Commonwealth of Kentucky

Pension Performance and Best Practices Analysis

Report #3: Recommended Options

Summary Presentation to the Public Pension Oversight Board

August 28, 2017

PFM Group Consulting LLC

In conjunction with:
PRM
Stites & Harbison

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Overview

Through past legislative reforms, recent Board actions, and significant additional funding in FY2017-2018, Kentucky has already taken many positive steps to address its retiree benefits. Without these prior actions, the current situation would be far worse.

Nonetheless, the continued severity of the Commonwealth’s remaining challenge requires further strong, corrective action. Kentucky’s remaining underfunding is acute and growing, threatening the solvency of the most underfunded plans, and incremental steps will not suffice to restore stability.

- The most-stressed plans have limited assets to withstand downturns and, under previous actuarial assumptions and funding schedules, would have gone more than another decade without improvement to their funded status if all actuarial assumptions were met and recommended contributions made in full.

- If Kentucky plans were subject to federal standards for single-employer private sector plans, all but the Judicial and Legislative plans would be defined as having a severe funding shortfall (funded status <60%), and would be required by statute to freeze benefit accruals.
Overview

- Even with a stronger foundation placed quickly and decisively into place, a long-term commitment to reform will also be needed to rebuild on this foundation toward regaining fully sustainable fiscal health.

- The actuarial, funding, benefit, and investment approaches across the Commonwealth’s different plans are complex, interconnected, and impact many, diverse stakeholders in varying ways. In our recommendations, we have sought to balance these concerns through a consistent approach that also resolves the current crisis on a sustainable basis.

- In so doing, we have also sought to reflect the policy principles and direction set forth by Governor Bevin and the Commonwealth’s leadership – with a focus on strong action that places these systems on a truly sound and realistic foundation without further “kicking the can down the road.”

- At the same time, we recognize that the process ahead prior to enactment of further change may result in further refinement and adjustments to the specific approaches we outline as Kentucky moves forward.
Overview

As the next phase of this important reform process begins, it is our sincere hope that this Report #3 and its recommended options will provide a sound framework for the critical work just ahead, contributing to an enduring resolution that sustains competitive benefits on an affordable and sustainable basis for Kentucky’s career public employees to retire with security and dignity.
Key Policy Principles and Goals

- The severely distressed condition of the KERS-NH plan, and the systemically high level of unfunded liabilities across all of Kentucky’s plans in the aggregate, require strong action to reduce the risks of:
  - Continued increases in funding that crowd out other vital public spending and/or reach levels that cannot be sustained in the budget while keeping the state’s taxes at a competitive level to support the Commonwealth’s growth
  - Resorting to the payment of benefits on a pay-as-you-go cash basis, which would be fiscally unsustainable
  - Plan insolvency, jeopardizing the retirement security of tens of thousands of former state and local government workers

- To the extent possible, accrued benefits for service earned by employees and retirees should be protected within a framework consistent with Inviolable Contract provisions and federal Employee Retirement Income Security Act (“ERISA”) standards for private plans
  - While legal challenges to any changes the Kentucky General Assembly may make are almost inevitable, based upon advice of counsel who have studied KRS 61.692 and similar statutes nationwide, it appears that the legislature has many options that would pass judicial scrutiny in light of the extremely serious pension situation facing all Kentuckians
Key Policy Principles and Goals

- **Long-term** solvency of the retirement system as a whole must be ensured so that current retirees and future retirees can rely on secure retirement benefits.

- Risk levels systemically and for each individual plan should be reduced as much as possible to avoid recurrence of the severe deterioration in the retirement systems' health. Future liabilities should be valued conservatively, and the future risk to the Commonwealth associated with changes in economic conditions, investment returns, demographics, and actuarial methods and assumptions should be minimized.

- The Commonwealth’s benefit structures should reduce future exposure to risk and the potential for unfunded liabilities to reemerge, in order to safeguard plan sustainability for KRS, TRS, and KJFRS participants, employers and the taxpayers.

- The Commonwealth’s overall approach as an employer should provide career state and local employees and teachers a sufficient and sustainable benefit for a dignified retirement through a combination of benefits from KRS, TRS, and KJFRS, Social Security, and personal savings, while also accommodating and providing flexible and competitive options for workers who may spend only a portion of their career in public service.
Approaches

In this Report #3, we present ideas and alternatives for improving the long-term security, reliability, and affordability of Kentucky’s retirement programs.

These recommended options build on our analysis of factors that have led to the current conditions, addressing the full range of causes for the funding shortfalls:

- Actuarial assumptions
- Benefit levels and risk exposure
- Funding
- Investment practices and approach
Actuarial Assumptions
Actuarial Assumption Recommendations

- Modify Kentucky statute KRS 61.565 to convert the level percent of payroll amortization method for KRS to a level dollar method
  - This consistent approach to reducing the Commonwealth’s long-term pension debt will substantially increase the likelihood of steady and meaningful progress toward regaining healthy funded status
- Modify Kentucky statutes KRS 161.550 and KRS 21.525 to apply a level dollar amortization method to TRS and KJFRS
Actuarial Assumption Recommendations

- Adopt and maintain prudent and realistic investment return assumptions

<table>
<thead>
<tr>
<th></th>
<th>2016 Plan Valuation Assumption</th>
<th>Plan Assumption as of July 2017</th>
<th>Recommended Assumption Range</th>
<th>Assumption Used for Report #3 Costing</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERS-NH, SPRS</td>
<td>6.75%</td>
<td>5.25%</td>
<td>5.0% - 5.25%</td>
<td>5.1%</td>
</tr>
<tr>
<td>KERS-H, CERS</td>
<td>7.5%</td>
<td>6.25%</td>
<td>6.0% - 6.25%</td>
<td>6.0%</td>
</tr>
<tr>
<td>TRS</td>
<td>7.5%</td>
<td>7.5%</td>
<td>6.0% - 6.25%</td>
<td>6.0%</td>
</tr>
<tr>
<td>JFRS</td>
<td>7.0%</td>
<td>7.0%</td>
<td>6.0% - 6.25%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>
Actuarial Assumptions

The magnitude of the impact of the recommended actuarial assumptions on the estimated FY2019 aggregate actuarially determined employer contribution (ADEC) for all systems, employers and funds is illustrated below.

<table>
<thead>
<tr>
<th>System</th>
<th>Impact ($Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERS-NH</td>
<td>$473.4</td>
</tr>
<tr>
<td>KERS-H</td>
<td>29.6</td>
</tr>
<tr>
<td>SPRS</td>
<td>25.7</td>
</tr>
<tr>
<td>CERS-NH</td>
<td>325.2</td>
</tr>
<tr>
<td>CERS-H</td>
<td>113.3</td>
</tr>
<tr>
<td>TRS</td>
<td>861.6</td>
</tr>
<tr>
<td>KJRP</td>
<td>5.5</td>
</tr>
<tr>
<td>KLRP</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>$1,836.0</td>
</tr>
</tbody>
</table>

Source: Cavanaugh Macdonald, BPSM, TRS figure from Cavanaugh Macdonald adjusted by PRM
Actuarial Assumption Recommendations

- Maintain the current 30-year amortization periods beginning June 30, 2013 and 2014 for KRS and TRS, respectively

- Apply a 30-year amortization period for the existing KJFRS unfunded liability, with 20-year closed periods for future unfunded amounts

- A reset period of 30 years under a new level dollar amortization might be considered to modestly smooth the fiscal impact of the significant shift in assumptions approved in May and July, and recommended in this Report for other plans, and the resulting escalation in required contributions in the near term
  - Resetting the amortization period with a level dollar amortization would not shift disproportionate amounts of liability principal past the end of the current amortization period, as is the case when level percent of payroll amortization periods are reset
  - It is important to note, however, that resetting the amortization period is not an optimal practice, and could generate unfavorable actuarial results. Accordingly, this option should only be considered if necessary to affordably bridge the transition to a significant and comprehensive set of long-term reforms
Benefit Levels and Risk Exposure
Benefit Recommended Options – Future Hires

- **KERS-NH, CERS-NH, JFRS**: Provide future hires with a 401(k) style defined contribution (DC) retirement benefit, with a mix of employer and employee contributions
  
  - Mandatory employee contribution of 3% of salary
  
  - Guaranteed base employer contribution of 2% of salary
  
  - Employer match set at 50% of additional employee contributions up to 6% of salary (i.e., up to an additional 3% from the employer)
  
  - Maximum employer contribution of 5% and total contribution of 14%
  
  - Employer contributions would vest 100% after 5 years, and 50% after 4 years

<table>
<thead>
<tr>
<th>Plan</th>
<th>Primary Benefit</th>
<th>Other Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERS-NH, CERS-NH, JFRS</td>
<td>Defined Contribution: 2% minimum employer contribution + 50% match on first 6% optional employee contribution above a 3% minimum employee contribution (i.e. 5% employer maximum, 14% total maximum)</td>
<td>No conversion of accrued sick, compensatory, and any other leave time toward pension benefit</td>
</tr>
</tbody>
</table>
Benefit Recommended Options – Future Hires

- **KERS-H, CERS-H, SPRS**: Retain the current cash balance structure for hazardous plan participants, modifying only the requirements for normal retirement eligibility to be age 60, with no provisions for retirement at any age based on years of service

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### Recommended Options – Future Hires

<table>
<thead>
<tr>
<th>Plan</th>
<th>Primary Benefit</th>
<th>Other Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERS-H, CERS-H, SPRS</td>
<td>Retain the cash balance structure as now in place for post-2014 hires</td>
<td>• Eliminate eligibility for normal retirement at any age with 25 years of service</td>
</tr>
</tbody>
</table>
Benefit Recommended Options – Future Hires

**Teachers Retirement System**: A shift to a combination of Social Security participation and a DC retirement benefit

- Mandatory employee contributions of 3%
- Guaranteed Base employer contribution of 2% of salary
- Additional employer match set at 50% of additional employee contributions up to 6% of salary (i.e., up to an additional 3% from the employer)
- Maximum employer contribution of 5% and total contribution of 14%
- The employer contributions would vest 100% after 5 years, and 50% after 4 years
- Participants would be eligible for retirement at age 65

### Recommended Options – Future Hires

<table>
<thead>
<tr>
<th>Plan</th>
<th>Primary Benefit</th>
<th>Other Adjustments</th>
</tr>
</thead>
</table>
| TRS – Non-University and University members | • Social Security (generally not now provided for non-University members)  
• Defined Contribution: 2% minimum employer contribution + 50% match on first 6% optional employee contribution above a 3% minimum employee contribution (i.e. 5% employer maximum, 14% total maximum) | No conversion of accrued sick, compensatory, and any other leave time toward pension benefit |
### Summary of Plan Benefit Recommendations – All Systems

<table>
<thead>
<tr>
<th>System</th>
<th>Plan</th>
<th>Benefit Reform Proposal</th>
<th>Minimum Contribution</th>
<th>Optional Employer Contribution</th>
<th>Average Contribution</th>
<th>Normal Retirement Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>KRS</td>
<td>KERS-NH</td>
<td>DC Plan</td>
<td>2% ER 3% EE</td>
<td>50% ER match on first optional EE 6%</td>
<td>3.2% ER, 6.5% EE: 9.7% total</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>KERS-H</td>
<td>No Change</td>
<td>No Change</td>
<td>n/a</td>
<td>n/a</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>SPRS</td>
<td>No Change</td>
<td>No Change</td>
<td>n/a</td>
<td>n/a</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>CERS-NH</td>
<td>DC Plan</td>
<td>2% ER 3% EE</td>
<td>50% ER match on first optional EE 6%</td>
<td>3.2% ER, 6.5% EE: 9.7% total</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>CERS-H</td>
<td>No Change</td>
<td>No Change</td>
<td>n/a</td>
<td>n/a</td>
<td>60</td>
</tr>
<tr>
<td>TRS</td>
<td>DC Plan + Social Security</td>
<td>2% ER 3% EE</td>
<td>50% ER match on first optional EE 6%</td>
<td>3.1% ER, 6.5% EE: 9.6% total</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>KJFRS</td>
<td>KJRP</td>
<td>DC Plan</td>
<td>2% ER 3% EE</td>
<td>50% ER match on first optional EE 6%</td>
<td>3.2% ER, 6.5% EE: 9.7% total</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>KLRP</td>
<td>DC Plan</td>
<td>2% ER 3% EE</td>
<td>50% ER match on first optional EE 6%</td>
<td>3.2% ER, 6.5% EE: 9.7% total</td>
<td>65</td>
</tr>
</tbody>
</table>

**Notes:**
1) ER= employer contribution; EE=employee contribution
Replacement Ratio Analysis

- To maintain the same standard of living in retirement, employees do not need to replace 100% of their pre-retirement income as expenses after retirement are lower. After retirement contributions to Social Security and retirement plans end and saving for retirement is no longer needed. Social Security benefits and pensions are taxed at a lower rate than income and certain work-related expenses decline.

- For a pre-retirement income of $70,000 published replacement income studies show that employees will only need to replace about 77% of the income in retirement to maintain their pre-retirement standard of living, with slightly larger “replacement ratios” for pre-retirement income below $50,000.

- The proposed plan design changes and benefit designs for new hires will provide replacement income that, in combination with Social Security benefits meets or exceeds the target levels of 77% to 85% for career employees.

- For those employees not in Social Security, an adequate retirement income can be achieved at a target retirement age of 62 (or above) with a combination of the retirement plan benefit plus personal saving equivalent to the 6.2% Social Security contributions.

- Employees are assumed to maximize the matching employer contributions. Defined contribution accounts are assumed to earn a return of 5.25% during the employee’s career, and converted to lifetime income amounts using annuity factors consistent with a 5.25% return rate.
Replacement Ratio Analysis

Projected Income at Retirement after Full Career for New Hires

- KJRP
- KLRP
- KTRS
- SPRS
- CERS-H
- CERS-NH
- KERS-H
- KERS-NH

Income at Retirement vs Target
Benefit Recommendations – Current Plan Participants

KERS-NH, CERS-NH, JFRS:

• Freeze accrued benefits under the applicable existing pension tiers

• An optional buyout for the actuarial value of accrued service, with the equivalent cash value to be rolled over to the plan participant’s new DC account

• Eliminate the application of unused sick and compensatory leave to increase pension benefits

• Eliminate the portion of any pension benefit payments resulting from COLAs granted between 1996-2012 that were provided under statutes excluding such increases from any inviolable contract provisions

Recommended Options – Current Employees and Retirees

| Plan                  | Primary Benefit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Other Adjustments                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KERS-NH, CERS-NH, JFRS| • For Tiers 1 and 2, accrued benefit associated with prior service protected at levels based on plan and date of hire, with no further accrual (although the benefit value will increase as the final average salary component of the defined benefit formula increases)  
• Tier 3 members would see the account value of their accrued cash balance benefit rolled over into the new defined contribution plan  
• Future service earns a defined contribution benefit: 2% minimum employer contribution + 50% match on first 6% optional employee contribution above a 3% minimum employee contribution (i.e. 5% employer maximum, 14% total maximum)  
• All benefit payments for retirees would continue in full at the level in place as of 1996 or any subsequent date of retirement; payment amounts due to COLAs granted from 1996 to 2012 would be eliminated prospectively | • Normal retirement age of 65 would apply (employees can retire earlier with an actuarially reduced benefit)  
• No conversion of accrued sick, compensatory, and any other leave time toward pension benefit  
• Optional buyout to be developed for accrued pension service under Tiers 1 and 2, with rollover to the new defined contribution plan |
Benefit Recommended Options – Current Plan Participants

- **KERS-H, CERS-H, SPRS**: Hazardous plan participants would retain the primary benefit associated with their current Tier, modifying only the requirements for normal retirement eligibility to be age 60, with no provision for retirement at any age based on years of service.

Recommended Options – Current Employees and Retirees

<table>
<thead>
<tr>
<th>Plan</th>
<th>Primary Benefit</th>
<th>Other Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERS-H, CERS-H, SPRS</td>
<td>Retain the primary benefits associated with the member’s current tier</td>
<td>• Normal retirement age of 55 (Tier 1)/60 would apply (employees can retire earlier with an actuarially reduced benefit)</td>
</tr>
</tbody>
</table>
Benefit Recommended Options – Current Plan Participants

**TRS**: A continued plan design with DB characteristics for incumbent teachers

- Establish normal retirement age of 65
- Eliminate enhanced benefit features provided outside of any inviolable contract requirements
- Suspend all future COLAs until system reaches a minimum 90% funded level using realistic actuarial assumptions. After reaching the 90% funded level COLA payments would apply only to the first $1,500 of monthly benefit

Recommended Options – Current Employees and Retirees

<table>
<thead>
<tr>
<th>Plan</th>
<th>Primary Benefit</th>
<th>Other Adjustments</th>
</tr>
</thead>
</table>
| TRS – Non-University and University | • Retain the primary benefits associated with the member’s current tier  
• All benefit payments for retirees would continue in full at the level in place as of 1996 or any subsequent date of retirement; payment amounts due to COLAs granted from 1996 to 2012 could be reduced prospectively | • Normal retirement age of 65 would apply (employees can retire earlier with an actuarially reduced benefit)  
• Enhanced benefit features to be eliminated (highest three years of pay; conversion of accrued leave and compensatory time toward pension credit; and a higher benefit multiplier applied for years of service beyond 30)  
• Suspend all future COLAs until the system reaches a minimum 90% funded level using realistic actuarial assumptions. After 90% funded level is reached COLA payments would apply to the first $1,500 of monthly benefit |
The recommended options are summarized by group in the matrix below.

Future COLAs were already suspended by 2013 SB2 for KRS, KJFRS plans.

<table>
<thead>
<tr>
<th>Reform Option</th>
<th>KERS-NH</th>
<th>CERS-NH</th>
<th>TRS: University</th>
<th>JRP</th>
<th>LRP</th>
<th>TRS: Non-University</th>
<th>SPRS</th>
<th>KERS-H</th>
<th>CERS-H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeze Service in Current Plan as of Effective Date, Future Service in DC Plan</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Hires in DC Plan</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eliminate Unreduced Early Retirement based on Years of Service after Effective Date</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Current Normal Retirement Age</td>
<td>65</td>
<td>65</td>
<td>60</td>
<td>65</td>
<td>65</td>
<td>60</td>
<td>55/60</td>
<td>55/60</td>
<td>55/60</td>
</tr>
<tr>
<td>New Normal Retirement Age: Actives and New Hires</td>
<td>65</td>
<td>65</td>
<td>65</td>
<td>65</td>
<td>65</td>
<td>65</td>
<td>55/60</td>
<td>55/60</td>
<td>55/60</td>
</tr>
<tr>
<td>Eliminate Application of Unused Leave Time to Pension Benefit: Actives and New Hires</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Eliminate Provisions not Subject to Inviolable Contract: 3% over 30, Final 3/Final 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll Back Provisions not Subject to Inviolable Contract from Retiree Benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eliminate Past COLAs from Future Payments to Current Retirees</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Estimated COLA Reduction if Retired in 2000</td>
<td>24.9%</td>
<td>24.9%</td>
<td>26.9%</td>
<td>24.9%</td>
<td>24.9%</td>
<td>24.9%</td>
<td>24.9%</td>
<td>24.9%</td>
<td>24.9%</td>
</tr>
<tr>
<td>Suspend Future COLAs</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Retiree Medical/ Insurance Fund

- Our review of the retiree medical benefit program, led by PRM Consulting Group, found opportunities for reducing the cost of providing coverage by as much as **25%**
  - Many Commonwealth retirees were found to receive significantly richer, more costly coverage than their active and pre-Medicare retiree counterparts.
  - **Could potentially eliminate the need for employer subsidy for Medicare-eligible retirees**
- This opportunity would still provide quality benefits in retirement, consistent with those received by active Commonwealth employees
Retiree Medical/ Insurance Fund Recommendations

- Pursue harmonization of the level of retiree healthcare benefits for KRS, LRP, and JRP non-Medicare and Medicare retirees so that the basic plan and benefit provided to the retirees is consistent with the Livingwell PPO coverage provided to active Commonwealth employees.

- Pursue harmonization of the level of benefits for TRS Medicare-eligible retirees so that the basic plan and benefit provided to the retirees is consistent with the coverage provided to Commonwealth employees. TRS retirees could further be offered a choice between this new lower cost plan and the current, richer design – with retirees to be responsible for the full premium of the higher cost more generous coverage.

- Harmonize the Medicare Advantage plan provided to members of the JFRS with the coverage provided to KRS and TRS members. In addition, by pooling the coverage for purposes of obtaining the premium, the JFRS will be able to leverage the additional scale of the other plans to obtain more competitive premium rates.

- Limit retiree healthcare eligibility to employees retiring directly from Commonwealth service. This requirement would eliminate the ability of former employees who left public service early in their career (e.g. left at age 35 with 10 years of service), from collecting Commonwealth-subsidized retiree healthcare when they eventually reach the age for beginning to draw down their public pension.
Retiree Medical/ Insurance Fund

Based on these estimated levels of premium reduction, the KRS actuarial liability would decline by about $1.4 billion and the annual employer contribution funding cost would be about $147 million lower as shown in the following table (actuarial figures adjusted by PRM to a level dollar amortization, consistent with the pension estimates)

<table>
<thead>
<tr>
<th>KRS (Sum of all five plans)</th>
<th>Current MA PPO ($ Millions)</th>
<th>Proposed MA PPO ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial Accrued Liability 6/30/2016</td>
<td>$7,639</td>
<td>$6,243</td>
</tr>
<tr>
<td>Plan Assets as of 6/30/2016</td>
<td>$4,605</td>
<td>$4,605</td>
</tr>
<tr>
<td>Unfunded Actuarial Accrued Liability</td>
<td>$3,034</td>
<td>$1,638</td>
</tr>
<tr>
<td>Funded Status</td>
<td>60%</td>
<td>74%</td>
</tr>
<tr>
<td>Normal Cost</td>
<td>$149</td>
<td>$126</td>
</tr>
<tr>
<td>ARC Funding (Using level dollar method)</td>
<td>$418</td>
<td>$271</td>
</tr>
<tr>
<td>FY2017 Annual ARC Savings</td>
<td></td>
<td>$147</td>
</tr>
<tr>
<td>FY2017 State General Fund Savings</td>
<td></td>
<td>$37</td>
</tr>
</tbody>
</table>

This corresponds to an estimated $37 million in annual savings in the Commonwealth’s General Fund budget for KRS plan OPEB, and an additional $40 million in annual General Fund savings attributable to the TRS recommended changes.

Using the current amortization method and schedule, the estimated savings would be roughly $114 million in employer contribution, and $22 million in annual General Fund savings.
Local Boards of Education Impacts

- While local school boards do not currently contribute any of the employer contribution for teacher pensions, there is a local employer share for retiree medical
  - The recommended changes to TRS may produce an estimated $55 million of retiree medical savings for local school boards
  - In addition, non-teaching staff of local school boards comprise 39% of the salary base in CERS-NH, and would potentially save an additional estimated $18 million collectively in retiree medical expenditures from recommended changes
- This savings would offset the estimated initial costs to School Boards of enrolling TRS new hires in Social Security
  - Estimated initial $11 million statewide in first full year
  - Increases roughly $10 million per year afterward
Voluntary Buyouts

A voluntary buyout of accrued service would allow employees who would prefer to manage their own assets in a DC plan to convert their benefit from the fixed DB plan to a lump sum beginning account balance in the DC plan, on a tax-exempt basis

- Voluntary on an employee-by-employee basis, except for Tier 3 of KERS-NH, CERS-NH, and Tier 4 of KJRP/KLRP

- This conversion would remove the liability from the retirement system, value the employee’s accrued service as of the date of the conversion – without applying future pay increases to the frozen portion of the benefit – improve the funded ratio, and reduce risk to the plan
Voluntary Buyouts

- This mechanism would be similar to what was offered in KRS 61.522, which provided for nonprofit nonstock corporations participating in KERS to withdraw from the system by funding their liability
  - Employees had the option to leave their accrued service with KRS until retirement, or withdraw their account balances, defined as the employee’s accumulated pension contributions based on the 5% of pay contribution rather than the accrued benefit, and roll it over to the new tax-deferred retirement program offered by the employer

- Two employers to date, Kentucky Employers’ Mutual Insurance (KEMI) and the Commonwealth Credit Union (CCU), have used KRS 61.522 to withdraw from KRS
  - KRS provided KEMI employees with a 60-day notice period to declare their intent to transfer to the new KEMI plan
  - It is our understanding that, by offering in parallel both a DB plan that would maintain the previous benefit structure and carry over the employee’s service credit from the KRS plan, and by offering a DC plan with an employer match of 50% or 100% of the employee’s account balance, KEMI incentivized all of its employees to transfer from KRS to KEMI
Voluntary Buyout Estimates

- Savings estimates were prepared assuming up to 30% of active employees in KERS-NH and CERS-NH selected the buyout of their accrued benefit. Actual participation levels are inherently uncertain.

- The analysis was based on funding the buyout and the individual accounts at 100% of the liability through a POB issued by the Commonwealth. Although CERS-NH potentially has the assets to fund buyouts, particularly at lower levels of participation, POB funding was used for illustrative purposes.

  - Florida Retirement System optional DC plan established in 2002, 3.5% or 21,000 existing employees converted initially, 21-30% of new hires have opted in each year since.

  - Participation rates far lower in Ohio Public Employees Retirement System optional DC plan established in 2003, roughly 2% of recent (<5 years) hires converted, and 5% of new hires since have opted in.

<table>
<thead>
<tr>
<th></th>
<th>KERS-NH Total</th>
<th>CERS-NH Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unadjusted Liability: Active Employees</td>
<td>2,655.2</td>
<td>4,287.2</td>
</tr>
<tr>
<td>Adjusted Outstanding Liability: Active Employees</td>
<td>1,615.3</td>
<td>2,829.8</td>
</tr>
<tr>
<td>Buyout Percentage</td>
<td>30.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Buyout Cost to Fund</td>
<td>484.6</td>
<td>849.0</td>
</tr>
<tr>
<td>Unadjusted/Reported Liability Relief to Plan</td>
<td>796.6</td>
<td>1,286.1</td>
</tr>
<tr>
<td>Required Employer Contribution: Revised Baseline</td>
<td>55.0</td>
<td>97.4</td>
</tr>
<tr>
<td>Estimated Debt Service</td>
<td>30.2</td>
<td>52.9</td>
</tr>
<tr>
<td>Estimated Annual Savings</td>
<td><strong>24.7</strong></td>
<td><strong>44.4</strong></td>
</tr>
<tr>
<td>Estimated Annual General Fund Savings</td>
<td><strong>14.5</strong></td>
<td>n/a</td>
</tr>
<tr>
<td>Funded Ratio Benefit</td>
<td>1%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Note: we do NOT recommend issuing a typical open-ended POB to fund assets in the hope of generating positive arbitrage at this time. A use of a POB as a means of funding a program that would terminally fix out liability, reduce risk, and set costs, such as a voluntary buyout or pension risk transfer program with an insurer, however, could merit further consideration.
Funding
Funding Recommendations

- Funding for all plans should be based on the Actuarially Determined Contribution (ADC)

- State-funded plans:
  - Budget total amount based on the ADC
  - Continue to allocate normal cost as percent of payroll
  - Charge unfunded liability as a dollar amount based on the unfunded liability amortization associated with that employer’s liability for accrued service

- TRS
  - Social Security cost for new hires could be picked up by local school boards. Manageable statewide $11 million cost in first year increasing gradually by $10 million each year, with potential retiree healthcare savings to offset

- CERS – consider caps/collars on ADEC % increases
# Funding Recommendations

<table>
<thead>
<tr>
<th>Pension Plan</th>
<th>Current Funding Method</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERS-NH, KERS-H, SPRS</td>
<td>Employer contributes the full actuarial contribution (normal cost plus amortization of unfunded liability) as a percentage of creditable compensation (payroll), based on level percent of payroll amortization and entry age normal funding method. The board sets the percentage each biennium based on the prior June 30 valuation. Effective July 1, 2014, the board cannot change rates for the second year of the biennium.</td>
<td>KRS 61.565</td>
</tr>
<tr>
<td>CERS-NH, CERS-H</td>
<td>Same as KERS-NH et al above, except that the board may change the percentage for the second year of the biennium based on the updated valuation.</td>
<td>KRS 61.565</td>
</tr>
<tr>
<td>TRS</td>
<td>The Commonwealth pays employer contributions for non-university, board of education employee pensions. The employer matches employee contributions of 9.105% of non-university salaries for pension (7.625% for university salaries), and contributes an additional 3.25% for the system’s unfunded obligations with interest and for the medical insurance (OPEB) fund. The amortization of past COLAs, annuities, and sick leave allowances “may be funded by annual appropriations from the state,” which was equivalent to a special appropriation rate of 2.94% of salaries for FY2018. TRS annually requests additional appropriation to cover the shortfall between the statutory contribution and the actuarial contribution. Unlike the other systems, the contribution is currently not tied to the actuarial calculation of normal cost or unfunded liability, and the amortization method is set by board policy.</td>
<td>KRS 161.550, KRS 161.553</td>
</tr>
<tr>
<td>JRP, LRP</td>
<td>The state contributes the normal cost plus interest on the unfunded liability plus 1% of the unfunded liability per year. The board adopts the actuarial assumptions, including whether entry age normal or projected unit credit funding method is used.</td>
<td>KRS 21.525</td>
</tr>
</tbody>
</table>
Investment Practices and Approach
Governance and Investment Practices

- Indiana Public Retirement System documented $347 million in NPV savings from full consolidation of systems like KRS and TRS through FY2014

- Aggregating all TRS and KRS assets (investment centralization only) would potentially generate more than $5 million of annual savings in investment management fees based on current KRS rates – without factoring in additional negotiating leverage

- PFM analysis of KRS investment manager fee schedules indicates increased annual fees for both KERS/SPRS and CERS if split, due to lower asset bases
  - $1.1 million for KERS/SPRS
  - $0.7 million for CERS

Potential benefits of a single investment team:
- Lower overall cost for staff, infrastructure – e.g. KRS estimates increased costs of $3.6 million per year from separating CERS from KRS
- Improved access and leverage with money managers and third-party vendors
- Easier to hire talented investment professionals
- Simplified governance and monitoring
- Improved consistency in actuarial return assumptions
- Coordinated & consistent investment philosophy, process and outlook
- Larger plans have been shown to achieve higher returns according to studies by the Center for Retirement Research and others
- Improved transparency and monitoring for legislators, taxpayers and other parties
Summary
Summary of Impacts

Changes in assumptions and policy drive significant increase in funding up-front to stabilize health of system and reduce risk

• Level-dollar amortization instead of continued actuarial back-loading and negative amortization
• Prudent and realistic investment return assumptions
• Over $1 billion of additional General Fund budget implied system-wide for FY19

Changes to the benefit structure also intended to reduce risk, make the plans sustainable and provide a modern, flexible benefit

• New hires for all non-hazardous service including teachers, judges, and legislators, in a Defined Contribution structure that ends risk and unanticipated liabilities
• A freeze in additional service for KERS-NH
• Modification of retirement eligibility to reflect demographic trends and best practices
• Portability
Summary of Impacts

- Initial impact on the Commonwealth’s General Fund of applying the more conservative assumptions to all state-funded plans is an estimated increase to the FY2019 budget of **over $1 billion**, further than the significant added investments in FY2017-18 budget.

- The combination of implementing all the recommended benefit options is estimated to offset the impact of the assumptions system-wide and reduce the recommended employer contribution by approximately 13% below the prior published/current assumptions – *if* all preliminary options are included and fully realized.

### All State Plans

<table>
<thead>
<tr>
<th>#</th>
<th>Scenario Description</th>
<th>FY19</th>
<th>FY24</th>
<th>FY29</th>
<th>FY34</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Plans</td>
<td>Current Projections</td>
<td>1,410.5</td>
<td>1,724.3</td>
<td>2,041.8</td>
<td>2,421.8</td>
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<tr>
<td>All Plans</td>
<td>Impact of revised baseline, compared to published actuarial assumptions</td>
<td>1,063.2</td>
<td>747.8</td>
<td>317.8</td>
<td>(127.8)</td>
</tr>
<tr>
<td>Revised Baseline</td>
<td></td>
<td>2,473.7</td>
<td>2,472.2</td>
<td>2,359.7</td>
<td>2,294.0</td>
</tr>
<tr>
<td>All Plans</td>
<td>Savings: net reduction in ADC from combination of all scenarios.</td>
<td>(1,247.9)</td>
<td>(1,237.6)</td>
<td>(1,178.6)</td>
<td>(1,148.1)</td>
</tr>
<tr>
<td>Revised ADC after implementation of all proposed changes, above.</td>
<td></td>
<td>1,225.8</td>
<td>1,234.5</td>
<td>1,181.0</td>
<td>1,145.9</td>
</tr>
</tbody>
</table>
Summary

- All future Kentucky state and local government employees would have access to a balanced set of retirement benefits providing positive income replacement levels, including:
  - Social Security participation (not now available to teachers and many local government public safety employees)
  - Additional defined contribution (401(k)-style) plans with significant minimum employer contributions and additional employer matches
  - Quality retiree healthcare coverage consistent with that provided to active employees

- All current Kentucky state and local government employees would have the value of their accrued benefits maintained, and receive benefits for future service as good as or better than those available for future hires

- All retired Kentucky former employees would receive at least the same benefit level they were guaranteed upon retirement, and would see significant improvements to the funding of their benefits – strengthening the solvency of these vital commitments

- In addition, all Kentucky stakeholders would begin to see steady and meaningful restoration of fiscal stability to the Commonwealth’s retirement systems, with greatly reduced risk of renewed pension crises in the years ahead. In turn, this progress would ultimately lead to more resources available for critical investments and services, or fair employee raises going forward, and for improved financial health and credit strength
Summary

- As detailed in Interim Report #2, a status quo path is not sustainable.
- In this Report #3, we have sought to present a range of recommended options to regain a more sustainable direction. In the weeks ahead, we look forward to working with Kentucky’s leadership to help inform the specific decisions that chart this future course.
- With prior reforms as recently as this year’s passage of 2017 Senate Bill 2, important and positive steps have already been taken.
- While the next steps to come will be even more challenging, they are also that much more critical to lead the Commonwealth forward.