Kentucky Teachers' Retirement System

Funding Work Group

Final Report

December 4, 2015

Prepared and submitted to Governor Steven L. Beshear
Pursuant to Executive Order 2015-385

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December 4, 2015

To the Honorable Governor Steven L. Beshear,

It is with pleasure and pride that I submit to you, on behalf of the KTRS Funding Work Group established by your Executive Order 2015-348, the following report.

This final report is a compilation and distillation of stakeholder testimony, Work Group member discussions and advice and alternatives presented by the various pension and bond experts over the course of eight meetings.

I would be remiss if I didn't thank all of the retirees and active teachers for their dedicated attendance at the Work Group meetings; the concerned individuals that provided testimony at the September 11 meeting; the constituents that submitted comments and suggestions via the KTRS Funding Work Group web site; and to Secretary Mary Lassiter for her guidance in the plan of action for the Work Group. I also want to acknowledge and thank KTRS for providing their staff members, Felicia Penn and Greg Hall, to capture notes from each meeting. Without the engagement and support of these groups and individuals, as well as untold others, this report would not be possible. Finally, it was an honor to work with Robin Morley who is a consummate professional. Her tireless work and sense of humor were greatly needed.

On behalf of the members of the Work Group, I also want to thank you for the opportunity to discuss and recommend components of a solution for one of the most pressing financial challenges that will be faced by the Commonwealth in the coming years.

Sincerely,

David Karem, Chair
Kentucky Teachers' Retirement System Funding Work Group

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BACKGROUND

On June 16, 2015, Governor Beshear signed Executive Order 2015-385 creating the Kentucky Teachers' Retirement System Funding Work Group. David Karem, former State Senator and former Chair of the KY Board of Education was appointed as work group chair to lead 24 legislators, educators, retirees and business leaders.

Work group membership includes:

David Karem, Work Group Chair	KY Board of Education
Dave Adkisson	KY Chamber of Commerce
Mike Armstrong	KY School Boards Association
Jason Bailey, Executive Director	Kentucky Center for Economic Policy
Mary Ann Blankenship, Executive Director	KY Education Association
Sen. Joe Bowen	Chair, State and Local Government Committee Co-Chair, Public Pension Oversight Board
Jane Driskell, Director	KY Office of State Budget Director
Adam Edelen	KY Auditor of Public Accounts *Non-voting member*
Amanda Ellis	KY Dept of Education
Lori Flanery, Secretary	KY Finance Cabinet
Rep. Derrick Graham	Chair, House Education Committee
Gary Harbin, Executive Secretary	KY Teachers' Retirement System
Todd Hollenbach	KY State Treasurer
Rep. Jeff Hoover	House Minority Floor Leader
Mary Lassiter, Secretary	Governor Beshear's Executive Cabinet
Timothy Longmeyer, Secretary	KY Personnel Cabinet
Roger Marcum, Chair	KY Board of Education
Sen. Morgan McGarvey	KY Senate
Brent McKim, President	Jefferson County Teachers' Association
Brigitte Blom Ramsey	Prichard Committee for Academic Excellence
Tom Shelton, Executive Director	KY Association of School Superintendents
Rep. Greg Stumbo	Speaker of the House
Sen. Damon Thayer	Senate Majority Floor Leader
Bob Wagoner, Executive Director	KY Retired Teachers Association
Wayne Young	KY Association of School Administrators

William B. "Flick" Fornia, Pension Trustee Advisors (PTA) served as the Work Group consultant

The Executive Order states that the work group shall:

1. "….make recommendations on principles that should be established to assure a sustainable high quality workforce in Kentucky's education system."
2. "….make recommendations for improving the fiscal solvency of the KTRS, including but not limited to, increasing state appropriations for contribution rates, financing or refinancing liabilities, and adjusting components of benefits for future members of the KTRS."

SUMMARY and RECOMMENDATIONS

As work group members met to address the deliverables designated in Governor Beshear's Executive Order, some recommendations became evident, are summarized below and more fully described in the remainder of this report.

Recommendation: The special appropriation and debt service savings, commonly known as green box and yellow box dollars, should stay with KTRS to help address the unfunded liability in the pension fund as the associated obligations go off-line and the funds become available for this purpose. (See further explanation and chart under the "Increased Contributions" heading.)

Recommendation: As contribution and benefit adjustments become clearer in coming weeks and months, the Work Group recommends that KTRS and their actuary, Cavanaugh Macdonald (CMC), prepare very thorough projections and adjustment impacts.

The Work Group encourages the Governor, members of the General Assembly and all stakeholders to continue the meaningful dialogue that has taken place over the last six months. While it was not possible to reach consensus around a single specific solution, common ground was found, and it is reasonable to expect that a solution can be identified. The remainder of this report is offered as information for the Governor and members of the General Assembly to use as a roadmap for their actions going forward.

GUIDING PRINCIPLES

The following fundamental beliefs influenced the discussions of the Work Group and formed the parameters within which various scenarios and components of a comprehensive solution were considered:

1. The status quo is unsustainable. While the projected date of insolvency may vary based upon the assumptions made and accounting models used, doing nothing leaves the Kentucky Teachers' Retirement System on a pathway to insolvency.

2. Full funding of KTRS should be achieved within 30 years – by 2046.

3. This Work Group recommends preservation of all components of the inviolable contract between the Commonwealth of Kentucky and current educators.

4. Approaches to improving the solvency of KTRS must be multi-faceted. A combination approach of increased contributions and benefit adjustments will put KTRS on the path to financial health and stability.

5. Actions taken as a result of this Work Group report should be long-term. Actions that involve phasing-in additional contributions must be balanced against the need to share responsibility equitably between current and future Kentuckians/taxpayers who ultimately fund the employer contribution to the Teachers' Retirement System.

6. The current underfunding of the Kentucky Teachers' Retirement System is negatively affecting the Commonwealth's credit and bond ratings. Lack of action to fund the system during the 2016 legislative session will do further harm to the Commonwealth's credit and bond ratings.

7. Benefits for current KTRS retirees and their beneficiaries should be exempt from any reductions in accordance with current Kentucky law.

8. Following the spirit used to address the retiree health insurance costs by the 2010 General Assembly in House Bill 540, a multi-faceted and comprehensive solution to address pension system underfunding may include shared responsibilities among the Commonwealth, school districts, and members of the KTRS.

9. The Work Group urges that KTRS funding be treated as among the highest level budget priorities. The Governor and General Assembly should, in as fiscally responsible manner as possible, move toward fully funding the actuarially required contribution for future budget periods. Any plan to return KTRS to financial health and stability should contain meaningful

reforms, sound actuarial assumptions and additional appropriations to satisfy the bond rating agencies that will ultimately judge Kentucky's level of fiscal discipline or lack thereof.

10. The need for additional funding of KTRS has been solidly demonstrated and all options for making the required actuarial contributions now and in the future should be considered by the General Assembly. This is also necessary to minimize the untimely sale of assets to pay benefits, which over time may hurt investment performance.

11. A high quality education workforce is necessary to achieve our education and economic goals for Kentucky. Decisions made about the Kentucky Teachers' Retirement System should recognize and consider the impact on the total compensation package for teachers, ensuring continued attractiveness of the profession to high quality candidates and retention of effective professionals.

This report is intentionally silent on the causative factors which may have contributed to the current financial circumstances of KTRS.

COMPONENTS OF A COMPREHENSIVE SOLUTION *–with illustrative examples*

To fully and realistically address the financial solvency of the Kentucky Teachers' Retirement System, a balanced, multi-faceted solution is required. Components of a solution fall into two very broad categories: increased contributions and benefit adjustments for teachers.

The Work Group urges all decision-makers to adopt a solution that will yield 100% funding of the pension system in no more than 30 years, regardless of future variations in the economy, state budget, etc. To fail to achieve full funding in no more than 30 years will continue to place the burden of the cost of current benefits on future teachers and citizens – and will, undoubtedly, be perceived negatively by the Commonwealth's credit ratings agencies.

INCREASED CONTRIBUTIONS

Increased contributions may come in the form of direct employer (Commonwealth) allocations, employee (teachers) contributions, pension obligation bonds, and/or other revenue producing measures.

Although teachers and the General Assembly have regularly contributed to KTRS, the contributions have not been, nor are they projected to be, sufficient to cover the accumulated unfunded liability.

In FY16, the Commonwealth's statutory contribution would need to have been supplemented by approximately $487 million to meet the actuarially determined employer contribution (ADEC, also referred to as the annual required contribution or ARC) as calculated by Cavanaugh Macdonald, the KTRS actuary.

Pension obligation bonds (POBs) may have a role to play, if the issuance of the bonds is part of a more comprehensive plan to address pension funding shortfalls. POBs, as a phase-in or bridge to ARC funding, should allow the retirement system to move to 100% funding more quickly and at lower cost than relying solely on increased contributions. However, authorizing legislative action should give the Finance and Administration Cabinet/Office of Financial Management the discretion to size and time the bond issues as deemed to be in the best interest of the Commonwealth. (In other words, don't require a single bond issue for the full amount authorized by a date certain.) Ultimately, however, the Commonwealth will only realize any savings from pension obligation bonds if the returns earned on the money invested exceed the interest paid on the money borrowed.

Without knowledge of the budgetary condition and requirements for the Commonwealth in future bienniums, the Work Group is unable to recommend a specific amount of increase in employer contributions. However, the Work Group does recommend that the General Assembly honor the 2014 pledge made in HB235 of using savings from lower debt service funding requirements for bonds previously issued for KTRS to reduce the rate of growth of the unfunded liability. As indicated in the table below, this amount ranges from $9.6 million in FY17 to $116 million in FY24.

Debt Service Savings

(AKA 'Yellow Box Dollars')

Fiscal Year	Amount
2016-17	$ 9,598,194
2017-18	19,288,638
2018-19	37,570,537
2019-20	55,858,146
2020-21	64,776,564
2021-22	83,420,713
2022-23	99,071,099
2023-24	116,436,562
2024-25	116,436,562
2025-26	116,436,562

Further, the Work Group recommends continuing the 2.7% of pay special appropriation, which is about $117 million in FY 2016. This is colloquially known as "green box dollars" and consists of amortized payments of prior benefit improvements set forth in KRS 161.553.

The consultant (PTA) has analyzed several potential changes in employer contributions that assume the General Assembly permanently dedicates the sources of funding outlined above to address pension underfunding, as the Funding Work Group recommends (see "Summary of Recommendations" section). One simply begins to fund the ARC. The other increases employer contributions, phased in, from 5% to 12% over an eight-year period beginning in FYE 2017 and continuing until the plan is fully funded.

Funds generated are summarized in the following table.

Scenarios for Employer Contribution Increases	2017	2022	2027	2032	2037	2042
Percentage increase from current						
Pay the ARC	14%	11%	8%	9%	9%	10%
Phase in from 5% to 12%	5%	10%	12%	12%	12%	12%
Dollar increase from current ($ millions)						
Pay the ARC	$511	$417	$421	$530	$685	$895
Phase in from 5% to 12%	$185	$433	$612	$725	$871	$1,059

It is important to keep in mind that another phase-in approach considered, which begins at only 1%, is unlikely to be favorably considered by the credit rating agencies because it is such a long-term period before the full ARC is paid. Furthermore, it would not improve KTRS cash flow materially nor will it solve the liquidity problem, which is a drag on KTRS returns.

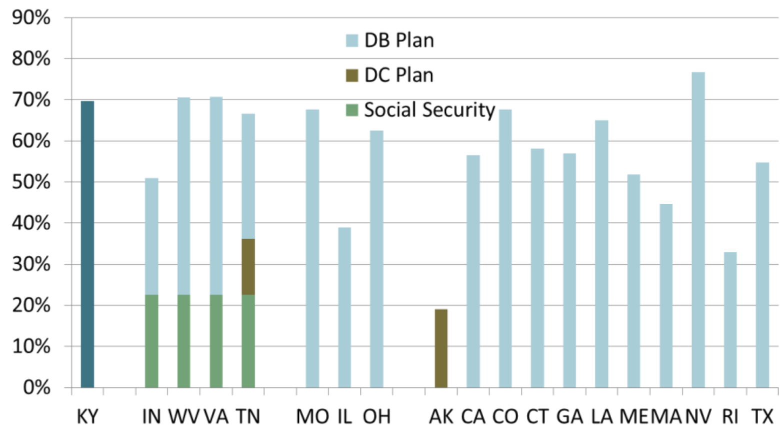
Estimates of the future payroll to which the percentages identified above are applied are based on the assumption that after 25 years, all members will be those hired in the future and there will be no further cost savings. Unpaid ARC in previous years carries into future periods. Once specific scenarios are more rigorously defined, the Work Group acknowledges that CMC should be asked for more definitive and robust projections, delineating between those hired before and after the effectiveness of pension reform as well as the impact of unfunded liability from previous years.

BENEFIT ADJUSTMENTS

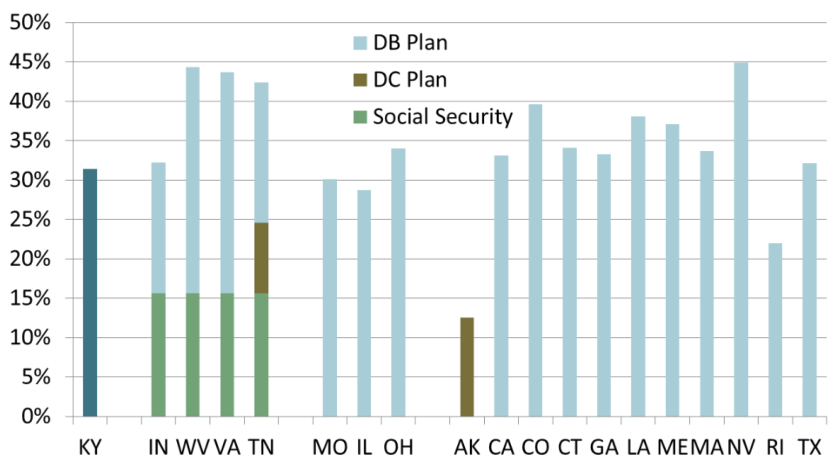
KTRS benefits for new hires were reduced in 2002 and again in 2008. In 2010, retirees began paying approximately $150 more in monthly premiums for healthcare at the same time active teachers and school districts each began paying 3% of teachers' salaries into the healthcare fund.   These plan modifications are important to keep in mind as solutions to KTRS's financial problems are weighed.

PTA's analyses, as demonstrated in the charts below, show that Kentucky teachers' retirement benefits for future early-retiring, long-tenured educators are more generous than almost all contiguous states as a percentage of pay (see charts below).

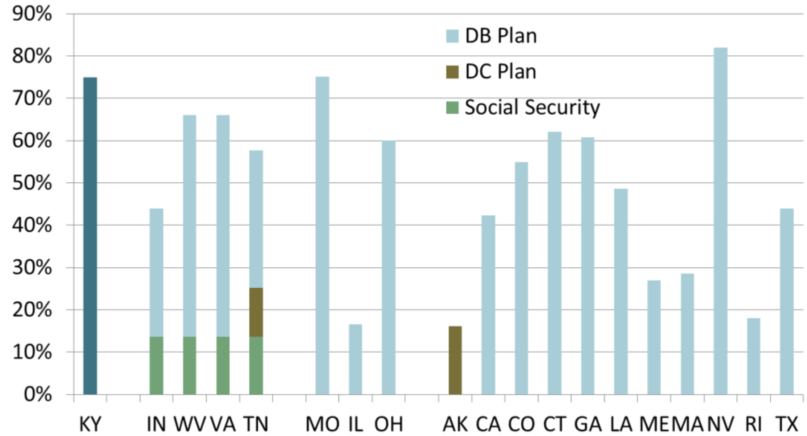
Benefits as % of Pay - Age 33 hire, retiring at 62



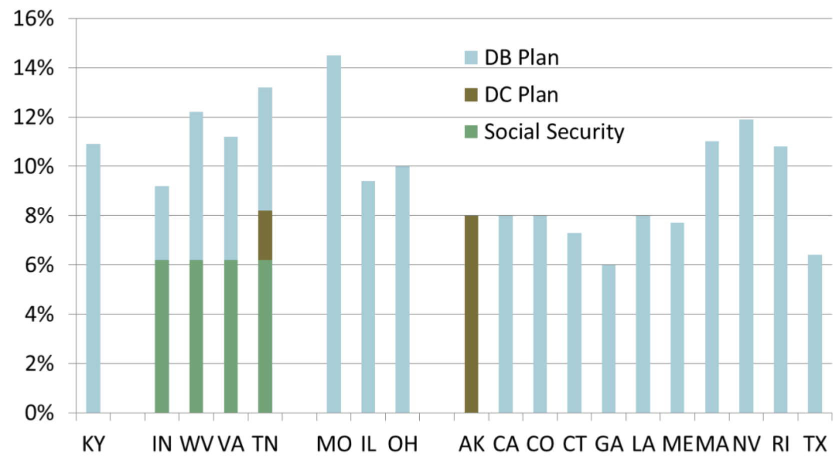
Benefits as % of Pay – Age 48 hire, retiring at 65



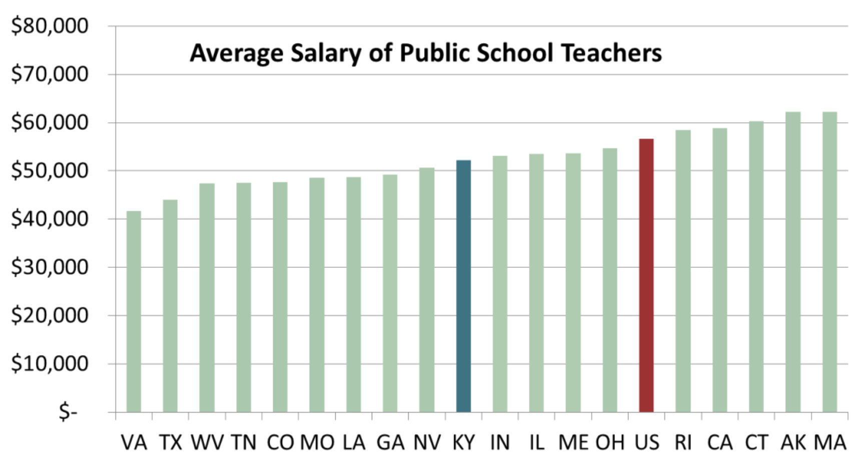
Benefits as % of Pay – Age 24 hire, retiring at 55



Teacher Contribution Rate



Kentucky Teacher Wage Comparison – Adjusted by Comparable Wage Index



Reduced benefits may come in the form of benefit plan adjustments for current teachers, future teachers, or both. While technically not a reduction of benefits, increased member contributions, which reduce members' take-home pay, would be included in this section.

Current Teachers

The few benefits for current teachers that fall outside the inviolable contract include (1) retirement benefits based on three years of salary rather than five years for retirees who are 55 with 27 years of service; (2) an enhanced multiplier (3.0%) for years of service beyond 30; and, (3) providing a retirement salary credit rather than a service credit for a portion of accumulated sick leave.

CMC estimated the cost savings for each of these three potential reductions for current members. Note that these cost savings do NOT consider:

- Potential negative consequences for retiree healthcare costs to the extent that the changes result in earlier retirement and increased retiree healthcare costs. These costs may, of course, be offset by the lower costs to school districts of beginning teachers who start their careers at lower salaries.
- Phase-in of the provisions which might cause the one-fourth of today's teachers which are eligible to retire now to retire very soon. Retirements at that volume would make it difficult for districts to fill vacancies and students would lose out as they have a high percentage of new teachers instead of a more balanced blend of experienced and new teachers.
- Potential increased costs to school districts if the treatment of sick leave at retirement were to be changed. If teachers use their sick leave rather than save them for payment at the end of their careers, then school districts will be faced with higher cost for substitute teachers and educational progress in the classroom may be disrupted.

As a result of these considerations, the cost savings summarized in the following table are the maximum potential savings.

Scenarios for current member benefit reductions	Cost Savings						
	As a percent of pay	Annual savings ($millions)					
		2017	2022	2027	2032	2037	2042
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%	$24	$23	$20	$16	$9	$0
Remove 3.0% formula multiplier for service beyond 30 years of service. Continue with 2.5%	0.25%	$9	$9	$8	$6	$4	$0
Sick Leave treatment (shift from salary credit to service credit)	0.66%	$24	$23	$20	$16	$10	$0

It is critically important to note that the Work Group does NOT recommend reductions to the inviolable contract that exists between current teachers and the Commonwealth.

Future Teachers

Reductions to future teacher benefits represent significant savings to the Commonwealth's budget but these savings will be phased-in over 25 or more years. In the short-run, the savings to KTRS are very small, as new teachers represent a small portion of the workforce. However, the Work Group cautions that changes to benefits for future teachers do not reduce the current KTRS unfunded liability, although these changes will slow the growth of the liability in the future.

The unfunded liability is based on various assumptions and expectations about teachers currently in the system. Benefits earned by teachers yet to be hired have no impact on current unfunded values. The payment for amortization of the unfunded liability is estimated to equal 21% of pay.

CMC estimated the cost savings for various reductions for future members. PTA has made similar estimates for others. Cost savings are summarized in the following table.

Scenarios for future member benefit reductions	Cost Savings						
	As a percent of pay	Annual savings ($millions)					
		2017	2022	2027	2032	2037	2042
Remove feature where highest average salary is based on three years instead of five years for those 55 with 27 years of service	0.3%	$0	$3	$7	$12	$19	$29
Remove 3.0% formula multiplier service beyond 30 years of service. Continue with 2.5%	0.1%	0	1	3	5	7	11
Sick Leave treatment (shift from salary credit to service credit)	0.3%	0	3	7	12	19	29
Require minimum age 55 for full retirement	0.48%	0	4	10	17	28	42
Require minimum age 60 for full retirement	1.55%	0	13	32	56	90	137
Require minimum age 61 for full retirement	1.75%	0	15	36	63	102	154
Require minimum age 62 for full retirement	1.95%	0	17	40	71	113	172
Require Rule of 90 for full retirement	1.10%	0	10	22	40	64	97
Require Rule of 87 for full retirement	0.75%	0	6	15	27	44	66
Require Rule of 85 for full retirement	0.53%	0	5	11	19	31	47
Increase Salary Averaging Period to 7 years	0.6%	0	5	12	22	35	53
Reduce COLA to 1% and apply only after 65	1.4%	0	12	29	51	81	124

Increased Member Contributions

PTA has not made robust calculations of the cost savings that can be expected from increased future member contribution rates. However, they have performed estimates based on the experience of other teacher retirement systems. For example, if members contribute an extra 1% of pay, the savings to the employer is somewhat less than 1% because some members will leave the education field in Kentucky and withdraw their KTRS contributions.

The table below assumes that on the average, 75% of the 1% contribution will result in cost savings while the other 25% will be returned to members in the form of refunds. This will be lower for the tier of members hired before transition and higher for the tier of members hired after transition.

Cost savings are summarized in the following table.

Scenarios for future member contribution increases	Cost Savings						
	% of teacher pay	Annual savings ($millions)					
		2017	2022	2027	2032	2037	2042
1% increase in all member contributions	0.75%	$28	$32	$38	$45	$54	$66
1% increase in current member contributions	0.80% to 1.0%	28	28	27	24	14	0
1% increase in future member contributions	0.5% to 0.75%	0	4	11	21	40	66

It is very important to remember that all of the estimates of the future payroll to which the cost savings are applied are based on the assumption that after 25 years, all members will be those hired in the future and there will be no further cost savings. Once scenarios are more rigorously considered, we recommend that CMC make more robust payroll projections delineating between those hired before and after the effective date of KTRS pension reform.

Defined Contribution Plan

There are many different variations of defined contribution plan designs available. Conceptually, the Work Group discussed closing the current benefit plan to new hires and opening a new defined contribution plan for new hires at some point in the future. The following comments apply to defined contribution plans in general.

Long-term consequences of implementing a defined contribution plan for Kentucky's new teachers include:

- Investment returns earned by individuals managing their own investments typically lag returns earned by professional plan managers by more than 1%;
- As individuals age, their investment choices must become more conservative;
- It is impossible for individuals to predict their own life expectancy while KTRS can predict the life expectancy of the group much more accurately;
- As the assets associated with the current plan are used up and fewer and fewer contributions are added to the system, the investment returns earned by the plan are reduced and will increase the cost of paying off system liabilities; and
- It is possible that as future teachers earn lower benefit levels in retirement, some retirees may need to receive public assistance.

Without specifics of a DC plan, it is difficult, if not impossible, to quantify savings that would accrue to the Commonwealth in the future. The experiences of other states as they transitioned to defined contribution plans may offer important guiding information for Kentucky policymakers.

Possible Costs/Savings of Defined Contribution Plan

Potential DC Alternative Cost and Benefits	State Cost	Benefit relative to Current
Scenario I – Maintain Contributions at Current Normal Cost		
Basic State Contribution	6.6%	71%
Increased KTRS cost if changed asset allocation	4.9%	
Public Assistance Costs	0.6%	
Total Potential Employer Costs	12.1%	
Increase in Employer Costs	5.5%	
Scenario II – Increase Contributions to Maintain Benefits		
Basic State Contribution	13.0%	100%
Increased KTRS cost if changed asset allocation	4.9%	
Total Potential Employer Costs	17.9%	
Increase in Employer Costs	10.3%	

NOTE: 17.9% minus 6.6% should be 11.3% in the last line of the chart.

OTHER INFORMATION

Other options that were discussed but not considered viable parts of a financial stability plan for KTRS at this time include:

- Social security participation by Kentucky K-12 teachers

  Social Security was not found to be a cost-effective alternative because the level of benefits provided by employer and teacher contributions (12.4%) are significantly lower than those which could be provided through a Kentucky-provided Defined Benefit or Defined Contribution plan. Furthermore, the 6.20% required employer contribution toward Social Security is nearly as high as the 6.58% employer funded Normal Cost for newly hired teachers. This indicates that if Social Security was adopted, only 0.38% of payroll would be available for supplemental employer provided benefits.

- Transferring ownership of certain Commonwealth assets to KTRS for liquidation

Process Summary

Through the course of their meetings, the Work Group has identified options and alternatives for consideration by the Governor and members of the General Assembly during the 2016 Legislative Session. They have quantified the fiscal impact of the solution components and documented the pros and cons associated with each to the extent practical and possible.

Work Group Meetings

Between July 17 and December 1, 2015, the KTRS Funding Work Group met eight (8) times. A website was established to keep the public informed about the proceedings of the group, share all meeting materials and to solicit comments and suggestions from the public. All meetings were held in Frankfort and were open to the public. Kentucky Educational Television recorded and archived the meetings on their web site. All meeting materials and video recordings of each meeting are included as appendices within this report.

Consultant

As a result of a competitive solicitation, Pension Trustee Advisors (PTA) was selected to serve as an independent, objective source of experience in public retirement plan design and funding. PTA, specializing in critical intense public pension plan studies, has conducted similar projects in Ohio and Colorado. They also bring experience with teacher plans in Missouri, Illinois, Ohio, Louisiana, Colorado, Alaska, Puerto Rico, Vermont, Louisiana, Oklahoma, South Dakota, Utah, North Dakota, California, and New Mexico to Kentucky.

William B. “Flick” Fornia led the project, accompanied by Paul Schrader and Linda Bournival. The PTA scope of work included:

- Analysis of Actuarial Components
- KTRS Plan Design
- System Funding
- Assessment of Impact
- Ad hoc analyses

Final Comments

Work Group members were provided an opportunity to include comments and reaction to this report.

Representative Greg Stumbo, Speaker of the House of Representatives:

> After reviewing this report, I find that I cannot support it. While I appreciate the dedication and efforts of the Kentucky Teachers' Retirement System (KTRS) Work Group, the final report does not provide a clear road map for a funding solution to help improve KTRS' fiscal solvency. I find it to be just a collection of general findings, rendering it incomplete.
>
> The report does discuss increased contributions as a component of a comprehensive solution, but neglects to say how these contributions would be financed. The group heard testimony from bonding experts that bonding works best when part of an overall plan and can provide liquidity so the pension fund does not need to sell higher-performing assets to pay benefits. My House Bill 4, which the House of Representatives passed during the 2015 Regular Session, was the perfect vehicle for such a plan, and will be offered again in 2016. It remains the only viable alternative offered so far that would put KTRS on firmer ground financially. We need the money bonding can provide to ease the transition period until General Fund contributions can be fully phased-in.
>
> This pension obligation will be a major issue facing the legislature not just in the upcoming budget session, but in many budget sessions to follow, and the problem will only worsen if the General Assembly fails again to act. We can no longer afford to wait, so it is my hope that the task force, and ultimately a majority of legislators, will embrace the concepts behind House Bill 4 or offer another worthy alternative.