

Kentucky Judicial Retirement Plan - Hybrid Tier

Actuarial Valuation and Report

as of July 1, 2017

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Introduction

An actuarial valuation of the Kentucky Judicial Retirement Plan - Hybrid Tier ("KJRP-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 KJRP-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 §21.350 to §21.580, specifically §21.402.

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 KJRP-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 Judicial Retirement Plan - Hybrid Tier ("KJRP-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 Judicial Retirement Plan ("KJRP") 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 KJRP.

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	Percent of
_	Amount	Payroll
Annual Required Contribution	94,749	3.51%
Recommended Contribution	107,865	4.00%

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)	98,539	102,481
Recommended Contribution (with interest)	112,180	116,667

Summary of Selected Plan Information

	 Plan Year Beginning		
	 7/1/2017		7/1/2015
Number of Participants			_
Active	22		16
Terminated Vested	0		0
Retired	0		0
Beneficiaries	0		0
Total	22		16
Average Age (for actives)	49.3		50.5
Average Service (for actives)	2.0		0.5
Annual Covered Payroll	\$ 2,696,626	\$	1,935,756
Average Salary	122,574		120,985
Accrued Liability	554,050		93,974
Actuarial Asset Value	526,406		102,489
Market Asset Value	542,775		101,127
Unfunded Accrued Liability (UAL)	27,644		(8,515)
Funded Ratio (AVA/AL)	95.01%		109.06%
Annual Funding Level ¹			
State Portion of Normal Cost	\$ 87,192	\$	65,813
Expected Employee Contributions	161,797		116,146
Total Normal Cost	248,989		181,959
Annual Required Contribution	94,749		69,281
Percent of Covered Payroll	3.51%		3.58%

¹In 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 KJRP 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 KJRP-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 KJRP-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 KJRP-HT and may eventually result in KJRP-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.

In addition, the total cost of the Medical Premium Supplement is approximately 0.75% of pay, compared to the required employee contribution of 1% of pay. As a result, members are paying approximately 0.25% of pay more than the benefits are expected to be worth. The Medical plan is currently 20% overfunded and, without any changes, is expected to be increasingly overfunded going forward.

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	1% for the next five years
	beginning July 1, 2015 and 3.5%	beginning July 1, 2017 and 3.5%
	thereafter	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	Removed extra 20% rate at the
	the age a member reaches 27	age a member reaches 27 years
	years of service credit	of service credit

The retirement rates change described above resulted in a decrease in liabilities and and had no effect on the annual recommended contribution.

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

The medical trend rates change described above resulted in an increase in liabilities and had no effect on the 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:		
Olan C. Pennington, F. S. A. Alan C. Pennington, F.S.A., E.A., M.A.A.A.	October 9, 2017	
Alan C. Pennington, F.S.A., E.A., M.A.A.A.	Date	
Consulting Actuary/Principal		
Dard J. Sh.L	October 9, 2017	
David L. Shaub, F.S.A., M.Á.A.A.	Date	
Managing Consultant		

Bryan, Pendleton, Swats & McAllister, LLC 5301 Virginia Way, Suite 400 Brentwood, TN 37027 (615) 665-1640

Annual Required Contribution

Determination of Annual Required Contribution as of July 1, 2017

1. Accrued Liability	<u>Pension</u>	<u>OPEB</u>	<u>Total</u>
Actives			
Actives	506,939	-	506,939
Medical Premium Supplement	-	47,111	47,111
Total Active Liability	506,939	47,111	554,050
Inactives			
Retired	-	-	-
Deferred Vested	-	-	-
Beneficiaries	-	-	-
Medical Premium Supplement	-	-	-
Total Inactive Liability	-	-	-
Total Accrued Liability	506,939	47,111	554,050
2. Valuation Assets	469,285	57,121	526,406
3. Unfunded Past Service Liability	37,654	(10,010)	27,644
4. Gross Normal Cost			
a) Retirement Related	227,697	-	227,697
b) Medical Premium Supplement Related	-	21,292	21,292
c) Total Normal Cost	227,697	21,292	248,989
5. Annual Covered Payroll	2,696,626	2,696,626	2,696,626
6. Estimated Employee Contributions for the Next 12 Mont	hs		
a) Retirement Related	134,831	-	134,831
b) Medical Premium Supplement Related	-	26,966	26,966
c) Total Estimated Employee Contributions	134,831	26,966	161,797
7. Net Normal Cost			
a) Retirement Related (4a - 6a)	92,866	-	92,866
b) Medical Premium Supplement Related (4b - 6b)	-	(5,674)	(5,674)
c) Total Net Normal Cost (4c - 6c)	92,866	(5,674)	87,192
d) Net Normal Cost as Percent of Pay (7c / 5)	3.44%	(0.21%)	3.23%
8. Interest plus 1% of Unfunded Past Service Liability	1,883	(501)	n/a
9. Total Annual Required Contribution (max (0, 7c + 8))	94,749	-	94,749
10. Payment as a Percentage of Covered Payoll (9 / 5)	3.51%	0.00%	3.51%

Actuarial Asset Value

Determination of Actuarial Asset Value as of July 1, 2017

	 5-17 Plan Year	 5-16 Plan Year	 -15 Plan 'ear	 -14 Plan ear
Interest Return Assumption	4.00%	4.00%	4.00%	4.00%
Market Value at Beginning of Year				
Amount	\$ 295,943	\$ 101,127	\$ -	\$ -
Interest to End of Year	11,838	4,045	-	-
Employer Contributions				
Amount	69,311	71,356	42,320	-
Interest to End of Year	1,386	1,427	846	-
Member Contributions				
Amount	142,183	118,876	58,494	-
Interest to End of Year	2,844	2,378	1,170	-
Transfers from KERS				
Amount	-	-	-	-
Interest to End of Year	-	-	-	-
Benefits Paid				
Amount	4,404	-	-	-
Interest to End of Year	88	-	-	-
Expected End of Year Assets	519,013	299,209	102,830	-
Market Value at End of Year	542,775	295,943	101,127	-
Investment Gain (Loss)	23,762	(3,266)	(1,703)	-
Adjustment Percentage	80%	60%	40%	20%
Actuarial Asset Value Adjustment	(19,010)	1,960	681	-
Actuarial Asset Value (Market				
Value plus Adjustment)	\$ 526,406			

		Medical
_	Retirement	Supplement
Market Value at Beginning of Year	265,040	30,903
State Contributions	69,311	-
Member Contributions	118,486	23,697
Transfers In Payments	-	-
Distributions	-	-
Refund of Contributions	4,404	-
Allocated Investment Return	35,445	4,297
Market Value at End of Year	483,878	58,897
Allocation of Actuarial Asset Value	469,285	57,121

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 KJRP.

Source

Sections 21.345-21.580 of the Kentucky Revised Statutes and 2013 Senate Bill 2

Eligibility for Membership

District, Circuit, Court of Appeals and Supreme Court Judges may, within 30 days after taking office, elect to make monthly contributions, and thereby become eligible for membership in the plan. Individuals commencing participation before January 1, 2014 became participants in the KJRP.

Hypothetical Member Accounts

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 Accounts

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 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 judge 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-3 from the Actuary's Pension Handbook. Specimen rates are as follows:

Age	Rate of Termination
20	.066
25	.053
30	.048
35	.045
40	.038
45	.032
50	.015
55	.003
60+	.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 judges 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 judges 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	49%	N/A
Single	17%	N/A
Parent Plus	24%	N/A
Member and Spouse	10%	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
\$ 15,152	\$ 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

Judges 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:

- 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	\$69,311			
Employee	118,486			
Total Contributions	187,797			
Transfer In Payments	0			
Investment Income	35,445			
Other	0			
Total Additions	223,242			
Deductions				
Benefit Payments / Refunds	4,404			
Administrative Expenses	0			
Other	0			
Total Deductions	4,404			
Net Increase in Net Position	218,838			
Net Position Restricted for Pensions				
Beginning of Year Market Value of Assets	265,040			
End of Year Market Value of Assets	\$483,878			

Net Pension Liability

Determination of Net Pension Liability

	June 30, 2017
Total Pension Liability (4.00%)	506,939
Plan Fiduciary Net Position (Market Value of Assets)	(483,878)
Net Pension Liability	\$23,061
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	95.45%

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	\$54,779	\$23,061	(\$6,479)

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

	June 30

				Hocar	year ena	ing same	50			
	2015	<u>2016</u>	<u>2017</u>	2018	2019	2020	2021	2022	2023	2024
Total Pension Liability										
Service cost	\$0.0	\$166.6	\$166.6							
Interest	0.0	10.1	17.1							
Changes of benefit terms	85.0	0.0	0.0							
Differences between expected and actual experience	0.0	0.0	76.8							
Changes of assumptions	0.0	0.0	(10.9)							
Benefit Payments / Refunds	0.0	0.0	(4.4)							
Net Change in Total Pension Liability	\$85.0	\$176.7	\$245.2							
Total Pension Liability - beginning	0.0	85.0	261.7							
Total Pension Liability - ending (a)	\$85.0	\$261.7	\$506.9							
Plan Fiduciary Net Position (Market Value of Assets)										
Contributions - employer	\$42.3	\$71.3	\$69.3							
Contributions - employee	47.9	99.1	118.5							
Transfer In Payments	0.0	0.0	0.0							
Net investment income	0.3	4.1	35.5							
Benefit Payments / Refunds	0.0	0.0	(4.4)							
Administrative expenses	0.0	0.0	0.0							
Other	0.0	0.0	0.0							
Net Change in Plan Fiduciary Net Position	\$90.5	\$174.5	\$218.9							
Plan Fiduciary Net Position - beginning	0.0	90.5	265.0							
Plan Fiduciary Net Position - ending (b)	\$90.5	\$265.0	\$483.9							
Net Pension Liability - ending (a) - (b)	(\$5.5)	(\$3.3)	\$23.0							
Plan Fiduciary Net Position as a % of the Total Pension Liability	106.5%	101.3%	95.5%							
Covered-employee payroll	\$1,936	\$1,936	\$2,697							
Net Pension Liability as a % of covered-employee payroll	-0.3%	-0.2%	0.9%							
Discount Rate	4.00%	4.00%	4.00%							

Schedule of Contributions

(Dollar amounts in thousands)

	fiscal year ending June 30									
	<u>2015</u>	<u>2016</u>	2017	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Actuarially determined contribution Contributions in relation to the actuarially	\$42.3	\$71.3	\$69.3							
determined contribution	42.3	71.3	69.3							
Contribution deficiency (excess)	\$0.0	\$0.0	\$0.0							
Covered-employee payroll Contributions as a percentage of covered-	\$1,936	\$1,936	\$2,697							
employee payroll	2.2%	3.7%	2.6%							

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

			Incre	ease (Decrease	·)							
	Plan Net						D	eferred	D	eferred		
	Total Pension Position		Net	Net Pension		Pension	Pension					
	1	Liability		(Assets)	Liability		Ou	tflows of	Int	flows of	Р	ension
		(a)		(b)	(a) - (b)		Resources		irces Resources		E	xpense
Balancesat 06/30/16	\$	261,651	\$	265,040	\$	(3,389)	\$	72,536	\$			
Changes for the Year:												
Service cost		166,609				166,609						166,609
Interest expense		17,130				17,130						17,130
Benefit changes		-				-						-
Experience losses (gains)		76,877				76,877		71,523		-		5,354
Changes of assumptions		(10,924)				(10,924)		-		10,163		(761)
ContributionsState				69,311		(69,311)						
ContributionsMembers				118,486		(118,486)						(118,486)
Transfer In Payments				-		-						
Net investment income				35,445		(35,445)						
Expected return on plan investments												(14,246)
Current expense of asset gain/loss												(3,350)
Non expensed asset gain/loss								-		16,959		
Refunds of contributions		(4,404)		(4,404)		-						
Benefits paid		-		-		-						
Plan administrative expenses												
Recognition of Prior Post-measurement Contrib	oution							(69,281)				
Post-measurement Contribution								69,281				
Other changes												
Amortization of or change in beginning balance	es							(890)		-		
Net Changes		245,288		218,838		26,450		70,633		27,122		52,250
Balancesat 06/30/17	\$	506,939	\$	483,878	\$	23,061	\$	143,170	\$	27,122	\$	52,250

Pension Expense & Deferred Outflows/Inflows of Resources

For the year ended June 30, 2018, the recognized pension expense will be \$52,250. 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	2 30, 2017			As of June 30, 2018	
	Deferred Outflows	Deferred Inflows	Recognized in	Deferred Outflows	Deferred Inflows	Remaining
	of Resources	of Resources	Pension Expense	of Resources	of Resources	Amort. Period
Experience losses (gains)						
- 6/30/2017	76,877		5,354	71,523		13.360 years
subtotal	76,877	-	5,354	71,523	-	
Change of assumptions						
- 6/30/2017	-	10,924	(761)		10,163	13.360 years
subtotal	-	10,924	(761)	-	10,163	
Net difference between projected and						
actual earnings on investments						
- 6/30/2015	914	-	305	609	-	2.000 years
- 6/30/2016	2,341	-	585	1,756	-	3.000 years
- 6/30/2017		21,199	(4,240)		16,959	4.000 years
subtotal	3,255	21,199	(3,350)	2,365	16,959	
Total	\$ 80,132	\$ 32,123	\$ 1,243	\$ 73,889	\$ 27,122	

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	1,243
2020	1,243
2021	938
2022	353
2023	4,593
Thereafter	38,396

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	Actı	uarial Value	Actı	uarial Accrued	U	nfunded AAL	Funded		Covered	UAAL as a % of						
Valuation	of Assets		Li	_iability (AAL)		Liability (AAL)		(UAAL)	Ratio	Payroll		Payroll		Payroll		Covered Payroll
Date		(a)		(b)		(b - a)	(a / b)		(c)	((b - a) / c)						
7/1/2015	\$	10,754	\$	8,995	\$	(1,759)	119.6%	\$	1,935,756	-0.1%						
7/1/2016	\$	31,282	\$	25,319	\$	(5,963)	123.6%	\$	1,935,756	-0.3%						
7/1/2017	\$	57,121	\$	47,111	\$	(10,010)	121.2%	\$	2,696,626	-0.4%						

Schedule of Employer Contributions

Year	Net			Net
Ended	OPEB		Percentage	OPEB
June 30	Cost		Contributed	Obligation
2015	\$	-	100%	\$ 0
2016	\$	-	100%	\$ 0
2017	\$	-	100%	\$ 0

Determination of Annual OPEB Cost

	Applicable							1	let					N	et
Fiscal Yr	Valuation			Interest on	,	ARC	Amort.	0	PEB			Char	nge in Net	OP	EB
Ending	Report Used	ARC		OPEB Obligation	Adju	ıstment	Factor	C	ost	Con	tribution	OPEB	Obligation	Oblig	ation
6/30/2015		\$	1	\$ -	\$	-	17.292033	\$	-	\$	-	\$	-	\$	-
6/30/2016		\$	1	\$ -	\$	-	17.292033	\$	-	\$	-	\$	-	\$	-
6/30/2017	7/1/2015	\$	1	\$ -	\$	-	17.292033	\$	-	\$	-	\$	-	\$	-

GASB Statement No. 74

Statement of Changes in Fiduciary Net Position

	June 30, 2017
Additions	
Contributions	
Employer	0
Employee	23,697
Total Contributions	23,697
Transfer In Payments	0
Investment Income	4,297
Other	0
Total Additions	27,994
Deductions	
Benefit Payments / Refunds	0
Administrative Expenses	0
Other	0
Total Deductions	0
Net Increase in Net Position	27,994
Net Position Restricted for OPEB	
Beginning of Year Market Value of Assets	30,903
End of Year Market Value of Assets	\$58,897

Net OPEB Liability

Determination of Net OPEB Liability

Total OPEB Liability	47,111
Plan Fiduciary Net Position (Market Value of Assets)	(58,897)
Net OPEB Liability	(\$11,786)

Plan Fiduciary Net Position as a Percentage of Total OPEB Liability

125.02%

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

	1% Decrease	Current	1% Increase
	7% decreasing to	8% decreasing to	9% decreasing to
	4% over 12 years	5% over 12 years	6% over 12 years
Net OPEB Liability	(\$12,071)	(\$11,786)	(\$11,428)

Sensitivity of Net OPEB Liability to Changes in the Discount Rate

	1% Decrease	Current Rate	1% Increase
_	3.00%	4.00%	5.00%
Net OPEB Liability	(\$2,049)	(\$11,786)	(\$19,638)

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

				fiscal y	ear end	ing June	e 30			
	2017	2018	<u>2019</u>	2020	2021	2022	2023	2024	2025	2026
Total OPEB Liability										
Service cost	\$15.4									
Interest	1.6									
Changes of benefit terms	0.0									
Differences between										
expected and actual										
experience	4.8									
Changes of assumptions	0.0									
Benefit Payments /										
Refunds	0.0									
Net Change in Total										
OPEB Liability	\$21.8									
Total OPEB Liability -										
beginning	25.3									
Total OPEB Liability -										
ending (a)	\$47.1									
	<u> </u>									
Plan Fiduciary Net										
Position (Assets)										
Contributions - employer	\$0.0									
Contributions -	Ψ0.0									
employee	23.7									
Transfer In Payments	0.0									
Net investment income	4.3									
Benefit Payments /										
Refunds	0.0									
Administrative expenses	0.0									
Other	0.0									
Net Change in Plan										
Fiduciary Net Position	\$28.0									
Plan Fiduciary Net										
Position - beginning	30.9									
Plan Fiduciary Net										
Position - ending (b)	\$58.9									
Net OPEB Liability -										
ending (a) - (b)	(\$11.8)									
Plan Fiduciary Net										
Position as a % of the										
Total OPEB Liability	125.1%									
Covered-employee	123.170									
payroll	\$2,697									
Net OPEB Liability as a	Ţ _ ,00,									
% of covered-employee										
payroll	(0.4%)									
Discount Rate	4.00%									

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 Contributions in relation to the actuarially	\$0.0									
determined contribution	0.0									
Contribution deficiency										
(excess)	\$0.0									
Covered-employee payroll Contributions as a percentage of covered-	\$2,697									
employee payroll	0.0%									

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)							
		Plan Net						
	Total OPEB	Position	Net OPEB					
	Liability	(Assets)	Liability					
_	(a)	(b)	(a) - (b)					
Balancesat 06/30/2017	\$25,319	\$30,903	(\$5,584)					
Changes for the Year:								
Service cost	15,350		15,350					
Interest	1,627		1,627					
Benefit changes	0		0					
Difference between expected and actual experience	4,815		4,815					
Changes of assumptions	0		0					
ContributionsEmployer		0	0					
ContributionsEmployee		23,697	(23,697)					
Transfer In Payments		0	0					
Net investment income		4,297	(4,297)					
Refunds of contributions		0	0					
Benefits paid	0	0	0					
Administrative expenses		0	0					
Other changes		0	0					
Net Changes	21,792	27,994	(6,202)					
Balancesat 06/30/2018	\$47,111	\$58,897	(\$11,786)					

OPEB Expense

	Fiscal Year Ending June 30, 2018
Service cost	\$15,350
Interest	1,627
Benefit changes	0
ContributionsEmployee	(23,697)
Expected investment return	(1,734)
Recognition of Deferred Inflows/Outflows of Resources	
Recognition of economic/demographic gains or losses	335
Recognition of investment gains or losses	(513)
Recognition of assumption changes or inputs	0
Plan administrative expenses	0
OPEB Expense	(\$8,632)

Deferred Outflows/Inflows of Resources

For the year ended June 30, 2018, the recognized OPEB expense will be -\$8,632. 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	4,480	0	13.36 years		
subtotal	4,480	0			
Asset losses (gains)					
- June 30, 2017	0	2,050	4.000 years		
subtotal	0	2,050			
Changes of assumptions					
- June 30, 2017	0	0	13.36 years		
subtotal	0	0			
Total	\$4,480	\$2,050			

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	(178)
2020	(178)
2021	(178)
2022	(176)
2023	335
Thereafter	2,805

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	Deferred Inflows			
	of Resources	of Resources			
Balancesat 06/30/2017	\$0	\$0			
Changes for the Year:					
Contribution (prior year expected)	0	0			
Contribution (current year expected)	0	0			
Experience gains/losses	4,480	0			
Asset gains/losses	0	2,050			
Amortization of gains/losses	0	0			
Net Changes	4,480	2,050			
Balancesat 06/30/2018 *	\$4,480	\$2,050			

^{*} Deferred OPEB Outflows includes deferred losses of \$4,480 plus expected contributions of \$0.

^{*} Deferred OPEB Inflows includes deferred gains of \$2,050.

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	1										1
	\$113,795										\$113,795
30 – 34											
35 – 39	2	1									3
	\$125,866	\$125,866									\$125,866
40 - 44	2	3									5
	\$119,831	\$117,819									\$118,623
45 – 49		2									2
		\$119,831									\$119,831
50 - 54		3									3
		\$125,866									\$125,866
55 – 59	1	3									4
	\$125,866	\$125,866									\$125,866
60 - 64		3									3
		\$121,842									\$121,842
65 – 69		1									1
		\$125,866									\$125,866
Over 69											
Total	6	16									22
	\$121,842	\$122,848									\$122,574

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.