



KPPPA

Kentucky Public Pensions Authority
A component unit of the Commonwealth of Kentucky

Summary Annual Financial Report

For the Fiscal Year Ended June 30,

2021



County Employees Retirement System



Kentucky Employees Retirement System



State Police Retirement System

EXECUTIVE DIRECTOR'S MESSAGE

December 8, 2021

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, 2021. 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.

From record investment returns to the finalization of the CERS separation, from the passage of fixed allocation funding legislation for KERS Nonhazardous employers to learning to perform effectively in a work-from-home environment, FY 2021 saw more than its share of challenges and positive developments. Here are a few highlights:

Record Investment Returns

Pension and insurance funds administered by KPPA collectively earned an investment return of 25% net of fees for the Fiscal Year ended June 30.

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It marked the highest single-year investment return in the history of the organization, surpassing the 24% return recorded in 1997.

”

Those returns were a major contributor to the \$4.5 billion increase in assets across the 10 pension and insurance funds. KPPA closed FY 2021 with \$22.9 billion in assets, based on market value, compared to \$18.4 billion on June 30, 2020.

The overall performance last year compared favorably with the long-term rates of return for the pension and insurance funds. Overall performance continues to exceed the actuarial assumed rates of return, which are 5.25% for the KERS Nonhazardous and State Police pension funds and 6.25% for all other pension and insurance funds.

Detailed information about investments can be found in the investments section of this report. For comprehensive information about our investments, including Investment Policy Statements, visit our website, kyret.ky.gov, and go to the Investments Library section under the Investments tab at the top of the page.

Actuarial

The actuarial value of the CERS Hazardous and Nonhazardous, KERS Hazardous and Nonhazardous, and State Police pension liabilities, and total insurance liability, was determined as of June 30, 2021. Investment performance contributed to improvements in the funded status for all 10 pension and insurance funds. The investment gains in excess of the actuarial assumed rates of return will continue to benefit those funds as the gains are amortized over Fiscal Years 2021-2025.

Funding status by fund, actuarial valuation results, and the economic assumptions used to calculate the total pension

and insurance liability can be found in the actuarial section of this report and are highlighted for the pension funds in the schedule below.

Funded Status		
Pension Fund	6/30/2021	6/30/2020
CERS Nonhazardous	51.8%	49.4%
CERS Hazardous	46.7%	45.1%
KERS Nonhazardous	16.8%	14.2%
KERS Hazardous	60.4%	55.3%
SPRS	30.7%	28.1%

Fixed Allocation Funding

House Bill 8, sponsored by Rep. Jim DuPlessis, changed the method for calculating KERS Nonhazardous employer contributions from a “percent of payroll” model to a “fixed allocation funding” model. Beginning July 1, 2021 employers began paying the normal cost for all their employees, plus their agency’s actuarially-calculated percentage of the unfunded liability specifically attributable to that employer’s current and former employees who participate in KERS Nonhazardous.

“

Because the actuarially accrued contribution is no longer tied to the fluctuating size of the employer’s payroll, KERS Nonhazardous will receive the contribution required to reduce its unfunded liability regardless of employer reductions in covered payroll.

”

CERS Separation

During the past fiscal year, we substantially completed the separation of the CERS system from the KERS and SPRS systems, as mandated and outlined in House Bill 484 (2020) and House Bill 9 (2021), sponsored by Rep. Russell Webber.

Together, the two bills made significant changes to the governance and administrative structure of the former Kentucky Retirement Systems. House Bill 484 transferred governance of CERS to a separate 9-member board of trustees, while another 9-member board of trustees now governs KERS and SPRS under the name Kentucky Retirement Systems. The entity comprising benefits, legal, administration, and investment staff that had been known as Kentucky Retirement Systems is now known as the Kentucky Public Pensions Authority (KPPA). It is governed by a third 8-member board composed of 4 CERS and 4 KRS trustees.

House Bill 9, essentially the blueprint for implementing HB 484, created separate statutes governing CERS and KRS and amended current statutes to allow CERS and KRS to use the existing registration of assets in order to avoid additional expenses.

EXECUTIVE DIRECTOR'S MESSAGE

Staff logged thousands of hours on a multitude of individual tasks to implement the required changes. For instance, to implement changes required in Line of Business and Self Service, the Enterprise and Technology Services staff completed over 700 work items to update forms, reports, and letters as well as language changes on screens to update the agency name to KPPA, which included updating and replacing all the logos and images. This also took a huge effort in testing, which involved staff in Enterprise and Technology Services (IT), Employer Reporting Compliance and Education, Quality Assurance, Communications, Payroll, and Health Insurance. Communications updated logos and branding, kept stakeholders in the loop and made hundreds of changes to the website, not all of which are complete. Procurement and Legal re-established more than 150 vendor contracts with corresponding confidentiality agreements, Business Associate Agreements and Delivery Order/Proofs of Necessity. The list goes on.

Working from Home

Fiscal Year 2021 saw the depths of the COVID crisis during the winter of 2020-21, the green shoots of recovery with the availability of vaccines in the spring of 2021, and then the re-emergence of COVID through the Delta variant in the summer. Through it all the safety of our members and staff remained paramount, and KPPA employees continued to successfully serve members and retirees, while mostly working from home. Typically only between 10% and 20% of the staff reported to the Frankfort campus to perform duties that could not be done remotely.

“

The necessity of working remotely during the pandemic opened a new avenue of service to our members.

”

Now, rather than traveling to Frankfort to meet with a retirement counselor, or relying solely on Self Service, members can meet with counselors face-to-face via online video. What we initially thought of as an inconvenience has been well-received by members. As a result, virtual and phone appointments continue to be the members' primary options elected for counseling services.

KPPA continues to add new features to Self Service, and it remains the best option for members to quickly and easily access their account information and benefit estimates, file for retirement, and submit documents to our office.

Board members also adapted to the new COVID realities, pivoting from in-person meetings to fully online videoconferences. Additionally, board members quickly worked out their organizational structures and set up the necessary committees to implement the CERS separation from KERS and SPRS and to operate under that new structure.

Cyber Security

KPPA's members and employers entrust us with sensitive

data that must be protected. As cyber security threats increase and become more sophisticated, and our work environment changes, we are committed to meeting the challenge of keeping that information secure. Our Enterprise and Technology Services staff continue to monitor threats from social engineering schemes like spear phishing and to require quarterly education campaigns designed to highlight those threats and instruct our staff on how to avoid them. Over the past year, the biggest security concern has shifted from the office network perimeter to the home networks of employees working remotely. Any security system is only as strong as its weakest link. A concerted effort has been made to educate employees on the importance of making sure their home systems are secure and about potential third-party attempts to acquire member and other KPPA confidential information.

Looking Ahead

Our most important job is to meet our obligations to our Members and serve them responsibly. That means working with the Legislature and the Governor's Office to ensure the systems operated by KPPA get the required funding, and being good stewards of the retirement and insurance funds entrusted to us. It means prudently investing assets to generate the best risk-adjusted returns possible. It means being as transparent as we can via our website, social media, and email. And it means being responsive to our members' questions and concerns.

“

Our actuary, GRS, projects that our pension and insurance funds will be fully funded by 2049, provided KPPA receives the full Actuarially Determined Employer Contribution each year and all actuarial assumptions are met.

”

And those same projections show that benefits will be secure going forward thanks to steps taken over the past eight years, including the passage of legislation and adoption of internal policies designed to put the plans operated by KPPA on solid financial footing.

Acknowledgments

The preparation of this report has been a collaborative effort of KPPA Executive Management and the Accounting, Investments, and Communications Divisions. The contents have been reviewed by the Internal Audit Division. KPPA takes responsibility for all the information in the report and confidently presents it as a basis for making management decisions that promote the responsible stewardship of the assets of the systems operated by KPPA.



David Eager

David L. Eager
Executive Director

GOVERNANCE

The funds 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. Effective April 1, 2021, the CERS Board of Trustees is responsible for governance of the CERS plans. The governance of the KERS plans and the SPRS plans are the responsibility of the KRS Board of Trustees. CERS and the new KRS each have a Chief Executive Officer (CEO) who serves as a legislative and executive advisor to the respective boards and a General Counsel who provides legal services.



CERS BOARD OF TRUSTEES

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

ELECTED BY MEMBERSHIP



Ed Owens III
CERS Chief Executive Officer



Betty Pendergrass
Chair
Term ends March 31, 2025



Jerry Wayne Powell
Vice Chair
Term ends March 31, 2025



Dr. Patricia P. Carver
Term ends March 31, 2025

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).



George Cheatham
Term ends March 31, 2025
Nominated by KSBA



J. Michael Foster
Term ends July 1, 2021
Nominated by KACo



J.T. Fulkerson
Term ends July 1, 2021
Nominated by KLC



Dr. Merl Hackbart
Term ends March 31, 2025
Nominated by KACo



Dr. Martin Milkman
Term ends July 1, 2025
Nominated by KSBA



William O'Mara
Term ends March 31, 2025
Nominated by KLC



KRS BOARD OF TRUSTEES

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

ELECTED BY MEMBERSHIP



John E. Chilton
KRS Chief Executive Officer



Keith Peercy
Chair
Term ends March 31, 2023
Elected by SPRS



Campbell Connell
Term ends March 31, 2022
Elected by KERS



Larry Totten
Term ends March 31, 2022
Appointed by KRS
Trustees to fill vacancy

APPOINTED BY GOVERNOR



John Cheshire III
Vice Chair
Term ends Dec. 1, 2023



Pamela F. Thompson
Term ends June 17, 2022



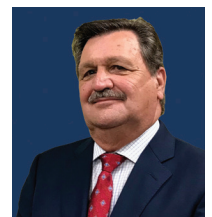
Joseph L. Grossman
Term ends June 17, 2022



Ellen Lynn Hampton
Term ends June 17, 2022



C. Prewitt Lane
Term ends June 17, 2023



Bruce Brown
Term ends June 17, 2022

AGENCY STRUCTURE

During the 2020 Legislative Session, House Bill 484 was passed establishing a new governance structure for the agency that operates the Systems. Effective April 1, 2021, KRS as an Agency of the Commonwealth is now known as the Kentucky Public Pensions Authority (KPPA). Current KRS employees became KPPA employees and have continued to provide administrative support, investment management, and conduct daily activities for the new CERS, KRS, and KPPA Boards. KPPA is led by an Executive Director who works with the Chief Executive Officers of the CERS and KRS Boards to carry out the statutory provisions of the Systems.



KPPA BOARD

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

KEITH PEERCY
KPPA CHAIR
KRS Board Chair

CAMPBELL CONNELL
KRS TRUSTEE
Selected by KRS Chair

C. PREWITT LANE
KRS TRUSTEE
Investment Committee Chair

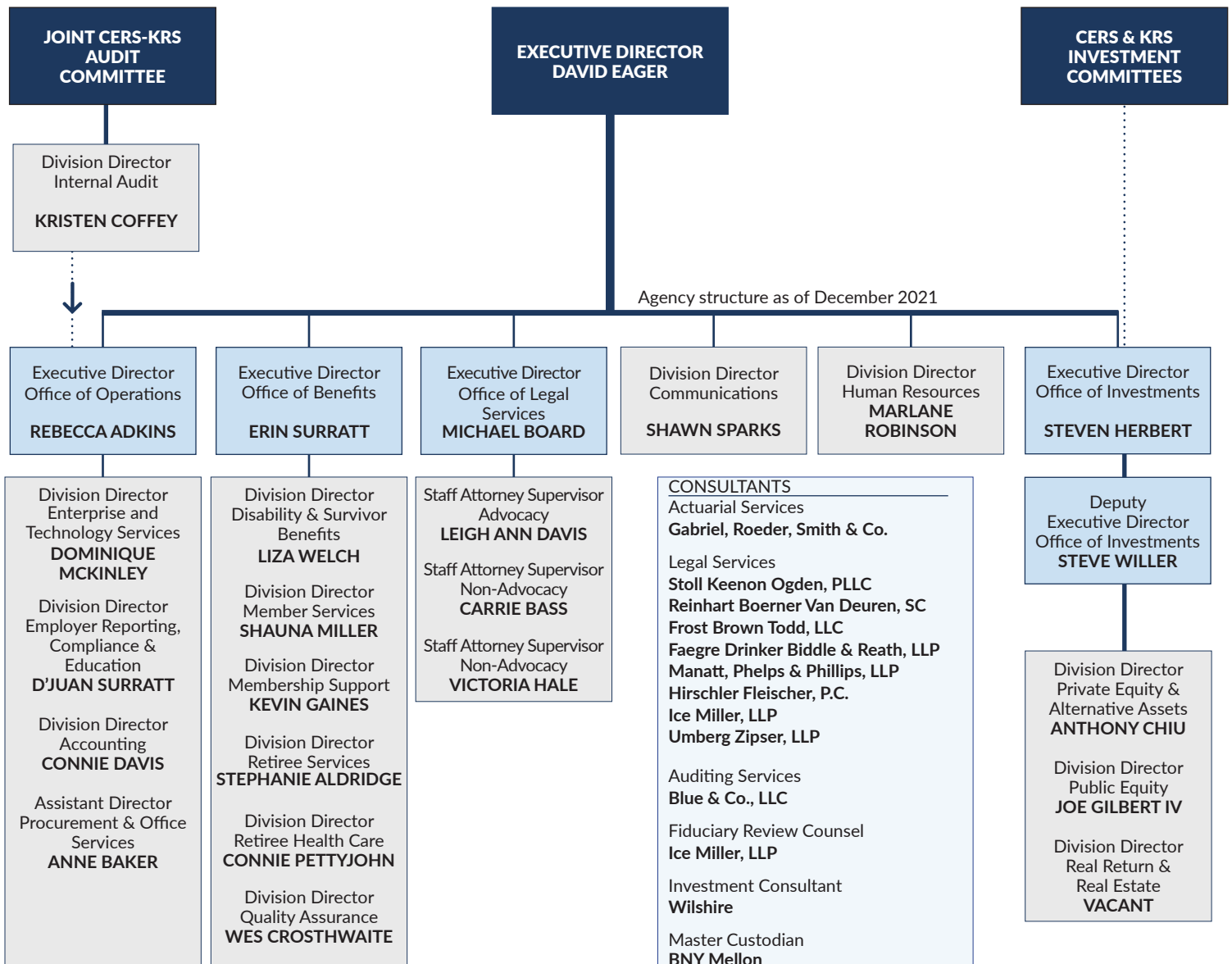
JOHN CHESHIRE III
KRS TRUSTEE
Selected by KRS Chair

BETTY PENDERGRASS
KPPA VICE CHAIR
CERS Board Chair

JERRY W. POWELL
CERS TRUSTEE
Selected by CERS Chair

DR. MERL HACKBART
CERS TRUSTEE
Investment Committee Chair

WILLIAM O'MARA
CERS TRUSTEE
Selected by CERS Chair



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.

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



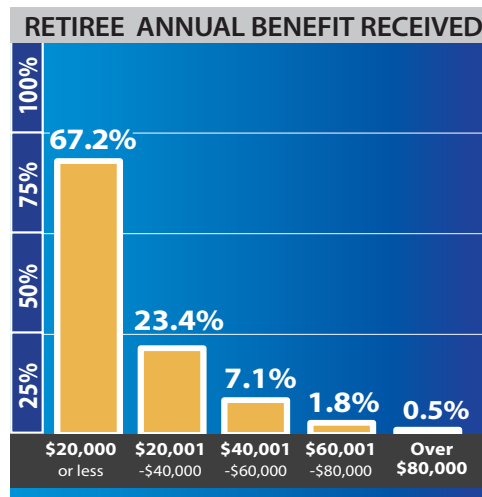
Participation Date
1/1/2014 and after

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, \$2.1 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.



Our Systems



CERS participating employers include local governments (county and city), school boards, and eligible local agencies. Nonhazardous and hazardous combined cover 260,821 members.



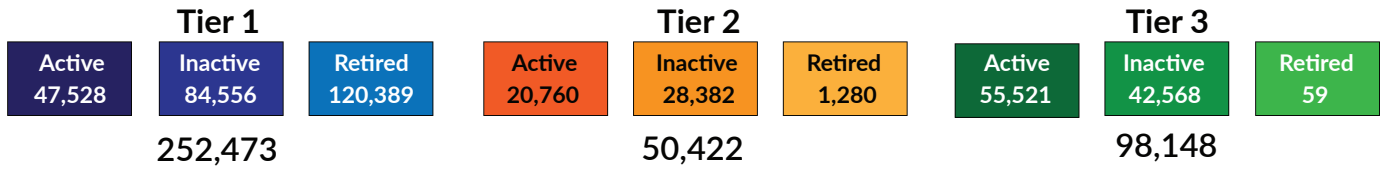
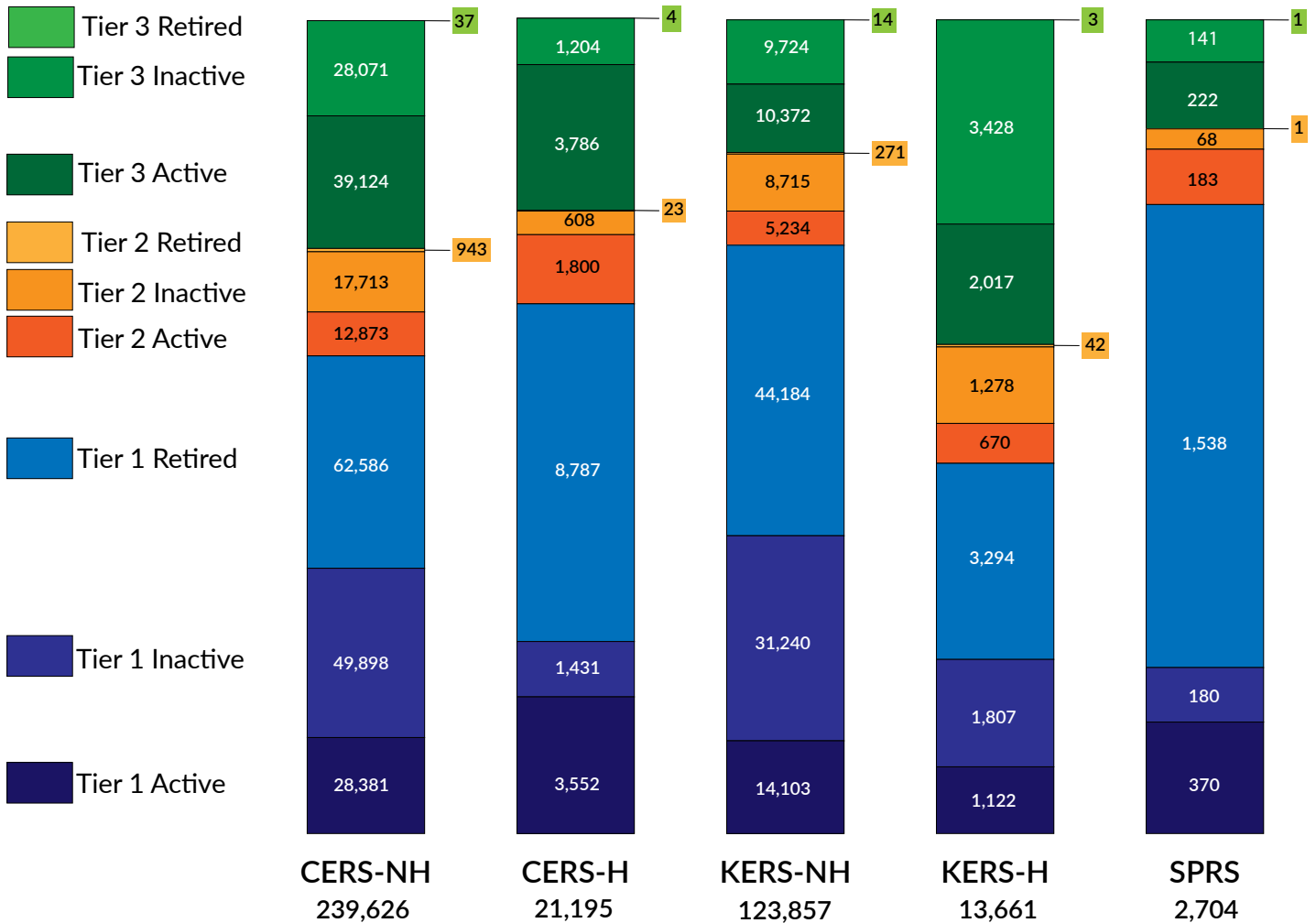
KERS participating employers include state departments, boards, employers directed by Executive Order of the Governor to participate in KERS, and 112 quasi-governmental agencies. Nonhazardous and hazardous cover 137,518 members.



SPRS covers all 2,704 retired, active, and inactive Kentucky State Police troopers. All SPRS positions are considered to be hazardous.

	CERS Nonhazardous	CERS Hazardous	KERS Nonhazardous	KERS Hazardous	SPRS
ACTIVE					
AVERAGE AGE	48.0	38.4	46.0	40.1	37.7
AVERAGE ANNUAL SALARY	\$32,685	\$63,050	\$44,701	\$42,549	\$58,501
INACTIVE					
NON-VESTED AVG. CONTRIBUTIONS/INTEREST	\$1,343	\$3,850	\$1,999	\$1,964	\$1,430
VESTED AVG. ANNUAL DEFERRED BENEFIT	\$1,631	\$4,732	\$2,796	\$2,127	\$3,623
RETIRED					
AVERAGE AGE	70.9	62.4	70.0	65.4	63.5
AVERAGE ANNUAL BENEFIT PAYMENT	\$12,017	\$28,781	\$21,328	\$15,793	\$39,833

MEMBERSHIP OVERVIEW



PARTICIPATING EMPLOYERS

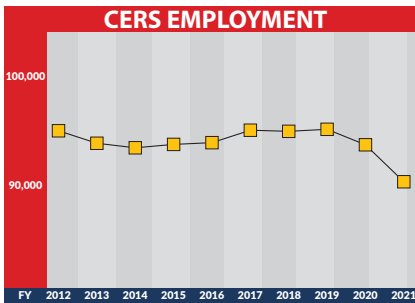
EMPLOYER REPORTING

KPPA staff works with 1,452 employers entrusted with the responsibility of reporting all employees on a monthly basis.



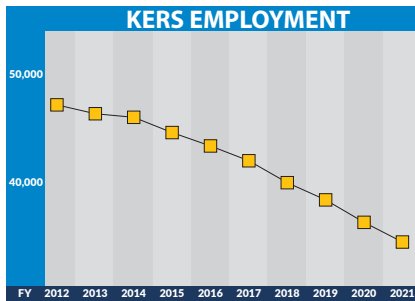
PARTICIPATING EMPLOYERS
1,122

Tier 1	32,295
Tier 2	14,677
Tier 3	42,956
Total	89,928



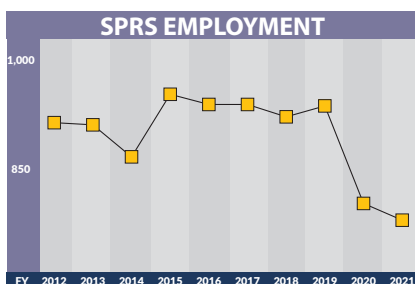
PARTICIPATING EMPLOYERS
329

Tier 1	15,610
Tier 2	5,988
Tier 3	12,534
Total	34,132



PARTICIPATING EMPLOYERS
1

Tier 1	368
Tier 2	185
Tier 3	222
Total	775



CERS EMPLOYERS

Classification	Agencies	Employees
Airport Boards	5	491
Ambulance Services	18	438
Area Development Districts	14	661
Boards of Education	171	45,629
Cities	221	10,167
Community Action	21	2,908
Conservation Districts	49	63
County Attorneys	78	563
County Clerks	16	566
Development Authorities	6	7
Fire Departments	31	1,049
Fiscal Courts	118	10,788
Health Departments	1	321
Housing Authorities	39	401
Jailers	2	67
Libraries	85	1,213
Other Retirement Systems	2	3
P1 State Agencies	3	1,491
Parks and Recreation	6	62
Planning Commissions	16	201
Police Departments	2	14
Riverport Authorities	5	65
Sanitation Districts	9	332
Sheriff Departments	12	708
Special Districts & Boards	47	1,332
Tourist Commissions	24	160
Urban Government	2	6,171
Utility Boards	119	4,057
Total	1,122	89,928

KERS

Classification	Agencies	Employees
County Attorneys	57	280
Health Departments	60	1,951
Master Commissioner	31	60
Non-P1 State Agencies	34	588
Other Retirement Systems	1	22
P1 State Agencies	129	27,872
Regional Mental Health Units	10	1,623
Universities	7	1,736
Total	329	34,132

SPRS

Kentucky State Police	1	775
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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, 2021.

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. Underlying economic assumptions that did not accurately reflect plan experience. Refer to page 21 for more information.
3. Investment returns that fell short of the assumed investment rate of return.
4. Benefit increases that were not pre-funded, such as previous retiree Cost of Living Adjustments.

GRS Actuarial Valuation Results as of June 30, 2021

	CERS Nonhazardous	CERS Hazardous	KERS Nonhazardous	KERS Hazardous	SPRS
NORMAL COST RATES¹ - PENSION (Each employer's cost for an employee's retirement benefit)					
Tier 1 Cost Before 7/03	7.89%	13.78%	8.78%	11.95%	22.85%
Tier 1 Cost After 7/03	7.46%	13.57%	9.11%	11.85%	22.40%
Tier 2 Cost	4.74%	10.74%	6.38%	8.23%	18.81%
Tier 3 Cost	3.04%	5.79%	3.53%	5.16%	7.28%
Average Normal Cost ²	6.30%	10.71%	7.82%	8.78%	18.60%
NORMAL COST RATES¹ - INSURANCE (Each employer's cost for an employee's insurance benefit)					
Tier 1 Cost Before 7/03	5.04%	11.42%	4.06%	12.36%	15.50%
Tier 1 Cost After 7/03	3.19%	3.58%	2.29%	4.46%	4.64%
Tier 2 Cost	1.12%	1.81%	0.56%	2.03%	2.87%
Tier 3 Cost	1.02%	1.96%	0.40%	1.71%	2.68%
Average Normal Cost ²	2.56%	4.37%	2.15%	3.87%	7.09%
Total Pension & Insurance	8.86%	15.08%	9.97%	12.65%	25.69%
UNFUNDED LIABILITY COST % (Each employer's cost for the unfunded liability)					
Pension	17.10%	32.10%	*	23.04%	107.80%
Insurance	0.83%	2.41%	*	-7.59%	7.02%
Total Unfunded Liability Cost	17.93%	34.51%	*	15.45%	114.82%

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 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



Benefits are funded from three sources:

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.

2. EMPLOYEE CONTRIBUTIONS

Members contribute a percent of their creditable compensation as set by state law based on their benefit tier.

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.

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 plans. 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.



Employer contributions are deposited to the Retirement Allowance Account and the Insurance Fund and are used to pay monthly benefits and to fund KPPA expenses.

Employee contributions are deposited to individual member accounts.



Find Policies, Performance Reports, and more on our website at KYRET.KY.GOV



When an employee retires, his or her account balance is transferred to the Retirement Allowance Account (the account from which monthly benefits are paid).

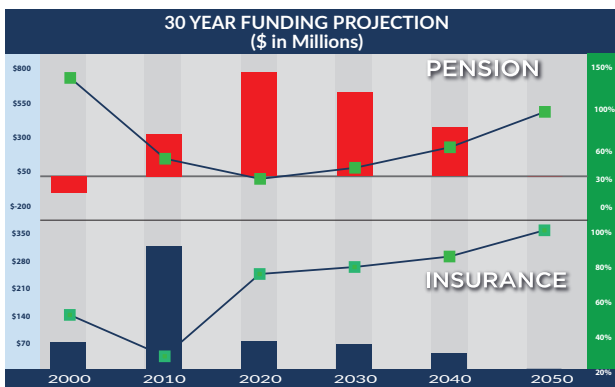
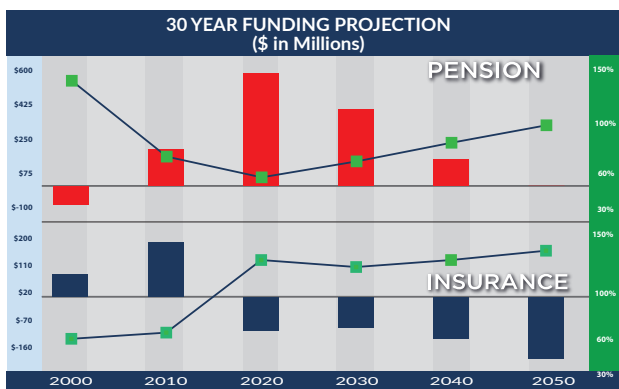
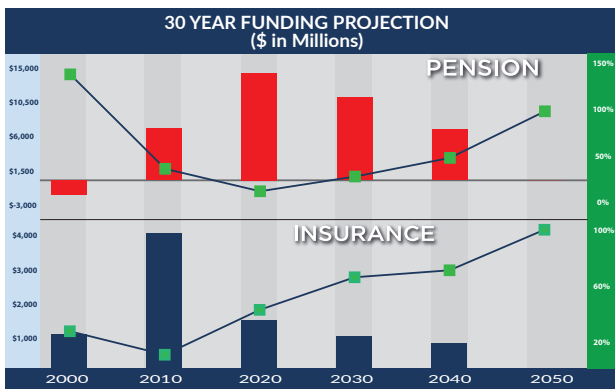
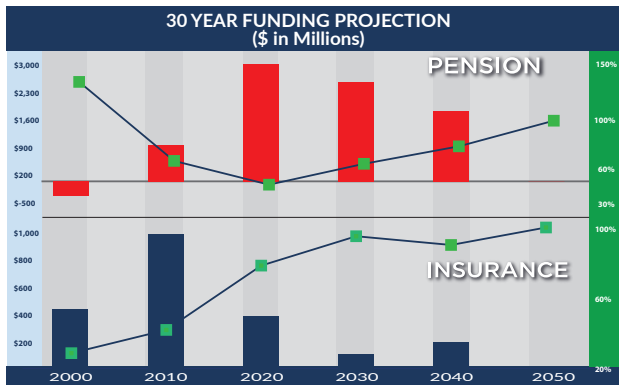
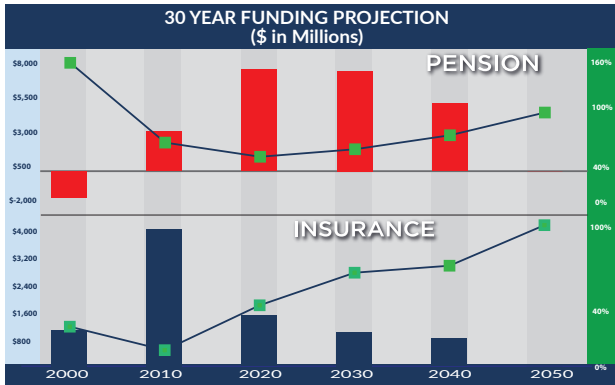
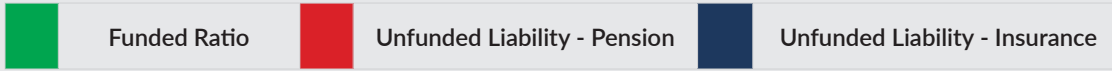


Administrative expenses are allocated and paid during the fiscal year based on each plan's membership. KPPA's administrative expenses can be found on page 15.

FUNDING TRENDS

30 YEAR FUNDING PROJECTIONS

Based on current assumptions, the pension and insurance funds will be fully funded (100%) by Fiscal Year 2049. All projections shown below are based on the June 30, 2021 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 KPPA receives 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 eight years, including the passage of legislation and adoption of internal policies designed to put the plans administered by KPPA 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 payments to Kentucky residents.

ONE-TIME PAYMENTS

Number	Amount
7,345	\$51.94 Million

INSURANCE PAYMENTS

Number of Plans	Amount
87,000	\$442.96 Million

KENTUCKY RECIPIENTS

Number	Amount
112,642	\$2,097 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.

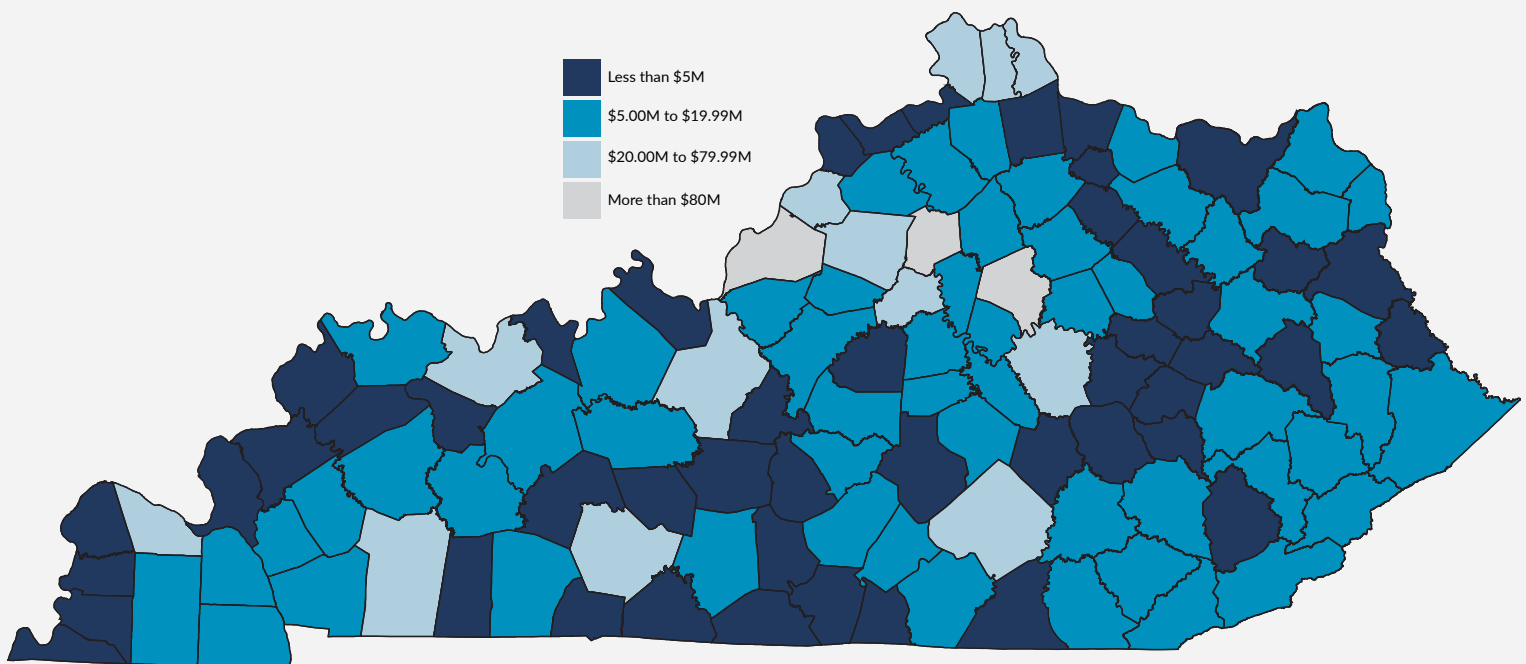
Pension Benefit Multiplier*



Paid to KY residents



Payments per county range from \$1 M to \$362 M



* 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 2021, KPPA paid over \$2 billion in ongoing pension benefit payments. Payments per county in the Commonwealth of Kentucky range from \$1.1 million to \$362 million annually providing a consistent revenue stream for all local economies.

Fiscal Year 2021 Monthly Pension Benefits Paid by County (\$ In Millions)

County	Payees	Total	County	Payees	Total	County	Payees	Total	County	Payees	Total
Adair	518	\$8.64	Edmonson	241	\$3.39	Knox	617	\$9.72	Nicholas	217	\$2.95
Allen	408	5.58	Elliott	186	2.82	Larue	378	5.86	Ohio	648	7.13
Anderson	1,407	35.25	Estill	419	5.91	Laurel	1,302	21.54	Oldham	1,374	28.58
Ballard	252	3.59	Fayette	5,567	120.83	Lawrence	340	4.14	Owen	521	12.23
Barren	1,121	16.89	Fleming	489	8.14	Lee	231	3.33	Owsley	214	3.14
Bath	409	6.28	Floyd	919	14.37	Leslie	276	4.11	Pendleton	371	6.23
Bell	671	10.76	Franklin	6,313	196.22	Letcher	631	8.71	Perry	796	11.50
Boone	1,909	40.11	Fulton	181	2.17	Lewis	341	4.40	Pike	1,287	19.18
Bourbon	541	9.49	Gallatin	125	2.08	Lincoln	682	8.65	Powell	345	4.75
Boyd	1,077	17.69	Garrard	439	6.49	Livingston	274	4.64	Pulaski	2,293	38.78
Boyle	904	15.77	Grant	637	12.05	Logan	637	9.11	Robertson	74	1.14
Bracken	234	3.21	Graves	924	14.53	Lyon	357	7.14	Rockcastle	401	5.61
Breathitt	523	7.96	Grayson	793	12.57	Madison	2,481	41.8	Rowan	893	15.36
Breckinridge	490	7.30	Green	323	4.56	Magoffin	369	5.17	Russell	566	8.63
Bullitt	1,629	30.14	Greenup	683	9.18	Marion	572	8.08	Scott	1,307	27.60
Butler	322	4.45	Hancock	227	3.04	Marshall	954	13.99	Shelby	1,687	42.17
Caldwell	545	8.22	Hardin	2,296	37.73	Martin	282	3.19	Simpson	296	3.60
Calloway	1,090	15.62	Harlan	648	9.70	Mason	413	6.77	Spencer	527	12.04
Campbell	1,587	30.07	Harrison	474	7.39	McCracken	1,620	29.54	Taylor	669	9.78
Carlisle	121	1.76	Hart	349	5.45	McCreary	396	4.12	Todd	262	3.56
Carroll	318	5.23	Henderson	1,101	18.04	McLean	316	4.58	Trigg	538	8.73
Carter	813	10.83	Henry	911	20.49	Meade	468	6.85	Trimble	286	4.57
Casey	373	4.75	Hickman	94	1.65	Menifee	211	3.10	Union	372	4.21
Christian	1,561	27.26	Hopkins	1,299	19.77	Mercer	783	14.09	Warren	2,904	50.97
Clark	867	15.08	Jackson	333	4.52	Metcalfe	312	4.09	Washington	355	5.49
Clay	584	8.75	Jefferson	16,537	361.64	Monroe	275	3.13	Wayne	562	7.72
Clinton	285	3.65	Jessamine	1,157	19.86	Montgomery	668	10.99	Webster	372	4.86
Crittenden	222	3.02	Johnson	623	9.27	Morgan	645	11.13	Whitley	1,129	16.23
Cumberland	187	2.87	Kenton	2,356	49.29	Muhlenberg	816	10.61	Wolfe	336	5.55
Daviess	2,722	\$48.74	Knott	465	\$7.35	Nelson	1,102	\$18.9	Woodford	1,066	\$26.79

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	112,642	93.2%	\$2,097
Out of State	9,050	6.8%	152
Grand Total	121,692	100.00%	\$2,249

FINANCIAL REPORT

2021 Financial Highlights

Fiscal Year 2021 Fiduciary Net Position for the CERS, KERS, SPRS and Insurance Plan increased 24.52%, primarily attributable to the favorable market value of investments, with assets increasing from \$18.39 billion to \$22.90 billion.



This is an overview of the financial activities for the Fiscal Year ended June 30, 2021. For more detailed information, refer to the Financial Section of the 2021 Annual Comprehensive Financial Report.

PENSION

Total Pension assets (CERS, KERS, and SPRS) **INCREASED 23.79%** in FY 2021

- Rose from \$12.86 billion at the beginning of the Fiscal Year to **\$15.92 billion as of June 30, 2021**.
- This **\$3.06 billion increase** was due in large part to the increase 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) **INCREASED \$1.45 billion** in FY 2021.

- The funds received \$1.83 billion in total contributions and net investment income, which offset \$383.4 million in deductions during the Fiscal Year.
- Total assets rose from \$5.52 billion at the beginning of the Fiscal Year to **\$6.97 billion as of June 30, 2021**.

INVESTMENTS

Fiscal Year 2021 investment performance was a record high while at the same time outperforming the benchmarks.

- The **Pension funds** earned a combined net return of 25.00% versus the 24.07% benchmark.
- All Pension funds exceeded their assumed rates of return:
 - 6.25% for CERS, CERS Hazardous, and KERS Hazardous; and
 - 5.25% for KERS Nonhazardous and SPRS.
- The **Insurance Plan** earned a combined net return of 24.95%, versus the 23.84% benchmark.
 - Investment performance also exceeded the assumed rate of return of 6.25% used for all funds in the Insurance Plan.

CASH FLOWS

CERS Pension: Cash flows remain slightly negative due to the continued phase-in of employer contribution rates.

KERS and SPRS Pension: Cash flows for both plans continued to improve during Fiscal Year 2021 due to employer contributions and investment income.

- FY 2021 Employer contribution rates increased for the KERS Nonhazardous and Hazardous funds.
- KERS Nonhazardous Quasi agencies once again had a rate of 49.47%, which reduced the cash flow that would have been received if the rates were the same as the other KERS employers.

Insurance: Cash flows for CERS Nonhazardous, CERS Hazardous, and KERS Nonhazardous funds continued to stabilize over the year with increased employer contributions.

- KERS Hazardous did not receive increased contributions, as it continues to be overfunded.
- SPRS experienced a slight decline in employer contributions.

The plans' funded status have also been positively impacted by stable expenses and by a benefit formula change that began in 2003.

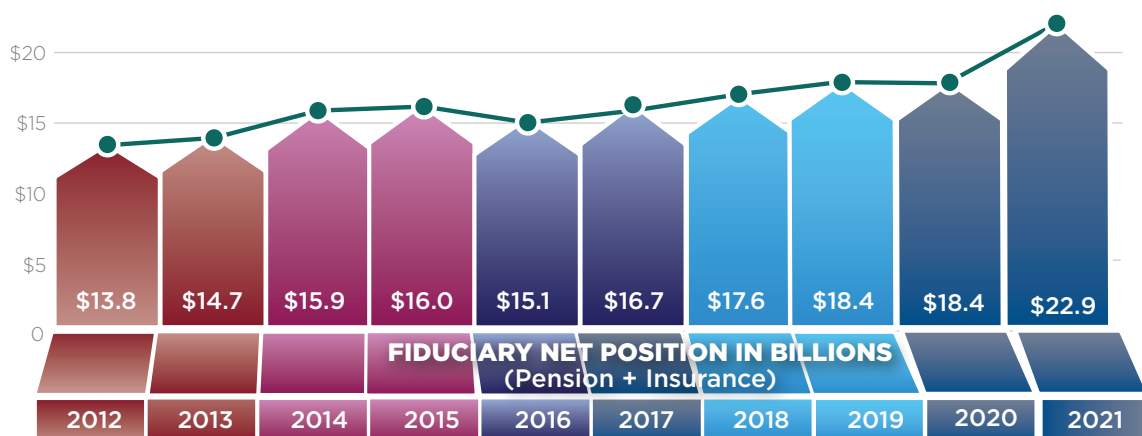


Table 1 - Assets and Liabilities

This table shows the assets and liabilities for the years ending June 30, 2021, and June 30, 2020. Total liabilities are comprised 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.

Assets	Pension Funds		Insurance Fund		Total	
	2021	2020	2021	2020	2021	2020
Cash & Investments	\$16,391	\$13,150	\$7,184	\$5,688	\$23,575	\$18,838
Receivables	361	296	122	87	483	383
Equip/Int. Assets, net of dep/amort.	1	2	-	-	1	2
Total Assets	16,753	13,448	7,306	5,775	24,059	19,223
Total Liabilities	(831)	(587)	(333)	(250)	(1,164)	(837)
Fiduciary Net Position	\$15,922	\$12,861	\$6,973	\$5,525	\$22,895	\$18,386

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

Asset	2021	2020
Increase (Decrease) in fair value of investments	\$2,335	\$(688)
Investment income net of investment expense	252	238
Gain on sale of investments	563	590
Net Investment Income	\$3,150	\$140

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 2021 and 2020 for the Pension and Insurance Plans. The deductions largely represent pension benefits, health insurance expenses, administrative costs, and refunds of contributions to inactive members.

Additions	Pension Funds		Insurance Fund		Total	
	2021	2020	2021	2020	2021	2020
Member Contributions	\$343	\$353	\$24	\$23	\$367	\$376
Employer Contributions	1,724	1,710	346	370	2,070	2,080
Other Contributions	176	1	84	12	260	13
Net Investment Income	3,150	140	1,378	23	4,528	163
Total Additions	\$5,393	\$2,204	\$1,832	\$428	\$7,225	\$2,632
Deductions						
Benefit payments	\$2,263	\$2,206	\$-	\$-	\$2,263	\$2,206
Refunds	32	33	-	-	32	33
Admin/Cap. Proj.	37	38	2	2	39	40
Healthcare Costs	-	-	381	382	381	382
Total Deductions	2,332	2,277	383	384	2,715	2,661
Total Change in Fiduciary Net Position	\$3,061	\$(73)	\$1,449	\$44	\$4,510	\$(29)
CERS Nonhazardous	1,560	(132)	643	12	2,203	(120)
CERS Hazardous	539	(34)	303	(20)	842	(54)
KERS Nonhazardous	723	76	347	64	1,070	140
KERS Hazardous	177	9	110	(12)	287	(3)
SPRS	62	8	46	0	108	8

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

Asset	2021	2020
Increase (Decrease) in fair value of investments	\$1,044	\$(309)
Investment income net of investment expense	91	105
Gain on sale of investments	242	227
Net Investment Income	\$1,377	\$23

KPPA Administrative Expenses (\$ in Millions)

KPPA staff = 243 employees	2021	2020
Salaries	\$14.4	\$14.7
Pension & Benefits	14.9	14.6
Contractual Services	1.7	1.9
Communication	0.8	0.7
Rent/Utilities/Misc	1.5	1.4
Technology	2.4	3.2
Healthcare Retiree Fees	2.3	2.4
Depreciation	1.1	1.1
Total	\$39.1	\$40.0

INVESTMENTS REPORT

Pension Results

As of June 30, 2021, the Pension portfolio earned a net return of 25.0%, outperforming the benchmark return of 24.1%. The Pension portfolio outperformed the actuarial assumed rates of return of 5.25% for KERS Nonhazardous and SPRS, and the 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, 2021. For more detailed information, refer to the Investments Section of the 2021 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	\$8,608	54.5	25.7	24.9	10.3	10.0	10.7	10.4	8.0	7.9	9.2	9.3
CERS Hazardous	2,918	18.5	25.6	24.9	10.2	10.0	10.6	10.3	8.0	7.9	9.2	9.3
KERS Nonhazardous	3,041	19.3	22.6	21.0	9.9	9.1	9.8	9.3	7.6	7.5	9.1	9.2
KERS Hazardous	872	5.5	25.2	24.9	10.1	10.0	10.5	10.3	7.9	7.9	9.2	9.3
SPRS	349	2.2	21.7	21.0	9.6	9.1	9.8	9.4	7.4	7.5	9.1	9.2
KPPA [*]	\$15,788	100.0	25.0	24.1	10.2	9.7	10.5	10.1	7.9	7.9	9.2	9.3

*The KPPA 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

Structure	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	\$15,788	100.0	25.0	24.1	10.2	9.7	10.5	10.1	7.9	7.9	9.2	9.3	\$139.5
Total Public Equity	4/1/1984	6,952	44.0	41.3	40.7	14.3	14.1	14.9	14.7	9.9	9.8	10.9	10.7	12.4
U.S. Equity	4/1/1984	3,522	22.3	44.8	44.2	17.8	18.7	17.2	17.9	13.9	14.7	11.9	12.0	2.8
Non-U.S. Equity ¹	4/1/2000	3,430	21.7	37.8	37.2	10.9	9.4	12.7	11.3	6.4	5.8	4.3	4.4	9.6
Core Fixed Income	7/1/2013	2,380	15.1	3.4	-0.3	5.3	5.3	3.1	3.0	-	-	3.6	3.4	2.6
Specialty Credit	7/1/2017	2,646	16.8	15.3	13.5	6.7	5.9	-	-	-	-	6.5	5.3	39.8
Opportunistic	7/1/2018	404	2.6	20.6	11.7	9.1	4.4	-	-	-	-	9.1	4.3	4.2
Real Return	7/1/2011	1,033	6.5	24.0	24.0	5.7	5.7	5.3	5.3	4.3	3.5	4.3	3.5	8.3
Private Equity	7/1/2002	1,237	7.8	42.0	42.0	16.7	16.7	15.4	15.4	13.8	17.2	12.0	12.7	58.8
Real Estate	7/1/1984	610	3.9	10.1	1.5	9.6	4.0	10.0	5.3	9.4	8.7	6.4	6.3	9.2
Cash Account ²	1/1/1988	\$526	3.3	0.1	0.1	1.5	1.3	1.5	1.1	0.9	0.6	3.4	3.0	\$4.2

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

INVESTMENTS REPORT

Insurance Results

As of June 30, 2021, the Insurance portfolio earned a net return of 25.0% compared to the benchmark return of 23.9%. The Insurance portfolio achieved rates of return of 10.5% over the five year period and 7.6% over the 10 year period.

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	\$3,126	45.1	24.8	23.9	9.8	9.6	10.5	10.2	7.6	7.9	7.7	8.0
CERS Hazardous	1,603	23.1	25.0	23.9	9.9	9.6	10.5	10.2	7.7	7.9	7.7	8.0
KERS Nonhazardous	1,338	19.3	25.2	23.9	9.9	9.6	10.3	10.2	7.4	7.8	7.6	7.9
KERS Hazardous	625	9.0	25.0	23.9	9.8	9.6	10.4	10.2	7.6	7.9	7.7	8.0
SPRS	245	3.5	25.3	23.9	10.1	9.6	10.7	10.2	7.7	7.9	7.7	8.0
KPPA*	\$6,937	100.0	25.0	23.8	9.9	9.5	10.5	10.1	7.6	7.9	7.7	8.0

*The KPPA total is not a weighted average of each fund. Each fund 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

Structure	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	\$6,937	100.0	25.0	23.8	9.9	9.5	10.5	10.1	7.6	7.9	7.7	8.0	\$71.0
Total Public Equity	4/1/1984	3,117	44.9	41.3	40.7	14.2	14.1	14.8	14.6	9.9	9.8	9.3	9.1	5.6
U.S. Equity	4/1/1984	1,582	22.8	44.7	44.2	17.8	18.7	17.2	17.9	14.0	14.7	10.6	10.5	1.3
Non-U.S. Equity ¹	4/1/1984	1,535	22.1	37.8	37.2	10.8	9.4	12.7	11.3	6.3	5.8	4.3	3.6	4.3
Core Fixed Income	7/1/2003	866	12.5	3.3	-0.3	5.1	5.3	3.0	3.0	-	-	3.3	3.4	1.0
Specialty Credit	7/1/2017	1,178	17.0	15.0	13.5	6.5	5.9	-	-	-	-	6.2	5.3	17.0
Opportunistic	7/1/2018	206	3.0	20.6	11.7	9.1	4.4	-	-	-	-	9.1	4.3	2.2
Real Return	4/1/1984	436	6.3	22.5	22.5	6.1	6.1	5.3	5.3	4.2	3.6	4.2	3.6	3.3
Private Equity	7/1/1984	585	8.4	34.3	34.3	11.9	11.9	13.4	13.4	13.6	17.2	10.5	12.2	35.8
Real Estate	4/1/2010	257	3.7	10.2	1.5	9.7	4.0	10.1	5.3	9.3	8.7	9.3	5.5	3.9
Cash Account ²	7/1/2002	\$292	4.2	0.1	0.1	1.3	1.3	1.2	1.1	0.7	0.6	2.5	2.4	\$2.2

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

Investment Advisors & Assets Under Management

(\$ in Thousands)

	Public Equity		Private Equity		Core Fixed Income		Specialty Credit		Cash / Accruals
	Real Estate		Absolute Return		Real Return		Opportunistic		

Actively Managed	
Advisor as of 6/30/2021	Assets Under Management
American Century Investments	\$738,238
BlackRock ACWI Ex-US	1,544,242
Franklin Templeton	552,737
Internally Managed Accounts	636,734
JP Morgan Emerging Markets	297,353
Lazard Asset Management	795,495
LSV Asset Management	652,149
Next Century	217,558
Northern Trust Global Inv.	515,352
Pzena Emerging Markets	271,163
River Road Asset Management	387,440
Internally Managed S&P 500	3,067,122
Transition Accounts	1,627
Westfield Capital	391,857
Black Diamond Capital Mngt.	57,771
Middle Ground	51,091
Strategic Value Special Fund	84,846
Loomis, Sayles & Company	628,820
Lord Abbett	2,350,942
NISA Investment Advisors	267,068
Adams Street	154,716
Blue Torch	96,714
BSP Private Credit	183,049
Capital Springs	98,416
Cerberus	198,025
Columbia Capital	3,917
H/2 Credit Partners	123,443
Manulife Financial	507,712
Marathon Bluegrass	669,016
Mesa West	126,990
Shenkman Capital	320,653
Waterfall Investment	381,458
White Oak	233,955
BNY Mellon Accruals	(1,227)
Cash Accounts	819,150
Baring Real Estate	108,550
DivcoWest	4,128
Greenfield Acquisition Partners	18,341
Harrison Street	126,459
Lubert-Adler	73,991
Patron Capital	33,795
Perimeter Park	7,300
Prologis	224,055
Rubenstein Capital	22,343

Actively Managed	
Advisor as of 6/30/2021	Assets Under Management
Stockbridge	\$142,547
Walton Street	25,682
BTG Pactual	32,322
IFM Infrastructure Debt Fund	67,869
Magnetar Capital	13,737
Nuveen Real Asset	256
Oberland Capital	11,283
Putnam	868,643
Taurus Mine Finance	16,330
Tenaska Power	762
Tortoise Capital	185,662
Arrowmark	609,823
TOTAL	\$20,019,470
In Redemption	
Invesco	\$50
Arcano Capital	23,948
ARES Capital	32,790
Bay Hills Emerging Partners	317,060
Blackstone Capital Partners	65,790
CM Growth Capital Partners	11,327
Columbia Asset Management	728,049
Crestview Partners	86,850
CVC Capital Partners	48,968
DAG Ventures	87,320
DB Secondary Opportunities	53,192
DCM	15,369
Essex Woodland	2,686
Green Equity Investors	143,419
Harvest Partners	70,565
Hellman & Friedman	12,044
H.I.G. Capital	52,714
Horsley Bridge International	159,517
Institutional Venture Partners	989
JW Childs Equity	33
Kayne Anderson	34,224
Keyhaven Capital Partners	35,519
Levine Leichtman	98,911
Matlin Patterson	1,738
Merit Capital Partners	288
MHR Institutional Advisors	1,911
Mill Road Capital	3,704
New Mountain Partners	70,483
Oak Hill Partners	11,917
Oaktree Capital Management	6

Actively Managed	
Advisor as of 6/30/2021	Assets Under Management
Riverside Capital	\$28,406
Sun Capital Partners IV	287
Technology Crossover Ven.	47
Triton Fund	27,623
VantagePoint Capital Partners	9,580
Vista Equity Partners	104,636
Warburg Pincus	2,046
Wayzata Investment Partners	10,222
Fundamental Partners	81,234
Luxor Capital	1,516
Myriad Opportunities	21,475
Pine River Capital	113
Prisma Capital	137,755
SRS Partners	7,455
Tricadia Select	1,839
AMERRA Capital Management	100,203
TOTAL	\$2,705,818
GRAND TOTAL	\$22,725,288

Totals reflect external manager assets under management and differ from Total Fair Values.

External Investment Expenses as of June 30, 2021 (\$ in Millions)

Expense	Fees Paid	Share of Expenses
Portfolio Management		
Pension Plans	\$138.0	65.6%
Insurance Fund	70.0	33.2%
Securities Lending		
Pension Plans	(0.4)	(0.2)%
Insurance Fund	(0.2)	(0.1)%
Custody		
Pension Plans	1.5	0.7%
Insurance Fund	1.0	0.5%
Consultant		
Pension Plans	0.4	0.2%
Insurance Fund	0.2	0.1%
Total Expenses	\$210.5	100%
Total Pension Plans	\$139.5	66.3%
Total Insurance Fund	\$71.0	33.7%

Fair Values By Fund - Pension as of June 30, 2021 (\$ 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
Cash	\$145	1.7%	\$59	2.0%	\$268	8.8%	\$32	3.7%	\$22	6.3%	\$526	3.3%
Core Fixed Income	1,105	12.8%	381	13.0%	698	23.0%	116	13.3%	80	22.9%	2,380	15.1%
U.S. Equity	2,058	23.9%	692	23.8%	506	16.6%	203	23.3%	63	18.2%	3,522	22.3%
Non-U.S. Equity	2,005	23.3%	677	23.2%	489	16.1%	198	22.7%	61	17.3%	3,430	21.7%
Specialty Credit	1,435	16.7%	491	16.8%	511	16.8%	149	17.1%	60	17.0%	2,646	16.7%
Private Equity	711	8.3%	239	8.2%	202	6.7%	66	7.5%	19	5.6%	1,237	7.8%
Opportunistic	231	2.7%	76	2.6%	68	2.2%	21	2.4%	8	2.4%	404	2.6%
Real Return	573	6.6%	193	6.6%	190	6.2%	55	6.3%	22	6.4%	1,033	6.6%
Real Estate	345	4.0%	110	3.8%	109	3.6%	32	3.7%	14	3.9%	610	3.9%
TOTAL PORTFOLIO	\$8,608		\$2,918		\$3,041		\$872		\$349		\$15,788	

Fair Values By Fund - Insurance as of June 30, 2021 (\$ 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
Cash	\$129	4.1%	\$45	2.8%	\$100	7.5%	\$11	1.7%	\$7	2.7%	\$292	4.2%
Core Fixed Income	384	12.3%	202	12.6%	174	13.0%	76	12.2%	30	12.2%	866	12.5%
U.S. Equity	698	22.3%	358	22.4%	332	24.8%	140	22.5%	54	22.1%	1,582	22.8%
Non-U.S. Equity	692	22.1%	356	22.2%	291	21.7%	141	22.4%	55	22.4%	1,535	22.1%
Specialty Credit	536	17.1%	265	16.5%	222	16.6%	114	18.2%	41	16.8%	1,178	17.0%
Private Equity	280	8.9%	158	9.8%	69	5.1%	54	8.7%	24	10.0%	585	8.4%
Opportunistic	93	3.0%	51	3.2%	33	2.5%	21	3.3%	8	3.1%	206	3.0%
Real Return	196	6.3%	103	6.4%	80	6.0%	41	6.6%	16	6.4%	436	6.3%
Real Estate	118	3.9%	65	4.1%	37	2.8%	27	4.4%	10	4.3%	257	3.7%
TOTAL PORTFOLIO	\$3,126		\$1,603		\$1,338		\$625		\$245		\$6,937	

Schedule of Commissions Paid for the Year Ended June 30, 2021 (in Millions)

Assets	Total Shares	Commissions Paid	Price per Share
U.S. Equities	38	\$0.7	\$0.02
Non-U.S. Equities	158	1.0	0.01
Total	196	\$1.7	\$0.01

ACTUARIAL REPORT

2021 Actuarial Valuation Results

Each year the funding levels of the CERS, KERS, SPRS, and Insurance plans are determined by the annual actuarial valuation based on assumptions set by the Boards for the Fiscal Year ending June 30. In summary, total pension unfunded liabilities decreased by \$0.72 billion primarily due to investment gains received during the fiscal year. There was a decrease in all funds except for CERS Hazardous which had a slight increase of \$0.02 billion due to a \$53 million loss from the liability experience. Total insurance unfunded liabilities decreased a total of \$0.58 billion due to investment gains and lower than expected healthcare premium liabilities. Total KPPA unfunded liabilities decreased by \$1.30 billion.



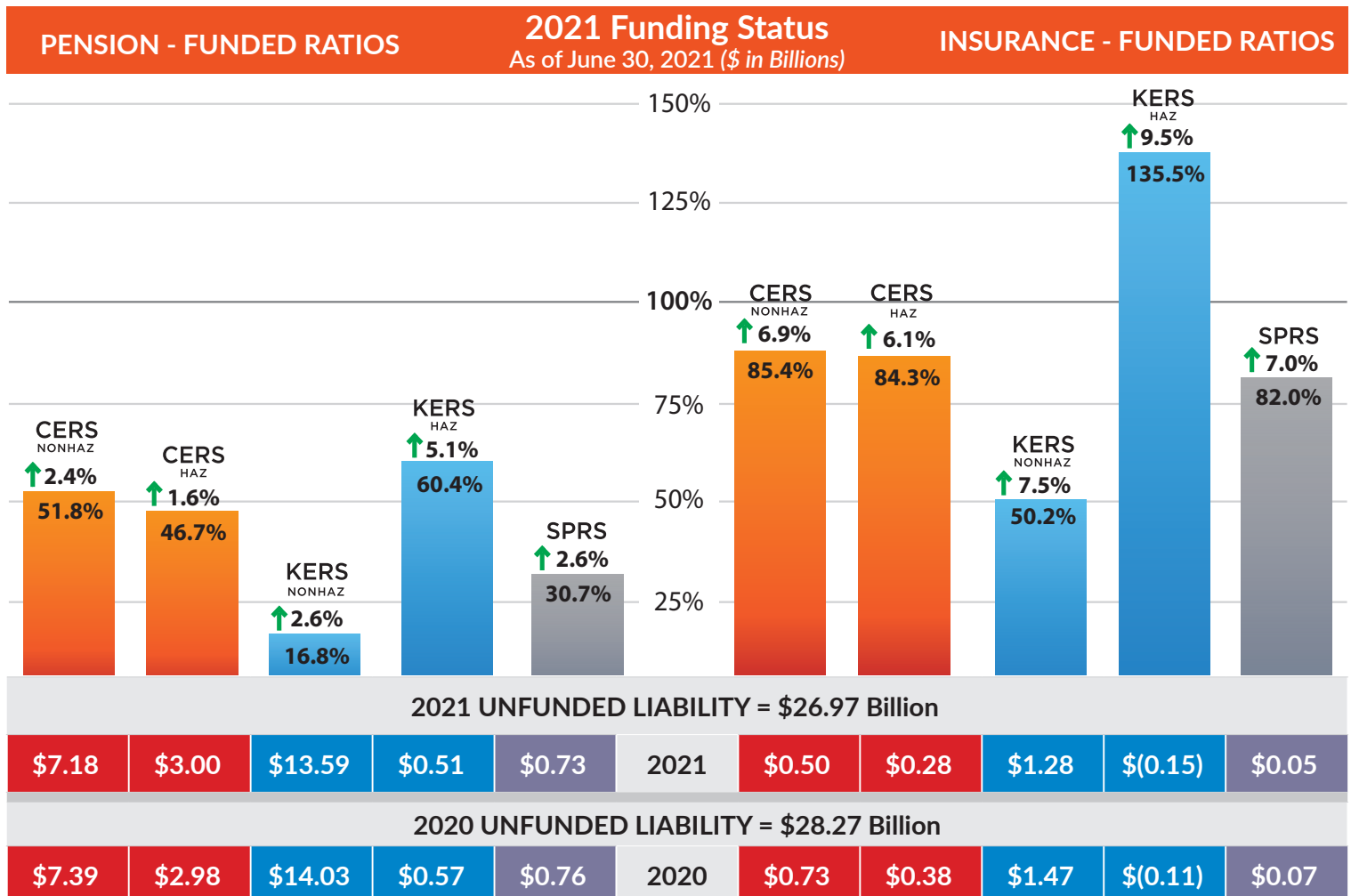
This is an overview of the actuarial status for the Fiscal Year ended June 30, 2021. For more detailed information, refer to the Actuarial Section of the 2021 Annual Comprehensive Financial Report.

PENSION PLANS

The actuarial unfunded liability for the CERS, KERS and SPRS plans was \$25.01 billion, a decrease from Fiscal Year 2020. The funded ratio for all funds increased since the prior year. The increase was primarily due to the returns ranging from 21.70% for SPRS to 25.72% for CERS Nonhazardous return on market value.

INSURANCE PLAN

The Insurance Plan's unfunded actuarial liability as of June 30, 2021 was \$1.96 billion compared to \$2.54 billion in the last Fiscal Year. The increase in funded ratios is primarily attributable to the accrued liability being lower than expected due to the 2021 healthcare premium experience and the investment gains during the Fiscal Year ending June 30.



Summary of Actuarial Valuation Results as of June 30, 2021 (\$ in Millions)

	CERS Nonhazardous	CERS Hazardous	KERS Nonhazardous	KERS Hazardous	SPRS	TOTAL KPPA
ACTUARIALLY DETERMINED CONTRIBUTION RATES						
Pension Funds	23.40%	42.81%	7.82%	31.82%	126.40%	
Insurance Funds	3.39%	6.78%	2.15%	0.00%	14.11%	
Amortization Cost to be Allocated	N/A	N/A	\$994	N/A	N/A	
Total Calculated Employer Contribution	26.79%	49.59%	9.97% ¹	31.82%	140.51%	
FUNDED STATUS AS OF VALUATION DATE						
PENSION FUNDS						
Actuarial Liability	\$14,895	\$5,630	\$16,321	\$1,295	\$1,053	\$39,194
Actuarial Value of Assets	\$7,716	\$2,629	\$2,736	\$782	\$323	\$14,186
Unfunded Liability on Actuarial Value of Assets	\$7,179	\$3,001	\$13,585	\$513	\$730	\$25,008
Funding Ratio on Actuarial Value of Assets	51.80%	46.69%	16.76%	60.41%	30.69%	36.19%
Market Value of Assets	\$8,566	\$2,914	\$3,019	\$866	\$356	\$15,721
Unfunded Liability on Market Value of Assets	\$6,329	\$2,715	\$13,303	\$429	\$697	\$23,473
Funding Ratio on Market Value of Assets	57.51%	51.77%	18.50%	66.87%	33.83%	40.11%
INSURANCE FUNDS						
Actuarial Liability	\$3,451	\$1,751	\$2,574	\$424	\$272	\$8,472
Actuarial Value of Assets	\$2,947	\$1,476	\$1,291	\$575	\$223	\$6,512
Unfunded Liability on Actuarial Value of Assets	\$503	\$276	\$1,283	(\$151)	\$49	\$1,960
Funding Ratio on Actuarial Value of Assets	85.42%	84.26%	50.17%	135.47%	81.96%	76.86%
Market Value of Assets	\$3,247	\$1,628	\$1,419	\$634	\$247	\$7,175
Unfunded Liability on Market Value of Assets	\$204	\$123	\$1,155	(\$209)	\$25	\$1,298
Funding Ratio on Market Value of Assets	94.10%	92.95%	55.14%	149.29%	90.79%	84.68%

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 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 2021.

Economic Assumptions as of June 30, 2021

	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

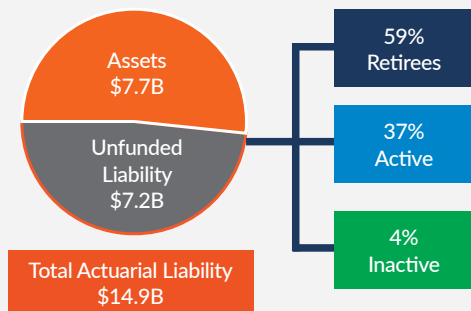
Established by the Kentucky General Assembly on July 1, 1958

CERS Nonhazardous is the largest system managed by the KPPA, accounting for 59.8% of the total membership and 51.6% of the total assets within the KPPA.

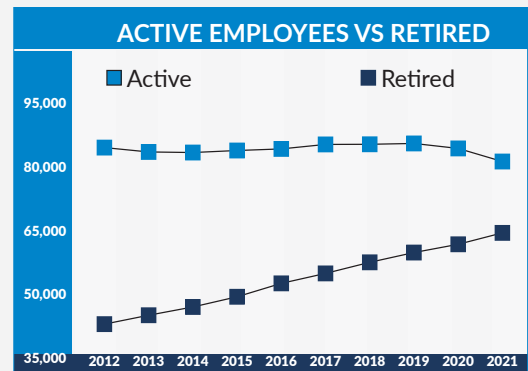
- On average, a retired CERS Nonhazardous member in 2021 is 70.9 years old and receives \$1,001 per month (\$12,017 annually) in pension benefits. This represents the highest average age for retirees and the lowest average monthly benefit payment of all systems operated by KPPA.
- There are more active employees paying into the plan (80,378) than retirees drawing benefits (63,566).
- The Combined Pension and Fiduciary Net Position was \$11.8 billion as of June 30, 2021, compared to \$9.6 billion in 2020.



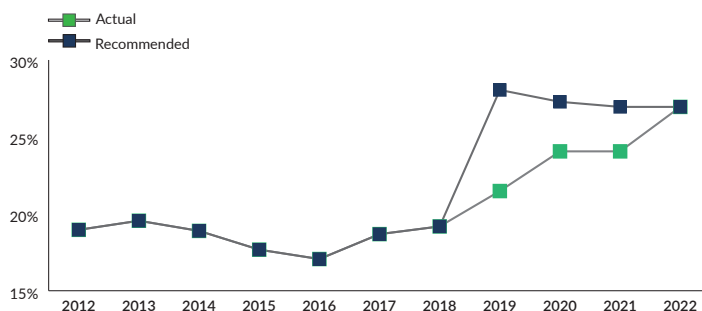
As of the June 30, 2021 Valuation, retirees and beneficiaries account for 59% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 3.7% in Fiscal Year 2021.



Senate Bill 2 (2013 Regular Session) required the General Assembly to fully fund the Actuarially Required Contribution and established the Tier 3 Hybrid Cash Balance plan. Based on current assumptions, the Pension and Insurance plans 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 As of June 30, 2021				
	Active	Inactive	Retired	Total
Tier 1	28,381	49,898	62,586	140,865
Tier 2	12,873	17,713	943	31,529
Tier 3	39,124	28,071	37	67,232
Total	80,378	95,682	63,566	239,626



CERS HAZARDOUS

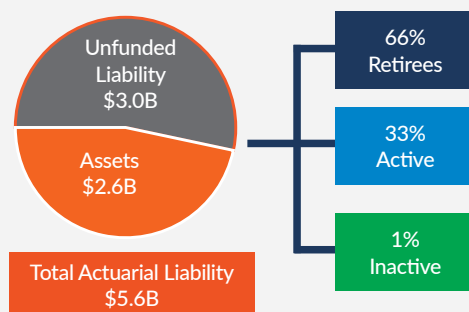
Established by the Kentucky General Assembly on July 1, 1958

A total of 241 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.

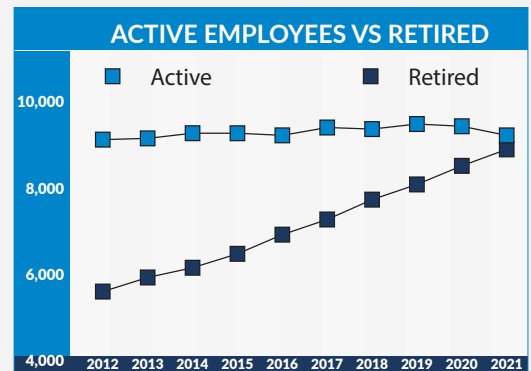
- On average, a retired CERS Hazardous member in 2021 is 62.4 years old and receives \$2,398 per month (\$28,781 annually) in pension benefits. This represents the lowest average age for retirees and the second-highest average monthly benefit payment of all systems managed by KPPA.
- There are more active employees paying into the plan (9,138) than retirees drawing benefits (8,814).
- The Combined Pension and Fiduciary Net Position was \$4.5 billion as of June 30, 2021, compared to \$3.7 billion in 2020.



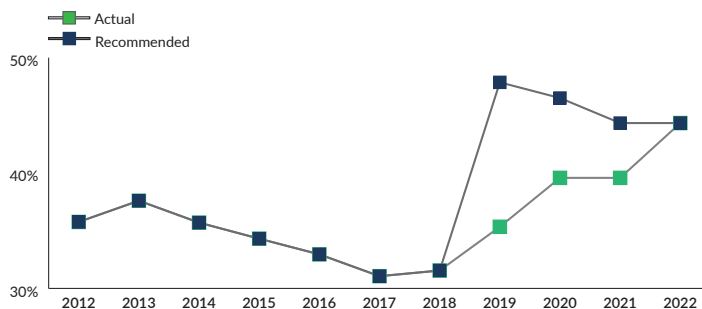
As of the June 30, 2021 Valuation, retirees and beneficiaries account for 66% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 2.3% in Fiscal Year 2021.



Senate Bill 2 (2013 Regular Session) required the General Assembly to fully fund the Actuarially Required Contribution and established the Tier 3 Hybrid Cash Balance plan. Based on current assumptions, the Pension and Insurance plans 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 As of June 30, 2021				
	Active	Inactive	Retired	Total
Tier 1	3,552	1,431	8,787	13,770
Tier 2	1,800	608	23	2,431
Tier 3	3,786	1,204	4	4,994
Total	9,138	3,243	8,814	21,195



KERS NONHAZARDOUS

Established by the Kentucky General Assembly on July 1, 1956

Of note this fiscal year, the legislature enacted House Bill 8 during the 2021 Regular Session. This new law adjusted the method for calculating KERS Nonhazardous employer contributions from a percent of payroll model to a fixed allocation funding method.

House Bill 8 requires that a percentage of the Unfunded Accrued Liability Payment (UAL) be 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.

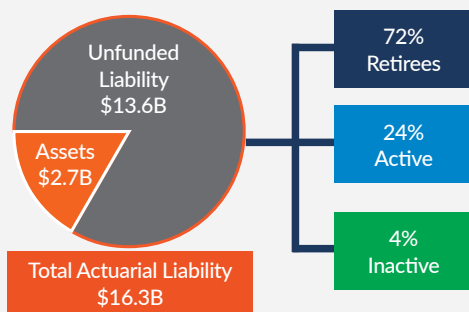
House Bill 8 Contribution Comparison		
	July 2020	July 2021
Payroll	\$125,210,854	\$120,633,690
Employee Count	33,111	31,438
Employer Contribution	\$95,625,051	\$12,609,615
Contribution Rate*	84.43%	10.10%
UAL Payment	N/A	\$ 84,528,577
Total Employer Contribution	\$95,625,051	\$97,138,192

*The July 2021 employer contribution rate reflects the normal cost.

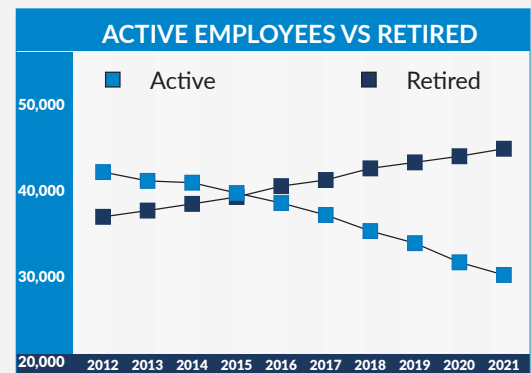
Beginning with Fiscal Year 2022, under the fixed allocation funding model, employers pay the normal cost plus a monthly invoice representing their fixed dollar allocation.



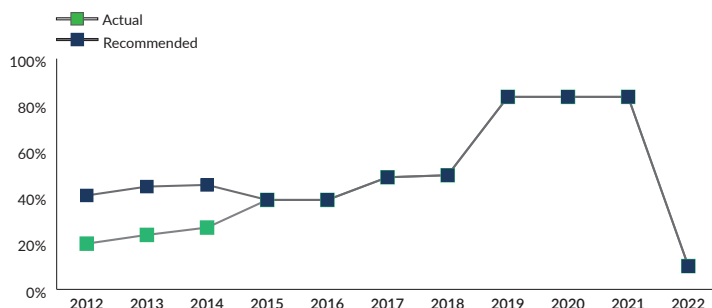
As of the June 30, 2021 Valuation, retirees and beneficiaries account for 72% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 4.7% in Fiscal Year 2021.



Senate Bill 2 (2013 Regular Session) required the General Assembly to fully fund the Actuarially Required Contribution¹ and established the Tier 3 Hybrid Cash Balance plan. Based on current assumptions, the Pension and Insurance plans will be 100% funded by Fiscal Year 2049.



¹ 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, 2021				
	Active	Inactive	Retired	Total
Tier 1	14,103	31,240	44,184	89,527
Tier 2	5,234	8,715	271	14,220
Tier 3	10,372	9,724	14	20,110
Total	29,709	49,679	44,469	123,857



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 (60.4% and 135.5%, respectively) among all systems managed by KPPA.

FUNDING RATIO CONSIDERATIONS

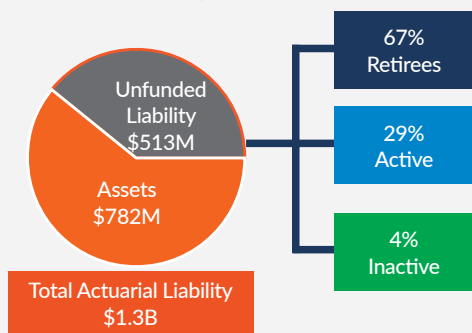
Ideally, the funding ratio of each plan will be 100%, where the system has enough assets on hand to meet all required obligations. This means the KERS Hazardous insurance fund is in the enviable position of having 35.5% more assets on hand than what is needed.

You may have noticed that this system's pension fund is underfunded by approximately the same percentage as the insurance fund is overfunded, and wonder why the money can't simply be shifted between funds to bring both to near-100% funded. The reason is federal law requires the money in each fund to be accounted separately and used to pay that specific liability, either pension or insurance. In other words, money earmarked to the insurance fund can't be used to pay pension obligations, and vice versa.

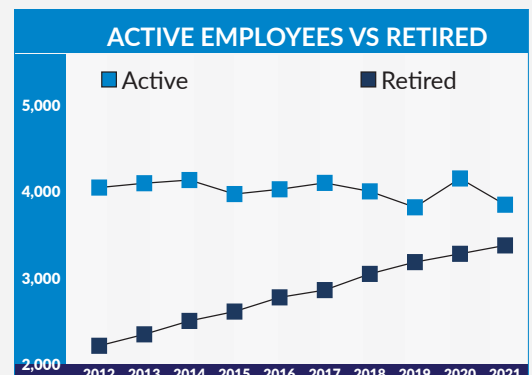
Therefore, the solution lies on the front end: the system's actuary recommended allocating the employer's contribution entirely to the pension fund beginning in 2020, with no additional money allocated to the insurance fund. This puts the money directly into the fund where it is needed most, while allowing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



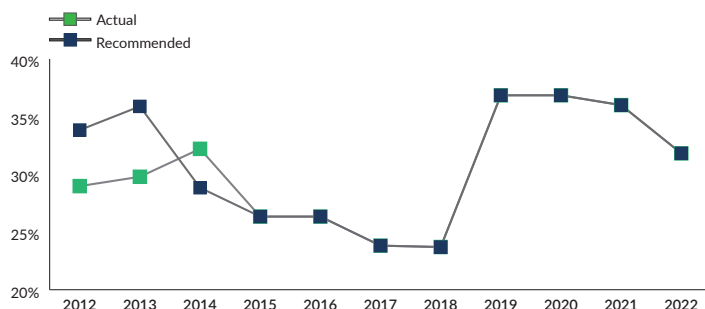
As of the June 30, 2021 Valuation, retirees and beneficiaries account for 67% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 7.4% in Fiscal Year 2021.



Senate Bill 2 (2013 Regular Session) required the General Assembly to fully fund the Actuarially Required Contribution and established the Tier 3 Hybrid Cash Balance plan. Based on current assumptions, the Pension and Insurance plans will be 100% funded by Fiscal Year 2049.



Membership As of June 30, 2021				
	Active	Inactive	Retired	Total
Tier 1	1,122	1,807	3,294	6,223
Tier 2	670	1,278	42	1,990
Tier 3	2,017	3,428	3	5,448
Total	3,809	6,513	3,339	13,661



STATE POLICE RETIREMENT SYSTEM

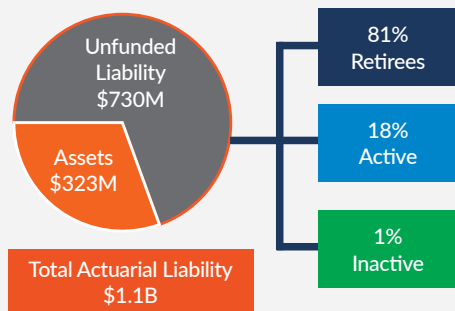
Established by the Kentucky General Assembly on July 1, 1958

The State Police Retirement System (SPRS) was established on July 1, 1958. With membership consisting solely of full-time state troopers employed in positions by the Kentucky State Police, the SPRS is the smallest system managed by KPPA. It also has the highest employer contribution rate of all our systems.

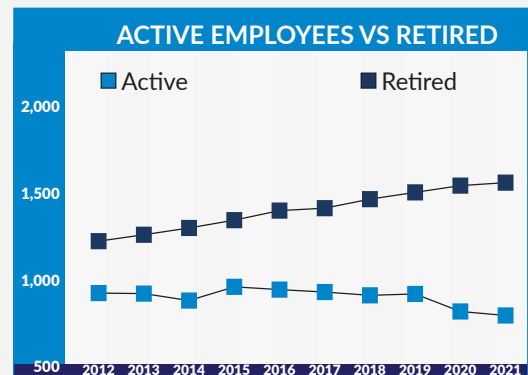
- On average, a retired Kentucky state trooper in 2021 is 64 years old and receives \$3,319 per month (\$39,833 annually) in pension benefits. All trooper positions are considered to be hazardous.
- There are more retirees drawing benefits (1,540) than active employees paying into the plan (775).
- Forty-seven percent (47%) of current SPRS retirees served 25 or more years as a Kentucky State Trooper.
- The Combined Pension and Fiduciary Net Position was \$604 million as of June 30, 2021, compared to \$495 million in 2020.



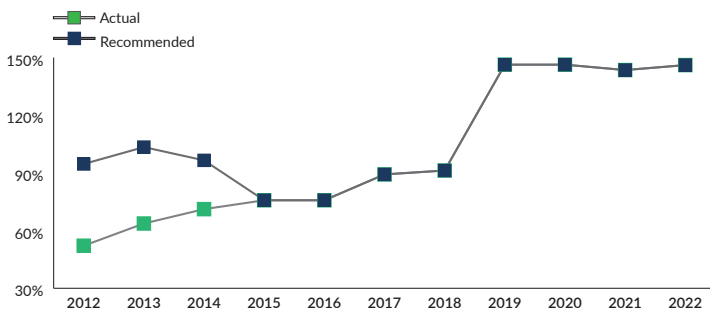
As of the June 30, 2021 Valuation, retirees and beneficiaries account for 81% of the pension fund unfunded liability.



Active member covered payroll continued its trend of decline, decreasing by 2.9% in Fiscal Year 2021.



Senate Bill 2 (2013 Regular Session) required the General Assembly to fully fund the Actuarially Required Contribution and established the Tier 3 Hybrid Cash Balance plan. Based on current assumptions, the Pension and Insurance plans will be 100% funded by Fiscal Year 2049.



Membership As of June 30, 2021				
	Active	Inactive	Retired	Total
Tier 1	370	180	1,538	2,088
Tier 2	183	68	1	252
Tier 3	222	141	1	364
Total	775	389	1,540	2,704

ABOUT KPPA

KPPA is responsible for the investment of funds and administration of pension and health insurance benefits for over 401,000 active, inactive and retired state and local government employees, state police officers, and non-teaching staff of local school boards and regional universities.

GOVERNANCE AND ADMINISTRATION

During the fiscal year, KPPA substantially completed the separation of the CERS system from the KERS and SPRS systems, as mandated and outlined in House Bill 484 (2020) and House Bill 9 (2021). Together, the two bills made significant changes to the governance and administrative structure of the former Kentucky Retirement Systems.

CERS BOARD	KPPA BOARD	KRS BOARD
 <ul style="list-style-type: none"> 3 trustees elected by members 6 trustees appointed by the Governor selected from lists of candidates provided by KACo, KLC and KSBA 	<ul style="list-style-type: none"> CERS Board Chair KRS Board Chair CERS Investment Committee Chair CERS Trustee, Elected by Members* CERS Trustee, Governor Appointee* KRS Investment Committee Chair KRS Trustee, Elected by Members** KRS Trustee, Governor Appointee** <p>*Selected by the CERS Board Chair **Selected by the KRS Board Chair</p>	 <ul style="list-style-type: none"> 3 trustees elected by members 6 trustees appointed by the Governor

Visit our website, kyret.ky.gov, and go to the About tab to view the KPPA, CERS, and KRS meeting calendar. All meetings are livestreamed on the KPPA Facebook page.



PUBLIC PENSION OVERSIGHT BOARD

The Public Pension Oversight Board (PPOB) was established by the Kentucky General Assembly in 2013 to assist with their review, analysis, and oversight of KPPA. KPPA staff routinely attend the monthly PPOB meetings to provide information about KPPA and the systems it operates. KPPA is actively engaged with the Oversight Board and continues to work cooperatively with policymakers to find solutions to pressing issues. Visit the Legislative Research Commission's website at legislature.ky.gov to access the legislative calendar and live coverage.

ACTIVE MEMBERSHIP

REFUNDS PROCESSED
4,303

SERVICE PURCHASE & BENEFIT ESTIMATES
14,033

DISABILITY APPLICATIONS
466

RETIRED MEMBERSHIP

NEW RETIREMENTS
6,545

HEALTHCARE COVERED LIVES
98,557

ACCOUNT AUDITS
14,863

MEMBERSHIP SUPPORT

WEBINAR & COUNSELING APPOINTMENTS
5,380

INBOUND CALLS
283,012

WEBSITE PAGEVIEWS
4,935,643

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 401,000 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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