



Public Pension Oversight Board 2018 Report

Research Memorandum No. 525

Public Pension Oversight Board

2018 Report

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Legislative Research Commission

Frankfort, Kentucky
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Approved by the Public Pension Oversight Board
December 31, 2018

Foreword

The 2013 General Assembly passed Senate Bill 2, which established the Public Pension Oversight Board. The purpose of the board is to review, analyze, and provide oversight to the General Assembly on the benefits, administration, 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.

Legislative Research Commission
Frankfort, Kentucky
December 31, 2018

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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 state-administered retirement systems. The board's oversight functions were initially limited to the Kentucky Retirement Systems (KRS), which administers the Kentucky Employees Retirement System, the County Employees Retirement System (CERS), and the State Police Retirement System. However, legislative changes in 2015 expanded the board's oversight functions to include the Teachers' Retirement System, as well as the Judicial Form Retirement System, which administers the Legislators' Retirement Plan and the Judicial Retirement Plan.

The oversight board met nine times in 2018, and the material covered included overviews of system funding and cash flows; semiannual investment reviews as required by statute; legislative updates; a review of actuarial assumptions and recent changes; board of trustee elections; and a summary of fiduciary responsibility. A summary of the benefits, funding, investments, and testimony before the Public Pension Oversight Board appears in Chapters 1 to 5 of this publication.

At the December 17, 2018, meeting, the board adopted legislative recommendations for the 2019 Regular Session of the General Assembly and administrative recommendations for PPOB staff. The recommendations appear in detail in Chapter 6 of this publication.

For the 2019 Regular Session of the Kentucky General Assembly, the board approved the following legislative recommendations:

- Legislation should be enacted to allow KRS to conduct electronic trustee elections, synchronize CERS trustee elections, and make other recommended housekeeping changes.
- Legislation should be enacted to void the retirement of an elected official who, after retirement, returns to the same elected office within 12 months.
- Legislation should be enacted to convert the funding formula of the KRS systems so that each agency pays a fixed dollar amount.
- The General Assembly should consider auto-enrolling future public employees into the Kentucky Deferred Compensation program with a 1 percent employee contribution.
- Legislation should be enacted to address the funding and participation concerns of quasi-governmental employers.

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

- research and present information to the board regarding the level of compensation paid to retirement system board members in Kentucky and nationwide, and
- research and review mandates for public pension system asset managers to abide by the CFA Code of Conduct and study whether the Securities Exchange Commission Code of Ethics could be used as an alternative mandate.

Chapter 1

Overview Of Kentucky Retirement Systems Administration And Benefits

Composition Of Kentucky Retirement Systems

The Public Pension Oversight Board has oversight responsibilities for 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 quasi-governmental entities. KERS includes both nonhazardous-duty 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, firefighters, nonteaching staff of local boards of education, circuit clerks, local library employees, and other local government agency employees. CERS includes both nonhazardous-duty 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 other sources of retirement income such as personal retirement accounts, postretirement employment, or Social Security, if applicable—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 17-member board of trustees oversee the administration of KRS, with 6 trustees being elected by the membership, 10 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 10 trustees appointed by the governor, 6 must have at least 10 years of investment experience as defined by statute, 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. Elected and appointed trustees serve 4-year terms and may serve no more than three consecutive terms.

The board annually elects a chair and vice chair, and the chair appoints members to various committees of the board, including the investment committee, insurance committee, governance and audit committees, legislative committee, personnel committee, and special committee on benefits and funding. Table 1.1 shows 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 systems. The current executive director is David Eager, and as of June 30, 2018, KRS consisted of 247 full-time employees.

Table 1.1
Kentucky Retirement Systems Board Of Trustees
December 2018

Member Name	Appointment/Election
John R. Farris, chair	Governor appointee
David L. Harris, chair	Governor appointee
Keith Percy, vice chair	SPRS elected trustee
John E. Chilton	Governor appointee
William S. Cook	Governor appointee
Kelly Downard	Governor appointee
Matthew Monteiro	Governor appointee
Neil P. Ramsey	Governor appointee
David M. Gallagher	Governor appointee, KACo
JT Fulkerson	Governor appointee, KLC
W. Joe Brothers	Governor appointee, KSBA
Betty Pendergrass	CERS elected trustee
Jerry W. Powell	CERS elected trustee
David Rich	CERS elected trustee
Campbell Connell	KERS elected trustee
Sherry Lynn Kremer	KERS elected trustee
Thomas Stephens	Personnel Cabinet secretary

Note: SPRS = State Police Retirement System; KACo = Kentucky Association of Counties; KLC = Kentucky League of Cities; KSBA = Kentucky School Boards Association; CERS = County Employees Retirement System; KERS = Kentucky Employees Retirement System.

Source: Kentucky Retirement Systems.

Kentucky Retirement Systems Employer And Employee Membership

As of June 30, 2018, 348 agencies participated in KERS and 1,139 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, it is not allowed to discontinue participation unless it is eligible to voluntarily discontinue participation or is required to discontinue participation by the systems. If an agency discontinues participation, it must pay all actuarial costs for leaving the system.

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 employee* 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. Table 1.2 provides, by system, 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.

Table 1.2
Number Of Active, Inactive, And Retired Members, By System
June 30, 2018

System	Members			Total
	Active	Inactive	Retired	
CERS nonhazardous	84,435	81,608	56,629	222,672
CERS hazardous	9,285	2,581	7,647	19,513
KERS nonhazardous	34,845	45,768	42,175	122,788
KERS hazardous	3,963	4,716	3,010	11,689
SPRS	891	290	1,445	2,626
Total	133,419	134,963	110,906	379,288

Note: CERS = County Employees Retirement System; KERS = Kentucky Employees Retirement System; SPRS = State Police Retirement System.

Source: June 30, 2018, 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

^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.

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-duty 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-duty or hazardous-duty) and the date the employee first began participating in the systems. Table 1.3 shows eligibility requirements for nonhazardous-duty employees, and 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 KERS/CERS Nonhazardous Members

Participation Date	Unreduced Benefit	Reduced Benefit
Prior to Sept. 1, 2008	<ul style="list-style-type: none"> Any age with at least 27 years of service or Age 65 with at least 4 years of service 	<ul style="list-style-type: none"> Any age with at least 25 years of service or Age 55 with at least 5 years of service
On or after Sept. 1, 2008, but prior to Jan. 1, 2014	<ul style="list-style-type: none"> Must meet rule of 87 (age + service = 87) and 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	<ul style="list-style-type: none"> Must meet rule of 87 (age + service = 87) and be at least 57 years of age or Age 65 with at least 5 years of service 	No reduced benefit provisions

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System.
Source: Kentucky Retirement Systems.

Table 1.4
Retirement Eligibility Requirements
For KERS/CERS Hazardous-Duty And SPRS Members

Participation Date	Unreduced Benefit	Reduced Benefit
Prior to Sept. 1, 2008	<ul style="list-style-type: none"> 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 prior to Jan. 1, 2014	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Any age with at least 25 years of service or Age 60 with at least 5 years of service 	No reduced benefit provisions

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System; SPRS = State Police Retirement System.

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-duty or hazardous-duty) and the date the employee first began participating in the system. The following pages provide information on each of these benefits.

Monthly Retirement Benefits For Members Participating Prior To January 1, 2014

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

$$\text{Final compensation} \times \text{Benefit factor} \times \text{Years of service credit} = \text{Annual benefit}$$

Tables 1.5 to 1.8 provide retirement benefit calculations for members under this formula.

Table 1.5
Retirement Benefit Calculation For KERS/CERS Nonhazardous Employees
Participating Prior To September 1, 2008

Final Compensation	Benefit Factor	Service Credit
Average of highest 5 fiscal years of salary	<ul style="list-style-type: none"> KERS: 1.97 percent, except that the value is 2 percent for employees with 13 months of service between January 1998 and January 1999 CERS: 2.2 percent if participating prior to Aug. 1, 2004; 2 percent if participating on or after Aug. 1, 2004, but prior to Sept. 1, 2008 	Service earned for time worked in regular full-time position, purchased service, and service credit for accumulated sick leave at retirement

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System.

Source: Kentucky Retirement Systems.

Table 1.6
Retirement Benefit Calculation For KERS/CERS Nonhazardous Employees
Participating On Or After September 1, 2008, But Prior To January 1, 2014

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

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System.

*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 KERS/CERS Hazardous-Duty And SPRS Employees
Participating Prior To September 1, 2008

Final Compensation	Benefit Factor	Service Credit
Average of highest 3 years of salary	<ul style="list-style-type: none"> • KERS: 2.49% • CERS and SPRS: 2.50% 	Service earned for time worked in regular full-time position, purchased service, and service credit for accumulated sick leave at retirement

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System; SPRS = State Police Retirement System.

Source: Kentucky Retirement Systems.

Table 1.8
Retirement Benefit Calculation For KERS/CERS Hazardous-Duty And SPRS Employees
Participating On Or After September 1, 2008, But Prior To January 1, 2014

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

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System; SPRS = State Police Retirement System.

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 began participating in the systems on or after January 1, 2014, are provided 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 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 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 retirement systems rather than the employee 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, employees contribute the same amount as newer employees, who began participating prior to January 1, 2014, except that the 5 percent of pay (8 percent hazardous-duty) they contribute to fund pension benefits goes 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 2018 of 6.00 percent to 6.75 percent, based on individual system investment return data. In FY 2017, the rate varied from 7.41 percent to 8.07 percent. Former or inactive 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 by 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 prior to July 1, 2003, receive a percentage of

the premium paid upon retirement based on their service credit, while 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-duty and hazardous-duty members based on their participation dates.

In 2019, the maximum retiree health subsidy for a nonhazardous retiree with 20 years of service who began participating prior to July 1, 2003, is \$729.34 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 \$1,767.60 per month.

Table 1.9
Retiree Health Insurance Premium Payments For KERS/CERS Nonhazardous Members

Participation Date In Systems	Eligibility Requirements	Percent Or Dollars Of Premium Paid For Retiree	
Before July 1, 2003	Must be drawing 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 prior to Sept. 1, 2008	Must be drawing monthly benefit and must have at least 10 years of service	\$10 per month paid toward health premium for each year of earned service. Amount is adjusted by 1.5% annually from date of participation.	
On or after Sept. 1, 2008	Must be drawing monthly benefit and must have at least 15 years of service	\$10 per month paid toward health premium for each year of earned service. Amount is adjusted by 1.5% annually from date of participation.	

Note: KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System.

Source: Kentucky Retirement Systems.

Table 1.10
Retiree Health Insurance Premium Payments
For KERS/CERS Hazardous-Duty And SPRS Members

Participation Date In Systems	Eligibility Requirements	Percent Or Dollars Of Premium Paid For Retiree And Dependents Of Retiree		
Before July 1, 2003	Must be drawing monthly benefit	Years Of Service At Retirement	% Paid For Retiree	% Paid For 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 July 1, 2003, but prior to September 1, 2008	Must be drawing monthly benefit and must have at least 10 years of service	\$15 per month paid toward health premium for each year of earned service. Upon death of retiree, surviving spouse receives \$10 per month paid toward 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 monthly benefit and must have at least 15 years of service	\$15 per month paid toward health premium for each year of earned service. Upon death of retiree, surviving spouse receives \$10 per month paid toward 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. KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System; SPRS = State Police Retirement System.

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 prior to retirement, including in-the-line-of-duty disability and death benefits. After retirement, the benefits left to the retiree's beneficiary vary based on the payment option selected at retirement. For example, a retiring employee may elect to provide a lifetime benefit to a surviving spouse upon the employee's death 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 Senate Bill 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 costs for sick leave service credit are paid by the last participating employer.

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 apply 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 prior to the employee's retirement. For elected officials, a reelection to the same office is considered a prearranged agreement if the official retires following the election but prior to 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 or after January 1, 1998, is subject to Kentucky income tax. However, an annual pension exclusion of \$31,110 applies to this portion and to other retirement income sources.

2018 Legislative Changes

Five measures that directly affected KRS plans were passed during the 2018 Regular Session: Senate Bills 151 and House Bills 185, 265, 362, and 366.

- SB 151 made several changes to the benefit structure of KERS, CERS, and SPRS, including the addition of an optional defined contribution plan, changes to the future interest credit applied to cash balance plan accounts, and modification of the requirements regarding reemployment after retirement. In addition, the bill required level dollar funding of unfunded liabilities, modified the high 3- or 5-year compensation calculation, and revised sick leave service credit provisions.

After SB 151 was passed, the Attorney General filed a complaint with the Franklin Circuit Court challenging its validity. On June 20, 2018, the court issued an opinion and order voiding the bill in its entirety. The court's order was appealed, and the Kentucky Supreme Court accepted immediate transfer and heard oral arguments on September 20, 2018. On December 13, 2018, the Supreme Court issued an opinion affirming the Circuit Court's opinion. The Supreme Court held that SB 151 failed to comply with "three readings" requirement of Section 46 of the Constitution of Kentucky and, therefore, declared it void and of no effect.

- HB 185, cited as the "Officer Scotty Hamilton and Officer Nick Rodman Memorial Act of 2018," increased the minimum amount of benefits received by a surviving spouse or dependent child of an SPRS member who is killed in the line of duty.
- HB 265 provided that the employer contribution rate from July 1, 2018, through June 30, 2019, shall remain at 49.47 percent for nonhazardous-duty employees participating in KERS who are employed by mental health/mental retardation boards, local and district health departments, domestic violence shelters, rape crisis centers, child advocacy centers, state-supported universities and community colleges, and any other agency eligible to voluntarily cease participating in KERS.
- HB 362 provided that CERS employer contribution rates, for both the nonhazardous and hazardous plans, cannot increase by more than 12 percent in terms of projected dollars over the next 10 years.
- HB 366 allows cities to reemploy KERS, CERS, and SPRS retirees as school resource officers without paying employer contributions and health reimbursements to KRS. The bill also reduced the tax exclusion for retirement income from \$41,110 annually to \$31,110 annually, while making other conforming amendments.

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 Systems (TRS). TRS is the oldest statewide pension fund in Kentucky, established by the 1938 General Assembly. TRS administers pension, retiree health insurance, and life insurance benefits to certified employees of local school districts and to 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 a TRS-eligible position. University employees do participate and earn benefits in Social Security while working in a TRS-eligible position.

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.

TRS Administration

As provided by statute, an 11-member board of trustees oversees the administration of TRS, with 7 trustees being elected by the membership, 2 being appointed by the governor, 1 being the state treasurer, and 1 being 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. The two trustees appointed by the governor must have at least 10 years of investment experience as defined by statute. Elected and appointed trustees serve 4-year terms and may serve no more than three consecutive terms.

The board annually elects a chair and vice chair, and the chair appoints members to various committees of the board, including the investment committee, insurance committee, governance and audit committees, 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, 2018, TRS consisted of 100 full-time employees.

Table 2.1
Teachers' Retirement System Board Of Trustees
December 2018

Member Name	Appointment/Election
Ronald Sanders, chair	Elected lay trustee
Ali Wright, vice chair	Elected active teacher
Lynn Patterson	Elected active teacher
Laura Schneider	Elected active teacher
Josh Underwood	Elected active teacher
Brenda McGown	Elected retired teacher
Hollis Gritton	Elected lay trustee
John Boardman	Governor appointee
Frank Collecchia	Governor appointee
Wayne Lewis	Commissioner of education
Allison Ball	State treasurer

Source: Teachers' Retirement System.

TRS Employer And Employee Membership

As of June 30, 2018, 207 employers participated in TRS, including 173 local school districts, 15 state agencies, 6 higher education agencies that include regional state-supported universities and KCTCS, 8 educational cooperatives, and 5 other educational organizations. State statute lists the agencies that are required to participate in TRS.

Table 2.2 provides 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 of TRS. School district employees constitute more than 92 percent of the active members participating in TRS.

Table 2.2
Number Of Active, Inactive, And Retired Members Of TRS
June 30, 2018

System	Active Members	Inactive Members	Retired Members	Total
TRS	72,205	52,845	54,377	179,427

Source: June 30, 2018, TRS Actuarial Valuation.

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 based on the date the employee first began participating in the system. Table 2.3 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).

Table 2.3
Retirement Eligibility Requirements For Teachers' Retirement System

Participation Date	Unreduced Benefit	Reduced Benefit
Prior to Sept. 1, 2008	<ul style="list-style-type: none"> 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 of 5% per year
On or after Sept. 1, 2008	<ul style="list-style-type: none"> 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 of 6% per year

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 based on 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:

$$\text{Final average salary} \times \text{Benefit factor} \times \text{Years of service credit} = \text{Annual benefit}$$

Tables 2.4 and 2.5 show retirement benefit calculations for members under this formula.

Table 2.4
Retirement Benefit Calculation For TRS Nonuniversity Employees

Final Average Salary	Participation Date/Benefit Factor	Service Credit
<ul style="list-style-type: none"> • 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 	Prior to July 1, 2002: <ul style="list-style-type: none"> • 2.0% for service credit prior to July 1, 1983 • 2.5% for service credit on or after July 1, 1983 • 3.0% for service credit in excess of 30 years* 	Earned service; purchased service
	On or after July 1, 2002, but prior to July 1, 2008: <ul style="list-style-type: none"> • 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* 	
	On or after July 1, 2008: <ul style="list-style-type: none"> • 1.70% if service credit is 10 years or less • 2.00% if service credit is more than 10 years, but not more than 20 years • 2.30% if service credit is more than 20 years, but not more than 26 years • 2.50% if service credit is more than 26 years, but not more than 30 years • 3.0% for service credit in excess of 30 years* 	

Note: TRS = Teachers' Retirement System.

*The 3.0 percent benefit factor applies only to service above 30 years of service credit.

Source: Teachers' Retirement System.

Table 2.5
Retirement Benefit Calculation For TRS University Employees

Final Average Salary	Participation Date/Benefit Factor	Service Credit
<ul style="list-style-type: none"> • 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 Kentucky service credit 	Prior to July 1, 2008: <ul style="list-style-type: none"> • 2.0% 	Earned service; purchased service; sick leave service credit
	On or after July 1, 2008: <ul style="list-style-type: none"> • 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 	

Note: TRS = Teachers' Retirement System.

Source: Teachers' Retirement System.

The annual benefit resulting from the calculations in Tables 2.4 and 2.5 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 ineligible 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 level of subsidy is determined by the TRS board of trustees based on the availability of funding.

Table 2.6 details the percentage of retiree health subsidy provided for TRS members based on years of service. In 2018, the maximum retiree health subsidy on a single plan is \$511.46 per month in the Kentucky Employees' Health Plan and \$226 per month for the Medicare-eligible plan. In addition, TRS has elected under legislative authorization to extend an additional subsidy for retired members who cover their dependents in the Kentucky Employees' Health Plan, but it will begin phasing this subsidy out in the future.

Table 2.6
Percentage Of Retiree Health Insurance Subsidy Paid For TRS Members

Years Of Service	Retired And Age 65 By 1/1/2005	Participation Date		
		Prior To 7/1/2002	On Or After 7/1/2002 But Prior To 7/1/2008	On Or After 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

Note: TRS = Teachers' Retirement System.

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 prior to 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 based on the payment option selected at retirement. For example, retiring employees may elect 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 prior to 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 one, in 2007, provided 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 choose to 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 that certain requirements established by state statute are met.

School districts may choose to 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 choose to 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, and costs to convert sick leave to service credit by other employers are paid by the individual employer.

Reemployment After Retirement

State statute places restrictions on retirees returning to work after retirement with a participating employer of TRS. The restrictions are different for regional state-supported universities and KCTCS than for all 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 is 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 is 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 on and after January 1, 1998, is subject to Kentucky income tax. However, an annual pension exclusion of \$31,110 applies to this portion and to other retirement income sources.

2018 Legislative Changes

Two measures that directly affected the Teachers' Retirement System were passed during the 2018 Regular Session: Senate Bill 151 and House Bill 185.

- SB 151 made several changes to the benefit structure of TRS, including establishing a cash balance plan for new teachers and modifying the use of accrued sick leave at retirement for existing members. In addition, the bill added language to require funding of the full actuarially required contribution, required level dollar funding of unfunded liabilities, and revised existing retired reemployment and sick leave service credit provisions.

After SB 151 was passed, the Attorney General filed a complaint with the Franklin Circuit Court challenging its validity. On June 20, 2018, the court issued an opinion and order voiding the bill in its entirety. The court's order was appealed, and the Kentucky Supreme Court accepted immediate transfer and heard oral arguments on September 20, 2018. On December 13, 2018, the Supreme Court issued an opinion affirming the Circuit Court's opinion. The Supreme Court held that SB 151 failed to comply with "three readings" requirement of Section 46 of the Constitution of Kentucky and, therefore, declared it void and of no effect.

- HB 185, cited as the "Officer Scotty Hamilton and Officer Nick Rodman Memorial Act of 2018," increased the minimum amount of benefits received by a surviving spouse or dependent child of a member who is killed in the line of duty.

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 two retirement plans administered by the Judicial Form Retirement System (JFRS): the Legislators' Retirement Plan (LRP) and the Judicial Retirement Plan (JRP).

Judicial Retirement Plan

JRP was established in 1960, and 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 other sources of retirement income such as personal retirement accounts, postretirement employment, or Social Security, if applicable—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 shows 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, and as of June 30, 2018, JFRS consisted of two employees.

Table 3.1
Judicial Form Retirement System Board Of Trustees
December 2018

Member Name	Appointed By
Judge Lewis G. Paisley, chair	Supreme Court
Judge John R. Grise	Supreme Court
Justice Daniel J. Venters	Supreme Court
Judge Douglas ^{TB(1)} M. George	Speaker of House and President of Senate
Rep. Hubert Collins	Speaker of House
Sen. Joe Bowen	President of Senate
AC 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, the judge or legislator will participate in the Kentucky Employees Retirement System, the same system covering state employees. Members who began participating prior to 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 shows, by plan, the number of contributing members (often referred to as active members), former contributing members with accounts who are not yet retired (often referred to as inactive members), and retired members.

Table 3.2
Number Of Active, Inactive, And Retired Members By Plan
June 30, 2018

System	Active Members	Inactive Members	Retired Members	Total
LRP	80	40	222	342
JRP	213	16	339	568
Total	293	56	561	910

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

Source: Judicial Form Retirement System Audit Report, June 30, 2018.

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 based on 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 based on how many years the employee is short of reaching an unreduced benefit).

Table 3.3
Retirement Eligibility Requirements For JRP And LRP Members

Participation Date	Unreduced Benefit	Reduced Benefit**
Prior to Jan. 1, 2014	<ul style="list-style-type: none"> Any age with at least 27 years of service or Normal retirement age* with at least 5 years of service 	<ul style="list-style-type: none"> JRP: 8 years of service LRP: 5 years of legislative service or 8 years of service
On or after Jan. 1, 2014	<ul style="list-style-type: none"> 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

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

*The normal retirement age is 65, except that it is reduced by 1 year for every 5 years of service and for each year the benefit exceeds 100 percent of final compensation. The normal retirement age cannot be reduced below age 60.

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

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 based on the plan (JRP or LRP) and the date the employee first began participating in the plan. The following pages provide information on each of these benefits.

Monthly Retirement Benefits For Members Participating Prior To January 1, 2014

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

$$\text{Final compensation} \times \text{Benefit factor} \times \text{Years of service credit} = \text{Monthly benefit}$$

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

Table 3.4
Retirement Benefit Calculation For JRP Members Participating Prior To January 1, 2014

Final Compensation	Benefit Factor	Service Credit
Monthly average of last 60 months preceding retirement	<ul style="list-style-type: none"> 5.00% for those participating before July 1, 1978 4.15% for those who began participating on or after July 1, 1978, but prior to June 30, 1980 2.75% for all others 	Service credited as member of state court; qualified purchased or transferred service

Note: JRP = Judicial Retirement Plan.

Source: Judicial Form Retirement System.

Table 3.5
Retirement Benefit Calculation For LRP Members Participating Prior To 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: <ul style="list-style-type: none"> • 5.00% if participation began before July 1, 1978 • 4.15% if participation began on or after July 1, 1978 but prior to June 30, 1980 • 3.50% if participation began on or after July 1, 1980 but prior to June 30, 1982. Legislators electing membership after July 1, 1982: <ul style="list-style-type: none"> • 2.75% 	Service credited as member of General Assembly; qualified purchased or transferred service

Note: LRP = Legislators' Retirement Plan.

Source: Judicial Form Retirement 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 and 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, are provided 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 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 prior to January 1, 2014, except that 5 percent of pay they contribute to fund pension benefits goes 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, 2018, was 4 percent. This was the same interest rate credited as of June 30, 2017.

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 ineligible 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 prior to January 1, 2014, for qualified dependents of the retiree. In general, members participating prior to January 1, 2014, receive a percentage of the premium paid upon retirement based on their service credit, while 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 based on their participation dates.

Table 3.6
Retiree Health Insurance Premium Payments For JRP Retirees

Participation Date In System	Eligibility Requirements	Percent Or Dollars Of Premium Paid For Retiree And Qualified Dependents Of Retiree		
		Years Of Service At Retirement	% Of Premium Paid For Retiree	% Of Premium Paid For Dependents
Before Jan. 1, 2014	Must be drawing monthly benefit	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 Jan. 1, 2014	Must be drawing 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 of benefits commenced.		

Note: JRP = Judicial Retirement Plan.

Source: Judicial Form Retirement System.

Table 3.7
Retiree Health Insurance Premium Payments For LRP Retirees

Participation Date In System	Eligibility Requirements	Percent Or Dollars Of Premium Paid For Retiree And Qualified Dependents Of Retiree		
Before Jan. 1, 2014	Must be drawing monthly benefit	Years Of Service At Retirement	% Of Premium Paid For Retiree	% Of Premium Paid For Dependents
		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 Jan. 1, 2014	Must be drawing 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 of benefits commenced.		

Note: LRP = Legislators' Retirement Plan.

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 based on 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 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 Transfers

Members participating in the plans can choose to 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 prior to 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 \$31,110 applies to this portion and to other retirement income sources.

2018 Legislative Changes

Two measures that directly affected Judicial Form Retirement Systems were passed during the 2018 Regular Session: Senate Bill 151 and House Bill 185.

- SB 151 made several changes to the benefit structure of JFRS, which included reducing the benefit factor of future service credit for LRP members, adjusting the future interest credit applied to cash balance accounts, and modifying salary reciprocity for future nonlegislative compensation.

After SB 151 was passed, the Attorney General filed a complaint with the Franklin Circuit Court challenging its validity. On June 20, 2018, the court issued an opinion and order voiding the bill in its entirety. The court's order was appealed, and the Kentucky Supreme Court accepted immediate transfer and heard oral arguments on September 20, 2018. On December 13, 2018, the Supreme Court issued an opinion affirming the Circuit Court's

opinion. The Supreme Court held that SB 151 failed to comply with “three readings” requirement of Section 46 of the Constitution of Kentucky and, therefore, declared it void and of no effect.

- HB 185, cited as the “Officer Scotty Hamilton and Officer Nick Rodman Memorial Act of 2018,” increased the minimum amount of benefits received by a surviving spouse or dependent child of a member who is killed in the line of duty.

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 based on 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 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, and 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.

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

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

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 percent 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 (for example, the rate of return on investments, salary growth of employees, retiree medical inflation rates) and its people (for example, when people will retire, how long they will live in 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, once every 5 years, an actuarial experience study to review the funding methods and assumptions used in the actuarial valuation.
- **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 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.

$$\begin{array}{r} \text{Actuarial value of assets} \\ - \text{actuarially accrued liability} \\ = \text{unfunded liabilities} \end{array}$$

$$\begin{array}{r} \text{Actuarial value of assets} \\ \div \text{actuarially accrued liability} \\ = \text{funding level} \end{array}$$

- **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 comprises 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 based on 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 2018 CERS employer rates were determined by the 2016 actuarial valuation.

Amortization Periods And Methods

The various systems and plans use different 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 the KRS pension and health funds, a payroll growth assumption of 2.0 percent (CERS) or 0.0 percent (KERS and SPRS) is used. The amortization period was recently reset to a new 30-year period by Senate Bill 2, passed during the 2013 Regular Session.

During the 2017 fiscal year, the KRS board voted to reduce the payroll growth assumption for each underlying plan. For the KERS (both hazardous and nonhazardous) and SPRS plans, the board lowered the assumption for the pension and retiree health funds from 4.0 percent to 0.0 percent. The pension and retiree health fund assumptions for both CERS (hazardous and nonhazardous) plans were reduced from 4.0 percent to 2.0 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 closed 23-year and 27-year periods, respectively. Prior to the FY 2017 valuation, both funds were amortized over open, 30-year amortization periods. 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.

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 another key assumption in the actuarial valuation. Table 4.2 shows, for each system or plan, the actuarial assumed rate of return used in the 2018 actuarial valuation.

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

System/Plan	Pension	Health
KERS nonhazardous	5.25%	6.25%
KERS hazardous	6.25	6.25
CERS nonhazardous	6.25	6.25
CERS hazardous	6.25	6.25
SPRS	5.25	6.25
TRS	7.50	8.00
JFRS (JRP and LRP)	6.50	6.50

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: KRS, TRS, LRP, and JRP actuarial valuations.

The KRS and JFRS boards voted to reduce the return assumptions used in pension and retiree health fund valuations during 2017. For pension, the KERS nonhazardous and SPRS assumption was reduced to 5.25 percent from 6.75 percent, while KERS hazardous and both CERS plans were reduced to 6.25 percent from 7.5 percent. The JFRS board lowered the return assumption for LRP and JRP to 6.5 percent from 7.0 percent. For retiree health funds, all five KRS plans were reduced to 6.25 percent from 7.0 percent, while JRP and LRP were reduced to 6.5 percent from 7.0 percent. The TRS board has not approved any changes to the systems assumed rate of return since 2010, when the retiree health fund assumption increased.

Financial Health Of The Systems

Tables 4.3 to 4.6 provide a 10-year summary of funding levels and unfunded liabilities for the pension and retiree health funds for each system, as determined from annual actuarial valuations.

Funding levels for each of the system or plan pension funds have generally fallen over the 10-year period, and the total unfunded liabilities for the combined pension funds have grown from \$18.0 billion to \$38.0 billion over the period. More recently, some of the pension plans have experienced some level of stabilization, largely due to additional funding or better investment experience. 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 \$13.4 billion to \$4.7 billion.

Table 4.3
Pension Fund Funding Levels
(% Actuarial Assets To Actuarial Liabilities)
2009 To 2018

Valuation Year	KERS NH	KERS H	CERS NH	CERS H	SPRS	TRS	JRP	LRP
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	*	*
2017	13.6	54.1	52.8	48.7	27.0	56.4	76.6	88.8
2018	12.9	55.5	52.7	48.4	27.1	57.7	*	*

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. In even-numbered years, such as 2018, a full actuarial valuation is not required, and the board has a roll-forward valuation completed to produce actuarial data for Governmental Accounting Standards Board reporting purposes only. Data in Table 4.3 show historical values for funding purposes only; as a result, no values are reported for 2016 and 2018.

Source: KRS, TRS, LRP, and JRP actuarial valuations.

Table 4.4
Pension Fund Unfunded Liabilities (In Billions)
2009 To 2018

Valuation Year	KERS NH	KERS H	CERS NH	CERS H	SPRS	TRS	JRP	LRP
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	*	*
2017	13.47	0.51	6.04	2.41	0.71	14.31	0.08	0.01
2018	13.65	0.51	6.24	2.47	0.72	14.30	*	*

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. In even-numbered years, such as 2018, a full actuarial valuation is not required, and the board has a roll-forward valuation completed to produce actuarial data for Governmental Accounting Standards Board reporting purposes only. Data in Table 4.4 show historical values for funding purposes only; as a result, no values are reported for 2016 and 2018.

Source: KRS, TRS, LRP, and JRP actuarial valuations.

Table 4.5
Retiree Health Fund Funding Levels
(% Actuarial Assets To Actuarial Liabilities)
2009 To 2018

Valuation Year	KERS NH	KERS H	CERS NH	CERS H	SPRS	TRS	JRP	LRP
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
2017	30.7	117.6	66.4	66.9	65.2	26.7	144.3	181.3
2018	36.4	130.0	76.7	74.6	71.6	36.3	158.7	196.6

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, which are reported in a separate actuarial valuation.

Source: KRS, TRS, LRP, and JRP actuarial valuations.

Table 4.6
Retiree Health Fund Unfunded Liabilities (In Billions)
2009 To 2018

Valuation Year	KERS NH	KERS H	CERS NH	CERS H	SPRS	TRS	JRP	LRP
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)
2017	1.86	(0.07)	1.13	0.59	0.10	2.71	(0.023)	(0.018)
2018	1.55	(0.12)	0.72	0.43	0.08	2.12	(0.031)	(0.022)

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: KRS, TRS, and LRP, and JRP actuarial valuations.

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 its 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 have historically been higher than values used for funding purposes. In the 2018 GASB reports, the LRP pension fund is 97.8 percent funded, compared to 92.9 percent in the 2017 GASB reports. In the same GASB reports, the JRP values are 82.9 percent and 78.8 percent for the 2017 and 2016 reports, respectively.

The TRS pension fund values for funding and accounting purposes have historically been significantly different, but recent contributions and a statutory intent to fund TRS have resulted in improvement and similar values in FY 2018. In the 2018 GASB reports, the TRS pension fund is 59.3 percent funded, compared to 57.7 percent for funding purposes. This result represents a significant improvement from the 2017 GASB valuation, which reported that the TRS pension fund was 39.8 percent funded. The improvement is primarily driven by the discount rate used to value pension liabilities, with 7.50 percent being used in 2018 and 4.49 percent being used for GASB 67 reporting purposes.

A lower discount rate is required for GASB 67 computations if a pension plan assets are anticipated to be fully depleted in the future. In the 2017 valuation, the TRS pension fund was anticipated to deplete all assets by FY 2038. However, as a result of additional appropriations included in the prior budget, along with statutory intent to fund TRS in the future, the TRS pension plan was not projected to be fully depleted in the 2018 valuation; thus a lower discount rate was not required for computation.

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 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, with the exception of a group of 118 quasi-KERS nonhazardous entities that remained at the 2018 rate.^b

Tables 4.7 to 4.9 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 2011 to FY 2020.

Table 4.7
KERS Nonhazardous Employer Contribution Rates As Percentage Of Payroll
FY 2011 To FY 2020

Fiscal Year Ended	Rate Established By KRS Board			Total Budgeted Rate
	Pension	Retiree Health	Total	
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
2019	71.03	12.40	83.43	83.43*
2020	71.03	12.40	83.43	83.43

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

*House Bill 265, passed during the 2018 Regular Session, maintained the FY 2019 contribution rate at 49.47 percent for 118 entities, including regional mental health agencies, health departments, universities, and advocacy agencies participating in KERS Nonhazardous.

Source: Kentucky Retirement Systems.

^a Senate Bill 2 provided that the Kentucky Retirement Systems Board of Trustees could amend the KERS and SPRS employer contribution rates only 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.

^b House Bill 265, passed during the 2018 Regular Session, maintained the FY 2019 contribution rate at 49.47 percent for 118 entities, including regional mental health agencies, health departments, universities, and advocacy agencies participating in KERS nonhazardous.

For FY 2018, the dollar value of the employer contributions for KERS nonhazardous totaled \$825.5 million, which included a \$67.6 million general fund appropriation. In total, employer contributions declined \$84.0 million from the FY 2017 total of \$909.5 million, driven primary by \$68.8 million in cessation payments that were received in the prior fiscal year.

Table 4.8
KERS Hazardous Employer Contribution Rates As Percentage Of Payroll
FY 2011 To FY 2020

Fiscal Year Ended	Rate Established By KRS Board			Total Budgeted Rate
	Pension	Retiree Health	Total	
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
2019	34.39	2.46	36.85	36.85
2020	34.39	2.46	36.85	36.85

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

Source: Kentucky Retirement Systems.

For FY 2018, the dollar value of the employer contributions for KERS hazardous totaled \$48.9 million, which included a \$10.0 million general fund appropriation. In total, employer contributions declined \$9.7 million from the FY 2017 total of \$58.6 million.

Table 4.9
SPRS Employer Contribution Rates As Percentage Of Payroll
FY 2011 To FY 2020

Fiscal Year Ended	Rate Established By KRS Board			Total Budgeted Rate
	Pension	Retiree Health	Total	
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
2019	119.05	27.23	146.28	146.28
2020	119.05	27.23	146.28	146.28

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

Source: Kentucky Retirement Systems.

For FY 2018, the dollar value of the employer contributions for SPRS totaled \$56.3 million, which included a \$10.0 million general fund appropriation. In total, employer contributions declined \$16.2 million from the FY 2016 total of \$72.5 million, driven primarily as a result of \$15.0 million that was contributed additionally as a direct appropriation during the prior year.

As shown in Tables 4.10 and 4.11, the CERS employer contribution rates established by the KRS board of trustees vary annually based on the results of the most recently completed actuarial valuation. For FY 2019, employers saw an increase in rates as a result of the board's decision to lower payroll growth and investment return assumptions in the 2017 valuation.

During the 2018 Regular Session, House Bill 362 established a schedule to phase in to the full actuarially determined rate beginning in FY 2019. The phase in process limits the increase in employer contribution rates to no more than 12 percent in total dollars annually for the next 10 years.

Table 4.10
CERS Nonhazardous Employer Contribution Rates As Percentage Of Payroll
FY 2011 To FY 2020

Fiscal Year Ended	Pension	Retiree Health	Total	Employer Rate Paid
2011	10.03%	6.90%	16.93%	16.93%
2012	11.70	7.26	18.96	18.96
2013	12.62	6.93	19.55	19.55
2014	13.74	5.15	18.89	18.89
2015	12.75	4.92	17.67	17.67
2016	12.42	4.64	17.06	17.06
2017	13.95	4.73	18.68	18.68
2018	14.48	4.70	19.18	19.18
2019	21.84	6.21	28.05	21.48*
2020	22.52	4.76	27.28	24.06*

Note: CERS = County Employees Retirement System.

*HB 362, passed in 2018, limits the annual increase in contribution rates to 12 percent in projected dollars.

Source: Kentucky Retirement Systems.

For FY 2018, the dollar value of the employer contributions to CERS nonhazardous totaled \$482.6 million, which represented an increase of \$28.3 million from the FY 2017 total of \$454.3 million.

Table 4.11
CERS Hazardous Employer Contribution Rates As Percentage Of Payroll
FY 2011 To FY 2020

Fiscal Year Ended	Pension	Retiree Health	Total	Employer Rate Paid
2011	16.79%	16.46%	33.25%	33.25%
2012	17.91	17.85	35.76	35.76
2013	20.10	17.50	37.60	37.60
2014	21.77	13.93	35.70	35.70
2015	20.73	13.58	34.31	34.31
2016	20.26	12.69	32.95	32.95
2017	21.71	9.35	31.06	31.06
2018	22.20	9.35	31.55	31.55
2019	35.69	12.17	47.86	35.34*
2020	16.79	16.46	33.25	39.58*

Note: CERS = County Employees Retirement System.

*HB 362, passed in 2018, limits the annual increase in contribution rates to 12 percent in projected dollars.

Source: Kentucky Retirement Systems.

For FY 2018, the dollar value of the employer contributions to CERS hazardous totaled \$183.7 million, which represented an increase of \$16.2 million from the FY 2017 total of \$167.5 million.

TRS Employer Rates

TRS employer contribution rates differ for nonuniversity and university employers, as shown in Table 4.12. The TRS employer rates for FY 2019 and FY 2020 include the following:

- **A fixed statutory rate** payable by participating employers. Prior to 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. Due to the passage of HB 540 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 of 16.105 percent of pay.^c 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 2019 and FY 2020 equal 2.83 percent and 3.0 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 14.61 percent of pay and 14.10 percent in FY 2019 and FY 2020, respectively, to help fund the pension fund

^c 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.

on an actuarially sound basis. TRS began requesting this additional funding in FY 2007. Table 4.13 provides a breakdown of this required increase requested and any appropriations made.

In addition to these contributions, the state is also required, under HB 540, to pay the cost of health insurance coverage of members who retire on or after July 1, 2010, who are not eligible for Medicare. For FY 2017, total employer contributions—which included the statutory rate, state special, general fund appropriation, and health cost payments—totalled \$1,237.2 million. This represented a decline of \$5.2 million from the FY 2017 total of \$1,242.4 million.

Table 4.12
TRS Employer Contribution Rates As Percentage Of Payroll
FY 2019 And FY 2020

Item	Employer Rates			
	Nonuniversity		University	
	FY 2020	FY 2019	FY 2020	FY 2019
Statutory rate	16.105%	16.105%	13.650%	13.650%
State special	3.00	2.83	3.00	2.83
Required increase	14.100	14.610	14.100	14.610
Total	46.060%	46.400%	41.150%	41.490%

Note: TRS = Teachers' Retirement System.

Source: June 30, 2017, and June 30, 2016, TRS actuarial valuations.

Table 4.13
TRS Requests For Required Increase In Employer Contribution Rates
FY 2007 To FY 2020

Fiscal Year Ended	% Of Payroll	Dollar Value Requested	Dollar Value Appropriated
2007	0.11%	\$3,174,600	\$3,174,600
2008	1.32	38,965,900	38,965,900
2009	1.88	60,499,800	—
2010	2.46	82,331,200	—
2011	3.59	121,457,000	—
2012	5.81	208,649,000	—
2013	7.27	260,980,000	—
2014	8.02	299,420,000	—
2015	10.42	386,400,000	—
2016	12.97	487,400,000	—
2017	13.80	520,372,000	498,537,600
2018	13.49	512,883,000	474,724,700
2019	14.61	553,597,000	553,597,000
2020	14.10	538,253,000	538,253,000

Note: TRS = Teachers' Retirement System; — = data not provided.

Source: June 30, 2017, TRS actuarial valuation, biennial state budget.

JRP And LRP Employer Rates

Employer contribution rates, which are paid by state appropriations to JRP and LRP, differ based on 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. 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 2010 to FY 2020. For the current budget biennium, no appropriations were included for employer contributions of the LRP plans.

For FY 2018, the dollar value of the employer contributions paid to JRP totaled \$13.81 million, which represented an increase of \$0.60 million from the FY 2017 total of \$13.21 million. For LRP, the dollar value of the employer contributions paid in FY 2018 totaled \$2.41 million, which represented a decrease of \$0.07 million from the FY 2017 total of \$2.48 million.

Table 4.14
JRP And LRP Employer Contribution Rates As Percentage Of Payroll
FY 2011 To FY 2020

Fiscal Year Ended	JRP Employer Rates		LRP Employer Rates	
	Rate Established By Board	Budgeted Rate	Rate Established By Board	Budgeted Rate
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
2019	28.83	28.83	24.67	0.00
2020	28.83	28.83	24.67	0.00

Note: Employer rates beginning in 2017 represent a total, combined rate for both the defined benefit and cash balance plans. JRP = Judicial Retirement Plan; LRP = Legislators' Retirement Plan.

Source: Judicial Form Retirement System.

Sensitivity Analysis

Under the provisions of HB 238, which was passed during the 2016 Regular Session, 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.

KRS and TRS are required by statute to conduct an actuarial valuation annually, and the 2018 valuations included analysis on how sensitive funding was 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 5.25 percent to 4.25 percent would reduce the funding level from 12.9 percent to 11.5 percent, increase unfunded liabilities by an additional \$1.9 billion, and require additional employer contributions of 5.9 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 to 51.7 percent from 57.7 percent, increase unfunded liabilities by an additional \$3.91 billion, and require additional employer contributions of 8.5 percent of pay.

Relative to the payroll growth assumption, changes do not immediately impact the funding level or unfunded liability of a plan, but they will have an impact on required employer contributions. For the TRS pension fund, the analysis showed that reducing the payroll growth assumption from 3.5 percent to 2 percent would require an additional employer contribution of 4.3 percent of pay. Reducing the payroll growth assumption from 3.5 percent to 0 percent would require an additional employer contribution of 10.7 percent of pay. For the KERS nonhazardous pension fund, the analysis showed that reducing the payroll growth assumption from 0 percent to negative 1.0 percent would require an additional employer contribution of 7.0 percent of pay.

JFRS is required by statute to complete actuarial valuations only every other fiscal year, with FY 2017 the most recent completed. However, because of the estimated cost required to implement the new requirement, the board chose to not provide the sensitivity analysis until the cost could be appropriately budgeted. JFRS will include the estimated cost in future budget requests and plans to include the required analysis beginning with the 2019 valuation.

2018 Audited Financial Statements

For the fiscal year ended June 30, 2018, the combined net plan assets of all state-administered pension funds grew by \$1.8 billion, to a combined total market value of \$32.8 billion. Asset growth occurred in every state-administered plan, with the exception of the KERS nonhazardous plan, and was driven largely by strong investment gains and increased funding. Table 4.15 provides pension net plan assets at the beginning of year and end of year for the fiscal year ended June 30, 2018, and the additions and deductions that resulted in the net plan asset change over the year.

Table 4.15
Pension Fund Net Plan Assets And Changes In Net Plan Assets (In Millions)
As Of June 30, 2018

	KERS NH	KERS H	CERS NH	CERS H	SPRS	TRS	LRP	JRP
Net plan assets (BOY)	\$2,093	\$606	\$6,739	\$2,228	\$256	\$18,708	\$69	\$293
Additions								
Employee cont.	\$105	\$18	\$160	\$61	\$6	\$319	<\$1	\$2
Health insurance cont.	6	<1	11	2	<1	—	—	—
Employer cont.	689	44	358	128	47	1,049	2	13
Net investment income	148	52	579	192	18	1,953	6	27
Total additions	\$948	\$114	\$1,108	\$383	\$71	\$3,321	\$9	\$42
Deductions								
Benefit payments	\$967	\$66	\$727	\$244	\$59	\$2,005	\$5	\$23
Refunds	14	2	14	4	<1	31	—	—
Administrative expenses	11	1	20	2	<1	11	<1	1
Total deductions	\$992	\$69	\$761	\$250	\$59	\$2,047	\$5	\$24
Net plan assets (EOY)	\$2,049	\$651	\$7,086	\$2,361	\$268	\$19,982	\$73	\$311

Note: The health insurance 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. 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; — = not reported; EOY = end of year.

Source: June 30, 2018, KRS Annual Report, TRS Audit Report, and JFRS Audit Report.

For the fiscal year ended June 30, 2018, the combined net plan assets of all state-administered retiree health funds increased by \$624 million to \$6.49 billion. Asset growth occurred in every state-administered plan, largely driven by strong investment gains and positive cash flow.

Table 4.16 provides, for each system and plan, retiree health net plan assets at the beginning of year and end of year for the fiscal year ended June 30, 2018, and the additions and deductions that resulted in the net plan asset change over the year.

Table 4.16
Retiree Health Fund Net Plan Assets And Changes In Net Plan Assets (In Millions)
As Of June 30, 2018

	KERS NH	KERS H	CERS NH	CERS H	SPRS	TRS	LRP	JRP
Net plan assets (BOY)	\$781	\$484	\$2,161	\$1,179	\$178	\$958	\$42	\$79
Additions								
Employee contributions	<\$1	<\$1	\$1	<\$1	—	\$131	<\$1	<\$1
Employer contributions	136	5	125	56	\$9	187	<1	1
Net investment income	61	43	198	109	17	77	4	8
Total additions	\$198	\$48	\$323	\$165	\$26	\$395	\$4	\$9
Deductions								
Health care subsidies	\$130	\$19	\$132	\$75	\$14	\$161	\$1	\$2
Other deductions	2	<1	4	<1	<1	—	<1	<1
Administrative expenses	<1	<1	1	<1	<1	2	<1	<1
Total deductions	\$132	\$19	\$137	\$76	\$14	\$163	\$1	\$2
Net plan assets (EOY)	\$847	\$513	\$2,347	\$1,268	\$190	\$1,190	\$45	\$86

Note: 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. 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; — = not reported; EOY = end of year.

Source: June 30, 2018, KRS Annual Report, TRS Audit Report, and JFRS Audit Report.

2018 Investments And Investment Performance

As outlined in Kentucky Revised Statute 7A.250, the Public Pension Oversight Board conducted semiannual reviews of the state-administered retirement systems investment program. The reviews 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.

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 nine-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. Assets 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 asset allocations for all pension funds as of June 30, 2018, along with an LRC staff-calculated peer group.

Table 4.17
Pension Fund Asset Allocation
June 30, 2018

	State-Administered Plans								LRC Peer Group
	KERS NH	KERS H	CERS NH	CERS H	SPRS	TRS	LRP	JRP	
Public markets	69.8%	65.8%	69.3%	69.1%	69.7%	85.4%	99.9%	99.9%	70.6%
US equity	17.9	14.6	18.0	18.0	15.6	41.2	71.4	72.4	
Non US equity	21.5	18.5	21.6	21.7	19.1	22.7	0.0	0.0	
Fixed income	30.4	32.7	29.7	29.4	35.0	21.5	28.5	27.5	
Alternative markets	26.6	29.4	27.2	27.2	25.5	13.4	0.0	0.0	28.0
Real estate	3.5	3.4	3.7	3.5	3.8	5.8	0.0	0.0	
Absolute return	5.1	6.2	5.6	5.4	5.1	0.0	0.0	0.0	
Real return	8.6	8.0	8.7	8.9	8.6	1.0	0.0	0.0	
Private assets	9.4	11.8	9.2	9.4	8.0	6.6	0.0	0.0	
Cash	3.6	4.8	3.5	3.7	4.8	1.2	0.1	0.1	1.4

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.

Source: LRC Annual Investment Review, September 2018.

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 39 of 69 state employee or teacher plans, revealed similar results.

Investment Performance

Table 4.18 shows pension and retiree health fund performance for each retirement system over the trailing 1-, 3-, 5-, and 10-year periods ended June 30, 2018. Each of the plans provided strong, positive returns for the 2018 fiscal year, with returns ranging from 7.5 percent to 10.5 percent. All the plans also exceed assumed rates of returns for each of the plans.

With regard to KRS, each of the underlying pension plans produced returns that met or exceeded their respective performance benchmarks for the fiscal year. Longer term, the pension funds have performed in line with their assumed rate of return, but relative performance has been mixed, with the liquidity and cash flow constrained KERS nonhazardous and SPRS plans struggling to keep pace with their benchmarks. On the retiree health side, each of the plans has returned strong, positive results but has struggled to keep pace with benchmarks over the longer time frames.

The TRS pension fund performed well during the fiscal year, producing a return above both its assumed rate of return and its benchmark. In addition, the pension fund has exceeded its benchmark across all trailing time frames. The retiree health fund, which was established by HB 540 in 2010, has provide positive absolute returns but has performed below its benchmarks as the fund continues to transition to strategic targets established during FY 2015.

The JRP and LRP plans, which include both retiree health and pension funds together, produced returns above their assumed rates of return, but they fell short of their performance benchmarks. Over a longer time frame, both funds have performed well and have exceeded both the assumption and benchmark.

Table 4.18
Net Of Fee Investment Returns
June 30, 2018

	Pension Funds				Retiree Health Funds			
	1 Year	3 Year	5 Year	10 Year	1 Year	3 Year	5 Year	10 Year
KERS Nonhazardous	7.5%	6.2%	7.2%	6.0%	8.0%	6.9%	7.2%	5.3%
Benchmark	7.2	6.5	7.2	6.3	8.4	7.1	7.7	6.0
KERS Hazardous	8.7	7.1	7.7	6.2	8.9	7.3	7.7	5.5
Benchmark	8.2	6.9	7.5	6.5	8.6	7.2	7.7	6.0
CERS Nonhazardous	8.8	7.2	7.7	6.2	9.2	7.5	7.8	5.6
Benchmark	8.2	6.9	7.5	6.5	8.6	7.2	7.8	6.0
CERS Hazardous	8.8	7.2	7.7	6.2	9.3	7.6	7.8	5.6
Benchmark	8.2	6.9	7.5	6.5	8.6	7.2	7.8	6.0
SPRS	7.7	6.1	7.0	5.9	9.3	7.5	7.8	5.6
Benchmark	7.7	6.5	7.3	6.3	8.6	7.2	7.8	6.0
TRS	10.5	7.9	9.2	7.8	8.5	6.7	7.3	N/A
Benchmark	9.3	8.2	9.0	7.5	8.7	7.6	N/A	N/A
LRP*	9.4	8.6	10.4	9.8	9.4	8.6	10.4	9.8
Benchmark	9.8	8.7	9.9	8.3	9.8	8.7	9.9	8.3
JRP*	9.3	8.6	10.3	9.8	9.3	8.6	10.3	9.8
Benchmark	9.8	8.7	9.9	8.3	9.8	8.7	9.9	8.3

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 for which strategic targets and ranges were established for the fund. FY 2016 was the first year for which a policy benchmark was measured for the fund. KERS = Kentucky Employees Retirement System; CERS = County Employees Retirement System; SPRS = State Police Retirement System; TRS = Teachers' Retirement System; LRP = Legislators' Retirement Plan; JRP = Judicial Retirement Plan.

*The 1-year returns are net of fee; longer-term returns are gross.

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

In addition to evaluating each system relative to stated policy benchmarks, the Public Pension Oversight Board also reviewed investment results against two other public fund peer groups: Wilshire TUCS and BNY Mellon. Table 4.19 includes median results from the two publicly available peer groups, as well as an LRC staff-generated peer group consisting of only US state employee and teacher plans.

Table 4.19
Peer Group Median Investment Returns
June 30, 2018

	1 Year	3 Year	5 Year	10 Year
LRC calculated	8.9%	7.4%	8.3%	6.3%
Wilshire TUCS	8.6	7.3	8.4	7.0
BNY Mellon	8.6	N/A	8.2	6.7

Note: For all peer groups shown, returns are reported gross of (or before) fees are applied. "LRC calculated" includes 39 plans.

Source: LRC Annual Investment Review, September 2018.

Investment Expense

Table 4.20 provides pension and retiree health care fund investment expense for the fiscal year ended June 30, 2018.

Pension fund expenses are reported and include management fees by asset class, as well as other incentive fees (if provided by system). For KRS, total management fees equaled \$51.6 million, or 42.1 basis points, while the system also reported additional alternative or incentive-based expenses of \$41.0 million. When combined, KRS reported expenses of \$92.6 million, or 75.5 basis points. TRS reported total management fees of \$55.5 million, or 28.0 basis points, but did not disclose any performance-related agreements. Lastly, total fees for JFRS during the fiscal year were \$408,300, or 7.9 basis points. All JFRS pension and retiree health assets are managed together by a single investment manager, so separate fees for pension and retiree health are not recorded.

Table 4.20
Investment Expense By System (In Millions)
June 30, 2018

	KRS			TRS			JFRS		
	Assets	Fees	BPS	Assets	Fees	BPS	Assets	Fees	BPS
Pension									
Global equity	\$4,700	\$8.8	22.2	\$12,668	14.7	11.6	\$371	\$0.3	7.8
Private assets	1,214	5.2	72.3	1,312	18.5	141.0	0	0	0
Real return	1,057	5.5	52.1	187	1.7	90.0	0	0	0
Real estate	428	6.6	121.6	1,151	10.1	87.8	0	0	0
Fixed income	3,715	10.4	33.3	4,248	6.5	15.4	143	0.1	7.8
Absolute return	702	12.4	94.7	0	0	0	0	0	0
Cash/other*	454	2.7		237	4.0		<0.1	<0.1	
Total mgmt. fees	\$12,270	\$51.6	42.1	\$19,803	\$55.5	28.0	\$514	\$0.4	7.9
Other									
Other fees/incentives**	\$12,270	\$41.0	33.4	<i>Other not reported</i>			\$514	\$0	N/A
Total pension fund	\$12,270	\$92.6	75.5	\$19,803	\$55.5	28.0	\$514	\$0.4	7.9
Retiree Health Insurance									
Total fund	\$5,127	\$45.9	89.6	\$1,061	\$3.6	33.9	<i>Assets included above</i>		
Combined fees	\$17,397	\$135.5	79.6	\$20,864	\$59.1	28.3	\$514	\$0.4	7.9

Note: KRS = Kentucky Retirement Systems; TRS = Teachers' Retirement System; JFRS = Judicial Form Retirement System; BPS = basis points; mgmt. = management.

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

** "Other fees/incentives" includes carried interest, profit sharing, or other partnership related fees (if provided).

Source: LRC Annual Investment Review, September 2018.

Chapter 5

2018 Public Pension Oversight Board Meetings

Testimony Before The Board

During 2018, the Public Pension Oversight Board met nine 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 heard testimony regarding actuarial practices and trends, trustee election process, and fiduciary responsibility.

A summary of these additional issues and testimony appears below.

Actuarial Assumption Trends

The Public Pension Oversight Board heard testimony from GRS Retirement Consultants (GRS), a leading actuarial firm within the pension industry, regarding the assumptions used by public pension plans to estimate expected returns and discount future liabilities. The testimony included recent trends across the industry; a discussion of the purpose, use, and impact of assumptions in the annual valuation process; a review of the standards in place regarding the selection of assumptions; and an assessment of current economic conditions and of an appropriate time horizon for selecting the assumption.

GRS began by reviewing current trends with regard to investment return assumptions, pointing out that many large public retirement systems had lowered their expected return. While the majority of plans were using an 8 percent assumption in 2001, very few currently remain at that level, and more than half are below 7.5 percent. In addition, GRS noted that plans that had conducted experience studies over the past few years had continued to drop return assumptions, with a median assumption of 7.33 percent.

Next, GRS discussed the purpose of an actuarial valuation, how assumptions are used in the process, and the impact they can have on results. First, the primary purpose of a valuation is to assess the current funded status of the plan and to identify historical trends. Assumptions are used to help a plan anticipate future expectations and required contributions. GRS identified the investment return assumption as a critical assumption, given its use to predict future returns and the rate at which benefit payments are discounted, noting the magnitude changes can have on determined contribution rates.

GRS provided an overview of Actuarial Standards of Practice #27, which outlines the process for selecting reasonable investment return and inflation assumptions. The investment return assumption uses a building-block approach, which combines assumptions for inflation and an expected real investment return. GRS pointed out that the process is not systematic; it involves professional judgment, third-party research, and some consideration of past experience. In

selecting both individual assumptions and a complete set of assumptions, actuaries must satisfy the standards, and assumptions must be deemed reasonable.

GRS evaluated several economic factors and emphasized that a general decline in expectations across each were leading to lower investment return assumptions. First, the decline in treasury yields—from 9 percent in the late 1980s to a current rate of 3 percent—has put downward pressure on fixed-income assets. In addition, within equity markets, GRS called attention to the Shiller price earnings ratio and noted that its current level was almost as high as the level before the Great Depression, leading many investment professionals to estimate moderate returns out of stocks in the future. Given these declines in expectations, GRS explained that many public pension plans face the decision either to increase their exposure to riskier, more volatile assets to maintain current assumptions, or to lower their expected return and face higher contribution rates.

GRS discussed what an appropriate time horizon might be for selecting a return assumption, as well as how items such as cash flow and timing of returns should be considered. Although many investment professionals consider a 10-year period and many public pension plans focus on 30-year periods, GRS suggested that a more applicable time horizon for choosing an investment return assumption should incorporate the duration of a plan's liability, which tends to result in 15 to 20 years. In addition, cash flow and the timing of returns can have a significant impact on funding. A plan that has poor cash flow is more negatively affected if it underperforms the assumption earlier; therefore, a plan facing cash flow concerns should err on the more conservative side when setting assumptions.

Trustee Election Process

The Public Pension Oversight Board heard testimony from KRS and TRS staff, who reviewed the process by which elected trustees are elected.

The KRS election process begins in February, when the executive director notifies the board in writing of the election procedures. KRS staff then distribute a notice to the membership seeking applications, which must be received prior to the end of July. In August, an informational meeting is held with candidates, and their personal information is forwarded to the attorney general to determine constitutional compatibility. The board then nominates up to three eligible candidates for each vacancy before September 30, but any member not nominated by the board has until November 30 to file a petition and be added to the ballot. Ballots are prepared by the end of December and mailed to the membership on January 20. Returned ballots are mailed to an external auditor, who tabulates the results and certifies the votes. Winners are announced, and they begin serving their term April 1.

The TRS election process, which is established by Kentucky Revised Statute 161.260, has remained largely unchanged since TRS was created. TRS holds an election each year, with at least two of the seven elected trustee positions up for election. Elections are completed by June 1 each year, and trustee terms begin on July 1 of each year. Two candidates are selected by a 13-member nominating committee, which consists of an active member from each of the

12 Kentucky Education Association districts, along with one retired member. TRS prepares and mails paper ballots to each member in early May, and each mailing includes biographies of each candidate and prepaid return postage. All ballots have a tracking number for security purposes. Returned ballots must be postmarked by the end of May and are mailed to the Kentucky Department of Education, where the commissioner of education tabulates the results and provides them to TRS. Results are announced during the June trustee meeting. All expenses are paid from the TRS general expense fund.

Fiduciary Duties And Responsibility

The Public Pension Oversight Board heard testimony from Ice Miller LLP, fiduciary and tax counsel for TRS and KRS, regarding fiduciary responsibility. The presentation included a summary of who qualifies as a fiduciary, sources and standards of fiduciary duties, liability of fiduciaries, and information specifically related to KRS and TRS.

Ice Miller began by defining how individuals qualify as a fiduciary, noting that a person can become a fiduciary either by designation or by function. Any person or entity who is specifically named in a retirement plan or trust document as a fiduciary, such as an investment committee member or investment officer, would qualify as a fiduciary based on designation. Any person or entity who makes, or has the authority to make, discretionary administrative or investment decisions related to the retirement plan would serve as a fiduciary based on function. These individuals may not be specifically designated, but their job function and authority to exercise discretion would make them fiduciaries.

Ice Miller outlined the sources of fiduciary duty and discussed the standards of conduct to which fiduciaries are held under federal, state, and common law. The Internal Revenue Code represents the primary federal source, but the Employee Retirement Income Security Act is also a source, although it is not applicable to governmental plans such as TRS and KRS. At the state or common law level, Ice Miller referred to state statutes, the Executive Branch Code of Ethics, and the Uniform Management of Public Employee Retirement Systems Act. Plan-specific documents, policies, statutes, and administrative regulations are sources that must also be considered. Ice Miller emphasized that fiduciaries are held to extremely high—possibly the highest—standards of conduct under the law.

Ice Miller reviewed and summarized three major duties of every fiduciary: loyalty, prudence, and adherence to plan documents. Regarding the duty of loyalty, Ice Miller noted that all fiduciaries have a duty to act

- solely in the interest of participants and beneficiaries,
- for the exclusive purpose of providing benefits or paying reasonable plan expenses,
- independently and without conflicts of interest, and
- impartially among differing interests.

Under the duty of prudence, four underlying tasks were summarized:

- To act with the care, skill, prudence, and diligence of a prudent person familiar with like matters
- To be informed

- To delegate responsibilities outside of the fiduciary's expertise
- To diversify and monitor investments

Under the duty to follow plan documents, a fiduciary has a duty to administer a plan in good faith in accordance with its written terms, which includes consistent administration, a timely update of legal changes, and a timely correction of any plan errors.

Ice Miller discussed the liability of fiduciaries for both KRS and TRS, emphasizing that a fiduciary can be personally liable for a breach of fiduciary duty. The fiduciary would be liable to restore any losses resulting from a breach, any profits made by the fiduciary of misused plan assets, and other equitable relief. The fiduciary may be liable for a co-fiduciary's breach of fiduciary duty if a fiduciary enables another to commit the breach, knowingly participates in or conceals the breach, or discovers the breach but does not take steps to remedy it.

Chapter 6

Public Pension Oversight Board Recommendations

The Public Pension Oversight Board adopted recommendations at its December 17, 2018, meeting. These recommendations included legislative recommendations for the 2019 Regular Session of the Kentucky General Assembly and administrative recommendations for Public Pension Oversight Board staff.

For the 2019 session, the board approved the following recommendations:

- Legislation should be enacted to allow KRS to conduct electronic trustee elections, synchronize CERS trustee elections, and make other recommended housekeeping changes.
- Legislation should be enacted to void the retirement of an elected official who, after retirement, returns to the same elected office within 12 months.
- Legislation should be enacted to convert the funding formula of the KRS systems so that each agency pays a fixed dollar amount.
- The General Assembly should consider auto-enrolling future public employees into the Kentucky Deferred Compensation program with a 1 percent employee contribution.
- Legislation should be enacted to address the funding and participation concerns of quasi-governmental employers.

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

- research and present information to the board regarding the level of compensation paid to retirement system board members in Kentucky and nationwide, and
- research and review mandates for public pension system asset managers to abide by the CFA Code of Conduct and study whether the Securities Exchange Commission Code of Ethics could be used as an alternative mandate.

