12/31/2019 Actuarial Valuation

PRESENTED BY:

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Joint Committee on Pensions, Investments, and Benefits

December 2, 2020

KPERS

Dependable Benefits. Trusted Partner

KPERS is a fiduciary providing retirement, disability and survivor benefits to our members and their beneficiaries with a 98-member staff.

KPERS administers three statewide, defined benefit plans for public employees.

- Kansas Public Employees Retirement System
- Kansas Police and Firemen's Retirement System
- Kansas Retirement System for Judges

KPERS partners with more than 1,500 state and local government employers.

- State of Kansas
- 286 school districts
- 105 counties
- 426 cities and townships
- Other employers include libraries, hospitals, community colleges and conservation districts

KPERS Board of Trustees

Kelly Arnold – Wichita, Chairperson	County Clerk, Sedgwick County	Appointed by the Governor
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Covering Today

Purpose of the Annual Actuarial Valuation

System Statistics

Current Funded Status and Funding Projections

Impact of Legislative Actions

Employer Contributions

Purpose of the Annual Actuarial Valuation

- Measurement of assets and liabilities

- Best estimate of ultimate costs
  - Project future benefits using actuarial assumptions
  - Calculate present value of future benefits (their cost in today's dollars)
  - Apply cost method to allocate benefit costs to periods of service

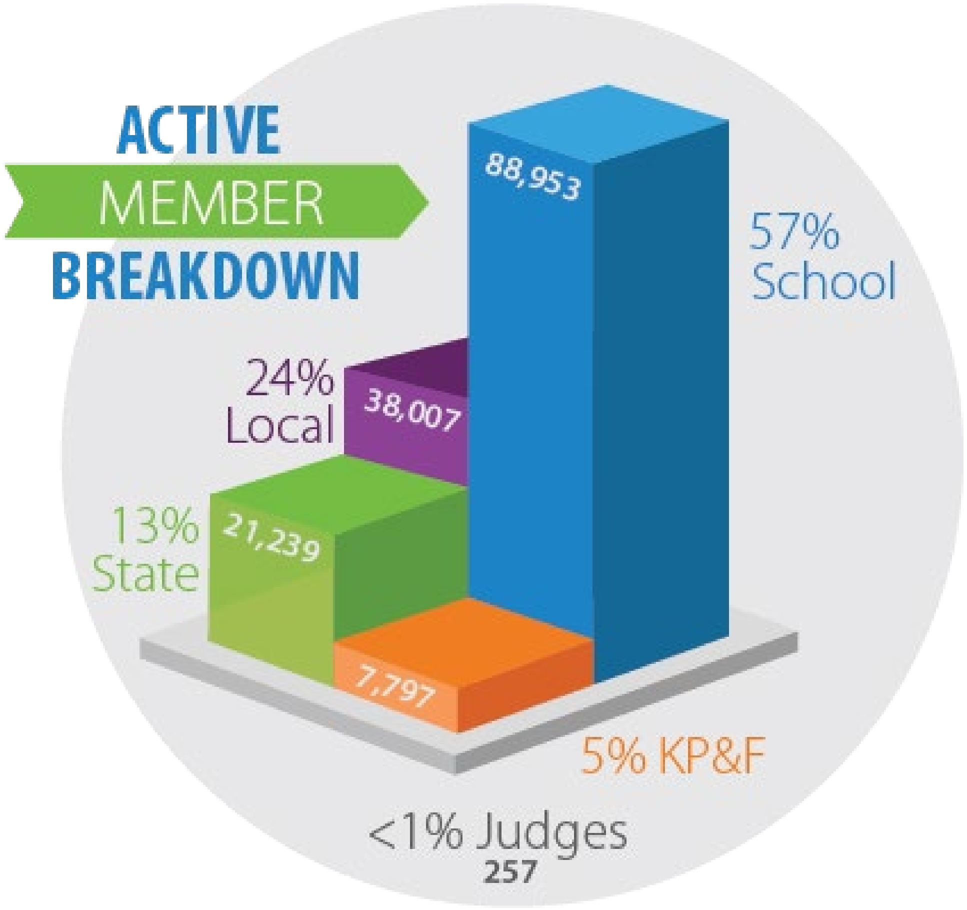
- Calculate employer contribution rates
  - The 12/31/2019 valuation sets the contribution rates for FY 2023 for State and School employers and CY 2022 for Local employers.

- Baseline for any cost studies in 2021 legislative session

Key Findings

- All groups remain at the full Actuarial Required Contribution rate
- Net investment returns on a calendar year basis were 17.1% on market value of assets. Due to smoothing, the return on actuarial assets was 6.7%.
- Overall funded ratio improved to 70.0% (from 68.4% on 12/31/2018).
- Total unfunded actuarial liability decreased from $9.2 billion last year to $9.0 billion this year
- State/School employer contribution rate decreased from 14.09% for FY 2022 to 13.86% for FY 2023.

System Statistics



Total Active Members – 156,253

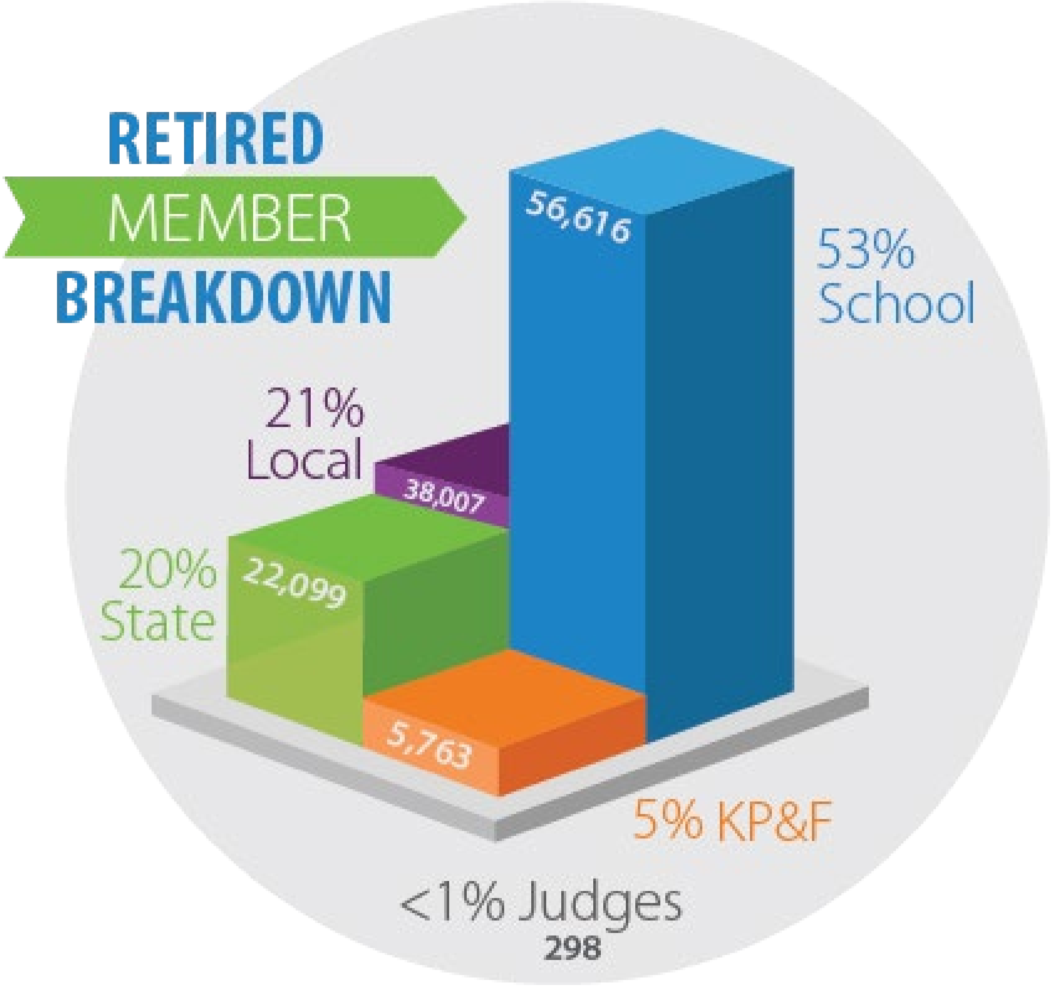
- KPERS has more than 156,000 active members.
  - Active members range in age from 17 to 92.
- KPERS 1 is the largest membership group with 60,995 active members. KPERS 3 is the second largest with 57,662 members.
- The average KPERS members has 10.8 years of service and a salary of about $45,000.
- The average KP&F member has 10.9 years of service and a salary of about $71,000.

System Statistics

- KPERS has over 105,000 retirees and beneficiaries.
  - Retirees range in age from 51 to 109.
  - Beneficiaries range in age from 15 to 108.

- The average KPERS retiree benefit is about $15,500 per year ($1,292 per month).
  - 78% of KPERS retirees receive less than $2,000 per month ($24,000 annually).

- The average KP&F retiree benefit is about $38,500 per year ($3,200 per month).
  - Less than 1% of KP&F retirees receive less than $2,000 per month.



Total Retirees – 105,620

Current Funded Status

- As a system, KPERS' funded ratio improved, and the unfunded actuarial liability decreased in the 12/31/2019 valuation.

	12/31/2018	12/31/2019
Funded Ratio	68.4%	70.0%
Unfunded Actuarial Liability	$9.20 billion	$9.01 billion

- Actuarially required contribution (ARC) rates decreased for KPERS State/School employers, from 14.09% in FY 2022 to 13.86% in FY 2023.
- The statutory employer contribution for the State/School group is 14.23% in FY 2021.
- The State/School group statutory employer contribution is equal to the ARC rate in FY 2021 for the first time in 25 years.

Development of the Unfunded Actuarial Liability

- Actuarial Liabilities – Actuarial Assets = Unfunded Actuarial Liability (UAL)

- Actuarial liability:
  - Project future benefits using actuarial assumptions
  - Calculate present value of future benefits (their cost in today's dollars)
  - Apply cost method to allocate benefit costs to periods of service

- Actuarial value of assets
  - Average or "smoothed" value
  - Not market value

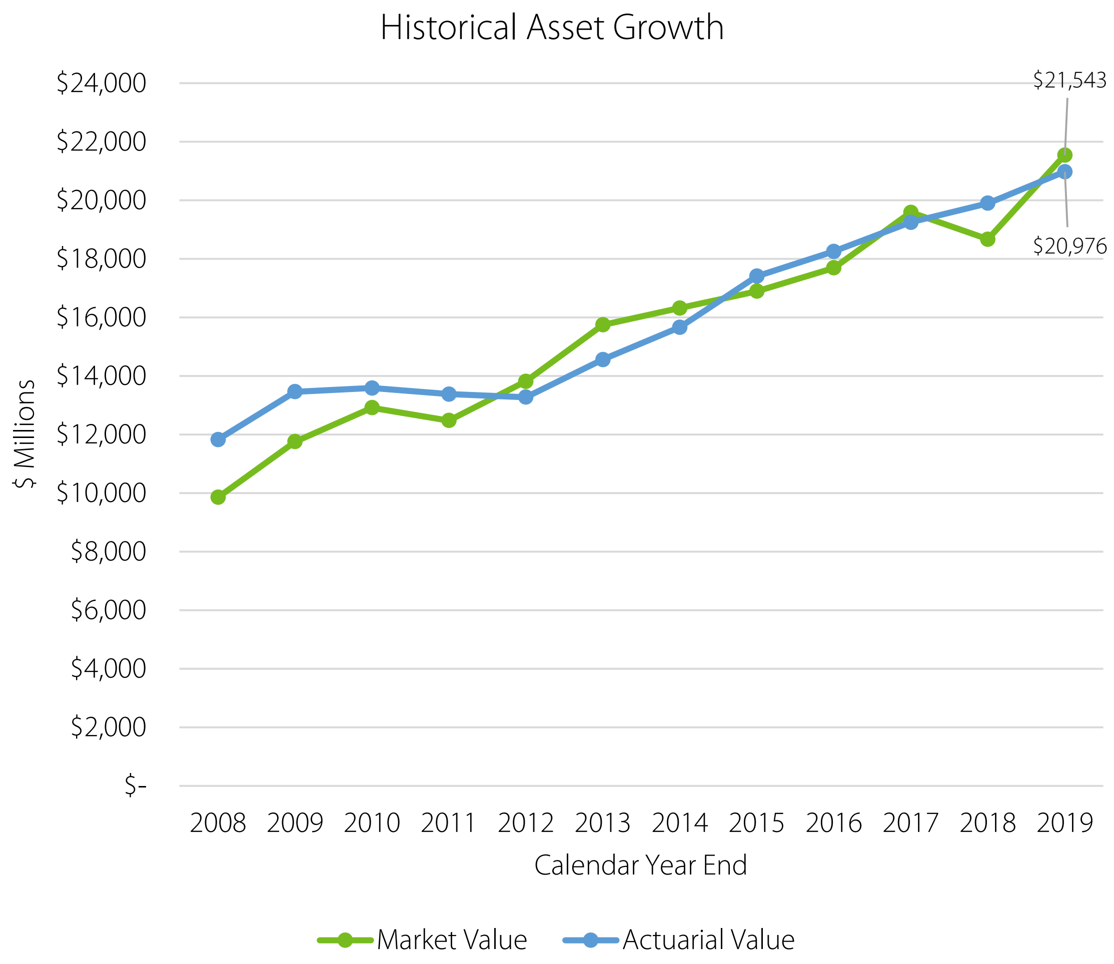
Development of the Unfunded Actuarial Liability

Actuarial Liabilities – Actuarial Assets = Unfunded Actuarial Liability (UAL)

Total Actuarial Liability on 12/31/2019	$29.98 billion
Total Actuarial Assets on 12/31/2019	$20.98 billion
Total Unfunded Actuarial Liability on 12/31/2019	**$9.0 billion**

Market Value of Assets vs. Actuarial Value of Assets

- Market value of assets is not used directly in valuation
- Asset valuation method is used to smooth the effect of market fluctuations
  - Smoothed value is called actuarial value of assets
  - Goal is to provide more stability in contribution rates
- Actuarial value recognizes the difference in actual investment return compared to expected return (7.75%) evenly over 5 years.



Market Value of Assets vs. Actuarial Value of Assets

- Investment return on market value basis in CY 2019 (net) was 17.1%.
- Due to asset smoothing method, return on actuarial assets was 6.7%.
- Deferred investment experience yet to be recognized due to asset smoothing.
  - Deferred gain will flow through smoothing method over the next four years (20% per year).
  - Expected to decrease the unfunded actuarial liability and improved the funded ratio in future years absent negative experience.
- Actuarial value of assets on 12/31/2019 totaled $20.976 billion.

Deferred Investment Income	
CY 2019 (80% remaining)	$1.358 billion
CY 2018 (60% remaining)	($1.234 billion)
CY 2017 (40% remaining)	$431 million
CY 2016 (20% remaining)	$12.7 million
Total Deferred Investment Experience	$568 million

Asset Smoothing	
Market Value of Assets on 12/31/2019	$21.543 billion
Deferred Investment Experience	$568 million
Actuarial Value of Assets on 12/31/2019 (Market value – Deferred experience)	$20.976 billion

12/31/2019 Unfunded Actuarial Liability (UAL) by group:

	Actuarial Liability (in millions)	Actuarial Assets (in millions)	Unfunded Actuarial Liability (in millions)	Funded Ratio
State	$ 4,604	$ 3,642	$ 962	79.1%
School	15,901	10,318	5,583	64.9%
State/School*	20,505	13,960	6,545	68.1%
Local	5,705	4,202	1,502	73.7%
KP&F	3,578	2,628	949	73.5%
Judges	196	185	10	94.7%
Total*	$ 29,982	$ 20,976	$ 9,007	70.0%

*Amounts may not add due to rounding.

Valuation Results

Factors affecting the Unfunded Actuarial Liability (UAL)

System Unfunded Actuarial Liability: 12/31/2018	**$ 9,202M**
Statutory contribution cap/time lag*	18M
Amortization method	(169)M
Experience	
– Investment	210M
– Demographics (i.e. fewer retirements than expected, lower wage growth)	(3)M
Additional Contributions (Legislative Action)	(175)M
Triennial Experience Study Changes (Data refinements)	(111)M
System Unfunded Actuarial Liability: 12/31/ 2019	**$9,006M**

Note: Amounts may not add due to rounding

*Time lag is the period from the valuation date (12/31/2018) to the date the new contribution rate takes effect – (e.g., 7/1/2021 for State and School Groups, 1/1/2021 for Local Group) as provided by law.

Employer Contributions

- Rates effective for years beginning in 2022 (FY 2023 for State/School; CY 2022 for Local).

- State/School combined statutory rate in FY 2023 is equal to the actuarial required contribution rate 13.86%, for the third consecutive year.
  - The State/School statutory employer contribution rate reached the actuarial required contribution rate for the first time in the 12/31/2017 valuation (FY 2021), the first time the rates were the same in 24 years.

- Employer contribution rates for State and Local continue to be at the full actuarial rate.
  - State actuarial rate went from 9.97% for FY 2022 to 10.08% for FY 2023
  - Local actuarial rate went from 8.87% for CY 2021 to 8.90% for CY 2022

- The slight increases in the State and Local actuarial rate reflects minor adjustments in retirement rates, salary growth and deferred actuarial losses for these groups.

Employer Contributions

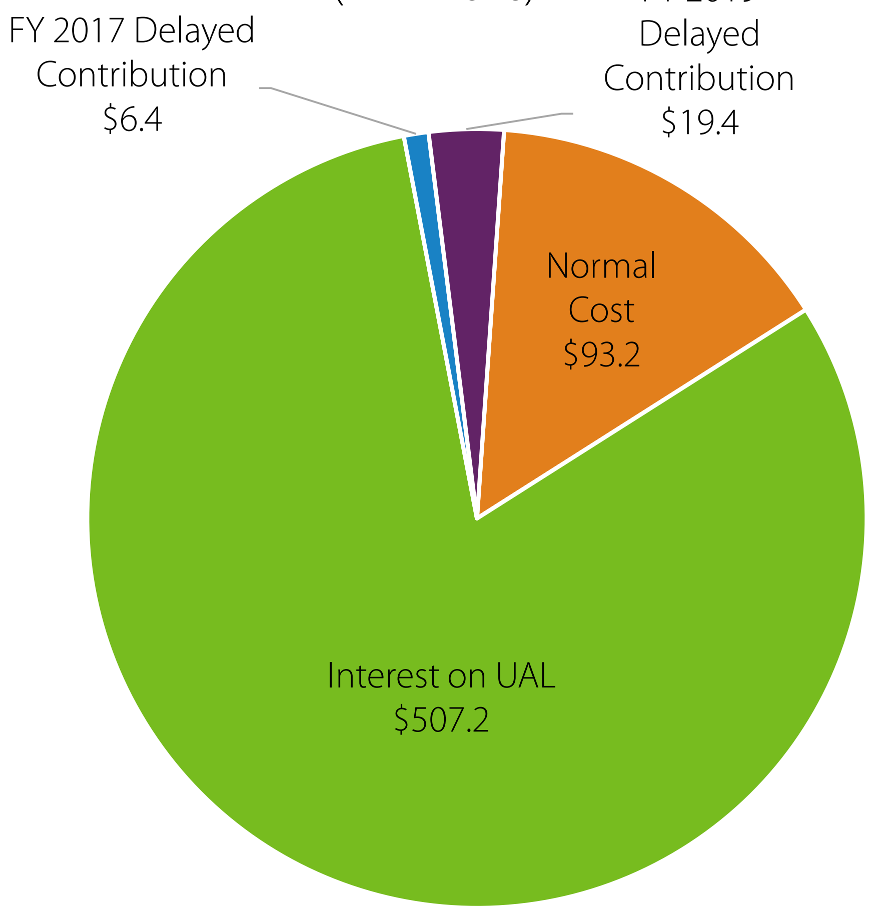
	December 31, 2019		
	Actuarial	Statutory	Shortfall
State	10.08%	13.86%	(3.78%)*
School	14.83%	13.86%	0.97%
State/School	13.86%	13.86%	0.00%
Local	8.90%	8.90%	0.00%
KP&F	22.99%	22.99%	0.00%
Judges	17.77%	17.77%	0.00%

*As provided in statute, the contribution above the State Actuarial Required Contribution (ARC) rate is applied to fund the School Group.

- The State/School statutory employer contribution rate continues to be at the full actuarial required contribution rate for FY 2023, the third consecutive year the statutory and actuarial rates have been equal.
- School only actuarial rate totals 14.83%, higher than the statutory State/School rate of 13.86% for FY 2023.

Employer Contributions

FY 2021 "Steady State" Contribution (in Millions)



Total State/School employer contributions needed to maintain "steady state"
$626.2 million

Payment of layer on FY 2019 deferred School contribution
$19.4 million

Payment of layer on FY 2017 deferred School contribution
$6.4 million

12/31/2019 State/School unfunded actuarial liability	X	KPERS Investment Return Assumption	=	Interest on 12/31/2019 State/School unfunded actuarial liability
$6.545 billion	X	7.75%	=	**$507.2 million**

Actuarial payroll projection for FY 2021	X	Employer Normal Cost Rate	=	FY 2021 normal cost
$4.906 billion	X	1.90%	=	**$93.2 million**

Impact of Legislative Actions

- The Legislature approved additional contributions to KPERS in 2018 and 2019.

- The additional contributions totaled $304 million over two years.
  - $138 million during calendar year 2018
    - $56 million transfer in June 2018 and $82 million transfer in July 2018
  - $166 million during calendar year 2019
    - $115 million transfer in March 2019 and $51 million transfer in July 2019

- The additional contributions were directed to the School group unfunded actuarial liability but impact the funding for the State/School group.

- The additional contributions lowered the State/School employer contribution rate by 0.36% in FY 2021 and 0.29% in FY 2022.

Contribution Rates and Contribution Dollars

- The statutory State/School employer contribution rate in FY 2019 was below the actuarial required contribution rate, but the rate does not reflect the additional appropriations.
  - With the additional appropriations the State/School group contributed more than full actuarial required **contributions** in FY 2019, which is the first time that has occurred since FY 1997.

- The statutory State/School employer contribution rate was below the actuarial required rate in FY 2020, but the additional $51 million payment received in July 2019 was enough to pay the fund the actuarial required contributions for FY 2020.

- The statutory State/School employer contribution rate is equal to the actuarial required rate for FY 2021.

Funding Projections

- Not precise predictions but general estimates

- Projections based on many assumptions
  - 7.75% return on market value in 2019 and all future years
  - All actuarial assumptions met
  - Current plan provisions
  - Contributions are paid per current statutes
  - New entrants in future years are similar to recent history

State/School Funding Projections

- December 31, 2019 Valuation
  - State/School Funded Ratio: 68.1% (Total System is 70.0%)
  - Actuarial required rate: 13.86%
  - Statutory rate: 13.86%

- Actuarial Required Contribution (ARC) Date/Rate (actuarial and statutory contribution rates are equal) occurred in 12/31/2017 valuation at 14.23% for FY 2021.

- Continues to be at full actuarial contribution rate in 12/31/19 valuation.

- Actuarial contribution rate declined to 13.86% for FY 2023, primarily due assumption changes and higher than assumed payroll growth.

Funding Projections

- If all assumptions were met in future years:
  - The State/School group employer contribution rate is projected to slowly decline from 13.86% to around 12.5% over the next 10 years.
  - The State/School group unfunded actuarial liability would steadily decline until the legacy unfunded actuarial liability was paid off in 2033.
  - The State/School group funded ratio would reach 80% in 2026, 90% in 2031 and 100% in 2035.

- We know that not all assumptions will be met exactly each year, but the goal is that the assumptions are accurate over time.

Short Term Projections

Total System

Return in 2020*

	7.75%		0%		-7.75%	
Valuation Date (12/31)	Unfunded Actuarial Liability (in millions)	Funded Ratio	Unfunded Actuarial Liability (in millions)	Funded Ratio	Unfunded Actuarial Liability (in millions)	Funded Ratio
2020	$9,007	70%	$9,007	70%	$9,007	70%
2021	8,666	72%	8,995	71%	9,324	70%
2022	8,297	74%	9,083	71%	9,869	69%
2023	8,107	75%	9,360	71%	10,612	67%

*Assumes a 7.75% return in all years after 2020 so current deferred investment experience is reflected in future years. Also assumes reduced contributions for FY 2017 and FY 2019 are repaid as scheduled.

KPERS Funding

- Strong investment performance in CY 2019 improved funding progress and the System reached 70% in the 12/31/2019 valuation.

- Funding projections show continued improvement, especially as the amortization of the legacy unfunded actuarial liability nears the end of it's amortization period (13 years remaining).

- Continued full funding of the employer contribution rate is one of the keys to keeping KPERS on a path to full, sustainable funding.

- KPERS benefits are not in jeopardy, with over $20 billion in assets today and a well diversified investment portfolio, KPERS will pay all promised benefits.

Questions?