

Public Pension Oversight Board 2016 Report

Research Memorandum No. 523

2016 Report

Legislative Members

Sen. Joe Bowen, Co-Chair Rep. Brent Yonts, Co-Chair

Sen. Jimmy Higdon Sen. Gerald Neal Rep. Brian Linder Rep. Tommy Thompson

Executive Members

Mitchel Denham John Chilton Office of the Attorney General Mike Harmon Office of the Auditor of Public Accounts

Appointed Members

Timothy D. Fyffe House Speaker Appointee James M. "Mac" Jefferson Gubernatorial Appointee Sharon Mattingly Senate President Appointee Allison Stemler Gubernatorial Appointee

Legislative Research Commission Board Staff

Brad Gross Jennifer Black Hans Bo Cracraft Angela Rhodes

Research Memorandum No. 523

Legislative Research Commission Frankfort, Kentucky lrc.ky.gov

Approved by the Public Pension Oversight Board December 19, 2016

Paid for with state funds. Available in alternative format by request.

Foreword

The 2013 General Assembly passed Senate Bill 2, which established the Public Pension Oversight Board. The purpose of the board is assist the General Assembly with its review, analysis, and oversight of the administration, benefits, investments, funding, laws, administrative regulations, and legislation pertaining to the state-administered retirement systems. Its work resulted in the policy recommendations reflected within this report.

The board co-chairs would like to thank the board members; all those who attended the board meetings; and those who provided research, testimony, and input to the board.

David A. Byerman Director

Legislative Research Commission Frankfort, Kentucky December 2016

Contents

Summary		vii
Chapter 1:	Overview Of Kentucky Retirement Systems Administration And Benefits	1
	Composition Of Kentucky Retirement Systems	1
	Kentucky Employees Retirement System	
	County Employees Retirement System	
	State Police Retirement System	
	Kentucky Retirement Systems Administration	
	Kentucky Retirement Systems Employer And Employee Membership	3
	KRS Employee Participation Requirements	
	Retirement Eligibility	4
	System Benefits	5
	Monthly Retirement Benefits For Members Participating Before January 1, 2014	46
	Retirement Benefit Calculation For Members Participating	
	On Or After January 1, 2014	7
	Retiree Health Insurance Benefits	8
	Disability And Death Benefits	10
	Cost Of Living Adjustments On Monthly Retirement Benefits	11
	Service Purchases And Sick Leave Service Credit	11
	Reemployment After Retirement	11
	Required Break In Employment	11
	How It Works For The Employee	11
	How It Works For The Employer	12
	Reciprocity	12
	Taxation Of Benefits	12
	2016 Legislative Changes	12
Chapter 2:	Overview Of Teachers' Retirement System Administration And Benefits	15
enapter 2.	Composition Of Teachers' Retirement System	
	Teachers' Retirement System Administration.	
	Teachers' Retirement System Employer And Employee Membership	
	TRS Employee Participation Requirements	
	Retirement Eligibility	
	System Benefits	
	Monthly Retirement Benefits For Members	
	Retiree Health Insurance Benefits	
	Disability And Death Benefits	
	Cost Of Living Adjustments On Monthly Retirement Benefits	
	Service Purchases And Sick Leave	20
	Reemployment After Retirement	
	Reciprocity	
	Taxation Of Benefits	
	2016 Legislative Changes	
Chapter 2.	Overview Of Indicial Form Patiroment System Administration And Denefits	^ 2
Chapter 5:	Overview Of Judicial Form Retirement System Administration And Benefits Composition Of Judicial Form Retirement System	
	Judicial Retirement Plan	
	שמוטומו תכוווכוווכווו רומוו	<i>L</i>

	Legislators' Retirement Plan	
	Judicial Form Retirement System Administration	
	Judicial Form Retirement System Employer And Employee Membership	
	Retirement Eligibility	
	Plan Benefits	
	Monthly Retirement Benefits For Members Participating Before January 1, 20)1425
	Retirement Benefit Calculation For Members Participating On Or After	
	January 1, 2014	
	Retiree Health Insurance Benefits	
	Disability And Death Benefits	
	Cost Of Living Adjustments On Monthly Retirement Benefits	
	Service Purchases And Transfers	
	Reciprocity	
	Taxation Of Benefits	
	2016 Legislative Changes	
	2010 Legislative Changes	
Chapton 4	Funding And Investments	21
Chapter 4.	System And Plan Funding	
	Employee Contribution Rates Actuarial Valuation Process	
	Amortization Periods And Methods	
	Investment Return Assumptions	
	Financial Health Of The Systems	
	GASB 67 Reporting Requirements	
	2016 TRS Experience Study	
	KERS, CERS, And SPRS Employer Rates	
	TRS Employer Rates	
	JRP And LRP Employer Rates	
	Sensitivity Analysis	
	2016 Audited Financial Statements	
	2016 Investments And Investment Performance	
	State-Administered Retirement Systems Funds	
	Asset Allocation	
	Investment Performance	
	Investment Expense	
	Investment Expense Disclosure and Trends	
	KRS Pension Administration Benchmarking Report	53
Chapter 5:	2016 Public Pension Oversight Board Meetings	
	Testimony Before The Board	
	KRS Participation Trends And Use Of Contract Employees	55
	KRS Employer Cessation Of Participation	55
	Inviolable Contract Exceptions	56
	Senate Bill 2 Analysis And Trends	57
	KRS Recommended Legislation	57
	TRS Housekeeping Legislation	
	JFRS Proposed Legislation	
	Testimony And Recommendations From Outside Groups	
	-	
Chapter 6:	Public Pension Oversight Board Recommendations	

Tables

1.1	Members Of The Kentucky Retirement Systems Board Of Trustees, December 2016	
1.2	Number Of Active, Inactive, And Retired Members, By System, June 30, 2016	4
1.3	Retirement Eligibility Requirements For Kentucky Employees Retirement System/County Employees Retirement System Nonhazardous Members	5
1.4	Retirement Eligibility Requirements For Kentucky Employees Retirement System/County	
	Employees Retirement System Hazardous-Duty And State Police Retirement System	
	Members	5
1.5	Retirement Benefit Calculation For Kentucky Employees Retirement System/County	5
110	Employees Retirement System Nonhazardous Employees Participating Before	
	September 1, 2008	6
1.6	Retirement Benefit Calculation For Kentucky Employees Retirement System/County	
	Employees Retirement System Nonhazardous Employees Participating On Or After	
	September 1, 2008, But Before January 1, 2014	6
1.7	Retirement Benefit Calculation For State Police Retirement System And Kentucky	
	Employees Retirement System/County Employees Retirement System Hazardous-Duty	
	Employees Participating Before September 1, 2008	7
1.8	Retirement Benefit Calculation For State Police Retirement System And Kentucky	
	Employees Retirement System/County Employees Retirement System Hazardous-Duty	
	Employees Participating On Or After September 1, 2008, But Before January 1, 2014	7
1.9	Retiree Health Insurance Premium Payments For Kentucky Employees Retirement	
	System/County Employees Retirement System Nonhazardous Members	9
1.10	Retiree Health Insurance Premium Payments For State Police Retirement System And	
	Kentucky Employees Retirement System/County Employees Retirement System	
	Hazardous-Duty Members	
2.1	Members Of The Teachers' Retirement Systems Board Of Trustees, December 2016 10	6
2.2	Retirement Eligibility Requirements For Teachers' Retirement System1	7
2.3	Retirement Benefit Calculation For Teachers' Retirement System Nonuniversity Employees 18	8
2.4	Retirement Benefit Calculation For Teachers' Retirement System University Employees 13	8
2.5	Percentage Of Retiree Health Insurance Subsidy Paid For Teachers' Retirement System	
	Members	9
3.1	Members Of The Judicial Form Retirement System Board Of Trustees, December 201624	4
3.2	Number Of Active, Inactive, And Retired Members By Plan, June 20, 2016	4
3.3	Retirement Eligibility Requirements For Judicial Retirement Plan And Legislators'	
	Retirement Plan Members	5
3.4	Retirement Benefit Calculation For Judicial Retirement Plan Members Participating Before	~
3.5	January 1, 2014	3
5.5		c
20	Before January 1, 2014	
3.6	Retiree Health Insurance Premium Payments For Judicial Retirement Plan Retirees	
3.7	Retiree Health Insurance Premium Payments For Legislators' Retirement Plan Retirees	
4.1	Employee Contribution Rates By State-Administered Retirement System/Plan	
4.2	Actuarial Assumed Rate Of Return By State-Administered Retirement System/Plan	
4.3	Pension Fund Funding Levels	
4.4	Pension Fund Unfunded Liabilities	
4.5	Retiree Health Fund Funding Levels	
4.6	Retiree Health Fund Unfunded Liabilities	/
4.7	KERS Nonhazardous Employer Contribution Rates, Since FY 2009 As A Percentage Of	^
1.0	Payroll	
4.8	KERS Hazardous Employer Contribution Rates, Since FY 2009 As A Percentage Of Payroll 4	U

4.9 SPRS Employer Contribution Rates, Since FY 2009 As A Percentage Of Payroll	
4.10 CERS Nonhazardous Employer Contribution Rates, Since FY 2009 As A Percentage Of	
Payroll	
4.11 CERS Hazardous Employer Contribution Rates, Since FY 2009 As A Percentage Of Payro	oll 42
4.12 TRS Employer Contribution Rates, As A Percentage Of Payroll	
4.13 TRS Requests For The Required Increase In Employer Contribution Rates Since 2009	44
4.14 JRP And LRP Employer Contribution Rates, Since FY 2009 As A Percentage Of Payroll	
4.15 Pension Fund Net Plan Assets And Changes In Net Plan Assets	47
4.16 Retiree Health Fund Net Plan Assets And Changes In Net Plan Assets	
4.17 Pension Fund Asset Allocation, June 30, 2016	49
4.18 Pension Fund Investment Returns, June 30, 2016	51
4.19 Peer Group Median Investment Returns, June 30, 2016	51
4.20 Investment Expense By System, June 30, 2016	

Summary

The 2013 General Assembly passed Senate Bill 2, which established the Public Pension Oversight Board (PPOB) as a statutory committee. The purpose of the board is to assist the General Assembly with its review, analysis, and oversight of the administration, benefits, investments, funding, laws, administrative regulations, and legislation pertaining to the stateadministered retirement systems. The board's oversight functions were initially limited to the Kentucky Retirement Systems (KRS), which administers the Kentucky Employees Retirement System (KERS), the County Employees Retirement System (CERS), and the State Police Retirement System (SPRS). However, legislative changes in 2015 expanded the board's oversight functions to include the Teachers' Retirement System (TRS), and the Judicial Form Retirement System (JFRS), which administers the Legislators' Retirement Plan (LRP) and the Judicial Retirement Plan (JRP).

The oversight board met 10 times in 2016, and the material covered included overviews of benefits and legal protections to benefits; system funding and cash flows; semiannual investment reviews required by statute; legislative updates; a review of KRS employer participation trends; a review of retiree health benefits; evaluations of system funding policies, investment expense reporting and other disclosure provisions; a review of the KERS/CERS employer cessation of participation process; testimony on recommendations from employee groups, retiree groups, and other interested groups; and the results and data from the 2016 actuarial valuation and financial audits. A summary of the benefits, funding, investments, and testimony before the Public Pension Oversight Board is provided in Chapters 1 to 5 of this publication.

At the December 19, 2016, meeting, the board adopted legislative recommendations for the 2017 Regular Session of the General Assembly. The board also adopted administrative recommendations for the state-administered retirement systems, along with PPOB staff research topics to be presented to the board during the upcoming year. The recommendations are provided in detail in Chapter 6 of this publication.

Legislative recommendations from the board included the following:

- Enacting legislation to make KRS and TRS subject to state procurement laws under Kentucky Revised Statutes Chapters 45 and 45A
- Enacting legislation to require Senate confirmation of KRS and TRS executive directors and appointed board members
- Enacting legislation to increase membership on the TRS board of trustees to include gubernatorial appointees who have investment experience
- Enacting legislation to ban the use of system assets to pay placement agent fees
- Enacting legislation to limit the definition of *investment experience* for appointed KRS board members required to have such experience
- Enacting legislation to expand the membership of the Public Pension Oversight Board through additional legislative members
- Enacting legislation to standardize investment fee reporting requirements

- Enacting legislation to require more public disclosure of contracts and offering documents of the state-administered retirement systems
- Enacting legislation to require adherence to CFA Code of Conduct standards
- Enacting legislation related to the disclosure of pension benefits by current or former legislators
- Enacting legislation allowing KRS, LRP, and JFP members participating in the traditional defined benefit plan to participate in the hybrid cash balance plan
- Enacting KRS and TRS housekeeping bills
- Enacting legislation to address KRS and LRP pension spiking issues
- Evaluating the public financial management performance audit findings and recommendations and adopting a financially sound approach to address issues facing the state-administered systems

Additionally, the Public Pension Oversight Board supports measures that would provide additional funding to improve the financial health of the state-administered retirement systems and in particular measures that would improve the cash flow issues facing the KERS nonhazardous pension fund or that would improve the overall funding of the TRS pension fund and the SPRS pension fund.

The oversight board also approved the following administrative recommendations, with an expectation that legislation could be introduced during the 2017 Regular Session:

• KRS should study agency participation issues, including the use of contract employees, and provide a list of agencies that are attempting to avoid participation. Based on the findings, legislation to address participation and loss of contributions should be enacted.

Administrative recommendations for the state-administered retirement systems included the following:

- The KRS Board of Trustees shall provide a plan for addressing the cash flow and funding issues facing the systems, in particular the KERS nonhazardous pension fund, by January 23, 2017.
- The TRS Board of Trustees shall provide a plan for addressing the cash flow and funding issues facing the system by January 23, 2017.
- KRS, TRS, and JFRS shall study and report on the investment fees paid directly and indirectly, making a consensus recommendation on a standard for reporting by January 23, 2017.

Finally, the Public Pension Oversight Board recommended that in 2017 the PPOB staff should study and research cash flow issues facing the state-administered retirement systems and should develop a summary of current actuarial methods and assumptions used by each state-administered retirement system.

Chapter 1

Overview Of Kentucky Retirement Systems Administration And Benefits

Composition Of Kentucky Retirement Systems

The Public Pension Oversight Board (PPOB) has oversight responsibilities for the three systems administered by Kentucky Retirement Systems (KRS): the Kentucky Employees Retirement System (KERS), the County Employees Retirement System (CERS), and the State Police Retirement System (SPRS).

Kentucky Employees Retirement System

KERS was established in 1956, and its membership includes employees of state government; nonteaching staff at regional state-supported universities such as Eastern Kentucky University; and employees of local health departments, regional mental health centers, and other quasistate agencies. KERS includes both nonhazardous and hazardous-duty benefits and contribution structures. It is governed by Kentucky Revised Statutes 61.510 to 61.705 and Title 105 of the Kentucky Administrative Regulations.

County Employees Retirement System

CERS was established in 1958, and its membership includes employees of city and county governments, police and firefighters, nonteaching staff of local boards of education, circuit clerks, local library employees, and other local government agency employees. CERS includes both nonhazardous and hazardous-duty benefits and contribution structures. It is governed by Kentucky Revised Statutes 78.510 to 78.852 and Title 105 of the Kentucky Administrative Regulations.

State Police Retirement System

SPRS was established in 1958, and its membership includes all uniformed state police officers. SPRS is governed by Kentucky Revised Statutes 16.505 to 16.652 and Title 105 of the Kentucky Administrative Regulations.

These retirement systems, along with Social Security benefits, if applicable, and other sources of retirement income, such as other retirement accounts and postretirement employment, serve as the basis for providing income to state and local public employees during their retirement years.

Kentucky Retirement Systems Administration

Statute provides that a 13-member board of trustees oversees the administration of KRS, with 6 trustees being elected by the membership, 6 being appointed by the governor, and 1 being the secretary of the Personnel Cabinet. The six elected trustees include two trustees elected by the KERS membership, three elected by the CERS membership, and one elected by the SPRS membership. Of the six trustees appointed by the governor, two must have at least 10 years of investment experience as defined by statute, one must be knowledgeable about the effects of pensions on local governments, and three are selected from lists submitted by the Kentucky League of Cities, the Kentucky Association of Counties, and the Kentucky School Boards Association. Elected and appointed trustees serve 4-year terms and may serve no more than three consecutive terms.

On June 17, 2016, Governor Matt Bevin issued Executive Order 2016-340 abolishing the KRS Board of Trustees as established by statute. The order re-created and established a 17-member Board of Directors to oversee the administration of KRS, composed of the secretary of the Personnel Cabinet, 6 elected trustees, and 10 members appointed by the governor. The six elected trustees are the two trustees elected by the KERS membership, the three elected by the CERS membership, and the one elected by the SPRS membership. Of the 10 trustees appointed by the governor, 6 must have at least 10 years of investment experience as defined by the order, 1 must be knowledgeable about the effects of pensions on local governments, and 3 are selected from lists submitted by the Kentucky League of Cities, the Kentucky Association of Counties, and the Kentucky School Boards Association.

Per the executive order, the governor appoints one member to serve as the Board's chair and one member to serve as vice chair. The chair appoints directors to various committees of the board, including the investment committee, disability appeals/administrative appeals committee, retiree health plan committee, legislative and budget committee, human resources committee, and audit committee. The current composition of the board appears in Table 1.1. The board appoints an executive director, subject to the governor's approval as provided by the Executive Order, to oversee day-to-day operations and to staff the needs of the systems. The current interim executive director is David Eager, and as of June 30, 2016, KRS consisted of 259 full-time employees.

Table 1.1
Members Of The Kentucky Retirement Systems Board Of Trustees
December 2016

Member Name	Appointment/Election
John R. Farris	Governor appointee, chair*
David J. Adams	Governor appointee*
John E. Chilton	Governor appointee*
William S. Cook	Governor appointee*
David L. Harris	Governor appointee*
Mark Lattis	Governor appointee*
Neil P. Ramsey	Governor appointee*
J.T. Fulkerson	Governor appointee, KLC
Joseph Hardesty	Governor appointee, KSBA
Randy K. Stevens	Governor appointee, KACo
Vince Lang	KERS elected trustee
Mary Helen Peter	KERS elected trustee
Edwin Davis	CERS elected trustee
David Rich	CERS elected trustee
William Summers	CERS elected trustee
Keith Peercy	SPRS elected trustee
Thomas Stephens	Personnel Cabinet Secretary
Thomas K. Elliott, chair	Governor appointee (nonvoting**)

Note: KLC = Kentucky League of Cities; KSBA = Kentucky School Boards Association; KACo = Kentucky Association of Counties.

* Seven at-large members appointed by governor as result of Executive Order 2016-340.

**The executive order and its removal of Thomas K. Elliott as a member of the board is being challenged in lawsuits by the Attorney General, Elliott, and Mary Helen Peter, who is a current KERS elected member. See *Elliott v. Bevin*, Case No. 16-CI-656 (Franklin Circuit Court). In September 2016, a Franklin Circuit Judge ruled that Elliott could remain on the Board of Directors, but only as a nonvoting member.

Source: Kentucky Retirement Systems.

Kentucky Retirement Systems Employer And Employee Membership

As of June 30, 2016, 358 agencies participated in KERS and 1,140 agencies participated in CERS. For both systems, state statute defines the types of agencies that are eligible for participation, with final approval in the process being granted or denied by the KRS board. In the case of KERS, an executive order declaring the agency eligible for participation is required, while CERS agencies must meet statutory definitions in order to participate (the board determines whether the agency meets the definition). Once an agency begins participating, the agency is not allowed to discontinue participation, unless the agency is eligible and approved by the board to voluntarily discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation or is required by the board to discontinue participation.

All regular full-time employees hired after the agency's participation date are required to contribute to the systems. For KERS and CERS, the term *regular full-time* means an employee

who averages 100 hours of work per month over a calendar or fiscal year, except that a school board employee is required to average 80 hours per month over the months represented by the days worked.^a All regular full-time state police officers participate in SPRS. The number of employees (often referred to as active members), former employees with accounts but not retired (often referred to as inactive members), and retired members by system appears in Table 1.2.

	Active	Inactive	Retired	
System	Members	Members	Members	Total
KERS nonhazardous	38,121	43,929	40,099	122,149
KERS hazardous	3,987	4,067	2,739	10,793
CERS nonhazardous	83,346	75,904	51,673	210,923
CERS hazardous	9,139	2,309	6,834	18,282
SPRS	924	262	1,379	2,565
Total	135,517	126,471	102,724	364,712

Table 1.2Number Of Active, Inactive, And Retired Members, By System, June 30, 2016

Source: June 30, 2016, KRS Comprehensive Annual Financial Report.

KRS Employee Participation Requirements

Employees earn service credit for months and days worked in regular full-time positions. With the exception of school board employees, all employees earn 1 month of service credit in the systems for every month worked in a regular full-time position. School board employees working in regular full-time positions earn service credit based on their days worked, with 180 days worked in a regular full-time position equaling 12 months of service credit (less service credit is given for days worked fewer than 180).

Within KERS and CERS, there are both nonhazardous and hazardous-duty benefit and contribution structures. For a job to be classified as hazardous duty, it must meet the definition and requirements established by state law, the employing agency must request hazardous-duty coverage for the position and agree to pay the higher employer contribution rates, and the KRS Board of Trustees must review and adopt the position as hazardous. In general, hazardous-duty positions in KERS and CERS primarily cover police, fire, emergency medical services, and corrections employees.

Retirement Eligibility

Employees must meet certain age or service credit requirements before they can retire and begin receiving benefits. In KRS, the retirement eligibility requirements vary based on type of coverage (nonhazardous or hazardous-duty) and the date the employee first began participating in the systems. Table 1.3 shows eligibility requirements for nonhazardous employees, and

^a Certain exceptions apply to the regular full-time requirement such as seasonal, temporary, and interim positions that are not subject to the participation requirements. However, statute limits the duration and frequency of use of these positions by agencies.

Table 1.4 shows eligibility requirements for hazardous-duty employees. Both tables show the requirements to earn an unreduced benefit (no penalties) and the requirements for a reduced benefit (penalties are actuarially determined and based on how many years the employee is short of reaching an unreduced benefit).

Table 1.3 Retirement Eligibility Requirements For Kentucky Employees Retirement System/ County Employees Retirement System Nonhazardous Members

Participation Date	Unreduced Benefit	Reduced Benefit
Before Sept. 1, 2008	 Any age with at least 27 years of service or Age 65 with at least 4 years of service 	 Age 55 with at least 5 years of service or Any age with at least 25 years of service
On or after Sept. 1, 2008, but before Jan. 1, 2014	 Must meet rule of 87 (age + service = 87) and must be at least 57 years of age or Age 65 with at least 5 years of service 	• Age 60 with at least 10 years of service
On or after Jan. 1, 2014	 Must meet rule of 87 (age + service = 87) and must be at least 57 years of age or Age 65 with at least 5 years of service 	No reduced benefit provisions

Source: Kentucky Retirement Systems.

Table 1.4 Retirement Eligibility Requirements For Kentucky Employees Retirement System/ County Employees Retirement System Hazardous-Duty And State Police Retirement System Members

Participation Date	Unreduced Benefit	Reduced Benefit
Before Sept. 1, 2008	 Any age with at least 20 years of service or Age 55 with at least 5 years of service 	Age 50 with at least 15 years of service
On or after Sept. 1, 2008, but before Jan. 1, 2014	 Any age with at least 25 years of service or Age 60 with at least 5 years of service 	• Age 50 with at least 15 years of service
On or after Jan. 1, 2014	 Any age with at least 25 years of service or Age 60 with at least 5 years of service 	 No reduced benefit provisions

Source: Kentucky Retirement Systems.

System Benefits

Each system is designed to provide three types of benefits: a monthly retirement benefit for life, disability/death benefits, and health insurance benefits after retirement. Benefits vary based on type of coverage (nonhazardous or hazardous duty) and the date the employee first began participating in the system. Information on each of these benefits appears on the following pages.

Chapter 1

Monthly Retirement Benefits For Members Participating Before January 1, 2014

Benefits for members who began participating in the systems before January 1, 2014, are based on the following formula established by statute:

Final
compensationBenefit
factorYears of
service creditAnnual
benefit

Retirement benefit calculations for members under this formula are provided in Tables 1.5 to 1.8.

Table 1.5 Retirement Benefit Calculation For Kentucky Employees Retirement System/ County Employees Retirement System Nonhazardous Employees Participating Before September 1, 2008

Final Compensation	Benefit Factor	Service Credit
Average of highest	 KERS: 1.97 percent, except that the value 	Service earned for time
5 fiscal years of salary	is 2 percent for employees with 13 months	worked in a regular
	of service between January 1998 and	full-time position,
	January 1999	purchased service, and
	 CERS: 2.2 percent if participating before 	service credit for
	August 1, 2004; 2 percent if participating	accumulated sick leave at
	on or after August 1, 2004, but before	retirement
	September 1, 2008	

Source: Kentucky Retirement Systems.

Table 1.6

Retirement Benefit Calculation For Kentucky Employees Retirement System/ County Employees Retirement System Nonhazardous Employees Participating On Or After September 1, 2008, But Before January 1, 2014

Final	Benefit Factor		_
Compensation	Years of service	Factor	Service Credit
Average of the	10 or less	1.10%	Service earned for time
5 complete fiscal years	More than 10, but no more than 20	1.30	worked in a regular
of salary immediately	More than 20, but no more than 26	1.50	full-time position,
preceding retirement	More than 26, but no more than 30	1.75	purchased service, and
	Additional years above 30	2.00*	up to 12 months of service credit for accumulated sick leave at retirement

*The 2.00 benefit factor applies only to service above 30 years of service credit. Source: Kentucky Retirement Systems.

Table 1.7

Retirement Benefit Calculation For State Police Retirement System And Kentucky Employees Retirement System/County Employees Retirement System Hazardous-Duty Employees Participating Before September 1, 2008

Final Compensation	Benefit Factor	Service Credit
Average of highest 3 years of salary	KERS: 2.49%CERS: 2.50%	Service earned for time worked in a regular full-time
	• SPRS: 2.50%	position, purchased service, and service credit for accumulated sick leave at retirement

Source: Kentucky Retirement Systems.

Table 1.8Retirement Benefit Calculation For State Police Retirement System AndKentucky Employees Retirement System/County Employees Retirement SystemHazardous-Duty Employees Participating On Or After September 1, 2008,
But Before January 1, 2014

Final	Benefit Factor		
Compensation	Years of service	Factor	Service Credit
Average of highest	10 or less	1.30%	Service earned for time worked
3 complete fiscal	More than 10, but no more than 20	1.50	in a regular full-time position,
years of salary	More than 20, but less than 25	2.25	purchased service, and up to
	25 or more	2.50	12 months of service credit for
			accumulated sick leave at retirement

Source: Kentucky Retirement Systems.

The annual benefit resulting from the calculations in Tables 1.5 to 1.8 is paid to the retiree in monthly installments. At retirement, a retiree may choose to take a reduced benefit to provide a monthly benefit to a beneficiary upon death, either for a period certain or for the life of the beneficiary.

Retirement Benefit Calculation For Members Participating On Or After January 1, 2014

Members who begin participating in the systems on or after January 1, 2014, receive retirement benefits through a cash balance plan that provides benefits based on an account balance, rather than on a formula. This change was enacted in Senate Bill 2 of the 2013 Regular Session.

The cash balance plan is not a defined contribution plan but rather a type of defined benefit plan that operates as another benefit tier within the retirement systems. Although it is a type of defined benefit plan, it does have several characteristics of a defined contribution plan with individual employee accounts, benefits based on the employee's account balance at retirement (employee and employer contributions and investment returns), and some variability in benefits due to investment returns. It differs from a defined contribution plan in that a minimum level of investment return is guaranteed on the employee accounts, the retirement systems rather than the employee manage investments, and employees can annuitize their account balance upon retirement (to receive it in the form of a monthly benefit).

In the cash balance plan, employees contribute the same amount as newer employees, who began participating before January 1, 2014, except that the 5 percent of pay (8 percent hazardous-duty) they contribute to fund pension benefits will go into their individual accounts, along with an employer pay credit of 4 percent of their salary (7.5 percent hazardous-duty). Employees receive a guaranteed return of 4 percent annually and 75 percent of the excess returns above 4 percent (the excess returns are calculated on a 5-year smoothed return). The combined guaranteed returns and excess return resulted in an interest credit for FY 2016 of 4.83 percent to 5.01 percent, based on individual system investment return data. In FY 2015, the rate varied from 7.77 percent to 7.84 percent. Former employees who did not contribute to the cash balance plan during the year receive a 4 percent interest credit.

Employees in the cash balance plan are vested for employer contributions and investment returns on those employer contributions after 5 years. Upon reaching retirement eligibility, employees can take their account balance in a lump sum or have it annuitized into one of the monthly benefit payment options currently available through the retirement systems for other members.

Retiree Health Insurance Benefits

The systems also provide access to group rates and medical insurance for retired members, spouses, and dependents. Coverage for retirees not eligible for Medicare is provided through the Kentucky Employees' Health Plan, the same health plan provided to state and school board employees. Coverage for Medicare-eligible retirees is provided through a plan administered or contracted through KRS, which then coordinates with Medicare for delivery of health benefits.

As provided by statute, the systems also subsidize medical coverage for the retiree and in some cases for the dependents of the retiree, most often if the member retires with hazardous-duty service credit. In general, employees participating before July 1, 2003, receive a percentage of the premium paid upon retirement based on their service credit, whereas employees who begin participating after that date receive a set dollar amount per month for each year of service credit. Tables 1.9 and 1.10 provide details about the benefits for nonhazardous and hazardous-duty members based on their participation dates.

In 2017, the maximum retiree health subsidy for a nonhazardous retiree with 20 years of service who began participating before July 1, 2003, is \$721.14 per month in the Kentucky Employees' Health Plan and \$252.51 per month for the Medicare-eligible plan. For a hazardous-duty retiree on a family plan in the Kentucky Employees Health Plan, the maximum subsidy is \$1,738.40 per month.

Table 1.9Retiree Health Insurance Premium Payments For Kentucky Employees Retirement
System/County Employees Retirement System Nonhazardous Members

Participation Date In Systems	Eligibility Requirements	Percent Or Dollars Of Premium Paid For The Retiree		
Before July 1, 2003	Must be drawing a monthly benefit	Years Of Service At Retirement	% Of Premium Paid for Retiree	
	,	Less than 4	0%	
		4, but less than 10	25	
		10, but less than 15	50	
		15, but less than 20	75	
		20 or more	100	
On or after July 1, 2003, but before September 1, 2008	Must be drawing a monthly benefit and must have at least 10 years of service	\$10 per month paid towa each year of earned servic 1.5% annually from date o	, j	
On or after September 1, 2008	Must be drawing a monthly benefit and must have at least 15 years of service	\$10 per month paid towa each year of earned servic 1.5% annually from date c	5 5	

Source: Kentucky Retirement Systems.

Table 1.10Retiree Health Insurance Premium Payments For State Police Retirement SystemAnd Kentucky Employees Retirement System/County Employees Retirement SystemHazardous-Duty Members

Participation Date	Eligibility	Percent Or Dollars Of Premium Paid For The Retiree			
In Systems	Requirements	And Dependents Of The Retiree			
Before July 1, 2003	Must be drawing		% Of	% Of Premium	
	a monthly benefit	Years Of	Premium	Paid For	
		Service	Paid	Dependents	
		At Retirement	For Retiree		
		Less than 4	0%	0%	
		4, but less than 10	25	25	
		10, but less than 15	50	50	
		15, but less than 20	75	75	
		20 or more	100	100	
On or after July 1, 2003, but before September 1, 2008	Must be drawing a monthly benefit and must have at least 10 years of service	 \$15 per month paid toward the health premium for each year of earned service. Upon death of the retiree, the surviving spouse receives \$10 per month paid toward the health premium for each year of earned hazardous-duty service credit. Amounts are adjusted by 1.5% annually from date of participation. 			
On or after September 1, 2008	Must be drawing a monthly benefit and must have at least 15 years of service	 \$15 per month paid toward the health premium for each year of earned service. Upon death of the retiree, the surviving spouse receives \$10 per month paid toward the health premium for each year of earned hazardous-duty service credit. Amounts are adjusted by 1.5% annually from date of participation. 			

Note: Percent/dollar amount paid on behalf of a hazardous-duty retiree's spouse/dependents is based solely on the retiree's hazardous service at retirement.

Source: Kentucky Retirement Systems.

Disability And Death Benefits

Like most defined benefit plans, the systems provide benefits for those employees who become disabled or who die before retirement, including in the line of duty disability and death benefits. After retirement, the benefits left to the retiree's beneficiary vary according to the payment option selected at retirement. For example, a retiring employee may select to provide, upon his or her death, a lifetime benefit to a surviving spouse by taking an actuarially reduced monthly benefit. In addition, the systems provide a \$5,000 lump-sum death benefit for members who retire with at least 4 years of service.

Cost Of Living Adjustments On Monthly Retirement Benefits

After the passage of SB 2 in the 2013 Regular Session of the General Assembly, members of the systems no longer receive automatic annual increases of 1.5 percent on their monthly retirement benefits. Language in SB 2 did provide that a 1.5 percent cost of living adjustment (COLA) could be granted if an individual system is 100 percent funded, and subsequent legislation authorizes the use of surplus funds to provide the 1.5 percent COLA, or if the General Assembly appropriates or directs payment of funds to prefund the COLA in the year it is provided.

Service Purchases And Sick Leave Service Credit

Many employees participating in the systems can choose to purchase service credit for other public employment or service as established by law, such as military service, federal service, university service, and nonqualified service, provided certain requirements established by state statute are met. In addition, employees of KERS/SPRS agencies and many CERS agencies receive additional service credit for accumulated sick leave at retirement. The last participating employer pays the costs for sick leave service credit.

Legislative changes in 2002, 2004, 2008, and 2013 have limited the use and impact on retirement eligibility of service purchases and sick leave service credit, particularly for new participants in the systems. The most recent changes in 2013 via SB 2 eliminated service purchases and sick leave service credit for new participants entering the system on or after January 1, 2014, with the exception of omitted service and recontributions of refunds.

Reemployment After Retirement

State statute places restrictions on retirees returning to work after retirement with a participating KRS employer. As a result of House Bill 1, passed during the 2008 Special Session, the following restrictions and requirements are applicable to employees who retire and return to work on or after September 1, 2008.

Required Break In Employment. The employee must have a 3-month break in employment before returning to any position with an employer participating in the systems, except that hazardous-duty KERS or CERS and SPRS retirees who return to work in a full-time hazardous-duty position are required to observe only a 1-month break in employment. If the break is not observed, the employee's retirement is voided and all benefit payments issued in error shall be repaid to the systems. Both the employee and employer must certify that no prearranged agreement for the employee to return to work existed before the employee's retirement. For elected officials, a reelection to the same office is considered a prearranged agreement if the official retires after the election but before taking office.

How It Works For The Employee. Provided the break is observed, the employee can return to work and draw a pension but will not contribute to the systems or earn a second pension.

How It Works For The Employer. If the employee has returned to work in a position that would have qualified for participation in the systems, the employer is required to pay contributions to the systems and to reimburse the systems for the cost of health insurance premiums paid by the systems for the retiree (not to exceed the cost of the single premium). If the employee takes health coverage through the employer and waives coverage with the systems, then no reimbursement is required. However, in 2014, 2015, and 2016, the General Assembly passed exemptions to the required employer contributions and health reimbursements for qualifying deputy sheriffs and city police officers and for the required health reimbursements for classified school board employees who work less than 80 days per year.

Reciprocity

Members who have service in more than one retirement plan administered by the Commonwealth of Kentucky can combine service in the plans to determine eligibility for retirement and final compensation (years of highest salary). Each system will pay a benefit based on the amount of service in that system.

Taxation Of Benefits

Monthly benefits from all systems are subject to federal income tax. If a member made contributions with after-tax dollars (usually service purchases), then a portion of the monthly benefit at retirement will not be subject to federal income tax.

All benefits attributable to service earned on or before December 31, 1997, are exempt from Kentucky income tax. The portion of the member's benefits earned on January 1, 1998, and after is subject to Kentucky income tax. However, an annual pension exclusion of \$41,110 applies to this portion and to other retirement income sources.

2016 Legislative Changes

Seven measures that directly affected Kentucky Retirement Systems passed during the 2016 Regular Session: House Bills 153, 238, 271, and 281, and Senate Bills 203, 206, and 209.

HB 153 addressed issues related to paid volunteers in KERS and CERS. For new members entering the systems on or after August 1, 2016, the bill excluded nominal fees paid to volunteers of a participating agency from the definition of creditable compensation. Creditable compensation is the salary or wages upon which employee and employer contributions are paid to KRS and is the basis of establishing service credit in the system. The bill further provided that KRS retirees who return to work in a volunteer position, and who receive actual expense reimbursements or nominal fees, shall not be subject to the reemployment-after-retirement provisions if they meet certain requirements. The bill also defined *volunteer* and *nominal fees* for purposes of the measures enacted.

HB 238 established specific actuarial and financial reporting requirements for all state-administered retirement systems. The bill requires each system to perform an actuarial experience study once every 5 years and specifies study reporting requirements, including the completion of a 20-year projection of employer contributions, funding levels, and unfunded liabilities under the changes recommended by the study. The legislation also requires the actuarial valuations conducted by each system to be completed by November 15 and to include specific data such as 20-year projections of employer contributions, funding levels, and unfunded liabilities, and sensitivity analysis on key actuarial assumptions. The legislation further requires the systems to perform similar 20-year projections on any changes made by the systems (for instance, board changes to retiree health benefits) and requires production of an estimated employer rate on or before August 15 in the year immediately preceding the budget. Lastly, HB 238 requires the PPOB to retain an actuary to perform an audit of the systems actuarial assumptions at least once every 5 years and to evaluate the actuarial valuation results that establish the recommended employer contribution rates prior to each budget biennium.

HB 271 requires state-administered retirement systems to annually disclose to the PPOB nonidentifiable data on each member or recipient of a benefit, including retirement status and actual or projected benefits payments.

HB 281 allows a mayor or member of a city legislative body who is not participating in the CERS before retirement, but who is eligible to retire from the KERS or the SPRS due to other employment, to retire and draw benefits from KERS or SPRS without resigning as mayor or member of the city legislative body.

SB 203 permits the beneficiary or spouse of a deceased member, awaiting a decision or appeal regarding death as a result of an act in the line of duty, to receive normal death benefits and to have benefits recalculated if a final determination results in a finding of eligibility for in the line of duty benefits. The bill also makes provisions retroactive to any matter pending before the Kentucky Retirement Systems or on appeal.

SB 206 allows cities to reemploy KERS, CERS, and SPRS retirees as police officers without paying employer contributions and health reimbursements to KRS, provided the reemployed retiree meets certain requirements. The bill provides that retirees reemployed by the city under these provisions may be employed for a term not to exceed 1 year, which may be renewed at the discretion and need of the city. SB 206 also limits the number of retired police officers that may be hired by the city under this exemption based on the average number of police officers employed over the course of calendar year 2015.

SB 209 was a follow-up to HB 62 that was passed in the 2015 Regular Session. HB 62 allows employers to voluntarily cease participation in KERS or CERS by paying the full actuarial costs of exiting the system but requires the exiting employer to provide an alternative retirement plan to employees. SB 209 provides that any mandatory employee contributions made to the alternative retirement plans may be picked up by those employers so that the contributions will be made on a tax-deferred basis.

Chapter 2

Overview Of Teachers' Retirement System Administration And Benefits

Composition Of Teachers' Retirement System

The Public Pension Oversight Board has oversight responsibilities for the Teachers' Retirement System (TRS). TRS is the oldest statewide pension fund in Kentucky, established by the 1938 General Assembly. TRS administers pension and retiree health benefits to certified employees of local school districts, and employees of higher education agencies, educational cooperatives, and other public educational agencies. It is governed by Kentucky Revised Statutes 161.220 to 161.716 and Title 102 of the Kentucky Administrative Regulations.

TRS includes both university and nonuniversity benefit and contribution rate structures, with the majority of nonuniversity membership coming from certified employees of local school districts. University employees include teaching and administrative staff of regional state-supported universities and the community college employees of the Kentucky Community and Technical College System (KCTCS). Nonuniversity employees do not participate in or earn benefits from Social Security while working in TRS-eligible positions. University employees do participate and earn benefits in Social Security while working in TRS-eligible positions.

TRS (along with other sources of retirement income such as personal retirement accounts, postretirement employment, or Social Security, if applicable) serves as the basis for providing income to TRS employees during their retirement years.

Teachers' Retirement System Administration

Statute provides that a nine-member board of trustees oversees the administration of TRS. The membership elects seven trustees, one is the state treasurer, and one is the commissioner of education. The seven elected trustees include four active members, one retired member, and two lay trustees who are outside of the teaching profession. Elected trustees serve 4-year terms and may serve no more than three consecutive terms.

The board annually elects a chair and vice chair and appoints members to committees of the board, including the investment committee, insurance committee, governance and audit committee, legislative committee, personnel committee, and special committee on benefits and funding. Table 2.1 shows the current composition of the board. The board appoints an executive secretary to oversee day-to-day operations and to staff the needs of the system. The current executive secretary is Gary Harbin, and as of June 30, 2016, TRS employed 100 full-time employees.

Member Name	Appointment/Election
Arthur Green, chair	Elected retired teacher
Jay Morgan, vice chair	Elected active teacher
Josh Underwood	Elected active teacher
Ali Wright	Elected active teacher
Mary Adams	Elected active teacher
Hollis Gritton	Elected lay trustee
Ronald Sanders	Elected lay trustee
Stephen Pruitt	Commission of Education
Allison Ball	State Treasurer

Table 2.1Members Of The Teachers' Retirement SystemBoard Of TrusteesDecember 2016

Source: Teachers' Retirement System.

Teachers' Retirement System Employer And Employee Membership

As of June 30, 2016, 208 employers participated in TRS, including 173 local school districts, 15 state agencies, 6 higher education agencies that include regional state-supported universities in KCTCS, 8 educational cooperatives, and 6 other educational organizations. State statute lists the agencies that are required to participate in TRS.

As of June 30, 2016, according to the TRS Actuarial Valuation, TRS included 71,848 employees (often referred to as active members), 55,295 former employees who have accounts but are not retired (often referred to as inactive members), and 51,563 retired members, for a total of 178,706 members. School districts account for more than 95 percent of the active members participating in TRS.

TRS Employee Participation Requirements

For nonuniversity employees, participation is mandatory for full-time positions with a TRS employer that require certification or graduation from a 4-year college. *Full-time* is defined as employment in a position that requires services on a continuing basis equal to at least seven-tenths of the normal full-time contract for any fiscal year. Employees of nonuniversity employers providing part-time or substitute teaching services are also required to participate in TRS.

For university employees, participation is optional for full-time positions with a TRS employer that require certification or graduation from a 4-year college.

Retirement Eligibility

Employees must meet certain age or service credit requirements before they can retire and begin receiving benefits. In TRS, the retirement eligibility requirements vary according to the date the employee first began participating in the system. Table 2.2 shows eligibility requirements for TRS members to earn an unreduced benefit (no penalties) and the requirements for a reduced benefit (penalties are based on how many years the employee is short of reaching an unreduced benefit).

Date Of First Participation	Unreduced Benefit	Reduced Benefit
Before Sept. 1, 2008	 Any age with at least 27 years of service or Age 60 with at least 5 years of service 	Age 55 with at least 5 years of service; reduction set by statute at 5% per year
On or after Sept. 1, 2008	 Any age with at least 27 years of service or Age 60 with at least 5 years of service 	Age 55 with at least 10 years of service; reduction set by statute at 6% per year

 Table 2.2

 Retirement Eligibility Requirements For Teachers' Retirement System

Source: Teachers' Retirement System.

System Benefits

TRS is designed to provide three types of benefits: a monthly retirement benefit for life, disability/death benefits, and health insurance benefits after retirement. Benefits vary according to the date the employee first began participating in the system. Information on each of these benefits appears on the following pages.

Monthly Retirement Benefits For Members

Pension benefits for system members provide a percentage of the employee's salary at retirement for each year of service credit. This is the formula for calculating the benefit:

Final average		Benefit		Years of	_	Annual
salary	×	factor	x	service credit	=	benefit

Retirement benefit calculations for members under this formula appear in Tables 2.3 and 2.4.

Final Average Salary	Benefit Factor	Service Credit
 Final Average Salary Average of the highest 5 years of salary or Average of the highest 3 years of salary if the member is age 55 or more with at least 27 years of service credit 	 Participation date before July 1, 2002: 2.0% for service credit before July 1, 1983 2.5% for service credit on or after July 1, 1983 3.0% for service credit in excess of 30 years* Participation date on or after July 1, 2002, but before July 1, 2008: 2.0% if service credit is less than 10 years 2.5% if service credit is more than 10 years 3.0% for service credit in excess of 30 years* Participation date on or after July 1, 2008: 1.70% if service credit is 10 years or less 2.00% if service credit is more than 10 years 2.00% if service credit is more than 10 years 2.00% if service credit is more than 10 years 2.00% if service credit is nore than 20 years 2.30% if service credit is more than 20 years 2.30% if service credit is more than 20 years 2.50% if service credit is more than 26 years 2.50% if service credit is more than 26 years 	Service Credit Earned service; purchased service
	 3.0% for service credit in excess of 30 years* 	

Table 2.3Retirement Benefit CalculationFor Teachers' Retirement System Nonuniversity Employees

*The 3.00 percent benefit factor applies only to service above 30 years of service credit. Source: Teachers' Retirement System.

Table 2.4Retirement Benefit CalculationFor Teachers' Retirement System University Employees

Final Average Salary	Benefit Factor	Service Credit
 Average of the highest 5 years of salary or Average of the highest 	Participation date before July 1, 2008:2.0%	Earned service; purchased service; sick leave
3 years of salary if the member is age 55 or more with at least 27 years of Kentucky service credit	 Participation date on or after July 1, 2008: 1.50% if service credit is 10 years or less 1.70% if service credit is greater than 10 years but not more than 20 years 1.85% if service credit is greater than 20 years but not more than 26 years 2.0% if service credit is 27 or more years 	service credit

Source: Teachers' Retirement System.

The annual benefit resulting from the calculations in Tables 2.3 and 2.4 is paid to the retiree in monthly installments. At retirement, a retiree may choose to take a reduced benefit to provide a monthly benefit to a beneficiary upon death, either for a period certain or for the life of the beneficiary.

Retiree Health Insurance Benefits

TRS also provides access to group rates and medical insurance for retired members and their spouses and dependents. Coverage for retirees not eligible for Medicare is provided through the Kentucky Employees' Health Plan, the same health plan provided to state and school board employees. Coverage for Medicare-eligible retirees is provided through a plan administered or contracted through TRS, which then coordinates with Medicare for delivery of health benefits.

As provided by statute, the system also subsidizes medical coverage for the retiree. However, the TRS board of trustees determines the level of subsidy based on the availability of funding.

Table 2.5 details the percentage of retiree health subsidy provided for TRS members according to years of service. In 2017, the maximum retiree health subsidy on a single plan is \$507.16 per month in the Kentucky Employees' Health Plan and \$260 per month for the Medicare-eligible plan.

	Retired And Age 65	Participating Before	Participating On Or After 7/1/2002 But	Participating On or After
Years of Service	By 1/1/2005	7/1/2002	Before 7/1/2008	7/1/2008
Less than 5	0%	0%	0%	0%
5 but less than 10	70	25	10	0
10 but less than 15	80	50	25	0
15 but less than 20	90	75	45	45
20 but less than 25	100	100	65	65
25 but less than 26	100	100	90	90
26 but less than 27	100	100	95	95
27 or more	100	100	100	100

Table 2.5Percentage Of Retiree Health Insurance SubsidyPaid For Teachers' Retirement System Members

Source: Teachers' Retirement System.

House Bill 540, which was passed during the 2010 Regular Session to address retiree health funding issues, increased employee contributions, employer contributions, and state appropriations. In addition, retirees not eligible for Medicare were also required to pay the equivalent of the Medicare Part B premium toward their costs of coverage in the Kentucky Employees' Health Plan, in addition to any other costs required by the plan.

Disability And Death Benefits

Like most defined benefit plans, the system provides benefits for those employees who become disabled or who die before retirement, including in the line of duty disability and death benefits as well as minimum benefits payable to the surviving spouse and dependents. After retirement, the benefits left to the retiree's beneficiary vary according to the payment option selected at retirement. For example, retiring employees may select to provide a lifetime benefit to a surviving spouse upon the employee's death by taking an actuarially reduced monthly benefit. In addition, the system provides a \$5,000 life insurance benefit for members who retire under service or disability retirement provisions. A \$2,000 life insurance benefit is provided for active members before retirement.

Cost Of Living Adjustments On Monthly Retirement Benefits

A 1.5 percent annual automatic cost of living adjustment is provided each July to retirees who have been retired at least 12 months, with a pro rata increase provided to retirees who have been retired less than 12 months. In the past, legislative action has created additional ad hoc COLAs; the last ad hoc COLA occurred in 2007, providing an additional 0.6 percent increase in monthly benefits. Costs for prior ad hoc cost of living adjustments are being financed over time with direct appropriations to TRS.

Service Purchases And Sick Leave

Employees participating in TRS can purchase service credit for other public employment or service as established by law (such as military service, federal Head Start service, out-of-state service, and nonqualified service), provided requirements established by state statute are met.

School districts may compensate retiring employees for up to 30 percent of their accumulated sick leave, which is then included in the member's final average salary, or the districts may choose to convert accumulated sick leave to service credit for the employee. Currently, all school districts choose to compensate for accumulated sick leave at retirement. All other employers may convert accumulated sick leave to service credit for their retiring employees. Retirement costs for the inclusion of school districts' payments for sick leave are primarily financed over time with direct state appropriations; for other employers, the individual employers pay costs to convert sick leave to service credit.

Reemployment After Retirement

State statute places restrictions on retirees returning to work after retirement with a participating employer of TRS. Regional state-supported universities and KCTCS have different restrictions from other employers.

Except in the case of reemployment with regional state-supported universities and KCTCS, employees who wish to return to work may do so under the following options:

- Pension Waiver. Retirees can waive their pension and return to work. During the period of reemployment, additional service and salary are earned and their benefit is recomputed upon subsequent retirement.
- Part-Time Program. Retirees can return to work part time after 3 months, retain their pension, and contribute to a second account (part time is no more than 69 percent of the average contract period). If their salary exceeds the daily wage threshold (65 percent of their last annual compensation if they retired with less than 30 years, and 75 percent if they retired with 30 or more years), then their pension benefit is decreased by a corresponding amount.
- Full-Time Program. Retirees can return to work full time, retain their pension, and contribute to a second account. The required break in employment is 3 months if returning to work for a different school district or 12 months if returning to work in the same school district. If their salary exceeds the daily wage threshold (65 percent of their last annual compensation if they retired with less than 30 years, and 75 percent if they retired with 30 or more years), then their pension benefit is decreased by a corresponding amount. The full-time program is limited to 3 percent of the agency's employees participating in the system.
- Critical Shortage Program. This program is the same as the full-time program except that there are no salary limitations and it is limited to 1 percent of the agency's employees participating in the system.

For reemployment with a regional state-supported university and KCTCS, employees who wish to return to work may do so under the following options:

- Pension Waiver. Retirees can waive their pension and return to work. During the period of reemployment, additional service and salary are earned and their benefit is recomputed upon subsequent retirement.
- Part-Time Program. Retired employees can return to work immediately (no break) in a part-time position (up to 12 semester hours if teaching or 100 days if in an administrative nonteaching position) while retaining their pension but will not contribute to a second account. If employees exceed the part-time threshold hours or days, their pension will be reduced by the dollar amount earned in excess of the threshold.
- Full-Time Program. Retired employees can return to work full-time and retain their pension if they observe a 6-month break in employment. The employees will not contribute to TRS but will instead contribute to the Optional Retirement Plan, a defined contribution plan administered by the university.

Reciprocity

Members who have service in more than one retirement plan administered by the Commonwealth of Kentucky can combine service in the plans to determine eligibility for retirement and final average salary (years of highest salary). Each system will pay a benefit based on the amount of service in that system.

Taxation Of Benefits

Monthly benefits from all systems are subject to federal income tax. If a member made contributions with after-tax dollars (usually service purchases), then a portion of the monthly benefit at retirement will not be subject to federal income tax.

All benefits attributable to service earned on or before December 31, 1997, are exempt from Kentucky income tax. The portion of the member's benefits earned January 1, 1998, and after is subject to Kentucky income tax. However, an annual pension exclusion of \$41,110 applies to this portion and to other retirement income sources.

2016 Legislative Changes

Two measures that directly affected TRS passed during the 2016 Regular Session: House Bills 238 and 271.

HB 238 established specific actuarial and financial reporting requirements for all state-administered retirement systems. The bill requires each system to perform an actuarial experience study once every 5 years and specifies study reporting requirements, including the completion of a 20-year projection of employer contributions, funding levels, and unfunded liabilities under the changes recommended by the study. The legislation also requires the actuarial valuations conducted by each system to be completed by November 15 and to include specific data such as 20-year projections of employer contributions, funding levels, and unfunded liabilities and sensitivity analysis on key actuarial assumptions. The legislation further requires the systems to perform similar 20-year projections on any changes made by the systems (for instance, board changes to retire health benefits) and requires production of an estimated employer rate on or before August 15 in the year immediately preceding the budget. Lastly, HB 238 requires the PPOB to retain an actuary to perform an audit of the systems actuarial assumptions at least once every 5 years and to evaluate the actuarial valuation results that establish the recommended employer contribution rates prior to each budget biennium.

HB 271 requires state-administered retirement systems to annually disclose to the PPOB nonidentifiable data on each member or recipient of a benefit, including retirement status and actual or projected benefits payments.

Chapter 3

Overview Of Judicial Form Retirement System Administration And Benefits

Composition Of Judicial Form Retirement System

The Public Pension Oversight Board has oversight responsibilities for the two retirement plans administered by the Judicial Form Retirement System (JFRS): the Judicial Retirement Plan (JRP) and the Legislators' Retirement Plan (LRP).

Judicial Retirement Plan

JRP was established in 1960. Its membership includes justices of the Supreme Court and judges of the Court of Appeals, Circuit Court, Family Court, and District Court. It is governed by Kentucky Revised Statutes 21.345 to 21.580 and Title 4 of the Kentucky Administrative Regulations.

Legislators' Retirement Plan

LRP was established in 1980 for members of the General Assembly. It is governed by Kentucky Revised Statutes 6.500 to 6.577 and Title 4 of the Kentucky Administrative Regulations.

These retirement plans (along with Social Security benefits, and other sources of retirement income, such as other retirement accounts and postretirement employment) serve as the basis for providing income to members during their retirement years.

Judicial Form Retirement System Administration

As provided by statute, an eight-member board of trustees oversees the administration of JFRS, with three trustees appointed by the Supreme Court, two trustees appointed by the governor, one trustee appointed by the speaker of the House of Representatives, one trustee appointed by the president of the Senate, and one trustee appointed jointly by the president and speaker. Gubernatorial appointees cannot be members or benefit recipients of the plans. Elected and appointed trustees serve 4-year terms and may serve no more than three consecutive terms.

The board annually elects a chair and has separate investment committees for each plan as provided by statute. The JRP investment committee consists of board trustees appointed by the Supreme Court and governor. The LRP investment committee consists of board trustees appointed by the speaker of the House, the president of the Senate, and the governor.

Table 3.1 lists the current composition of the board. The board appoints an executive director to oversee day-to-day operations and to staff the needs of the system. The current executive director is Donna Early. As of June 30, 2016, JFRS employed two employees.

Table 3.1
Members Of The Judicial Form Retirement System Board Of Trustees
December 2016

Member	Appointed By
Lewis G. Paisley, chair	Supreme Court
Justice Laurance B. VanMeter	Supreme Court
Judge John R. Grise	Supreme Court
Ted A. Edmonds	Speaker of House and president of Senate
Rep. Hubert Collins	Speaker of House
Katie K. Stine	President of Senate
A.C. Donahue	Governor
Stephen F. LeLaurin	Governor

Source: Judicial Form Retirement System.

Judicial Form Retirement System Employer And Employee Membership

Membership in JRP and LRP is limited to judges and legislators, respectively. Participation in JRP and LRP is not automatic, and a newly elected judge or legislator must opt to participate in JRP or LRP within 30 days of taking office. If he or she fails to elect participation, then the judge or legislator will participate in the Kentucky Employees Retirement System, the same system covering state employees. Members who began participating before January 1, 2014, whose accrued benefit is equal to 100 percent of final compensation, the maximum benefit payable by statute, may elect to cease participating in JRP or LRP and begin participating in KERS. Table 3.2 lists by plan the number of contributing members (active members), former contributing members who have accounts but are not yet retired (inactive members), and retired members.

June 30, 2016					
System	Active Members	Inactive Members	Retired Members	Total	
LRP	101	42	200	343	
JRP	237	18	330	585	
Total	338	60	530	928	

Table 3.2
Number Of Active, Inactive, And Retired Members By Plan
June 30, 2016

Source: June 30, 2016, JFRS Audit Report.

Retirement Eligibility

Plan members must meet certain age or service credit requirements before they can retire and begin receiving benefits. For JRP and LRP, the retirement eligibility requirements vary according to the date the member first began participating in the plans. Table 3.3 shows eligibility requirements for plan members to earn an unreduced benefit (no penalties) and the requirements for a reduced benefit (penalties are set by statute and vary according to how many years the employee is short of reaching an unreduced benefit).

Table 3.3Retirement Eligibility RequirementsFor Judicial Retirement Plan And Legislators' Retirement Plan Members

Date Of First Participation	Unreduced Benefit	Reduced Benefit*
Before January 1, 2014	 Any age with at least 27 years of service or Normal retirement age** with at least 5 years of service 	 JRP: 8 years of service LRP: 5 years of legislative service or 8 years of service
On or after January 1, 2014	 Must meet rule of 87 (age + service = 87) and must be at least 57 years of age or Age 65 with at least 5 years of service 	 No reduced benefit provisions

*Reduction set by statute of 5 percent per year for the lesser of the difference in years between either the member's age and normal retirement age or years of service and the number 27.

**Normal retirement age is 65, but is reduced by 1 year for every 5 years of service and for each year the benefit exceeds 100 percent of final compensation. Normal retirement age cannot be reduced below 60. Source: Judicial Form Retirement System.

Plan Benefits

Each plan is designed to provide three types of benefits: a monthly retirement benefit for life, disability/death benefits, and health insurance benefits after retirement. Benefits vary according to the plan (JRP or LRP) and the date the employee first began participating in the plans. Information on each of these benefits appears on the following pages.

Monthly Retirement Benefits For Members Participating Before January 1, 2014

Benefits for members who began participating in the systems before January 1, 2014, are based on the following formula established by statute:

Final × Benefit × Years of = Monthly compensation × factor × service credit = benefit

Tables 3.4 and 3.5 show retirement benefit calculations for members under this formula.

Table 3.4 Retirement Benefit Calculation For Judicial Retirement Plan Members Participating Before January 1, 2014

Final Compensation	Benefit Factor	Service Credit	
Monthly average of the last 60 months	 5.00% if participation began before July 1, 1978 4.15% if participation began on or after July 1, 1978, but before lung 20, 1990. 	Service credited as a member of one of the	
preceding retirement	1978, but before June 30, 19802.75% for all others	state courts; qualified purchased/transferred service	

Source: Judicial Form Retirement System.

Table 3.5
Retirement Benefit Calculation For Legislators' Retirement Plan Members
Participating Before January 1, 2014

Final Compensation	Benefit Factor	Service Credit	
Monthly average of highest 3 years of salary	 Legislators in office as of July 1, 1982: 5.00% if participation began before July 1, 1978 4.15% if participation began on or after July 1, 1978 but before June 30, 1980 3.50% if participation began on or after July 1, 1980 but before June 30, 1982 	Service credited as a member of the General Assembly; qualified purchased or transferred service	
	Legislators electing membership after July 1, 1982: • 2.75%		

Source, success round for recipient System.

At retirement, a retiree may choose to take an optional payout of the statutory lifetime 50 percent annuity to a qualified surviving spouse. If there is no qualified surviving spouse, dependent children (until they reach age 21) or disabled children are eligible for survivor's benefits.

Retirement Benefit Calculation For Members Participating On Or After January 1, 2014

Members who begin participating in the plans on or after January 1, 2014, receive retirement benefits through a cash balance plan that provides benefits based on an account balance, rather than on a formula. This change was enacted in Senate Bill 2, during the 2013 Regular Session.

The cash balance plan is not a defined contribution plan but rather a type of defined benefit plan that operates as another benefit tier within the plans. Although it is a type of defined benefit plan, it does have several characteristics of a defined contribution plan with individual member accounts, benefits based on the member's account balance at retirement (member and employer contributions and investment returns), and some variability in benefits due to investment returns. It differs from a defined contribution plan in that a minimum level of investment return is guaranteed on the member accounts, the plans rather than the member manage investments, and members can annuitize their account balance upon retirement (to receive it in the form of a monthly benefit).

In the cash balance plan, members contribute the same amount as newer employees who began participating before January 1, 2014, except that 5 percent of pay they contribute to fund pension benefits will go into their individual accounts, along with an employer pay credit of 4 percent of their salary. Members receive a guaranteed return of 4 percent annually and 75 percent of the excess returns above 4 percent (the excess returns are calculated on a 5-year smoothed return). JFRS decided to establish separate funds for hybrid cash balance participants, so the investment return credited as of June 30, 2016 was 4 percent. This was the same interest rate credited as of June 30, 2015.

Members in the cash balance plan are vested for employer contributions and investment returns on those employer contributions after 5 years. Upon reaching retirement eligibility, members can take their account balance in a lump sum or have it annuitized into a monthly benefit optional payment currently available through the plan.

Retiree Health Insurance Benefits

JFRS also provides access to group rates and medical insurance for retired members and their spouses and dependents. Coverage for retirees not eligible for Medicare is provided through the Kentucky Employees' Health Plan, the same health plan provided to state and school board employees. Coverage for Medicare-eligible retirees is provided through a plan contracted through JFRS, which then coordinates with Medicare for delivery of health benefits.

As provided by state statute, the systems also subsidize medical coverage for the retiree and, in the case of members who began participating before January 1, 2014, for qualified dependents of the retiree. In general, members participating before January 1, 2014, receive a percentage of the premium paid upon retirement based on their service credit, whereas members who begin participating after that date receive a set dollar amount per month for each year of service credit. Tables 3.6 and 3.7 provide details about the benefits for JRP and LRP members according to their participation dates.

Participation Date In Systems	Eligibility Requirements	Percent Or Dollars Of Premium Paid For Retiree And Qualified Dependents Of Retiree				
Before January 1,	Must be drawing	Years Of	% Of Premium	% Of Premium		
2014	a monthly benefit	Service	Paid	Paid For		
		At Retirement	For Retiree	Dependents		
		Less than 4	0%	0%		
		4, but less than 10	25	25		
		10, but less than 15	50	50		
		15, but less than 20	75	75		
		20 or more	100	100		
On or after January 1, 2014	Must be drawing a monthly benefit and must have at least 15 years of service	\$10 per month paid toward the health premium for each year of earned service. Amount is adjusted by 1.5% annually from the date benefits commence.				

Table 3.6Retiree Health Insurance Premium Payments For Judicial Retirement Plan Retirees

Source: Judicial Form Retirement System.

Table 3.7
Retiree Health Insurance Premium Payments For Legislators' Retirement Plan Retirees

Participation Date In Systems	Eligibility Requirements	Percent Or Dollars Of Premium Paid For The Retiree And Qualified Dependents Of The Retiree			
Before January 1,	Must be drawing	Years Of	% Of	% Of Premium	
2014	a monthly benefit	Service	Premium	Paid For	
	-	At Retirement	Paid	Dependents	
			For Retiree	-	
		Less than 4	0%	0%	
		4, but less than 10	25	25	
		10, but less than 11	50	50	
		11, but less than 12	55	55	
		12, but less than 13	60	60	
		13, but less than 14	65	65	
		14, but less than 15	70	70	
		15, but less than 16	75	75	
		16, but less than 17	80	80	
		17, but less than 18	85	85	
		18, but less than 19	90	90	
		19, but less than 20	95	95	
		20 or more	100	100	
On or after January 1, 2014	Must be drawing a monthly benefit and must have at	t year of earned service. Amount is adjusted by 1.5%			
aumoa, Indiaial Forme D	least 15 years of service				

Source: Judicial Form Retirement System.

Disability And Death Benefits

Like most defined benefit plans, the plans provide benefits for those members who become disabled or to the qualified survivors of members who die in office, including in the line of duty disability and death benefits. After retirement, the statutorily prescribed survivor's benefits may vary according to the payment option selected at the commencement of benefits.

Cost Of Living Adjustments On Monthly Retirement Benefits

After the passage of Senate Bill 2 in the 2013 Regular Session of the General Assembly, members of the plans will no longer receive automatic annual increases of 1.5 percent on their monthly retirement benefits. Language in SB 2 did provide that a 1.5 percent cost of living adjustment could be granted if an individual plan is 100 percent funded, and subsequent legislation authorizes the use of surplus funds to provide the 1.5 percent COLA, or the General Assembly may appropriate or direct payment of funds to prefund the COLA in the year it is provided.

Service Purchases And Transfers

Members participating in the plans can transfer service for other public employment or purchase service credit as established by law, such as military service, federal service, and nonqualified service, provided certain requirements established by state statute are met. However, legislative changes in 2013 eliminated service purchases for new participants entering the plans on or after January 1, 2014, with the exception of recontributions of refunds.

Reciprocity

Members who have service in more than one retirement plan administered by the Commonwealth of Kentucky can combine service in the plans to determine eligibility for retirement. LRP members who began contributing on or after June 20, 2005, but before January 1, 2014, may also combine salary in other state retirement plans for purposes of determining final compensation (years of highest salary). Each system will pay a benefit based on the amount of service in that system or plan.

Taxation Of Benefits

Monthly benefits from all systems are subject to federal income tax. If a member made contributions with after-tax dollars (usually service purchases), then a portion of the monthly benefit at retirement will not be subject to federal income tax.

All benefits attributable to service earned on or before December 31, 1997, are exempt from Kentucky income tax. The portion of the member's benefits earned on and after January 1, 1998, is subject to Kentucky income tax. However, an annual pension exclusion of \$41,110 applies to this portion and to other retirement income sources.

2016 Legislative Changes

Three measures that directly affected the Judicial Form Retirement System passed during the 2016 Regular Session: House Bills 238, 271 and SB 113.

HB 238 established specific actuarial and financial reporting requirements for all state-administered retirement systems. The bill requires each system to perform an actuarial experience study once every 5 years and specifies study reporting requirements, including the completion of a 20-year projection of employer contributions, funding levels, and unfunded liabilities under the changes recommended by the study. The legislation also requires the actuarial valuations conducted by each system to be completed by November 15 and to include specific data such as 20-year projections of employer contributions, funding levels, and unfunded liabilities and sensitivity analysis on key actuarial assumptions. The legislation further requires the systems to perform similar 20-year projections on any changes made by the systems (for instance, board changes to retiree health benefits) and requires production of an estimated

employer rate on or before August 15 in the year immediately preceding the budget. Lastly, HB 238 requires the PPOB to retain an actuary to perform an audit of the systems actuarial assumptions at least once every 5 years and to evaluate the actuarial valuation results that establish the recommended employer contribution rates before each budget biennium.

HB 271 requires state-administered retirement systems to annually disclose to the PPOB nonidentifiable data on each member or recipient of a benefit, including retirement status and actual or projected benefits payments.

SB 113 was the JFRS housekeeping bill. It consists primarily of technical corrections resulting from SB 2, which was passed during the 2013 Regular Session. Additionally, there were some clerical changes to distill legislative intent and ensure federal law compliance.

Public Pension Oversight Board

Chapter 4

Funding And Investments

System And Plan Funding

Funding for benefits and expenses for each of the state-administered retirement systems and plans is provided through three sources: employee contributions, employer contributions, and return on investment. Employee contributions are set by state statute and do not vary. Employer contribution rates vary according to the results of actuarial valuations completed by the systems.

Employee and employer contributions include funding for retirement benefits, which is managed and invested in separate pension funds for each of the systems and plans, and funding for retiree health benefits, which is managed and most often invested in funds separate from the pension funds for each of the systems and plans, except for JRP and LRP. However, JRP and LRP each have separate funds for management and investment purposes for members in the traditional defined benefit plan and for members in the hybrid cash balance plan, who began participating on or after January 1, 2014. TRS also manages a separate life insurance fund, which receives a minimal employer contribution.

Employee Contribution Rates

The employee contribution rates are set by state statute for each of the systems and plans. Legislative changes in 2008 increased the employee contribution rate for future members of all state-administered retirement systems, while legislative changes in 2010 increased the employee contribution rate for current and future members of TRS. Table 4.1 lists the employee contribution rate, as a percentage of the employee's pay, for each system or plan.

		Employee Contribution Rate (As A Percentage Of Pay)			
System/Plan	Date Of First Participation /Structure	Pension	Health	Total	
KERS/CERS	Before Sept. 1, 2008	5%	0%	5%	
nonhazardous	On or after Sept. 1, 2008	5	1	6	
KERS/CERS	Before Sept. 1, 2008	8	0	8	
hazardous and SPRS	• On or after Sept. 1, 2008	8	1	9	
TRS	Nonuniversity employeesUniversity employees*	9.105 5.410	3.750 2.775	12.855 8.185	
JRP/LRP	Before Sept. 1, 2008	5	0	5	
	• On or after Sept. 1, 2008, but before January 1, 2014	6	0	6	
	On or after January 1, 2014	5	1	6	

Table 4.1 Employee Contribution Rates By State-Administered Retirement System/Plan

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan.

*University employers have elected to pay 2.215% of the employee contribution rate as authorized by Kentucky Revised Statute 161.565. The amount listed is the adjusted employee contribution rate.

Source: Kentucky Retirement Systems, Teachers' Retirement System, Judicial Form Retirement System.

Actuarial Valuation Process

All systems conduct an annual or semiannual actuarial valuation of the systems they administer. The purpose of the valuation, which is completed by an actuary hired by the systems, is to determine three main items:

• The amount of benefits (liabilities) to be paid out in the future. To determine the employer contribution rates and to evaluate the financial health of each system or plan, the actuary must first project the amount of benefits, or system liabilities, to be paid out in the future. These benefits are prescribed by law and regulation and, in some cases, by the board of trustees. To calculate the amount of benefits that will be paid out in the future, the actuary must make assumptions about factors that affect the system's or plan's money (such as the rate of return on investments, salary growth of employees, retiree medical inflation rates, etc.) and its people (when will people retire, how long will they live after retirement). Key actuarial assumptions include investment return, mortality rates, future medical inflation rates, and payroll growth. HB 238, passed in 2016, requires all state-administered retirement systems to perform an actuarial experience study to review the funding methods and assumptions used in the actuarial valuation, once every 5 years.

• The financial health of the systems/plans. In the valuation, the actuary reports several statistics useful in evaluating the financial health of the systems or plans as of the valuation date. The two most common actuarial statistics are the unfunded liability and the funding level, which compares the actuarially accrued liability (liability for benefits earned to date) against system assets. The unfunded liability is the dollar amount of the actuarially accrued liabilities that are not covered by system or plan assets. The funding level is the percentage of the actuarially accrued liability covered by system or

Actuarial value of assets <u>- actuarially accrued liability</u> = unfunded liabilities

Actuarial value of assets <u>
÷ actuarially accrued liability</u> = funding level

plan assets. In calculating the unfunded liabilities and funding level as of the valuation date, the actuary uses a smoothed market value known as the actuarial value of assets that smooths actual investment gains or losses over a 5-year period. Both of these statistics are affected by four main factors: the level of benefits payable in the future, the assumptions used by the systems' actuary, the systems' actual experience against those assumptions, and the level of funding made by the employer.

• The level of employer contributions: The employer contribution for each of the systems and plans includes two contributions: one to fund pension benefits and one to fund retiree health benefits. TRS also has a contribution to fund life insurance benefits. Each of these individual contributions is composed of two components: a payment for normal cost (the estimated cost of the upcoming year of service for active employees/members) and a payment to finance the unfunded liability over a specific time period or using a specific method. Employer contributions vary according to the level of unfunded liabilities and financial health of the individual system or plan. As unfunded liabilities increase (or decrease), there is an increase (or decrease) in the level of employer contribution rates needed to adequately fund the system or plan. Employer rates can also vary based on funding policies established by statute, by the biennial state budget, and in some cases by the board of trustees of the systems or plans. Actuarial valuation results are applicable to employer contributions payable in the budgeting period that follows the valuation. For example, the FY 2017 CERS employer rates were determined by the 2015 actuarial valuation.

Amortization Periods And Methods

The various systems and plans use differing amortization periods and methods for paying off unfunded liabilities in their actuarial valuations.

As required by statute, KRS amortizes unfunded liabilities over a 30-year closed period using the level percentage of payroll method and the 2013 valuation as the start of the 30-year period. The level percentage of payroll method sets amortization payments as a set percentage of projected payroll over the 30-year period, with payroll assumed to grow at a set rate each year. For all KRS pension and health funds, a 4 percent payroll growth assumption is used to project payroll. The amortization period was recently reset to a new 30-year period by Senate Bill 2, passed during

the 2013 Regular Session. In the 2015 valuation, the KRS board lowered the payroll growth assumption from 4.5 percent to 4.0 percent.

As provided by board policy, TRS amortizes pension unfunded liabilities accrued as of the 2014 actuarial valuation over a 30-year closed period using the level percentage of payroll method and the 2014 valuation as the start of the 30-year period. Any new source of unfunded liability occurring after the 2014 valuation for the pension fund is amortized over a separate 20-year closed period. However, the policy requires the pension fund to be 100 percent funded in 30 years. Unfunded liabilities of the TRS retiree health and life insurance funds are amortized over a 30-year open period using the level percentage of payroll method. For all TRS funds, a 3.5 percent payroll growth assumption is used to project payroll. In the 2016 valuation, the TRS board lowered the payroll growth assumption from 4.0 percent to 3.5 percent. The change was part of the recommendations from the 2016 TRS Experience Study, which is discussed later in this chapter.

JRP and LRP amortize unfunded liabilities by a formula set in state statute. The formula provides an amortization payment for these plans equal to the investment return assumption plus 1 percent (total of 8 percent) of the dollar value of the plan's unfunded liability.

Investment Return Assumptions

The investment return assumption, which is also the rate used to discount future liabilities in the actuarial valuation, is a key assumption in the actuarial valuation. Table 4.2 shows the actuarial assumed rate of return used in the 2016 actuarial valuation for each system or plan.

System/Plan	Pension	Health
KERS nonhazardous	6.75%	7.50%
KERS hazardous	7.50	7.50
CERS nonhazardous	7.50	7.50
CERS hazardous	7.50	7.50
SPRS	6.75	7.50
TRS	7.50	8.00
JFRS (JRP and LRP)	7.00	7.00

Table 4.2
Actuarial Assumed Rate Of Return
By State-Administered Retirement System/Plan

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; JFRS = Judicial Form Retirement System; JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan. Source: Actuarial valuations of Kentucky Retirement Systems, Teachers' Retirement System, Legislators' Retirement Plan, and Judicial Retirement Plan.

For the KERS, CERS, and SPRS pension and health funds, the investment return assumption was reduced from 7.75 percent to 7.50 percent in the 2015 valuation. In the 2016 valuation, the KERS nonhazardous and SPRS pension funds assumed rate of return dropped to 6.75 percent. There have been no recent changes to the TRS or JFRS investment return assumptions.

Financial Health Of The Systems

Tables 4.3 through 4.6 provide the 9-year historical funding levels and unfunded liabilities for each system's or plan's pension and health insurance funds, as reported in or determined from the annual actuarial valuations. This period begins with the downturn in investment markets that occurred in FY 2008 and 2009.

Funding levels for each of the system or plan pension funds have generally fallen over the 9-year period and the total unfunded liabilities for the combined pension funds have grown from \$14.6 billion to \$32.8 billion over the same period. However, some system and plan pension funds have experienced some level of stabilization in recent years. Over the same period, funding levels for each of the retiree health funds have generally improved, and unfunded liabilities for the combined retiree health funds have fallen from \$15.2 billion to \$5.9 billion.

 Table 4.3

 Pension Fund Funding Levels (% Actuarial Assets To Actuarial Liabilities)

Valuation	KERS	KERS	CERS	CERS				
Year	NH	н	NH	н	SPRS	TRS	JRP	LRP
2008	52.5%	81.3%	78.5%	72.9%	59.8%	68.2%	88.9%	104.1%
2009	45.0	74.5	71.4	67.9	54.8	63.6	72.8	71.4
2010	38.3	73.1	65.6	65.5	49.7	61.0	65.8	64.1
2011	33.3	70.8	63.1	62.2	45.0	57.4	57.0	58.4
2012	27.3	66.1	60.7	58.1	40.1	54.5	55.7	57.2
2013	23.2	64.5	60.1	57.7	37.1	51.9	55.7	57.0
2014	21.0	64.6	62.6	59.8	35.6	53.6	61.8	62.1
2015	19.0	62.2	60.3	58.0	33.8	55.3	63.5	71.4
2016	16.0	59.7	59.0	57.7	30.3	54.6	*	*

Note: KERS = Kentucky Employees Retirement System; NH = nonhazardous duty; H = hazardous duty; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan. Values for JRP and LRP do not include hybrid cash balance plan participants.

*By statute, the Judicial Form Retirement System is required to perform a full actuarial valuation only every other year to coincide with the biennial state budget, with the most recent full valuation prepared in 2015. In the 2015 valuation, information included actuarial data used for funding purposes and actuarial data used for reporting purposes under the new Governmental Accounting Standards Board (GASB) requirements that pertain to pension funds. In even years like 2016 a full actuarial valuation is not required and the board has a roll-forward valuation completed to produce actuarial data for GASB reporting purposes only. Data in Table 4.3 shows historical values for funding purposes only and as a result no values are reported for 2016. Values under the new GASB standards for 2016 are provided in the GASB 67 Reporting Requirements section of this report.

Source: Actuarial valuations of Kentucky Retirement Systems, Teachers' Retirement System, Legislators' Retirement Plan, and Judicial Retirement Plan.

Valuation	KERS	KERS	CERS	CERS				
Year	NH	Н	NH	Н	SPRS	TRS	JRP	LRP
2008	\$4.81	\$0.12	\$1.57	\$0.65	\$0.24	\$7.14	\$0.03	(\$0.00)
2009	5.86	0.17	2.26	0.83	0.27	8.51	0.08	0.02
2010	6.79	0.19	2.91	0.92	0.31	9.49	0.10	0.02
2011	7.46	0.21	3.29	1.08	0.35	11.06	0.13	0.03
2012	8.26	0.26	3.59	1.26	0.39	12.28	0.14	0.03
2013	8.75	0.28	3.74	1.32	0.41	13.85	0.15	0.03
2014	9.13	0.29	3.66	1.32	0.44	14.01	0.13	0.03
2015	10.01	0.34	4.27	1.52	0.49	13.93	0.11	0.02
2016	11.11	0.38	4.54	1.57	0.54	14.53	*	*

Table 4.4Pension Fund Unfunded Liabilities (In Billions)

Note: KERS = Kentucky Employees Retirement System; NH = nonhazardous duty; H = hazardous duty; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan. Values for JRP and LRP do not include hybrid cash balance plan participants, which are reported in a separate actuarial valuation. *By statute, the Judicial Form Retirement System is required to perform a full actuarial valuation only every other

year to coincide with the biennial state budget, with the most recent full valuation prepared in 2015. In the 2015 valuation, information included actuarial data used for funding purposes and actuarial data used for reporting purposes under the new Governmental Accounting Standards Board (GASB) requirements that pertain to pension funds. In even years like 2016, a full actuarial valuation is not required and the board has a roll-forward valuation completed to produce actuarial data for GASB reporting purposes only. Data in this table show historical values for funding purposes only, and as a result no values are reported for 2016. Values under the new GASB standards for 2016 are provided in the GASB 67 Reporting Requirements section of this report.

Source: Actuarial valuations of Kentucky Retirement Systems, Teachers' Retirement System, Legislators' Retirement Plan, and Judicial Retirement Plan.

Valuation	KERS	KERS	CERS	CERS				
Year	NH	н	NH	Н	SPRS	TRS	JRP	LRP
2008	11.1%	53.2%	32.6%	34.7%	27.9%	2.9%	92.7%	106.1%
2009	11.9	61.4	39.6	40.9	33.9	3.5	110.0	132.1
2010	10.6	63.7	40.9	41.4	27.9	7.5	103.2	123.0
2011	10.6	65.1	46.6	46.8	28.2	8.6	95.8	113.7
2012	14.3	89.9	63.8	60.7	37.2	9.4	95.6	112.3
2013	23.4	96.2	66.6	62.1	61.3	11.7	86.6	110.9
2014	27.9	105.6	70.0	66.8	66.4	15.9	95.0	119.9
2015	28.8	120.4	68.7	72.3	65.8	18.1	99.8	123.1
2016	30.3	125.3	69.6	72.9	67.2	21.9	104.7	127.3

 Table 4.5

 Retiree Health Fund Funding Levels (% Actuarial Assets To Actuarial Liabilities)

Note: KERS = Kentucky Employees Retirement System; NH = nonhazardous duty; H = hazardous duty; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan. Values for JRP and LRP do not include hybrid cash balance plan participants, which are reported in a separate actuarial valuation. Source: Actuarial valuations of Kentucky Retirement Systems, Teachers' Retirement System; Retirement Plan, and Judicial Retirement Plan.

	ne	ince mean		munucu I	habilities		115)	
Valuation	KERS	KERS	CERS	CERS				
Year	NH	н	NH	н	SPRS	TRS	JRP	LRP
2008	\$4.83	\$0.25	\$2.41	\$1.16	\$0.32	\$6.25	\$0.004	(\$0.001)
2009	3.97	0.19	1.85	0.94	0.24	6.23	(0.004)	(0.006)
2010	3.99	0.18	1.87	0.98	0.31	2.97	(0.001)	(0.004)
2011	3.83	0.18	1.64	0.88	0.31	3.13	0.002	(0.003)
2012	2.68	0.04	0.86	0.54	0.21	3.26	0.002	(0.003)
2013	1.63	0.02	0.82	0.54	0.09	3.11	0.007	(0.003)
2014	1.61	(0.02)	0.79	0.50	0.08	2.69	0.003	(0.005)
2015	1.72	(0.08)	0.91	0.42	0.09	2.89	0.000	(0.006)
2016	1.71	(0.10)	0.91	0.42	0.09	2.84	(0.003)	(0.008)

Table 4.6
Retiree Health Fund Unfunded Liabilities (In Billions)

Note: KERS = Kentucky Employees Retirement System; NH = nonhazardous duty; H = hazardous duty; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan. Values for JRP and LRP do not include hybrid cash balance plan participants, which are reported in a separate actuarial valuation. Source: Actuarial valuations of Kentucky Retirement Systems, Teachers' Retirement System, Legislators' Retirement Plan, and Judicial Retirement Plan.

GASB 67 Reporting Requirements

In 2012, the Governmental Accounting Standards Board (GASB) issued two new statements that change the way public retirement systems such as KRS, TRS, and JFRS and their participating employers report pension information. One of these statements, GASB 67, effectively divorced pension plan reporting standards from funding standards. The result is that two values may often be discussed relative to the health of a system's pension fund—one for funding purposes and one for GASB 67 reporting purposes.

For the pension funds administered by KRS, the values used for funding purposes and for reporting purposes under GASB 67 are similar.

Regarding the pension funds administered by JFRS, the values used for reporting purposes under GASB 67 in the 2015 reports were slightly higher than values used for funding purposes. In even years like 2016 a full actuarial valuation is not required and the board has a roll-forward valuation completed to produce actuarial data for GASB reporting purposes only. In the 2016 GASB reports, the LRP pension fund is 79.0 percent funded compared to 78.8 percent under the 2015 GASB reports. In the same GASB reports, the JRP values are 71.0 percent and 71.3 percent for the 2016 and 2015 reports respectively.

The TRS pension fund values for funding and reporting purposes are significantly different. For funding purposes, the TRS pension fund is 54.6 percent funded and has an unfunded liability of \$14.53 billion as of the 2016 actuarial valuation. Under the GASB 67 reporting requirements, the TRS pension fund would be 35.2 percent funded and would have a net pension liability of \$30.92 billion. The primary difference is the discount rate used to value pension liabilities, with 7.50 percent being used for funding purposes and 4.20 percent being used for GASB 67 reporting reporting purposes. The lower discount rate used in the GASB 67 computation is due to the pension plan assets being anticipated to be depleted in the future, which requires an adjustment

to the discount rate under these reporting standards. Currently, the TRS pension fund is anticipated to deplete all assets by FY 2039. If a funding plan is developed for the TRS pension plan so that plan assets are not anticipated to deplete in the future, then the reported values under GASB 67 will more closely resemble the values used for funding purposes.

2016 TRS Experience Study

Statute requires TRS to complete an actuarial experience study at least once every 5 years. The purpose of the experience study is to evaluate the current assumptions and funding methods (what was supposed to happen) against the experience of the systems (what actually happened) and to determine whether changes to assumptions and methods should be adopted.

The TRS board of trustees received recommendations for changes from its consulting actuary, Cavanaugh MacDonald, and adopted the changes in September 2016. The key changes adopted included reducing the price inflation assumption from 3.5 percent to 3.0 percent, reducing wage inflation from 4.0 percent to 3.5 percent, and increasing the real rate of return assumption from 4.0 percent to 4.5 percent. Other demographic changes, such as changes to withdrawal, mortality and disability rates, were made as well.

Assuming there are no other actuarial gains or losses, the net impact of the changes to the unfunded liability from the 2015 valuation was a decrease of \$285.25 million for the pension fund, while the changes served to increase the unfunded liability for the retiree health and life insurance funds at total of \$138.02 million.

The assumption changes adopted by the TRS Board of Trustees were made effective for the 2016 actuarial valuation and will affect recommended employer contribution rates requested in FY 2019 and after. The Public Pension Oversight Board received an update on the adopted changes during the November meeting when TRS staff provided results of the 2016 actuarial valuations.

KERS, CERS, And SPRS Employer Rates

Employer contribution rates paid by participating KRS agencies differ by retirement system and fluctuate based on the financial health of the individual system as determined by the actuarial valuation and the funding policies established by statute and by the board of trustees.

For KERS and SPRS, employer contribution rates established by the KRS board vary every 2 years to coincide with the state's biennial budgeting process.^a The current state biennial budget provides funding for the employer contribution rate established by the KRS board for FY 2017 and 2018 for KERS and SPRS (using an assumed investment return of 6.75 percent), while also providing a supplemental general fund appropriation to the systems in excess of the annual required contribution (ARC). The supplemental appropriation totaled \$58.2 million and \$67.6 million for the KERS nonhazardous pension fund in FY 2017 and FY 2018, respectively, while \$15 million and \$10 million was budgeted for the hazardous plan over the same time

^a Senate Bill 2 provided that the Kentucky Retirement Systems Board of Trustees could only amend the KERS and SPRS employer contribution rates every 2 years to coincide with the biennial state budget. This change was effective with KERS and SPRS employer contribution rates payable on or after July 1, 2014.

rubic rension oversight board

frame. For the SPRS plan, an additional contribution of \$25 million was appropriated in FY 2017 and \$10 million in FY 2018.

FY 2018 represents the fourth consecutive year that the budgeted amount has met or exceeded the rate established by the KRS board. However, the six biennial budgets prior to FY 2015 provided a rate less than the amount established by the KRS board. Tables 4.7 to 4.11 show the KERS and SPRS employer contribution rates established by the KRS board of trustees and the amount provided in the biennial state budget from FY 2009 to FY 2018.

Fiscal Year	Rate			
Ended	Pension	Retiree Health	Total	Total Budgeted Rate
2009	16.54%	12.06%	28.60%	10.01%
2010	18.96	12.33	31.29	11.61
2011	21.77	16.81	38.58	16.98
2012	24.30	16.41	40.71	19.82
2013	28.03	16.52	44.55	23.61
2014	32.57	12.71	45.28	26.79
2015	30.84	7.93	38.77	38.77
2016	30.84	7.93	38.77	38.77
2017	38.93	8.35	47.28*	48.59
2018	38.93	8.35	47.28*	49.47

Table 4.7KERS Nonhazardous Employer Contribution RatesSince FY 2009 As A Percentage Of Payroll

Note: KERS = Kentucky Employees Retirement System; KRS = Kentucky Retirement Systems.

*For FY 2017 and FY 2018, the Kentucky Employees Retirement System (KERS) nonhazardous employer rate established by the KRS board, in accordance with the 2015 actuarial valuation, was 47.28 percent of payroll. The KRS board decided to lower the investment return assumption for the KERS nonhazardous pension fund from 7.50 percent to 6.75 percent per annum for this fund prospectively but indicated that, if the 2015 valuation used the new assumption, the recommended employer rate for the system in FY 2017 would increase to 48.59 percent of pay, which was the rate provided for in the biennial budget. The rate in FY 2018 is a projected rate KRS provided to the General Assembly to show what the actuarially required contribution would be if the rate could change in the second year of the biennium and also assuming the lower investment return assumption of 6.75 percent.

Source: Kentucky Retirement Systems.

For FY 2016, the dollar value of the employer contributions for KERS nonhazardous totaled \$648.9 million, which represented a decrease of \$8.7 million from the FY 2015 total of \$657.6 million.

Fiscal Year	Rate	e Established By KRS Bo	Established By KRS Board		
Ended	Pension	Retiree Health	Total	Total Budgeted Rate	
2009	10.84%	23.94%	34.78%	24.35%	
2010	11.98	23.56	35.54	24.69	
2011	14.11	20.26	34.37	26.12	
2012	14.11	19.73	33.84	28.98	
2013	16.16	19.73	35.89	29.79	
2014	17.00	11.84	28.84	32.21	
2015	16.37	9.97	26.34	26.34	
2016	16.37	9.97	26.34	26.34	
2017	21.08	2.74	23.82	23.82	
2018	21.08	2.74	23.82	23.70*	

Table 4.8KERS Hazardous Employer Contribution RatesSince FY 2009 As A Percentage Of Payroll

Note: KERS = Kentucky Employees Retirement System; KRS = Kentucky Retirement Systems.

*For FY 2017 and FY 2018, the KERS hazardous employer rate established by the KRS board, in accordance with the 2015 actuarial valuation, was 23.82 percent of payroll. The rate in FY 2018 is a projected rate KRS provided to the General Assembly to show what the actuarially required contribution would be if the rate could change in the second year of the biennium. This lower rate was adopted by the General Assembly for FY 2018. Source: Kentucky Retirement Systems.

For FY 2016, the dollar value of the employer contributions for KERS hazardous totaled \$40.5 million, which represented a decrease of \$2.9 million from the FY 2015 total of \$43.4 million.

Fiscal Year	Rate Established By KRS Board			
Ended	Pension	Retiree Health	Total	Total Budgeted Rate
2009	32.39%	27.75%	60.14%	30.07%
2010	35.23	26.64	61.87	33.08
2011	35.74	49.89	85.63	45.54
2012	39.80	54.83	94.63	52.13
2013	47.48	55.93	103.41	63.67
2014	53.35	43.17	96.52	71.15
2015	53.90	21.86	75.76	75.76
2016	53.90	21.86	75.76	75.76
2017	66.47	18.87	85.34*	89.21
2018	66.47	18.87	85.34*	91.24

Table 4.9SPRS Employer Contribution RatesSince FY 2009 As A Percentage Of Payroll

Note: SPRS = State Police Retirement System; KRS = Kentucky Retirement Systems.

*For FY 2017 and 2018, the SPRS employer rate established by the KRS board, in accordance with the 2015 actuarial valuation, was 85.34 percent of payroll. However, the KRS board decided to lower the investment return assumption for the SPRS pension fund from 7.50 percent to 6.75 percent per annum for this fund prospectively but indicated that, if the 2015 valuation used the new assumption, the recommended employer rate for the system in FY 2017 would increase to 89.21 percent, which was the rate provided for in the biennial budget. The rate in FY 2018 is a projected rate KRS provided to the General Assembly to show what the actuarially required contribution would be if the rate could change in the second year of the biennium and also assuming the lower investment return assumption of 6.75 percent.

Source: Kentucky Retirement Systems.

For FY 2016, the dollar value of the employer contributions for SPRS totaled \$36.1 million, which represented a decrease of \$6.3 million from the FY 2015 total of \$42.4 million.

As shown in Tables 4.10 and 4.11, the CERS employer contribution rates established by the KRS board of trustees vary annually according to the results of the most recently completed actuarial valuation. Of the total employer contribution rate, the pension contribution is paid at the full actuarially determined rate, but the retiree health contribution is being phased in to the full actuarially determined rate through FY 2018 based on the 10-year schedule established by House Bill 117 passed in 2009.

Fiscal Year Ended	Pension	Retiree Health	Total
2009	7.76%	5.74%	13.50%
2010	8.62	7.54	16.16
2011	10.03	6.90	16.93
2012	11.70	7.26	18.96
2013	12.62	6.93	19.55
2014	13.74	5.15	18.89
2015	12.75	4.92	17.67
2016	12.42	4.64	17.06
2017	13.95	4.73	18.68
2018	14.48	4.70	19.18

Table 4.10CERS Nonhazardous Employer Contribution RatesSince FY 2009 As A Percentage Of Payroll

Note: CERS = County Employees Retirement System.

Source: Kentucky Retirement Systems.

For FY 2016, the dollar value of the employer contributions to CERS nonhazardous totaled \$395.9 million, which represented a decrease of \$6.3 million from the FY 2015 total of \$418.0 million.

Fiscal Year Ended	Pension	Retiree Health	Total
2009	15.04%	14.46%	29.50%
2010	16.11	16.86	32.97
2011	16.79	16.46	33.25
2012	17.91	17.85	35.76
2013	20.10	17.50	37.60
2014	21.77	13.93	35.70
2015	20.73	13.58	34.31
2016	20.26	12.69	32.95
2017	21.71	9.35	31.06
2018	22.20	9.35	31.55

Table 4.11CERS Hazardous Employer Contribution RatesSince FY 2009 As A Percentage Of Payroll

Note: CERS = County Employees Retirement System.

Source: Kentucky Retirement Systems.

For FY 2016, the dollar value of the employer contributions to CERS hazardous totaled \$173.3 million, which represented a decrease of \$6.6 million from the FY 2015 total of \$179.9 million.

TRS Employer Rates

TRS employer contribution rates, shown in Table 4.12, differ for nonuniversity and university employers. The TRS employer rates for FY 2017 and KY 2018 include the following:

- A fixed statutory rate payable by participating employers. Before the passage of HB 540 in 2010, nonuniversity employers paid a fixed statutory rate of 13.105 percent, which was and is financed primarily by state appropriations. Since the passage of House Bill 540^b in 2010, nonuniversity employers must also contribute up to 3.0 percent of pay toward retiree health funding, resulting in a total fixed statutory rate to 16.105 percent of pay. For university employers, the equivalent statutory rate is 13.650 percent of pay.
- A state special contribution for both nonuniversity and university employers that consists of state appropriations to TRS to pay amortized payments for specific benefits such as ad hoc COLAs awarded in prior years, minimum benefit provisions, and the costs of additional pension benefits for accumulated sick leave payments made by local school districts for retiring employees. The amount of this contribution changes annually as additional sick leave costs are added and as amortized payments for prior ad hoc COLAs and minimum benefit provisions are paid off. As a percentage of payroll, the values for FY 2017 and FY 2018 equals 2.70 percent and 2.94 percent of pay, respectively.
- A required increase in the employer contribution rate that TRS has requested be paid by state appropriations for all nonuniversity and university employers equal to 13.800 percent of pay and 13.490 percent in FY 2017 and FY 2018, respectively, to help fund the pension fund on an actuarially sound basis. TRS began requesting this additional funding in FY 2007. Before FY 2017, the required increase in employer contribution had been provided only in FY 2007 and FY 2008. The current state biennial budget has provided for a significant portion of the required increase in FY 2017 and FY 2018. General fund appropriations of \$498.5 million and \$474.8 million were budgeted for 2017 and 2018, respectively. The current biennial budget results in approximately 96 percent and 93 percent of the additional funding needed for the 2 fiscal years. Table 4.13 provides a breakdown of this required increase request since 2009.

	Employer Rates					
	Nonuni	iversity	University			
ltem	FY 2017	FY 2018	FY 2017	FY 2018		
Statutory rate	16.105%	16.105%	13.650%	13.650%		
State special	2.700	2.940	2.700	2.940		
Required increase	13.800	13.490	13.800	13.490		
Total	32.605%	32.535%	30.150%	30.080%		

Table 4.12TRS Employer Contribution Rates As A Percentage Of Payroll

Note: TRS = Teachers' Retirement System.

Source: June 30, 2015, and June 30, 2016, TRS actuarial valuations.

^b Under HB 540, nonuniversity employers phased into a 3.0 percent employer contribution rate over a 6-year period to help fund retiree health benefits and university employers phased into a 2.775 percent employer contribution rate over a 6-year period to help fund retiree health benefits.

In addition to these contributions, the state is also required as part of HB 540 to pay the cost of coverage of members who retire on or after July 1, 2010, who are not eligible for Medicare. For FY 2016, the additional appropriation for the premium payment totaled \$52.5 million. In total, the dollar value of all TRS employer contributions, which included the statutory rate, the state special contribution, and the health cost payments made by the state, totaled \$745.1 million in FY 2016. This represented an increase of \$39.2 million from the FY 2015 total of \$705.9 million. With the additional appropriations provided in the biennial budget for FY 2017 and FY 2018, total employer contributions to TRS are anticipated to exceed \$1.2 billion each year. Based on the 2016 valuation results, the FY 2019 request from TRS is anticipated to be 14.61 percent of pay or roughly \$553.6 million.

Table 4.13
TRS Requests For The Required Increase In Employer Contribution Rates Since 2009

Fiscal Year Ended	% Of Payroll	Dollar Value Requested	Dollar Value Appropriated
2009	1.88%	\$60,499,800	Not provided
2010	2.46	82,331,200	Not provided
2011	3.59	121,457,000	Not provided
2012	5.81	208,649,000	Not provided
2013	7.27	260,980,000	Not provided
2014	8.02	299,420,000	Not provided
2015	10.42	386,400,000	Not provided
2016	12.97	487,400,000	Not provided
2017	13.80	520,372,000	\$498,537,600
2018	13.49	512,883,000	474,724,700

Note: TRS = Teachers' Retirement System.

Source: June 30, 2016, TRS actuarial valuation and 2016-2018 biennial state budget.

JRP And LRP Employer Rates

Employer contribution rates, which are paid by state appropriations to JRP and LRP, differ according to the financial health of each individual plan as determined by the actuarial valuation and the funding policies established by statute and by the board of trustees.

For JRP and LRP, employer contribution rates established by the JFRS board of trustees vary every 2 years to coincide with the state's biennial budgeting process. The current state biennial budget provided the employer contribution rate established by the JFRS board of trustees for FY 2017 and FY 2018 for JRP and LRP in accordance with state statute and as recommended by the 2015 actuarial valuation. FY 2018 represents the fourth consecutive year the budgeted amount has met the actuarially required rate. However, the two biennial budgets occurring from FY 2011 to FY 2014 provided for an employer contribution rate less than the amount established by the JFRS board of trustees. Table 4.14 shows the JRP and LRP employer contribution rates, as a percentage of payroll, established by the JFRS board of trustees and the amount provided in the biennial state budget from FY 2009 to FY 2018.

	JRP Emplo	oyer Rates	LRP Emplo	yer Rates
Fiscal Year	Rate Established		Rate Established	
Ended	By Board	Budgeted Rate	By Board	Budgeted Rate
2009	16.57%	16.57%	8.00%	8.00%
2010	16.57	16.57	8.00	8.00
2011	36.80	16.19	43.50	19.14
2012	36.80	17.66	43.50	20.88
2013	48.57	25.74	61.91	32.81
2014	48.57	27.68	61.91	35.29
2015	49.77	49.77	67.49	67.49
2016	49.77	49.77	67.49	67.49
2017	41.57	41.57	49.23	49.23
2018	41.23	41.23	49.23	49.23

Table 4.14JRP And LRP Employer Contribution RatesSince FY 2009 As A Percentage Of Payroll

Note: JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan.

Source: Judicial Form Retirement System

For FY 2016, the dollar value of the employer contributions paid to JRP totaled \$16.58 million, which represented a decrease of \$0.12 million from the FY 2015 total of \$16.70 million. For LRP, the dollar value of the employer contributions paid to in FY 2016 totaled \$3.39 million, which represented an increase of \$0.01 million from the FY 2015 total of \$3.38 million.

Sensitivity Analysis

Under the provisions of HB 238, all state-administered pension plans are required to incorporate sensitivity analysis into actuarial valuations to show the impact of changing key actuarial assumptions such as the assumed rate of investment return and the payroll growth rate.

JFRS is required to perform an actuarial valuation for funding purposes only every other year, with the most recent funding valuation completed in 2015 before passage of the new requirements. JFRS plans to include the required analysis in its 2017 valuation. Statute requires KRS and TRS to conduct an annual actuarial valuation, and the 2016 valuations included analysis on how sensitive costs are to three primary economic assumptions: investment return, rate of inflation, and payroll growth.

Relative to the investment return assumption for the KERS nonhazardous pension fund, the analysis showed that reducing the assumed return from 6.75 percent to 5.75 percent would reduce the funding level from 16 percent to 14.4 percent, increase unfunded liabilities by an additional \$1.4 billion, and require additional employer contributions of 2.3 percent of pay. For the TRS pension fund, reducing the assumed return from 7.5 percent to 6.5 percent would decrease the funding level from 54.6 percent to 48.9 percent, increase unfunded liabilities by an additional \$3.75 billion, and require additional employer contributions of 8.41 percent of pay.

Relative to the payroll growth assumption for the KERS nonhazardous pension fund, the analysis showed that reducing the payroll growth assumption from 4 percent to 2 percent would not immediately affect the funding level or unfunded liabilities but would require an additional employer contribution of 9.6 percent of pay. Reducing the payroll growth assumption from 4 percent to 0 percent would require an additional employer contribution of 20.7 percent of pay.

For the TRS pension fund, the analysis showed that reducing the payroll growth assumption from 3.5 percent to 2 percent would not immediately affect the funding level or unfunded liabilities but would require an additional employer contribution of 4.5 percent of pay. Reducing the payroll growth assumption from 3.5 percent to 0 percent would require an additional employer contribution of 11.2 percent of pay.

2016 Audited Financial Statements

For the fiscal year ended June 30, 2016, the combined net plan assets of all system or plan pension funds fell by \$2.0 billion, to a combined total market value of \$28.02 billion. Individually, the two JFRS funds experienced slight gains, while the KRS and TRS systems experienced a decline in assets. Table 4.15 shows pension net plan assets at the beginning of year and end of year for the fiscal year ended June 30, 2016, and the additions and deductions that resulted in the net plan asset change over the year.

	KERS	KERS	CERS	CERS				
	NH	Н	NH	н	SPRS	TRS	LRP	JRP
Net plan assets (BOY)	\$2,328	\$552	\$6,441	\$2,078	\$247	\$18,049	\$60	\$265
<u>Additions</u>								
Employee contributions	\$102	\$15	\$134	\$52	\$5	\$313	<\$1	\$2
Health ins. contributions	5	1	8	1	<1	-	-	-
Employer contributions	513	24	284	105	26	565	3	15
Net investment income	(21)	(2)	(41)	(9)	(4)	(245)	2	9
Total additions	\$599	\$38	\$385	\$149	\$27	\$633	\$6	\$26
Deductions								
Benefit payments	\$923	\$59	\$651	\$213	\$56	\$1,833	\$4	\$23
Refunds	12	2	14	3	<1	27	-	-
Administrative expenses	11	1	20	1	<1	9	<1	<1
Total deductions	\$946	\$62	\$685	\$217	\$56	\$1,869	\$4	\$23
Net plan assets (EOY)	\$1,980	\$528	\$6,141	\$2,010	\$218	\$16,813	\$62	\$268

 Table 4.15

 Pension Fund Net Plan Assets And Changes In Net Plan Assets (In Millions)

Note: KERS = Kentucky Employees Retirement System; NH = nonhazardous duty; H = hazardous duty; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; LRP = Legislators' Retirement Plan; JRP = Judicial Retirement Plan; BOY = beginning of year; EOY = end of year. The Health Insurance (Ins.) contribution is the 1 percent of pay contribution made by employees who began participating in the KRS systems on or after August 1, 2008, as provided in 2008 HB 1. The employee contribution, while required to be part of the pension trust assets, is used to fund retiree health benefits. KERS, CERS, and SPRS employer contributions include pension spiking charges. The Bank of America Settlement proceeds for KRS are not listed separately above but are included in the net investment income.

Source: June 30, 2016, KRS Annual Report, TRS Audit Report, and JFRS Audit Report.

For the fiscal year ended June 30, 2016, the combined net plan assets of all state-administered retiree health funds increased by \$95 million to \$5.1 billion. Individually, the TRS and two JFRS systems experienced a growth in assets, but KRS systems largely experienced very minimal declines. Retiree health net plan assets at the beginning of year and end of year for the fiscal year ended June 30, 2016, and the additions and deductions that resulted in the net plan asset change over the year, appear in Table 4.16 for each system and plan.

Chapter 4

	KERS	KERS	CERS	CERS				
	NH	Н	NH	н	SPRS	TRS	LRP	JRP
Net plan assets (BOY)	\$666	\$439	\$1,921	\$1,056	\$165	\$627	\$37	\$68
Additions								
Employee contributions	<\$1	<\$1	\$1	<\$1	<\$1	\$184	<\$1	<\$1
Employer contributions	136	16	111	67	10	178	<\$1	1
Net investment income	(4)	(1)	(1)	1	<1	(9)	1	2
Total additions	\$132	\$16	\$111	\$69	\$10	\$354	\$1	\$4
<u>Deductions</u>								
Health care subsidies	\$126	\$17	\$118	\$69	\$14	\$288	\$1	\$2
Other deductions	2	<1	4	<1	<1		<1	<1
Administrative expenses	1	<1	1	<1	<1	2	<1	<1
Total deductions	\$129	\$17	\$123	\$69	\$14	\$290	\$1	\$2
Net plan assets (EOY)	\$669	\$437	\$1,909	\$1,056	\$161	\$734	\$39	\$70

Table 4.16 Retiree Health Fund Net Plan Assets And Changes In Net Plan Assets (In Millions)

Note: KERS = Kentucky Employees Retirement System; NH = nonhazardous duty; H = hazardous duty; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; LRP = Legislators' Retirement Plan; JRP = Judicial Retirement Plan; BOY = beginning of year; EOY = end of year. KERS, CERS, and SPRS employer contributions include retired reemployed health care contributions by employers. KERS, CERS, and SPRS employee contributions include health premiums paid by retirees. Source: June 30, 2016, Kentucky Retirement Systems Annual Report, Teachers' Retirement System Audit Report, and Judicial Form Retirement System Audit Report.

2016 Investments And Investment Performance

As outlined in KRS 7A.250, the Public Pension Oversight Board conducted a review of the state-administered retirement systems investment program. The review analyzed asset allocation, performance and volatility, policies, fees and expenses, and securities litigation. In addition to this review, members also heard quarterly investment updates from each retirement system, as well as testimony from outside investment consultants R.V. Kuhns, Aon Hewitt, and CEM Benchmarking Inc.

State-Administered Retirement Systems Funds

KRS manages two separate pension and retiree health funds for each of the five separate systems it administers. Assets are managed both internally by KRS investment staff and externally by investment managers. The KRS board of directors has authorized and directed a five-member investment committee required by statute to manage the investment portfolios in accordance with approved policies.

TRS manages separate pension and retiree health funds for the system it administers. Assets are managed both internally by investment staff and externally by investment managers. The TRS board of trustees has authorized and directed a five-member investment committee to manage the

investment portfolios in accordance with approved policies and statutes. Two additional nonvoting members added by the TRS board with investment experience also serve on the committee.

JFRS is responsible for managing separate funds for the JRP and LRP, with each plan having a fund for the traditional defined benefit plan and the hybrid cash balance plan. Assets are managed by a single external investment manager. Statute provides for a five-member investment committee for each plan to manage and oversee the investment portfolios in accordance with approved policies and statutes.

Asset Allocation

Assets are diversified across various assets classes as determined by the investment committees and boards of trustees of each fund. For KRS and TRS, target asset allocations are driven by Asset Liability Studies, which are conducted typically every 5 years by a third-party consultant. Asset classes currently used by all systems include traditional public markets such as equities and fixed income, while KRS and TRS also invest in alternative assets, which include absolute return, real return, and private equity.

Table 4.17 shows actual and targeted asset allocations for all pension funds as reported in the system or plans financial statements, along with those for two available peer groups.

	Sta	ate-Admi	lans	Peer Groups		
	KRS	TRS	LRP	JRP	LRC	Cliffwater
Public markets	64.7%	85.5%	100.0%	100.0%	70.8%	73.0%
 US equity 	26.0	42.9	73.6	74.3		
 Non-US equity 	25.0	19.2	0.0	0.0		
Fixed income	13.7	23.4	26.4	25.7		
Alternative markets	33.5	12.8	0.0	0.0	27.8	24.0
Real estate	4.7	5.6	0.0	0.0		
Absolute return	10.2	0.0	0.0	0.0		
Real return	8.4	1.0	0.0	0.0		
Private assets	10.2	6.2	0.0	0.0		
Cash	1.8	1.7	0.0	0.0	1.4	3.0

Figure 4.17 Pension Fund Asset Allocation, June 30, 2016

Note: LRC = data from Legislative Research Commission staff review of public pension plan asset allocations.

Source: LRC Annual Investment Review, September 2016.

As shown in the table, the KRS funds had a higher allocation to less traditional alternative asset classes, while the TRS and JFRS funds have above average exposure to public equity and fixed income. According to *An Examination of State Pension Performance: 2006 to 2015 Report* conducted by Cliffwater LLC, a state plan's average exposure to alternative assets was 24 percent, while publicly listed assets accounted for 73 percent of assets. In addition, a

Legislative Research Commission staff review of public pension plan asset allocations, which included 34 of 50 state employee plans, revealed similar results.

Investment Performance

Pension and retiree health fund performance for each retirement system over the 1-, 3-, 5-, and 10-year periods for the fiscal year ended June 30, 2016, appears in Table 4.18.

The KRS pension and retiree health funds provided slightly negative returns during the fiscal year ending June 30, 2016. In addition, both the pension and retiree health funds fell short of their policy benchmark, posting returns of -0.5 percent and -0.1 percent, respectively. Over the most recent 3-, 5-, and 10-year trailing periods, both funds have fallen short of policy benchmarks and struggled to keep pace with the 6.75 percent or 7.75 percent assumed rate of return^c.

The TRS pension and retiree health funds provided negative single-digit results during the fiscal year. The pension fund, which fell 1.3 percent, also struggled against its policy benchmark return during the 1-year period. Over the most recent 3-, 5-, and 10-year trailing periods, the pension fund has fallen short of policy benchmarks and struggled to keep pace with the 7.50 percent assumed rate of return. The TRS retiree health fund was established by HB 540 in April of 2010. Given its limited size and cash flow position, strategic asset allocation targets were not established until the 2015 fiscal year and performance was not benchmarked before that date. For the 2016 fiscal year, the retiree health care fund posted a gross return of -1.7 percent. The fund has returned 4.8 percent over the most recent 3-year period.

The two underlying JFRS systems posted positive absolute returns during the fiscal year ending June 30, 2016, but struggled to keep pace with their policy benchmarks. The two plans manage all pension and retiree health care assets in aggregate; thus returns between the two funds are identical. Over the most recent 3-, 5-, and 10-year periods, both funds have exceeded the return of their policy benchmarks and the 7.0 percent actuarially assumed rate of return.

^c The assumed rate of return beginning July 1, 2015, for all KRS pension and retiree health funds was reduced from 7.75 percent to 7.50 percent and beginning July 1, 2016, to 6.75 percent for the KERS nonhazardous and SPRS pension funds.

Public Pension Oversight Board

	Per	Pension Funds, Years				Retiree Health Funds, Years				
	1	3	5	10	1	3	5	10		
KRS Total Fund (N)	-0.5%	5.5%	5.4%	5.0%	-0.1%	5.4%	4.8%	4.3%		
Benchmark	-0.2	5.6	5.7	5.4	0.0	5.9	5.8	4.8		
TRS Total Fund	-1.3	6.9	7.3	6.1	-2.1	4.6	4.4	N/A		
Benchmark	1.5	7.2	7.5	N/A	-0.5	N/A	N/A	N/A		
LRP Total Fund**	3.5	9.9	12.0	8.0	3.5	9.9	12.0	8.0		
Benchmark	4.3	9.1	9.4	6.8	4.3	9.1	9.4	6.8		
JRP Total Fund**	3.3	9.7	11.9	7.9	3.3	9.7	11.9	7.9		
Benchmark	4.3	9.1	9.4	6.8	4.3	9.1	9.4	6.8		

Figure 4.18 Pension Fund Investment Returns, June 30, 2016

Note: The TRS medical trust was established by HB 540 in April 2010. Because of its size and cash flow position, FY 2015 was the first year strategic targets and ranges were established for the fund. FY 2016 was the first year a policy benchmark was measured for the fund.

(N) = net returns are reported after all fees are paid.

** 1-Year Returns are NET of fee, longer term are gross.

Source: Kentucky Retirement Systems, Teachers' Retirement System, and Judicial Form Retirement System.

In addition to evaluating each system relative to stated policy benchmarks, the Public Pension Oversight Board reviewed investment results against other public fund peer groups: R.V. Kuhns, Wilshire TUCS, and BNY Mellon. Table 4.19 includes median results from three publicly available peer groups, as well as an LRC staff-generated peer group consisting of only US state employee plans. The results reflect a volatile decade that included a significant market downturn.

	1-Year	3-Year	5-Year	10-Year
LRC Calculated	0.6%	6.9%	6.7%	5.7%
R.V. Kuhn's	0.6	6.3	6.4	5.6
Wilshire TUCS	1.0	7.0	7.0	6.0
BNY Mellon	0.6	-	6.4	5.7

Figure 4.19 Peer Group Median Investment Returns, June 30, 2016

Note: Returns are reported gross of (or before) fees are applied. "LRC Calculated" includes 34 plans. Source: LRC Annual Investment Review, September 2016.

Investment Expense

Table 4.20 shows pension and retiree health care fund investment expense for the fiscal year ended June 30, 2016.

For KRS, expenses totaled \$123.2 million for the pension and insurance funds for the fiscal year, or 82.4 basis points (1 basis point = 1 percent of 1 percent). KRS expenses included management fees, profit sharing, or carried interest arrangements, but did not include expenses related to underlying fund of fund relationships. Combined pension and insurance expenses for TRS equaled \$49.9 million, or 28.6 basis points during the fiscal year. Recorded fees for TRS did include management or directly invoiced fees but did not include any performance-related

agreements, profit sharing, or fund of fund fees. Total fees for JFRS during the fiscal year were \$278,900 or 6.4 basis points. All JFRS pension and insurance assets are managed together by a single investment manager; separate fees for pension and insurance are not recorded.

	KRS				TRS		JFRS		
	Assets	Fees*	BPS	Assets	Fees**	BPS	Assets	Fees	BPS
Pension									
Global equity	\$5,480.8	\$9.8	17.9	10,431.1	13.5	12.9	323.7	0.2	6.0
Private assets	1,096.3	42.7	389.3	1,275.4	18.6	145.5	-	-	-
Real return	908.3	7.4	81.7	169.6	1.5	90.1	-	-	-
Real estate	509.0	10.8	213.0	940.9	7.0	74.5	-	-	-
Fixed income	1,468.6	7.7	52.6	3,686.4	3.5	9.4	113.1	0.1	6.0
Absolute return	1,091.6	7.2	66.3	-	-	-	-	-	-
Cash/other***	189.4	3.1		294.4	3.7		-	<0.1	-
Total pension	10,744.0	88.8	82.6	16,797.8	47.7	28.4	436.8	0.3	6.4
Total insurance fund	4,200.1	34.4	81.9	607.2	2.2	35.8	-	-	-
Combined fees	14,944.2	123.2	82.4	17,405.1	49.9	28.6	436.8	0.3	6.4

Figure 4.20 Investment Expense By System, June 30, 2016 (In Millions)

Note: Numbers may not add up to totals shown, due to rounding.

* Fees include performance and carried interest fees.

**Fees do not include performance and carried interest fees.

***Other includes consultants, custody, legal and other investment operational expenses.

Source: Data from Kentucky Retirement Systems, Teachers' Retirement System, and Judicial Form Retirement System.

Investment Expense Disclosure And Trends

LRC staff provided a review of trends and discussed challenges confronting pension funds, including the reporting of investment expenses. The topic has been a point of discussion across the industry, and demand for more transparency has raised attention. Many states, including Kentucky, have seen proposed legislation introduced in an attempt to create more consistency and disclosure. LRC staff's presentation provided an introduction to the topic, review of fee structures and ways plans are reporting those expenses, along with a comparison of peers across the nation.

Staff began by discussing the lack of clear reporting standards within the industry, specifically as it relates to alternative asset strategies. Current GASB language has created ambiguity, which has led to a wide variety of reporting within the industry and makes relative comparisons across plans and states very difficult. Staff introduced an LRC Peer group, which included 35 state employee pension funds and highlighted a very wide range of reporting currently experienced. While a plan asset allocation or use of internal management could drive total expenses, much of

Legislative Research Commission

Public Pension Oversight Board

the dispersion was being driven by use of alternative assets and how plans chose to report those expenses.

Given the impact of alternative investments, staff provided a review of fee structures often used within the industry, including directly invoiced management fees, profit sharing or carried interest arrangements, and other expenses that might include fund of fund fees. Staff noted the complexity of the agreements and how reporting is not always complete or easily understood. Staff included a summary of terms often found in private equity, hedge funds, or real estate investments and provided examples of how the investments operate and expenses are incurred. Staff reviewed three primary categories of reporting seen in the industry, identifying a few peers to provide examples of the variety of reporting and disclosure.

Lastly, staff discussed the benefits and difficulties with standardizing the reporting process and called attention to a recently released fee reporting template created by the Institutional Limited Partners Association (ILPA). Capturing the total cost of an investment would remove concerns over transparency and allow for more accurate performance review, but the process is very manual, is time consuming, and currently places the burden on plan sponsors to collect.

KRS Pension Administration Benchmarking Report

The PPOB heard testimony from CEM Benchmarking, a third-party global benchmarking company that conducted a pension administration study for the KRS pension system. The study evaluated KRS administrative costs and service levels compared to a custom peer group and a larger universe of all CEM clients. The study excluded costs attributed to administering the retiree health care funds, as most systems in the industry do not administer health care cost.

The analysis found that KRS' total pension administration cost per member was below both the average and median of the peer groups. The below average cost was driven partially by economies of scale: lower transaction cost per member and lower transaction cost per full-time employee. KRS' total service level score from the analysis fell below the peer median score. Several factors contributed to the below-average service score, including wait time for members calling the systems, prolonged turnaround time for written retirement estimates, and the number of layers required to reach an employee when calling the systems. CEM did note that multiple plans, benefit tiers and customization choices made KRS one of the more complex systems in the nation.

Chapter 5

2016 Public Pension Oversight Board Meetings

Testimony Before The Board

During 2016, the PPOB met 10 times. Board members received testimony regarding benefits, funding, and investments at multiple meetings. Benefits, funding, and investment summaries and issues related to these subjects are included in Chapters 1 to 4 of this report. The board also reviewed issues relative to KRS employer participation trends and voluntary cessation of participation, reviewed transparency trends within the industry, and received testimony and recommendations from various outside interest groups. A summary of these additional issues and testimony is provided below.

KRS Participation Trends And Use Of Contract Employees

The PPOB received testimony from KRS staff regarding agency participation trends, specifically the use of contract employees. This testimony was in response to a 2015 recommendation made by the PPOB that required KRS to study issues related to agency and employee participation issues. KRS collected membership and payroll data covering the prior 4 fiscal years, which did reflect a decline in both members and payroll for the KERS nonhazardous plan. The majority of the decline could be directly attributed to a reduction in the number of reported employees from three agency classes, including regional mental health units, health departments, and universities.

KRS representatives testified that there were several contributors to this trend. Most notably, within the regional mental health unit, much of the decline is related to the departure of two large employers: Seven Counties Services and Kentucky River Community Care. In addition, although complete information was not available, KRS did find instances where it appears participating agencies are sourcing independent contractors (Commonwealth Office of Technology, Food Services, and Corrections). KRS staff indicated that more research would be needed before any correlation could be determined between the use of contracted providers and the declining participation trends.

KRS Employer Cessation Of Participation

The PPOB heard an update from KRS staff regarding the implementation of House Bill 62 from the 2015 Regular Session. HB 62 was enacted to provide certain employers in KERS or CERS the ability to cease participation voluntarily, while also providing a mechanism for KRS to involuntarily stop participation, if necessary, to comply with Internal Revenue Service regulations or in the case of an agency that failed to comply with statutory requirements. HB 62 provided that each exiting employer pay the full actuarial cost of withdrawal and also pay all administrative expenses. KRS promulgated an administrative regulation (105 KAR 1:145) that created the process of voluntary withdrawal.

KRS staff gave a timeline and overview of the voluntary cessation process, which is expected to take approximately 15 to 18 months from the initial application deadline in December of each year. The process includes an initial notice to employees of the filing agency, a 60-day voluntary refund window, and an actuarial study to determine the full actuarial cost. An application fee of \$10,000 is also applied to offset KRS administrative costs. The KRS board of trustees has final approval of all applications and seeks to provide a notification of total cost to each employer the following December. After notification of total cost, employers have 60 days to accept the total cost or withdraw their application. Those employers choosing to finalize the cessation process are approved at a subsequent KRS board meeting, and lump-sum payment or installments begin 1 month later.

KRS indicated that three agencies had filed applications to cease participation in KERS in December 2015: Kentucky Employees Mutual Insurance, the Council of State Governments, and the Commonwealth Credit Union.

Inviolable Contract Exceptions

The board heard testimony from each state-administered retirement system regarding the inviolable contract that covers retiree benefits and any exceptions that exist.

KRS staff discussed the statutory inviolable contract language, which provides that benefits established by law constitute an inviolable contract of the commonwealth. The statutes establishing the contract are identical for KERS, CERS, and SPRS. Beginning in January 2014, a new tier of benefits was created, and any new members entering the systems on or after that date were no longer protected by the inviolable contract provisions, except for the account balance earned to date. Another exception to the inviolable contact provisions is the automatic cost of living adjustment provided to retirees, which was removed by 2013 legislation. With regard to health insurance, KRS noted that new hires after July 1, 2003, are not covered under the inviolable contract provisions for health care benefits.

TRS staff testimony noted the similar nature of their membership's inviolable contract language to that of KRS members. TRS also reported on the legal opinion performed by two law firms for a Blue Ribbon Commission on Public Retirement Systems established by Governor Fletcher in 2007. TRS staff noted the report identified the inviolable contract as one of the strongest among all states. TRS identified a handful of exceptions to the contract related to pension benefits, including retiree health benefits, retirement allowances calculated on a member's three highest salaries, reemployment after retirement provisions, the 3.0 percent benefit factor for service credit earned in excess of 30 years, benefits for part-time or substitute teaching members, and sick-leave payments provided to members that are included in a retiring member's salary for benefit computation. TRS highlighted the maximum savings of each pension exception but noted that removing some of these provisions could lead to a higher rate of retirements, which could offset some of the savings.

JFRS staff testified that the inviolable contract covering judges and legislators extends only to those members who joined the system before January 1, 2014. Staff highlighted a handful of

additional exceptions, which included COLA provisions, potentially some health benefits, and the benefits of any current or former members who may be convicted of a felony related to legislative activity or removed for cause.

Senate Bill 2 Analysis and Trends

LRC staff provided a review of pension transparency proposals made during the 2016 Regular Session, discussing key aspects of the proposed legislation, changes that would occur in Kentucky, and a review of national trends among peers across the nation. Key topics discussed included use of the state's procurement code, investment expense reporting requirements, disclosure of contracts, and board composition.

The use and current exemptions of the model procurement code were topics of discussion during the regular session and were included in proposed legislation. Staff provided review of state-administered plans' use of the Model Procurement Code, a history of statutory changes or exemptions, and written or board-adopted policies. In addition, staff provided results of research conducted to identify which other state pension plans were subject to state model procurement codes and which plans had exemptions similar to Kentucky's.

Several legislative proposals in 2016 included additional reporting and transparency with regard to investment expense and fee reporting. Staff provided a review of the key categories of expense, including management fees, profit sharing or carried interest arrangements, and other expenses, which largely include underlying fund of fund fees. Staff discussed the key requirements of each legislative proposal, additional reporting that would be required, and a review of what each state-administered plan in Kentucky was currently reporting. Lastly, staff called attention to the amount of ambiguity within the industry, lack of clear reporting standards, and an inconsistent level of disclosure found across the nation's public pension funds.

Proposals discussed during 2016 also included language that would have required additional disclosure of contracts and adjusted the composition of the KRS and TRS boards of trustees. Staff discussed the requirements of each proposal, changes to current statutory exemptions, and additional language that would make contracts subject to select individuals regardless of exemption. Lastly, staff provided a review of the board compositions of each state system and changes that occur with each of the proposals.

KRS Recommended Legislation

The board heard a summary of KRS' housekeeping legislation proposed for the 2017 Regular Session of the General Assembly. The proposed legislation is designed to bring the systems into compliance with federal law requirements, provide authority that will allow the systems to increase efficiency, and resolve ambiguity in existing statutes. KRS also recommended amending the process of cessation of participation by employers in the retirement systems under KRS 61.522 by using a standard valuation methodology and procedures, tying the final cost to a fair market rate, using only a lump-sum payment approach (no agency installment payments), and requiring a lawsuit waiver.

TRS Housekeeping Legislation

The board heard a summary of TRS' housekeeping legislation proposed for the 2017 Regular Session. The proposed legislation makes technical amendments to the plan to ensure continued compliance with federal tax law, to take advantage of efficiencies from a recent overhaul of the information technology used by the system, and to make other technical changes that will not change current practice or procedure. Additionally, there are a few substantive cost-saving changes, specifically recommendations to tighten provisions that allow retired members to return to work and provisions relating to disability.

JFRS Proposed Legislation

For the 2017 Regular Session, JFRS is again considering legislation similar to HB 443, which it supported during the 2016 Regular Session. HB 443 provided that the unfunded liabilities of the JRP and the LRP be amortized over a closed 25-year period, except that any future legislative changes be separately amortized over a closed 20-year period; any future changes in actuarial methods or assumptions be amortized over a closed 15-year period; and any future actuarial gains or losses be amortized over a 10-year closed period. The bill also provided that beginning with the next actuarial valuation, the payment to finance the unfunded liability would be calculated using the level dollar amortization method.

Testimony And Recommendations From Outside Groups

The PPOB heard testimony from employee, employer, teacher, and retiree groups during its October 24, 2016, meeting. The testimony included the following recommendations and comments from these groups.

• The Kentucky League of Cities (KLC) testified on behalf of local cities and counties, noting key differences of CERS compared to other state administered plans. KLC highlighted the reforms passed with Senate Bill 2 from the 2013 Regular Session and expressed satisfaction with the legislation's effect on stabilizing CERS and its funding levels. However, given the distinctive nature of CERS, KLC indicated that its board was going to pursue legislation that would separate CERS from the jurisdiction of KRS. KLC's proposal will not attempt to change benefits, but it will allow opportunity for local governments to govern and look at investment experience for the plan differently. The proposal would address governance, ensure that the employees in CERS and those from the employer side have an opportunity to govern, address investment experience differently instead of being commingled and combined with the state retirement system, and ensure adequate staff attention. Lastly, KLC mentioned a need to address unintended consequences related to recent pension spiking legislation. The current provisions enacted were well intended, but unanticipated results have

placed a financial burden on cities and, ultimately, the taxpayer and have created a cause for reevaluation.

- The Kentucky Association of Counties (KACo) reviewed four primary issues. First, KACo commended the legislature for its commitment during the last session to fund KERS at the ARC-Plus level. KACo noted the importance of public employee retirement systems and continues to honor the commitment by supporting by the inviolable contract. Secondly, KACo supports the separation of CERS from KRS. As CERS funding levels continue to increase and CERS employers pay 100 percent of the ARC, KACo stated, a separate board should oversee benefits, investments, and administrative decisions for the system. Third, KACo continues to recommend a resolution regarding pension spiking and the difficulty it has created for counties. While supporting the law and fully conscious of its intent, KACo believes some clarifications are needed to address unintended consequences that have resulted when employees are away from work because of a Family Medical Leave Act (FMLA) action, a workers' compensation claim, or other legitimate reason. Lastly, in the summer of 2016, KRS notified reemployed Medicare-eligible retirees that supplemental insurance benefits would be terminated if such employees were offered group insurance alternatives by their employer. KRS believes this decision is mandated by the federal Medicare Secondary Payer Act, while KACo's own research indicates otherwise. KACo has met with KRS staff, who have made an inquiry with the Centers for Medicare and Medicaid Services.
- The Kentucky Chamber of Commerce expressed approval that a full comprehensive performance audit of the state-administered retirement systems was taking place. The chamber also expressed concern over increasing ARC payments in the future as KRS struggled to meet investment return assumptions and payroll growth estimates that appear to be overstated. The chamber continues to support key features of Senate Bill 2 from 2016, including increased transparency of investment fees, placing KRS under the commonwealth's procurement and personnel rules, and adding members with investment experience to the KRS board. The chamber commended the Governor and legislature on the commitment to budget additional and substantial funding to the pension systems, but it expressed concern that the commitment was not accompanied by structural reforms, specifically with regard to TRS. The chamber understands the new administration's desire to review the system and eagerly awaits results from the consultants evaluating it, but it believes reforms will be required to make the retirement systems sustainable. Lastly, the chamber discussed a larger question facing the legislature and state, which is whether TRS should be converted to a defined contribution plan similar to the plan enacted for state and local employees during the 2013 session. The chamber believes more information is needed to make a judgement on this topic, and it expressed hope that the financial review would shed more light.
- The Kentucky Public Retirees (KPR) testified on behalf of its membership and expressed gratitude for the level of pension funding approved in the most recent budget. First, KPR highlighted recent developments related to KRS, which included the Governor's executive order and the financial audit currently in process. KPR would not speculate or form an opinion on either topic until a legal decision is made regarding the executive order or

recommendations from the audit are made known. Secondly, KPR expressed concern regarding the increased size of the KRS board and investment committee's structure. KPR noted that a 17-member board diminishes the relevance of the elected members and recommended a balance of members, so that appointed members need support from elected members to make important decisions. In addition, KPR recommended that the KRS investment committee be increased to seven members, with the two additional seats reserved for elected members of the board. Lastly, KPR voiced the need to begin the discussion on how pensions would be funded after the current budget cycle. KPR noted a need to create a dedicated revenue stream to address the unfunded liability and suggested a review of the state's tax expenditures.

- The Kentucky Government Retirees (KGR) testified on behalf of more than 8,300 Kentucky • Retirement Systems stakeholders. KGR continues to recommend additional funding, above the current required contributions, to ensure long-term stability of the funds. KGR supports the enhanced transparency proposals introduced during the 2016 session and believes that KRS should follow the state's procurement code, best practices in fee disclosures, and the CFA code of conduct. KGR referred to the extensive changes made to the KRS board as a result of the Governor's executive order and stated that KGR would support legislative proposals that restored a reasonable measure of representation by elected trustees. KGR also voiced concern about abandoning the cash-balance plan adopted in 2013, noting that the plan had reduced employer risk and long-term costs as intended. KGR stated that any consideration of moving to a 401(k) plan should involve an actuarial analysis of the fiscal impact on legacy plans and voiced concern over the lack of new contributors that would result. Lastly, KGR believes that the only way to provide ARC-Plus funding is through the adoption of tax reform and a structure that grows the economy and meets critical needs such as the pension system.
- The Kentucky Retired Teachers' Association (KRTA) testified on behalf of its membership and emphasized the critical nature of retirement benefits for retired teachers, many of whom are older, single, and relying on TRS as their sole source of income. KRTA does support transparency, but it believes that recent proposals to give gubernatorial appointees a majority were ill advised. KRTA believes that information regarding TRS should be easily accessible and that performance should continue to be subject to PPOB review; however, KRTA recommends that the plan be independently governed by its members and free from political influences. Moving forward, KRTA recommendations included paying the ARC payment until the plan is fully funded. KRTA also recommended keeping the current defined benefit structure and does not support changes to the plan's governance structure. Lastly, KRTA emphasized the need to evaluate performance of the plan based on the long term and not just during periods of recession. Finally, the KRTA supplied a copy of the National Institute on Retirement Security's *Pensionomics 2016 Report* to the PPOB for its consideration.
- The Kentucky Association of Regional Programs (KARP) voiced concern regarding pension spiking provisions, specifically as it related to unpaid leave time such as military leave or family medical leave. KARP noted examples where employers are being invoiced as a result of employees taking uncompensated leave during the period. KARP recommends a statutory change to address this issue and suggested that uncompensated time be excluded from the

calculation or incorporating a 3-year review window, which would consider the year before the uncompensated period and the year after.

• The Bluegrass Institute is a state-based public policy think tank founded 13 years ago that seeks to make federal, state, and county governments more transparent. The institute commended the PPOB on efforts to increase transparency in investment fees and other pension practices, but it recommended that individual retiree benefit payments also be subject to public review. The institute noted that taxpayers currently have access to public employee salaries and benefits, but upon retirement, current law removes retiree information from public record and serves as a detriment to addressing the pension crisis. The institute does not believe the substantial increase in spending on pensions is sustainable and believes taxpayers will be asked to participate. Making the individual retiree information public gives lawmakers more information to address the problem and make better decisions, while increasing the taxpayers' confidence. Lastly, the institute highlighted its Legislative Pension Transparency Pledge, which several legislators had signed, and it vowed support to making legislative pensions fully transparent.

Chapter 6

Public Pension Oversight Board Recommendations

The Public Pension Oversight Board adopted recommendations at its December 19, 2016, meeting. These recommendations included legislative recommendations for the 2017 Regular Session of the Kentucky General Assembly and administrative recommendations for the state-administered retirement systems, as well as topics of study for staff to research in 2017.

For the 2017 Regular Session of the Kentucky General Assembly, the board approved the following legislative recommendations:

- Currently, the state-administered retirement systems are exempt from Kentucky Revised Statutes Chapters 45 (Budget and Financial Administration) and 45A (Kentucky Model Procurement Code) relative to contracting. Legislation to make the systems subject to Kentucky Revised Statutes Chapters 45 and 45A should be enacted, similar to provisions included in BR 242 that has been prefiled for the 2017 Regular Session.
- Currently, the TRS board comprises seven trustees elected by the membership, with the two remaining members being the chief state school officer and the state treasurer. The General Assembly should enact legislation to add additional gubernatorial-appointed members to the TRS board, and the additional members should have investment experience.
- Legislation to more clearly define the qualifications of KRS appointed trustee positions who must have "investment experience" should be enacted, to:
 - Refine the definition of *investment experience* in Kentucky Revised Statute 61.645 to ensure that truly qualified individuals are selected; and
 - Provide that the governor should request assistance from the CFA Society of Louisville to vet any potential applicants for future appointments/reappointments.
- Legislation should be enacted, similar to provisions included in BR 242 that has been prefiled for the 2017 Regular Session, to require Senate confirmation of the KRS and TRS executive director/executive secretary and all gubernatorial-appointed board members.
- Measures to ban the use of KRS, TRS, and JFRS assets to pay placement agent fees, similar to the measures included in BR 242 that has been prefiled for the 2017 Regular Session, should be enacted.
- Legislation to develop consistent investment fee reporting requirements for the state-administered retirement systems should be enacted.
- Pension transparency measures for the state-administered retirement systems should be enacted and should include:
 - Measures prohibiting KRS, TRS, and JFRS from using system assets to pay placement agents fees.

- Requirements for JFRS to develop a website and require specific information to be posted on the JFRS website similar to what is currently required for the KRS/TRS websites under Kentucky Revised Statutes 61.645(19) and 161.250(4).
- Limitations on the definition of *investment experience* for KRS board members appointed by the governor.
- Standardized investment expense reporting. The standard shall require, to the extent information is available, disclosure by individual manager/partnership and the dollars paid for direct fees and any profit sharing, carried interest, partnership incentives, in accordance with ILPA standards.
- Public disclosure of system offering documents.
- Contract disclosure at all times to trustees, auditor, governor, or legislators if a confidentiality agreement is signed.
- Requirements for all systems to report returns both gross and net of fees.
- Adherence to CFA Institute Standards, except for Asset Manager Code of Conduct.
- Legislation to expand the PPOB to include more legislative members, similar to the measures included in BR 242 that has been prefiled for the 2017 Regular Session, should be enacted. Under the measure, four legislators would be appointed by the Senate president (currently two), four will be appointed by the House speaker (currently two), and two members shall be appointed by the minority floor leaders in both the House and Senate (currently one each).
- Legislation should be enacted to require the systems to provide supplemental data on the potential impact of a bill when an actuarial impact statement required by KRS 6.350 determines the bill's impact is indeterminable/negligible.
- Two recommendations were approved by the board relative to the disclosure of pension benefits of current and former legislators:
 - Legislation to require the disclosure of pension benefits of current and former legislators from all state-administered retirement systems, similar to the measures included in BR 260 that has been prefiled for the 2017 Regular Session, should be enacted.
 - Legislation to publicly disclose the actual annualized monthly retirement allowance, or estimated allowance if the actual amount is not known, for LRP participants retiring on or after December 1, 2016, should be enacted. This provision should be enacted prospectively since it could present a legal challenge to the inviolable contract.
- Legislation to allow KRS, LRP, and JRP members to opt into the hybrid cash balance plan, similar to the measures included in SB 172 that did not pass into law during the 2016 Regular Session, should be enacted.
- The Kentucky Retirement Systems housekeeping bill, similar to provisions included in House 241 that did not pass into law during the 2016 Regular Session, should be enacted.
- The Teachers' Retirement System housekeeping bill, similar to provisions included in House Bill 470 that did not pass into law during the 2016 Regular Session, should be enacted.

- Two recommendations regard KRS employer concerns with "pension spiking" fees:
 - Legislation to address KRS employer concerns with "pension spiking" fees that resulted from the passage of SB 2 in 2013 should be enacted.
 - Legislation to address KRS employer concerns with "pension spiking" fees that resulted from the passage of SB 2 in 2013 should be enacted. The legislation should limit the fees to a minimum threshold of \$10,000 provided that exceptions are added, including but not limited to employees who return to work after unpaid authorized maternity leave, unpaid leave authorized under the Federal Family Medical Leave Act, authorized sick leave without pay, employees who return from active or reserve military duty, and employees who received workers' compensation benefits that were not reported as creditable compensation. The legislation should be fair and equitable to employees.
- Legislation to eliminate the option for Legislative Retirement Plan participants to "spike" their legislative pension from salary earned through other public employment should be enacted.
- The General Assembly should evaluate the findings and recommendations of the performance audit being conducted by the PFM group and adopt a financially sound approach to address the funding issues facing the state-administered retirement systems. It should also evaluate how to best allocate the funds in the Kentucky Permanent Pension Fund among the state-administered retirement systems.
- The Public Pension Oversight Board supports measures that would provide additional funding to improve the financial health and cash flow issues facing the Kentucky Employees Retirement System nonhazardous pension fund and the State Police Retirement System pension fund.
- The Public Pension Oversight Board supports measures that would provide additional funding to improve the financial health of the Teachers' Retirement System pension fund and that would include a long-term statutory plan to pay the actuarially required contribution.

The Public Pension Oversight Board also approved the following administrative recommendations, with an expectation that 2017 legislation can be enacted based upon findings:

• The KRS Board of Trustees shall by January 23, 2017, study issues related to agency participation, including but not limited to KRS participating agencies who are utilizing contract employees or who are not offering employees the opportunity to participate in the systems, and shall provide a listing of all agencies who are attempting various means to avoid paying contributions on employees along with the estimated number of employees not being reported as well as the anticipated financial impact to the systems. Based upon this information, the General Assembly should enact legislation to address the loss of employer contributions from KRS participating agencies who are utilizing contract employees or who are not offering employees the opportunity to participate in the systems.

The Public Pension Oversight Board also approved the following administrative recommendations for the state-administered retirement systems:

- The Kentucky Retirement Systems' board of trustees shall by January 23, 2017, provide a plan for addressing the cash flow/funding issues facing the systems it administers, and in particular the cash flow issues facing the KERS nonhazardous pension fund. The plan shall be detailed with specific research performed for each plan option which shall include specific savings/costs for each option. KRS shall report this information to the PPOB, the House State Government Committee, and the Senate State and Local Government Committee.
- The Teachers' Retirement System board of trustees shall by January 23, 2017, provide a plan for addressing the cash flow/funding issues facing the system it administers, and in particular the funding issues facing the TRS pension fund. The plan shall be detailed with specific research performed for each plan option which shall include specific savings/costs for each option. TRS shall report this information to the PPOB, the House State Government Committee, and the Senate State and Local Government Committee.
- KRS, TRS, and JFRS shall study and report to the Public Pension Oversight Board by January 23, 2017, on the fees paid directly or indirectly by each system (i.e., through incentive or partnership agreements) and shall provide a consensus recommended standard for investment fee reporting to be utilized by all systems.
- The KRS, TRS, and JFRS boards should evaluate and determine if certain actuarial assumptions (payroll growth, investment return) and funding policies/methods should be modified based upon experience (including trends in state employee salaries, changes in the total number of full-time employees due to outsourcing, employers avoiding payment of contributions on behalf of those employees) and financial condition of the systems and should incorporate any changes into the funding requests submitted to the 2018 General Assembly.

The Public Pension Oversight Board also adopted administrative recommendations to require staff to

- research and present information regarding the cash flow of each state-administered retirement system, including a historical review of cash flows, how additional funding in the current budget is impacting current cash flows, a future projection of cash flows, and what factors impact system cash flows the most; and
- provide the board with a brief summary document highlighting the differences in actuarial methods and assumptions between the various state-administered retirement systems.