Kentucky Legislators Retirement Plan - Hybrid Tier

Actuarial Valuation and Report

as of July 1, 2017

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Introduction

An actuarial valuation of the Kentucky Legislators Retirement Plan - Hybrid Tier ("KLRP-HT") has been performed as of July 1, 2017. 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-HT for plan years commencing in 2018 and 2019. 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 §21.402 and §21.525, as well as other statutes found in KRS Chapter 21 cited hereafter, are made applicable to KLRP-HT by KRS §6.525.

Governmental Accounting Standards Board Statement 67 ("GASB 67"), Statement 43 ("GASB 43"), 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"), Statement 45 ("GASB 45"), and Statement 75 ("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 2017. Actuarial computations under Statements 67, 68, 43, 45, 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 set forth a methodology for the calculation of the annual Pension Expense for the upcoming fiscal year. GASB 68 and GASB 75 provide 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.

Statement 45 sets forth a methodology to determine annual adjustments to the Annual Required Contribution (ARC), which is the contribution recommended pursuant to the appropriate actuarial valuation, to account for differences between amounts expensed and contributions actually made. Under GASB 45, the resulting adjusted amount is referred to as the Annual OPEB Cost (AOC) and the accumulated difference between the AOC and the actual contribution is referred to as the Net OPEB Obligation (NOO).

BPS&M does not have access to and is not providing information concerning liabilities other than benefits, such as for legal or accounting fees.

BPS&M 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. However, we are aware that studies have been prepared suggesting substantial changes to state-wide retirement systems, including KLRP-HT; this report does not consider any such changes.

We are not aware of any relationship between the plan or plan sponsor and BPS&M, LLC 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.

Summary of Report

An actuarial valuation of the Kentucky Legislators Retirement Plan - Hybrid Tier ("KLRP-HT") was conducted as of July 1, 2017. 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, 2018 and July 1, 2019.

In 2013 the applicable state statutes were amended to close participation in the traditional defined benefit tier, with all individuals first electing to participate in Kentucky Legislators Retirement Plan ("KLRP") on or after January 1, 2014 being covered under a new hybrid cash balance tier. **This report covers only the hybrid cash balance/OPEB tier of KLRP.**

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 2018 for the plan, prior to adjusting with interest, as described in the Summary of Benefits section of this report, are as follows:

	Total Amount	Percent of Payroll
Annual Required Contribution	43,355	4.83%
Recommended Contribution	43,355	4.83%

The Annual Required Contribution is determined based on assumptions and methods set forth in the statute and established by the Board of Trustees. The Recommended Contribution is determined as the greater of the Annual Required Contribution and 4.00% of payroll.

The Annual Required Contribution and Recommended Contribution shown above are calculated using asset and liability values as of July 1, 2017. These amounts are used to determine contributions for the fiscal years beginning July 1, 2018 and July 1, 2019.

Due to the lag period between the calculated date and the actual contributions, we have adjusted the Annual Required Contributions and Recommended Contributions for the plan years 2018-2019 and 2019-2020 with one and two years of interest, respectively, at the interest rate assumption of 4.00%.

	2018-2019 (1 year of interest)	2019-2020 (2 years of interest)
Annual Required Contribution (with interest)	45,089	46,893
Recommended Contribution (with interest)	45,089	46,893

Summary of Selected Plan Information

	Plan Year Beginning	
	7/1/2017	7/1/2015
Number of Participants		
Active	23	11
Terminated Vested	0	0
Retired	0	0
Beneficiaries	0	0
Total	23	11
Average Age (for actives)	52.5	50.8
Average Service (for actives)	1.4	0.6
Annual Covered Payroll	$ 897,712	$ 419,012
Average Salary	39,031	38,092
Accrued Liability	147,911	29,753
Actuarial Asset Value	141,146	24,788
Market Asset Value	145,643	24,463
Unfunded Accrued Liability (UAL)	6,765	4,965
Funded Ratio (AVA/AL)	95.43%	83.31%
Annual Funding Level [1]		
State Portion of Normal Cost	$ 43,017	$ 20,521
Expected Employee Contributions	53,863	25,141
Total Normal Cost	96,880	45,662
Annual Required Contribution	43,355	20,918
Percent of Covered Payroll	4.83%	4.99%

[1] In accordance with KRS 21.525 (legally prescribed funding method).

Legislative Background

As stated previously, state statues 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.

Statement No.43 of the Governmental Accounting Standards Board was amended by Statement No. 74 of the Governmental Accounting Standards Board. Statement No. 74 became effective for the plan's financial statements for the fiscal year beginning after June 15, 2016. Statement No. 74 establishes financial reporting standards for state and local government OPEB plans that are administered through trusts or equivalent arrangements. The objective of this statement is to improve the usefulness of the information included in pension plan reports.

The Governmental Accounting Standards Board amended Statement No. 45 with Statement No. 75; the effective date for Statement No. 75 is for the fiscal year beginning after June 15, 2017. Statement No. 45 continues to apply to the financial reporting requirement for KLRP-HT for the year ending June 30, 2017. Statement No. 45 provides standards for reporting pension expenditures and expense, and related pension liabilities and assets, for such plans.

Statement No. 75 of the Governmental Accounting Standards Board requires the determination of the OPEB expense for the fiscal year beginning July 1, 2017. Statement No. 75 provides a new approach to calculating the pension expense which differs significantly from Statement No. 45 methodology.

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-HT is funded in an "actuarially sound manner", we would recommend the following:

1. Revise the actuarial funding method to amortize all past unfunded as well as new liabilities over a period not more than 15 years 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.)
2. Contribute at least the recommended contribution each year.

Deviations from these recommendations may result in an "actuarially unsound" approach to funding KLRP-HT and may eventually result in KLRP-HT 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 option 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), is inconsistent with the plan accumulating adequate assets to make benefit payments when due, assuming all actuarial assumptions are realized.

Changes in Actuarial Assumptions

The following changes were made to the actuarial assumptions effective June 30, 2017:

	Previous	Current
Salary Scale	1% for the next five years beginning July 1, 2015 and 3.5% thereafter	1% for the next five years beginning July 1, 2017 and 3.5% thereafter

The salary scale change described had a negligible effect on liabilities and the annual recommended contribution.

	Previous	Current
Retirement Rates	Included an extra 20% rate at the age a member reaches 27 years of service credit	Removed extra 20% rate at the age a member reaches 27 years of service credit

The retirement rates change described above resulted in a decrease in liabilities and annual recommended contribution.

	Previous	Current
Medical Trend Rates	11.00% decreasing to 5.00% over 6 years beginning July 1, 2015	8.00% decreasing to 5.00% over 12 years beginning July 1, 2017

The medical trend rates change described above resulted in an increase in liabilities and annual recommended contribution.

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

Other Signficant Changes

1. It is our understanding that recent legislation effective for this 2017 actuarial valuation requires the preparation of additional information to be part of the biennial actuarial valuation report. This includes a 20-year projection of liability and cost, as well as disclosure of sensitivity of results to changes in significant assumptions. We have been instructed by the Board of Trustees to not prepare this information until the cost of preparation of such additional information can be appropriately budgeted.

Actuarial Certification

The information contained in this document (including any attachments) is not intended by BPS&M 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, 2017, 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, 2017, 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 Board. The actuarial assumptions currently adopted by the Board appear to be reasonable, both individually and in aggregate.
4. For purposes of GASB 43, 45, 67, 68, 74, and 75 disclosures, assets were split between pension and retiree medical liabilities on the basis of the employee and employer contributions allocated to each part and a prorata allocation of investment return. This methodology was based on the process used to split assets in the traditional defined benefit plan between the pension and retiree medical components.

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 my opinion that the results fully and fairly disclose the actuarial position of the plan on the valuation date. I am a consulting actuary for BPS&M, LLC, member 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:

Alan C. Pennington, F.S.A.

Alan C. Pennington, F.S.A., E.A., M.A.A.A. Consulting Actuary/Principal	October 9, 2017 Date
David L. Shaub, F.S.A., M.A.A.A. Managing Consultant	October 9, 2017 Date

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Annual Required Contribution

Determination of Annual Required Contribution as of July 1, 2017

1. Accrued Liability	Pension	OPEB	Total
Actives			
Actives	111,954	-	111,954
Medical Premium Supplement	-	35,957	35,957
Total Active Liability	111,954	35,957	147,911
Inactives			
Retired	-	-	-
Deferred Vested	-	-	-
Beneficiaries	-	-	-
Medical Premium Supplement	-	-	-
Total Inactive Liability	-	-	-
Total Accrued Liability	111,954	35,957	147,911
2. Valuation Assets	112,365	28,781	141,146
3. Unfunded Past Service Liability	(411)	7,176	6,765
4. Gross Normal Cost			
a) Retirement Related	76,915	-	76,915
b) Medical Premium Supplement Related	-	19,965	19,965
c) Total Normal Cost	76,915	19,965	96,880
5. Annual Covered Payroll	897,712	897,712	897,712
6. Estimated Employee Contributions for the Next 12 Months			
a) Retirement Related	44,886	-	44,886
b) Medical Premium Supplement Related	-	8,977	8,977
c) Total Estimated Employee Contributions	44,886	8,977	53,863
7. Net Normal Cost			
a) Retirement Related (4a - 6a)	32,029	-	32,029
b) Medical Premium Supplement Related (4b - 6b)	-	10,988	10,988
c) Total Net Normal Cost (4c - 6c)	32,029	10,988	43,017
d) Net Normal Cost as Percent of Pay (7c / 5)	3.57%	1.22%	4.79%
8. Interest plus 1% of Unfunded Past Service Liability	(21)	359	n/a
9. Total Annual Required Contribution (max (0, 7c + 8))	32,008	11,347	43,355
10 . Payment as a Percentage of Covered Payroll (9 / 5)	3.57%	1.26%	4.83%

Actuarial Asset Value

Determination of Actuarial Asset Value as of July 1, 2017

	2016-17 Plan Year	2015-16 Plan Year	2014-15 Plan Year	2013-14 Plan Year
Interest Return Assumption	4.00%	4.00%	4.00%	4.00%
Market Value at Beginning of Year				
Amount	$ 74,575	$ 24,463	$ -	$ -
Interest to End of Year	2,983	979	-	-
Employer Contributions				
Amount	21,000	19,682	8,796	-
Interest to End of Year	420	394	176	-
Member Contributions				
Amount	42,202	29,524	15,585	-
Interest to End of Year	844	590	312	-
Transfers from KERS				
Amount	-	-	-	-
Interest to End of Year	-	-	-	-
Benefits Paid				
Amount	2,938	-	-	-
Interest to End of Year	59	-	-	-
Expected End of Year Assets	139,027	75,632	24,869	-
Market Value at End of Year	145,643	74,575	24,463	-
Investment Gain (Loss)	6,616	(1,057)	(406)	-
Adjustment Percentage	80%	60%	40%	20%
Actuarial Asset Value Adjustment	(5,293)	634	162	-
Actuarial Asset Value (Market Value plus Adjustment)	**$ 141,146**			

	Retirement	Medical Supplement
Market Value at Beginning of Year	59,665	14,910
State Contributions	15,444	5,556
Member Contributions	35,169	7,033
Transfers In Payments	-	-
Distributions	-	-
Refund of Contributions	2,938	-
Allocated Investment Return	8,605	2,199
Market Value at End of Year	115,945	29,698
Allocation of Actuarial Asset Value	112,365	28,781

Summary of Benefits

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, 2017. This report covers only the hybrid cash balance/OPEB tier of KLRP.

Source

Sections 6.500-6.577 of the Kentucky Revised Statues and 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 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.

Medical Insurance Premium Supplement

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.

The current premium rates in effect are:

	Monthly Premium
Under age 65	
Family coverage	$1,738.40
Single coverage	721.14
Parent Plus coverage	1,023.04
Member and Spouse	1,564.20
Age 65 or older	
Medicare Advantage PPO	312.79

Premium rates are approved by the Board.

Actuarial Assumptions

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.

Interest

4% per annum – this rate was selected by the Board of Trustees and BPS&M and the Fund Investment Manager believe this to be a reasonable long-term rate of return assumption.

Mortality

RP-2000 Mortality Tables with white collar adjustment with Pre and Post Commencement Rates with projected mortality improvements after year 2000 under Projection Scale AA (male and female scales); i.e., full generational mortality.

Terminations

Table T-4 from the Actuary's Pension Handbook. Specimen rates are as follows:

Age	Rate of Termination
20	.054
25	.053
30	.051
35	.047
40	.042
45	.035
50	.025
55	.009
60	.001
65+	.000

Salary Increases

1% for the next five years, and 3.5% thereafter.

Disability

None

Retirement Age

Retirements were assumed to occur as follow:

Retirement Age *	Percentage of Active Members Retiring
60	16.67%
61	20.00%
62	25.00%
63	33.33%
64	50.00%
65	100.00%

* The plan also requires 5 years of service to be eligible to retire.

Prior to July 1, 2017, an extra 20% rate was assumed at the age a member reaches 27 years of service credit. No additional retirement rate is currently assumed.

Post-Retirement Death Benefit

Assumption is that 80% 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 80% 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.

Form of Benefit

All participants are assumed to receive a lump sum.

Medical Insurance Premium Supplement

Medical premiums and claim costs will increase for each year beyond the valuation date at the following rates:

Year 1	8.00%
Year 2	7.75%
Year 3	7.50%
Year 4	7.25%
Year 5	7.00%
Year 6	6.75%
Year 7	6.50%
Year 8	6.25%
Year 9	6.00%
Year 10	5.75%
Year 11	5.50%
Year 12	5.25%
Years 13+	5.00%

An annual COLA of 1.5% is applied to the monthly insurance benefit, beginning at retirement.

100% of eligible retirees are assumed to elect the benefit. It was further assumed that coverage would be split among retirees as follows:

	% of Retirees	% With Spouse Coverage
Pre-Medicare Coverage		
Family	11%	N/A
Single	58%	N/A
Parent Plus	5%	N/A
Member and Spouse	26%	N/A
Medicare Coverage		
Medicare Advantage PPO	100%	75%

The assumed annual claims costs per subscriber as of July 1, 2017 are:

Pre-65 Cost	Post-65 Cost
$ 14,848	$ 6,569

Claims were adjusted downward 3% for each year of age reduction from age 65 to age 55.

Retirees are assumed to contribute the difference between the premium rate and the portion of the premium paid by the Plan. Premium rates and Plan contributions are described in the Summary of Benefits.

Non-members

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

Actuarial Methods

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 both the determination of funding levels as well as for disclosure purposes under GASB Statement Nos. 43 and 45. 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. 43, 45, 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, are allocated pro-rata reflecting the ARC 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

	June 30, 2017
Additions	
Contributions:	
Employer	$15,444
Employee	35,169
Total Contributions	50,613
Transfer In Payments	0
Investment Income	8,605
Other	0
Total Additions	59,218
Deductions	
Benefit Payments / Refunds	2,938
Administrative Expenses	0
Other	0
Total Deductions	2,938
Net Increase in Net Position	56,280
Net Position Restricted for Pensions	
Beginning of Year Market Value of Assets	59,665
End of Year Market Value of Assets	$115,945

Net Pension Liability

Determination of Net Pension Liability

	June 30, 2017
Total Pension Liability (4.00%)	111,954
Plan Fiduciary Net Position (Market Value of Assets)	(115,945)
Net Pension Liability	($3,991)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	103.56%

Sensitivity of Net Pension Liability to Changes in the Discount Rate

	1% Decrease	**Current Rate**	**1% Increase**
	(3.00%)	(4.00%)	(5.00%)
Net Pension Liability	$2,251	($3,991)	($9,893)

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

	fiscal year ending June 30									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Pension Liability										
Service cost	$0.0	$36.2	$36.2							
Interest	0.0	2.4	3.8							
Changes of benefit terms	21.7	0.0	0.0							
Differences between expected and actual experience	0.0	0.0	17.9							
Changes of assumptions	0.0	0.0	(3.3)							
Benefit Payments / Refunds	0.0	0.0	(2.9)							
Net Change in Total Pension Liability	$21.7	$38.6	$51.7							
Total Pension Liability - beginning	0.0	21.7	60.3							
Total Pension Liability - ending (a)	$21.7	$60.3	$112.0							
Plan Fiduciary Net Position (Market Value of Assets)										
Contributions - employer	$8.8	$14.5	$15.4							
Contributions - employee	11.0	24.6	35.1							
Transfer In Payments	0.0	0.0	0.0							
Net investment income	0.1	0.7	8.6							
Benefit Payments / Refunds	0.0	0.0	(2.9)							
Administrative expenses	0.0	0.0	0.0							
Other	0.0	0.0	0.0							
Net Change in Plan Fiduciary Net Position	$19.9	$39.8	$56.2							
Plan Fiduciary Net Position - beginning	0.0	19.9	59.7							
Plan Fiduciary Net Position - ending (b)	$19.9	$59.7	$115.9							
Net Pension Liability - ending (a) - (b)	$1.8	$0.6	($3.9)							
Plan Fiduciary Net Position as a % of the Total Pension Liability	91.7%	99.0%	103.5%							
Covered-employee payroll	$419	$419	$898							
Net Pension Liability as a % of covered-employee payroll	0.4%	0.1%	-0.4%							
Discount Rate	4.00%	4.00%	4.00%							

Schedule of Contributions

(Dollar amounts in thousands)

	fiscal year ending June 30									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Actuarially determined contribution	$8.8	$14.5	$15.4							
Contributions in relation to the actuarially determined contribution	8.8	14.5	15.4							
Contribution deficiency (excess)	$0.0	$0.0	$0.0							
Covered-employee payroll	$419	$419	$898							
Contributions as a percentage of covered-employee payroll	2.1%	3.5%	1.7%							

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. BPS&M is prepared to assist the system as needed.

GASB Statement No. 68

Schedule of Changes in NPL, Deferrals, & Pension Expense

	Increase (Decrease)					
	Total Pension Liability (a)	Plan Net Position (Assets) (b)	Net Pension Liability (a) - (b)	Deferred Pension Outflows of Resources	Deferred Pension Inflows of Resources	Pension Expense
Balances--at 06/30/16	$ 60,250	$ 59,665	$ 585	$ 16,256	$ -	
Changes for the Year:						
Service cost	36,207		36,207			36,207
Interest expense	3,858		3,858			3,858
Benefit changes	-		-			-
Experience losses (gains)	17,914		17,914	16,417	-	1,497
Changes of assumptions	(3,337)		(3,337)	-	3,058	(279)
Contributions--State		15,444	(15,444)			
Contributions--Members		35,169	(35,169)			(35,169)
Transfer In Payments		-	-			
Net investment income		8,605	(8,605)			
Expected return on plan investments						(3,334)
Current expense of asset gain/loss						(820)
Non expensed asset gain/loss				-	4,217	
Refunds of contributions	(2,938)	(2,938)	-			
Benefits paid	-	-	-			
Plan administrative expenses						
Recognition of Prior Post-measurement Contribution				(15,384)		
Post-measurement Contribution				15,384		
Other changes						
Amortization of or change in beginning balances				(234)	-	
Net Changes	51,704	56,280	(4,576)	16,183	7,275	1,960
Balances--at 06/30/17	$ 111,954	$ 115,945	$ (3,991)	$ 32,439	$ 7,275	$ 1,960

Pension Expense & Deferred Outflows/Inflows of Resources

For the year ended June 30, 2018, the recognized pension expense will be $1,960. At June 30, 2018, 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, 2017			As of June 30, 2018		
	Deferred Outflows of Resources	Deferred Inflows of Resources	Recognized in Pension Expense	Deferred Outflows of Resources	Deferred Inflows of Resources	Remaining Amort. Period
Experience losses (gains)						
- 6/30/2017	17,914	-	1,497	16,417	-	10.970 years
subtotal	17,914	-	1,497	16,417	-	
Change of assumptions						
- 6/30/2017	-	3,337	(279)	-	3,058	10.970 years
subtotal	-	3,337	(279)	-	3,058	
Net difference between projected and actual earnings on investments						
- 6/30/2015	197	-	66	132	-	2.000 years
- 6/30/2016	674	-	169	506	-	3.000 years
- 6/30/2017	-	5,271	(1,054)	-	4,217	4.000 years
subtotal	872	5,271	(820)	637	4,217	
Total	$ 18,786	$ 8,608	$ 398	$ 17,055	$ 7,275	

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 inactives (0 years of future service is assumed for inactives for this calculation).

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

Year ended June 30:	
2019	398
2020	398
2021	332
2022	164
2023	1,218
Thereafter	7,270

In addition, Governmental Accounting Standards Board Statement 71 (“GASB 71”) requires contributions between the measurement date (July 1, 2017) and the disclosure date (June 30, 2018) for GASB 68 be reported as a deferred outflow of resources.

GASB Statement No. 43/45

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b - a) / c)
7/1/2015	$ 4,666	$ 8,027	$ 3,361	58.1%	$ 419,012	0.8%
7/1/2016	$ 15,128	$ 18,181	$ 3,053	83.2%	$ 419,012	0.7%
7/1/2017	$ 28,781	$ 35,957	$ 7,176	80.0%	$ 897,712	0.8%

Schedule of Employer Contributions

Year Ended June 30	**Net OPEB Cost**	**Percentage Contributed**	**Net OPEB Obligation**
2015	$ -	100%	$ 0
2016	$ 5,207	100%	$ 0
2017	$ 5,534	100%	$ (22)

Determination of Annual OPEB Cost

Fiscal Yr Ending	Applicable Valuation Report Used	ARC	Interest on OPEB Obligation	ARC Adjustment	Amort. Factor	Net OPEB Cost	Contribution	Change in Net OPEB Obligation	Net OPEB Obligation
6/30/2015		$ -	$ -	$ -	17.292033	$ -	$ -	$ -	$ -
6/30/2016		$ 5,207	$ -	$ -	17.292033	$ 5,207	$ 5,207	$ -	$ -
6/30/2017	7/1/2015	$ 5,534	$ -	$ -	17.292033	$ 5,534	$ 5,556	$ (22)	$ (22)

GASB Statement No. 74

Statement of Changes in Fiduciary Net Position

	June 30, 2017
Additions	
Contributions	
Employer	5,556
Employee	7,033
Total Contributions	12,589
Transfer In Payments	0
Investment Income	2,199
Other	0
Total Additions	14,788
Deductions	
Benefit Payments / Refunds	0
Administrative Expenses	0
Other	0
Total Deductions	0
Net Increase in Net Position	14,788
Net Position Restricted for OPEB	
Beginning of Year Market Value of Assets	14,910
End of Year Market Value of Assets	$29,698

Net OPEB Liability

Determination of Net OPEB Liability

Total OPEB Liability	35,957
Plan Fiduciary Net Position (Market Value of Assets)	(29,698)
Net OPEB Liability	$6,259
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	82.59%

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

	1% Decrease 7% decreasing to 4% over 12 years	**Current** 8% decreasing to 5% over 12 years	**1% Increase** 9% decreasing to 6% over 12 years
Net OPEB Liability	$6,164	$6,259	$6,385

Sensitivity of Net OPEB Liability to Changes in the Discount Rate

	1% Decrease 3.00%	**Current Rate** 4.00%	**1% Increase** 5.00%
Net OPEB Liability	$13,673	$6,259	$262

Schedule of Changes in the Net OPEB Liability and Related Ratios (Dollar amounts in thousands)

	fiscal year ending June 30									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total OPEB Liability										
Service cost	$9.5									
Interest	1.1									
Changes of benefit terms	0.0									
Differences between expected and actual experience	7.2									
Changes of assumptions	0.0									
Benefit Payments / Refunds	0.0									
Net Change in Total OPEB Liability	$17.8									
Total OPEB Liability - beginning	18.2									
Total OPEB Liability - ending (a)	$36.0									
Plan Fiduciary Net Position (Assets)										
Contributions - employer	$5.6									
Contributions - employee	7.0									
Transfer In Payments	0.0									
Net investment income	2.2									
Benefit Payments / Refunds	0.0									
Administrative expenses	0.0									
Other	0.0									
Net Change in Plan Fiduciary Net Position	$14.8									
Plan Fiduciary Net Position - beginning	14.9									
Plan Fiduciary Net Position - ending (b)	$29.7									
Net OPEB Liability - ending (a) - (b)	$6.3									
Plan Fiduciary Net Position as a % of the Total OPEB Liability	82.5%									
Covered-employee payroll	$898									
Net OPEB Liability as a % of covered-employee payroll	0.7%									
Discount Rate	4.00%									

Schedule of Contributions

	fiscal year ending June 30									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Actuarially determined contribution	$5.5									
Contributions in relation to the actuarially determined contribution	5.6									
Contribution deficiency (excess)	($0.1)									
Covered-employee payroll	$898									
Contributions as a percentage of covered-employee payroll	0.6%									

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. BPS&M is prepared to assist the system as needed.

GASB Statement No. 75

Statement of Changes in Net OPEB Liability

	Increase (Decrease)		
	Total OPEB Liability (a)	**Plan Net Position (Assets) (b)**	**Net OPEB Liability (a) - (b)**
Balances--at 06/30/2017	$18,181	$14,910	$3,271
Changes for the Year:			
Service cost	9,455		9,455
Interest	1,105		1,105
Benefit changes	0		0
Difference between expected and actual experience	7,216		7,216
Changes of assumptions	0		0
Contributions--Employer		5,556	(5,556)
Contributions--Employee		7,033	(7,033)
Transfer In Payments		0	0
Net investment income		2,199	(2,199)
Refunds of contributions		0	0
Benefits paid	0	0	0
Administrative expenses		0	0
Other changes		0	0
Net Changes	17,776	14,788	2,988
Balances--at 06/30/2018	$35,957	$29,698	$6,259

OPEB Expense

	Fiscal Year Ending June 30, 2018
Service cost	$9,455
Interest	1,105
Benefit changes	0
Contributions--Employee	(7,033)
Expected investment return	(854)
Recognition of Deferred Inflows/Outflows of Resources	
Recognition of economic/demographic gains or losses	603
Recognition of investment gains or losses	(269)
Recognition of assumption changes or inputs	0
Plan administrative expenses	0
OPEB Expense	$3,007

Deferred Outflows/Inflows of Resources

For the year ended June 30, 2018, the recognized OPEB expense will be $3,007. At June 30, 2018, the Employer reported deferred outflows of resources and deferred inflows of resources relation to benefits from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources	Remaining Amort. Period
Experience losses (gains)			
- June 30, 2017	6,613	0	10.97 years
subtotal	6,613	0	
Asset losses (gains)			
- June 30, 2017	0	1,076	4.000 years
subtotal	0	1,076	
Changes of assumptions			
- June 30, 2017	0	0	10.97 years
subtotal	0	0	
Total	$6,613	$1,076	

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEBs as of June 30, 2018 will be recognized in OPEB expense as follows:

Year ended June 30:	
2019	334
2020	334
2021	334
2022	334
2023	603
Thereafter	3,598

GASB Statement No. 71 requires contributions between the measurement date (June 30, 2017) and the disclosure date (June 30, 2018) for Statement No. 75 to be reported as a deferred outflow of resources.

Schedule of Changes in Deferred Outflows/Inflows

	Deferred Outflows of Resources	Deferred Inflows of Resources
Balances--at 06/30/2017	$0	$0
Changes for the Year:		
Contribution (prior year expected)	0	0
Contribution (current year expected)	0	0
Experience gains/losses	6,613	0
Asset gains/losses	0	1,076
Amortization of gains/losses	0	0
Net Changes	6,613	1,076
Balances--at 06/30/2018 *	$6,613	$1,076

* Deferred OPEB Outflows includes deferred losses of $6,613 plus expected contributions of $0.
* Deferred OPEB Inflows includes deferred gains of $1,076.

GASB Notes

Notes to GASB 43, 45, 67, 68, 74, and 75 Disclosures

1. The tables in this report account for liabilities and assets only for the hybrid cash balance/OPEB tier under the plan; liabilities and assets pertaining to the traditional defined benefit /OPEB tier are presented in a separate report.
2. Actuarial accrued liability is based on the entry age normal funding method.
3. OPEB liabilities and allocated assets have been excluded from GASB 67 and 68 disclosures and established in GASB 43, 45, 74, and 75 disclosures.
4. Market value of assets were split between pension and OPEB obligations based on the basis of the employee and employer contributions allocated to each part and a prorata allocation of investment return. Actuarial value of assets is then allocated based on the market value of retirement and OPEB assets.
5. Actuarial value of assets uses a 5-year asset smoothing method.
6. Covered payroll reflects payroll for all current plan members.
7. Interest on OPEB Obligation is based on assumed valuation interest assumption for the prior year, 4% beginning with 2015 valuation.
8. GASB 67 replaces GASB 25 effective for the fiscal year ending June 30, 2014. The valuation date, disclosure date, and measurement date all fall on the same date for purposes of GASB 67.
9. GASB 68 replaces GASB 27 effective for the fiscal year ending June 30, 2015. It is assumed the measurement date for GASB 68 will be 12 months before the disclosure date. For the year ending June 30, 2018, the measurement date is July 1, 2017 (the valuation date).

Summary of Participant Data

Distribution of Active Participants with Average Compensation

	Years of Credited Service										
Attained Age	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	Over 39	Total
Under 25											
25 – 29											
30 – 34	1										1
	$38,456										$38,456
35 – 39	1										1
	$40,737										$40,737
40 – 44		1									1
		$40,394									$40,394
45 – 49	3	5									8
	$38,710	$38,285									$38,444
50 – 54	2	1									3
	$39,426	$40,584									$39,812
55 – 59	2	1									3
	$39,597	$38,431									$39,208
60 – 64	2	1									3
	$40,439	$34,059									$38,312
65 – 69	2	1									3
	$38,646	$41,282									$39,525
Over 69											
Total	13	10									23
	$39,349	$38,618									$39,031

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.

Total Pension Liability – The Entry Age Normal Accrued Liability.

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