

# Kentucky Legislators Retirement Plan

Actuarial Valuation and Report

as of July 1, 2021



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## **Introduction**

An actuarial valuation of the Kentucky Legislators Retirement Plan (“KLRP”) has been performed as of July 1, 2021. Actuarial valuations are based on the integrity of employee data, plan asset data, plan provisions and an extensive set of assumptions regarding future events. There is necessary uncertainty with any actuarial calculation based on the accuracy of the data provided, the correct interpretation of plan provisions and the realization of the assumptions made. These results were based on participant data and asset information provided by the Kentucky Judicial Form Retirement System. This information was not audited but was reviewed for reasonableness.

Detailed explanations of the actuarial assumptions and methods used in the report are contained in later sections of this report. Also included in this report is a summary of provisions of the plan as we understand them.

This report provides details on the actuarial valuation underlying the recommended contribution to the KLRP for plan years commencing in 2022 and 2023. This determination was performed pursuant to Kentucky Revised Statute (“KRS”) §21.525 for the retirement system defined in KRS §6.500 to §6.577. KRS §21.525, as well as other statutes found in KRS Chapter 21 cited hereafter, are made applicable to KLRP by KRS §6.525.

Governmental Accounting Standards Board Statement 67 (“GASB 67”) and Statement 74 (“GASB 74”) establish financial reporting standards for defined benefit pension plans and other postemployment benefit (OPEB) plans sponsored by employers that are subject to governmental accounting standards. Governmental Accounting Standards Board Statement 68 (“GASB 68”) and Statement (“GASB 75”) provide standards for reporting pension and OPEB expenditures and expense, and related liabilities and assets for such plans. The purpose of this report is to provide pertinent financial statement disclosure information for the fiscal year ending in 2019. Actuarial computations under Statements 67, 68, 74, and 75 are for purposes of fulfilling plan and employer governmental accounting requirements and may not be appropriate for other purposes. This report has been prepared on a basis consistent with our understanding of the statements and does not constitute legal, accounting, tax or investment advice.

Statements 68 and 75 sets forth a methodology for the calculation of the annual Pension Expense for the upcoming fiscal year. GASB 68 and GASB 75 provides a method for reflecting prior gains and losses from asset and plan experience, as well as other areas including plan amendments. Amounts not reflected previously or in the upcoming year are reflected in the Deferred Outflows and Inflows of Resources shown.

Findley, A Division of USI does not have access to and is not providing information concerning liabilities other than benefits, such as for legal or accounting fees.

Findley, A Division of USI is not aware of any significant events subsequent to the current year’s measurement date that could materially affect the information contained in this report.

We are not aware of any relationship between the plan or plan sponsor and Findley, A Division of USI which would impair or appear to impair our objectivity.

To the best of our knowledge, all information provided in this report is complete and accurate and disclosures for GASB purposes have been determined in accordance with generally accepted accounting principles.

## **Consolidation of Traditional and Hybrid Tier Reports**

Beginning with the July 1, 2021 valuation report, the traditional and hybrid tiers of KLRP have been treated as one plan for all calculations. All results prior to July 1, 2021 contained in this report have been combined from the results reported in the separate traditional and hybrid tier reports prepared in prior years. Effective July 1, 2021, separate valuation reports will not be prepared and all results contained will be calculated based on the full plan containing both tiers of benefits.

## Summary of Report

An actuarial valuation of the Kentucky Legislators Retirement Plan (“KLRP”) was conducted as of July 1, 2021. The purpose of the valuation is to determine the cost implications of the plan including a determination of annual funding levels for the fiscal years beginning July 1, 2022 and July 1, 2023.

It is our understanding that this plan is a “governmental plan” as defined in Internal Revenue Code Section 414(d) and this report has been prepared on that basis.

On the basis of the valuation, it has been determined that the annual funding requirements for the State for the fiscal year beginning in 2022 for the plan, prior to adjusting with interest, as described in the Summary of Benefits section of this report, are as follows:

	<b>Total Amount</b>	<b>Percent of Payroll</b>
Annual Required Contribution	\$ 27,008	0.64%

The Annual Required Contribution is determined based on assumptions and methods set forth in the statute and established by the KJRP Investment Committee and is calculated using asset and liability values as of July 1, 2021. This amount is used to determine contributions for the fiscal years beginning July 1, 2022 and July 1, 2023.

Due to the lag period between the calculated date and the actual contributions, we have adjusted the Annual Required Contributions for the plan years 2022-2023 and 2023-2024 with one and two years of interest, respectively, at the interest rate assumption of 6.50%.

	<b>2022-2023 (1 year of interest)</b>	<b>2023-2024 (2 years of interest)</b>
Annual Required Contribution (with interest)	\$ 28,764	\$ 30,634

Summary of Selected Plan Information <sup>1</sup>

	Plan Year Beginning			
	7/1/2021	7/1/2019	7/1/2017	7/1/2015
Number of Participants				
Active	101	103	103	115
Terminated Vested	47	43	43	45
Retired	190	184	170	150
Beneficiaries	55	54	50	44
Total	393	384	366	354
Average Age (for actives)	56.3	56.7	56.9	56.7
Average Service (for actives)	9.9	10.5	11.6	11.6
Annual Covered Payroll	\$ 4,201,280	\$ 4,325,106	\$ 4,403,681	\$ 4,886,431
Average Salary	41,597	41,991	42,754	42,491
Accrued Liability	88,236,153	91,606,035	95,323,591	102,079,601
Actuarial Asset Value	135,825,827	117,958,055	105,059,586	86,872,044
Market Asset Value	168,952,342	127,018,375	110,399,622	97,289,431
Unfunded Accrued Liability (UAL)	(47,589,674)	(26,352,020)	(9,735,995)	15,207,557
<b>Annual Funding Level <sup>2</sup></b>				
State Portion of Normal Cost	\$ 383,826	\$ 442,244	\$ 742,333	\$ 1,132,095
Expected Employee Contributions	239,927	241,669	240,094	262,969
Total Normal Cost	623,753	683,913	982,427	1,395,064
State Annual Required Contribution	27,008	362,691	1,086,237	2,405,493
Percent of Covered Payroll	0.64%	8.39%	24.67%	49.23%

<sup>1</sup>Our current understanding of IRS regulations is that they prohibit the use of surplus OPEB assets for retirement benefits. We recommend continuing discussions with plan council on possible options. Please refer to page 9 of this report for the asset and liabilities split between the Pension and OPEB plans.

<sup>2</sup>In accordance with KRS 21.405 (does not recognize cost of living increases effective after the most recent valuation date) and KRS 21.525 (legally prescribed funding method).

## **Legislative and Regulatory Background**

State statutes were amended in 2013 such that all participants entering KLRP on or after January 1, 2014 will be covered under a hybrid cash balance/OPEB tier; those entering before that date will continue to be covered under the traditional defined benefit/OPEB tier. The legislation making this change also restricted the availability of future cost-of-living adjustments (COLA's) to plan benefits.

Actuarial Standard of Practice No. 51 (ASOP 51) is effective for actuarial valuations on or after November 1, 2018. This standard calls for explicit disclosure of risks associated with the pension plan and any recommended actions for better understanding the nature and impact of those risks. Please let us know if any additional analysis or information is desired.

Sensitivity analysis along with 30-year projections of results (before and after any assumption changes) have been included in this report pursuant to HB 238, passed in 2016.

## Actuarial Soundness

A plan that has adopted a reasonable funding method, that adopts reasonable assumptions and which contributes at a rate at or above the recommended contribution rate (based on these reasonable methods and assumptions), could be considered to be actuarially sound.

In order to ensure KLRP is funded in an “actuarially sound manner”, we would recommend the following:

1. Reflect a 1.5% future COLA assumption when calculating the funding requirement for KLRP, to the extent future cost-of-living increases are expected to occur, or intended to be provided.
2. Revise the actuarial funding method to amortize all past unfunded as well as new liabilities over a period not more than 30 years (we suggest shorter periods for various sources of new liability) and amortize future gains and losses over a period not more than 15 years. (Note that GASB 68 may require the expensing of liabilities at a faster pace than these amortization periods.)
3. Contribute at least the recommended contribution each year.

Deviations from these recommendations may result in an “actuarially unsound” approach to funding KLRP and may eventually result in KLRP becoming insolvent – that is, exhausting assets at which time all future benefits would be provided on a pay as you go basis.

Although the Actuarial Standards of Practice 4 “Measuring Pension Obligations” allows for plan liabilities to be calculated under a legally prescribed method, the statement goes on to say,

“If, in the actuary’s professional judgment, such an actuarial cost method or amortization method is significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due, assuming that all actuarial assumptions will be realized and that the plan sponsor or other contributing entity will make contributions when due, the actuary should disclose this.”

It is our professional actuarial opinion that the current legally prescribed method, which requires contributions of normal cost plus interest on the unfunded liability plus 1% of the unfunded liability (per KRS 21.525) and which (per KRS 21.405) does not recognize cost of living increases effective after the most recent valuation (assuming future increases are expected), is inconsistent with the plan accumulating adequate assets to make benefit payments when due, assuming all actuarial assumptions are realized. The current method of amortizing unfunded liabilities will not result in the full amortization of those liabilities.

## Changes in Actuarial Assumptions

The following changes were made to the actuarial assumptions effective June 30, 2021:

	<u>Previous</u>	<u>Current</u>
Medical Trend Rates	7.00% decreasing to 6.75% over 3 years and following the Getzen model thereafter until reaching an ultimate rate of 3.94% in the year 2075	6.25% decreasing to 5.75% over 2 years and following the Getzen model thereafter until reaching an ultimate rate of 4.04% in the year 2075

The medical trend rates change described above resulted in a decrease in liabilities and no change in the annual required contribution.

	<u>Previous</u>	<u>Current</u>
Expense Assumption	Estimated administrative expenses not reflected in the actuarial valuation	Estimated administrative expenses included

The expenses assumption change described above resulted no change in liabilities and an increase in the annual required contribution.

Additionally, the following changes were made to the actuarial assumptions as a result of the experience study completed in October 2020 and subsequently approved.

- > The mortality assumption was updated to the PubG-2010 (A) Public Retirement Plans Mortality Table with full generational projection under Scale MP-2020. For the OPEB Plan, the headcounted weighted version of this table was used.
- > Termination rates were updated to the rates in the 2003 SOA Turnover Basic Age Table.
- > Retirement rates were updated to the rates shown in the Actuarial Assumptions section of this report.
- > The percentage of participants assumed married was updated from 80% to 70%.
- > The interest discount rate assumption for the hybrid tier was updated from 4.00% to 6.50%. The assumption for the traditional tier remained at 6.50%.

These changes resulted in an increase in liabilities and no change in the annual required contribution.

Summaries of the plan provisions, actuarial assumptions and methods can be found in the Basis of Valuation section of this report.

## Actuarial Certification

The information contained in this document (including any attachments) is not intended by Findley, A Division of USI, to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer. The information and valuation results shown in this report are, to the best of our knowledge, complete and accurate and are based upon the following:

1. Employee census data as of July 1, 2021, submitted by the Kentucky Judicial Form Retirement System. This data was not audited by us but appears to be sufficient and reliable for purposes of the report.
2. Financial data as of June 30, 2021, submitted by the Kentucky Judicial Form Retirement System. This data was not audited by us but appears to be sufficient and reliable for purposes of the report.
3. Actuarial assumptions and methods as established either by statute or the KLRP Investment Committee. The actuarial assumptions currently adopted by the Committee appear to be reasonable, both individually and in aggregate. However, exclusion of retiree cost-of-living adjustments that can be reasonably anticipated to occur in future years (or for which there is an intent to provide in future years) does not reflect our best estimate of expected experience under the plan. As such, the valuation results presented in this report do not fully reflect the potential liability for future retiree cost-of-living adjustments. For purposes of the calculation of the Recommended Contribution, full future retiree cost-of-living adjustments have been reflected.
4. For purposes of GASB 67, 68, 74, and 75 disclosures, assets were split between pension and retiree medical liabilities on the basis of accrued liability as of July 1, 2008 and have been brought forward each year from that date based on actual cash flows and a prorata allocation of investment return. This methodology, initiated by the prior actuary, was based on guidance from the plan's auditor.

We believe the information is sufficiently complete and reliable. This report provides actuarial advice and does not constitute legal, accounting, tax or investment advice.

The actuarial valuation summarized in this report has been performed utilizing generally accepted actuarial principles. It is our opinion that the results fully and fairly disclose the actuarial position of the plan on the valuation date. We are senior consultants for Findley, A Division of USI, members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

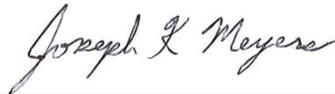
Certified by:



Matthew Widick, F.S.A., E.A., C.E.R.A., M.A.A.A.  
Senior Consultant

September 30, 2021

Date



Joseph Meyers, F.S.A., E.A., M.A.A.A.  
Senior Consultant  
(OPEB Plan Only)

September 30, 2021

Date

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## Annual Required Contribution

### Determination of Annual Required Contribution as of July 1, 2021

1. Accrued Liability	<u>Pension</u>	+	<u>OPEB</u>	=	<u>Total</u>
Actives					
Actives *	14,662,033		-		14,662,033
Medical Premium Supplement	-		3,529,997		3,529,997
Total Active Liability	14,662,033		3,529,997		18,192,030
Inactives					
Retired	46,489,957		-		46,489,957
Deferred Vested *	5,563,393		-		5,563,393
Beneficiaries	5,852,772		-		5,852,772
Medical Premium Supplement	-		12,138,001		12,138,001
Total Inactive Liability	57,906,122		12,138,001		70,044,123
Total Accrued Liability	72,568,155		15,667,998		88,236,153
2. Valuation Assets	79,019,547		56,806,280		135,825,827
3. Unfunded Past Service Liability	(6,451,392)		(41,138,282)		(47,589,674)
4. Gross Normal Cost					
Retirement Related *	514,338		-		514,338
Medical Premium Supplement Related	-		109,415		109,415
Total Normal Cost	514,338		109,415		623,753
5. Annual Covered Payroll	4,201,280		4,201,280		4,201,280
6. Estimated Employee Contributions for the Next 12 Months	216,876		23,051		239,927
7. Net Normal Cost (4 - 6)	297,462		86,364		383,826
8. Estimated Administrative Expenses	213,400		46,100		259,500
9. Interest plus 1% of Unfunded Past Service Liability	(483,854)		(3,085,371)		n/a
10. Preliminary Annual Required Contribution (max (0, 7 + 8 + 9))	27,008		-		27,008
11. Payment as a Percentage of Covered Payroll (10 / 5)	0.64%		0.00%		0.64%

\* includes 40% loading for non-legislative salaries

**Liability Breakdown**

	<u>Pension</u>	<u>OPEB</u>
Traditional Tier	\$ 71,827,900	\$ 15,552,624
<u>Hybrid Tier</u>	<u>740,255</u>	<u>115,374</u>
Total	\$ 72,568,155	\$ 15,667,998

**Gross Normal Cost Breakdown**

	<u>Pension</u>	<u>OPEB</u>
Traditional Tier	\$ 337,222	\$ 81,826
<u>Hybrid Tier</u>	<u>177,116</u>	<u>27,589</u>
Total	\$ 514,338	\$ 109,415

**Estimated Employee Contribution Breakdown**

	<u>Pension</u>	<u>OPEB</u>
Traditional Tier	\$ 101,622	\$ -
<u>Hybrid Tier</u>	<u>115,254</u>	<u>23,051</u>
Total	\$ 216,876	\$ 23,051

### Estimated Cost of a One-Time COLA as of July 1, 2021

It is our understanding, effective July 1, 2013, that any future COLA's must be pre-funded (either by additional contributions or by excess assets). As of July 1, 2021, the plan has no available excess assets.

#### **Approximate Cost of One Time 1.5% COLA**

1. Liability In Payment	
a) Retired	46,489,957
b) Beneficiaries	5,852,772
Total Liability In Payment	<u>52,342,729</u>
2. Desired COLA Percentage	1.50%
3. Estimated Cost of One Time COLA for First Year (1 * 2)	785,141*
4. Estimated Cost of One Time COLA for Second Year (3 * 1.015)	796,918*

\* Cost of 1.5% COLA increase applied to all members in pay status as of the valuation date.

## Actuarial Asset Value

### Determination of Actuarial Asset Value as of July 1, 2021

	<b>2020-21 Plan Year</b>	<b>2019-20 Plan Year</b>	<b>2018-19 Plan Year</b>	<b>2017-18 Plan Year</b>
Interest Return Assumption	6.5% (4.0% hybrid)	6.5% (4.0% hybrid)	6.5% (4.0% hybrid)	6.5% (4.0% hybrid)
Market Value at Beginning of Year				
Amount	\$ 128,659,045	\$ 127,018,375	\$ 117,928,814	\$ 110,399,622
Interest to End of Year	8,350,561	8,247,663	7,659,394	7,172,335
Employer Contributions				
Amount	-	-	-	2,405,500
Interest to End of Year	-	-	-	77,916
Member Contributions				
Amount	287,931	234,509	211,105	242,235
Interest to End of Year	7,815	6,235	5,903	7,163
Transfers from KERS				
Amount	-	-	-	-
Interest to End of Year	-	-	-	-
Benefits Paid				
Amount	5,963,934	5,843,788	5,495,456	5,285,983
Interest to End of Year	193,682	189,923	178,602	171,771
Expected End of Year Assets	131,147,736	129,473,071	120,131,158	114,847,017
Market Value at End of Year	168,952,342	128,659,045	127,018,375	117,928,814
Investment Gain (Loss)	37,804,606	(814,026)	6,887,217	3,081,797
Adjustment Percentage	80%	60%	40%	20%
Actuarial Asset Value Adjustment	(30,243,685)	488,416	(2,754,887)	(616,359)
Actuarial Asset Value (Market Value plus Adjustment)	<b>\$ 135,825,827</b>			

	<b>Retirement</b>	<b>Medical Supplement</b>
Market Value at Beginning of Year	\$76,409,564	\$52,249,481
State Contributions	-	-
Member Contributions	267,358	20,573
Transfers In Payments	-	-
Distributions	5,128,937	834,997
Allocated Investment Return	26,743,612	19,225,688
Market Value at End of Year	\$98,291,597	\$70,660,745
Allocation of Actuarial Asset Value	\$79,019,547	\$56,806,280

## Summary of Benefits (Pension - Traditional Tier)

*This summary is not a Summary Plan Description or a plan document. You should not rely solely on this summary in making a determination of eligibility of benefits. Liabilities and plan provisions are based on the plan data and provisions as of July 1, 2021.*

### Source

Sections 6.500-6.577 of the Kentucky Revised Statutes, and those statutes in KRS Chapter 21, specifically adopted by KRS 6.525.

### Eligibility for Membership

Members of the General Assembly may elect to make monthly contributions within 30 days after taking office, and thereby become eligible for membership in the KLRP plan. Individuals commencing participation on or after January 1, 2014 will participate in the hybrid plan.

### Employee Contributions

Members entering the plan on or after September 1, 2008 must contribute 6% of their "creditable compensation". Members entering the plan prior to September 1, 2008 must contribute 5% of their "creditable compensation". Once a member has earned sufficient service credit to have accrued a benefit of 100% of final average compensation, then employee contributions shall cease.

### Creditable Compensation

Creditable compensation is based on actual compensation received during each year.

### Normal Retirement

#### *Condition*

Members who have attained age 65 and completed at least 5 years of legislative service, or have additional service credit under other authorized state systems so that when added to legislative service credit equals at least 8 years of credit. However, the age 65 requirement shall be reduced by one year for each five years of service, and one year for each year served beyond the years of service needed to accrue a benefit of 100% of final average compensation, but with total reduction not to reduce the age requirement below 60. The full accrued benefit will also be payable upon completion of 27 years of service credit.

#### *Benefit*

A member will receive a retirement income at normal retirement date payable monthly for life equal to a percentage of final average compensation multiplied by years of service. In no event shall retirement income exceed 100% of final average compensation. (Beginning January 1, 2003, the final average compensation means the average monthly compensation of the member for his or her highest 36 months of State salary. Prior to 2003, final compensation was the average of the 60 months of legislative salary preceeding retirement).

The benefit rates vary according to date of legislative service begins, as follows:

1. If a legislator was a member of the plan on July 1, 1982, and entered legislative service prior to July 1, 1978, the benefit rate is 5.00% for all KLRP service.
2. If a legislator was a member of the plan on July 1, 1982 and entered legislative service between July 1, 1978 and June 30, 1980, the benefit rate is 4.15% for all KLRP service.
3. If a legislator was a member of the plan on July 1, 1982 and entered legislative service between July 1, 1980 and June 30, 1982, the benefit rate is 3.50% for all KLRP service.
4. For legislators entering KLRP service after June 30, 1982, the benefit rate is 2.75%.

## **Early Retirement**

A member who retires prior to normal retirement date and has met the service requirement for normal retirement has two alternatives with regard to receiving retirement income as follows:

1. Upon reaching normal retirement age, the member may be vested with the right to receive a monthly service retirement allowance computed and payable on the basis of years of service and applicable average salary, or
2. A member may elect to be paid, commencing as of the date of the election, a monthly service retirement allowance equivalent to the amount of monthly allowance that would have been paid had the member waited until reaching normal retirement age, but reduced in accordance with age at the time of election for each year under normal retirement age at the rate of 5% per year.

If the member has 27 or more years of service credit, there shall be no reduction for benefit commencement prior to normal retirement age. If the difference between the number of years of total governmental service and 27 is less than the difference between actual age and normal retirement age, the reduction shall be 5% for each year of service under 27.

## **Late Retirement**

A legislator may continue service past normal retirement age and will continue to accrue service credits, but cannot receive a benefit in excess of 100% of final average compensation.

## **Disability Benefit**

### *Condition*

No service requirement.

### *Benefit*

Upon determination of disability, a member will be eligible to receive  $\frac{1}{2}$  of the monthly retirement income that would have been payable commencing at normal retirement date if this member had continued service until that date and then retired. In calculating the retirement income, average salary for the 3 years preceding disability will be used. When a disabled member reaches normal retirement date, the member may apply and start receiving the full amount of retirement income that would have been payable based upon the actual number of years of service and compensation, in lieu of the disability benefit.

## **Death Benefit**

Upon the death of a member who at the time of death was receiving a retirement income (other than an actuarially reduced income), or was receiving a disability income, the surviving spouse (if married to the member at the time of retirement) is entitled to receive a monthly allowance equal to  $\frac{1}{2}$  of what the member was receiving for his/her lifetime.

If a member dies after retirement, and was at the time receiving an actuarially reduced allowance, or was not receiving an allowance, but had acquired a vested right to have received an allowance upon reaching normal retirement date, the surviving spouse (if married to the member at the time of retirement) is entitled to receive  $\frac{1}{2}$  of the monthly allowance the member would have received at normal retirement date for his/her lifetime.

If an active member dies before retirement and before reaching normal retirement age, without regard to length of service, the surviving spouse is entitled to receive a monthly allowance payable for his/her lifetime equal to  $\frac{1}{2}$  of the monthly retirement income the member would have received commencing at the member's normal retirement date as if the member had continued in service until that date and then retired, computed on the basis of final compensation at the time of death.

If a member dies before retirement and after reaching normal retirement date, the surviving spouse is entitled to receive a monthly allowance payable for his/her lifetime equal to  $\frac{1}{2}$  of the monthly allowance the member would have been entitled to on the basis of years of service, had the member retired on his date of death, computed on the basis of final compensation at the time of death.

If a member is not married at the time of death, any death benefits described above to which a surviving spouse would have been entitled will be payable to the children of the deceased member until such time as the youngest child attains age 21, or for the life of a disabled child. Also, a member may designate that survivor benefits shall go in part or in total to minor children instead of the spouse.

If cumulative payments to the member and/or beneficiary do not exceed the member's total contributions to this plan, then the excess of such contributions over cumulative plan benefits paid shall be paid as an additional death benefit.

## **Termination Benefit**

If a legislator ceases to be a member of the plan other than by death or disability prior to meeting the eligibility requirements for normal retirement, the amount of the member's accumulated contributions shall be returned to the member. If, thereafter, this individual again becomes a holder of an office qualifying for membership in this plan, this person shall not be entitled to credit for the prior period of service unless, at the time he again participates in the plan, the amount previously refunded is repaid, with interest.

## **Prior Service Credit**

Credit in KERS or TRS, for legislative service prior to the creation of this plan on July 1, 1980, can be (and in many instances was) transferred to and become credit in this plan, upon transfer to this plan of the accumulated contributions plus interest (member's and state's) that were made to acquire the credit.

## Cost-of-Living Adjustment

Ad hoc cost-of-living adjustments (COLA's) have been granted as noted below:

<b>Effective Date of Increase</b>	<b>Percentage Increase</b>	<b>Increase Applies To Benefits Based on Service Prior To</b>
7/1/1990	5%	6/30/1990
7/1/1991	5%	6/30/1991
7/1/1992	1%	6/30/1992
7/1/1993	1%	6/30/1993
7/1/1994	5%	6/30/1994
7/1/1995	5%	6/30/1995
7/1/1996	None	N/A
7/1/1997	None	N/A
8/1/1998	2.3%	N/A
7/1/1999	1.6%	N/A
7/1/2000	2.2%	N/A
7/1/2001	3.4%	N/A
7/1/2002	2.85%	N/A
7/1/2003	1.6%	N/A
7/1/2004	2.3%	N/A
7/1/2005	2.7%	N/A
7/1/2006	3.4%	N/A
7/1/2007	3.2%	N/A
7/1/2008	2.8%	N/A
7/1/2009 and later*	1.5%	N/A

\*COLA's were suspended for fiscal years beginning in 2012 and later; COLA's after 7/1/2013 are not reflected in this valuation. No further COLA's will be granted until the plan is 100% funded, unless a one-time COLA is 100% prefunded.

In addition, a provision for an on-going cost-of-living adjustment is made by statute. Effective August 1, 1998 and each July 1 thereafter, a recipient of a monthly pension shall receive a cost-of-living adjustment keyed to the Consumer Price Index. This COLA is excluded from the inviolable contract and can be repealed by the General Assembly at any time. Beginning July 1, 2009, if granted, this cost-of-living adjustment will be 1.50% for all retirees who have been retired in excess of one year and prorated for those retired less than one year.

Pursuant to statutory requirements, COLA increases are not reflected in plan liabilities until actually granted, except for any anticipated COLA adjustments under the provision as in effect prior to August 1, 1998.

## **Summary of Benefits (Pension - Hybrid Tier)**

### **Source**

Sections 6.500-6.577 of the Kentucky Revised Statutes, and those statutes in KRS Chapter 21, specifically adopted by KRS 6.525. {See 2013 Senate Bill 2}.

### **Eligibility for Membership**

Members of the General Assembly may elect to make monthly contributions within 30 days after taking office, and thereby become eligible for membership in the KLRP-HT plan. Individuals commencing participation before January 1, 2014 became participants in the KLRP.

### **Hypothetical Member Account**

The Hypothetical Member Account for each member is credited monthly with 9% of “creditable compensation” (including a 5% employee credit and a 4% state credit), as well as interest as described below. The Hypothetical Member Account balance on June 30 each year is equal to the sum of all prior contribution credits and all prior interest credits.

### **Employee Contributions**

All members contribute 5% of their “creditable compensation” to help fund their pension benefit. Additionally, all members contribute 1% of their “creditable compensation” towards the retiree medical benefit.

### **State Contributions**

The state contributes actuarially determined amounts to finance benefits.

### **Creditable Compensation**

Creditable compensation is based on actual compensation received during each year.

### **Interest on Hypothetical Member Account**

The Hypothetical Member Account will be credited with 4% annually. The credit will be applied on each June 30 based upon the Hypothetical Member Account balance from the preceding June 30. No interest credit is provided for contribution credits made in the current year.

Additionally, if the geometric average net investment return for the prior five years (or years since the effective date of the hybrid plan, if less) exceed 4%, members who were active and participating in the prior year will have their hypothetical accounts credited with 75% of the amount of the return over 4%. This additional interest credit is applied in the same method as the interest credit in the prior paragraph.

## **Normal Retirement**

### *Condition*

Members who have attained age 65 and completed at least 5 years of legislative service. However, for members who are at least age 57, members may retire if age plus service equals 87 years.

### *Benefit*

A member will receive their accumulated Hypothetical Account as either a lump sum or as one of a variety of annuity options, calculated by dividing their accumulated Hypothetical Account by an actuarial factor.

## **Early Retirement**

A member who retires prior to normal retirement date with at least 5 years of service is eligible for a full refund of their accumulated Hypothetical Account as a lump sum.

## **Termination Benefit**

If a legislator ceases to be a member of the plan prior to having 5 years of service, the amount of the member's accumulated contributions shall be returned to the member, including the member contributions and the interest applicable to this portion of the account. A member terminating with less than 5 years of service does not receive a refund of state contributions nor the interest applicable to this portion of the account.

## **Death Benefit**

Upon the death of a member who at the time of death was receiving a retirement income, the named beneficiary shall receive survivor benefits based upon the form of retirement benefits being received.

If a member with at least 5 years of service dies before retirement, the named beneficiary is entitled to receive a full refund of the accumulated Hypothetical Member Account. If a member with less than 5 years of service dies before retirement, the named beneficiary is entitled to receive a refund of the member's accumulated contributions, including the member contributions and the interest applicable to this portion of the account.

## Summary of Benefits (OPEB Plan)

### *Eligibility*

For those hired prior to January 1, 2014, participants and their covered dependents are eligible under the same requirements as in the KLRP Traditional Tier. For those hired on or after January 1, 2014, participants and their covered dependents are eligible under the same requirements as in the KLRP Hybrid Tier.

### *Benefits*

Retirees and their covered spouses are provided access to the State of KY group medical plan. Benefits for eligible retirees and their covered spouses are provided for life.

### *Contributions*

#### Traditional Tier

Retirees and their covered spouses are required to pay a portion of the medical insurance premiums to receive coverage under the group medical plan. The percentage will vary based on the number of years of service credit as follows:

<u>Years of Service Credit at Retirement</u>	<u>Percentage of Medical Insurance Premium Paid by the Plan</u>
20 or more	100%
19, but less than 20	95%
18, but less than 19	90%
17, but less than 18	85%
16, but less than 17	80%
15, but less than 16	75%
14, but less than 15	70%
13, but less than 14	65%
12, but less than 13	60%
11, but less than 12	55%
10, but less than 11	50%
4, but less than 10	25%
Less than 4	0%

#### Hybrid Tier

Retired members with at least 15 years of service, in addition to actual retirement benefits, will receive a monthly medical insurance benefit of ten dollars per year of service. All members contribute 1% of creditable compensation during active service. In addition, during retirement members must contribute the difference between the premium rates in effect that year and their monthly medical insurance stipend.

## **Actuarial Assumptions**

### **Interest**

6.5% per annum – this rate was selected by the KLRP Investment Committee and Findley, A Division of USI, and the Fund Investment Manager believe this to be a reasonable long-term rate of return assumption.

The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at the current statutory contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, 6.5% was used for the discount rate/long-term rate of return assumption for GASB calculations.

### **Mortality**

PubG-2010 (A) Table with Pre and Post Commencement Rates with projected mortality improvements after year 2010 under Projection Scale MP-2020 (male and female scales); i.e., full generational mortality. For the OPEB Plan, the headcounted weighted version of this table was used.

### **Terminations**

2003 SOA Turnover Basic Age Table

### **Salary Increases**

1% for the next three years and 3.5% thereafter;

Liabilities have been adjusted to reflect the potential impact of non-legislative salaries on future pension benefits in the traditional tier. The liabilities for members (including terminated members) who could be impacted by non-legislative salaries have been increased by 40% to recognize the potential increase in plan liability.

### **Disability**

None

## Retirement Age

Retirements were assumed to occur as follow:

<u>Retirement Age</u>	<u>Percentage of Active Members Retiring</u>
NRA-5	15.00%
NRA-4	7.50%
NRA-3	7.50%
NRA-2	15.00%
NRA-1	20.00%
NRA	20.00%
Above NRA	33.33%*
Age 70	100.00%

NRA = Normal Retirement Age

In addition to these rates, for members of the traditional tier only, an extra 20% rate is assumed at the age a member reaches 27 years of service credit.

## Post-Retirement Death Benefit

Assumption is that 70% of the legislators would be married at retirement and the husband would be 3 years older than the wife on average.

## Pre-Retirement Death Benefit

Assumption is that 70% of the legislators would be survived by a spouse upon death prior to retirement and that the husband would be 3 years older than the wife on average.

## Cost-of-Living Adjustment

Pursuant to statutory requirements, COLA increases are not reflected in plan liabilities until actually granted.

## Expenses

Estimated administrative expenses (assumed to be \$259,500 effective for the 2021-22 plan year).

## Medical Insurance Premium Supplement

### *Plan Participation*

100% of future eligible retirees are assumed to elect coverage at retirement.

### *Marital Status*

Current elections are assumed to persist each year in the future. For pre-Medicare 2021 data, we expect approximately 41% of those covered also cover a spouse. For post-Medicare participants, we expect 70% will cover a spouse.

### *Medical Claims Cost*

The per contract medical claims cost for 2021-2022 is determined based on the group premium rates, weighted by tier of coverage, and applied on a per contract basis based on the member's life. Weighted premiums are aged from the average age of the covered group. The premiums for 2021-22 and the current tier elections are shown in the table below:

	<b>Monthly Premium Rates</b>	<b>Current Tier Election</b>
<b><i>Pre-Medicare Coverage</i></b>		
Family	\$ 1,841.08	27.59%
Single	753.76	51.72%
Parent Plus	1,075.44	6.90%
Member and Spouse	1,653.10	13.79%
<b><i>Medicare Coverage</i></b>		
Medicare Advantage PPO	274.91	100%

Based on these weightings, the assumed claims cost for 2021-22 per contract for a male, age 65 are:

<b><u>Pre-65 Cost</u></b>	<b><u>Post-65 Cost</u></b>
\$ 17,594	\$ 5,608

### *Age Variance*

Claims were adjusted downward using the aging factors in the Dale Yamamoto study released by the Society of Actuaries in June 2013 for attained ages 55 to 65. No aging was applied to the Medicare Advantage premium rates.

### *Health Care Cost Trend Rate*

6.25% grading to 5.75% over 2 years and following the Getzen model thereafter until reaching an ultimate rate of 4.04% in the year 2075

### *Administrative Expenses*

Administrative expenses are assumed to be included in the per capita claims cost.

*Retiree Contributions*

Legacy Plan:

Retirees are required to pay a percentage of the premium rate in effect at retirement based on years of service, as described in the plan provisions section of the report. The premium rates for 2021-22 are based on a weighted average of the current tier elections shown in the medical claims cost section of this report. Per contract premiums for 2021-22 are assumed to be:

<u>Pre-65 Cost</u>	<u>Post-65 Cost</u>
\$ 14,570	\$ 5,608

Hybrid Plan:

Retirees are required to contribute 1% of creditable compensation during active service. Upon retirement, retirees must contribution the difference between the premium rates in effect each year and their monthly stipend. Monthly stipends are \$10 per year of service. The total premium rates before the stipend for 2021-22 are based on a weighted average of the current tier elections shown in the medical claims cost section of this report. Per contract premiums for 2021-22 are assumed to be:

<u>Pre-65 Cost</u>	<u>Post-65 Cost</u>
\$ 14,570	\$ 5,608

*Coordination with Medicare*

Benefits for retirees are deemed to be similar to those benefits provided for actives. The retiree medical plan is assumed to be the primary plan of benefits prior to age 65. It is assumed to pay benefits secondary to Medicare after attaining age 65.

**Non-members**

Legislators electing not to participate are assumed to continue as non-members in the future.

## Actuarial Methods

### Funding Method

Accrued liability and normal cost calculated based on Entry Age Normal funding method. The required contribution is calculated based on KRS 21.525, which requires contributions of normal cost plus interest on the unfunded liability plus 1% of the unfunded liability.

### Asset Valuation Method

The determination of the actuarial value of assets is as follows:

1. Investment gains/losses are determined for each year by comparing the expected value of assets based on the assumed interest assumption to actual market value. Expected value of assets in each year shall be determined by projecting the market value of assets from the prior year using the assumed interest rate, plus contributions less benefit payments and plan expenses (adjusted with interest at the assumed rate). If the expected value of plan assets is different than the actual market value of plan assets then the difference is treated as a gain or loss for that year.
2. The amount of any gain or loss as determined above shall be recognized evenly over the subsequent five years.
3. The actuarial value of assets on any valuation date shall be equal to the market value of assets on that date adjusted as follows:
  - > Reduced by 80% of a gain or increased by 80% of a loss from the preceding year
  - > Reduced by 60% of a gain or increased by 60% of a loss from the 2nd preceding year
  - > Reduced by 40% of a gain or increased by 40% of a loss from the 3rd preceding year
  - > Reduced by 20% of a gain or increased by 20% of a loss from the 4th preceding year
4. In no event will the actuarial value of assets be less than 80% or greater than 120% of the current market value of assets

This asset valuation method is used in the determination of funding levels. The fair market value of assets is used for disclosure purposes under GASB Statement Nos. 67, 68, 74, and 75.

For purposes of GASB Statement Nos. 67, 68, 74, and 75, the market value of assets has been allocated between retirement related and medical premium supplement liabilities. This market value allocation is carried forward each year based on the following:

1. State and member contributions, as well as transfers for purchase of additional service, are allocated pro-rata reflecting the Annual Required Contribution for that year.
2. Benefits paid reflect actual benefits paid relative to retirement related benefits separately from medical premium supplements.
3. Preliminary assets are determined by adjusting beginning value for allocated State and member contributions and actual benefits paid.
4. Net investment return is allocated pro-rata based on the preliminary assets developed in the previous step.
5. Allocated assets as of the valuation date equal the preliminary balance plus the allocated share of investment income.

Actuarial value of assets is developed initially in total and then allocated between retirement related benefits and medical premium supplement benefits on a pro-rata basis reflecting allocated share of market value as of the valuation date.

## **GASB Statement No. 67**

### Statement of Changes in Fiduciary Net Position

	<u>June 30, 2021</u>
<b>Additions</b>	
Contributions:	
Employer	\$0
Employee	<u>267,358</u>
Total Contributions	267,358
Transfer In Payments	0
Investment Income	26,743,612
Other	<u>0</u>
Total Additions	27,010,970
<b>Deductions</b>	
Benefit Payments / Refunds	5,128,937
Administrative Expenses	0
Other	<u>0</u>
Total Deductions	<u>5,128,937</u>
Net Increase in Net Position	21,882,033
<b>Net Position Restricted for Pensions</b>	
Beginning of Year Market Value of Assets	<u>76,409,564</u>
End of Year Market Value of Assets	<u><u>\$98,291,597</u></u>

## Net Pension Liability

### Determination of Net Pension Liability

	June 30, 2021
Total Pension Liability (6.5%)	72,568,155
Plan Fiduciary Net Position (Market Value of Assets)	(98,291,597)
Net Pension Liability	(\$25,723,442)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	135.45%

### Sensitivity of Net Pension Liability to Changes in the Discount Rate

	1% Decrease (5.5%)	Current Rate (6.5%)	1% Increase (7.5%)
Net Pension Liability	(\$18,505,613)	(\$25,723,442)	(\$31,819,537)

**Schedule of Changes in the Net Pension Liability and Related Ratios (Dollar amounts in millions)**

	fiscal year ending June 30									
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
<b>Total Pension Liability</b>										
Service cost	\$1.0	\$1.0	\$0.9	\$0.7	\$0.7	\$0.7	\$0.6	\$0.5		
Interest	4.9	\$5.1	\$5.2	\$5.3	\$4.6	\$4.6	\$4.5	4.6		
Changes of benefit terms	0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.0		
Differences between expected and actual experience	0.0	(\$3.4)	\$0.0	(\$6.4)	\$0.0	(\$2.8)	\$0.0	(2.0)		
Changes of assumptions	3.7	(\$1.5)	\$0.0	(\$0.2)	\$0.0	(\$0.3)	\$0.0	2.6		
Benefit Payments / Refunds	(3.5)	(\$3.7)	(\$4.0)	(\$4.2)	(\$4.5)	(\$4.7)	(\$5.0)	(5.1)		
<b>Net Change in Total Pension Liability</b>	<b>\$6.1</b>	<b>(\$2.5)</b>	<b>\$2.1</b>	<b>(\$4.7)</b>	<b>\$0.8</b>	<b>(\$2.5)</b>	<b>\$0.1</b>	<b>\$0.6</b>		
Total Pension Liability - beginning	72.6	\$78.7	\$76.2	\$78.4	\$73.6	\$74.4	\$71.9	72.0		
<b>Total Pension Liability - ending (a)</b>	<b>\$78.7</b>	<b>\$76.2</b>	<b>\$78.4</b>	<b>\$73.6</b>	<b>\$74.4</b>	<b>\$71.9</b>	<b>\$72.0</b>	<b>\$72.6</b>		
<b>Plan Fiduciary Net Position (Market Value of Assets)</b>										
Contributions - employer	\$1.8	\$3.4	\$3.4	\$2.4	\$2.4	\$0.0	\$0.0	\$0.0		
Contributions - employee	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3		
Transfer In Payments	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0		
Net investment income	7.9	5.6	2.0	7.9	6.2	8.6	4.3	26.7		
Benefit Payments / Refunds	(3.5)	(3.7)	(4.0)	(4.2)	(4.5)	(4.7)	(5.0)	(5.1)		
Administrative expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
<b>Net Change in Plan Fiduciary Net Position</b>	<b>\$6.4</b>	<b>\$5.5</b>	<b>\$1.7</b>	<b>\$6.6</b>	<b>\$4.4</b>	<b>\$4.1</b>	<b>(\$0.5)</b>	<b>\$21.9</b>		
Plan Fiduciary Net Position - beginning	48.2	54.6	60.1	61.9	68.4	72.8	76.9	76.4		
<b>Plan Fiduciary Net Position - ending (b)</b>	<b>\$54.6</b>	<b>\$60.1</b>	<b>\$61.9</b>	<b>\$68.4</b>	<b>\$72.8</b>	<b>\$76.9</b>	<b>\$76.4</b>	<b>\$98.3</b>		
<b>Net Pension Liability - ending (a) - (b)</b>	<b>\$24.1</b>	<b>\$16.1</b>	<b>\$16.5</b>	<b>\$5.2</b>	<b>\$1.6</b>	<b>(\$5.0)</b>	<b>(\$4.4)</b>	<b>(\$25.7)</b>		
Plan Fiduciary Net Position as a % of the Total Pension Liability	69.4%	78.9%	79.0%	92.9%	97.8%	107.0%	106.1%	135.4%		
Covered-employee payroll	\$5.0	\$4.9	\$4.9	\$4.4	\$4.4	\$4.3	\$4.3	\$4.2		
Net Pension Liability as a % of covered-employee payroll	483.2%	328.6%	336.7%	118.2%	36.4%	(116.3%)	(102.3%)	(611.9%)		
Discount Rate (traditional)	6.50%	6.85%	6.85%	6.45%	6.45%	6.50%	6.50%	6.50%		
Discount Rate (hybrid)	n/a	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	6.50%		

## Schedule of Contributions

	fiscal year ending June 30									
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Actuarially determined contribution <sup>1</sup>	\$3.2	\$3.4	\$3.4	\$2.4	\$2.4	\$1.1	\$1.2	\$0.4		
Contributions in relation to the actuarially determined contribution	1.8	3.4	3.4	2.4	2.4	0.0	0.0	0.0		
Contribution deficiency (excess)	<u>\$1.4</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$1.1</u>	<u>\$1.2</u>	<u>\$0.4</u>		
Covered-employee payroll	\$5.0	\$4.9	\$4.9	\$4.4	\$4.4	\$4.3	\$4.3	\$4.2		
Contributions as a percentage of covered-employee payroll	36.1%	69.3%	69.4%	54.9%	54.8%	0.0%	0.0%	0.0%		

<sup>1</sup> Starting with the Fiscal Year Ending June 30, 2019, due to the lag period between the calculated date and the actual contributions, the Actuarially Determined Contribution has been adjusted with interest at the funding interest rate assumption.

## Additional Requirements Under GASB Statement No. 67

GASB Statement No. 67 also requires a Statement of Fiduciary Net Position (which includes a breakdown of current assets by type) and additional investment information, including the annual money-weighted rate of return. In order to satisfy GASB Statement No. 67, these required pieces will need to be provided by the Kentucky Judicial Form Retirement System. Findley, A Division of USI, is prepared to assist the system as needed.

## GASB Statement No. 68

### Schedule of Changes in NPL, Deferrals, & Pension Expense

	Increase (Decrease)					Pension Expense
	Total Pension Liability (a)	Plan Net Position (Assets) (b)	Net Pension Liability (a) - (b)	Deferred Pension Outflows of Resources	Deferred Pension Inflows of Resources	
<b>Balances--at 06/30/20</b>	\$ 71,968,764	\$ 76,409,564	\$ (4,440,800)	\$ 1,018,882	\$ 4,012,673	
<b>Changes for the Year:</b>						
Service cost	525,441		525,441			525,441
Interest expense	4,559,324		4,559,324			4,559,324
Benefit changes						
Experience losses (gains)	(1,974,940)		(1,974,940)	-	1,209,163	(761,224)
Changes of assumptions	2,618,503		2,618,503	1,603,186	-	1,015,038
Contributions--State		-	-			
Contributions--Members		267,358	(267,358)			(267,358)
Transfer In Payments		-	-			
Net investment income		26,743,612	(26,743,612)			
Expected return on plan investments						(4,749,983)
Current expense of asset gain/loss						(6,250,334)
Non expensed asset gain/loss				-	17,594,903	
Refunds of contributions	-	-	-			
Benefits paid	(5,128,937)	(5,128,937)	-			
Plan administrative expenses						
Recognition of Prior Post-measurement Contribution				(580,008)		
Post-measurement Contribution				380,676		
Other changes						
Amortization of or change in beginning balances				(115,107)	(1,962,440)	
<b>Net Changes</b>	<u>599,391</u>	<u>21,882,033</u>	<u>(21,282,642)</u>	<u>1,288,747</u>	<u>16,841,626</u>	<u>(5,929,096)</u>
<b>Balances--at 06/30/21</b>	<u>\$ 72,568,155</u>	<u>\$ 98,291,597</u>	<u>\$(25,723,442)</u>	<u>\$ 2,307,629</u>	<u>\$ 20,854,299</u>	<u>(5,929,096)</u>

## Pension Expense & Deferred Outflows/Inflows of Resources

For the year ended June 30, 2022, the recognized pension expense/(income) will be (\$5,929,096). At June 30, 2022, the Kentucky Judicial Form Retirement System reported deferred outflows of resources and deferred inflows of resources in relation to pensions from the following sources:

	As of June 30, 2021		Recognized in Pension Expense	As of June 30, 2022		
	Deferred Outflows of Resources	Deferred Inflows of Resources		Deferred Outflows of Resources	Deferred Inflows of Resources	Remaining Amort. Period
Experience losses (gains)						
- 6/30/2017	11,926	-	1,497	10,429	-	6.970 years
- 6/30/2019	29,787	-	3,056	26,731	-	8.747 years
- 6/30/2021	-	1,974,940	(765,777)	-	1,209,163	1.579 years
subtotal	41,713	1,974,940	(761,224)	37,160	1,209,163	
Change of assumptions						
- 6/30/2018	-	2,221	(279)	-	1,942	6.970 years
- 6/30/2021	2,618,503	-	1,015,317	1,603,186	-	1.579 years
subtotal	2,618,503	2,221	1,015,038	1,603,186	1,942	
Net difference between projected and actual earnings on investments						
- 6/30/2017	-	732,817	(732,817)	-	-	0.000 years
- 6/30/2018	-	760,726	(380,363)	-	380,363	1.000 year
- 6/30/2019	-	2,501,891	(833,963)	-	1,667,928	2.000 years
- 6/30/2020	382,142	-	95,535	286,607	-	3.000 years
- 6/30/2021	-	21,993,629	(4,398,726)	-	17,594,903	4.000 years
subtotal	382,142	25,989,063	(6,250,334)	286,607	19,643,194	
<b>Total</b>	<b>\$ 3,042,358</b>	<b>\$ 27,966,224</b>	<b>\$ (5,996,520)</b>	<b>\$ 1,926,953</b>	<b>\$ 20,854,299</b>	

Actual investment earnings above (or below) projected earnings are amortized over 5 years. Plan experience and changes of assumptions are amortized over the average remaining service period of actives and inactive (0 years of future service is assumed for inactive for this calculation).

## Pension Expense & Deferred Outflows/Inflows of Resources (continued)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<b>Year ended June 30:</b>	
2022	(5,263,703)
2023	(4,988,399)
2024	(4,298,915)
2025	(4,394,451)
2026	4,274
Thereafter	13,848

In addition, Governmental Accounting Standards Board Statement 71 (“GASB 71”) requires contributions between the measurement date (July 1, 2021) and the disclosure date (June 30, 2022) for GASB 68 be reported as a deferred outflow of resources.

## Sources of Gains and Losses

Experience Losses (gains)	\$ (1,974,940)
Change of Assumptions Losses (gains)	2,618,503
<u>Asset Losses (gains)</u>	<u>(21,993,629)</u>
Total	\$ (21,350,066)

## GASB Statement No. 74

### Statement of Changes in Fiduciary Net Position

	<u>June 30, 2021</u>
<b>Additions</b>	
Contributions	
Employer	0
Employee	<u>20,573</u>
Total Contributions	20,573
Transfer In Payments	0
Investment Income	19,225,688
Other	<u>0</u>
Total Additions	<u>19,246,261</u>
 <b>Deductions</b>	
Benefit Payments / Refunds	834,997
Administrative Expenses	0
Other	<u>0</u>
Total Deductions	<u>834,997</u>
Net Increase in Net Position	<u>18,411,264</u>
 <b>Net Position Restricted for OPEB</b>	
Beginning of Year Market Value of Assets	<u>52,249,481</u>
End of Year Market Value of Assets	<u><u>\$70,660,745</u></u>

## Net OPEB Liability

### Determination of Net OPEB Liability

Total OPEB Liability	15,667,998
Plan Fiduciary Net Position (Market Value of Assets)	<u>(70,660,745)</u>
Net OPEB Liability	<u><u>(\$54,992,747)</u></u>
 Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	 450.99%

### Sensitivity of Net OPEB Liability to Changes in the Healthcare Cost Trend Rate

	<b>1% Decrease</b> on Trend Assumption	<b>Current</b> Trend Assumption	<b>1% Increase</b> on Trend Assumption
Net OPEB Liability	(\$56,485,021)	(\$54,992,747)	(\$53,223,029)

### Sensitivity of Net OPEB Liability to Changes in the Discount Rate

	<b>1% Decrease</b> 5.50%	<b>Current Rate</b> 6.50%	<b>1% Increase</b> 7.50%
Net OPEB Liability	(\$53,167,720)	(\$54,992,747)	(\$56,512,044)

## Schedule of Changes in the Net OPEB Liability and Related Ratios

(Dollar amounts in millions)

	fiscal year ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
<b>Total OPEB Liability</b>										
Service cost	\$0.4	\$0.3	\$0.3	\$0.1	\$0.2					
Interest	2.0	1.4	1.5	\$1.2	1.3					
Changes of benefit terms	0.0	0.0	0.0	\$0.0	0.0					
Differences between expected and actual experience	(10.6)	0.0	(4.4)	\$0.0	(4.8)					
Changes of assumptions	2.3	0.0	0.0	\$0.0	(0.4)					
Benefit Payments / Refunds	(0.7)	(0.8)	(0.8)	(\$0.8)	(0.8)					
<b>Net Change in Total OPEB Liability</b>	(\$6.6)	\$0.9	(\$3.4)	\$0.5	(\$4.5)					
<b>Total OPEB Liability - beginning</b>	28.6	22.0	23.1	\$19.7	20.2					
<b>Total OPEB Liability - ending (a)</b>	<u>\$22.0</u>	<u>\$23.1</u>	<u>\$19.7</u>	<u>\$20.2</u>	<u>\$15.7</u>					
<b>Plan Fiduciary Net Position (Assets)</b>										
Contributions - employer	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0					
Contributions - employee	\$0.0	\$0.0	\$0.0	\$0.0	0.0					
Transfer In Payments	\$0.0	\$0.0	\$0.0	\$0.0	0.0					
Net investment income	\$4.9	\$3.9	\$5.7	\$2.9	19.2					
Benefit Payments / Refunds	(\$0.7)	(\$0.8)	(\$0.8)	(\$0.8)	(0.8)					
Administrative expenses	\$0.0	\$0.0	\$0.0	\$0.0	0.0					
Other	\$0.0	\$0.0	\$0.0	\$0.0	0.0					
<b>Net Change in Plan Fiduciary Net Position</b>	\$4.2	\$3.1	\$4.9	\$2.1	\$18.4					
<b>Plan Fiduciary Net Position - beginning</b>	\$37.8	\$42.0	\$45.1	\$50.1	52.2					
<b>Plan Fiduciary Net Position - ending (b)</b>	<u>\$42.0</u>	<u>\$45.1</u>	<u>\$50.1</u>	<u>\$52.2</u>	<u>\$70.7</u>					
<b>Net OPEB Liability - ending (a) - (b)</b>	<u>(\$20.0)</u>	<u>(\$22.1)</u>	<u>(\$30.4)</u>	<u>(\$32.1)</u>	<u>(\$55.0)</u>					
<b>Plan Fiduciary Net Position as a % of the Total OPEB Liability</b>	190.9%	195.2%	254.3%	258.9%	450.3%					
<b>Covered-employee payroll</b>	\$4.4	\$4.4	\$4.3	\$4.3	\$4.2					
<b>Net OPEB Liability as a % of covered-employee payroll</b>	(454.5%)	(502.3%)	(707.0%)	(746.5%)	(1309.5%)					
Discount Rate (traditional)	6.50%	6.50%	6.50%	6.50%	6.50%					
Discount Rate (hybrid)	4.00%	4.00%	4.00%	4.00%	6.50%					

## Schedule of Contributions

	fiscal year ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Actuarially determined contribution <sup>1</sup>	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0					
Contributions in relation to the actuarially determined contribution	0.0	0.0	0.0	\$0.0	0.0					
Contribution deficiency (excess)	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>					
Covered-employee payroll	\$4.4	\$4.4	\$4.3	\$4.3	\$4.2					
Contributions as a percentage of covered-employee payroll	0.0%	0.0%	0.0%	\$0.0	0.0%					

<sup>1</sup> Starting with the Fiscal Year Ending June 30, 2019, due to the lag period between the calculated date and the actual contributions, the Actuarially Determined Contribution has been adjusted with interest at the funding interest rate assumption.

## Additional Requirements Under GASB Statement No. 74

GASB Statement No. 74 also requires a Statement of Fiduciary Net Position (which includes a breakdown of current assets by type) and additional investment information, including the annual money-weighted rate of return. In order to satisfy GASB Statement No. 74, these required pieces will need to be provided by the Kentucky Judicial Form Retirement System. Findley, A Division of USI, is prepared to assist the system as needed.

## GASB Statement No. 75

### Schedule of Changes in NOL, Deferrals, & OPEB Expense

	Increase (Decrease)			Deferred OPEB Outflows of Resources	Deferred OPEB Inflows of Resources	OPEB Expense
	Total OPEB Liability (a)	Plan Net Position (Assets) (b)	Net OPEB Liability (a) - (b)			
<b>Balances--at 06/30/20</b>	\$ 20,244,775	\$ 52,249,481	\$(32,004,706)	\$ 372,886	\$ 2,567,044	
<b>Changes for the Year:</b>						
Service cost	158,472		158,472			158,472
Interest expense	1,301,335		1,301,335			1,301,335
Benefit changes						
Experience losses (gains)	(4,799,669)		(4,799,669)	-	2,938,611	(1,859,625)
Changes of assumptions	(401,918)		(401,918)	-	246,075	(155,670)
Contributions--State		-	-			
Contributions--Members		20,573	(20,573)			(20,573)
Transfer In Payments		-	-			
Net investment income		19,225,688	(19,225,688)			
Expected return on plan investments						(3,414,711)
Current expense of asset gain/loss						(4,335,562)
Non expensed asset gain/loss				-	12,648,782	
Refunds of contributions	-	-	-			
Benefits paid	(834,997)	(834,997)	-			
Plan administrative expenses						
Recognition of Prior Post-measurement Contribution				(85,782)		
Post-measurement Contribution				25,907		
Other changes						
Amortization of or change in beginning balances				(72,326)	(1,244,086)	
<b>Net Changes</b>	<u>(4,576,777)</u>	<u>18,411,264</u>	<u>(22,988,041)</u>	<u>(132,201)</u>	<u>14,589,382</u>	<u>(8,326,334)</u>
<b>Balances--at 06/30/21</b>	<u>\$ 15,667,998</u>	<u>\$ 70,660,745</u>	<u>\$(54,992,747)</u>	<u>\$ 240,685</u>	<u>\$ 17,156,426</u>	<u>\$ (8,326,334)</u>

## OPEB Expense & Deferred Outflows/Inflows of Resources

For the year ended June 30, 2022, the recognized OPEB expense/(income) will be (\$8,326,334). At June 30, 2022, the Kentucky Judicial Form Retirement System reported deferred outflows of resources and deferred inflows of resources in relation to OPEBs from the following sources:

	As of June 30, 2021		Recognized in Pension Expense	As of June 30, 2022		
	Deferred Outflows of Resources	Deferred Inflows of Resources		Deferred Outflows of Resources	Deferred Inflows of Resources	Remaining Amort. Period
Experience losses (gains)						
- 6/30/2017	4,804	-	603	4,201	-	6.970 years
- 6/30/2019	8,085	-	830	7,255	-	8.747 years
- 6/30/2021	-	4,799,669	(1,861,058)	-	2,938,611	1.579 years
subtotal	12,889	4,799,669	(1,859,625)	11,456	2,938,611	
Change of assumptions						
- 6/30/2019	1,686	-	173	1,513	-	8.747 years
- 6/30/2021	-	401,918	(155,843)	-	246,075	1.579 years
subtotal	1,686	401,918	(155,670)	1,513	246,075	
Net difference between projected and actual earnings on investments						
- 6/30/2017	-	461,161	(461,161)	-	-	0.000 years
- 6/30/2018	-	471,994	(235,996)	-	235,998	1.000 year
- 6/30/2019	-	1,630,440	(543,480)	-	1,086,960	2.000 years
- 6/30/2020	269,079	-	67,270	201,809	-	3.000 years
- 6/30/2021	-	15,810,977	(3,162,195)	-	12,648,782	4.000 years
subtotal	269,079	18,374,572	(4,335,562)	201,809	13,971,740	
<b>Total</b>	<b>\$ 283,654</b>	<b>\$ 23,576,159</b>	<b>\$ (6,350,857)</b>	<b>\$ 214,778</b>	<b>\$ 17,156,426</b>	

Actual investment earnings above (or below) projected earnings are amortized over 5 years. Plan experience and changes of assumptions are amortized over the average remaining service period of actives and inactive (0 years of future service is assumed for inactive for this calculation).

## OPEB Expense & Deferred Outflows/Inflows of Resources (continued)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEBs will be recognized in OPEB expense as follows:

<b>Year ended June 30:</b>	
2022	(5,889,698)
2023	(4,804,584)
2024	(3,093,320)
2025	(3,160,591)
2026	1,606
Thereafter	4,939

In addition, Governmental Accounting Standards Board Statement 71 ("GASB 71") requires contributions between the measurement date (July 1, 2021) and the disclosure date (June 30, 2022) for GASB 75 be reported as a deferred outflow of resources.

## Sources of Gains and Losses

Experience Losses (gains)	\$ (4,799,669)
Change of Assumptions Losses (gains)	(401,918)
<u>Asset Losses (gains)</u>	<u>(15,810,977)</u>
Total	\$ (21,012,564)

## Risk Assessment

Risk Factor	Initial Risk Assessment Language
Investment	Due to the plan's substantial equity exposure, investment returns will likely be much more volatile than the measurements of plan liabilities. Therefore, there is a risk that the funded status of the plan, as well as required plan contributions, could be volatile.
Assumed Rate of Return	Due to the plan's estimated duration of 8 to 10, a 1% decrease in the assumed rate of investment return would increase the measurement of the liability by 8% to 10%.
Longevity	Since nearly all of the plan liability is projected to be paid as annuities, the plan is sensitive to changes in overall population longevity. As a result, the liabilities will fluctuate with changes in longevity. The ratio of retired life liability to total liability is 72%, suggesting there is less sensitivity to long-term changes in overall mortality improvement than a less mature plan.
Other demographic factors	Due to the eligibility for unreduced and subsidized retirement benefits, employees continuing in service for longer than expected will accrue additional benefits which may or may not result in larger liabilities. Conversely, employees retiring sooner than anticipated will accrue smaller benefits which may or may not result in smaller liabilities.
Lump sums	No significant known risks. However, as the Hybrid Tier becomes a larger percentage of the total liability, this risk will become more significant. Since lump sum benefits are equal to the cash balance for the Hybrid Tier, lump sum payments have a comparable effect on both assets and liabilities.
Inflation	Inflation is a component of future interest rates and investment returns over a long period. As a result, changes to inflation can affect funded percentages.
Non-Legislative Salaries	Pension benefits can be increased by future non-legislative salaries and the liability for active and deferred vested participants has been increased by 40% to reflect his possibility. The effect of non-legislative salaries may have a larger or smaller impact than is reflected by the 40% load factor. Additionally, future legislation may eliminate or reduce the effect of this provision.
Other Factors	Due to recent and ongoing attempts to pass pension reform legislation at a state level, the plan could be modified in the future. Future legislation may affect benefit levels or future contribution levels and could result in increases or decreases in the plan liabilities or funding status.

Findley, A Division of USI can perform more detailed assessments of these risks as desired by the plan sponsor to provide a better understanding of the risks.

## GASB Notes

### Notes to GASB 67, 68, 74, and 75 Disclosures

1. Actuarial accrued liability is based on the entry age normal funding method.
2. Market value of assets as of July 1, 2007 was allocated between pension and OPEB obligations based on proportionate share of accrued liability on that date. Allocations in subsequent years are based on prior year allocated value adjusted for contributions and benefits paid during the year, with investment return (net of expenses) allocated proportionately between retirement and OPEB obligations. Actuarial value of assets is then allocated based on the market value share of retirement and OPEB obligations.
3. Actuarial value of assets uses a 5-year asset smoothing method.
4. Information used in preparing these exhibits has been extracted from past valuation reports.

Note: Above statements are based on information furnished by the prior actuary.

5. The tables in this report account for liabilities and assets only for the traditional defined benefit/OPEB tier under the plan; liabilities and assets pertaining to the hybrid cash balance/OPEB tier are presented in a separate report.
6. Covered payroll reflects payroll for all current plan members.
7. ADC based on full actuarial report (odd numbered years) immediately prior to each biennium. ADC amount shown is for basic valuation, without any future COLA reflected but with interest adjustment as appropriate.
8. The valuation date, disclosure date, and measurement date all fall on the same date for purposes of GASB 67.
9. It is assumed the measurement date for GASB 68 will be 12 months before the disclosure date. For the year ending June 30, 2022, the measurement date is July 1, 2021 (the valuation date).
10. The valuation date, disclosure date, and measurement date all fall on the same date for purposes of GASB 74.
11. It is assumed the measurement date for GASB 75 will be 12 months before the disclosure date. For the year ending June 30, 2022, the measurement date is July 1, 2021 (the valuation date).

## Summary of Participant Data

### Distribution of Active Participants with Average Compensation

Attained Age	Years of Credited Service										Total
	Under 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	Over 39	
Under 25											
25 - 29											
30 - 34	2	3									5
	\$42,289	\$39,472									\$40,599
35 - 39	1	2		1							4
	\$41,148	\$40,926		\$41,316							\$41,079
40 - 44		5	3	1	1						10
		\$41,601	\$46,349	\$36,189	\$43,958						\$42,720
45 - 49	5	1	2								8
	\$42,314	\$29,066	\$44,657								\$41,244
50 - 54	1	6	5	1	2	3					18
	\$42,032	\$40,989	\$41,871	\$45,615	\$51,772	\$43,219					\$43,119
55 - 59	3	8	1	1	1				1		15
	\$41,148	\$38,197	\$39,877	\$42,951	\$57,118				\$61,415		\$42,026
60 - 64	2	5	2	3		1	1	1			15
	\$41,779	\$37,078	\$41,782	\$40,640		\$40,922	\$44,510	\$53,838			\$40,914
65 - 69	1	3	2	3	2	4	1				16
	\$41,148	\$38,045	\$39,738	\$45,533	\$44,192	\$40,315	\$42,951				\$41,497
Over 69		2	2		2		1	3			10
	\$0	\$30,255	\$41,144		\$38,458		\$48,901	\$41,345			\$39,265
<b>Total</b>	<b>15</b>	<b>35</b>	<b>17</b>	<b>10</b>	<b>8</b>	<b>8</b>	<b>3</b>	<b>5</b>			<b>101</b>
	<b>\$0</b>	<b>\$38,540</b>	<b>\$42,525</b>	<b>\$42,459</b>	<b>\$46,240</b>	<b>\$41,480</b>	<b>\$45,454</b>	<b>\$47,858</b>			<b>\$41,597</b>

## Distribution of Inactive Participants with Average Annual Benefit

Attained Age	Retired and Beneficiaries	Terminated	Total
Under 50		7	7
		\$14,108	\$14,108
50 - 54	4	11	15
	\$18,500	\$26,223	\$24,164
55 - 59	6	11	17
	\$45,995	\$17,036	\$27,257
60 - 64	18	10	28
	\$58,151	\$29,089	\$47,772
65 - 69	28	7	35
	\$50,158	\$8,999	\$41,926
70 - 74	67		67
	\$40,713		\$40,713
75 - 79	43		43
	\$36,963		\$36,963
80 - 84	44		44
	\$44,885		\$44,885
85 - 89	26	1	27
	\$35,286	\$96,902	\$37,568
90 - 94	7		7
	\$28,883		\$28,883
Over 94	2		2
	\$52,096		\$52,096
Total	245	47	292
	\$42,110	\$21,817	\$38,844

## **Glossary of Terms**

**Amortization** – The process of systematically recognizing prior gains and losses as a component of the Pension Expense.

**Fiduciary Net Position** – The market value of assets as of a specified measurement date.

**Funded Status** – The difference between the Fiduciary Net Position and the Total Pension Liability as of the measurement date.

**Gain/Loss** – A change in the value of either the Total Pension Liability or the plan assets resulting from experience different from that assumed or from a change in an actuarial assumption.

**Interest Cost** – The amount recognized in a period determined as the increase in the Total Pension Liability due to the passage of time.

**Pension Expense** – The sum of Service Cost, Interest Cost, Expected Return on Assets and amortizations of Actuarial Gain/Loss over the average remaining service period (or the life expectancy) of plan participants expected to receive plan benefits plus a 5-year amortization of Asset Gain/Loss.

**Service Cost** – is the actuarial present value of benefits attributed to services rendered by employees during the measurement.

**Total Pension Liability** – The Entry Age Normal Accrued Liability.

## Sensitivity Analysis

In accordance with HB 238, passed in 2016, we are providing the following sensitivity analysis of the valuation results to changes in certain plan assumptions. Specifically we have looked at the effect of a one percent increase and decrease to the discount rate, salary scale, and healthcare cost trend rate assumptions.

### Discount Rate

	1% Decrease (5.5%)	Current Rate (6.5%)	1% Increase (7.5%)
<b>Pension Plan</b>			
Accrued Liability	\$79,785,984	\$72,568,155	\$66,472,060
Actuarial Value of Assets	79,019,547	79,019,547	79,019,547
Unfunded Past Service Liability	766,437	(6,451,392)	(12,547,487)
Funded Ratio	99.04%	108.89%	118.88%
Contribution as Percent of Salary	10.22%	0.00%	0.00%
<b>OPEB Plan</b>			
Accrued Liability	\$17,493,025	\$15,667,998	\$14,148,701
Actuarial Value of Assets	56,806,280	56,806,280	56,806,280
Unfunded Past Service Liability	(39,313,255)	(41,138,282)	(42,657,579)
Funded Ratio	324.74%	362.56%	401.49%
Contribution as Percent of Salary	0.00%	0.00%	0.00%
<b>Total <sup>1</sup></b>			
Accrued Liability	\$97,279,009	\$88,236,153	\$80,620,761
Actuarial Value of Assets	135,825,827	135,825,827	135,825,827
Unfunded Past Service Liability	(38,546,818)	(47,589,674)	(55,205,066)
Funded Ratio	139.63%	153.93%	168.47%
Contribution as Percent of Salary	10.22%	0.00%	0.00%

<sup>1</sup>Our current understanding of IRS regulations is that they prohibit the use of surplus OPEB assets for retirement benefits. We recommend continuing discussions with plan council on possible options. Please refer to page 9 of this report for the asset and liabilities split between the Pension and OPEB plans.

## Salary Scale

	<b>1% Decrease</b>	<b>Current Rate</b>	<b>1% Increase</b>
	0% for five years, 2.5% thereafter	1% for five years, 3.5% thereafter	2% for five years, 4.5% thereafter
<b>Pension Plan</b>			
Accrued Liability	\$72,496,984	\$72,568,155	\$72,675,107
Actuarial Value of Assets	79,019,547	79,019,547	79,019,547
Unfunded Past Service Liability	(6,522,563)	(6,451,392)	(6,344,440)
Funded Ratio	109.00%	108.89%	108.73%
Contribution as Percent of Salary	0.00%	0.00%	0.00%
<b>OPEB Plan</b>			
Accrued Liability	\$15,709,188	\$15,667,998	\$15,623,374
Actuarial Value of Assets	56,806,280	56,806,280	56,806,280
Unfunded Past Service Liability	(41,097,092)	(41,138,282)	(41,182,906)
Funded Ratio	361.61%	362.56%	363.60%
Contribution as Percent of Salary	0.00%	0.00%	0.00%
<b>Total <sup>1</sup></b>			
Accrued Liability	\$88,206,172	\$88,236,153	\$88,298,481
Actuarial Value of Assets	135,825,827	135,825,827	135,825,827
Unfunded Past Service Liability	(47,619,655)	(47,589,674)	(47,527,346)
Funded Ratio	153.99%	153.93%	153.83%
Contribution as Percent of Salary	0.00%	0.00%	0.00%

<sup>1</sup>Our current understanding of IRS regulations is that they prohibit the use of surplus OPEB assets for retirement benefits. We recommend continuing discussions with plan council on possible options. Please refer to page 9 of this report for the asset and liabilities split between the Pension and OPEB plans.

## Healthcare Cost Trend Rate

	<b>1% Decrease in Trend Assumption</b>	<b>Current Rate in Trend Assumption</b>	<b>1% Increase in Trend Assumption</b>
<b>Pension Plan</b>			
Accrued Liability	\$72,568,155	\$72,568,155	\$72,568,155
Actuarial Value of Assets	79,019,547	79,019,547	79,019,547
Unfunded Past Service Liability	(6,451,392)	(6,451,392)	(6,451,392)
Funded Ratio	108.89%	108.89%	108.89%
Contribution as Percent of Salary	0.00%	0.00%	0.00%
<b>OPEB Plan</b>			
Accrued Liability	\$14,175,724	\$15,667,998	\$17,437,716
Actuarial Value of Assets	56,806,280	56,806,280	56,806,280
Unfunded Past Service Liability	(42,630,556)	(41,138,282)	(39,368,564)
Funded Ratio	400.73%	362.56%	325.77%
Contribution as Percent of Salary	0.00%	0.00%	0.00%
<b>Total <sup>1</sup></b>			
Accrued Liability	\$86,743,879	\$88,236,153	\$90,005,871
Actuarial Value of Assets	135,825,827	135,825,827	135,825,827
Unfunded Past Service Liability	(49,081,948)	(47,589,674)	(45,819,956)
Funded Ratio	156.58%	153.93%	150.91%
Contribution as Percent of Salary	0.00%	0.00%	0.00%

<sup>1</sup>Our current understanding of IRS regulations is that they prohibit the use of surplus OPEB assets for retirement benefits. We recommend continuing discussions with plan council on possible options. Please refer to page 9 of this report for the asset and liabilities split between the Pension and OPEB plans.

# Projections

## Pension Plan

In accordance with HB 238, we are also providing the following 30 year projection under the current plan assumptions and, if applicable, before any assumptions changes effective at the valuation date. For a list of assumptions changes effective as of July 1, 2021, please see page 7.

Year Beginning July 1	Contribution Requirement (\$M)*		Contribution (%)		Accrued Liability (\$M)		Unfunded Liability (\$M)		Funded Ratio (Assets/Liabilities)	
	Prior	Current	Prior	Current	Prior	Current	Prior	Current	Prior	Current
	Assumptions	Assumptions	Assumptions	Assumptions	Assumptions	Assumptions	Assumptions	Assumptions	Assumptions	Assumptions
2021	\$ 0.4	\$ 0.4	9.5%	9.5%	\$ 69.9	\$ 72.6	\$ (9.1)	\$ (6.5)	113%	109%
2022	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 68.3	\$ 71.6	\$ (16.1)	\$ (13.2)	124%	118%
2023	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 66.6	\$ 70.5	\$ (22.7)	\$ (19.7)	134%	128%
2024	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 64.9	\$ 69.1	\$ (28.6)	\$ (25.4)	144%	137%
2025	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 63.1	\$ 67.5	\$ (34.8)	\$ (31.4)	155%	147%
2026	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 61.0	\$ 65.8	\$ (36.6)	\$ (33.1)	160%	150%
2027	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 58.9	\$ 63.9	\$ (38.5)	\$ (34.9)	165%	155%
2028	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 56.9	\$ 62.0	\$ (40.6)	\$ (36.8)	171%	159%
2029	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 54.8	\$ 60.0	\$ (42.9)	\$ (38.8)	178%	165%
2030	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 52.6	\$ 57.9	\$ (45.3)	\$ (40.9)	186%	171%
2031	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 50.5	\$ 55.8	\$ (47.7)	\$ (43.2)	194%	177%
2032	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 48.3	\$ 53.5	\$ (50.3)	\$ (45.6)	204%	185%
2033	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 46.0	\$ 51.2	\$ (53.1)	\$ (48.2)	215%	194%
2034	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 43.8	\$ 48.9	\$ (56.0)	\$ (50.9)	228%	204%
2035	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 41.5	\$ 46.5	\$ (59.2)	\$ (53.8)	243%	216%
2036	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 39.3	\$ 44.2	\$ (62.5)	\$ (56.8)	259%	229%
2037	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 37.1	\$ 41.9	\$ (66.0)	\$ (60.0)	278%	243%
2038	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 35.0	\$ 39.6	\$ (69.7)	\$ (63.3)	299%	260%
2039	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 32.7	\$ 37.3	\$ (73.5)	\$ (66.9)	325%	279%
2040	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 30.6	\$ 35.1	\$ (77.6)	\$ (70.6)	354%	301%
2041	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 28.5	\$ 32.8	\$ (82.0)	\$ (74.6)	388%	327%
2042	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 26.5	\$ 30.7	\$ (86.6)	\$ (78.8)	427%	357%
2043	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 24.7	\$ 28.6	\$ (91.4)	\$ (83.1)	470%	391%
2044	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 22.8	\$ 26.6	\$ (96.5)	\$ (87.8)	523%	430%
2045	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 21.0	\$ 24.6	\$ (101.9)	\$ (92.6)	585%	476%
2046	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 19.4	\$ 22.8	\$ (107.6)	\$ (97.8)	655%	529%
2047	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 17.9	\$ 21.0	\$ (113.6)	\$ (103.2)	735%	591%
2048	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 16.3	\$ 19.3	\$ (119.9)	\$ (108.8)	836%	664%
2049	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 15.0	\$ 17.7	\$ (126.6)	\$ (114.8)	944%	749%
2050	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 13.6	\$ 16.1	\$ (133.6)	\$ (121.1)	1082%	852%
2051	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 12.2	\$ 14.7	\$ (141.0)	\$ (127.7)	1256%	969%
Sum of Contributions	\$ 0.4	\$ 0.4								

\* The Contribution Requirement above is the full projected contribution requirement, adjusted with interest. The projection results are based on the assumption that 40.0% of the requirement is contributed, the average percentage of the contribution requirement that was made over the past 5 years.

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Year Beginning July 1	Contribution Requirement (\$M)*		Contribution (%)		Accrued Liability (\$M)		Unfunded Liability (\$M)		Funded Ratio (Assets/Liabilities)	
	Prior	Current	Prior	Current	Prior	Current	Prior	Current	Prior	Current
	Assumptions	Current	Assumptions	Current	Assumptions	Current	Assumptions	Current	Assumptions	Current
2021	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 16.1	\$ 15.7	\$ (40.8)	\$ (41.1)	353%	362%
2022	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 16.0	\$ 15.7	\$ (48.1)	\$ (48.5)	401%	409%
2023	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 16.1	\$ 15.8	\$ (55.4)	\$ (55.8)	444%	453%
2024	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 16.1	\$ 15.7	\$ (62.3)	\$ (62.8)	487%	500%
2025	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 15.9	\$ 15.7	\$ (69.6)	\$ (70.2)	538%	547%
2026	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 15.9	\$ 15.6	\$ (74.0)	\$ (74.6)	565%	578%
2027	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 15.8	\$ 15.4	\$ (78.7)	\$ (79.4)	598%	616%
2028	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 15.6	\$ 15.3	\$ (83.7)	\$ (84.4)	637%	652%
2029	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 15.5	\$ 15.1	\$ (89.0)	\$ (89.8)	674%	695%
2030	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 15.2	\$ 14.9	\$ (94.7)	\$ (95.5)	723%	741%
2031	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 14.9	\$ 14.6	\$ (100.7)	\$ (101.7)	776%	797%
2032	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 14.7	\$ 14.3	\$ (107.1)	\$ (108.1)	829%	856%
2033	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 14.4	\$ 14.0	\$ (113.9)	\$ (115.1)	891%	922%
2034	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 14.2	\$ 13.7	\$ (121.2)	\$ (122.4)	954%	993%
2035	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 13.8	\$ 13.3	\$ (128.9)	\$ (130.2)	1034%	1079%
2036	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 13.6	\$ 13.0	\$ (137.1)	\$ (138.6)	1108%	1166%
2037	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 13.2	\$ 12.6	\$ (146.0)	\$ (147.5)	1206%	1271%
2038	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 12.7	\$ 12.2	\$ (155.3)	\$ (156.9)	1323%	1386%
2039	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 12.3	\$ 11.8	\$ (165.3)	\$ (166.9)	1444%	1514%
2040	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 11.8	\$ 11.3	\$ (175.8)	\$ (177.6)	1590%	1672%
2041	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 11.1	\$ 10.8	\$ (187.1)	\$ (189.0)	1786%	1850%
2042	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 10.6	\$ 10.3	\$ (199.1)	\$ (201.1)	1978%	2052%
2043	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 10.1	\$ 9.8	\$ (211.8)	\$ (214.0)	2197%	2284%
2044	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 9.7	\$ 9.3	\$ (225.4)	\$ (227.7)	2424%	2548%
2045	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 9.1	\$ 8.8	\$ (239.8)	\$ (242.3)	2735%	2853%
2046	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 8.7	\$ 8.4	\$ (255.2)	\$ (257.9)	3033%	3170%
2047	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 8.1	\$ 7.9	\$ (271.5)	\$ (274.4)	3452%	3573%
2048	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 7.7	\$ 7.5	\$ (288.9)	\$ (292.0)	3852%	3993%
2049	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 7.2	\$ 7.0	\$ (307.4)	\$ (310.7)	4369%	4539%
2050	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 6.7	\$ 6.5	\$ (327.1)	\$ (330.6)	4982%	5186%
2051	\$ 0.0	\$ 0.0	0.0%	0.0%	\$ 6.3	\$ 6.1	\$ (348.0)	\$ (351.8)	5624%	5867%
Sum of Contributions	\$ 0.0	\$ 0.0								

\* The Contribution Requirement above is the full projected contribution requirement, adjusted with interest. The projection results are based on the assumption that 40.0% of the requirement is contributed, the average percentage of the contribution requirement that was made over the past 5 years.