

Summary Annual **Financial Report**



County Employees Retirement System



Kentucky Employees Retirement System



State Police Retirement System



KPPA

Kentucky Public Pensions Authority

A Component Unit of the Commonwealth of Kentucky

FOR THE FISCAL YEAR ENDED JUNE 30,

2022

Prepared by the Accounting Division, Communications Division, and Office of Investments

EXECUTIVE DIRECTOR'S MESSAGE



David Eager

David L. Eager
Executive Director

December 7, 2022 On behalf of the Kentucky Public Pensions Authority and the Boards of the County Employees Retirement System and the Kentucky Retirement Systems, it is my honor to present the Summary Annual Financial Report for the Fiscal Year (FY) ended June 30, 2022. This report, and the Annual Comprehensive Financial Report, are provided as a resource for understanding the structure and financial status of KPPA and the Systems it operates.

We manage assets solely for the long-term benefit of our members and retirees. With this in mind, despite this challenging market environment, the investments managed by KPPA outperformed those of most peer public pension and insurance funds over trailing 1-, 3-, and 5-year periods on a risk-adjusted basis. More information about that can be found in the Investments section of this report.

Governance Update

FY 2022 marked the first full year KPPA operated under the governance structure legislated by the General Assembly in 2020. KPPA continues to provide support to the CERS and KRS Boards and their CEOs in terms of being a liaison to the legislature and helping the CERS and KRS boards and committees with meeting logistics. In all, there were 82 board and committee meetings during FY 2022.

Return to the Office

Effective September 12, 2022, the Kentucky Personnel Cabinet updated its telecommuting policy to require most employees that had been telecommuting either full-time or part-time to now work from an Executive Branch office a minimum of three days per week. According to the Personnel Cabinet, 91% of state government employees are now working in the office three days a week or more.

Cyber Security

The security of the data KPPA manages on behalf of the Systems' members is of paramount importance. Cyber security threats have become much more frequent, sophisticated, and complex. Keeping this data secure requires that KPPA business and technical staff members work together with business partners, service providers,

and our members. Security awareness materials and quarterly training are provided to all staff to help them stay alert to indicators of malicious activity. Since our members play such an important role in securing their own data, security awareness material has been added to KPPA member newsletters. Our Enterprise and Technology Services staff continue to monitor threats from a variety of attack vectors, and agency-wide efforts in planning and readiness continue in the areas of disaster recovery, business continuity, and incident response.

Investments

FY 2021 was a record year for investment returns. This year, however, economic headwinds led to negative returns. Pension and insurance funds for Kentucky state and local government employees and the State Police had their investments collectively return about -5.7% net of fees during the fiscal year ended June 30. Most broad market indexes finished the fiscal year with negative returns. For example, in equities the Russell 3000 fell 13.9%, while in fixed income the Bloomberg Barclays US Aggregate bond index fell 10.3% for the fiscal year.

PENSION	CERS-NH	CERS-H	KERS-NH	KERS-H	SPRS
2022	-5.9%	-6.1%	-5.2%	-6.0%	-4.6%
2021	25.7%	25.6%	22.6%	25.2%	21.7%
INSURANCE	CERS-NH	CERS-H	KERS-NH	KERS-H	SPRS
2022	-5.4%	-5.0%	-6.2%	-4.5%	-4.5%
2021	24.8%	25.0%	25.2%	25.0%	25.3%

Year-to-year fluctuations in investment returns highlights the benefits of having reasonable and conservative long-term assumed rates of return, and smoothing excess annual gains and losses over five-year periods. The highs are often balanced out by lows, and smoothing spreads out the effects of large year-to-year run-ups and declines. The long-term assumed rates of return are 5.25% for the KERS Nonhazardous and State Police pension funds, and 6.25% for all other pension and all of the insurance funds. Those rates are reviewed annually by the CERS and KRS Boards to determine their appropriateness going forward.

More information about investments can be found in the Investments section of our website.

EXECUTIVE DIRECTOR'S MESSAGE

Additionally, in the 2022 Regular Session of the General Assembly, the Legislature granted KPPA an exemption from salary caps set by the Personnel Cabinet for four additional investment positions (now six in total), thereby making KPPA competitive in recruiting and retaining qualified and experienced investment talent.

Looking Ahead

As always, our number one job is to meet our obligations to our members and serve them responsibly. To that end, we are soliciting a consulting firm to help us develop a strategic plan designed to improve our processes, governance, and member services. KPPA is also in the final stages of hiring a Chief Financial Officer (CFO). That person will oversee the Division of Accounting and will be responsible for financial reporting and compliance, budget preparation and monitoring, cash management, and external coordination with service providers, including the Systems' outside accountants, banks, and actuary. KPPA expects to fill that position early in 2023.

A Message from CERS CEO Ed Owens III and KRS CEO John Chilton

This first full fiscal year operating under the separate CERS and KRS governance structure has seen important accomplishments. The trustees of the system boards have approved bylaws and other policies and created various standing committees. Both boards have worked collaboratively to establish a process for considering the KPPA annual budget and implementing new mandates for trustee education. The CERS and KRS Investment Committees drafted and ratified separate Investment Policy Statements, which can be found in the Investments section of the KPPA website.

From CERS' perspective, the legislative and staff work that has gone into creating the separate governance structure for CERS and KRS was important, and we thank everyone who worked diligently on passing the necessary legislation and implementing required changes. Moving forward, CERS intends to continue working to establish substantive working relationships with CERS employers and employer association groups.

From the KRS perspective, during the most recent legislative session, the General Assembly provided full funding for the actuarially determined pension and insurance contributions, plus additional appropriations totaling \$695 million over fiscal years 2023 and 2024. That includes \$105 million in each fiscal year as part of House

Bill 604, passed on the final day of the session, and \$485 million included in House Bill 1, the state executive branch budget bill - \$135 million each year in FY 2023 and FY 2024 for the KERS Nonhazardous pension fund and \$215 million in FY 2022 for the SPRS pension fund. The effect on the SPRS pension fund, in particular, is significant. That SPRS appropriation increased the plan's funded status to 52.5% from 30.7%. The positive effect of the additional appropriations on the KERS Nonhazardous plan will be seen in the June 30, 2023, actuarial valuation.

Together the CERS and KRS trustees continue to track the evolving world of Environmental, Social, and Governance (ESG) issues as they relate to investments. Further, we monitor litigation with an eye toward resolving longstanding cases. And we are working with KPPA to ensure technology infrastructure is upgraded regularly.

In 2021, the General Assembly passed House Bill 8, which amended Kentucky Revised Statute 61.565 to change the method of calculating the KERS Nonhazardous employer pension contribution from a percent of pay to a two-part calculation. Each KERS Nonhazardous employer pays the "normal cost" contribution rate to fund the retirement benefits earned during the year, and a dollar amount each month representing that employer's share of the KERS Nonhazardous unfunded pension liability. Due to the change in the method of calculating contributions, the KERS Nonhazardous pension fund received an additional \$29 million in Fiscal Year 2022. Pension contributions for all other plans continue to be calculated based on a percent of pay.

In its first full year of operation, KPPA, CERS, and KRS have worked to further improve the governance of the organization, including the Investments team. The progress toward funding the actuarial liabilities will continue.

Acknowledgments

The preparation of this report has been a collaborative effort of KPPA Executive Management and the Accounting Division, Communications Division, the Office of Investments, and the CERS and KRS CEOs. KPPA is responsible for all the information in the report and confidently presents it as a basis for understanding the stewardship of the systems operated by KPPA.

AGENCY STRUCTURE

As of December 7, 2022

The Kentucky Public Pensions Authority oversees the operations of CERS, KERS, and SPRS by providing administrative support, investment management, and conducting daily activities on behalf of the CERS, KRS, and KPPA Boards. The 8-member KPPA board is made up of elected and appointed representatives from the CERS and KRS boards. KPPA is led by an Executive Director who is appointed by the KPPA Board to work with the CERS and KRS Chief Executive Officers to carry out the statutory provisions of the Systems.



KPPA BOARD
Four (4) CERS and Four (4) KRS
Board Representatives

Jerry W. Powell KPPA Chair Selected by CERS Chair	Betty Pendergrass CERS Board Chair	Dr. Merl Hackbart CERS Investment Committee Chair	William O'Mara CERS Trustee Selected by CERS Chair
C. Prewitt Lane KPPA Vice Chair KRS Investment Committee Chair	Ellen Lynn Hampton KRS Board Chair	Keith Percy KRS Trustee Selected by KRS Chair	John Cheshire III KRS Trustee Selected by KRS Chair



GOVERNANCE

As of December 7, 2022

The systems operated by KPPA are governed by two 9-member boards of trustees, each consisting of three elected members and six gubernatorial appointees serving four-year terms. The CERS Board of Trustees is responsible for governance of the CERS funds. The governance of the KERS funds and the SPRS funds are the responsibility of the KRS Board of Trustees. CERS and KRS each have a Chief Executive Officer who serves as a legislative and executive advisor to the respective boards and a General Counsel who provides legal services.

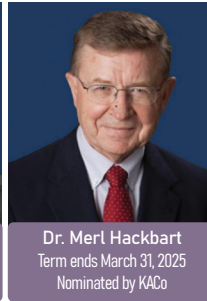
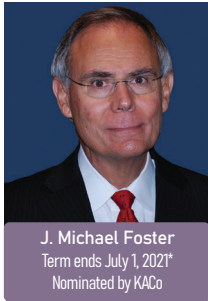
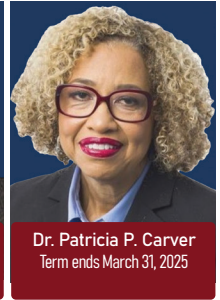
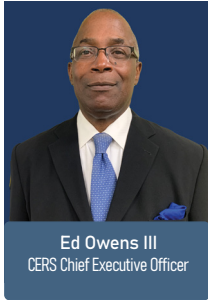
ELECTED BY MEMBERSHIP

APPOINTED BY GOVERNOR:
The Governor selects appointees from lists of candidates provided by the Kentucky Association of Counties (KACo), the Kentucky League of Cities (KLC), and the Kentucky School Boards Association (KSBA).

CERS BOARD OF TRUSTEES

Betty Pendergrass, Chair
Jerry Wayne Powell, Vice Chair

Three (3) Elected Trustees
Six (6) Appointed by Governor



*Trustee continues to serve until the Governor makes an appointment to fill the trustee position.

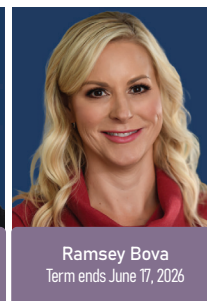
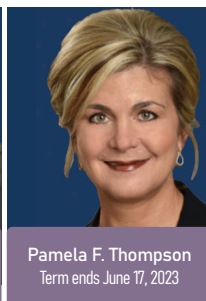
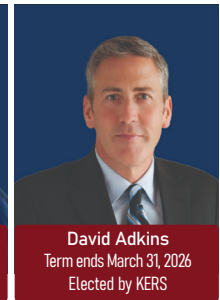
ELECTED BY MEMBERSHIP

APPOINTED BY GOVERNOR

KRS BOARD OF TRUSTEES

Ellen Lynn Hampton, Chair
C. Prewitt Lane, Vice Chair

Three (3) Elected Trustees
Six (6) Appointed by Governor



SYSTEMS AND BENEFIT TIERS

KPPA operates three systems. CERS and KERS are multiple-employer, cost-sharing defined benefit pension plans with nonhazardous and hazardous members. SPRS is a single-employer defined benefit pension plan with hazardous members. Each system covers regular full-time members employed by the participating agencies.

OUR SYSTEMS



CERS participating employers include local governments (county and city), school boards, and eligible local agencies. Nonhazardous and hazardous combined cover 268,788 members.



KERS participating employers include state departments, boards, employers directed by Executive Order of the Governor to participate in KERS, and 112 quasi-governmental agencies. Nonhazardous and hazardous combined cover 138,486 members.



SPRS covers all 2,808 retired, active, and inactive Kentucky State Police troopers. All SPRS positions are considered to be hazardous.

HEALTH INSURANCE

KPPA pays a percentage of the monthly contribution rate or a dollar amount toward insurance coverage. The contribution amount is based on the retired member's participation date, years of service, and type of service. A percentage of the monthly contribution rate is paid for members participating prior to July 1, 2003. A dollar amount is paid toward insurance coverage for members participating on or after July 1, 2003.

ANNUAL BENEFIT

97% of CERS, KERS, and SPRS retirees receive \$60,000 per year or less in pension benefits. Most - 93% - of that, \$2.3 billion, was paid to Kentucky residents (see page 12), meaning most of the pension benefits KPPA pays out each year stay in Kentucky and benefit local economies.

BENEFIT TIERS

Each plan provides pension and insurance benefits based on the member's participation date.



Participation Date
Prior to
9/1/2008

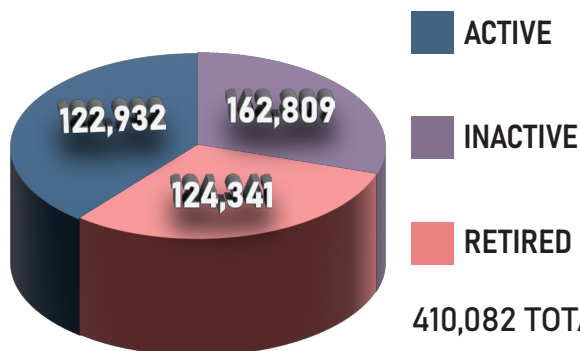
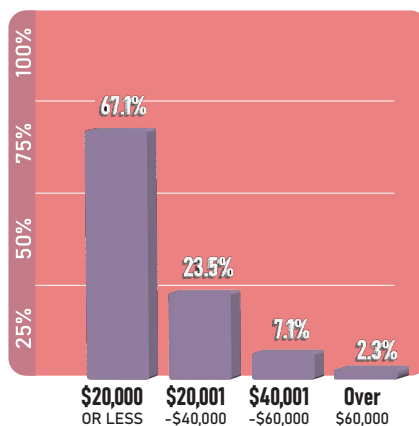


Participation Date
9/1/2008
- 12/31/2013



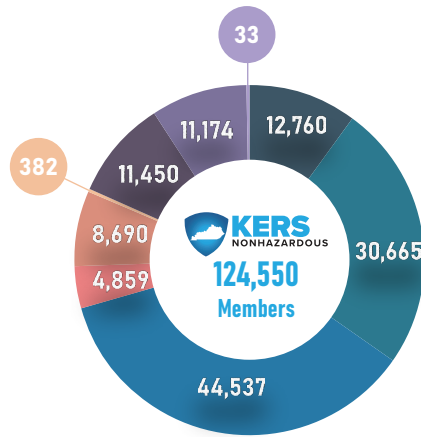
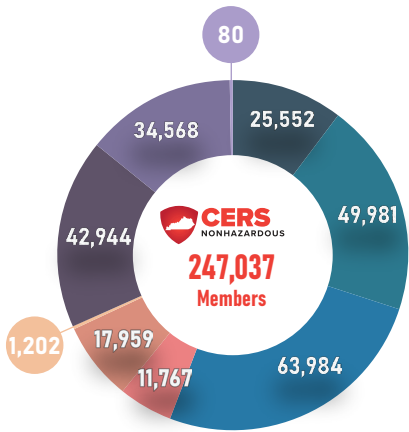
Participation Date
1/1/2014
and after

RETIREE ANNUAL BENEFIT RECEIVED

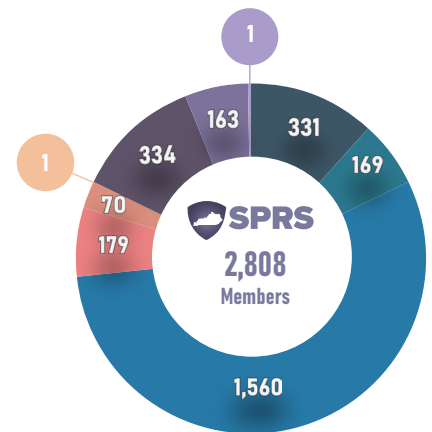
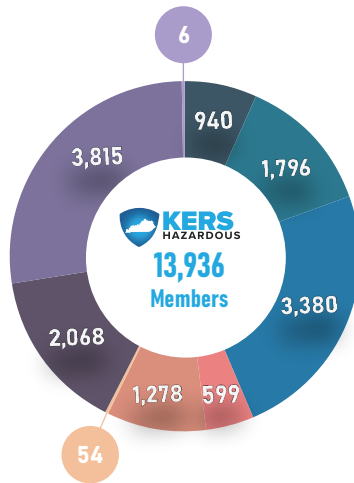
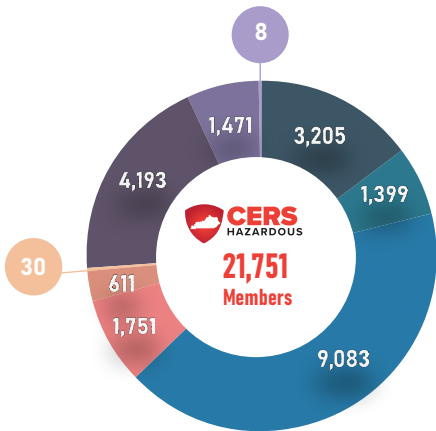


FISCAL YEAR ENDED JUNE 30, 2022

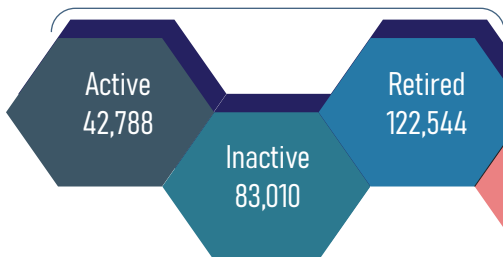
	CERS NONHAZARDOUS	CERS HAZARDOUS	KERS NONHAZARDOUS	KERS HAZARDOUS	SPRS
ACTIVE					
AVERAGE AGE	47.6	38.3	46.0	40.0	36.5
AVERAGE ANNUAL SALARY	\$34,569	\$67,610	\$45,862	\$45,794	\$56,736
INACTIVE					
AVG. NON-VESTED CONTRIBUTIONS/INTEREST	\$1,437	\$4,116	\$2,052	\$1,989	\$1,358
AVG. VESTED ANNUAL DEFERRED BENEFIT	\$1,671	\$4,663	\$2,837	\$2,237	\$3,522
RETIRED					
AVERAGE AGE	71.1	62.7	70.3	65.6	63.7
AVERAGE ANNUAL BENEFIT PAYMENT	\$12,145	\$29,084	\$21,263	\$16,019	\$39,763



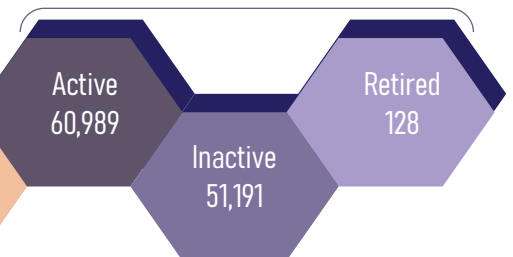
Legend



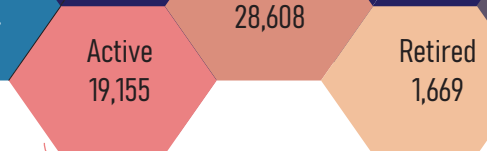
Tier 1 = 248,342



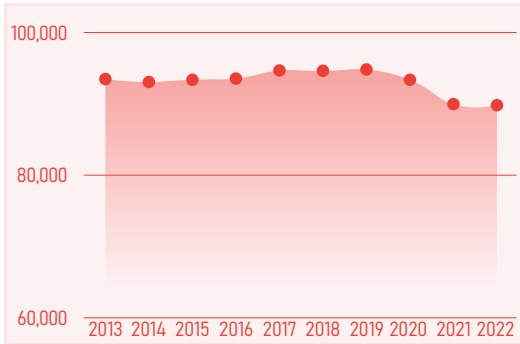
Tier 3 = 112,308



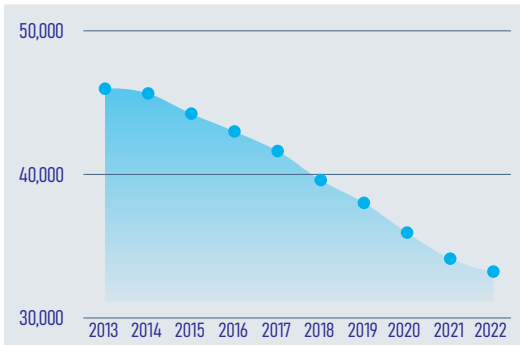
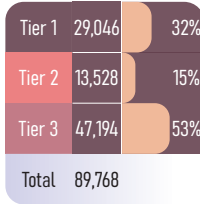
Tier 2 = 49,432



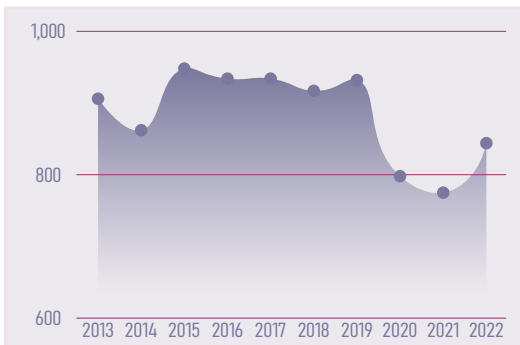
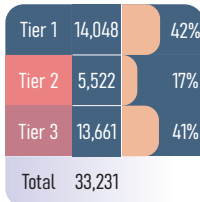
PARTICIPATING EMPLOYERS



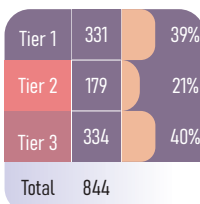
89,768 Participating Employees



33,231 Participating Employees



844 Participating Employees



CERS Employers

Classification	Agencies	Participating Employees
Airport Boards	5	499
Ambulance Services	18	428
Area Development Districts	14	656
Boards of Education	171	45,638
Cities	221	10,282
Community Action	21	2,756
Conservation Districts	49	61
County Attorneys	76	527
County Clerks	16	591
Development Authorities	6	8
Fire Departments	31	1,107
Fiscal Courts	118	10,817
Health Departments	1	305
Housing Authorities	39	396
Jailers	2	63
Libraries	85	1,245
Other Retirement Systems	2	3
P1 State Agencies	4	1,410
Parks and Recreation	6	55
Planning Commissions	16	200
Police Departments	2	14
Riverport Authorities	5	65
Sanitation Districts	9	322
Sheriff Departments	12	696
Special Districts & Boards	47	1,341
Tourist Commissions	25	185
Urban Government	2	6,085
Utility Boards	119	4,013
Total	1,122	89,768

KERS Employers

Classification	Agencies	Participating Employees
County Attorneys	56	234
Health Departments	60	2,037
Master Commissioner	31	57
Non-P1 State Agencies	33	594
Other Retirement Systems	1	20
P1 State Agencies	127	26,919
Regional Mental Health Units	10	1,771
Universities	7	1,599
Total	325	33,231

SPRS

Classification	Agencies	Participating Employees
Kentucky State Police	1	844

EMPLOYER COSTS BY TIER

COST COMPONENTS

Employer contributions have two components. The normal cost covers the benefit accruals active participants are projected to earn during the upcoming year toward their retirement and insurance benefits. The second component is the unfunded liability. The unfunded liability cost represents the benefit accruals a member has already earned that were not fully funded as of June 30, 2022.

UNFUNDED LIABILITY

Unfunded liabilities are debt obligations that do not have sufficient funds set aside to pay the debt. They result primarily from four factors:

1. A shortfall between the Actuarially Determined Contribution (ADC) and the actual contribution.
2. Investment returns that fell short of the assumed investment rate of return.
3. Other economic and demographic assumptions that did not accurately reflect plan experience. Refer to page 21 for more information.
4. Benefit increases that were not pre-funded, such as previous retiree Cost of Living Adjustments.

GRS Actuarial Valuation Results as of June 30, 2022

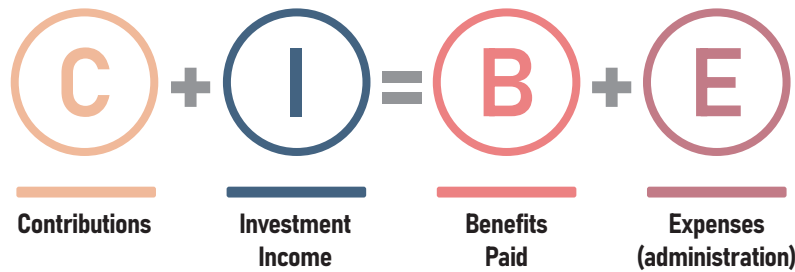
	CERS NONHAZARDOUS	CERS HAZARDOUS	KERS NONHAZARDOUS	KERS HAZARDOUS	SPRS
PENSION - NORMAL COST RATES¹ (Each employer's cost for an employee's retirement benefit)					
Tier 1 Cost Before 7/03	7.89%	13.76%	8.77%	12.00%	22.81%
Tier 1 Cost After 7/03	7.38%	13.53%	9.03%	11.82%	22.38%
Tier 2 Cost	4.72%	10.74%	6.36%	8.25%	18.79%
Tier 3 Cost	3.04%	5.79%	3.54%	5.16%	13.36%
Average Normal Cost ²	6.06%	10.34%	7.74%	8.60%	19.49%
INSURANCE - NORMAL COST RATES¹ (Each employer's cost for an employee's retirement benefit)					
Tier 1 Cost Before 7/03	3.79%	10.09%	3.30%	10.71%	13.93%
Tier 1 Cost After 7/03	3.09%	4.11%	2.33%	4.72%	5.83%
Tier 2 Cost	1.16%	2.04%	0.71%	2.22%	3.55%
Tier 3 Cost	1.12%	2.14%	0.54%	1.84%	3.75%
Average Normal Cost ²	2.14%	3.99%	1.86%	3.45%	6.66%
Total Pension & Insurance	8.20%	14.33%	9.60%	12.05%	26.15%
UNFUNDED LIABILITY COST % (Each employer's cost for the unfunded liability)					
Pension	17.28%	30.77%	*	21.52%	65.90%
Insurance	-3.01%	-1.41%	*	-13.39%	-2.98%
Total Unfunded Liability Cost	14.27%	29.36%	*	8.13%	62.92%

¹Normal Cost Rate is the cost of an employee's retirement benefit to the employer net of employee contributions earned during that fiscal year.

²Average Normal Cost Rate is the blended normal cost rate of all members active as of the valuation date and includes administrative expenses.

*Per House Bill 8 (2021 Regular Session), amortization cost for KERS Nonhazardous employers is allocated based on their 2019 Actuarial Accrued Liability. Amortization cost for the Hazardous fund is included in the contribution rate, payable as a percentage of payroll.

HOW BENEFITS ARE FUNDED



1. EMPLOYER CONTRIBUTIONS

Recommended employer contribution rates are determined by KPPA's independent actuary based on data in the annual actuarial valuation. The CERS and KRS Boards adopt employer contribution rates necessary for the actuarial soundness of the systems as required by Kentucky Revised Statutes 61.565, 61.702, 78.635, and 78.5536. KERS and SPRS employer rates are subject to approval by the Kentucky General Assembly through the adoption of the biennial Executive Branch Budget. The CERS Board sets CERS employer contribution rates, unless altered by legislation enacted by the Kentucky General Assembly. Employer contributions are deposited to the Retirement Allowance Account and the insurance funds and are used to pay monthly benefits and to fund KPPA expenses.



2. EMPLOYEE CONTRIBUTIONS

Members contribute a percent of their creditable compensation as set by state law based on their benefit tier. Employee contributions are deposited to individual member accounts.



3. INVESTMENTS

The CERS and KRS Boards are charged with the responsibility of investing assets to provide for member benefits. To achieve that goal, the Boards follow a policy of thoughtfully growing our asset base while protecting against undue risk and losses in any particular investment area.

The Boards recognize their fiduciary duty to not only invest the funds in compliance with the Prudent Person Rule, but also to manage the funds in continued recognition of the basic long-term nature of the Systems. In carrying out their fiduciary duties, the Trustees have set forth clearly defined investment policies, objectives, and strategies.

KPPA maintains all plan assets for CERS, KERS, and SPRS through separate financial accounts and does not commingle assets between the plans. Plan assets are reported individually in audited financial statements.

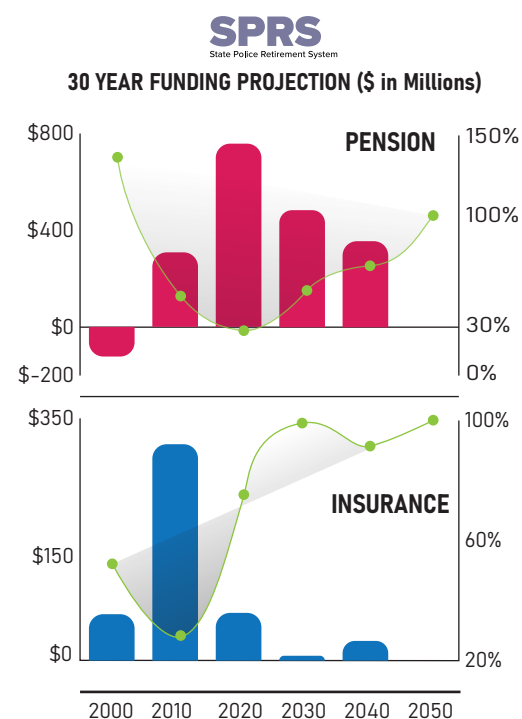
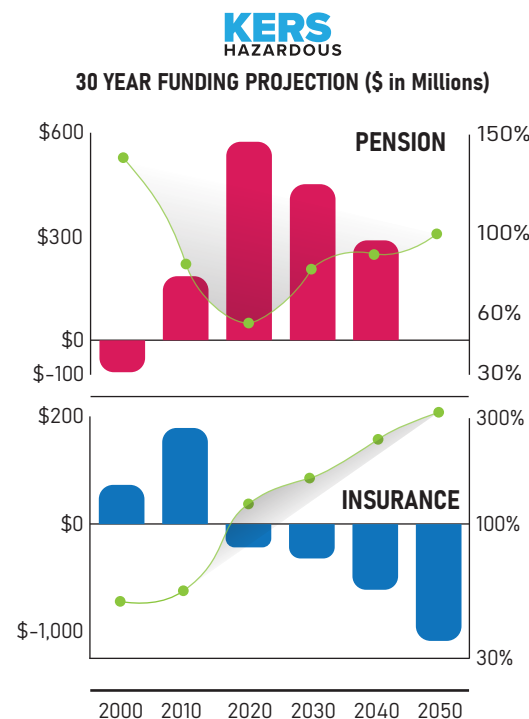
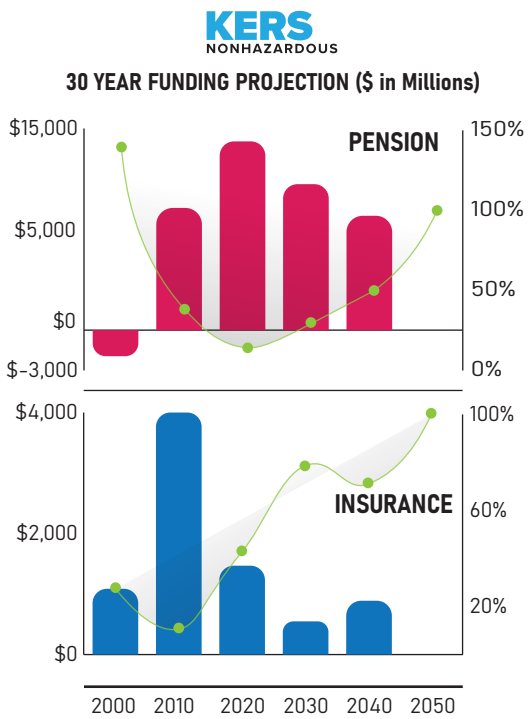
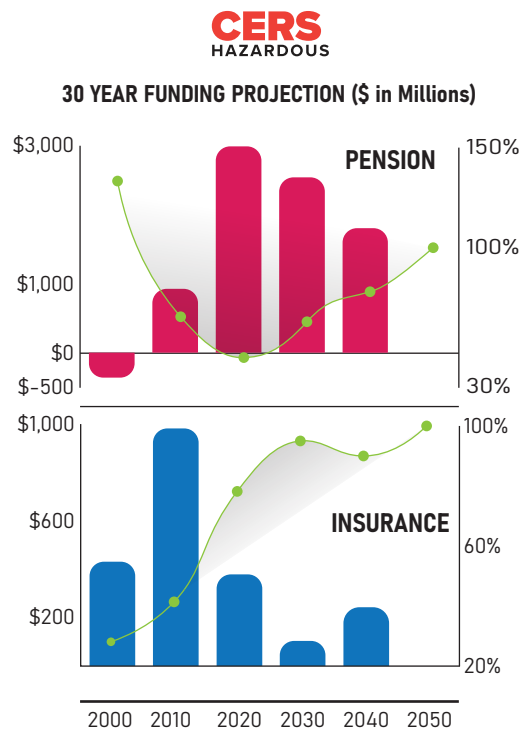
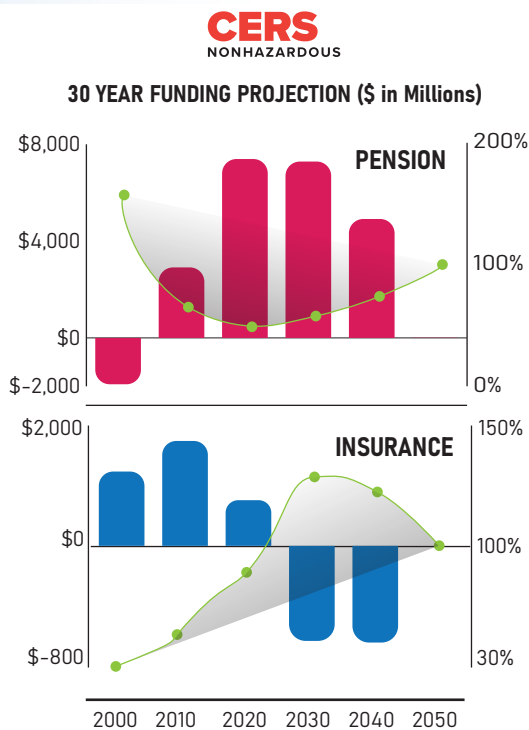
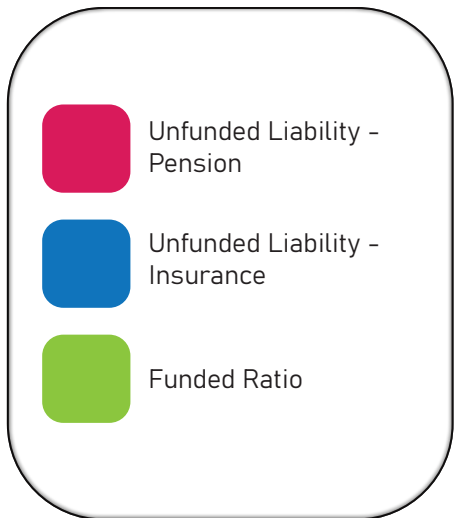
Member Contribution Rates	TIER 1	TIER 2	TIER 3
Nonhazardous	5%	5%+1% Insurance*	5%+1% Insurance*
Hazardous	8%	8%+1% Insurance*	8%+1% Insurance*

*One percent (1%) is deposited to the Insurance Plan.

FUNDING TRENDS

30 YEAR FUNDING PROJECTIONS

Based on current assumptions, all pension and insurance funds will be fully funded (100%) by Fiscal Year 2049. All projections shown below are based on the June 30, 2022 Actuarial Valuation.



Fully funded by 2049

The Systems' actuary, GRS, projects that the pension and insurance funds will be fully funded by 2049, based on the most recent actuarial valuation and the closed amortization period set in statute, provided the systems receive the full Actuarially Determined Employer Contribution each year and all actuarial assumptions are met. Those same projections show that benefits will be secure going forward due to steps taken over the past ten years, including the passage of legislation and adoption of internal policies designed to put the funds on solid financial footing.

ECONOMIC IMPACT FOR KENTUCKY

Pension benefits have a wide-ranging impact on the state's economic health. In addition to ongoing monthly pension payments, KPPA issued refunds, death benefit payments, and paid toward insurance coverage for eligible retirees, beneficiaries, and their dependents during the Fiscal Year.

ONE-TIME PAYMENTS

KPPA issues two types of one-time payments to eligible members and beneficiaries: refunds and a \$5,000 death benefit payment.

MONTHLY INSURANCE PAYMENTS

KPPA pays a percentage of the monthly contribution rate or a dollar amount toward insurance coverage for eligible members. Any portion paid toward eligible dependent coverage is based on the member's hazardous service credit.

MONTHLY PENSION PAYMENTS

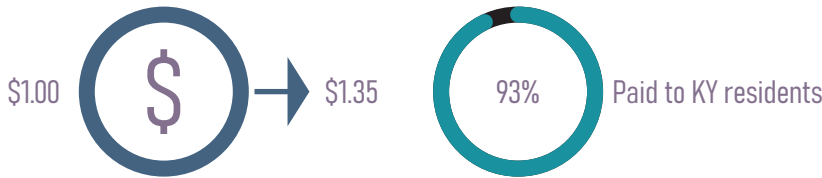
KPPA paid more than \$2 billion in monthly pension benefits to Kentucky residents.

ONE-TIME PAYMENTS	
Number	Amount
7,994	\$64.8 Million
INSURANCE PAYMENTS	
Number of Plan Holders	Amount
87,837	\$438.4 Million
KENTUCKY RECIPIENTS	
Number	Amount
114,378	\$2,139 Million

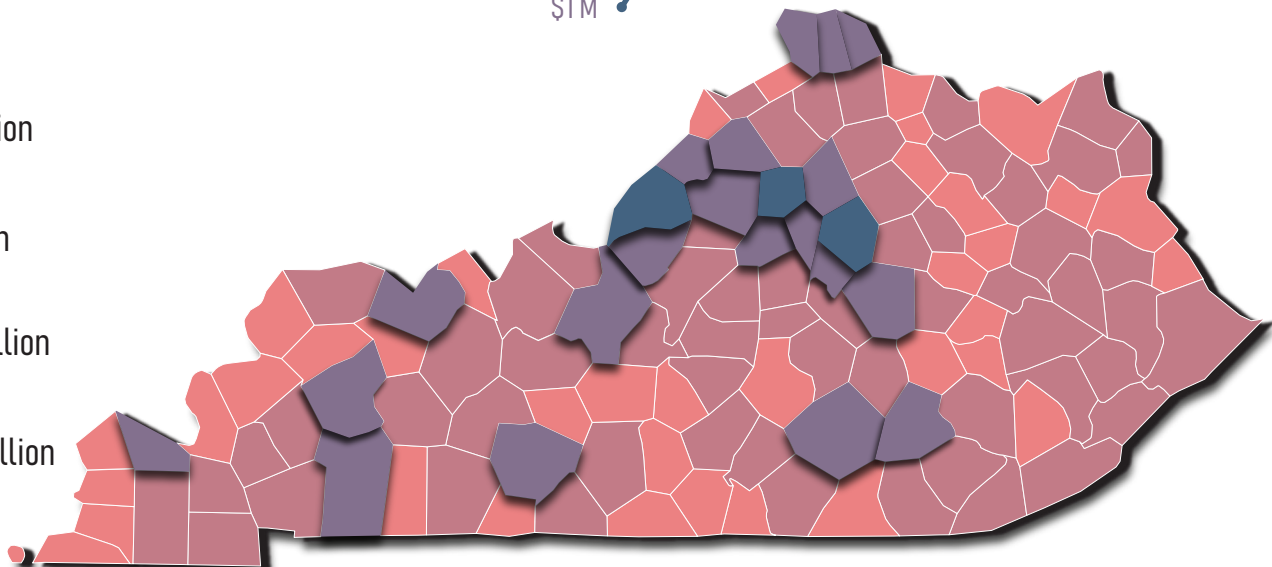
ECONOMIC IMPACT

KPPA's pension payments support state economic activity, with 93% paid to in-state residents. Each \$1 in taxpayer contributions to Kentucky's state and local pension plans supported \$4.57 in total output in the state. Each \$1 in state and local pension benefits paid to Kentucky residents ultimately supported \$1.35 in total output in the state.

Pension Benefit Multiplier*



- Less than \$5 Million
- \$5 - \$19.99 Million
- \$20.0 - \$79.99 Million
- More than \$80 Million



*Source: National Institute on Retirement Security, "Pensionomics 2021: Measuring the Economic Impact of DB Pension Expenditures" (nirsonline.org). For Kentucky figures, see State Fact Sheets; for methodology, see the Technical Appendix in the full report.

ECONOMIC IMPACT FOR KENTUCKY

In Fiscal Year 2022, KPPA paid over \$2 billion in ongoing pension benefits. Payments per county in the Commonwealth of Kentucky range from \$1.1 million to \$364 million annually providing a consistent revenue stream for all local economies.

Fiscal Year 2022 Monthly Pension Benefits Paid by County (\$ in Millions)											
County	Payees	Total	County	Payees	Total	County	Payees	Total	County	Payees	Total
Adair	540	\$9.04	Edmonson	244	\$3.41	Knox	641	\$9.80	Nicholas	223	\$3.19
Allen	425	5.87	Elliott	192	3.29	Larue	401	6.29	Ohio	668	7.63
Anderson	1,426	35.86	Estill	427	6.09	Laurel	1,341	22.28	Oldham	1,411	29.84
Ballard	262	3.75	Fayette	5,640	122.53	Lawrence	336	4.20	Owen	523	12.15
Barren	1,158	17.41	Fleming	492	8.27	Lee	240	3.44	Owsley	228	3.40
Bath	418	6.50	Floyd	920	14.41	Leslie	280	4.16	Pendleton	390	6.60
Bell	679	10.81	Franklin	6,339	196.03	Letcher	647	8.88	Perry	827	11.76
Boone	2,024	42.90	Fulton	184	2.12	Lewis	342	4.65	Pike	1,330	19.88
Bourbon	552	9.23	Gallatin	126	2.20	Lincoln	707	9.05	Powell	353	4.89
Boyd	1,097	18.03	Garrard	460	6.90	Livingston	278	4.62	Pulaski	2,362	39.80
Boyle	900	15.80	Grant	644	12.16	Logan	667	9.45	Robertson	70	1.15
Bracken	234	3.28	Graves	956	15.00	Lyon	364	7.30	Rockcastle	417	5.92
Breathitt	524	8.19	Grayson	820	13.26	Madison	2,528	42.82	Rowan	901	15.50
Breckinridge	507	7.62	Green	335	4.72	Magoffin	377	5.23	Russell	580	8.97
Bullitt	1,697	31.42	Greenup	693	9.73	Marion	572	8.14	Scott	1,354	28.33
Butler	332	4.64	Hancock	230	3.15	Marshall	961	14.31	Shelby	1,712	42.99
Caldwell	553	8.45	Hardin	2,347	39.31	Martin	283	3.24	Simpson	312	3.81
Calloway	1,107	16.13	Harlan	635	9.72	Mason	429	6.91	Spencer	553	12.78
Campbell	1,611	31.12	Harrison	481	7.63	McCracken	1,644	30.19	Taylor	696	10.27
Carlisle	116	1.75	Hart	352	5.37	McCreary	413	4.27	Todd	271	3.68
Carroll	324	5.27	Henderson	1,139	18.91	McLean	316	4.71	Trigg	557	9.02
Carter	827	11.02	Henry	938	20.77	Meade	482	7.14	Trimble	292	4.74
Casey	381	4.97	Hickman	99	1.70	Menifee	222	3.23	Union	376	4.23
Christian	1,577	27.83	Hopkins	1,308	20.41	Mercer	802	14.67	Warren	2,985	53.22
Clark	866	15.32	Jackson	341	4.43	Metcalfe	318	4.26	Washington	362	5.69
Clay	603	8.78	Jefferson	16,528	364.94	Monroe	292	3.43	Wayne	578	8.21
Clinton	295	3.76	Jessamine	1,168	20.58	Montgomery	683	11.29	Webster	382	4.96
Crittenden	235	3.14	Johnson	630	9.56	Morgan	661	11.51	Whitley	1,177	16.99
Cumberland	192	2.84	Kenton	2,391	50.55	Muhlenberg	842	11.02	Wolfe	342	5.78
Daviess	2,837	\$50.34	Knott	479	\$7.46	Nelson	1,147	\$19.91	Woodford	1,093	\$27.51

This table represents all payees receiving a monthly payment during the Fiscal Year. Members receiving payments from multiple accounts are represented as one payee

	Payees	%	Amount
Kentucky	114,378	93%	\$2,139
Out of State	9,441	7%	\$162
Grand Total	123,819	100%	\$2,301

FINANCIAL REPORT

2022 Financial Highlights

Fiduciary Net Position for the CERS, KERS, SPRS, and Insurance Plan decreased 4.59%, primarily attributable to the decrease in market value of investments, with assets decreasing from \$22.9 billion to \$21.8 billion.

! This is an overview of the financial activities for the Fiscal Year ended June 30, 2022. For more detailed information, refer to the Financial Section of the 2022 Annual Comprehensive Financial Report.

PENSION

Total Pension assets (CERS, KERS, and SPRS) **decreased 5.91%** in Fiscal Year 2022.

- Down from \$16.75 billion at the beginning of the Fiscal Year to **\$15.76 billion as of June 30, 2022.**
- This **\$0.99 billion decrease** was due in large part to the decrease in the fair value of investments.

INSURANCE

The combined assets of the five Insurance funds (CERS Nonhazardous, CERS Hazardous, KERS Nonhazardous, KERS Hazardous, and SPRS) **decreased \$0.47 billion** in Fiscal Year 2022.

- The funds received \$7.67 million in total contributions and net investment income, which offset \$384.64 million in deductions during the Fiscal Year.
- Total assets fell from \$7.31 billion at the beginning of the Fiscal Year to **\$6.84 billion as of June 30, 2022.**

INVESTMENTS

Fiscal Year 2022 investment performance was challenging as all plans lost ground during the volatile period; however, it is not uncommon for current short-term performance to deviate from this annualized desired outcome.

- The **Pension funds** earned a combined net return of -5.73% versus the -5.76% benchmark.
- All **Pension funds** fell short of their assumed rates of return: 6.25% for CERS, CERS Hazardous, and KERS Hazardous; and 5.25% for KERS Nonhazardous and SPRS.
- The **Insurance funds** earned a combined net return of -5.34%, versus the -5.21% benchmark.
- All **Insurance funds** fell short of the 6.25% assumed rate of return used for all funds.

CASH FLOWS

For Fiscal Year 2022, in aggregate, all ten funds combined had positive cash flow.

CERS Pension: CERS Nonhazardous cash flows remain slightly negative due to the continued phase-in of employer contribution rates. Cash flows were positive for CERS Hazardous due to completion of the phase-in period for employer contribution rates.

KERS and SPRS Pension: Cash flows for both funds continued to improve due to employer contributions, investment income, and General Fund appropriations.

- Employer contribution rates increased for KERS Nonhazardous due to a change in the funding model in Fiscal Year 2022. Under the new fixed allocation funding model, these employers pay the normal cost contribution rate plus a monthly invoice representing each employer's assigned percentage of the Unfunded Accrued Liability Payment (UAL).
- KERS Nonhazardous Quasi employers that were paying the same contribution rate of 49.47% since Fiscal Year 2018 began contributing in accordance with the new fixed allocation funding model, which increased cash flow.
- SPRS received an additional General Fund appropriation of \$215 million.

Insurance: The plans' funded statuses have been impacted by the negative market value of investments; however, cash flows for CERS continued to stabilize with increased employer contributions.

- KERS Nonhazardous cash flows were positive although there was a decline in employer contributions.
- KERS Hazardous did not receive contributions, as it continues to be overfunded.
- SPRS experienced a slight decline in employer contributions.

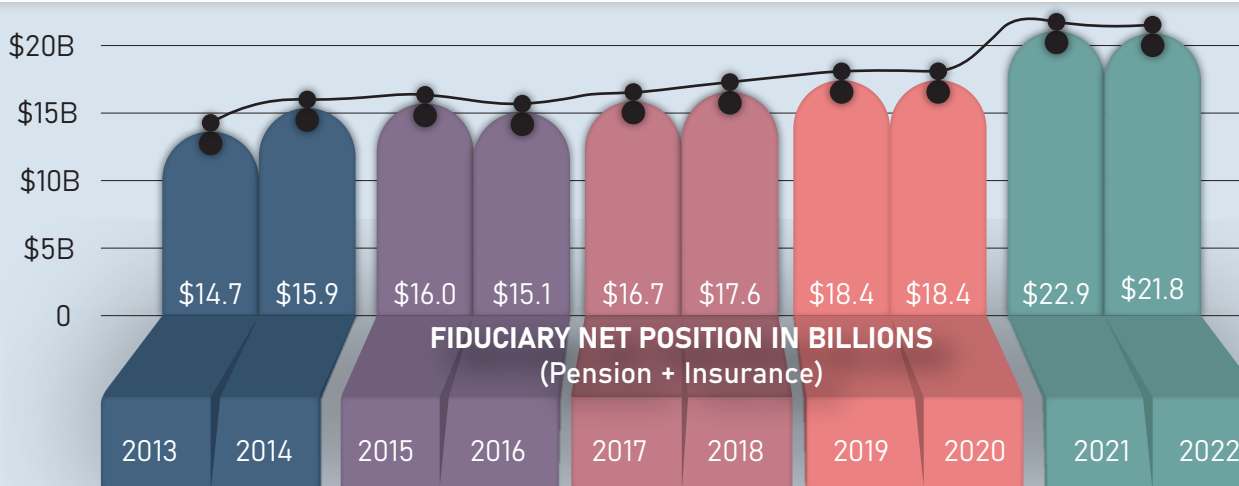


Table 1 - Assets and Liabilities

This table shows the assets and liabilities for the years ending June 30, 2022, and June 30, 2021. Total liabilities are composed of securities lending collateral, investment accounts payable (buys), and outstanding employer/member invoices. The Fiduciary Net Position represents the funds KPPA has accumulated thus far to pay pension benefits for retirees, active and inactive members, and health care premiums for current and future retirees.

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

Assets	Pension Funds		Insurance Fund		Total	
	2022	2021	2022	2021	2022	2021
Cash & Investments	\$15,418	\$16,391	\$6,767	\$7,184	\$22,185	\$23,575
Receivables	338	361	77	122	415	483
Equip/Int. Assets, net of dep/amort.	-	1	-	-	-	1
Total Assets	15,756	16,753	6,844	7,306	22,600	24,059
Total Liabilities	(508)	(831)	(248)	(333)	(756)	(1,164)
Fiduciary Net Position	\$15,248	\$15,922	\$6,596	\$6,973	\$21,844	\$22,895

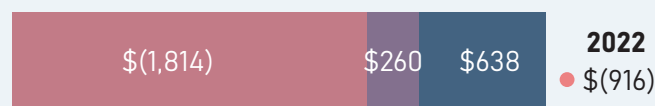
Table 2 - Income and Expenses

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 negative in 2022 and positive in 2021 for the funds. The deductions largely represent pension benefits, health insurance expenses, administrative costs, and refunds of contributions to inactive members.

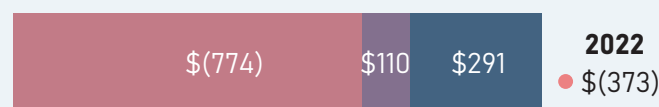
Table 2. Changes in Fiduciary Net Position (\$ in Millions)

Additions	Pension Funds		Insurance Fund		Total	
	2022	2021	2022	2021	2022	2021
Member Contributions	\$371	\$343	\$28	\$24	\$399	\$367
Employer Contributions	2,003	1,724	319	346	2,322	2,070
Other Contributions	278	176	34	84	312	260
Net Investment Income	(916)	3,150	(373)	1,378	(1,289)	4,528
Total Additions	\$1,736	\$5,393	\$8	\$1,832	\$1,744	\$7,225
Deductions						
Benefit payments	\$2,328	\$2,263	\$-	\$-	\$2,328	\$2,263
Refunds	43	32	-	-	43	32
Admin/Cap. Proj.	40	37	2	2	42	39
Healthcare Costs	-	-	382	381	382	381
Total Deductions	\$2,411	\$2,332	\$384	\$383	\$2,795	\$2,715
Total Change in Fiduciary Net Position	\$(675)	\$3,061	\$(376)	\$1,449	\$(1,051)	\$4,510
CERS Nonhazardous	(608)	1,560	(160)	643	(768)	2,203
CERS Hazardous	(198)	539	(104)	303	(302)	842
KERS Nonhazardous	(8)	723	(51)	347	(59)	1,070
KERS Hazardous	(56)	177	(45)	110	(101)	287
SPRS	195	62	(16)	46	179	108

Investment Income (Loss) for Pension Funds (\$ in Millions)



Investment Income (Loss) for Insurance Fund (\$ in Millions)




KPPA Administrative Expenses (\$ in Millions)

KPPA staff = 243 employees	2022	2021
Salaries	\$15.8	\$14.4
Pension & Other Benefits	16.1	14.9
Contractual Services	3.4	1.7
Communication	0.6	0.8
Rent/Utilities/Miscellaneous	1.5	1.5
Technology	3.0	2.4
Healthcare Retiree Fees	2.5	2.3
Depreciation/Amortization/Accruals	(0.7)	1.1
Total	\$42.2	\$39.1

INVESTMENTS REPORT

Pension Results

For the Fiscal Year ended June 30, 2022, the Pension portfolio earned a net return of -5.73%, which was in line with the benchmark return of -5.76%. In Fiscal Year 2022, the Pension portfolio did not meet the actuarial assumed rates of return of 5.25% for KERS Nonhazardous and SPRS, and 6.25% for CERS Nonhazardous, CERS Hazardous, and KERS Hazardous.

 This is an overview of the investment activities for the Fiscal Year ended June 30, 2022. For more detailed information, refer to the Investments Section of the 2022 Annual Comprehensive Financial Report.

Net Returns - PENSION (\$ in Millions)

Plan	Fair Value (\$ in Millions)	% of Total Fair Value	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception (%)	
			KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index
CERS Nonhazardous	\$7,949	53.0	-5.9	-6.4	6.1	5.6	6.5	6.1	7.3	7.1	8.8	8.9
CERS Hazardous	2,703	18.0	-6.1	-6.4	5.9	5.6	6.5	6.1	7.3	7.1	8.8	8.9
KERS Nonhazardous	2,993	20.0	-5.2	-4.8	6.0	5.1	6.2	5.7	7.0	6.9	8.7	8.8
KERS Hazardous	816	5.4	-6.0	-5.2	5.9	6.1	6.4	6.3	7.3	7.2	8.8	8.9
SPRS	542	3.6	-4.6	-4.8	5.9	5.1	6.2	5.7	6.9	6.8	8.7	8.8
Total*	\$15,003	100.0	-5.7	-5.8	6.0	5.7	6.5	6.0	7.3	7.1	8.8	8.9

*The total is not a weighted average of each plan. Each plan has a different asset allocation which results in different returns compared to the overall pool.

Net Returns By Allocation - PENSION (\$ in Millions)

Note: Fair values are adjusted for accruals and expenses


Plan	Inception	Fair Value (\$ in Millions)	% of Total	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception To Date		External FEES (\$ in Millions)
				KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index	
Total Fund	4/1/1984	\$15,003	100.0	-5.7	-5.8	6.0	5.7	6.5	6.0	7.3	7.1	8.8	8.9	171.5
Public Equity¹	4/1/1984	6,284	41.9	-18.1	-17.0	5.5	5.6	6.6	6.5	8.6	8.5	10.0	9.9	13.8
Private Equity	7/1/2002	1,290	8.6	22.7	14.9	20.4	21.3	17.4	18.5	14.8	17.6	12.5	12.8	59.8
Core Fixed Income	7/1/2013	2,127	14.2	-5.5	-10.3	1.0	-0.9	2.1	0.9	n/a	n/a	2.5	1.8	2.7
Specialty Credit	7/1/2017	3,141	20.9	1.2	-7.9	4.8	1.2	5.4	2.5	n/a	n/a	5.4	2.5	51.1
Cash Account²	1/1/1988	718	4.8	0.3	0.2	0.8	0.6	1.3	1.1	0.9	0.6	3.3	2.9	4.3
Real Return	7/1/2011	560	3.7	2.4	8.0	4.9	6.7	4.3	5.3	3.4	3.8	4.1	3.9	4.9
Real Estate	7/1/1984	\$883	5.9	28.1	27.3	15.7	10.3	13.4	8.9	11.4	9.9	6.9	6.8	34.9

¹Equities include trade commissions. ²Cash accounts include custodian, consulting and miscellaneous investment expenses.

INVESTMENTS REPORT

Insurance Results

For the Fiscal Year ended June 30, 2022, the Insurance portfolio earned a net return of -5.34% compared to the benchmark return of -5.21%. In Fiscal Year 2022, the Insurance portfolio achieved rates of return of 6.49% over the five year period and 7.20% over the 10 year period.

 This is an overview of the investment activities for the Fiscal Year ended June 30, 2022. For more detailed information, refer to the Investments Section of the 2022 Annual Comprehensive Financial Report.

Net Returns - INSURANCE (\$ in Millions)

Plan	Fair Value (\$ in Millions)	% of Total Fair Value	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception (%)	
			KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index
CERS Nonhazardous	\$3,004	45.4	-5.4	-6.2	5.8	5.2	6.5	5.9	7.2	7.0	7.3	7.5
CERS Hazardous	1,509	22.8	-5.0	-6.2	6.0	5.2	6.6	5.9	7.3	7.1	7.3	7.5
KERS Nonhazardous	1,289	19.5	-6.2	-4.9	5.9	5.9	6.1	6.2	6.9	7.2	7.2	7.6
KERS Hazardous	579	8.8	-4.5	-4.9	6.1	5.7	6.6	6.2	7.3	7.2	7.3	7.5
SPRS	229	3.5	-4.5	-4.9	6.4	5.7	6.9	6.2	7.4	7.2	7.3	7.6
Total*	\$6,610	100.0	-5.3	-5.2	5.9	5.6	6.5	6.1	7.2	7.2	7.3	7.6

*The total is not a weighted average of each plan. Each plan has a different asset allocation which results in different returns compared to the overall pool.

Net Returns By Allocation - INSURANCE (\$ in Millions)

Note: Fair values are adjusted for accruals and expenses

Plan	Inception	Fair Value (\$ in Millions)	% of Total	1 Year (%)		3 Years (%)		5 Years (%)		10 Years (%)		Inception To Date		External FEES (\$ in Millions)
				KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index	KPPA	Index	
Total Fund	4/1/1987	\$6,610	100.0	-5.3	-5.2	5.9	5.6	6.5	6.1	7.2	7.2	7.3	7.6	83.9
Public Equity¹	7/1/1992	2,914	44.1	-17.9	-17.0	5.5	5.6	6.5	6.5	8.6	8.5	8.3	8.1	6.1
Private Equity	7/1/2002	625	9.5	30.3	14.9	18.1	21.3	16.7	18.5	15.4	17.6	11.4	12.3	35.4
Core Fixed Income	7/1/2013	784	11.9	-5.7	-10.3	0.8	-0.9	1.9	0.9	n/a	n/a	2.2	1.8	1.0
Specialty Credit	7/1/2017	1,417	21.4	1.4	-7.9	4.7	1.2	5.2	2.5	n/a	n/a	5.2	2.5	22.7
Cash Account²	7/1/1992	278	4.2	0.2	0.2	0.6	0.6	1.1	1.1	0.8	0.6	2.4	2.3	2.2
Real Return	7/1/2011	219	3.3	2.2	7.0	5.2	6.8	4.4	5.3	3.3	3.9	4.0	3.9	2.1
Real Estate	5/1/2009	\$373	5.6	27.5	27.3	15.6	10.3	13.4	8.9	11.2	9.9	10.6	7.0	14.4

¹Equities include trade commissions. ²Cash accounts include custodian, consulting and miscellaneous investment expenses.

Investment Advisors & Assets Under Management (\$ in Thousands)



Actively Managed

These managers are either fully funded or are in the investment phase of the strategy.

Advisor as of 6/30/2022	Assets Under Management
American Century Investments	\$527,773
Axiom	105,740
BlackRock ACWI Ex-US	1,076,080
Franklin Templeton	387,352
JP Morgan Emerging Markets	192,260
Lazard Asset Management	646,121
LSV Asset Management	601,625
Next Century	162,727
Northern Trust Global Inv.	350,035
Pzena Emerging Markets	227,605
River Road Asset Management	384,207
Westfield Capital	383,994
Internally Managed by KPPA	4,151,940
Middle Ground	112,584
New State	2,204
Strategic Value Partners	131,406
Loomis, Sayles & Company	567,753
Lord Abbett	2,100,226
NISA Investment Advisors	242,523
Internally Managed by KPPA	995,987
Adams Street	301,266
Arrowmark	695,455
Blue Torch	177,845
BSP Private Credit	200,247
CapitalSpring	113,460
Cerberus	209,097
Columbia Asset Management	629,584
Manulife Financial	430,797
Marathon Bluegrass	707,703
Mesa West	118,146
Shenkman Capital	335,987
Waterfall	399,671
White Oak	238,703
Barings Real Estate	116,366
Harrison Street	353,896
Prologis	355,912
Stockbridge	184,217
Internally Managed by KPPA	7,300
IFM Infrastructure Debt Fund	83,997
Tortoise Capital	204,842
Internally Managed by KPPA	191,827
Assets Under Management	\$19,406,460

In Redemption

These managers are in the process of liquidation or are in the final investment phase awaiting payout.

Advisor as of 6/30/2022	Assets Under Management
ARES Capital	\$29,595
Bay Hills Emerging Partners	368,621
Black Diamond	81,125
Blackstone Capital Partners	45,628
Crestview Partners	92,579
CVC Capital Partners	48,126
DAG Ventures	58,318
DB Secondary Opportunities	35,142
Harvest Partners	152,267
H.I.G. Capital	67,990
Horsley Bridge International	41,252
Kayne Anderson	140,073
Keyhaven Capital Partners	61,331
Leonard Green	34,605
Levine Leichtman	130,430
New Mountain Partners	24,213
Triton Fund	31,784
Vista Equity Partners	115,251
Fundamental	96,590
Lubert-Adler	48,181
Patron	30,273
Rubenstein	23,454
Walton Street	28,869
AMERRA	101,475
BTG Pactual	39,117
Prisma	136,843
Other ²	143,118
Assets Under Management	\$2,206,250
TOTAL¹	\$21,612,710

¹Totals reflect external manager assets under management and differ from Total Fair Values.
²Managers who are in runoff status or have been liquidated with a de minimis balance are reported as "Other"; see the Investments Section of the 2022 Annual Comprehensive Financial Report for a complete list.

External Investment Expenses as of June 30, 2022 (\$ in Millions)

Expense	Fees Paid	Share of Expenses
Portfolio Management		
Pension Plans	\$169.1	66.4%
Insurance Fund	82.6	32.4%
Securities Lending*		
Pension Plans	(0.2)	(0.2)%
Insurance Fund	(0.1)	(0.1)%
Custody		
Pension Plans	1.7	0.6%
Insurance Fund	1.0	0.4%
Consultant		
Pension Plans	0.9	0.3%
Insurance Fund	0.4	0.2%
Total Pension Plans	\$171.5	67.1%
Total Insurance Fund	\$83.9	32.9%
Total Expenses	\$255.4	100%

*Income is offset against expenses.

Fair Values By Fund - Pension as of June 30, 2022 (\$ in Millions)

Assets	CERS NONHAZARDOUS		CERS HAZARDOUS		KERS NONHAZARDOUS		KERS HAZARDOUS		SPRS		Total KPPA	
	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV
Equity												
Public Equity	\$3,645	45.9%	\$1,242	46.0%	\$908	30.3%	\$334	41.0%	\$155	28.5%	\$6,284	41.9%
Private Equity	754	9.5%	252	9.3%	196	6.6%	69	8.5%	19	3.6%	1,290	8.6%
Fixed Income												
Core Fixed Income	937	11.8%	318	11.8%	649	21.7%	108	13.2%	115	21.1%	2,127	14.2%
Specialty Credit	1,715	21.6%	582	21.5%	582	19.4%	173	21.2%	89	16.5%	3,141	20.9%
Cash	83	1.0%	45	1.7%	402	13.5%	56	6.8%	132	24.3%	718	4.8%
Inflation Protected												
Real Return	320	4.0%	107	3.9%	91	3.0%	30	3.7%	12	2.3%	560	3.7%
Real Estate	495	6.2%	157	5.8%	165	5.5%	46	5.6%	20	3.7%	883	5.9%
TOTAL PORTFOLIO	\$7,949		\$2,703		\$2,993		\$816		\$542		\$15,003	

Fair Values By Fund - Insurance as of June 30, 2022 (\$ in Millions)

Assets	CERS NONHAZARDOUS		CERS HAZARDOUS		KERS NONHAZARDOUS		KERS HAZARDOUS		SPRS		Total KPPA	
	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV	Fair Value (FV)	% of Total FV
Equity												
Public Equity	\$1,374	45.7%	\$683	45.3%	\$527	40.9%	\$237	40.9%	\$93	40.7%	\$2,914	44.1%
Private Equity	\$292	9.7%	\$165	10.9%	\$84	6.6%	\$58	9.9%	\$26	11.3%	\$625	9.5%
Fixed Income												
Core Fixed Income	\$348	11.6%	\$176	11.6%	\$162	12.5%	\$71	12.2%	\$27	12.1%	\$784	11.9%
Specialty Credit	\$645	21.5%	\$327	21.7%	\$267	20.7%	\$127	22.0%	\$51	22.1%	\$1,417	21.4%
Cash	\$75	2.5%	\$12	0.8%	\$156	12.1%	\$26	4.5%	\$9	3.7%	\$278	4.2%
Inflation Protected												
Real Return	\$99	3.3%	\$52	3.5%	\$39	3.0%	\$21	3.7%	\$8	3.5%	\$219	3.3%
Real Estate	\$171	5.7%	\$94	6.2%	\$54	4.2%	\$39	6.8%	\$15	6.6%	\$373	5.6%
TOTAL PORTFOLIO	\$3,004		\$1,509		\$1,289		\$579		\$229		\$6,610	

Schedule of Commissions Paid for the Year Ended June 30, 2022 (in Millions)

Assets	Total Shares	Commissions Paid	Cost per Share
U.S. Equities	59	\$1.0	\$0.02
Non-U.S. Equities	205	1.1	0.01
Total	264	\$2.1	\$0.01

ACTUARIAL REPORT

2022 Actuarial Valuation Results

Each year the funding levels of the plans are determined by the annual actuarial valuation based on assumptions set by the Boards for the Fiscal Year ended June 30. In summary, total pension unfunded liabilities increased by \$0.09 billion primarily due to a decline in the market value of investments during the fiscal year. There was a decrease in all KERS and SPRS funds of \$0.33 billion; however, the CERS funds increased by \$0.42 billion. Total insurance unfunded liabilities decreased a total of \$2.63 billion due to lower than expected Medicare premiums. Total unfunded liabilities across all funds decreased by \$2.54 billion.

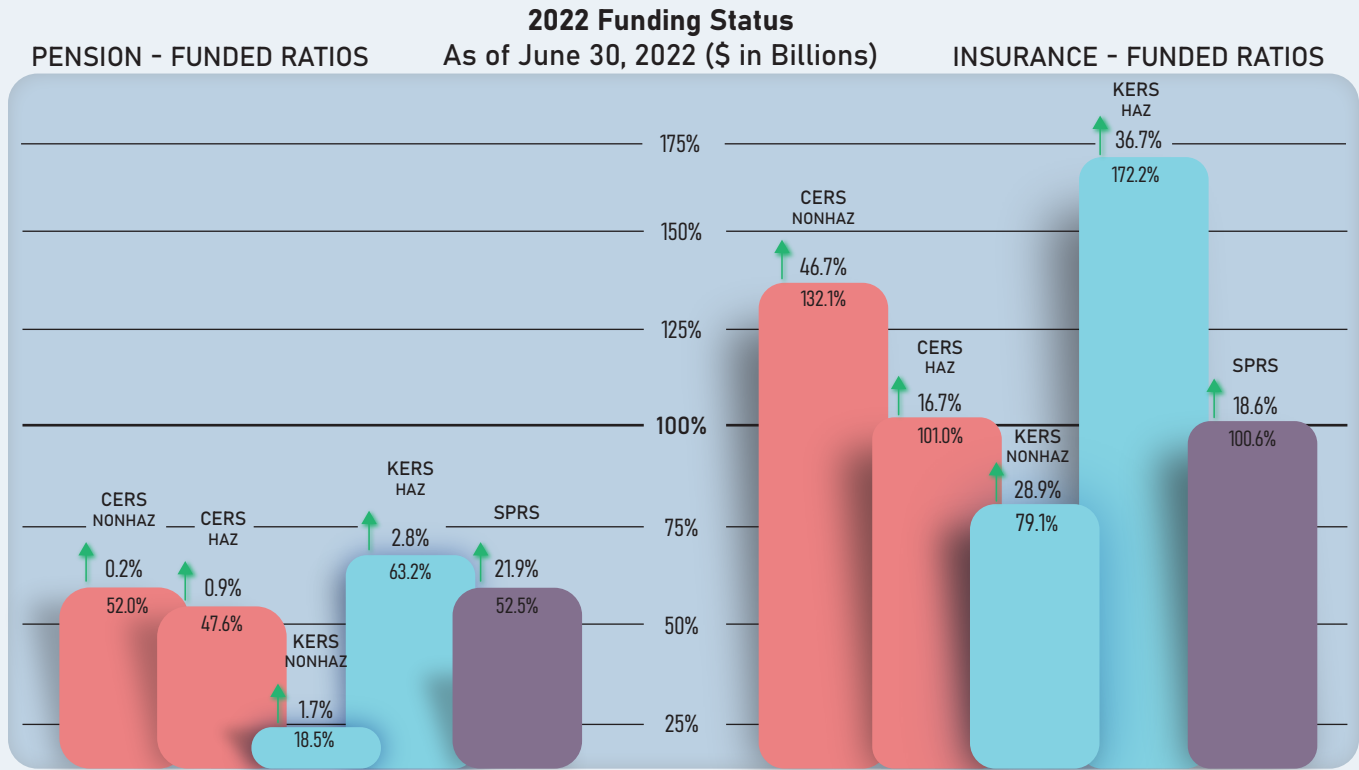
! This is an overview of the actuarial status for the Fiscal Year ended June 30, 2022. For more detailed information, refer to the Actuarial Section of the 2022 Annual Comprehensive Financial Report.

PENSION PLANS

The actuarial unfunded liability for CERS, KERS and SPRS was \$25.10 billion, an increase of \$90 million, or 0.35%, from Fiscal Year 2021. At the same time, the actuarial value of assets increased by \$1.2 billion, or 9%. The result was an increase in the funded ratio across all funds during the year, primarily due to the increase in contributions compared with the prior year. Contributions increased in Fiscal Year 2022 as a result of the stabilization of KERS Nonhazardous contributions, attributable to a new fixed allocation funding model, and an additional general fund appropriation of \$0.22 billion for SPRS.

INSURANCE PLAN

The Insurance Plan's unfunded actuarial liability as of June 30, 2022 was -\$0.67 billion compared to \$1.96 billion last fiscal year. The increase in funded ratios is due to a significant decrease in the 2023 Medicare premiums.



2022 UNFUNDED LIABILITY = \$24.43 Billion



2021 UNFUNDED LIABILITY = \$26.97 Billion



Summary of Actuarial Valuation Results as of June 30, 2022 (\$ in Millions)

	CERS NONHAZARDOUS	CERS HAZARDOUS	KERS NONHAZARDOUS	KERS HAZARDOUS	SPRS	Total KPPA
ACTUARIALLY DETERMINED CONTRIBUTION RATES						
Pension Funds	23.34%	41.11%	7.74%	30.12%	85.39%	
Insurance Funds	0.00%	2.58%	1.86%	0.00%	3.68%	
Amortization Cost to be Allocated	N/A	N/A	\$906	N/A	N/A	
Total Calculated Employer Contribution	23.34%	43.69%	9.60% ¹	30.12%	89.07%	
FUNDED STATUS AS OF VALUATION DATE						
PENSION FUNDS						
Actuarial Liability	\$15,674	\$5,862	\$16,576	\$1,316	\$1,067	\$40,495
Actuarial Value of Assets	\$8,149	\$2,789	\$3,065	\$832	\$560	\$15,395
Unfunded Liability on Actuarial Value of Assets	\$7,525	\$3,073	\$13,511	\$484	\$507	\$25,100
Funding Ratio on Actuarial Value of Assets	51.99%	47.58%	18.49%	63.22%	52.46%	38.02%
Market Value of Assets	\$7,964	\$2,718	\$3,014	\$811	\$552	\$15,059
Unfunded Liability on Market Value of Assets	\$7,711	\$3,143	\$13,563	\$506	\$516	\$25,439
Funding Ratio on Market Value of Assets	50.81%	46.37%	18.18%	61.59%	51.68%	37.19%
INSURANCE FUNDS						
Actuarial Liability	\$2,392	\$1,538	\$1,782	\$347	\$233	\$6,292
Actuarial Value of Assets	\$3,160	\$1,554	\$1,409	\$598	\$234	\$6,955
Unfunded Liability on Actuarial Value of Assets	(\$768)	(\$16)	\$373	(\$251)	(\$1)	(\$663)
Funding Ratio on Actuarial Value of Assets	132.11%	101.02%	79.08%	172.23%	100.62%	110.54%
Market Value of Assets	\$3,080	\$1,523	\$1,364	\$588	\$231	\$6,786
Unfunded Liability on Market Value of Assets	(\$688)	\$15	\$418	(\$241)	\$2	(\$494)
Funding Ratio on Market Value of Assets	128.76%	98.99%	76.55%	169.48%	99.33%	107.85%

¹Beginning with Fiscal Year 2021, all KERS Nonhazardous employers pay the normal cost plus a monthly invoice representing their fixed dollar allocation.

EXPERIENCE STUDY AND ECONOMIC ASSUMPTIONS

Regular experience studies help ensure the underlying economic and demographic assumptions (such as expected payroll growth, investment returns, and retiree life expectancy) accurately reflect plan experience. Accuracy is important because these assumptions are used to calculate the annual employer contribution rate that will allow the systems operated by KPPA to pay for current and future retiree benefits.

Experience studies are performed by KPPA's independent actuary at least every two to five years to compare each plan's actual experience to what had been expected (the assumptions). The most recent experience study was completed in April 2019. Based on that study, retirement rates, termination rates, disability incidence rates, salary increase assumptions and mortality assumptions were adjusted or reaffirmed. Economic assumptions set by the 2019 Study remained the same in Fiscal Year 2022.

Economic Assumptions as of June 30, 2022

	CERS NONHAZARDOUS	CERS HAZARDOUS	KERS NONHAZARDOUS	KERS HAZARDOUS	SPRS
Assumed Investment Return - Pension	6.25%	6.25%	5.25%	6.25%	5.25%
Assumed Investment Return - Insurance	6.25%	6.25%	6.25%	6.25%	6.25%
Inflation Factor	2.30%	2.30%	2.30%	2.30%	2.30%
Payroll Growth	2.00%	2.00%	0.00%	0.00%	0.00%

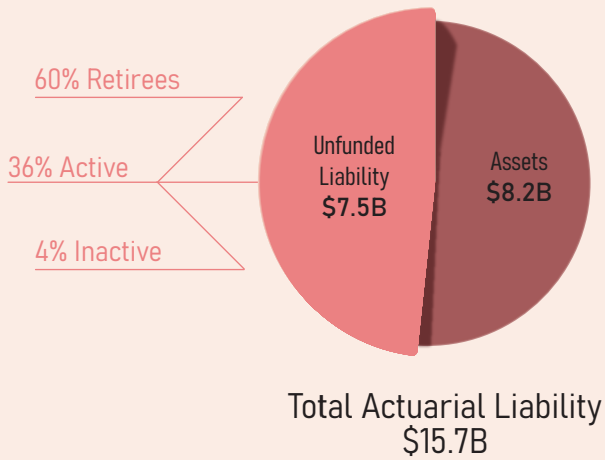
CERS NONHAZARDOUS

Established by the Kentucky General Assembly on July 1, 1958

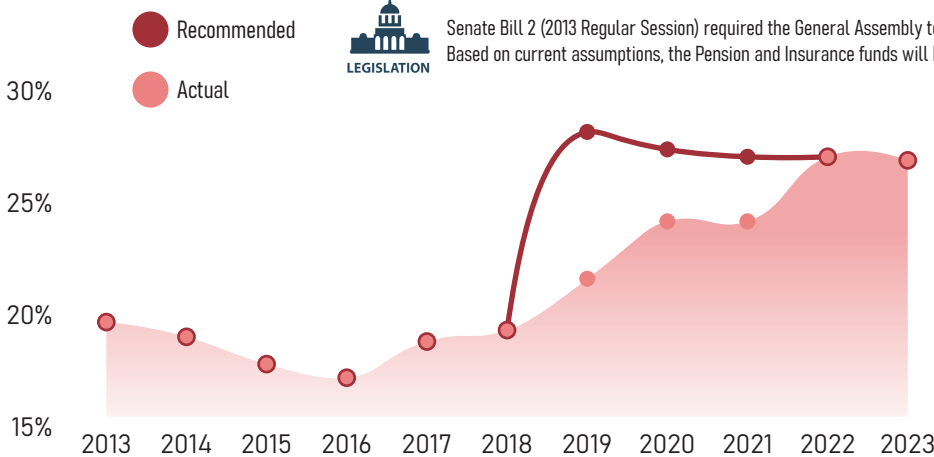
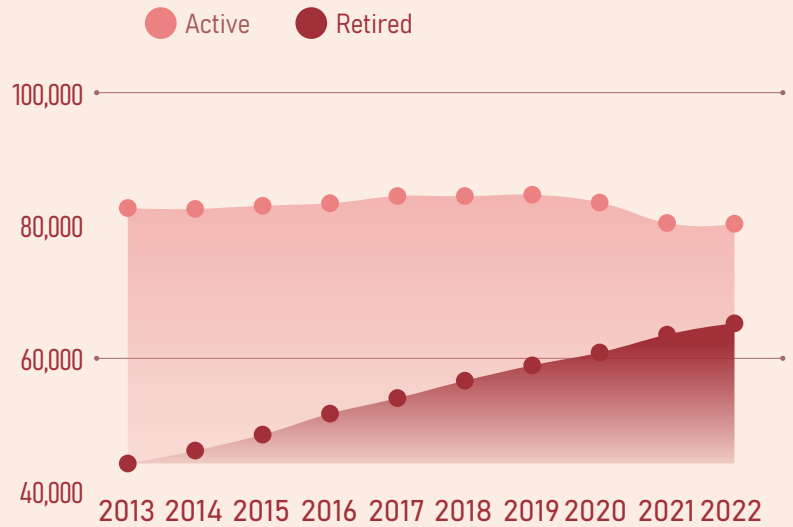
CERS Nonhazardous is the largest system operated by KPPA, accounting for 60% of the total membership and 53% of the total assets within KPPA.

- On average, a retired CERS Nonhazardous member in 2022 is 71 years old and receives \$1,012 per month in pension benefits (\$12,145 annually). This represents the highest average age for retirees and the lowest average monthly benefit payment of all systems operated by KPPA.
- There are more active employees paying into the plan (80,263) than retirees drawing benefits (65,266).
- The Combined Pension and Insurance Fiduciary Net Position was \$11.0 billion as of June 30, 2022, compared to \$11.8 billion in 2021.

As of the June 30, 2022 Valuation, retirees and beneficiaries account for 60% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 0.14% in Fiscal Year 2022.



*Beginning with Fiscal Year 2019, increases are capped by law at 12% annually until full contribution rate is achieved.

Membership As of June 30, 2022

	Active	Inactive	Retired	Total
Tier 1	25,552	48,981	63,984	138,517
Tier 2	11,767	17,959	1,202	30,928
Tier 3	42,944	34,568	80	77,592
Total	80,263	101,508	65,266	247,037

CERS HAZARDOUS

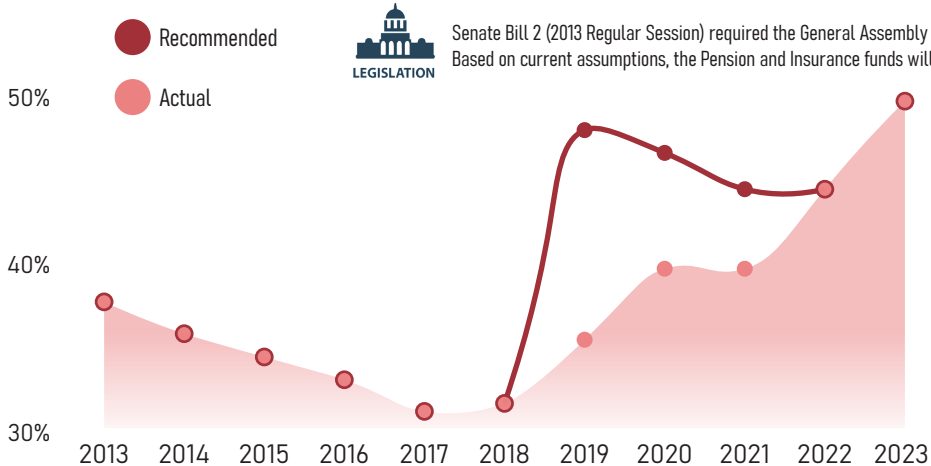
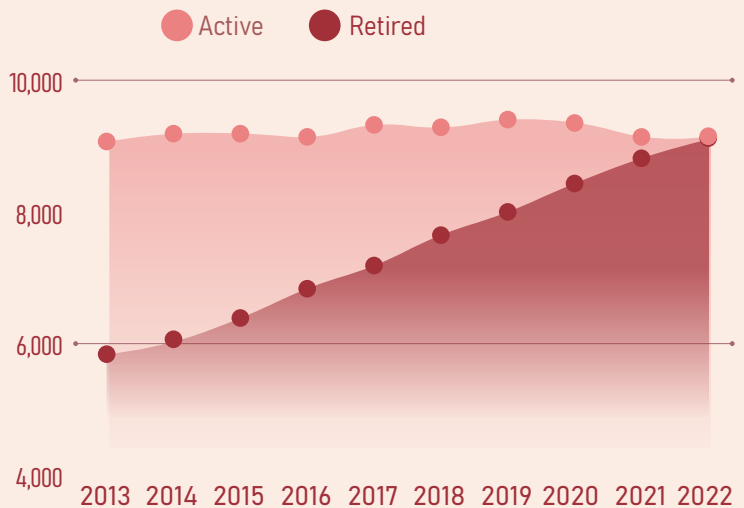
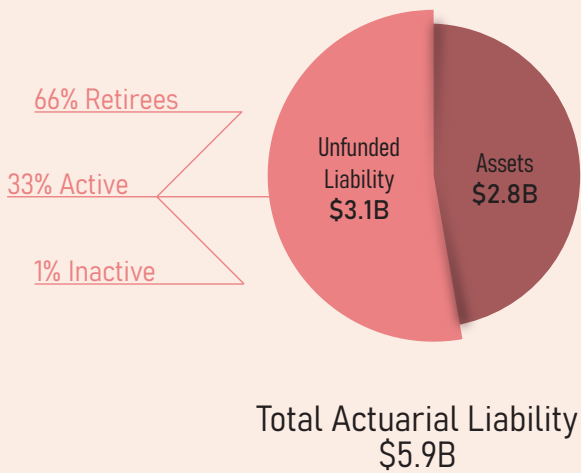
Established by the Kentucky General Assembly on July 1, 1958

A total of 272 employers participate in the CERS Hazardous system. CERS Hazardous members include, but are not limited to, active law enforcement, probation and parole officers, detectives, pilots, paramedics, and emergency medical technicians, with job duties that require frequent exposure to a high degree of danger and also require a high degree of physical condition.

- On average, a retired CERS Hazardous member in 2022 is 62 years old and receives \$2,423 per month in pension benefits (\$29,084 annually). This represents the lowest average age for retirees and the second-highest average monthly benefit payment of all systems operated by KPPA.
- There are only 28 more active employees paying into the plan (9,149) than retirees drawing benefits (9,121).
- The Combined Pension and Insurance Fiduciary Net Position was \$4.2 billion as of June 30, 2022, compared to \$4.5 billion in 2021.

As of the June 30, 2022 Valuation, retirees and beneficiaries account for 66% of the pension fund unfunded liability.

Active member covered payroll reversed its trend of decline in Fiscal Year 2022, increasing by 0.12% (11 additional active members).



Senate Bill 2 (2013 Regular Session) required the General Assembly to pay the Actuarially Determined Contribution and established Tier 3 benefits. Based on current assumptions, the Pension and Insurance funds will be 100% funded by Fiscal Year 2049.

*Beginning with Fiscal Year 2019, increases are capped by law at 12% annually until full contribution rate is achieved.

	Membership			Total
	Active	Inactive	Retired	
Tier 1	3,205	1,399	9,083	13,687
Tier 2	1,751	611	30	2,392
Tier 3	4,193	1,471	8	5,672
Total	9,149	3,481	9,121	21,751

KERS NONHAZARDOUS

Established by the Kentucky General Assembly on July 1, 1956

KERS Nonhazardous is the second-largest plan operated by KPPA in terms of both membership and financial resources, accounting for 30% of the total membership and 20% of the total assets within KPPA. The plan also has the lowest funding ratio (18.5%) of all pension funds operated by KPPA. However, due to the sustained efforts of the Kentucky General Assembly, the Governor's Office, and the KRS Board of Trustees over the past few years, the plan is improving. The current 18.5% funding ratio is up 1.7% over the previous fiscal year, moving the ratio to its highest level since 2015.

House Bill 8 (2021 Regular Session) adjusted the method for calculating KERS Nonhazardous employer contributions from a percent of payroll model to fixed allocation funding. Under the new method, a percentage of the Unfunded Accrued Liability Payment (UAL) is assigned to each employer based on total UAL as of 6/30/2019:

- Each employer's 2019 percentage of the liability is multiplied by the current year UAL to calculate the UAL flat dollar amount each employer must pay for that year.
- UAL dollar amount is determined each year based on the current year UAL, but always applies the same 2019 percentage.

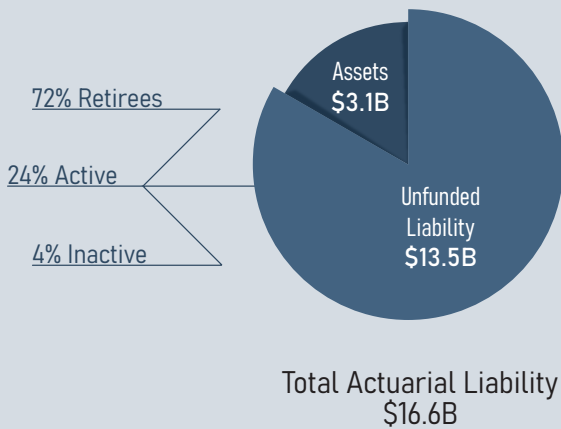
Beginning with Fiscal Year 2022, under the fixed allocation funding model, employers pay the normal cost plus a monthly invoice representing their fixed dollar allocation.

Funding Comparison (\$ in Millions)

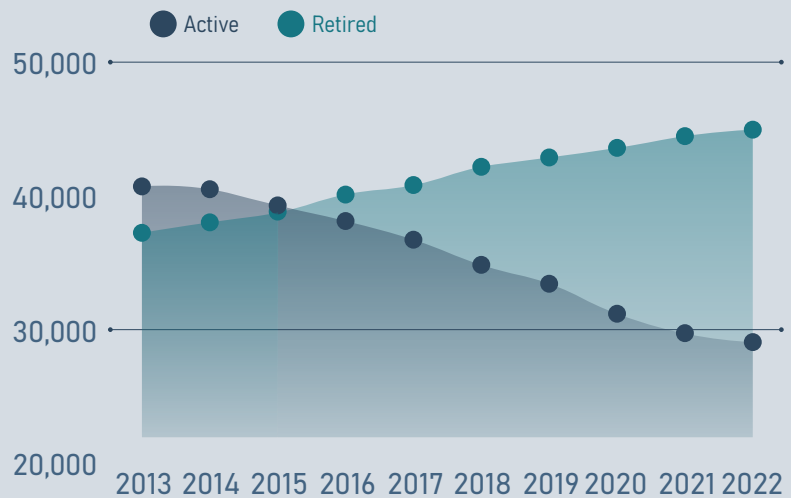
	July 2022	July 2021	July 2020
Payroll	\$130.77	\$120.63	\$125.21
Participating Employees	34,921	31,438	33,111
Employer Contribution	\$12.89	\$12.61	\$95.63
Contribution Rate*	9.97%	10.10%	84.43%
UAL Payment	\$82.87	\$84.53	N/A
Total Employer Contribution	\$95.76	\$97.14	\$95.63

*The 2021 and 2022 employer contribution rate reflects the normal cost.

As of the June 30, 2022 Valuation, retirees and beneficiaries account for 72% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 2.2% in Fiscal Year 2022.

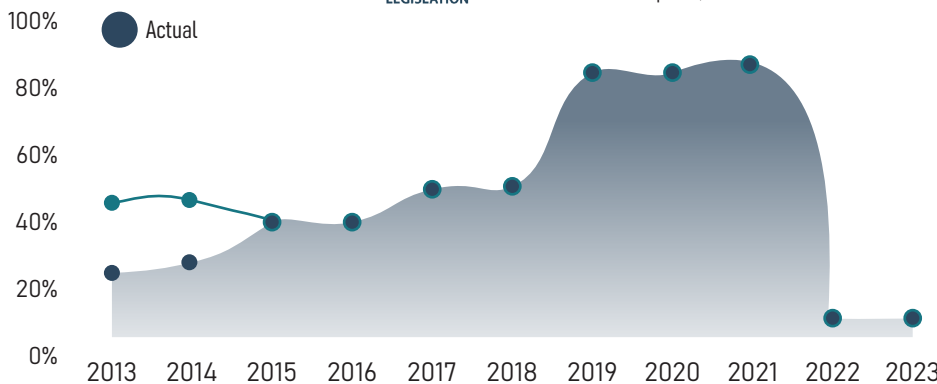


Recommended

Actual



Senate Bill 2 (2013 Regular Session) required the General Assembly to pay the Actuarially Determined Contribution and established Tier 3 benefits. Based on current assumptions, the Pension and Insurance funds will be 100% funded by Fiscal Year 2049.



Quasi-governmental agencies maintained the Fiscal Year 2018 rate for Fiscal Years 2019 - 2021. Beginning with Fiscal Year 2022, all employers pay the normal cost plus a monthly invoice representing their fixed dollar allocation.

Membership As of June 30, 2022

	Active	Inactive	Retired	Total
Tier 1	12,760	30,665	44,537	87,962
Tier 2	4,859	8,690	382	13,931
Tier 3	11,450	11,174	33	22,657
Total	29,069	50,529	44,952	124,550

KERS HAZARDOUS

Established by the Kentucky General Assembly on July 1, 1956

The KERS Hazardous pension and insurance funds currently have the highest funding ratios (63.2% and 172.2%, respectively) among all systems operated by KPPA.

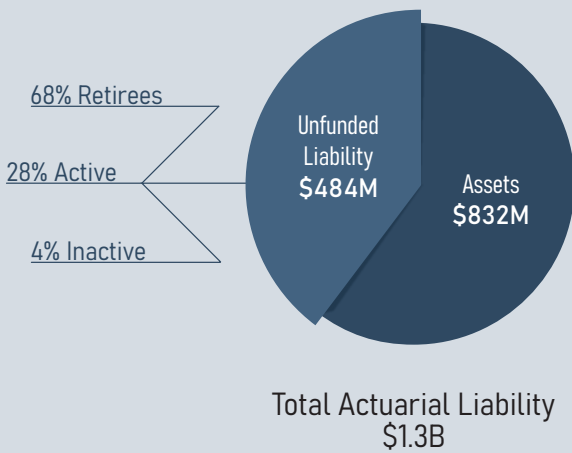
FUNDING RATIO CONSIDERATIONS

Ideally, the funding ratio of each plan will be 100%, where the system has enough assets on hand to meet all required obligations. This means the KERS Hazardous insurance fund is in the enviable position of having 72.2% more assets on hand than what is needed.

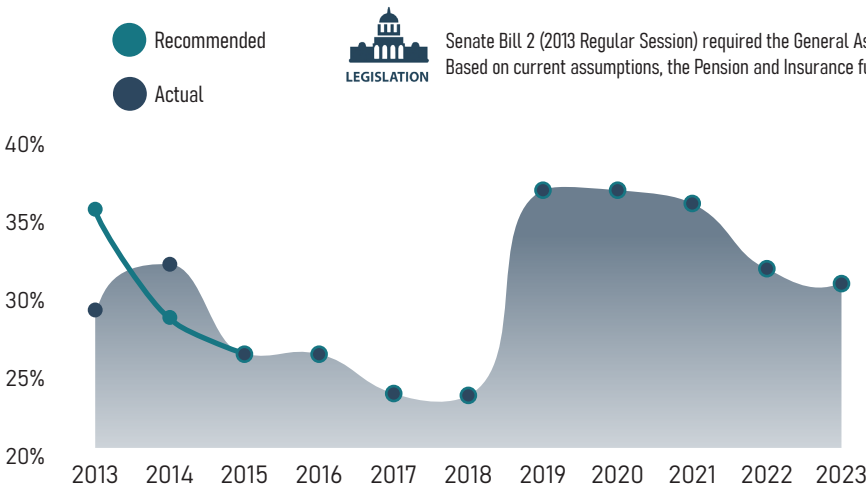
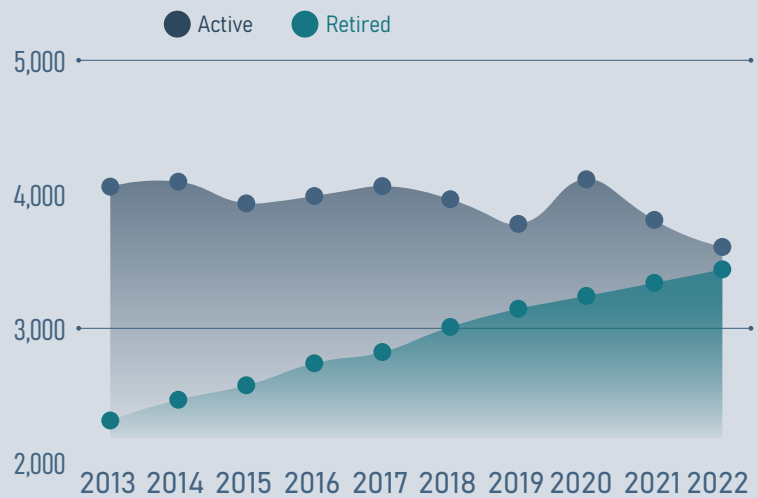
You may wonder why the surplus in the insurance fund can't simply be shifted to the pension fund to bring both to 100% funding. The reason is federal law requires the money in each fund to be accounted for separately and used to pay that specific liability, either pension or insurance. In other words, money earmarked for the insurance fund can't be used to pay pension obligations, and vice versa.

Therefore, the solution lies on the front end: the system's actuary recommended allocating the employer's contribution entirely to the pension fund beginning in 2020, with no additional money allocated to the insurance fund. This puts the money directly into the fund where it is needed most, while allowing the insurance fund's ratio to gradually lower to 100%. The allocation percentages are reviewed each year and will be adjusted as needed.

As of the June 30, 2022 Valuation, retirees and beneficiaries account for 68% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 5.3% in Fiscal Year 2022.



Senate Bill 2 (2013 Regular Session) required the General Assembly to pay the Actuarially Determined Contribution and established Tier 3 benefits. Based on current assumptions, the Pension and Insurance funds will be 100% funded by Fiscal Year 2049.

Membership As of June 30, 2022

	Active	Inactive	Retired	Total
Tier 1	940	1,796	3,380	6,116
Tier 2	599	1,278	54	1,931
Tier 3	2,068	3,815	6	5,889
Total	3,607	6,889	3,440	13,936

STATE POLICE RETIREMENT SYSTEM

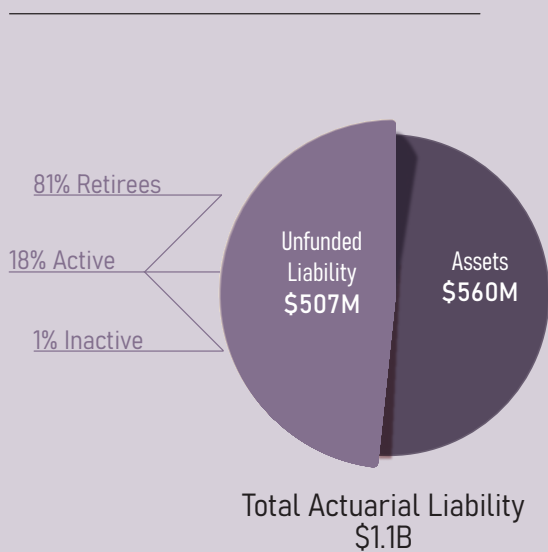
Established by the Kentucky General Assembly on July 1, 1958

Membership in SPRS, the smallest system operated by KPPA, consists solely of full-time state troopers employed in positions by the Kentucky State Police.

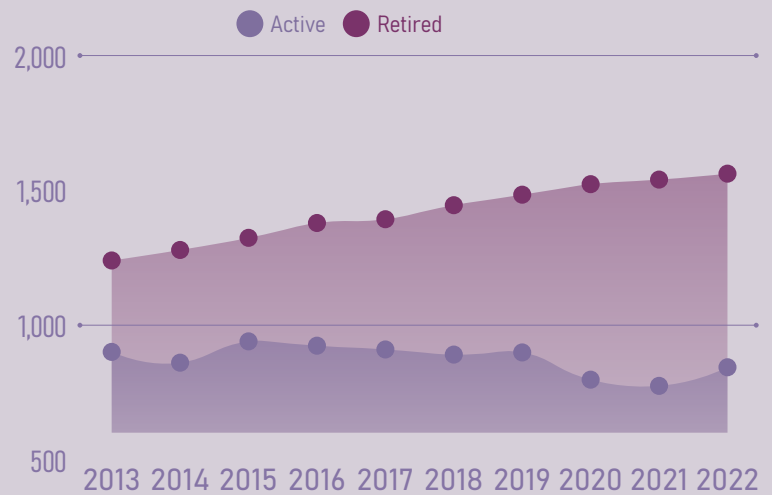
SPRS also has the highest employer contribution rate of all our systems. To help address this problem, House Bill 1 (2022 Regular Session), the State Executive Branch Budget Bill, included an additional \$215 million in Fiscal Year 2021-2022 to be applied to the unfunded liability of the SPRS pension fund. This influx of money lowered the SPRS contribution rate from the planned 146.06% to 99.43%; and it also dramatically increased the plan's funding ratio from 30.7% to 52.5%.

- On average, a retired Kentucky state trooper in 2022 is 63 years old and receives \$3,313 per month (\$39,763 annually) in pension benefits. All trooper positions are considered to be hazardous.
- There are almost twice as many retirees currently drawing benefits (1,562) than active employees paying into the plan (844).
- SPRS experienced an 8.9% increase in active members in Fiscal Year 2022 (from 775 actives in Fiscal Year 2021 to 844 actives in Fiscal Year 2022). The system had seen a 0.7% average decrease in active members over the past 10 years.
- The Combined Pension and Insurance Fiduciary Net Position was \$783 million as of June 30, 2022, compared to \$604 million in 2021.

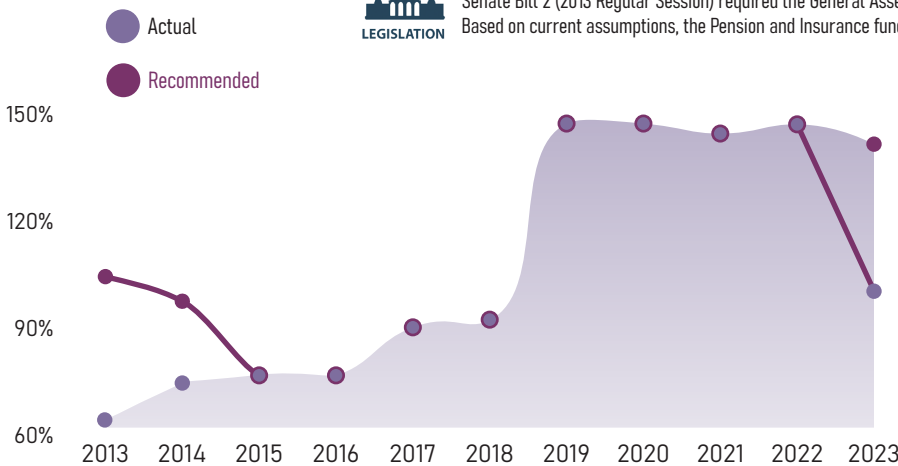
As of the June 30, 2022 Valuation, retirees and beneficiaries account for 81% of the pension fund unfunded liability.



Active member covered payroll reversed its trend of decline in Fiscal Year 2022, increasing by 8.9% (69 additional active members).



Senate Bill 2 (2013 Regular Session) required the General Assembly to pay the Actuarially Determined Contribution and established Tier 3 benefits. Based on current assumptions, the Pension and Insurance funds will be 100% funded by Fiscal Year 2049.



Membership As of June 30, 2022

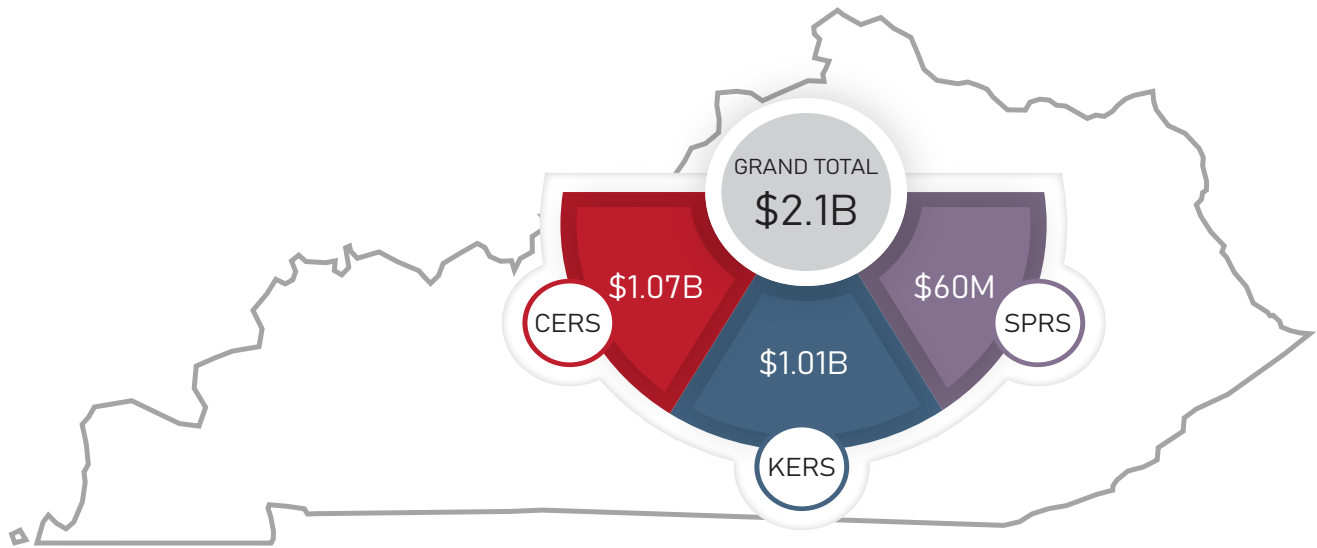
	Active	Inactive	Retired	Total
Tier 1	331	169	1,560	2,060
Tier 2	179	70	1	250
Tier 3	334	163	1	498
Total	844	402	1,562	2,808

ABOUT KPPA

KPPA is responsible for the investment of funds and administration of pension and health insurance benefits for over 410,000 active, inactive, and retired state and local government employees, state police officers, and non-teaching staff of local school boards and regional universities.

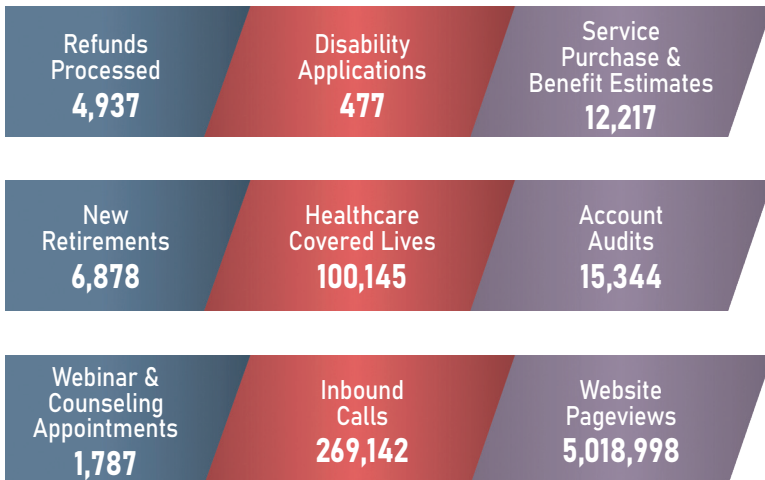
ECONOMIC IMPACT

In Fiscal Year 2022, KPPA paid over \$2 billion in ongoing pension benefits to Kentuckians. KPPA's pension payments support state economic activity, with 93% paid to in-state residents. Payments per Kentucky county range from \$1.1 million to \$364 million annually providing a consistent revenue stream for all local economies.



SERVING OUR MEMBERS

Daily system activities, including administrative support, investment management, benefits counseling, accounting and payroll functions, and legal services are performed by a staff of professional employees working as the KPPA.



Our Six Mandates

1. Strive for appropriate funding for all plans.
2. Provide members with efficient access to information and helpful counseling to meet their individual needs.
3. Manage the assets in accordance with each plan's needs while adding value to a passive portfolio.
4. Communicate effectively with all constituents, while ensuring appropriate transparency.
5. Maintain a work environment that promotes employee inclusion and diversity, effectiveness, morale, safety, and retention.
6. Insist on a culture of continuous enhancement to everything we do.



KENTUCKY PUBLIC PENSIONS AUTHORITY
1260 LOUISVILLE ROAD, FRANKFORT, KY 40601
Toll Free 1-800-928-4646

The Kentucky Public Pensions Authority is responsible for the investment of funds and administration of pension and health insurance benefits for over 410,000 active and retired state and local government employees, state police officers, and nonteaching staff of local school boards and regional universities.

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