

Current Benefit Values / Normal Cost



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	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.

What are the levers for reducing Normal Cost – Future Members

- Current Composite Total Normal Cost is 15.84%
  - Composite Member Contribution Rate of 9.01%
  - Net Pension Value provided by Employer is 6.83%
- Possible levers
  - Early Retirement Eligibility
  - Reduce Multiplier
  - Stretch Final Average Earnings Period beyond 5 years
  - Reduce COLA

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
Current Costs (blended University & Non-University)	
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

Rough Estimates of other Normal Cost Savings – Future Members

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

- Enter Social Security
- Create Defined Contribution Plan
- Create Hybrid Plan
- Pension Obligation Bonds

- Keep in mind that current employer contribution toward future benefits is 6.83% on the average

Entering Social Security

- Current employer contribution for future benefits is 6.83% on average
- Social Security cost is 6.20%
- This would result in the following amounts available:
  - Employer: 6.83% minus 6.20% = 0.63%
  - Employee: 9.01% minus 6.20% = 2.81%
- Recall from prior graphs that Social Security benefit is less than half of current KTRS
  - 70% v 23% for teacher who hires at 33 and retires at 62
  - Similar for average teachers at other ages

Defined Contribution Plan

- Current DB Normal Cost for future benefits is 15.84% on average
- We calculate that this would result in the following DC benefits when converted to annuity (at 5%):

Hire Age	Retirement Age	KTRS Benefit %	15.84% DC Benefit %
24	55	75%	37%
33	62	70%	43%
48	65	31%	28%

Note: DC does not include pre-retirement Death or Disability Benefits

Cash Balance Plan

- Current KTRS DB Normal Cost for future benefits is 15.84% on average
- If Cash Balance Crediting Rate and is set equal to actual returns, then nearly equivalent to Defined Contribution Plan (for same contribution)
- If crediting rate is higher on the average, then:
  - Benefits would be higher, but
  - Costs would also be higher
- If crediting rate is lower on the average, then:
  - Benefits would be lower, but
  - Costs would also be lower

Cash Balance Plan – Continued

- Various Cash Balance Plan features can be incorporated which alter costs and benefits
  - Investment risk shifting to workers
  - CB (like DC) rewards short service employees relative to DB
  - CB (like DC) would need supplemental pre-retirement death and disability benefits
- No features automatically result in higher benefits at lower cost, merely create winners and losers vis-à-vis DB or DC

Paying off Unfunded Liability Remains Necessary Regardless

- 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

Actuarial Calculations in Process

- By Cavanaugh MacDonald (KTRS actuary)
  - Various cost projections
- By Segal
  - Actuarial Audit
- By PTA
  - Review of above
  - Consideration of offsetting labor costs savings and/or health care savings associated with non-inviolable provision repeals
  - Summary of normal costs and total costs
    - CERS & Other Kentucky plans
    - Other private Defined Benefit plans

Meeting Agendas

- September 25 – PTA general presentation of broad alternatives
- October 16 – Work group feedback on alternatives and expansion and definition of alternatives
- November 6 – Begin to draft proposal
- November 20 – Complete proposal