

A large, light blue map of the state of Kentucky is positioned in the center of the page. The map is divided into numerous small, irregular shapes representing the state's counties. The map is set against a dark blue background with diagonal lines in the upper left and lower left corners.

SUMMARY ANNUAL

FINANCIAL REPORT

Prepared by the Accounting, Investment and Communications Divisions

2018

For the Fiscal Year Ended June 30, 2018

Kentucky Retirement Systems
A component unit of the Commonwealth of Kentucky

Kentucky Employees Retirement System (KERS)
County Employees Retirement System (CERS)
State Police Retirement System (SPRS)



Annual Highlights

November 29, 2018

Dear Kentucky Retirement Systems Members, Retirees, Beneficiaries, and Employers:

I am pleased to present the Summary Annual Financial Report (SAFR) of Kentucky Retirement Systems (KRS) for the fiscal year ended June 30, 2018. This report covers the ten (10) plans that form KRS: the Kentucky Employees Retirement System (KERS Hazardous and Non-Hazardous), the County Employees Retirement System (CERS Hazardous and Non-Hazardous), and the State Police Retirement System (SPRS) for both pensions and retiree healthcare. These ten plans include more than 379,000 members representing firefighters, police officers, bus drivers, janitorial staff at local schools, and many who work directly for Kentucky state government and/or Quasi agencies.

We present this information in summary form to assist the Board of Trustees, members, state executive and legislative branch officials, and the general public in understanding KRS' financial and actuarial status.

Fiscal 2018 was an eventful and improved year for KRS. Among other things, we:

- » Had several bills pass the 2018 General Assembly and become law that were significant for KRS;
- » Benefited from improved funding;
- » Improved our Board and KRS' governance;
- » Enhanced our technology;
- » Produced favorable investment returns; and
- » Managed a 17.5% increase in retirements. Total benefit payments for the year exceeded \$2 billion.

Legislation

The 2018 General Assembly produced several pieces of significant KRS-related legislation. Specifically, some of the bills that passed made changes regarding death in the line of duty benefits; established the KERS and SPRS plans' actuarially determined contribution rates for the next two years; froze the employer contribution rate for the Quasi State Agencies at 49.47% for one year (in FY 2020 the rate will increase to the same 83.43% rate as other KERS Non-Hazardous employers currently pay); and provided a phase-in of higher contribution rates for the CERS employers.

Senate Bill 151, the pension reform bill, also passed this Session but the Attorney General of Kentucky filed a suit barring its implementation.

Funding

The funded ratios increased modestly in three of the five pension plans, and meaningfully in all five insurance plans. The two exceptions were the KERS Non-Hazardous and CERS Non-Hazardous pension funds. The KERS Non-Hazardous funded ratio declined from 13.6% as of June 30, 2017 to 12.9% as of June 30, 2018, while the CERS Non-Hazardous funded ratio declined slightly from 52.8% as of June 30, 2017 to 52.7% as of June 30, 2018.

Funding for the five Retiree Health Insurance plans improved dramatically, with increases in funded statuses averaging 8.5%. With over \$5 billion in assets and nearly \$8 billion in liabilities, these insurance plans are a meaningful part of the KRS responsibility to provide members with their benefits.

Barring any major decline in asset values, the funded status for the KERS and SPRS pension plans and all of the insurance funds are expected to go up in Fiscal 2019 as a result of the higher contribution rates. The improvement in the CERS pension plans will be less certain until the higher contribution rates are fully enacted.

Governance

The KRS Board of Trustees also took several steps this past year to strengthen KRS' governance. Among other actions, the Board increased the size of our Investment Committee from five to nine per the requirements of Senate Bill 2 (SB 2, 2017 Regular Session) and formed a seven-member Actuarial Subcommittee of the Investment Committee; re-wrote the Board Bylaws; and established a new Trustee Education Policy and education compliance reporting system.

Technology

KRS continued to invest in applications and infrastructure to improve member services and increase staff productivity. FY 2018 accomplishments included the successful implementation of software modifications to administer pension spiking statutory changes; the increased use of business intelligence software to facilitate reporting and resolve employer reporting errors; the expansion of all software monitoring applications; and improved

internal staff awareness of information security threats. We also successfully tested our Disaster Recovery functionality and replication abilities.

Investments

Investment returns were favorable again this fiscal year, with each plan's returns exceeding its interest rate assumption. In addition, four out of five pension and four out of five insurance plans' returns exceeded their market benchmarks. The Board also adjusted our target asset allocations to make the assets less susceptible to market declines. Please refer to the Comprehensive Annual Financial Report for detailed information about our investment returns.

Looking Forward

Greatly improved funding (contribution rates are up nearly 70% for KERS Non-Hazardous and SPRS) and about 50% for the other three pension plans after a four year phase-in will greatly strengthen the financial health of all of the plans. Projections show that it will take upwards of 25 years or more before all of our funds are fully funded. But, fiscal year 2019 should prove to be the year that all of the pension funds finally begin to improve financially, provided the present level of funding continues and barring a major (i.e. 20% or more) stock market decline.

The insurance plans should also continue their positive trend which began in FY 2006.



David Eager
Executive Director

2018 Board of Trustees

as of November 29, 2018

David L. Harris
Chair
Governor Appointee
Term ends 6/17/22

Keith Percy
Vice Chair
Elected by SPRS
Term ends 3/31/19

GOVERNOR APPOINTED MEMBERS:

W. Joe Brothers
Term ends 7/1/21

John E. Chilton
Term ends 6/17/22

William S. Cook
*Term ends 6/17/19**

Kelly Downard
*Term ends 6/17/19**

John R. Farris
*Term ends 6/17/19**

J.T. Fulkerson
Term ends 7/1/21

David M. Gallagher
Term ends 7/1/21

Matthew Monteiro
*Term ends 6/17/19**

Neil P. Ramsey
*Term ends 6/17/18**

Thomas B. Stephens
Personnel Secretary
Ex-Officio

** Term continues until replaced*

ELECTED MEMBERS:

Campbell Connell
Elected by KERS
Term ends 3/31/22

Sherry Lynn Kremer
Elected by KERS
Term ends 3/31/22

Betty Pendergrass
Elected by CERS
Term ends 3/31/21

Jerry W. Powell
Elected by CERS
Term ends 3/31/21

David Rich
Elected by CERS
Term ends 10/31/21

2019 SCHEDULES BOARD MEETINGS

Regular Meetings

February 21
May 16
September 12
November 14
December 5
Annual Meeting
April 18

COMMITTEE MEETINGS

AUDIT

February 7
May 2
August 22
November 7

INVESTMENT

February 5
May 7
August 27
November 6

RETIREE HEALTH PLAN

February 12
May 14
September 5
November 12

ADMINISTRATIVE & DISABILITY APPEALS

Check website
for dates
and times.

**Dates subject to change. Please visit our website for updates. Annual Meeting, Regular Meetings, and Audit Committee begin at 10 am Eastern; all other Committee Meetings begin at 9 am Eastern unless otherwise noted.*

FINDING OUR COMPREHENSIVE ANNUAL REPORT

To view the Comprehensive Annual Financial Report (CAFR) in its entirety, please visit us online.

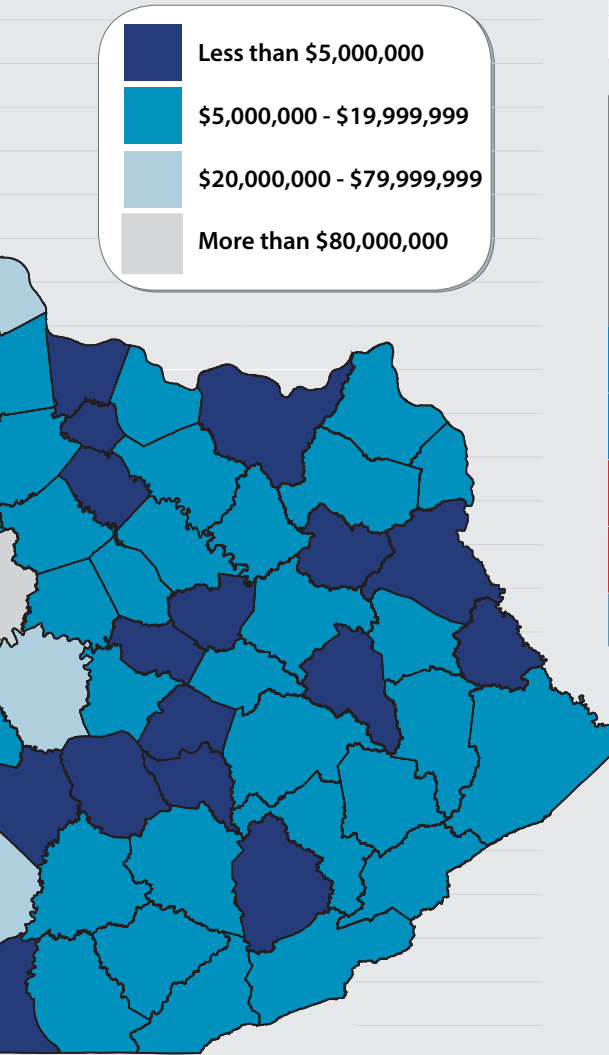
1. Go to **KYRET.KY.GOV**
2. Select **PUBLICATIONS AND FORMS**
3. Select **COMPREHENSIVE ANNUAL FINANCIAL REPORTS**
4. Click on **2018 CAFR**

2018 Total Fiscal Year KRS Pension Benefits Paid by County

County	Payees	Total	County	Payees	Total	County	Payees	Total	County	Payees	Total	
Adair	462	\$7,449,889	Fulton	166	\$2,164,135	Lewis	310	\$3,727,447	Oldham	1,246	\$25,684,018	
Allen	394	\$5,200,626	Gallatin	108	\$1,872,994	Lincoln	640	\$7,951,228	Owen	515	\$11,716,512	
Anderson	1,322	\$32,840,147	Garrard	433	\$6,287,475	Livingston	243	\$4,123,938	Owsley	205	\$3,033,893	
Ballard	229	\$3,107,680	Grant	556	\$10,128,969	Logan	580	\$7,983,274	Pendleton	338	\$5,512,127	
Barren	997	\$15,508,389	Graves	827	\$12,460,068	Lyon	344	\$6,477,082	Perry	743	\$10,873,665	
Bath	357	\$5,323,067	Grayson	690	\$10,357,850	Madison	2,233	\$36,881,757	Pike	1,196	\$17,400,119	
Bell	641	\$10,010,261	Green	273	\$3,710,635	Magoffin	328	\$4,619,282	Powell	331	\$4,271,386	
Boone	1,665	\$33,492,701	Greenup	617	\$8,235,626	Marion	520	\$7,096,484	Pulaski	2,126	\$35,481,447	
Bourbon	523	\$8,592,168	Hancock	220	\$2,727,382	Marshall	844	\$12,259,504	Robertson	67	\$1,049,939	
Boyd	1,013	\$16,478,032	Hardin	2,041	\$33,450,921	Martin	261	\$2,802,998	Rockcastle	375	\$4,963,320	
Boyle	844	\$14,720,633	Harlan	606	\$9,441,452	Mason	393	\$6,368,023	Rowan	831	\$14,070,484	
Bracken	216	\$2,710,239	Harrison	444	\$6,577,160	McCracken	1,506	\$27,017,840	Russell	544	\$8,203,026	
Breathitt	468	\$7,116,755	Hart	295	\$4,303,266	McCreary	393	\$3,931,857	Scott	1,175	\$23,922,577	
Breckinridge	437	\$6,272,755	Henderson	1,010	\$16,682,005	McLean	295	\$4,273,372	Shelby	1,607	\$39,755,858	
Bullitt	1,440	\$25,594,316	Henry	897	\$19,761,701	Meade	426	\$5,862,580	Simpson	267	\$3,023,742	
Butler	309	\$4,202,494	Hickman	91	\$1,711,184	Menifee	205	\$2,807,645	Spencer	450	\$9,672,121	
Caldwell	506	\$7,586,347	Hopkins	1,187	\$18,108,152	Mercer	729	\$12,944,716	Taylor	600	\$8,560,151	
Calloway	1,028	\$14,267,469	Jackson	303	\$3,999,850	Metcalfe	294	\$3,784,137				
Campbell	1,464	\$26,934,689	Jefferson	15,860	\$338,380,910	Monroe	250	\$2,834,843				
Carlisle	112	\$1,522,938	Jessamine	1,006	\$17,048,293	Montgomery	613	\$9,521,154				
Carroll	304	\$4,745,742	Johnson	604	\$8,959,881	Morgan	589	\$10,053,121				
Carter	764	\$9,779,908	Kenton	2,163	\$44,736,168	Muhlenberg	748	\$9,125,335				
Casey	345	\$4,386,774	Knott	417	\$6,382,919	Nelson	967	\$16,116,364				
Christian	1,492	\$25,544,533	Knox	572	\$9,024,149	Nicholas	205	\$2,701,531				
Clark	783	\$13,160,609	LaRue	335	\$5,232,274	Ohio	614	\$6,437,838				
Clay	567	\$8,093,547	Laurel	1,174	\$19,112,743							
Clinton	240	\$3,059,773	Lawrence	308	\$3,792,499							
Crittenden	200	\$2,606,436	Lee	227	\$3,221,756							
Cumberland	179	\$2,609,053	Leslie	236	\$3,430,612							
Daviess	2,502	\$43,628,048	Letcher	567	\$7,562,6851							
Edmonson	222	\$3,054,788										
Elliott	171	\$2,450,620										
Estill	375	\$5,176,148										
Fayette	5,293	\$113,602,031										
Fleming	441	\$7,521,043										
Floyd	844	\$12,961,273										
Franklin	6,297	\$194,114,984										

NOTE: Members receiving payments from multiple accounts are represented in the Payments by County table as one payee. In previous years each account was represented separately.

	County	Payees	Total
	Todd	250	\$3,370,725
	Trigg	499	\$7,914,916
	Trimble	258	\$3,862,495
	Union	346	\$3,882,159
	Warren	2,656	\$46,603,933
	Washington	311	\$4,868,012
	Wayne	506	\$7,201,731
	Webster	336	\$4,337,558
	Whitley	995	\$14,257,539
	Wolfe	308	\$5,039,314
	Woodford	978	\$24,141,926



ECONOMIC IMPACT FOR KENTUCKY

Pension benefits paid to retirees and beneficiaries of Kentucky Retirement Systems have a wide ranging impact on the state's economic health. In fiscal year 2018, KRS saw a 17.5% increase in retirements and paid over **\$2 Billion** in benefit payments. The majority, 93.73%, of these payments are issued to Kentucky residents. Each county in the Commonwealth receives at least \$1 million annually from KRS which provides a stabilizing element for all local economies.

Total Fiscal Year Retirement Benefit Payments

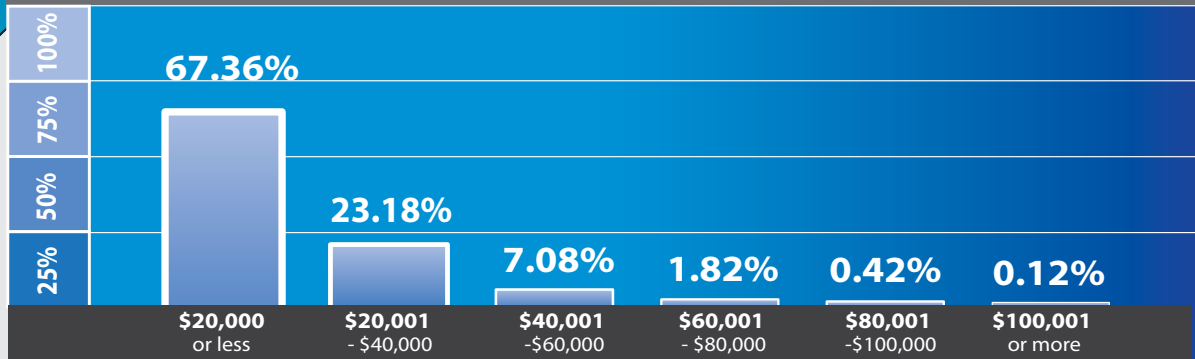
	Payees	%	Payments
Kentucky	104,268	93.73%	\$1,914,670,658
Out of State	7,786	6.27%	\$128,003,036
Grand Total	112,054	100.00%	\$2,042,673,694

** This table represents all payees receiving a monthly payment during the fiscal year.*

MEMBERSHIP - Active and Retired

	ACTIVE MEMBERSHIP		RETIRED MEMBERSHIP	
	Average Age	Average Annual Salary	Average Age	Average Annual Benefit Payment
KERS Non-Hazardous	45.2	\$41,876	69.0	\$21,587
KERS Hazardous	39.8	\$40,268	64.5	\$15,467
CERS Non-Hazardous	47.7	\$30,150	70.3	\$11,739
CERS Hazardous	38.5	\$57,607	61.8	\$27,771
SPRS	37.3	\$55,088	62.8	\$39,686

RETIREES ANNUAL BENEFIT RECEIVED



Note: 0.02% difference is due to rounding.

FISCAL YEAR 2018 FAST FACTS

Retiree Healthcare Planholders
(covered lives):
93,989

Member Office Visits:
11,198

New Retirements:
8,446

Benefit Estimates:
16,006

Service Purchase Estimates:
8,054

Disability Applications:
627

Call Center Inbound Calls:
299,827

Refunds Processed:
5,104

Account Audits:
22,705

Facebook Likes:
15,229

Website Pageviews:
6,075,609

BENEFIT TIERS

KRS currently administers three different pension benefit tiers within our defined benefit plans.



Members
participating
before
September 1, 2008



Members
participating on, or after,
September 1, 2008
through
December 31, 2013



Members
participating
on, or after,
January 1, 2014

Membership Statistics - by Tiers

	Active	Inactive	Retired	Total
KERS Non-Hazardous				
Tier 1	18,800	32,565	42,092	93,457
Tier 2	6,821	8,457	83	15,361
Tier 3	9,224	4,746	0	13,970
Total	34,845	45,768	42,175	122,788
KERS Hazardous				
Tier 1	1,463	1,870	2,996	6,329
Tier 2	847	1,287	14	2,148
Tier 3	1,653	1,559	0	3,212
Total	3,963	4,716	3,010	11,689
CERS Non-Hazardous				
Tier 1	37,920	52,136	56,384	146,440
Tier 2	16,712	16,950	245	33,907
Tier 3	29,803	12,522	0	42,325
Total	84,435	81,608	56,629	222,672
CERS Hazardous				
Tier 1	4,843	1,529	7,637	14,009
Tier 2	2,004	533	9	2,546
Tier 3	2,438	519	1	2,958
Total	9,285	2,581	7,647	19,513
SPRS				
Tier 1	521	174	1,444	2,139
Tier 2	205	70	1	276
Tier 3	165	46	0	211
Total	891	290	1,445	2,626
KRS TOTALS				
Tier 1	63,547	88,274	110,553	262,374
Tier 2	26,589	27,297	352	54,238
Tier 3	43,283	19,392	1	62,676
Total	133,419	134,963	110,906	379,288

SYSTEMS

KERS

This system consists of two plans - **Non-Hazardous and Hazardous**. Each plan is a cost-sharing, multiple-employer defined benefit pension plan that covers all regular full-time members employed by any state department, board, or agency directed by Executive Order of the Governor to participate in KERS.

CERS

This system consists of two plans - **Non-Hazardous and Hazardous**. Each plan is a cost-sharing, multiple-employer defined benefit pension plan that covers all regular full-time members employed by each participating county, city, and school board, and any additional eligible local agencies participating in CERS.

SPRS

This system is a single-employer defined benefit pension plan that covers all full-time state troopers employed by the Kentucky State Police.

HOW WE DIFFER FROM OTHER PUBLIC RETIREMENT SYSTEMS

Many other public retirement systems have only one pension plan and do not provide insurance plans. KRS administers both pension and insurance plans for our members. We manage three Systems: two are split into Hazardous and Non-Hazardous plans.

We maintain three different pension benefit tiers within our defined benefit plans. Each tier resulted from legislation enacted by the Kentucky General Assembly.

Medical insurance coverage is provided based on the member's initial participation date and length of service. Members receive either a percentage of costs or dollar amount for insurance coverage.

Medical Insurance Coverage - Non-Medicare and Medicare plans

Participation
prior to 7/01/2003

House Bill 290 -
Participation
7/01/2003 - 8/31/2008

House Bill 1 -
Participation
on or after 9/01/2008

HOW MEMBERS' BENEFITS ARE FUNDED

Benefits are funded from three sources.

1 - INVESTMENTS

The Systems' assets are invested to provide for member benefits. Each System has its own assets available to pay benefits. KRS follows a policy of thoughtfully growing our asset base while protecting against undue risk and losses in any particular investment area.

2 - EMPLOYEE CONTRIBUTIONS

The contribution rate is set by State statute. Members' contributions are a percent of their creditable compensation:



Tier 1 Members
5% Non-Hazardous
8% Hazardous



Tier 2 and 3 Members
6% Non-Hazardous
9% Hazardous

3 - EMPLOYER CONTRIBUTIONS

KRS' plan funding is based on an employer contribution rate (%) applied to the reported active employee payroll. This amount is paid by each employer (agency) participating in KRS. The recommended employer contribution rates are determined by the annual actuarial valuation.

The rates consist of the following components:

- » Average normal cost of the benefit tiers including administrative expenses. The cost of the prospective benefit tiers have continued to decline through benefit changes since 2008.
- » Payments of any unfunded liabilities. The largest percentage of the employer contribution rate is due to the accumulated unfunded liabilities.

Recommended - KRS' employer contribution rates have increased over the past ten years due to a number of factors:

- » Lower number of active members = lower employer contribution amounts.
- » More retirees = no contributions.
- » Changes in economic assumptions (lower assumed investment returns, inflation, and payroll growth). The impact of lowering these assumptions increases the statutory contribution rates to improve incoming cash flows. These higher inflows help pay benefits and reduce the need to redeem investment assets.
- » Investment performance during recessionary periods.
- » Differences between the *recommended* contribution rates and the actual statutory contribution rates. If the actual contribution rates are lower, unfunded liabilities increase.

Actual - Actual employer contribution rates are set in the Kentucky General Assembly biennial budget. For fiscal years 2019 and 2020, the KERS and SPRS rates adopted the 2017 actuarially recommended contribution rates for state agencies, but set a 49.47% rate for Quasi agencies. For the CERS plans, House Bill 362 set the FY 2019 rates based on the recommended 2016 actuarial valuation rates and capped increases at 12% annually until the full recommended actuarial contribution rates are reached.

Employer Normal Cost Rates¹ by Tier and Unfunded Liability Costs

(Based on June 30, 2018 Actuarial Valuations by Plan)

	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
NORMAL COST RATES¹ - PENSION (Employer's cost for an employee's retirement benefit)					
Tier 1 Cost Before 7/03	9.28%	12.96%	7.15%	8.35%	18.40%
Tier 1 Cost After 7/03	9.22%	12.95%	6.69%	8.61%	18.45%
Tier 2 Cost	6.16%	8.26%	4.10%	3.99%	12.50%
Tier 3 Cost	2.50%	3.75%	1.56%	1.38%	5.60%
AVERAGE NORMAL COST²	7.98%	9.24%	5.80%	6.35%	15.81%
NORMAL COST RATES¹ - INSURANCE (Employer's cost for an employee's insurance benefit)					
Tier 1 Cost Before 7/03	4.26%	12.92%	4.89%	8.93%	14.81%
Tier 1 Cost After 7/03	2.35%	4.76%	3.10%	2.99%	4.22%
Tier 2 Cost	0.59%	2.39%	1.16%	1.22%	2.14%
Tier 3 Cost	0.55%	2.38%	1.22%	1.37%	2.17%
AVERAGE NORMAL COST²	2.48%	5.22%	2.89%	4.40%	8.07%
Total Pension & Insurance	10.46%	14.46%	8.69%	10.75%	23.88%
UNFUNDED LIABILITY COST % (Employer's cost for the unfunded liability)					
Pension	66.56%	25.18%	16.72%	30.63%	104.73%
Insurance	8.17%	-6.09%	1.87%	5.12%	11.43%
Total Unfunded Liability Cost	74.73%	19.09%	18.59%	35.75%	116.16%

¹ Normal Cost Rate is the cost of an employee's retirement benefit to the employer net of employee contributions.

² Average Normal Cost Rate is calculated by averaging the actuarially recommended employer contribution rates for all Tiers + administrative expenses.

2018 Financial REPORT

This is an overview of the Pension and Insurance Funds' financial activities for the fiscal year ended June 30, 2018. Please read it in conjunction with the financial section, which begins on page 16 in the CAFR. Find a full version of the CAFR at <https://kyret.ky.gov/Publications/Pages/Comprehensive-Annual-Financial-Reports.aspx> under Comprehensive Annual Financial Report.

2018 Financial Highlights

Fiscal year 2018 financial performance for the Pension and Insurance plans improved from 2017. Net position increased from \$16.7 billion to \$17.6 billion. The 5% improvement was primarily attributable to positive investment returns, higher employer contributions, and General Fund appropriations of \$87.6 million. Additional details are provided below and further detailed in the 2018 CAFR.

Pension

The Total Pension Fiduciary Net Position across the five plans was \$11.9 billion at the beginning of the fiscal year and increased by 4% to \$12.4 billion at June 30, 2018. The \$0.5 billion increase was due to the improvement in the fair value of investments, increased contributions and appropriations, and partially offset by higher retiree payment outflows.

Insurance

The combined Fiduciary Net Position of the five Insurance plans administered by KRS increased by \$381.3 million during fiscal year 2018. Total combined net position for the fiscal year was \$5.2 billion. The net position increase was driven by improved investment performance and higher employer contributions.

Investments

Fiscal year 2018 investment performance was positive, outperforming the benchmarks and the assumed rate of return. The KRS Pension Funds earned a net return of 8.57% (versus the 7.91% benchmark). The KRS Insurance Fund earned a net return of 9.05%, also higher than the benchmark. Although the 2018 Pension and Insurance Funds' investment returns were lower when compared to 2017 (13.47 % and 13.72%), all of the plans except the KERS Non-Hazardous Pension plan increased net position at fiscal year end.

Cash Flows

Pension: Cash flows for the KERS and SPRS plans began improving during fiscal year 2017 due to General Fund appropriations and realized investment gains. In fiscal year 2018, the KERS plans and SPRS received additional General Fund appropriations of \$87.6 million. To sustain cash flows and replace General Fund appropriations, employer contribution rates increased across all plans for fiscal year 2019 (beginning July 1, 2018) except KERS Non-Hazardous Quasi agencies.

Insurance: Cash flows for the five plans have continued to stabilize over the last five years with increased employer contribution rates. The plans have also benefited from a benefit formula change starting in 2008, lower expenses, and favorable claims experience.

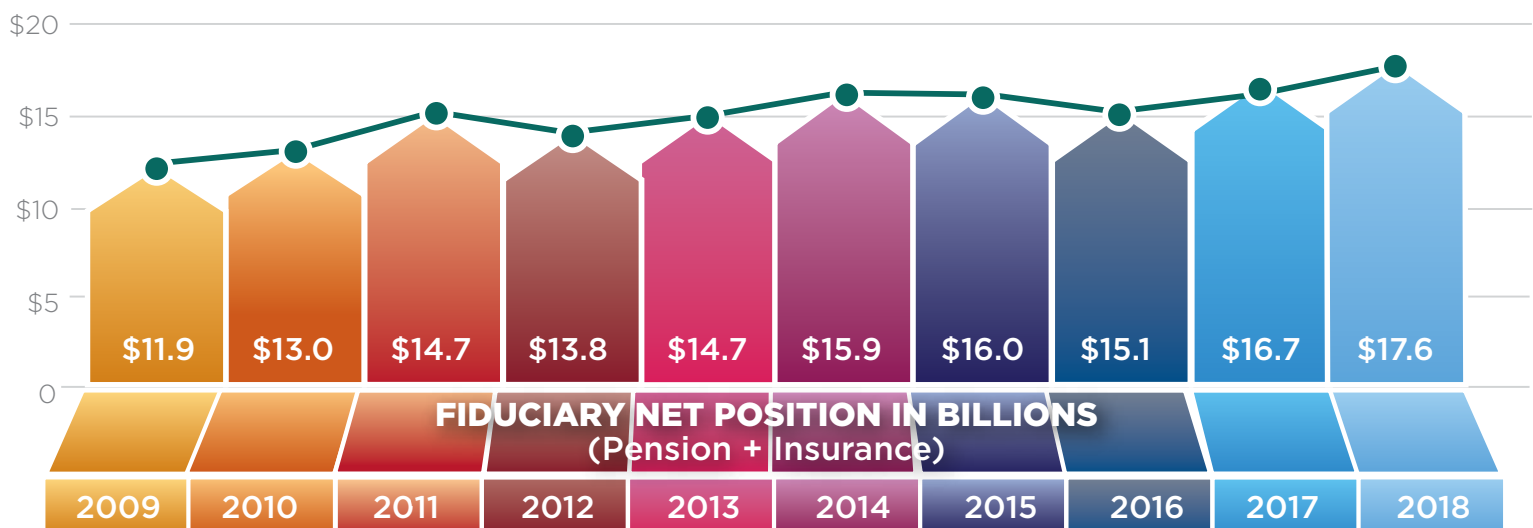


Table 1 - Assets and Liabilities

This table shows the assets and liabilities for the years ending June 30, 2018, 2017, and 2016. The Fiduciary Net Position represents the funds KRS has accumulated thus far to pay pension benefits for retirees, active and inactive members, and health care premiums for current and future retirees.

Table 2 - Income and Expenses

This table shows the annual additions (income) and deductions (expenses) for the plans. Investment earnings and contributions typically make up the majority of the income. Investment returns were positive in 2018 and 2017, but negative in 2016 for both Pension and Insurance plans. The deductions largely represent pension benefits, health insurance expenses, administrative costs, and refunds of contributions to inactive members.

Table 1. Fiduciary Net Position (\$ in Millions)

	Pension Funds			Insurance Fund				Total	
Assets	2018	2017	2016	2018	2017	2016	2018	2017	2016
Cash & Investments	\$12,859	\$12,169	\$11,411	\$5,367	\$4,936	\$4,401	\$18,227	\$17,105	\$15,812
Receivables	349	348	442	149	104	171	498	451	613
Equip/Int Assets, net of dep/amort.	4	6	8	-	-	-	4	6	8
Total Assets	13,213	12,523	11,861	5,516	5,040	4,572	18,729	17,563	16,433
Total Liabilities	(797)	(601)	(983)	(351)	(256)	(341)	(1,148)	(857)	(1,324)
Fiduciary Net Position	\$12,416	\$11,922	\$10,878	\$5,165	\$4,784	\$4,231	\$17,581	\$16,706	\$15,109

Table 2. Changes in Fiduciary Net Position (\$ in Millions)

	Pension Funds			Insurance Fund			Total		
Additions	2018	2017	2016	2018	2017	2016	2018	2017	2016
Member Cont.	\$350	\$334	\$307	\$-	\$-	\$-	\$350	\$334	\$307
Employer Cont.	1,170	1,167	950	322	315	333	1,492	1,482	1,283
Heath Ins. Cont.	20	17	15	-	-	-	20	17	15
Pension Spiking Cont.	8	5	3	-	-	-	8	5	3
Northern Trust Settlement	-	-	-	-	-	-	1	-	-
General Fund Appro.	88	98	-	-	-	-	88	98	-
Employer Cessation Cont.	-	53	-	-	16	-	-	69	-
Premiums Ret Re-emp	-	-	-	10	9	9	10	9	9
Invest. Inc. (Net)(Loss)	988	1,415	(76)	427	574	(5)	1,415	1,989	(81)
Total Additions	\$2,624	\$3,089	\$1,199	\$759	\$914	\$338	\$3,384	\$4,003	\$1,536
Deductions:									
Benefit payments	\$2,062	\$1,981	\$1,904	\$-	\$-	\$-	\$2,062	\$1,981	\$1,904
Refunds	35	31	31	-	-	-	35	31	31
Admin/Cap. Proj.	33	33	33	2	2	2	35	35	34
Healthcare Costs	-	-	-	376	359	351	376	359	351
Total Deductions	2,130	2,045	1,967	378	362	353	2,508	2,407	2,321
Inc. (Decrease) in Fiduciary Net Position	\$494	\$1,044	\$(769)	\$381	\$553	\$(16)	\$875	\$1,597	\$(784)

Investment Income (Loss) for Pension Funds

(\$ in Millions)

Asset	2018	2017	2016
Increase (Decrease) in fair value of investments	\$(142)	\$604	\$(270)
Investment income net of investment expense	182	251	137
Gain on sale of investments	948	560	57
Net Investment Income (Loss)	\$988	\$1,415	\$(76)

Investment Income (Loss) for Insurance Fund

(\$ in Millions)

Asset	2018	2017	2016
Increase (Decrease) in fair value of investments	\$26	\$257	\$(47)
Investment income net of investment expense	61	94	49
Gain on sale of investments (Loss)	341	223	(8)
Net Investment Income (Loss)	\$427	\$574	\$(5)

KRS Administrative Expenses

(\$ in Millions)

KRS staff = 247 employees	
Salaries	\$13.9
Pension & Benefits	9.8
Contractual Services	3.2
Communications	0.7
Rent/Utilities/Misc	1.5
Technology	1.9
Healthcare Retiree Fees	2.1
Depreciation	1.9
Total	\$35.0

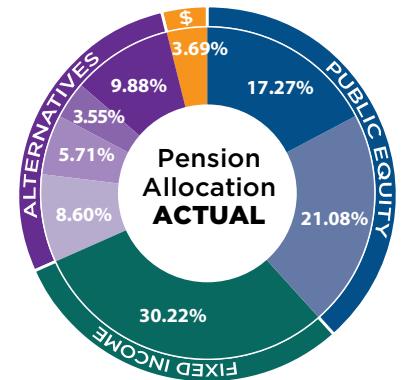
2018 Investment REPORT

This is an overview of the Pension and Insurance Funds' financial activities for the fiscal year ended June 30, 2018. Please read it in conjunction with the investment section, which begins on page 115 in the CAFR. Find a full version of the CAFR at <https://kyret.ky.gov/Publications/Pages/Comprehensive-Annual-Financial-Reports.aspx> under Comprehensive Annual Financial Report.

2018 Pension Results

As of June 30, 2018, the KRS Pension Funds earned net returns of 8.57% and outpaced the benchmark of 7.91%. The Pension Funds' returns also exceeded the actuarial assumed rates of return of 5.25% for KERS Non-Hazardous and SPRS and 6.25% for CERS Non-Hazardous, CERS Hazardous, and KERS Hazardous. All asset classes netted positive returns for fiscal year 2018. Total Public Equity comprised 38.35%

of all assets in the Pension Funds and produced a total return of 12.43%. U.S. Equity accounted for 17.27% of all assets, and Non-U.S. Equity accounted for 21.08% of all assets; the two asset classes returned 14.52% and 10.86%, respectively. Private Equity and Real Estate also added value with returns of 14.52% and 11.22%, respectively, for the fiscal year.



For Policy charts, please look on page 120 in the CAFR.

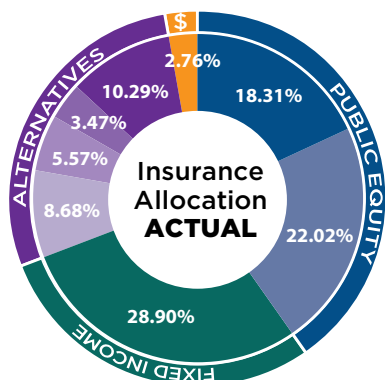
Net Returns By System - Pension Funds (\$ in Millions)

Plan	Fair Value (\$ in Millions)	% of Total Fair Value	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception (%)	
			KRS	Index	KRS	Index	KRS	Index	KRS	Index	KRS	Index
KERS Non-Hazardous	\$2,007	16.33%	7.50	7.15	6.17	6.50	7.19	7.24	5.96	6.31	9.07	9.20
KERS Hazardous	648	5.27%	8.68	8.22	7.14	6.91	7.70	7.52	6.21	6.45	9.15	9.24
CERS Non-Hazardous	7,034	57.22%	8.75	8.22	7.18	6.91	7.71	7.52	6.22	6.45	9.15	9.24
CERS Hazardous	2,346	19.09%	8.77	8.22	7.21	6.90	7.73	7.52	6.23	6.45	9.15	9.24
SPRS	257	2.09%	7.65	7.68	6.06	6.54	7.04	7.28	5.89	6.34	9.05	9.20
Total	\$12,292	100.00%	8.57	7.91	7.01	6.86	7.63	7.57	6.18	6.48	9.14	9.25

Pension Funds - Net Returns By Allocation Note: Fair values are adjusted for accruals and expenses

Structure	Inception	Fair Value (\$ in Millions)	% of Total	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception To Date		External FEES (\$ in Millions)
				KRS	Index	KRS	Index	KRS	Index	KRS	Index	KRS	Index	
Total Fund	4/1/84	\$12,292	100.00%	8.57	7.91	7.01	6.86	7.63	7.57	6.18	6.48	9.14	9.25	\$97.7
Total Public Equity ¹	4/1/84	4,714	38.35%	12.43	11.34	8.65	8.21	9.60	9.41	6.77	6.44	10.60	10.42	14.6
US Equity	4/1/84	2,123	17.27%	14.52	14.78	11.08	11.58	12.66	13.29	9.97	10.34	11.36	11.39	6.5
International ¹	7/1/00	2,591	21.08%	10.86	7.84	6.85	5.60	7.24	6.50	3.74	3.26	3.28	3.54	8.1
Fixed Income	4/1/84	3,715	30.22%	1.41	1.17	4.22	5.08	4.21	4.40	4.90	4.79	7.50	7.32	15.0
Real Return	7/1/11	1,057	8.60%	1.96	1.23	3.49	2.40	3.01	1.72	-	-	3.70	2.52	6.9
Absolute Return	4/1/10	702	5.71%	5.52	5.39	1.40	1.58	3.59	3.15	-	-	4.15	3.09	13.1
Real Estate	7/1/84	436	3.55%	11.22	7.11	10.09	9.00	9.23	10.42	8.34	4.16	6.10	6.46	9.6
Private Equity	7/1/02	1,215	9.88%	14.52	14.52	10.84	10.84	12.87	12.87	8.80	13.38	11.17	11.31	35.1
Cash Account ²	1/1/88	\$454	3.69%	1.90	1.33	1.12	0.64	0.82	0.39	0.77	0.31	3.59	3.14	2.0
												Consulting/Other		\$1.4

¹Equities include trade commissions. ²Cash accounts include custodial fees.



For Policy charts, please look on page 121 in the CAFR.

2018 Insurance Results

As of June 30, 2018, the KRS Insurance Fund earned a net return of 9.05% compared to the benchmark return of 8.48%. The Insurance Fund achieved rates of return of 7.71% over the five year period and 5.55% over the 10 year period. In fiscal year 2018, the Insurance Fund gained from the same favorable market conditions as the

Pension Funds. Total Public Equity made up 40.33% of all assets in the Insurance Fund and provided value with a total return of 12.26%. U.S. Equity, which accounted for 18.31% of all assets, and Non-U.S. Equity, which accounted for 22.02% of all assets, returned 14.42% and 10.63%, respectively. Private Equity and Real Estate added value with returns of 18.34% and 11.14%, respectively.

KRS Does NOT “Commingle” Plan Investments

KRS investments by plan (KERS, CERS, SPRS) are NOT “commingled” to support the other systems or to pay benefits. Each fund (Pension and Insurance) consists of five plans, each having its own investment strategy based upon their individual liquidity needs. All plan assets are maintained through separate financial accounts and are reported individually in audited financial statements.

Like many of our pension peers, KRS maintains “unitized funds” with BNY Mellon, KRS’ custodian bank. A unitized fund is similar to a mutual fund you might own for your personal investment portfolio. This is a structure that allows the plans to benefit from investment to buy or sell at economies of scale and to gain diversification while retaining individual asset values for each plan.

Net Returns By System - Insurance Fund (\$ in Millions)

Plan	Fair Value (\$ in Millions)	% of Total Fair Value	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception (%)	
			KRS	Index	KRS	Index	KRS	Index	KRS	Index	KRS	Index
KERS Non-Hazardous	\$834	16.25%	7.96	8.43	6.92	7.09	7.23	7.66	5.31	5.95	7.39	7.79
KERS Hazardous	513	10.00%	8.88	8.60	7.31	7.16	7.69	7.73	5.54	5.98	7.46	7.80
CERS Non-Hazardous	2,333	45.45%	9.21	8.60	7.46	7.18	7.79	7.76	5.59	5.99	7.48	7.80
CERS Hazardous	1,264	24.62%	9.32	8.60	7.55	7.18	7.84	7.76	5.61	5.99	7.49	7.80
SPRS	189	3.68%	9.34	8.60	7.53	7.19	7.82	7.77	5.60	6.00	7.49	7.80
Total	\$5,133	100.00%	9.05	8.48	7.40	7.22	7.71	7.90	5.55	6.06	7.47	7.83

Insurance Fund - Net Returns By Allocation *Note: Fair values are adjusted for accruals and expenses*

Structure	Inception	Fair Value (\$ in Millions)	% of Total	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception To Date		External FEES (\$ in Millions)
				KRS	Index	KRS	Index	KRS	Index	KRS	Index	KRS	Index	
Total Fund	4/1/84	\$5,133	100.00%	9.05	8.48	7.40	7.22	7.71	7.90	5.55	6.06	7.47	7.83	\$47.9
Total Public Equity ¹	4/1/84	2,070	40.32%	12.26	11.31	8.83	8.25	9.72	9.46	6.54	6.24	8.77	8.54	\$14.6
US Equity	4/1/84	940	18.31%	14.42	14.78	11.40	11.58	12.83	13.29	9.91	10.19	9.74	9.61	2.8
International ¹	4/1/84	1,130	22.01%	10.63	7.84	6.77	5.60	7.13	6.50	3.34	2.91	3.25	2.69	3.5
Fixed Income	7/1/00	1,491	28.91%	1.34	1.17	4.10	5.08	3.78	4.40	4.42	4.49	6.32	6.30	5.5
Real Return	4/1/84	445	8.68%	1.87	1.33	3.31	2.28	2.84	1.83	-	-	3.42	2.60	2.9
Absolute Return	7/1/11	286	5.57%	5.54	5.39	1.41	1.58	3.59	3.15	-	-	4.08	3.09	5.4
Real Estate	4/1/10	172	3.47%	11.14	7.11	10.44	9.00	9.23	10.42	-	-	9.22	5.98	6.0
Private Equity	7/1/84	528	10.29%	18.34	18.34	13.85	13.85	15.59	15.59	11.02	12.80	10.26	10.73	20.1
Cash Account ²	7/1/02	\$141	2.76%	1.57	1.33	0.83	0.64	0.59	0.39	0.49	0.31	2.64	2.51	1.1
												Consulting/Other		\$0.6

¹Equities include trade commissions. ²Cash accounts include custodial fees.

2018 Actuarial REPORT

This is an overview of the Pension and Insurance Funds' financial activities for the fiscal year ended June 30, 2018. Please read it in conjunction with the actuarial section, which begins on page 154 in the CAFR. Find a full version of the CAFR at <https://kyret.ky.gov/Publications/Pages/Comprehensive-Annual-Financial-Reports.aspx> under Comprehensive Annual Financial Report.

2018 Actuarial Valuation Results

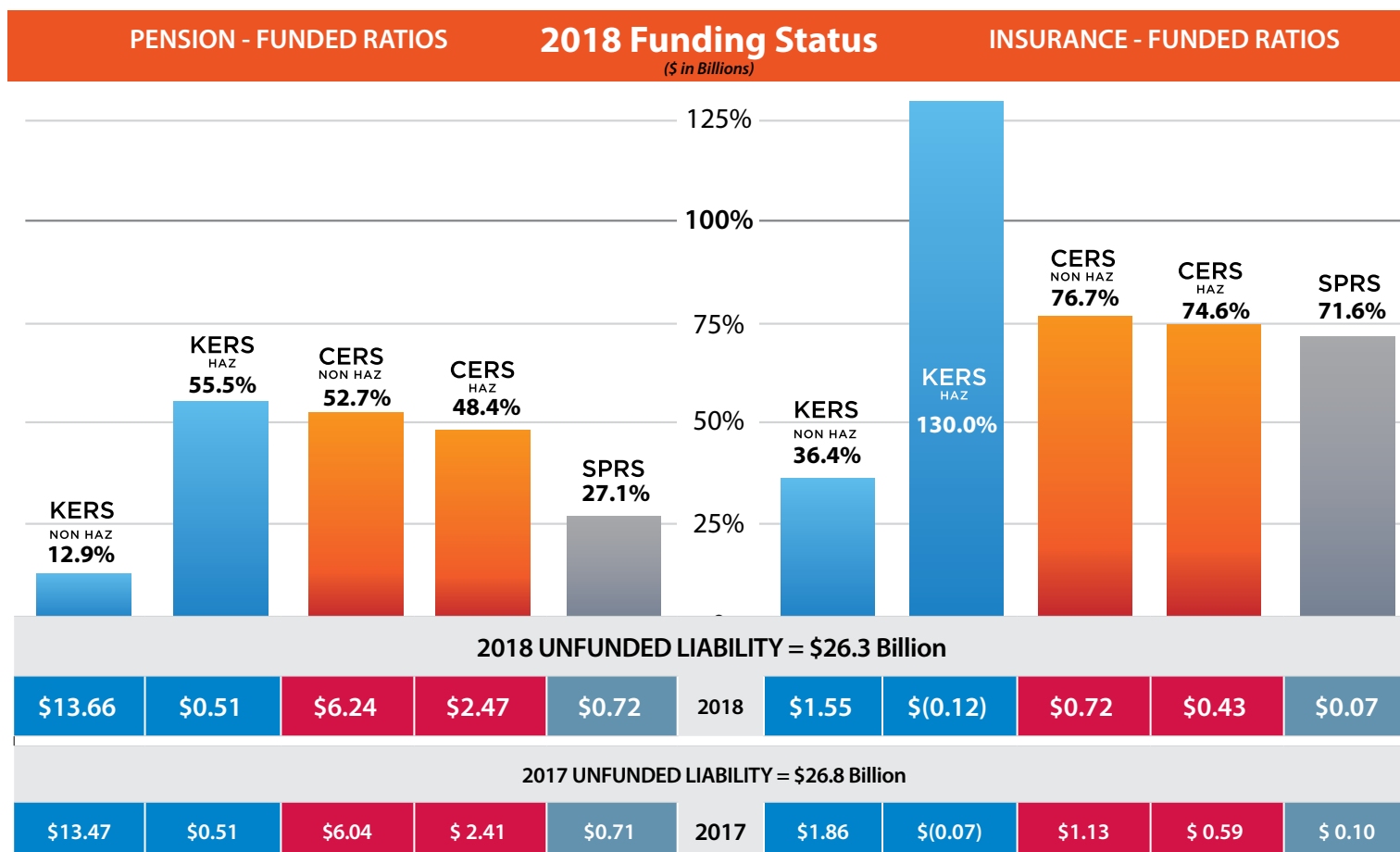
Each year the funding levels of the KRS Pension and Insurance plans are determined by the annual actuarial valuation based on assumptions set by the KRS Board of Trustees for the fiscal year ending June 30 (which were unchanged from fiscal year 2017). In summary, total pension unfunded liabilities increased by \$0.46 billion which was caused by lower payroll and higher retirements. However, all insurance plans showed funded ratio improvement as unfunded liabilities declined by \$0.91 billion. Total KRS unfunded liabilities decreased by \$0.45 billion.

Pension Plans:

Investment returns were 7.4% to 9.3% (returns varied by funds) which improved pension assets by \$279 million. The actuarial unfunded liability for the Pension plans was \$23.60 billion, a slight increase over fiscal year 2017. Most of the change was in the KERS and CERS Non-Hazardous plans due to lower reported active member payroll and increased retirements. The KERS and SPRS Hazardous pension plans were more stable, benefiting from both 2017 and 2018 additional general fund appropriations and membership growth.

Insurance Plans:

The Insurance Plans unfunded actuarial liability as of June 30, 2018, was \$2.70 billion compared to \$3.61 billion in the last fiscal year. Favorable premium experience and asset growth contributed to the improvement. Total KRS Insurance funded ratios were 66.3%. The KERS Non-Hazardous plan had the lowest funded ratio of 36.4%, while the remaining plan ratios ranged from 71.6% to 130.0%.



Summary of Actuarial Valuation Results as of June 30, 2018 (\$ in millions)

	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS	TOTAL KRS
RECOMMENDED CONTRIBUTION RATES						
Pension Fund	74.54%	34.42%	22.52%	36.98%	120.54%	
Insurance Fund	10.65%	0.00%	4.76%	9.52%	19.50%	
Recommended Employer Contribution	85.19%	34.42%	27.28%	46.50%	140.04%	
FUNDED STATUS AS OF VALUATION DATE						
PENSION FUND						
Actuarial Liability	\$15,675	\$1,152	\$13,192	\$4,793	\$990	\$35,801
Actuarial Value of Assets	\$2,019	\$639	\$6,950	\$2,322	\$268	\$12,199
Unfunded Liability on Actuarial Value of Assets	\$13,656	\$513	\$6,241	\$2,471	\$721	\$23,602
Funding Ratio on Actuarial Value of Assets	12.88%	55.50%	52.69%	48.44%	27.11%	34.07%
Market Value of Assets	\$2,004	\$645	\$7,019	\$2,348	\$268	\$12,285
Unfunded Liability on Market Value of Assets	\$13,671	\$506	\$6,173	\$2,444	\$722	\$23,516
Funding Ratio on Market Value of Assets	12.79%	56.04%	53.21%	49.00%	27.04%	34.31%
INSURANCE FUND						
Actuarial Liability	\$2,436	\$393	\$3,093	\$1,684	\$262	\$7,868
Actuarial Value of Assets	\$887	\$511	\$2,371	\$1,256	\$188	\$5,214
Unfunded Liability on Actuarial Value of Assets	\$1,548	(\$118)	\$721	\$428	\$75	\$2,654
Funding Ratio on Actuarial Value of Assets	36.42%	129.98%	76.68%	74.60%	71.55%	66.27%
Market Value of Assets	\$891	\$519	\$2,414	\$1,281	\$191	\$5,296
Unfunded Liability on Market Value of Assets	\$1,544	(\$126)	\$678	\$403	\$71	\$2,571
Funding Ratio on Market Value of Assets	36.59%	131.92%	78.06%	76.07%	72.82%	67.32%

Economic Assumptions as of June 30, 2018

	KERS Non-Hazardous		KERS Hazardous		CERS Non-Hazardous		CERS Hazardous		SPRS		
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	
Assumed Investment Return - Pension	5.25%	5.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	5.25%	5.25%	
Assumed Investment Return - Insurance	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	
Inflation Factor	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	
Payroll Growth	0.00%	0.00%	0.00%	0.00%	2.00%	2.00%	2.00%	2.00%	0.00%	0.00%	



Kentucky Employees Retirement System was established July 1, 1956, by the state legislature.

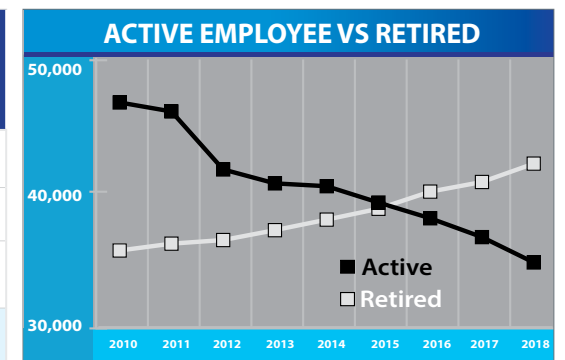
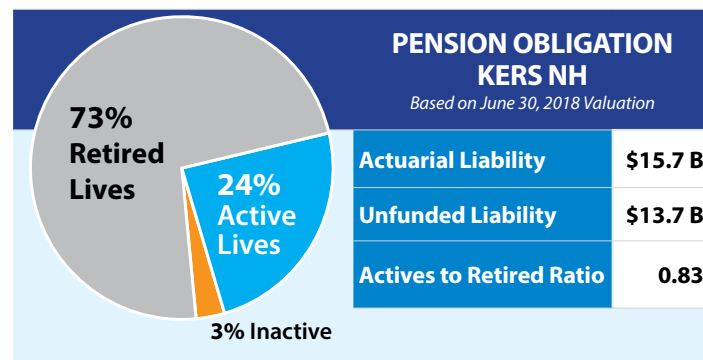
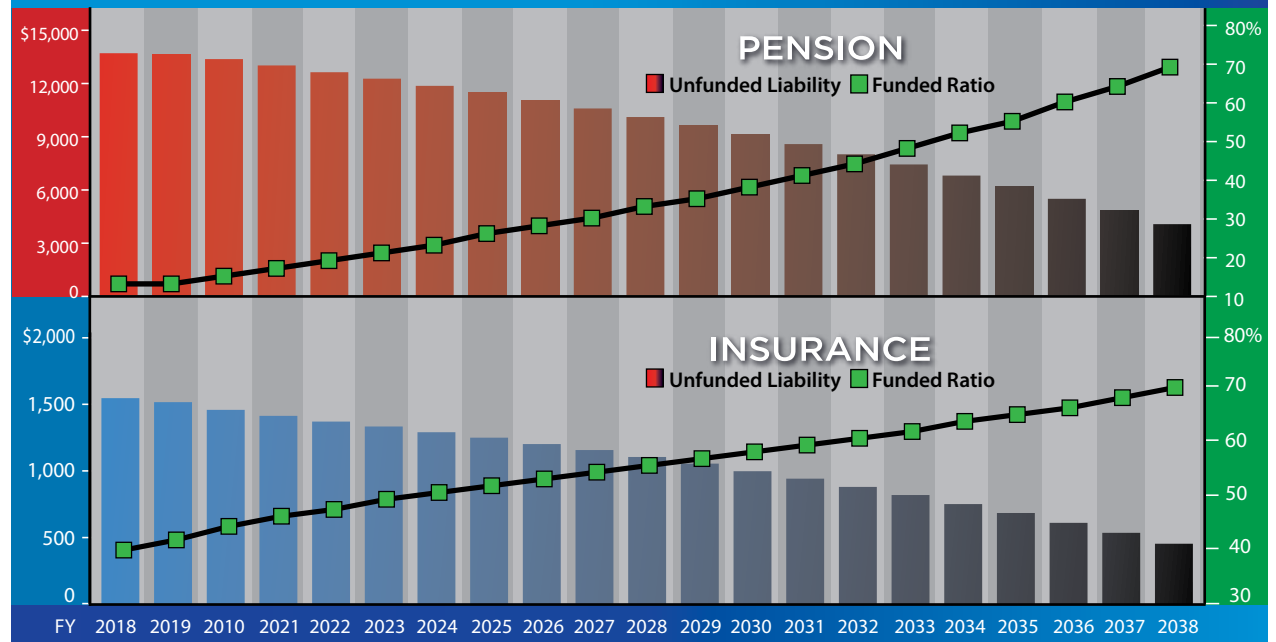
KEY INFORMATION

• KRS actuaries provide 20-year Pension and Insurance projections by plan. Using fiscal year 2018 valuation assumptions and member data, the KERS Non-Hazardous Pension plan has a funded ratio of 12.9%. Based on current assumptions, the plan would have a 69% funded ratio and an unfunded liability of \$4.0 billion by year 2038. For Insurance, the funded ratio is projected to be 84%. Premium costs have declined and favorable claims experience have helped to stabilize the fund.

• Active employees have continued to decrease over the last 10 years. There are more retirees drawing benefits than active employees paying into the plan (active to retired ratio of 0.83). Active member payroll in 2018 declined by 3.9% compared to 2017. However, higher fiscal year 2019 employer contribution rates will improve cash inflows to cover benefit payments.

• Combined Pension and Insurance Fiduciary Net Plan Position was \$2.9 billion as of June 30, 2018 – a slight improvement over 2017. The increase was due to improved investment returns, higher contributions, and additional General Fund appropriations funding.

20 YEAR FUNDING PROJECTION *Based on June 30, 2018 Actuarial Valuation (\$ in Millions)*

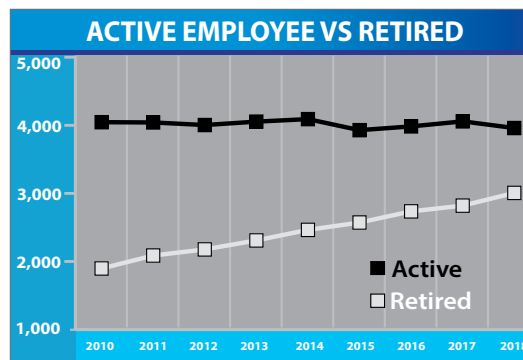
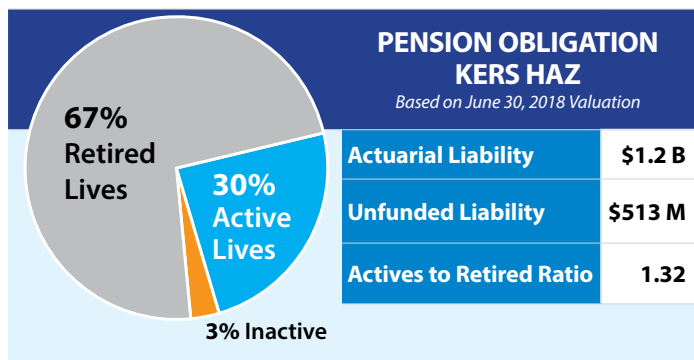
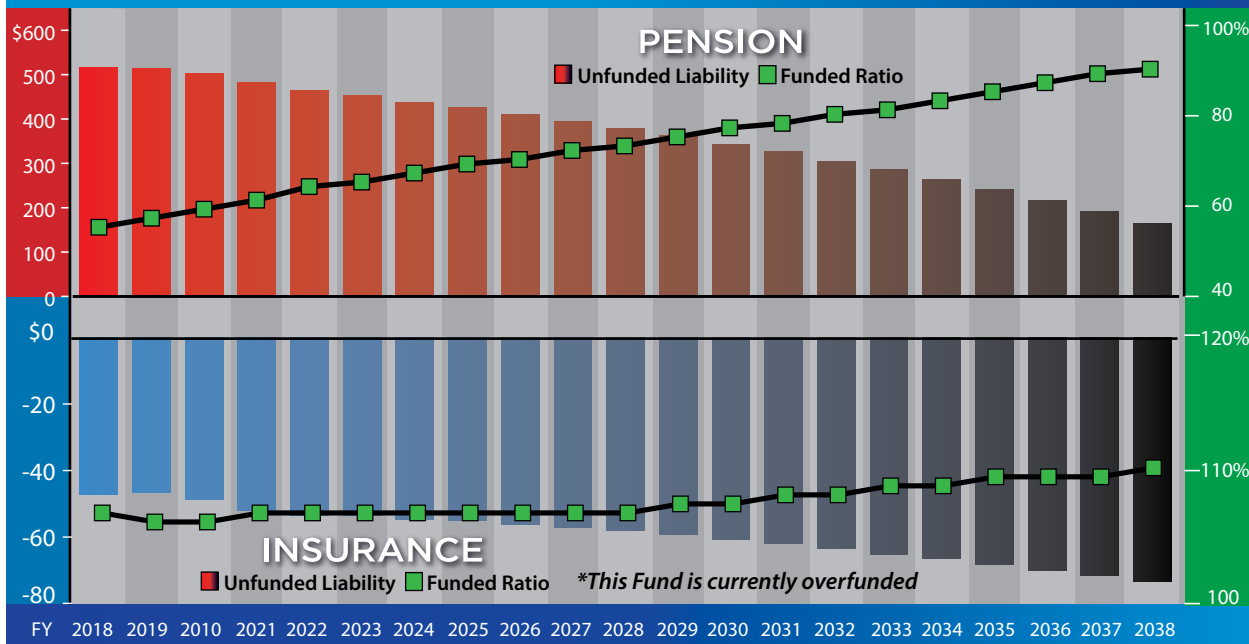


Employer Contribution Rates

	Pension		Insurance		Total	
	Recommended	Actual	Recommended	Actual	Recommended	Actual
2009	16.54%	5.79%	12.06%	4.22%	28.60%	10.01%
2010	18.96%	6.65%	12.33%	4.96%	31.29%	11.61%
2011	21.77%	9.58%	16.81%	7.40%	38.58%	16.98%
2012	24.30%	11.59%	16.41%	8.23%	40.71%	19.82%
2013	28.03%	14.86%	16.52%	8.75%	44.55%	23.61%
2014	32.57%	17.29%	12.71%	9.50%	45.28%	26.79%
2015	30.84%	30.84%	7.93%	7.93%	38.77%	38.77%
2016	30.84%	30.84%	7.93%	7.93%	38.77%	38.77%
2017	40.24%	40.24%	8.35%	8.35%	48.59%	48.59%
2018	41.06%	41.06%	8.41%	8.41%	49.47%	49.47%
2019	71.03%	71.03%	12.40%	12.40%	83.43%	83.43%*

* Quasi agencies (i.e. health departments, regional mental healths, universities, and certain non-state agencies) maintained the 2018 contribution rate.

20 YEAR FUNDING PROJECTION *Based on June 30, 2018 Actuarial Valuation (\$ in Millions)*



Employer Contribution Rates

	Pension		Insurance		Total	
	Recommended	Actual	Recommended	Actual	Recommended	Actual
2009	10.84%	9.79%	23.94%	14.56%	34.78%	24.35%
2010	11.98%	9.89%	23.56%	14.80%	35.54%	24.69%
2011	14.11%	10.72%	20.26%	15.40%	34.37%	26.12%
2012	14.11%	12.33%	19.73%	16.65%	33.84%	28.98%
2013	16.16%	13.41%	19.73%	16.38%	35.89%	29.79%
2014	17.00%	14.89%	11.84%	17.32%	28.84%	32.21%
2015	16.37%	16.37%	9.97%	9.97%	26.34%	26.34%
2016	16.37%	16.37%	9.97%	9.97%	26.34%	26.34%
2017	21.08%	21.08%	2.74%	2.74%	23.82%	23.82%
2018	21.44%	21.44%	2.26%	2.26%	23.70%	23.70%
2019	34.39%	34.39%	2.46%	2.46%	36.85%	36.85%



Kentucky Employees Retirement System was established July 1, 1956, by the state legislature.

KEY INFORMATION

- KERS Hazardous participating employers are state agencies and universities.
- KERS Hazardous ended the fiscal year with \$651 million in pension assets; \$513 million for insurance - a combined 7% increase in Fiduciary Net Position from 2017.
- KRS' actuaries provide a 20-year pension and insurance projection view. Using fiscal year 2018 valuation assumptions and member data, the KERS Hazardous Pension plan has a funded ratio of 55%. By 2038, the pension plan would have a funded ratio of 90% and an unfunded liability of \$161 million. The Insurance plan is currently overfunded at 130%. Unlike the other plans, the goal is to reduce the funded status over time.



County Employees Retirement System was established July 1, 1958, by the state legislature.

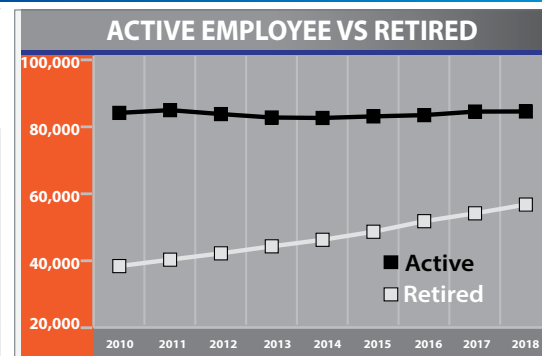
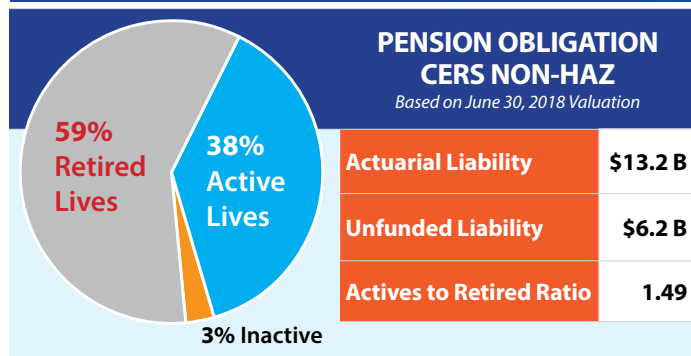
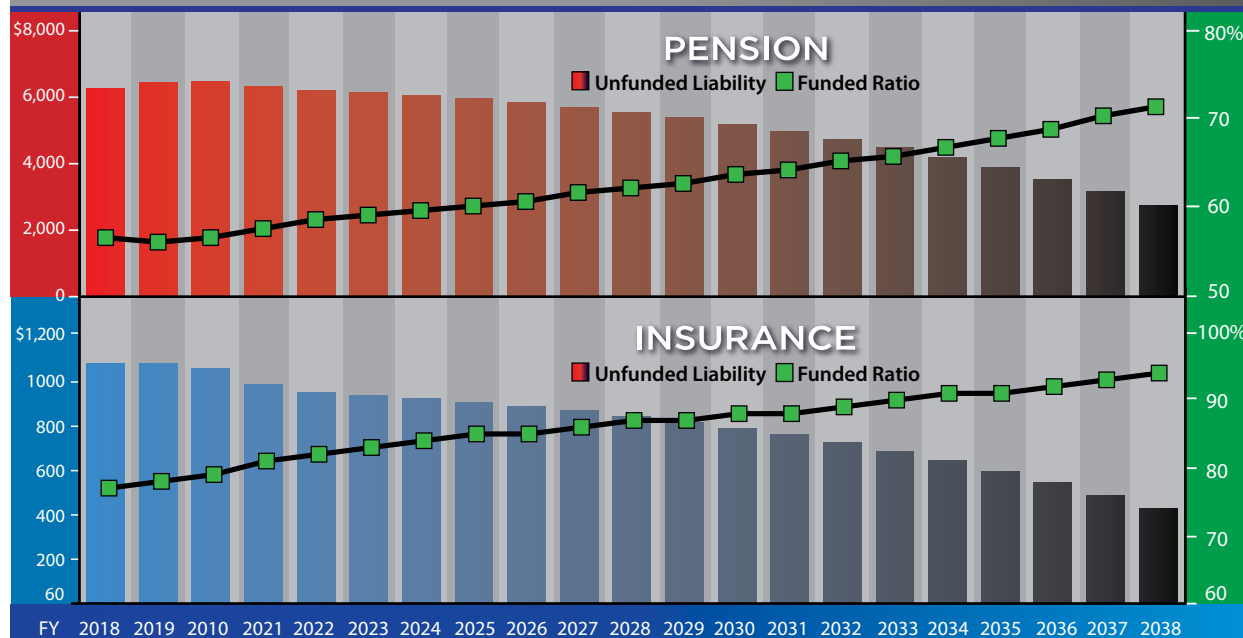
KEY INFORMATION

• CERS Non-Hazardous has the highest membership and, with combined pension and insurance assets of \$9.4 billion, is the largest system in KRS. Fiduciary Net Position increased by \$500 million in 2018 compared to 2017.

• Active members increased slightly to 84,435 in 2018 vs. 2017, while retired members increased by 4.8% to 56,629.

• Using fiscal year 2018 valuation assumptions and member data, the CERS Non-Hazardous Pension plan had a 53% funded ratio and an unfunded liability of \$6.2 billion as of June 30. Based on the actuarial 20-year projection, the unfunded liability would be \$2.7 billion in 2038 with a funded ratio of 82%. The funded ratio for the Insurance plan is projected to be 94% with an unfunded liability of \$284 million at the 20-year mark.

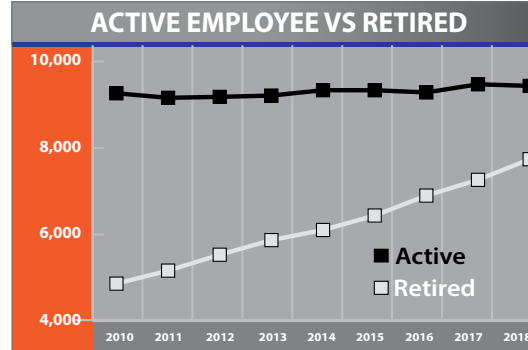
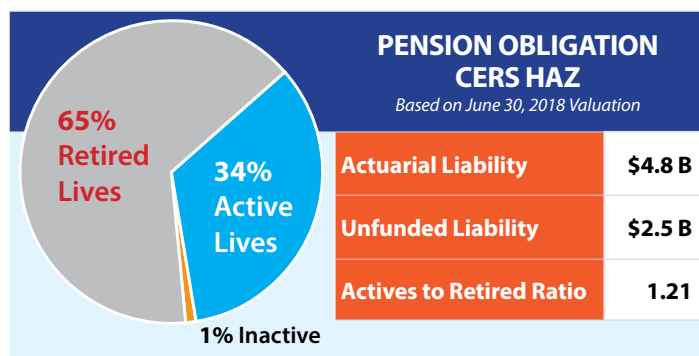
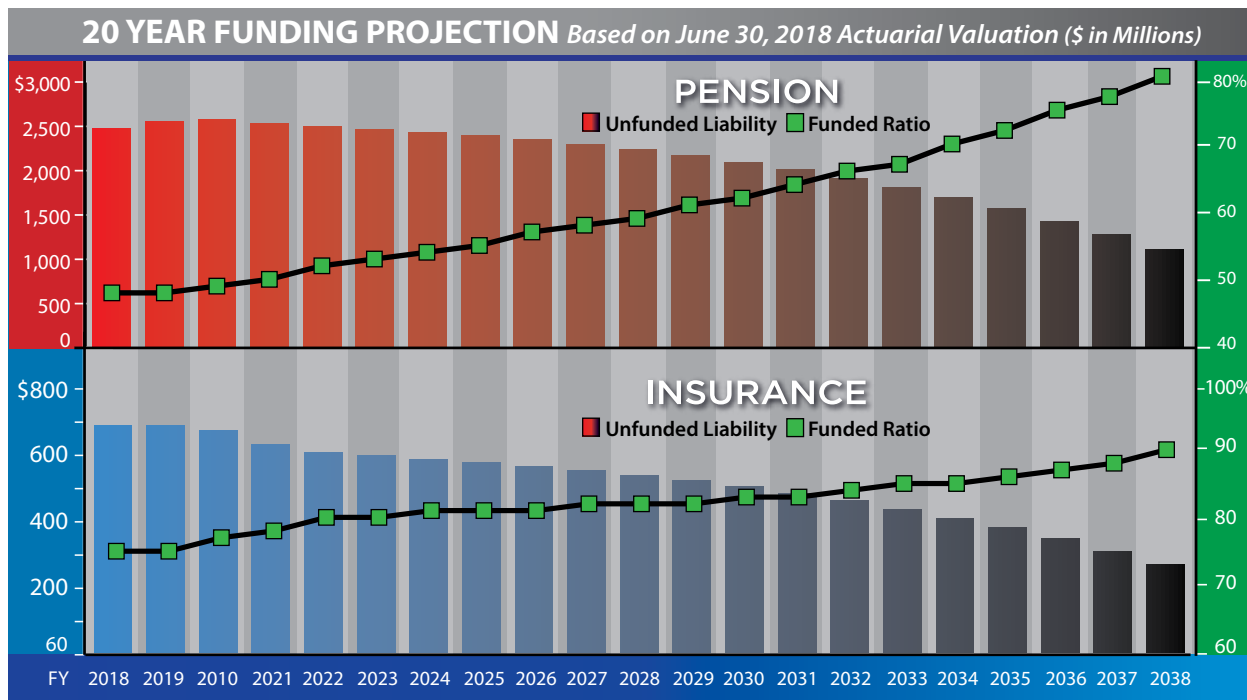
20 YEAR FUNDING PROJECTION Based on June 30, 2018 Actuarial Valuation (\$ in Millions)



Employer Contribution Rates

	Pension		Insurance		Total	
	Recommended	Actual	Recommended	Actual	Recommended	Actual
2009	5.68%	5.68%	7.82%	7.82%	13.50%	13.50%
2010	7.41%	7.41%	8.75%	8.75%	16.16%	16.16%
2011	10.03%	10.03%	6.90%	6.90%	16.93%	16.93%
2012	11.70%	11.70%	7.26%	7.26%	18.96%	18.96%
2013	12.62%	12.62%	6.93%	6.93%	19.55%	19.55%
2014	13.74%	13.74%	5.15%	5.15%	18.89%	18.89%
2015	12.75%	12.75%	4.92%	4.92%	17.67%	17.67%
2016	12.42%	12.42%	4.64%	4.64%	17.06%	17.06%
2017	13.95%	13.95%	4.73%	4.73%	18.68%	18.68%
2018	14.48%	14.48%	4.70%	4.70%	19.18%	19.18%
2019	21.84%	16.22%	6.21%	5.26%	28.05%	21.48%*

* House Bill 362, passed in the 2018 Legislative session, capped employers contribution increases at 12% annually until full contribution rate is achieved.



Employer Contribution Rates						
	Pension		Insurance		Total	
	Recommended	Actual	Recommended	Actual	Recommended	Actual
2009	12.55%	12.55%	16.95%	16.95%	29.50%	29.50%
2010	13.47%	13.47%	19.50%	19.50%	32.97%	32.97%
2011	16.79%	16.79%	16.46%	16.46%	33.25%	33.25%
2012	17.91%	17.91%	17.85%	17.85%	35.76%	35.76%
2013	20.10%	20.10%	17.50%	17.50%	37.60%	37.60%
2014	21.77%	21.77%	13.93%	13.93%	35.70%	35.70%
2015	20.73%	20.73%	13.58%	13.58%	34.31%	34.31%
2016	20.26%	20.26%	12.69%	12.69%	32.95%	32.95%
2017	21.71%	21.71%	9.35%	9.35%	31.06%	31.06%
2018	22.20%	22.20%	9.35%	9.35%	31.55%	31.55%
2019	35.69%	24.87%	12.17%	10.47%	47.86%	35.34%*

* House Bill 362, passed in the 2018 Legislative session, capped employers contribution increases at 12% annually until full contribution rate is achieved.



County Employees Retirement System was established July 1, 1958, by the state legislature.

KEY INFORMATION

- CERS Hazardous membership includes firefighters, EMT/EMS, local police, and sheriffs' departments.

- CERS Hazardous employees contribute 8% of their salary for Tier 1 and 9% of their salary for Tiers 2 and 3. The average annual pension benefit is \$27,771.

- CERS Hazardous has had steady asset growth since 2012 and ended the 2018 fiscal year with \$3.6 billion in pension and insurance assets.

- Based on fiscal year 2018 valuation assumptions and member data, the CERS Hazardous Pension plan would grow from a current funded ratio of 48% to 80% by year 2038. The Insurance Fund would decrease its unfunded liability from \$428 million to \$166 million during this 20-year period, reaching a 90% funded ratio.



*State Police Retirement System
was established
July 1, 1958,
by the state legislature.*

KEY INFORMATION

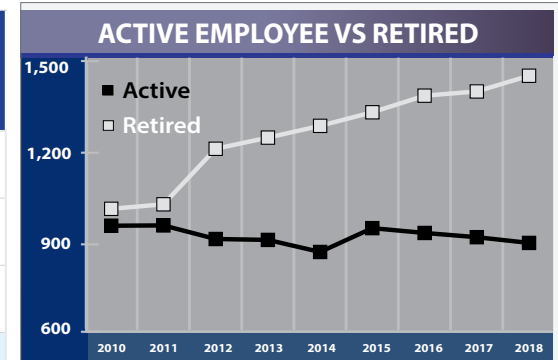
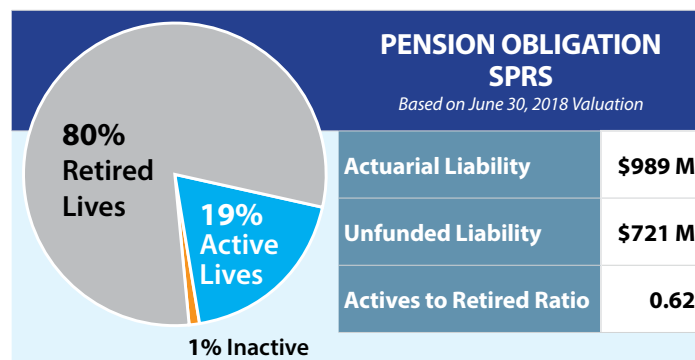
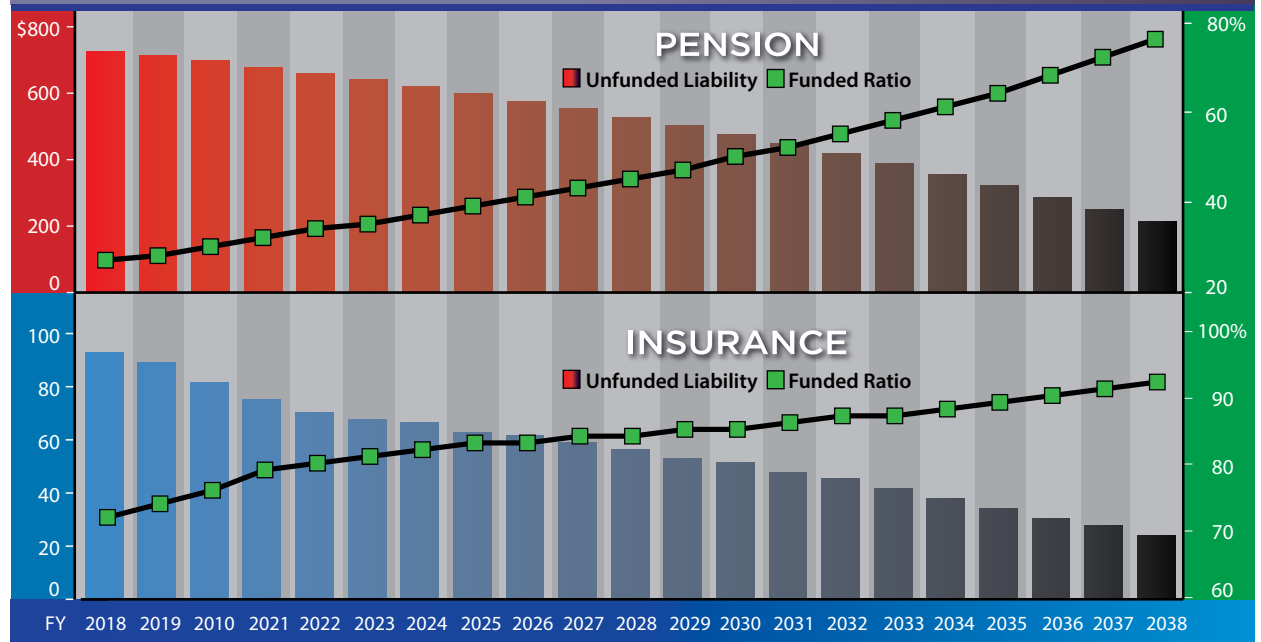
• SPRS is a relatively small plan with 2018 assets of \$458 million (up by 5.49% compared to 2017) and approximately 2,600 members. Active employees contribute 8% of their salary for Tier 1 and 9% of their salary for Tiers 2 and 3 for a pension and insurance benefit.

• SPRS has the highest employer contribution rates of all the KRS plans. Approximately 55% of their members are retired with an average pension benefit of \$39,686.

• Because of the small asset size and membership, SPRS financials benefited from the \$35 million of additional biennial General Fund appropriations in 2017 and 2018 and higher 2018 employer contributions.

• Using fiscal year 2018 valuation assumptions and member data, the SPRS Hazardous Pension plan is only 27% funded with an unfunded liability of \$722 million. Based on the actuary's 20-year projections, the Pension funded ratio would increase to 76% and the Insurance funded ratio to 92% by year 2038.

20 YEAR FUNDING PROJECTION *Based on June 30, 2018 Actuarial Valuation (\$ in Millions)*

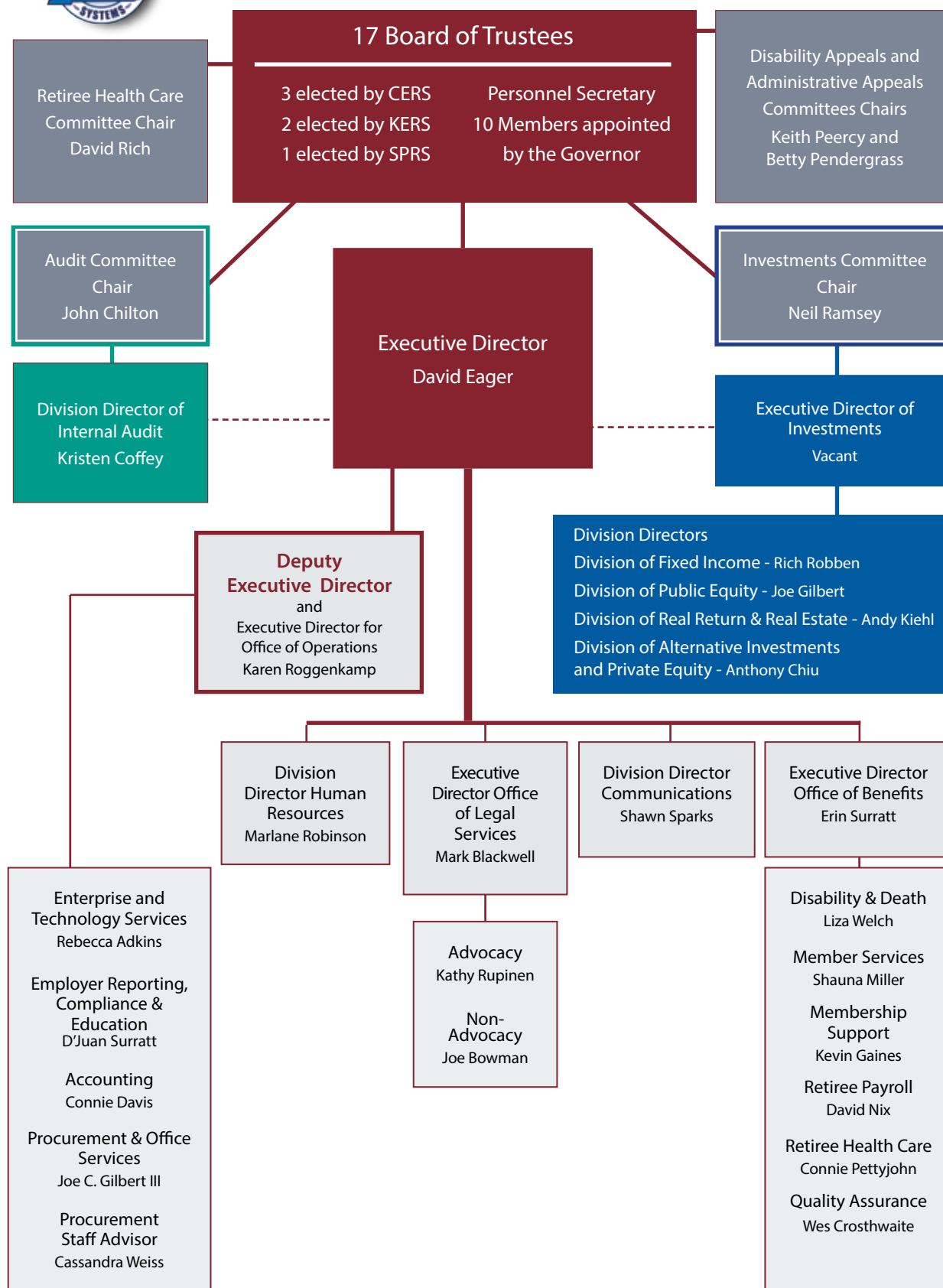


Employer Contribution Rates

	Pension		Insurance		Total	
	Recommended	Actual	Recommended	Actual	Recommended	Actual
2009	32.39%	15.28%	27.75%	14.79%	60.14%	30.07%
2010	35.23%	16.81%	26.64%	16.27%	61.87%	33.08%
2011	35.74%	21.44%	49.89%	24.10%	85.63%	45.54%
2012	39.80%	26.55%	54.83%	25.58%	94.63%	52.13%
2013	47.48%	33.24%	55.93%	30.43%	103.41%	63.67%
2014	53.35%	39.50%	43.17%	31.65%	96.52%	71.15%
2015	53.90%	53.90%	21.86%	21.86%	75.76%	75.76%
2016	53.90%	53.90%	21.86%	21.86%	75.76%	75.76%
2017	70.34%	70.34%	18.87%	18.87%	89.21%	89.21%
2018	72.47%	72.47%	18.77%	18.77%	91.24%	91.24%
2019	119.05%	119.05%	27.23%	27.23%	146.28%	146.28%



Agency Structure *as of November 29, 2018*



PARTICIPATING EMPLOYERS in Agency Classification	Number of Agencies
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KERS

County Attorneys	61
Health Departments	60
Master Commissioner	34
Non-P1 State Agencies	36
Other Retirement Systems	1
P1 State Agencies	137
Regional Mental Health Units	12
Universities	7
Total	348

CERS

Airport Boards	5
Ambulance Services	19
Area Development Districts	14
Boards of Education	173
Cities	221
Community Action Agencies	21
Conservation Districts	49
County Attorneys	77
County Clerks	16
Development Authorities	6
Fire Departments	38
Fiscal Courts	118
Health Departments	1
Housing Authorities	42
Jailers	2
Libraries	85
Other Retirement Systems	2
P1 State Agencies	4
Parks and Recreation	7
Planning Commissions	16
Police Departments	2
Riverport Authorities	5
Sanitation Districts	9
Sheriff Departments	12
Special Districts & Boards	49
Tourist Commissions	23
Urban Government Agencies	2
Utility Boards	120
Total	1,138

SPRS

Kentucky State Police Uniformed Officers	1
TOTAL EMPLOYERS	1,487



Kentucky Retirement Systems

1260 Louisville Rd, Frankfort, KY 40601

Hours of Operation:

8:00 AM - 4:30 PM (EST) Monday-Friday

(502) 696-8800 or (800) 928-4646

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Website: <https://kyret.ky.gov>

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