

Actuarial Analysis Summary

AA Statement 1 and 2 of 2

BR or Bill Ref.	HB 164 GA	Actuarial Analysis Conducted For:	
Date:	1/25/2024	<input type="checkbox"/> KERS NH	<input type="checkbox"/> KERS Haz <input type="checkbox"/> SPRS <input type="checkbox"/> TRS
Actuary:	GRS	<input checked="" type="checkbox"/> CERS NH	<input checked="" type="checkbox"/> CERS Haz <input type="checkbox"/> LRP <input type="checkbox"/> JRP

Section I: Executive Summary

In the opinion of the actuary, this bill would make the affected state-administered retirement system(s) actuarially:

MORE SOUND LESS SOUND NO IMPACT

If actuarially MORE SOUND OR LESS SOUND, please summarize the factors leading to the actuary's opinion:

The proposed legislation would have negligible impact on the unfunded actuarial accrued liability and the employer contribution requirement for all Systems maintained by KPPA because the increased benefit payable under the proposed legislation would occur on a limited basis.

Does this bill increase or decrease employer costs? INCREASE DECREASE NO IMPACT
Does this bill increase or decrease benefits? INCREASE DECREASE NO IMPACT
Does this bill increase or decrease benefit participation? INCREASE DECREASE NO IMPACT

If the bill impacts employer costs, benefits, or benefit participation, please explain and estimate the impact in Sections II and VI.

Section II: Financial Projections

	Combined Pension and Retiree Health Plan					
	CERS Non-Hazardous*		CERS Hazardous*		N/A	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected Employer Cost* (\$ in Millions)						
30-Yr Nominal \$	\$19,620	\$19,620	\$8,745	\$8,745	N/A	N/A
30-Yr Net Present Value \$	\$8,774	\$8,774	\$3,896	\$3,896	N/A	N/A
Proj. Normal Cost for New Hire	4.04% of pay	4.04% of pay	8.25% of pay	8.25% of pay	N/A	N/A

*Projected costs are for all employers and all fund sources for entire 30-year period.
Proj. normal cost is the normal cost for new hires after subtracting employee contributions.

	Pension Plan					
	CERS Non-Hazardous*		CERS Hazardous*		N/A	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected UAL (\$ in Millions)						
Baseline (Year 1)	\$6,711	\$6,711	\$2,842	\$2,842	N/A	N/A
5 Years	\$6,442	\$6,442	\$2,735	\$2,735	N/A	N/A
10 Years	\$6,101	\$6,101	\$2,560	\$2,560	N/A	N/A
20 Years	\$4,055	\$4,055	\$1,614	\$1,614	N/A	N/A
30 Years	\$0	\$0	\$0	\$0	N/A	N/A
Projected Funding Ratio (%)						
Baseline (Year 1)	56%	56%	51%	51%	N/A	N/A
5 Years	61%	61%	58%	58%	N/A	N/A
10 Years	65%	65%	65%	65%	N/A	N/A
20 Years	79%	79%	82%	82%	N/A	N/A
30 Years	100%	100%	100%	100%	N/A	N/A

	Retiree Health Plan					
	CERS Non-Hazardous*		CERS Hazardous*		N/A	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected UAL (\$ in Millions)						
Baseline (Year 1)	(\$806)	(\$806)	(\$11)	(\$11)	N/A	N/A
5 Years	(\$867)	(\$867)	(\$10)	(\$10)	N/A	N/A
10 Years	(\$976)	(\$976)	\$42	\$42	N/A	N/A
20 Years	(\$1,457)	(\$1,457)	\$229	\$229	N/A	N/A
30 Years	(\$2,391)	(\$2,391)	\$0	\$0	N/A	N/A
Projected Funding Ratio (%)						
Baseline (Year 1)	132%	132%	101%	101%	N/A	N/A
5 Years	130%	130%	101%	101%	N/A	N/A
10 Years	131%	131%	97%	97%	N/A	N/A
20 Years	138%	138%	85%	85%	N/A	N/A
30 Years	147%	147%	100%	100%	N/A	N/A

* if necessary or plan administers more than one plan/system.

Section III: Brief Summary of Bill

The proposed legislation increases the lump-sum benefit for hazardous members who die as a direct result of an act in line of duty with a non-spousal beneficiary from \$10,000 to be equal to 36 x the member's monthly average pay. Additionally, the proposed legislation applies to non-hazardous members with a non-spousal beneficiary that dies as a result of a duty-related injury if the member's non-hazardous position could be approved as hazardous duty for retirement purposes.

Section IV: Statement of Assumptions and Methods

Did the analysis rely solely upon the same assumptions & methods previously established and utilized by the actuary in the retirement system's most recent actuarial valuation?

YES **NO**

If NO, please describe each new assumption or method utilized, the basis for selecting the revised assumption or method, and whether each new assumption or method increased or decreased projected employer costs:

N/A

Section V: Comment from Actuary

Based on data provided by KPPA, in the last five years, there has only been one instance of a member dying in the line of duty with a non-spousal beneficiary. However, KPPA also noted they administered a handful of other active member deaths in the same five-year period whose non-spousal beneficiary may have received an increased lump sum if this proposed legislation were enacted but were not eligible for a lump sum at the time of the member death. Given this, if we assume that one line-of-duty death per year, every other year, with a non-spousal beneficiary, and a monthly average pay for the member of \$5,000, then we expect there would be an \$85,000 increase in annual benefits [(\$5,000 x 36 - \$10,000) / 2].

Section VI: Detailed Actuarial Analysis and Projections *(May be attached as Appendix)*

Please see attached.

Actuarial Analysis Summary

BR or Bill Ref.	HB 164	Actuarial Analysis Conducted For:	
Date:	1/25/2024	<input checked="" type="checkbox"/> KERS NH	<input checked="" type="checkbox"/> KERS Haz
Actuary:	GRS	<input checked="" type="checkbox"/> SPRS	<input type="checkbox"/> TRS
		<input type="checkbox"/> CERS NH	<input type="checkbox"/> CERS Haz
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Section I: Executive Summary

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Section II: Financial Projections

	Combined Pension and Retiree Health Plan					
	KERS Non-Hazardous*		KERS Hazardous*		SPRS*	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected Employer Cost* (\$ in Millions)						
30-Yr Nominal \$	\$26,974	\$26,974	\$1,372	\$1,372	\$1,340	\$1,340
30-Yr Net Present Value \$	\$14,531	\$14,531	\$672	\$672	693	693
Proj. Normal Cost for New Hire	4.22% of pay	4.22% of pay	6.66% of pay	6.66% of pay	17.84% of pay	17.84% of pay

*Projected costs are for all employers and all fund sources for entire 30-year period.
 Proj. normal cost is the normal cost for new hires after subtracting employee contributions.

	Pension Plan					
	KERS Non-Hazardous*		KERS Hazardous*		SPRS	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected UAL (\$ in Millions)						
Baseline (Year 1)	\$12,752	\$12,752	\$472	\$472	\$502	\$502
5 Years	\$11,525	\$11,525	\$424	\$424	\$462	\$462
10 Years	\$10,012	\$10,012	\$337	\$337	\$424	\$424
20 Years	\$5,484	\$5,484	\$232	\$232	\$312	\$312
30 Years	\$0	\$0	\$0	\$0	\$0	\$0
Projected Funding Ratio (%)						
Baseline (Year 1)	22%	22%	65%	65%	54%	54%
5 Years	28%	28%	72%	72%	59%	59%
10 Years	34%	34%	77%	77%	62%	62%
20 Years	58%	58%	89%	89%	73%	73%
30 Years	100%	100%	100%	100%	100%	100%

	Retiree Health Plan					
	KERS Non-Hazardous*		KERS Hazardous*		SPRS	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected UAL (\$ in Millions)						
Baseline (Year 1)	\$344	\$344	\$(256)	\$(256)	\$(1)	\$(1)
5 Years	\$328	\$328	\$(320)	\$(320)	\$(8)	\$(8)
10 Years	\$439	\$439	\$(422)	\$(422)	\$0	\$0
20 Years	\$727	\$727	\$(763)	\$(763)	\$21	\$21
30 Years	\$0	\$0	\$(1,406)	\$(1,406)	\$0	\$0
Projected Funding Ratio (%)						
Baseline (Year 1)	82%	82%	170%	170%	100%	100%
5 Years	84%	84%	185%	185%	103%	103%
10 Years	78%	78%	214%	214%	100%	100%
20 Years	60%	60%	305%	305%	89%	89%
30 Years	100%	100%	424%	424%	100%	100%

* if necessary or plan administers more than one plan/system.

Section III: Brief Summary of Bill

The proposed legislation increases the lump-sum benefit for hazardous members who die as a direct result of an act in line of duty with a non-spousal beneficiary from \$10,000 to be equal to 36 x the member's monthly average pay. Additionally, the proposed legislation applies to non-hazardous members with a non-spousal beneficiary that dies as a result of a duty-related injury if the member's non-hazardous position could be approved as hazardous duty for retirement purposes.

Section IV: Statement of Assumptions and Methods

Did the analysis rely solely upon the same assumptions & methods previously established and utilized by the actuary in the retirement system's most recent actuarial valuation?

YES **NO**

If NO, please describe each new assumption or method utilized, the basis for selecting the revised assumption or method, and whether each new assumption or method increased or decreased projected employer costs:

N/A

Section V: Comment from Actuary

Based on data provided by KPPA, in the last five years, there has only been one instance of a member dying in the line of duty with a non-spousal beneficiary. However, KPPA also noted they administered a handful of other active member deaths in the same five-year period whose non-spousal beneficiary may have received an increased lump sum if this proposed legislation were enacted but were not eligible for a lump sum at the time of the member death. Given this, if we assume that one line-of-duty death per year, every other year, with a non-spousal beneficiary, and a monthly average pay for the member of \$5,000, then we expect there would be an \$85,000 increase in annual benefits $[(\$5,000 \times 36 - \$10,000) / 2]$.

Section VI: Detailed Actuarial Analysis and Projections *(May be attached as Appendix)*

Please see attached.



January 25, 2024

Mr. David Eager
Executive Director
Kentucky Public Pensions Authority
1260 Louisville Road
Frankfort, KY 40601

Re: Actuarial Analysis of Proposed Legislation HB 164 (24 RS BR 431) and its Financial Impact on the Systems Maintained by KPPA

Dear Mr. Eager:

We have reviewed the proposed legislation HB 164 (24 RS BR 431), and the purpose of this letter is to communicate the actuarial analysis of this legislation in regards to the five Systems administered by the Kentucky Public Pensions Authority (KPPA).

Summary of Provisions of Proposed Legislation and Fiscal Impact

The proposed legislation increases the lump-sum benefit for hazardous members who die as a direct result of an act in line of duty with a non-spousal beneficiary from \$10,000 to be equal to 36 x the member's monthly average pay. Additionally, the proposed legislation applies to non-hazardous members with a non-spousal beneficiary that die as a result of a duty-related injury if the member's non-hazardous position could be approved as hazardous duty for retirement purposes.

The proposed legislation would have negligible impact on the unfunded actuarial accrued liability and the employer contribution requirement for all Systems maintained by KPPA because the increased benefit payable under the proposed legislation would occur on a limited basis.

Based on data provided by KPPA, in the last five years, there has only been one instance of a member dying in the line of duty with a non-spousal beneficiary. However, KPPA also noted they administered a handful of other active member deaths in the same five-year period whose non-spousal beneficiary may have received an increased lump sum if this proposed legislation were enacted but were not eligible for a lump sum at the time of the member death. Given this, if we assume that one line-of-duty death per year, every other year, with a non-spousal beneficiary, and

a monthly average pay for the member of \$5,000, then we expect there would be an \$85,000 increase in annual benefits $[(\$5,000 \times 36 - \$10,000) / 2]$.

Basis of Calculations

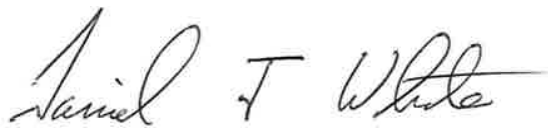
GRS based the analysis using the historical data provided by KPPA. Our calculations are based upon assumptions regarding future events, which may or may not materialize. Depending on actual plan experience, actual results could deviate significantly from our projections.

We are not attorneys, and we cannot provide a legal opinion regarding the changes in this proposed legislation. Nothing in this letter should be construed as providing legal, investment or tax advice.

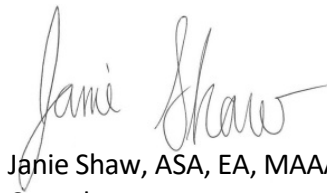
All three of the undersigned are members of the American Academy of Actuaries and meet all of the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. In addition, all three are independent of KPPA and are experienced in performing valuations for large public retirement systems. This communication shall not be construed to provide tax advice, legal advice or investment advice.

Sincerely,

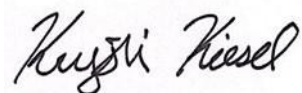
Gabriel, Roeder, Smith & Company



Daniel J. White, FSA, EA, MAAA
Senior Consultant



Janie Shaw, ASA, EA, MAAA
Consultant



Krysti Kiesel, ASA, MAAA
Consultant

