

Kentucky Retirement Systems

PPOB Administrative Subcommittee CERS Separation

David Eager, Executive Director

March 2019

OPTIONS REGARDING CERS SEPARATION

1. Continue as is- KRS has one Board and one administrative operation

2. Establish Boards for CERS and KERS/SPRS to oversee actuarial, investment and related issues
- KRS Board continues to be responsible for all other aspects of KRS
- Keep one administrative operation intact

3. Completely separate CERS from KRS
- Operates totally independent
- Implemented over time

CURRENT GOVERNANCE

KRS Board of Trustees: 17 Trustees

- 10 appointed by the Governor
 - 7 directly appointed
 - 3 from lists submitted by the League of Cities, KACo, and the School Board Association
- 6 Elected by the KRS membership
 - 3 CERS
 - 2 KERS
 - 1 SPRS
- 1 Ex-Officio: Secretary of the Personnel Cabinet
- Must have six (6) investment professionals (SB2 2017)

CURRENT GOVERNANCE

Board Committees:

- Board elects a Chair and Vice Chair
- Five (5) Committees:
 - Investment (9 members)
 - -Actuarial Subcommittee (7 members)
 - Audit (7 members)
 - Retiree Healthcare (5 members)
 - Disabilities/ Administrative Appeals (2 committees, 3 members each)
 - Perimeter Park West Board (3 members)

1. 2. 3. Cost Comparisons?
-Option 1 \$47 mil annual budget
-Option 2 \$47 mil + some additional expenses
-Option 3 \$47 mil + an estimated \$7 mil +

4. How Would The New Board Be Composed?

- These questions should be answered CERS representatives (a,b,c,d,e,f)
- Size of the Board?
 - Large enough to get broad perspective
 - Not so large to be cumbersome

 Should include at least two investment professionals

- 5. Governance of the New Board?
- Actuarial
 - Assumptions
 - Experience Studies
 - Annual Valuations
 - Special Calculations
- Investment
 - Policies and Objectives
 - Asset Allocations
 - Managers
- Other?

6. How Would Current KRS Board Change?

- Under option 2:
 - The KRS Board would continue but not be responsible for investments and actuarial requirements
- Under option 3:
 - Six Board members would leave and likely be replaced

7. Duplication of Administrative and Consulting Services with Two Boards?

Option 2- Some

- Board Chair, actuary?, investment consultant?, legal, CIO, etc.

Option 3- complete

8. Can We Create a CERS Board While Maintaining KRS Administration?

Option 2 does that

9. How to Promulgate or Amend Regulations?

Option 2: Each of the three Boards would address regulations that affected them

Option 3: Each of the two Boards would address regulations that affected them.

10. Any Trend for Consolidation?

- Not that we see for Boards
- There are many states which have consolidated their investment offices or have always had a single investment office for multiple systems/ agencies

KRS's PERSPECTIVE

• Prefer option 1- the status quo

KRS operates efficiently and effectivelyCheapest of the 3 optionsAvoids duplications

KRS responds to differing systems' needs

- Assumptions

- Investment policies and asset allocations

No disruptions

KRS's PERSPECTIVE

• Option 3 is problematic and unnecessary

Greater cost to the tax payers

- Redundancies would likely increase operating costs at least
 \$7 mil
- Loss of some negotiating and scale leverage

Would cause disruptions

- Staff displacements
- Systems programming
- Unwinding investment and other contracts
- External support changes (e.g. accountants, actuaries, investment consultants and many other providers)
- Facilities
- Communications materials
- Etc.

KRS's Perspective

Option 2 Could be an Acceptable Alternative if Properly Organized

- 1. Have equal authority and responsibility for the KERS/SPRS Board and the CERS Board
- 2. Have most members of the two Boards be members of the KRS Board
- 3. Maintain as much of the current administrative and operational structure as possible
- 4. Minimize disruptions as a result of any changes
- 5. Minimize cost increases

OPTION 2

KRS BOARD: 17

CERS BOARD

- Investments
 - Policies
 - Asset Allocations
 - Managers

Actuarial Assumptions

- Assumptions
- Valuations
- GASB
- Special Studies

Executive Director

- Benefits
- IT
- Accounting/ Audit
- Legal
- Communications
- HR
- Administration
- Employer Reporting
- Investment
 Operations
- Procurement
- Facilities

KERS/SPRS BOARD

- Investments
 - Policies
 - Asset Allocations
 - Managers
- Actuarial Assumptions
 - Assumptions
 - Valuations
 - GASB
 - Special Studies

OPTION 2

KRS BOARD: 17

CERS Board

- Outside Resources
 - Consulting Actuary
 - Investment Consultant
 - Outside Legal Counsel
- Inside Resources
 - Executive Director
 - CIO
 - Other

Investment Department

KERS/SPRS Board

- Outside Resources
 - Consulting Actuary
 - Investment Consultant
 - Outside Legal Counsel
- Inside Resources
 - Executive Director
 - CIO
 - Other

APPENDIX



Kentucky Retirement Systems

CERS SEPARATION ANALYSIS

David Eager, Executive Director

Oct 22, 2018





KEY TAKEAWAYS

- KRS runs efficiently
- Running two separate systems will cost more than one system alone...and will cause transitional issues and disruption
- Having a CERS Board governing CERS investments and actuarial assumptions would be a less costly and disruptive alternative
- KERS Non Haz's poorly funded position does not negatively impact CERS investment management

How Effectively Does KRS Operate – Background Peer Comparisons Are Difficult

- KRS includes investment staff and related expenses in our administrative expenses - unlike our peers
- KRS administrative expenses include the administration of five health care plans. Many peers do not offer health coverage
- KRS administers a highly complex pension system with 3-4 benefit tiers and multiple sub tiers (ex: insurance contributions; bifurcated pension contribution rates; hazardous & non-hazardous plans). Members have reciprocity with other state systems. There are 1,490 reporting agencies. Benefits will become less complicated as member populations transitions to Tier 3, but impact at least 10 years away
- KRS staff (245 associates) are in the KERS Non-Hazardous plan with increasing employer contribution rates (5.89% in 2001 vs. 49.47% in 2018)

How Effectively Does KRS Operate – Background

Peer Comparisons Are Difficult

- Employee turnover rates of over 15% (IT turnover at 20%) are problematic for KRS
- KRS updated our technology system (START) in 2011. KRS owns the source code, resulting in lower external vendor support expenses and the ability to implement legislative mandates inhouse (ex: Tier 3; pension spiking)
- KRS participated in the 2016 CEM benchmarking study. KRS administrative costs were \$35 per active member and annuitant lower than our comparable peer group

CEM BENCHMARKING DATA

KRS total pension administration cost was \$77 per active member and annuitant. This was \$35 below the peer average of \$112 (and \$7 below peer median of \$84).



Reasons why KRS total cost was \$35 below peer average

| 1. | Economies of scale advantage | \$ (1.50) |
|------|----------------------------------------------------------------------------|-----------|
| 2. | Lower cost per member | (4.89) |
| 3. | Lower transactions per FTE | 3.67 |
| 4. | Lower cost per FTE for salaries, benefits, building, utilities, HR, and IT | (10.97) |
| 5. | Lower third-party and other costs in front-office activities | (5.78) |
| 6. | Lower cost for back-office activities | |
| | -Governance and Finance | (5.18) |
| | -Major Projects | (3.56) |
| | -IT strategy, database, applications | (3.82) |
| | -Actuarial, Legal, Audit, Other Support Services | (2.80) |
| | Total | \$(34.83) |
| 2016 | 6 CEM Benchmarking Inc. | |

KRS Administrative Expense Overview

Administrative Costs - 5 Year History (\$ in Millions) **KRS KRS** Investment Staff Hoalth Caro Pansion

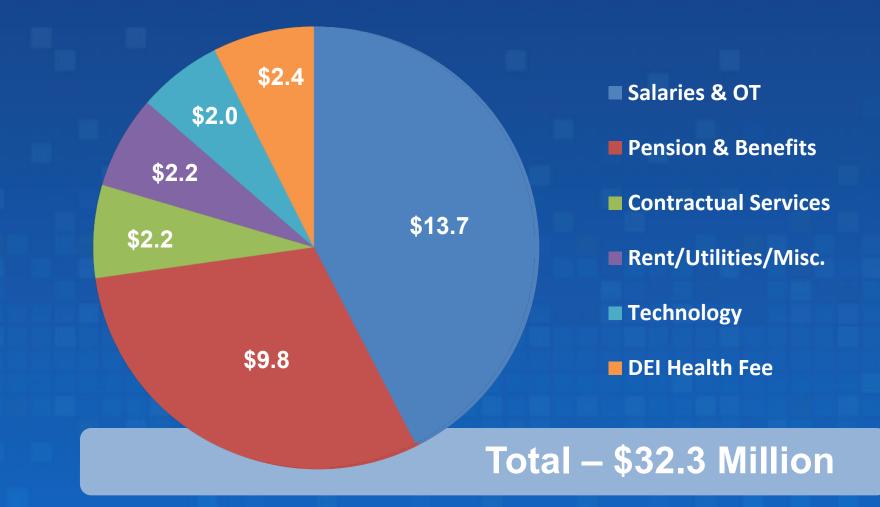
| | Expenses Benchmark to Peers | Staff + | Health Care Administration + | Contributions + | Total Expense = | Annual Turnover |
|------|-----------------------------------|------------|------------------------------------|--------------------|-----------------------|--------------------|
| 2014 | \$20.4 | \$2.3 | \$6.6 | \$3.5 | \$32.8 | 8.6% |
| 2015 | \$17.2 | \$2.2 | \$6.2 | \$5.4 | \$31.0 | 11.4% |
| 2016 | \$18.2 | \$2.3 | \$6.5 | \$5.7 | \$32.7 | 7.3% |
| 2017 | \$17.9 | \$2.4 | \$6.7 | \$6.7 | \$33.7 | 13.7% |
| 2018 | \$17.2 | \$2.3 | \$6.3 | \$6.5 | \$32.3 | 15.3% |
| | | Additiona | I KRS Adm Expense | inistrative | | |

Allocation by System

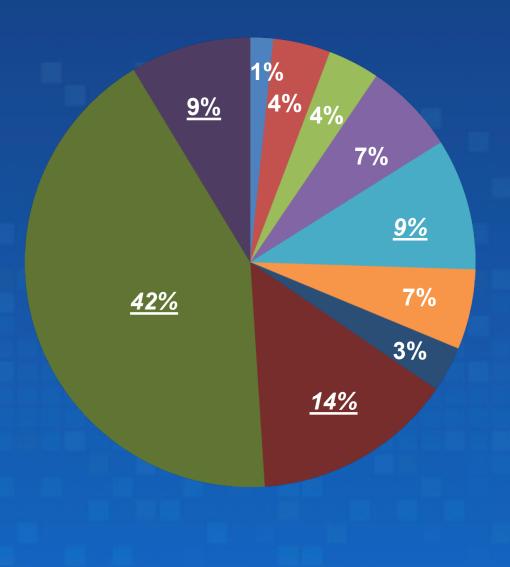
| KRS Administrative Expense Allocation (based on membership counts) <i>\$ in Millions</i> | | | | | | | | | |
|---------------------------------------------------------------------------------------------|--------|--------|--------|--------|--|--|--|--|--|
| | KERS | CERS* | SPRS | TOTAL | | | | | |
| 2014 | \$12.4 | \$20.2 | \$0.26 | \$32.8 | | | | | |
| 2015 | \$11.5 | \$19.2 | \$0.25 | \$31.0 | | | | | |
| 2016 | \$12.0 | \$20.4 | \$0.23 | \$32.7 | | | | | |
| 2017 | \$12.3 | \$21.2 | \$0.24 | \$33.7 | | | | | |
| 2018 | \$11.6 | \$20.5 | \$0.23 | \$32.3 | | | | | |

*CERS = 62%-63%

KRS 2018 Administrative Expenses by Category (\$ in Millions)



Counselors & Technology = 74% of Staff



| STAFFING = 245 Personnel Cap = 270 | | | | | | | |
|---------------------------------------|-----|-----|--|--|--|--|--|
| @ 6/30/18 | # | % | | | | | |
| Executive | 4 | 1% | | | | | |
| HR/Audit/Communications | 10 | 4% | | | | | |
| Investments | 9 | 4% | | | | | |
| Legal | 16 | 7% | | | | | |
| Employer Reporting | 23 | 9% | | | | | |
| Office Services | 16 | 7% | | | | | |
| Accounting | 8 | 3% | | | | | |
| Technology | 35 | 14% | | | | | |
| Benefits/Counselors | 103 | 42% | | | | | |
| Health Care | 21 | 9% | | | | | |
| | | | | | | | |

CERS Separation







SCENARIO 1

- CERS has it's own Board that sets actuarial assumptions and investment policies for CERS plans
- KRS Board oversees all other aspects and management of KRS. Continues to include CERS members

SCENARIO 2

 CERS and KERS/SPRS totally separate over a period of time

CERS Separation Considerations

| Considerations | Scenario 1 | Scenario 2 |
|--------------------|---------------------------------------|--------------------------------------------------------------|
| | CERS - Separate Board | CERS – Total Separation |
| Governance | CERS Board of Trustees (how many/who) | CERS Board of Trustees (how many/who) |
| Governance | | Separate Personnel policies (KRS under 18A) |
| | | Disability/Administrative Appeals Committees |
| | | Other Committees (Audit, Retiree HealthCare, Investments) |
| | Bylaws | Bylaws |
| | Board and Management policies | Board and Management policies |
| | Liability insurance | Liability insurance |
| | Administrative regulations | Administrative regulations |
| | | New legal entity contracts |
| Legal & Consulting | | Dedicated legal counsel (fiduciary requirements) |
| | | IRS tax rulings |
| | | Trusts and custody agreements |
| | Investment Advisor | Investment Advisor |
| | | Investment manager agreements |
| | Legal consultants | Legal consultants |
| | | Audit services |
| | Actuarial services | Actuarial services |

CERS Separation Considerations

| Considerations | Scenario 1 | Scenario 2 |
|-----------------------------|-----------------------|------------------------------------------------------------------------------------------------|
| | CERS - Separate Board | CERS - Separate Trust |
| Personnel | | Separate Needs |
| Financial/Technology | | Converts from Plans to Trusts (Pension and Insurance) Contract Management (KRS 45A Model |
| | | Procurement) |
| | | Investment custodial bank |
| | | Buildings - rent and assets |
| | | Retiree Healthcare risk pool (DEI, Humana) |
| | | Actuarial assumptions (e.g. mortality) |
| | | Separate Administrative budget |
| | | CAFR/SAFR |
| | | Financial audits and GASB reporting |
| | | START modifications |
| | | Code replication |
| | | Separate licenses or usage seats |
| Member/Employer Services | | Benefit complexity as pension and health plans diverge |
| Services | | Benefit materials |
| | | Member forms |

Separate Trusts – Summary Level Expense Estimates

| Category/Cost Estimate | One-Time Cost Low to High (\$ thousands) | | Additional On-going Low to High (\$ thousands) | | Description |
|---------------------------------------------|------------------------------------------------|---------|------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Investments | | | | | |
| Custodial Fees (volume change) | | | \$1,000 | \$1,200 | Review of BYN Mellon reported regulatory fees, asset adm, transaction fees & services. Both KERS and CERS impacted by scale/volume |
| -Investment Manager Fees (volume change) | | | \$900 | \$1,100 | Based on review of investment classification and fund investments pricing tiers. Both KERS and CERS impacted by scale/volume |
| Investment Consultant, Legal, Audit | | | TBD | TBD | Total cost could remain the same or increase |
| Technology | | | | | |
| Module Development | \$770 | \$1,170 | | | Replication of START Code and determine operating models (10-15% of IT costs). |
| Disaster Recovery/Business Continuity | \$1,300 | \$2,900 | | | To separate infrastructure, hardware would require duplication. Hardware is not always defined by size but also by function. KRS has 200 servers not because the size is too big for 100 servers, but because software often requires its own server to function securely and efficiently |
| Consulting | \$350 | \$450 | | | Develop Trust reciprocity models and reporting |
| System Licensing & Services Duplication | | | \$310 | \$750 | Variable products based on usage or seats - between 10% to 25% of IT average spend |
| Governance, Legal, Consultants | | | | | |
| Fiduciary Insurance for additional Board | | | \$100 | \$200 | Based on Board membership, investment risk, active litigation |
| Contract Separation/legal hearings | \$25 | \$75 | | | Range based on work being performed internally or externally |
| Actuarial, Audit | | | TBD | TBD | Board choice to use same or differ |
| Member Services | | | | | |
| Forms Redesign/Printing | \$25 | \$50 | | | Printing of legal documents and forms |
| Member Booklets/Video | \$65 | \$75 | | | Volume changes for Open enrollment/1099 forms |
| Website Design/ Support | \$25 | \$30 | \$4 | \$10 | Create new website/on-going vendor support/distributions |
| Total | \$2,560 | \$4,750 | \$2,313 | \$3,255 | |

Total Separation Staffing Considerations

Staffing Duplications beyond current 245 positions (\$ in thousands)

| Additional Title | Base Salary | Pension Rate 21.48% | FICA/Ins Other Benefits 22.80% | Total | # of Positions |
|-------------------------------------------------|----------------|---------------------------|--------------------------------------|---------|-------------------|
| Executive Director (Agency Head) | \$200 | \$43 | \$46 | \$289 | 1 |
| Chief Operations Officer | 150 | 32 | 34 | 216 | 1 |
| General Counsel (Ex Dir Office of Legal) | 110 | 24 | 25 | 159 | 1 |
| Administrative Support (Executive Assistant) | 45 | 10 | 10 | 65 | 1 |
| Chief Benefits Officer | 110 | 24 | 25 | 159 | 1 |
| Human Resources Director | 96 | 21 | 22 | 139 | 1 |
| Technology Director (Info Officer) | 120 | 26 | 27 | 173 | 1 |
| Infrastructure Manager | 102 | 22 | 23 | 147 | 1 |
| Information Security Analyst | 73 | 16 | 17 | 105 | 1 |
| Investment Professionals/Operations | 745 | 160 | 170 | 1,075 | 5 |
| Compliance Officer | 55 | 12 | 13 | 79 | 1 |
| Sr. Staff Accountant | 58 | 12 | 13 | 84 | 1 |
| Internal Audit Professional | 51 | 11 | 12 | 74 | 1 |
| Total | \$1,915 | \$411 | \$437 | \$2,764 | 17 |

NOTE: KRS as employer, pays KERS NHZ pension contribution. CERS staffing split, would pay the CERS rate. Costs will shift, but obligation remains the same.

Will the staff required to run two systems be equal to the 245 administering KRS TODAY?

Separate Trusts – Cost Summary

| Expense Estimate (\$ in thousand's) | | | | | | | |
|----------------------------------------|------|--------------|------|--------------|--|--|--|
| | Low | | High | | | | |
| One Time Set-up | \$ 2 | 2,560 | \$ | 4,750 | | | |
| On-going Expenses | \$ 2 | 2,313 | \$ | 3,255 | | | |
| On-going Management | \$ 2 | 2,764 | \$ | 2,764 | | | |
| On-going Estimated Total | \$ | <u>5,077</u> | \$ | <u>6,019</u> | | | |

Q. Since the introduction of SB 226 in 2017, any discussions with groups regarding CERS separation?

A. Many general discussions, but not centered on CERS separation.

Q. Has KRS discussed with employer groups, belief there is fiscal advantages to outsourcing?

A. Previously, but not since their recent presentation.

Q. After a 5-year transition period what would happen to the KRS staff?

- A. Many would likely be hired by CERS
- Others would retire or find other employment during transition period
- Other would remain with KERS/SPRS
- KRS would lose a lot of talent and "history"
- Transition period should be shorter

Q. Can you address the point made by the employer groups that KRS' last experience study left out CERS data?

A. The 2008-2013 experience study included all plans. An audit of the experience study was completed by Segal Consulting in 2015 which included all plans. Both are on the KRS website.

https://kyret.ky.gov/About/Board-of-Trustees/Pages/Experience-Studies.aspx

Q. Address the 247% increase in administrative costs experienced by KRS over the last 15+ years?

A. 247% is correct.

2001 to 2018 annualized administrative expense growth = 5%

Membership growth = 3%

Inflation = 2%

Net adjusted expense growth rate = 0%

During period, KRS employer pension/insurance contributions increased from 5.89% to 49.47% and represented 20% of our administrative costs.

Q. Does KRS Commingle Plan Investments?

- A. Yes, often to make block investment purchases
- No, once the shares go to BYN Mellon (our custodian bank)
- It is against federal law to move assets from one trust to another to pay benefits Example:

Investment Committee approves the purchase of \$100M publicly traded company (excluding KERS NHZ & SPRS Pension Plans)

| INITIAL STEP | Pul | blicly Traded Investments (\$ in thousands) | | | |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--|--|
| The manager is given | KNHZ | 0.0% | | | |
| the full amount of the | KHAZ | 4.0% | 4,000 | | |
| approved funding in | CERS | 46.0% | 46,000 | | |
| the amount \$100,000 | CHAZ | 16.0% | 16,000 | | |
| | SPRS | 0.0% | | | |
| | KINS | 6.0% | 6,000 | | |
| | KZNS | 4.0% | 4,000 | | |
| | CINS | 15.0% | 15,000 | | |
| | CHNS | 8.0% | 8,000 | | |
| | SINS | 1.0% | 1,000 | | |
| | | 100.00% | \$100,000 | | |
| | | | | | |
| INCREASE IN | Ρι | Iblicly Traded In | vestments | | |
| INCREASE IN MARKET VALUE | Ρι | ıblicly Traded In (\$ in thousa | | | |
| MARKET VALUE | PL | | | | |
| MARKET VALUE Due to favorable market | | (\$ in thousa | | | |
| MARKET VALUE Due to favorable market conditions the value of | KNHZ | (\$ in thousa 0.0% | inds) | | |
| MARKET VALUE Due to favorable market conditions the value of the investments have | KNHZ KHAZ | (\$ in thousa 0.0% 4.0% | ands) 4,200 | | |
| MARKET VALUE Due to favorable market conditions the value of | KNHZ KHAZ CERS | (\$ in thousa 0.0% 4.0% 46.0% | 4,200 48,300 | | |
| MARKET VALUE Due to favorable market conditions the value of the investments have | KNHZ KHAZ CERS CHAZ | (\$ in thousa 0.0% 4.0% 46.0% 16.0% | 4,200 48,300 | | |
| MARKET VALUE Due to favorable market conditions the value of the investments have | KNHZ KHAZ CERS CHAZ SPRS | (\$ in thousa 0.0% 4.0% 46.0% 16.0% 0.0% | nds) 4,200 48,300 16,800 6,300 4,200 | | |
| MARKET VALUE Due to favorable market conditions the value of the investments have | KNHZ KHAZ CERS CHAZ SPRS KINS | (\$ in thousa 0.0% 4.0% 46.0% 16.0% 0.0% 6.0% 4.0% 15.0% | nnds) 4,200 48,300 16,800 6,300 4,200 15,750 | | |
| MARKET VALUE Due to favorable market conditions the value of the investments have | KNHZ KHAZ CERS CHAZ SPRS KINS KINS KZNS CINS CHNS | (\$ in thousa 0.0% 4.0% 46.0% 16.0% 0.0% 6.0% 4.0% 15.0% 8.0% | nds) 4,200 48,300 16,800 6,300 4,200 15,750 8,400 | | |
| MARKET VALUE Due to favorable market conditions the value of the investments have | KNHZ KHAZ CERS CHAZ SPRS KINS KZNS CINS | (\$ in thousa 0.0% 4.0% 46.0% 16.0% 0.0% 6.0% 4.0% 15.0% | nds) 4,200 48,300 16,800 6,300 4,200 15,750 | | |

36

Q. Would the state still remain liable for the CERS share of the unfunded liability were a separate CERS board or any participating employer to become insolvent?

A. If any participating employer became insolvent, the remainder of the participating CERS employers would be responsible for the provision of benefits. KRS cannot state with any certainty if the Commonwealth would be liable for the CERS share of the unfunded liability if CERS as a whole became insolvent. This would ultimately be a question left to the courts.

Q. Regarding a "more" rather than "less" consolidated system, can KRS explain the system in Tennessee and how it is different from KRS?

- A. Tennessee (TCRS) consolidated seven systems (ex: teachers, state, local employees) under the State Treasurer in 2014.
- The plans provide pension, disability, and death benefits (no health insurance).
- Administration for TCRS is provided from state agencies including information systems, accounting, management services, human resources, and internal audit. Administration expenses were approximately \$19 million for the period ending June 30, 2017
- There is one investment office managing all seven systems. Investment Staff expenses are recorded in the Trust, **not included in administrative fees**.

Compliments *From EMPLOYERS:*

- Glad there was an in-person training for participants and reporting officials. Hope to see those returning on a reoccurring basis.
- ERCE training was excellent. I was very pleased that they went through all the tabs on the website.
- A member wanted to pass along his thoughts concerning his conversation with an ERCE representative. He said that she was "totally awesome, professional, courteous" and the we were "blessed" to have her working here.
- I wanted to share with you that an official from a city agency raved about how kind, patient, and helpful ERCE staff has been over the past few months while she has been trying to learn more about the laws, taking care of reports, correcting errors, and researching invoices.
- I just received a call from a member who wanted to pass along how wonderful their conversation with an ERCE representative was today. She stated that the KRS employee was very kind, took her time and explained everything clearly, and did an overall great job in assisting her. She said that we have an awesome employee.

Compliments *From MEMBERS*:

Re: Call Back Assist: "I recently used this opportunity and was extremely impressed by the quickness of the return call and the PROFESSIONALISM of the individual who assisted me in my questions. FINALLY, an agency that TRULY RESPECTS it members & provides actual assistance when needed."

"A beneficiary of a member came into the office today." He spoke with me and wanted to pass along how good of a job we did and that we was really nice and helpful here at Kentucky Retirement Systems."

"I want to recognize you for all of your assistance. I want your supervisor to know how much you changed our lives. Our family wants to formally thank **KRS Counselors** for assisting/making a miracle happen to keep my husband's benefits on track. I am at work headed to hospital in a little while, but wanted you to know how grateful we all are for all of your hard work and willingness to go the extra mile. It gave us the best Christmas we could have had despite keep my husband is still in Hospital. Still a long way to go but knowing his insurance and benefits are intact take such a load off my mind."

KEY TAKEAWAYS

- KRS runs efficiently
- Running two separate systems will cost more than one system alone...and will cause transitional issues and disruption
- Having a CERS Board governing CERS investments and actuarial assumptions would be a less costly and disruptive alternative
- KERS Non Haz's poorly funded position does not negatively impact CERS investment management

| Category/Cost Estimate | | One-1 Low (\$ the | to Hi | gh | Additional On-going Low to High (\$ thousands) | | igh | Description | |
|---------------------------------------------|----|-------------------------|-------|-------|---------------------------------------------------|--------------|-----|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Investments | | | | | | | | | |
| Custodial Fees (volume change) | | | | | \$ 1 | , 000 | \$ | 1,200 | Review of BYN Mellon reported regulatory fees, asset adm, transaction fees & services. Both KERS and CERS impacted by scale/volume |
| Investment Manager Fees (volume change) | | | | | \$ | 900 | s | 1,100 | Based on review of investment classification and fund investments pricing tiers. Both KERS and CERS impacted by scale/volume |
| Investment Consultant, Legal Audit | | | | | т | BD | | TBD | Total cost could remain the same or increase |
| Technology | | | | | | | | | |
| Module Development | \$ | 770 | \$ | 1,170 | | | | | Replication of START Code and determine operating models (10-15% of IT costs). |
| Disaster Recovery/Business Continuity | s | 1,300 | \$ | 2,900 | | | | | To separate infrastructure, hardware would require duplication. Hardware is not always defined by size but also by function. KRS has 200 servers not because the size is too big for 100 servers, but because software often requires its own server to function securely and efficiently |
| Consulting | \$ | 350 | \$ | 450 | | | | | Develop Trust reciprocity models and reporting |
| System Licensing & Services Duplication | | | | | \$ | 310 | \$ | 750 | Variable products based on usage or seats - between 10% to 25% of IT average spend |
| Governance, Legal, Consultants | | | | | | | | | |
| Fiduciary Insurance for additional Board | | | | | \$ | 100 | \$ | 200 | Based on Board membership, investment risk, active litigation |
| Contract Separation /legal hearings | \$ | 25 | \$ | 75 | | | | | Range based on work being performed internally or externally |
| Actuarial, Audit | | | | | TBD | | TBD | | Board choice to use same or differ |
| Outisde Counsel, legal | | | | | TBD | | TBD | | Board choice to use same or differ |
| Member Services | | | | | | | | | |
| Forms redesign/Printing | \$ | 25 | \$ | 50 | | | | | Printing of legal documents and forms |
| Member Booklets/Video | \$ | 65 | \$ | 75 | | | | | Volume changes for Open enrollment/1099 forms |
| Website Design/Support | \$ | 25 | \$ | 30 | \$ | 4 | \$ | 10 | Create new website/on-going vendor support/distributions |
| Total | \$ | 2,560 | \$ | 4,750 | \$ 2 | 2,314 | \$ | 3,260 | |