Commission on Government Forecasting and Accountability

802 Stratton Ofc. Bldg., Springfield, IL 62706

MONTHLY BRIEFING FOR THE MONTH ENDED: November 2022

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SPECIAL PENSION BRIEFING

STATE RETIREMENT SYSTEMS OVERVIEW

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The Commission has reviewed the State-funded retirement systems' FY 2023 preliminary actuarial reports, which were issued prior to November 1st, pursuant to P.A. 97-0694, the State Actuary Law. Under the State Actuary Law, the systems must annually submit a proposed certification for the following fiscal year prior to November 1st of the current calendar year. The State Actuary then must issue a preliminary report concerning the systems' proposed certification by January 1st. The State Actuary's report must identify any recommended changes in actuarial assumptions based upon the review of the retirement systems' actuarial assumptions.

Please note that Appendix A on Page 19 of this briefing contains a guest essay from the Commission's actuary, Segal Consulting, on actuarially appropriate funding approaches for public pension funds. This issue was last explored in the Commission's February 2012 monthly briefing: https://cgfa.ilga.gov/Upload/0212revenue.pdf

Using the actuarial (smoothed) value of assets, the total unfunded liabilities of the State systems totaled $139.0 billion on June 30, 2022, led by the Teachers' Retirement System (TRS), whose unfunded liabilities amounted to $80.6 billion. As the largest

of the State systems, TRS accounts for approximately 58.0% of the total assets and liabilities of the five State systems combined. The State Employees' Retirement System (SERS) had unfunded liabilities of $29.2 billion, approximately 21.0% of the total unfunded liabilities of the five systems, followed by the State Universities Retirement System (SURS) with unfunded liabilities of $27.3 billion, which represents 19.6% of the total unfunded liabilities. Table 1 provides a summary of the financial condition of each of the five State retirement systems, showing their respective liabilities and assets as well as their accumulated unfunded liabilities and funded ratios.

TABLE 1

Summary of Financial Condition FY 2022
State Retirement Systems Combined
Assets at Actuarial Value / With Asset Smoothing (P.A. 96-0043)
($ in Millions)

System	Accrued Liability	Actuarial Assets	Unfunded Liability	Funded Ratio
TRS	$143,523.7	$62,910.4	$80,613.3	43.8%
SERS	$52,049.7	$22,892.7	$29,157.0	44.0%
SURS	$49,869.9	$22,570.3	$27,299.6	45.3%
JRS	$2,955.6	$1,309.8	$1,645.8	44.3%
GARS	$363.2	$79.7	$283.4	22.0%
TOTAL	**$248,762.2**	**$109,763.0**	**$138,999.2**	**44.1%**

A more realistic valuation of the true financial position of the State retirement systems would be based upon the market value of the assets, as shown in Table 2 below. Utilizing the market value of assets, the combined unfunded liabilities of the State systems totaled $139.7 billion on June 30, 2022. TRS, whose unfunded liabilities amounted to $80.7 billion, represents approximately 58.0% of the combined total unfunded balance. Table 2 provides a summary of the financial condition of each of the five State retirement systems, showing their respective liabilities and assets as well as their accumulated unfunded liabilities and funded ratios.

TABLE 2

Summary of Financial Condition FY 2022 State Retirement Systems Combined Assets at Market Value / Without Asset Smoothing (P.A. 96-0043) ($ in Millions)				
System	Accrued Liability	Market Assets	Unfunded Liability	Funded Ratio
TRS	$143,523.7	$62,833.6	$80,690.1	43.8%
SERS	$52,049.7	$22,272.9	$29,776.9	42.8%
SURS	$49,869.9	$22,601.0	$27,268.9	45.3%
JRS	$2,955.6	$1,280.6	$1,675.1	43.3%
GARS	$363.2	$77.2	$285.9	21.3%
TOTAL	**$248,762.2**	**$109,065.3**	**$139,696.9**	**43.8%**

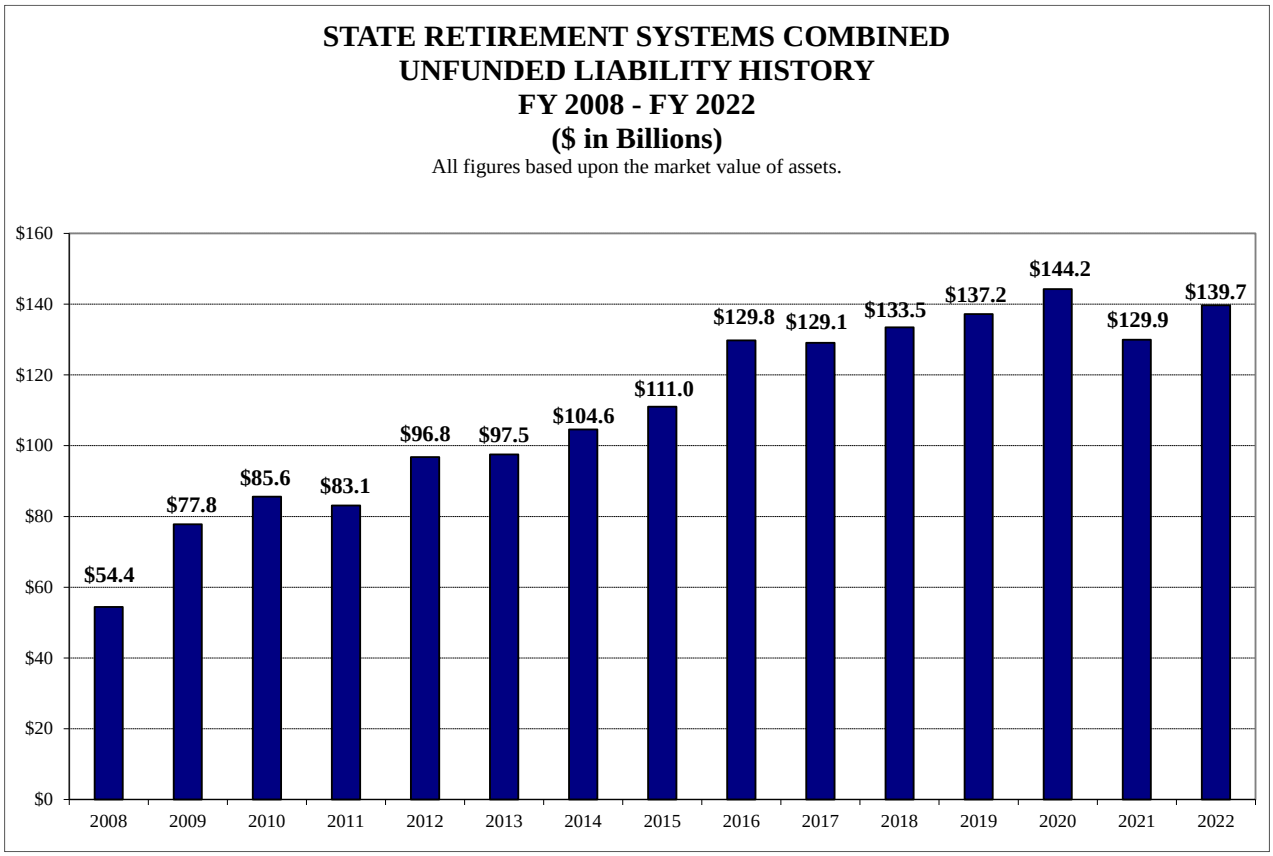
The funded ratios of the respective systems may be compared to the aggregate funded ratio. The combined funded ratios based on the actuarial and market value of assets for FY 2022 were 44.1% and 43.8%, respectively, as shown in Tables 1 and 2 (the 15-year history of the systems' cumulative funded ratio is shown in Chart 6). While the General Assembly Retirement System (GARS) had the poorest funded ratio, the funded ratios of the other four pension systems ranged between 42 and 45% funded.

Chart 1 below shows a 15-year history of the cumulative unfunded State pension liability and is based upon calculations performed by the retirement systems' actuaries using the *market value* of assets for all years, including FY 2022. Overall, the aggregate unfunded liability has grown significantly over the past 15 years from $54.4 billion in FY 2008 to $139.7 billion in FY 2022.

The primary driver behind the growth in the combined unfunded liability has been actuarially insufficient State contributions determined by the current pension funding policy under P.A. 88-0593. As the actuaries for the State retirement systems have noted in their respective annual actuarial valuation reports, the funding plan under P.A. 88-0593 produces employer (State) contributions that are actuarially insufficient, meaning if all other actuarial assumptions are met, unfunded liabilities will still increase due to the State contributing an amount that is not sufficient to stop the growth in the unfunded liability. Hence, there is a distinction between contributions that are statutorily sufficient and contributions that are considered actuarially sufficient (the annual reports of the State Actuary have noted this distinction as well).

Further details on the main factors affecting the unfunded liability can be found in Charts 4 and 5.

CHART 1



Over the course of the past five years, the cumulative unfunded liability peaked at $144.2 billion in FY 2020, until FY 2021 saw a significant improvement, due in large part to exceptional investment returns. As mentioned above, actuarially insufficient state contributions under the statutory funding plan were the main cause of the upward pressure on the unfunded liability.

In FY 2022 the unfunded liability based upon market value of assets increased by approximately $9.8 billion, a 7.5% growth from the previous year, due mainly to market value investment losses as detailed in Chart 3. Details on the factors affecting the change in the actuarial unfunded liability in FY 2022 can be found in Chart 4.

CHART 2

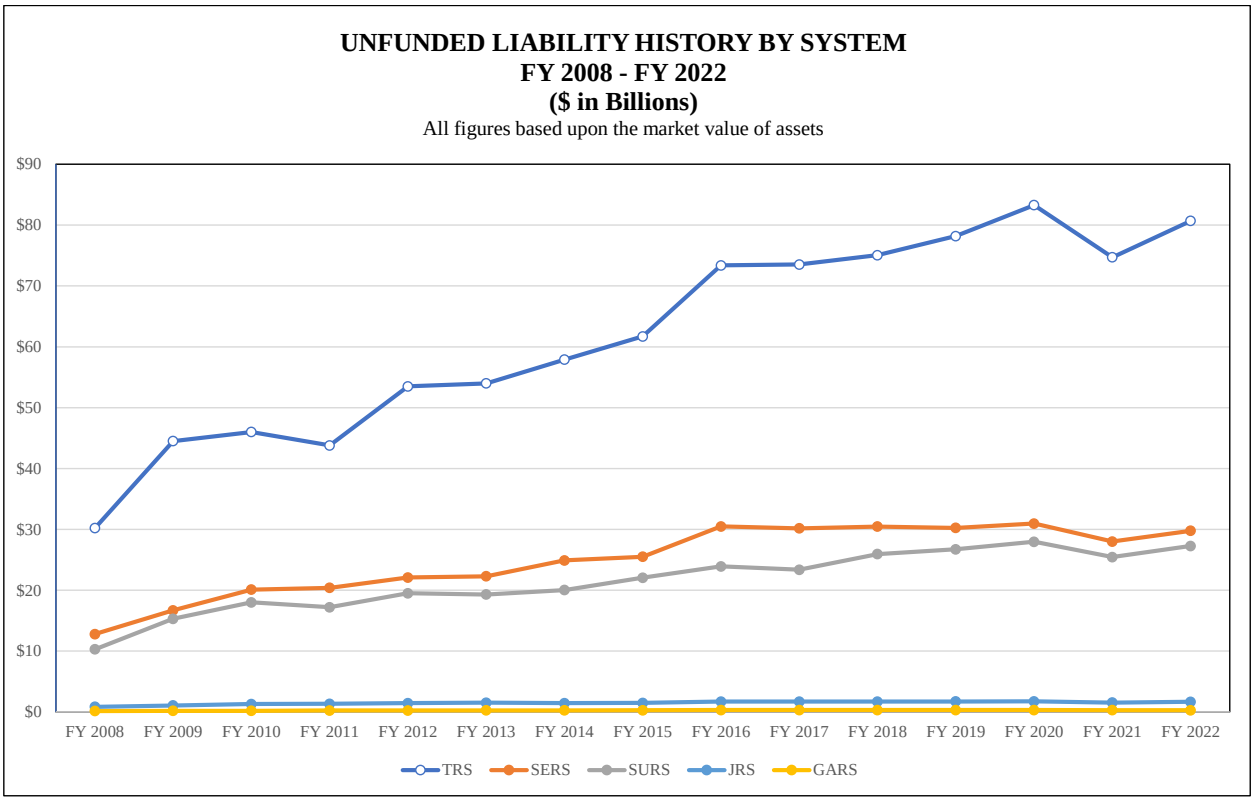


Chart 2 above presents the unfunded liability history of the five systems over the last 15 years but provides a more detailed picture of how the unfunded liability of the respective systems has changed during the same time period. As shown, the three biggest systems, TRS, SERS, and SURS, make up the majority of the aggregate unfunded liability. Due in part to TRS having the largest portfolio of the "Big 3" systems, TRS' changes in unfunded liability tend to be greater in nominal terms than the other Big 3 systems. One of the steepest rises in the TRS trend line can be seen between FY 2008 and FY 2009, which can be explained by unprecedented investment losses that occurred during the Great Recession. TRS was especially hard hit and suffered investment losses of more than 20% in FY 2009. In addition, TRS experienced one of its largest hikes in the unfunded liability in FY 2012 and FY 2016 as TRS reduced its assumed investment rate by 0.5% in each respective year. In FY 2022, TRS' market value unfunded liability increased to $80.7 billion from $74.7 billion in FY 2021, due in large part to a -1.2% market value investment return.

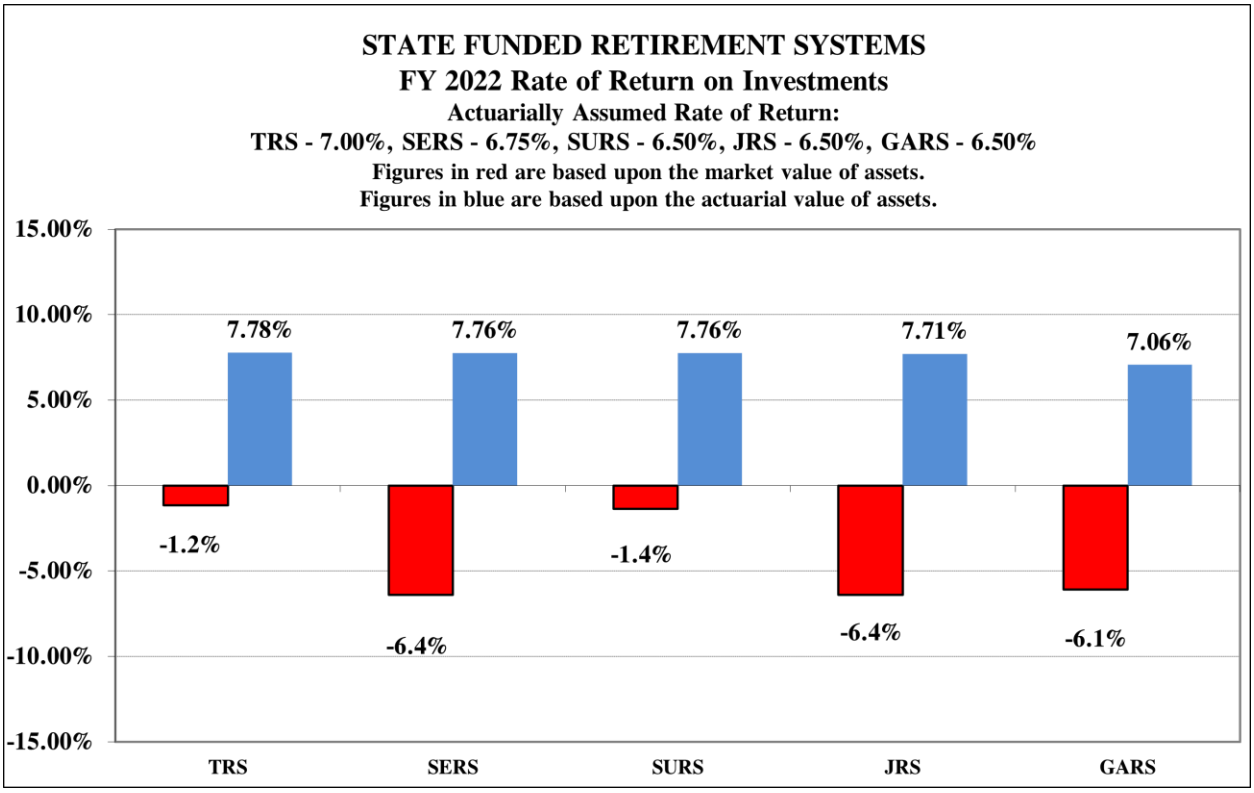
Table 3 below shows the historical changes in the investment return assumptions for each of the five State systems. All five systems left their respective investment return rate assumptions unchanged in FY 2022.

TABLE 3

Historical Change in Investment Rate Assumptions												
System	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
TRS	8.50%	8.00%		7.50%		7.00%						
SERS	7.75%			7.25%		7.00%			6.75%			
SURS	7.75%			7.25%				6.75%			6.50%	
JARS	7.00%					6.75%			6.50%			
GARS	7.00%					6.75%			6.50%			
NOTE: The years associated with investment rate assumption changes above reflect the actuarial valuation year, not the fiscal year in which the State contribution was calculated using the new rate.												

Chart 3 on the following page presents investment returns experienced by each of the systems in FY 2022 based upon both the actuarial (smoothed) value, shown in blue, and market value, depicted in red. While all five systems experience a slight market value loss on their respective investment portfolios, the actuarial (smoothed) investment returns were positive. In effect, the systems are still reaping the positive benefits of the outsized FY 2021 investment returns because of the asset smoothing law (P.A. 96-0043).

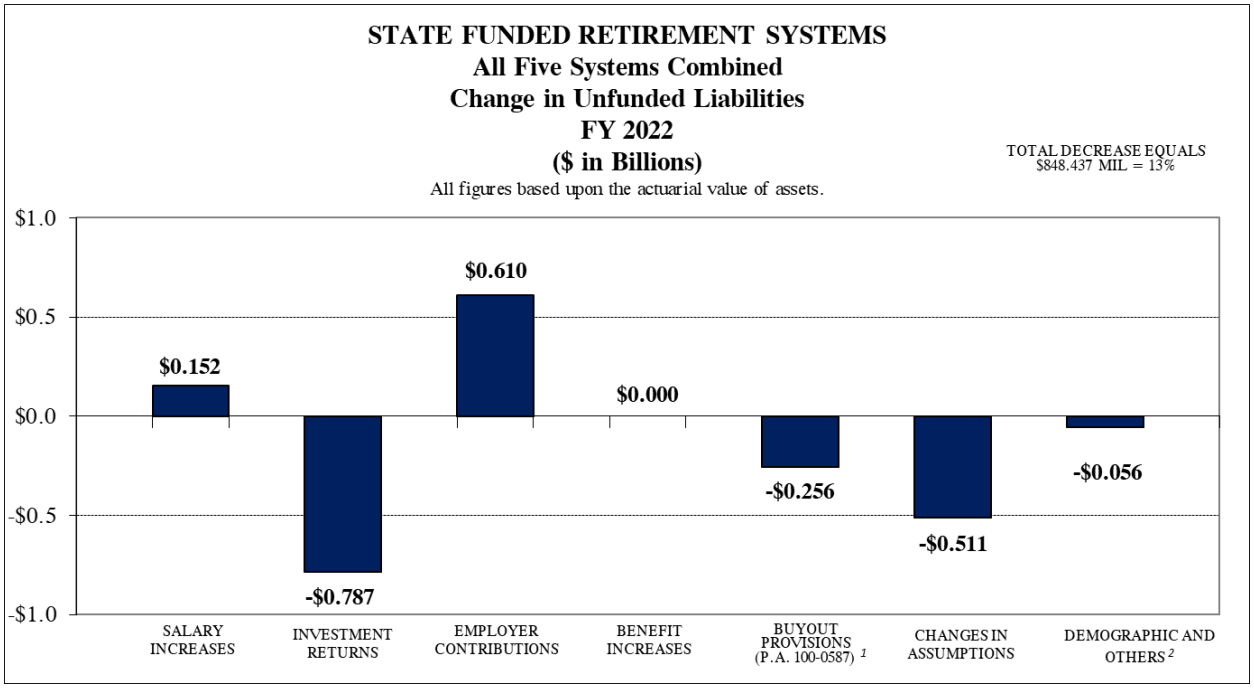
CHART 3



It is common to see fluctuations in investment performance of the systems on a yearly basis, thereby affecting the State contributions. To reduce the impact of volatile investment performance from year to year, asset smoothing was implemented beginning with the FY 2009 actuarial valuation reports of the state systems with the adoption of P.A. 96-0043, which took effect on July 15, 2009. Asset smoothing is a technique that averages the annual fluctuation in investment performance over a period of five years.

Chart 4 on the following page outlines the factors that have caused the unfunded liability to change for FY 2022 only.

CHART 4



[1] P.A. 100-0587, effective June 4, 2018, created the two voluntary Accelerated Pension Benefit Payment Programs (the pension buyout programs) for TRS, SURS, and SERS. P.A. 101-0010, effective June 5, 2019, extended the buyout programs by 3 more years to June 30th, 2024. SERS reported the most favorable buyout experience in FY 2022 that generated an actuarial gain of $176.0 million. TRS reported an actuarial gain of $65.2 million. SURS reported actuarial gain of $15.1 million in FY 2022.

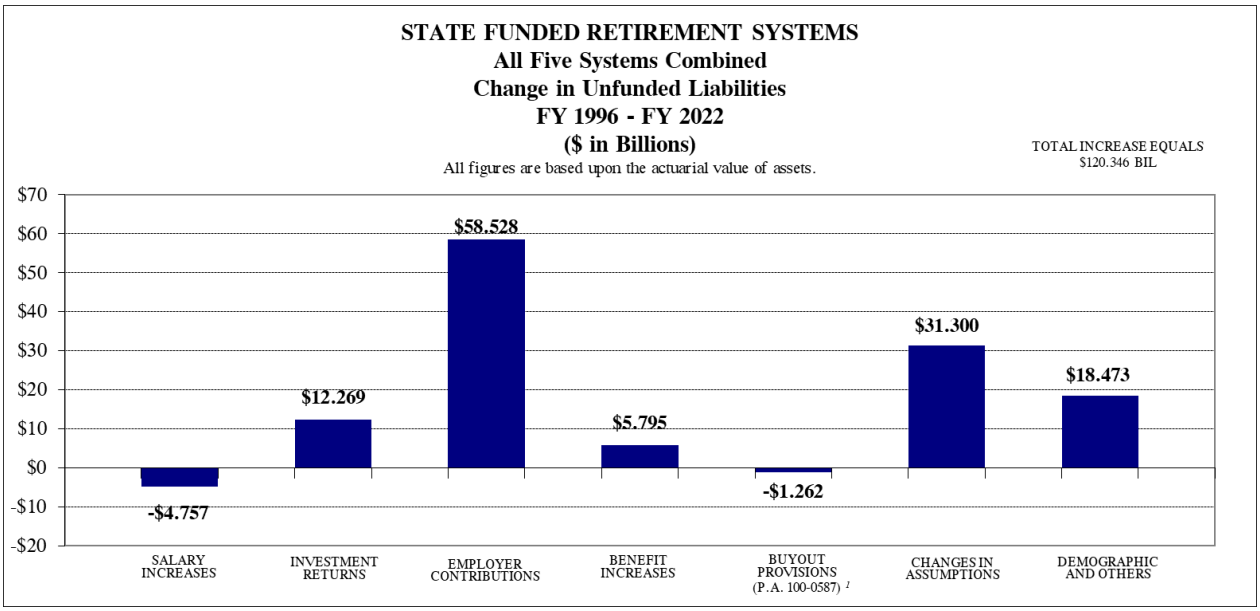
At the end of FY 2021, the aggregate unfunded liability based on the actuarial value of assets was approximately $139.9 billion. A year later, it stood at $139.0 billion as of FY 2022. The combined unfunded liability dropped by $848.4 million during FY 2022, a 0.6% decrease, compared to FY 2021.

As shown in Chart 4, the primary contributor to this decrease was due to positive actuarial investment returns. Although all five systems reported negative rates of return on market value investments, through statutorily-required asset smoothing, actuarial values of investment returns resulted in overall gains for each retirement system. This actuarial gain is equivalent to approximately $787 million in investment returns for FY 2022. Other factors in the overall decrease in aggregate actuarial unfunded liability included a $511 million actuarial gain from changes in actuarial assumptions, a $232 million gain in changes in demographics and other factors, and a $256.3 million gain from the effect of the buyout provisions pursuant to P.A. 100-0587.

SERS experienced an actuarial gain of $877 million in FY 2022 due to actuarial assumption changes tied to their statutorily-mandated experience study for the fiscal year ending June 30, 2021. The following assumptions were modified as a result of the experience study: salary increase assumptions, mortality assumptions, and other demographic factors, including normal retirement rates, early retirement rates, and turnover rates, among other factors. SERS reported a $176.0 million actuarial gain from the buyout programs. The system also reported an actuarial gain of $304 million due to favorable demographic factors.

Chart 5 below shows the change in the unfunded liability since the enactment of P.A. 88-0593 in FY 1996, commonly known as the "1995 pension funding law," which created the 50-year funding policy that governs annual State contributions to the five State systems.

CHART 5



[1] *P.A. 100-0587, effective June 4, 2018, created the two voluntary Accelerated Pension Benefit Payment Programs (the pension buyout programs) for TRS, SERS, and SURS. P.A. 101-0010, effective June 5, 2019, extended the buyout programs by 3 more years to June 30th, 2024. At of the end of FY 2022, a $1.2 billion decrease in the liability came from all the Big 3 systems, TRS ($641.7 million), SERS ($580.6 million), and SURS ($39.9 million).*

From FY 1996 through FY 2022, the unfunded liability increased by $120.346 billion to $139 billion. Actuarially insufficient State contributions have contributed the most to the increase in unfunded liability, accounting for approximately 48.6% of the total increase. Actuarial assumption changes caused a $31.30 billion increase, accounting for 26.0% of the total increase. Demographic changes and other factors and investment returns that did not meet assumed rates have augmented the increase in unfunded liability over time.

Chart 6 on the following page shows the systems' funded ratio based on the market value of assets. The funded ratio at any single point in time is less important than the trend over time. While both the unfunded liability (Chart 1) and funded ratio (Chart 6) illustrate the financial condition of the pension systems, the two are negatively correlated by nature. (i.e., when one rises, the other falls.)

CHART 6

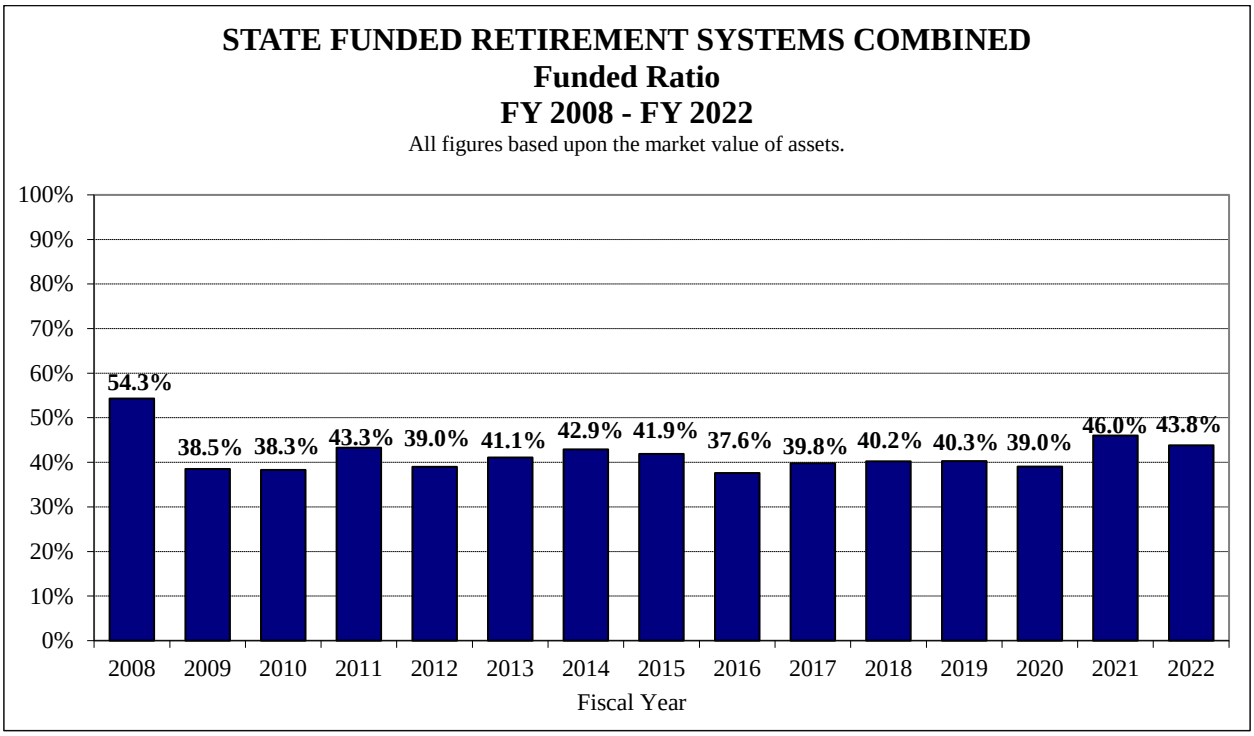


Table 4 on the next page shows the FY 2024 employer normal cost for the five State systems. The normal cost is, in essence, the present value cost of the benefits accrued in a given fiscal year. Put differently, if the respective systems were 100% funded, the State of Illinois would be obligated to pay the employer normal cost only, meaning there would be no amortization payments of the unfunded liability. The FY 2024 employer normal cost accounts for approximately 20-25% of the preliminarily-certified FY 2024 State contributions to TRS ($1.29 B), SERS ($584.4 M), SURS ($463.9 M), and JRS ($31.3 M). For GARS, the employer normal cost represents 6% of the State contributions.

TABLE 4

FY 2024 Employer Normal Cost ($ in Millions)					
TRS	**SERS**	**SURS**	**JRS**	**GARS**	**Total**
$1,286.0	$584.4	$463.9	$31.3	$1.7	$2,367.4

Table 5 compares FY 2024 Actuarially Determined Contributions (ADC) and FY 2024 State contributions under P.A. 88-0593. While the Statutory contributions are determined by the current funding policy under the Illinois Pension Code, ADCs are calculated by each respective systems' actuary pursuant to the Governmental Accounting Standards Board Statements 67 and 68.

TABLE 5

Comparision of FY 2024 Actuarially Determined Contribution (ADC) and FY 2024 State Contributions under P.A. 88-0593 ($ in Millions)						
System	**TRS**	**SERS**	**SURS**	**JRS**	**GARS**	**Total**
ADC*	$9,590.1	$3,045.9	$2,521.7	$174.7	$34.7	$15,367.1
State Contributions	$6,043.5	$2,589.8	$2,129.1	$147.8	$26.5	$10,936.7
Difference	$3,546.7	$456.1	$392.6	$26.8	$8.3	$4,430.5

**ADCs under the respective systems' funding policy that meets requirements of GASB Statements 67 and 68 may be calculated differently by each system, i.e., the amortization periods in which the unfunded liability is amortized may differ. For example, TRS uses a closed 20-year period, SERS uses a 25-year closed period, and SURS uses a 30-year closed period.*

Table 6 on the following page shows the FY 2023 State contributions pursuant to P.A. 102-0698 and the FY 2024 estimated State contributions based on the systems' preliminary certification letters for FY 2024. FY 2024 estimated State contributions were certified by the Boards of trustees of the five systems. FY 2023 State contributions to the five systems were $10.98 billion. The FY 2024 State contributions are estimated to be $10.94 billion, a decrease of $39.6 million or 0.04% over FY 2023.

TABLE 6

FY 2023 Pension Appropriation by Fund with $200M Additional Contributions Pursuant to P.A. 102-0698 [1]

($ in Millions)

System	General Funds	Other State Funds	Total
TRS	$6,009.25	$0.00	$6,009.25
SURS	$1,942.33	$215.00	$2,157.33
SERS	$1,755.12	$881.90	$2,637.02
GARS	$27.63	$0.00	$27.63
JRS	$145.04	$0.00	$145.04
Total	**$9,879.36**	**$1,096.90**	**$10,976.26**

[1] P.A. 102-0698, effective April 19, 2022, appropriated $200 million to the five State systems in addition to the FY 2023 certified amounts. The additional $200 million was appropriated from the General Revenue Fund to the Pension Stabilization Fund for the purpose of reducing the unfunded liabilities of the five State-funded retirement systems. The amounts appropriated are incldued in FY 2023 General Funds totals listed above.

FY 2024 Estimated Pension Appropriation by Fund [2]

($ in Millions)

System	General Funds	Other State Funds [3]	Total
TRS	$6,043.45	$0.00	$6,043.45
SURS	$1,914.11	$215.00	$2,129.11
SERS [4]	$1,709.27	$880.53	$2,589.80
GARS	$26.47	$0.00	$26.47
JRS	$147.84	$0.00	$147.84
Total	**$9,841.14**	**$1,095.53**	**$10,936.68**

[2] This chart is meant to be an estimate only insofar as the FY 2024 appropriation by fund is concerned. The amounts in this chart reflect the State systems' preliminary FY 2024 certifications. Also, pursuant to P.A. 97-0694, the State Actuary Law, the State Actuary is required to conduct a review of the systems' actuarial assumptions/methods that are used to perform actuarial valuations and to determine the State contributions. The State Actuary is required to recommend changes in the assumptions/methods before the State systems finalize certifications of the annual State contributions.

[3] The SURS "Other State Funds" amount assumes that SURS will receive a FY 2024 appropriation from the State Pension Fund in the same amount that SURS is expected to receive from the State Pension Fund in FY 2023. SURS' historical appropriation from the State Pension Fund varies from year to year.

[4] SERS' FY 2024 appropriation includes a total of $117.1 million in 2003 POB debt service. Of this amount, according to SERS, $77.2 million comes from the General Revenue Fund (GRF) and $39.8 million comes from the other state funds. The SERS appropriation breakdown is based upon SERS' assumption that 66% of the SERS appropriation will come from GRF, while 34% will come from other state funds.

Total FY 2023 Pension Appropriation: $10,976.26 Million
Total FY 2024 Pension Appropriation: $10,936.68 Million

Total Decrease, FY 2024 from FY 2023: $39.58 Million
Total GF Decrease, FY 2024 from FY 2023: $38.21 Million

The following pages include pension funding projections for the five State retirement systems based on the respective retirement systems' FY 2022 preliminary actuarial valuations. These projections were generated by the retirement systems' respective actuaries.

FUNDING PROJECTIONS FOR THE STATE RETIREMENT SYSTEMS
All Five Systems Combined
Projections Based on the Retirement Systems' FY 2022 Preliminary Actuarial Valuations
($ in Millions)

Fiscal Year	Annual Payroll	Total State Contribution*	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2023	$21,817.3	$10,782.7	49.4%	$1,643.3	$254,706.1	$114,895.8	$139,810.4	45.1%
2024	**$22,466.6**	**$10,936.7**	**48.7%**	**$1,690.5**	**$260,527.1**	**$120,306.2**	**$140,221.0**	**46.2%**
2025	$23,004.2	$11,070.5	48.1%	$1,726.9	$266,196.1	$126,743.1	$139,453.0	47.6%
2026	$23,550.9	$11,344.2	48.2%	$1,464.0	$271,707.9	$129,989.1	$141,718.8	47.8%
2027	$24,107.0	$11,548.1	47.9%	$1,801.5	$277,222.9	$135,479.7	$141,743.2	48.9%
2028	$24,656.1	$11,933.9	48.4%	$1,838.1	$282,537.0	$141,214.0	$141,323.0	50.0%
2029	$25,200.3	$12,188.6	48.4%	$1,874.4	$287,629.0	$147,046.5	$140,582.5	51.1%
2030	$25,756.6	$12,482.7	48.5%	$1,911.7	$292,479.1	$152,968.2	$139,510.9	52.3%
2031	$26,318.9	$12,721.4	48.3%	$1,948.7	$297,070.3	$158,998.1	$138,072.2	53.5%
2032	$26,889.2	$12,994.4	48.3%	$1,986.4	$301,378.2	$165,175.3	$136,203.0	54.8%
2033	$27,467.1	$13,298.3	48.4%	$2,024.3	$305,398.4	$171,566.3	$133,832.1	56.2%
2034	$28,046.2	$14,432.9	51.5%	$2,061.7	$309,108.8	$179,041.4	$130,067.4	57.9%
2035	$28,625.4	$14,729.7	51.5%	$2,098.9	$312,485.7	$186,815.8	$125,669.9	59.8%
2036	$29,221.1	$15,031.5	51.4%	$2,136.6	$315,515.7	$194,927.3	$120,588.4	61.8%
2037	$29,828.3	$15,340.7	51.4%	$2,175.2	$318,197.2	$203,428.6	$114,768.6	63.9%
2038	$30,457.0	$15,662.2	51.4%	$2,215.2	$320,602.7	$212,461.1	$108,141.5	66.3%
2039	$31,099.7	$15,989.8	51.4%	$2,256.0	$322,645.2	$222,006.8	$100,638.4	68.8%
2040	$31,756.2	$16,323.8	51.4%	$2,297.4	$324,317.1	$232,128.4	$92,188.8	71.6%
2041	$32,445.5	$16,675.5	51.4%	$2,341.4	$325,637.7	$242,929.3	$82,708.4	74.6%
2042	$33,162.9	$17,042.7	51.4%	$2,387.4	$326,635.3	$254,517.4	$72,117.9	77.9%
2043	$33,903.5	$17,428.2	51.4%	$2,435.7	$327,352.8	$267,022.1	$60,330.7	81.6%
2044	$34,672.4	$17,828.3	51.4%	$2,486.5	$327,847.8	$280,587.9	$47,259.9	85.6%
2045	$35,472.1	$18,244.3	51.4%	$2,539.9	$328,185.5	$295,368.4	$32,817.1	90.0%

FUNDING PROJECTIONS FOR THE TEACHERS' RETIREMENT SYSTEM
Projections Based on the Retirement System's FY 2022 Preliminary Actuarial Valuation
Actuarially Assumed Rate of Return: 7.00%
($ in Millions)

Fiscal Year	Annual Payroll	Total State Contribution*	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2023	$11,682.6	$5,893.7	50.4%	$1,051.4	$147,495.4	$66,184.8	$81,310.6	44.9%
2024	**$12,136.0**	**$6,043.5**	**49.8%**	**$1,092.2**	**$151,477.2**	**$69,786.7**	**$81,690.6**	**46.1%**
2025	$12,461.0	$6,247.1	50.1%	$1,121.5	$155,459.8	$74,248.5	$81,211.4	47.8%
2026	$12,784.1	$6,447.6	50.4%	$1,150.6	$159,434.9	$77,007.1	$82,427.8	48.3%
2027	$13,105.6	$6,592.2	50.3%	$1,179.5	$163,572.9	$80,993.9	$82,579.0	49.5%
2028	$13,410.6	$6,809.6	50.8%	$1,207.0	$167,674.0	$85,176.6	$82,497.4	50.8%
2029	$13,703.5	$6,947.7	50.7%	$1,233.3	$171,716.8	$89,473.6	$82,243.2	52.1%
2030	$13,998.6	$7,074.5	50.5%	$1,259.9	$175,685.8	$93,875.2	$81,810.6	53.4%
2031	$14,293.2	$7,204.1	50.4%	$1,286.4	$179,563.0	$98,383.5	$81,179.5	54.8%
2032	$14,587.7	$7,351.4	50.4%	$1,312.9	$183,325.7	$103,014.2	$80,311.5	56.2%
2033	$14,878.8	$7,513.9	50.5%	$1,339.1	$186,946.7	$107,779.6	$79,167.1	57.7%
2034	$15,160.5	$8,280.2	54.6%	$1,364.4	$190,401.3	$113,306.3	$77,095.0	59.5%
2035	$15,440.3	$8,433.1	54.6%	$1,389.6	$193,665.6	$119,006.2	$74,659.4	61.4%
2036	$15,724.0	$8,588.0	54.6%	$1,415.2	$196,723.6	$124,895.4	$71,828.1	63.5%
2037	$16,012.9	$8,745.8	54.6%	$1,441.2	$199,562.4	$130,995.5	$68,566.9	65.6%
2038	$16,314.0	$8,910.3	54.6%	$1,468.3	$202,158.1	$137,326.2	$64,831.9	67.9%
2039	$16,618.2	$9,076.4	54.6%	$1,495.6	$204,486.0	$143,907.8	$60,578.2	70.4%
2040	$16,925.0	$9,244.0	54.6%	$1,523.3	$206,523.2	$150,762.8	$55,760.4	73.0%
2041	$17,252.4	$9,422.8	54.6%	$1,552.7	$208,263.4	$157,941.2	$50,322.2	75.8%
2042	$17,596.3	$9,610.6	54.6%	$1,583.7	$209,711.7	$165,500.7	$44,211.0	78.9%
2043	$17,965.6	$9,812.3	54.6%	$1,616.9	$210,888.2	$173,518.4	$37,369.8	82.3%
2044	$18,364.5	$10,030.2	54.6%	$1,652.8	$211,834.0	$182,095.0	$29,739.0	86.0%
2045	$18,795.0	$10,265.4	54.6%	$1,691.6	$212,595.4	$191,335.8	$21,259.5	90.0%
2046	$19,264.9	$1,382.9	7.2%	$1,733.8	$213,243.1	$191,918.8	$21,324.3	90.0%

* Total State Contributions for FY 2023 and FY 2024 include the minimum benefit reimbursements of $300,000.

FUNDING PROJECTIONS FOR THE STATE EMPLOYEES' RETIREMENT SYSTEM
Projections Based on the Retirement System's FY 2022 Preliminary Actuarial Valuation
Actuarially Assumed Rate of Return: 6.75%
($ in Millions)

Fiscal Year	Annual Payroll	Total State Contribution	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2023	$4,918.2	$2,593.8	52.7%	$273.4	$53,223.0	$23,971.0	$29,252.0	45.0%
2024	**$4,991.4**	**$2,589.8**	**51.9%**	**$275.6**	**$54,321.0**	**$24,998.0**	**$29,323.0**	**46.0%**
2025	$5,069.6	$2,491.0	49.1%	$278.2	$55,347.0	$26,063.0	$29,284.0	47.1%
2026	$5,151.8	$2,516.0	48.8%	$280.9	$56,300.0	$26,396.0	$29,904.0	46.9%
2027	$5,238.7	$2,537.0	48.4%	$284.0	$57,170.0	$27,309.0	$29,861.0	47.8%
2028	$5,333.1	$2,613.0	49.0%	$287.6	$57,954.0	$28,232.0	$29,722.0	48.7%
2029	$5,432.6	$2,656.0	48.9%	$291.5	$58,654.0	$29,136.0	$29,518.0	49.7%
2030	$5,538.0	$2,697.0	48.7%	$295.9	$59,269.0	$30,023.0	$29,246.0	50.7%
2031	$5,647.4	$2,743.0	48.6%	$300.3	$59,802.0	$30,905.0	$28,897.0	51.7%
2032	$5,761.9	$2,797.0	48.5%	$304.8	$60,253.0	$31,792.0	$28,461.0	52.8%
2033	$5,882.3	$2,858.0	48.6%	$309.6	$60,633.0	$32,712.0	$27,921.0	54.0%
2034	$6,007.7	$3,131.0	52.1%	$314.6	$60,939.0	$33,881.0	$27,058.0	55.6%
2035	$6,135.6	$3,197.0	52.1%	$319.6	$61,171.0	$35,111.0	$26,060.0	57.4%
2036	$6,268.7	$3,265.0	52.1%	$324.8	$61,329.0	$36,412.0	$24,917.0	59.4%
2037	$6,408.4	$3,336.0	52.1%	$330.3	$61,421.0	$37,801.0	$23,620.0	61.5%
2038	$6,553.1	$3,411.0	52.1%	$336.1	$61,453.0	$39,298.0	$22,155.0	63.9%
2039	$6,704.3	$3,488.0	52.0%	$342.1	$61,432.0	$40,922.0	$20,510.0	66.6%
2040	$6,862.4	$3,568.0	52.0%	$348.6	$61,367.0	$42,695.0	$18,672.0	69.6%
2041	$7,026.9	$3,652.0	52.0%	$355.3	$61,270.0	$44,644.0	$16,626.0	72.9%
2042	$7,198.1	$3,740.0	52.0%	$362.4	$61,151.0	$46,793.0	$14,358.0	76.5%
2043	$7,363.2	$3,831.0	52.0%	$369.3	$61,021.0	$49,169.0	$11,852.0	80.6%
2044	$7,524.2	$3,919.0	52.1%	$375.9	$60,886.0	$51,791.0	$9,095.0	85.1%
2045	$7,681.4	$4,004.0	52.1%	$382.2	$60,755.0	$54,681.0	$6,074.0	90.0%

Note: Pursuant to P.A. 93-0589, State contributions for FY 2022 and FY 2023 include $104.517 million and $109.242 million, respectively for debt service for the 2003 Pension Obligation Bonds authorized by P.A. 93-0002. State contribution amounts shown for FY 2024 - 2045 do not include debt service as these amounts are not known until the annual SERS preliminary certification letters are issued purusant to P.A. 97-0694 (State Actuary Law). For FY 2024, SERS' debt service obligation of $117.1 million is included to its overall Total State Contribution shown in Appendix C.

FUNDING PROJECTIONS FOR THE STATE UNIVERSITIES RETIREMENT SYSTEM
Projections Based on the Retirement System's FY 2022 Preliminary Actuarial Valuation
Actuarially Assumed Rate of Return: 6.50%
($ in Millions)

Fiscal Year	Annual Payroll*	Total State Contribution**	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2023	$5,051.5	$2,125.3	42.1%	$303.6	$50,634.9	$23,302.8	$27,332.1	46.0%
2024	**$5,174.8**	**$2,129.1**	**41.1%**	**$307.6**	**$51,350.5**	**$24,036.9**	**$27,313.6**	**46.8%**
2025	$5,309.3	$2,160.2	40.7%	$312.1	$51,994.3	$24,902.8	$27,091.5	47.9%
2026	$5,450.6	$2,209.2	40.5%	$17.2	$52,570.3	$25,062.1	$27,508.2	47.7%
2027	$5,598.1	$2,248.7	40.2%	$322.8	$53,079.2	$25,627.6	$27,451.7	48.3%
2028	$5,747.5	$2,350.0	40.9%	$328.6	$53,518.3	$26,235.1	$27,283.3	49.0%
2029	$5,898.3	$2,413.5	40.9%	$334.5	$53,886.2	$26,850.6	$27,035.6	49.8%
2030	$6,053.1	$2,540.2	42.0%	$340.6	$54,178.9	$27,472.8	$26,706.1	50.7%
2031	$6,210.0	$2,603.5	41.9%	$346.7	$54,393.5	$28,105.8	$26,287.7	51.7%
2032	$6,369.8	$2,674.0	42.0%	$352.8	$54,528.7	$28,761.0	$25,767.7	52.7%
2033	$6,534.4	$2,752.5	42.1%	$359.1	$54,595.1	$29,463.0	$25,132.0	54.0%
2034	$6,704.5	$2,839.4	42.4%	$365.6	$54,597.5	$30,231.9	$24,365.6	55.4%
2035	$6,873.6	$2,915.2	42.4%	$372.1	$54,535.6	$31,063.7	$23,471.9	57.0%
2036	$7,050.0	$2,991.5	42.4%	$378.6	$54,410.6	$31,968.6	$22,442.0	58.8%
2037	$7,225.7	$3,068.9	42.5%	$385.1	$54,225.7	$32,959.4	$21,266.3	60.8%
2038	$7,405.6	$3,148.2	42.5%	$391.7	$54,070.1	$34,136.5	$19,933.6	63.1%
2039	$7,589.8	$3,229.3	42.5%	$398.5	$53,873.9	$35,440.9	$18,433.1	65.8%
2040	$7,777.9	$3,312.2	42.6%	$405.4	$53,642.6	$36,889.2	$16,753.5	68.8%
2041	$7,971.8	$3,397.5	42.6%	$412.6	$53,388.5	$38,505.8	$14,882.7	72.1%
2042	$8,170.1	$3,484.7	42.7%	$420.0	$53,124.0	$40,315.1	$12,808.8	75.9%
2043	$8,372.4	$3,573.6	42.7%	$427.7	$52,860.2	$42,341.0	$10,519.2	80.1%
2044	$8,577.2	$3,663.6	42.7%	$435.4	$52,606.9	$44,606.6	$8,000.3	84.8%
2045	$8,784.8	$3,754.9	42.7%	$443.1	$52,373.5	$47,136.2	$5,237.4	90.0%

* The Self-Manged Plan (SMP) has been renamed the Retirement Savings Plan (RSP), effective September 1, 2020. Payroll projections include RSP payroll. 45% of academic and 25% of non-academic new SURS members are assumed to enter RSP.

** Includes RSP Contributions, but does not include Excess Benefit Arrangement (EBA) contributions.

FUNDING PROJECTIONS FOR THE JUDGES' RETIREMENT SYSTEM
Projections Based on the Retirement System's FY 2022 Preliminary Actuarial Valuation
Actuarially Assumed Rate of Return: 6.50%
($ in Millions)

Fiscal Year	Annual Payroll	Total State Contribution	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2023	$155.2	$142.7	91.9%	$13.7	$2,992.1	$1,352.5	$1,639.6	45.2%
2024	**$154.6**	**$147.8**	**95.6%**	**$13.9**	**$3,021.2**	**$1,396.0**	**$1,625.2**	**46.2%**
2025	$154.7	$146.9	94.9%	$14.1	$3,041.9	$1,437.2	$1,604.6	47.2%
2026	$154.9	$146.6	94.6%	$14.2	$3,054.4	$1,432.1	$1,622.3	46.9%
2027	$155.3	$146.0	94.0%	$14.1	$3,057.9	$1,455.9	$1,602.1	47.6%
2028	$155.7	$147.8	94.9%	$14.0	$3,053.8	$1,476.2	$1,577.7	48.3%
2029	$156.8	$148.2	94.5%	$14.0	$3,041.8	$1,491.8	$1,550.0	49.0%
2030	$158.0	$148.3	93.9%	$14.3	$3,022.3	$1,502.8	$1,519.5	49.7%
2031	$159.3	$148.7	93.3%	$14.3	$2,996.2	$1,509.9	$1,486.3	50.4%
2032	$161.0	$149.9	93.1%	$14.9	$2,962.9	$1,514.4	$1,448.5	51.1%
2033	$162.6	$151.8	93.3%	$15.4	$2,923.8	$1,518.1	$1,405.8	51.9%
2034	$164.6	$158.9	96.5%	$16.0	$2,879.6	$1,527.2	$1,352.3	53.0%
2035	$166.9	$161.1	96.5%	$16.5	$2,830.8	$1,538.1	$1,292.7	54.3%
2036	$169.5	$163.6	96.5%	$17.1	$2,778.4	$1,552.0	$1,226.4	55.9%
2037	$172.2	$166.3	96.5%	$17.6	$2,722.9	$1,570.0	$1,152.9	57.7%
2038	$175.2	$169.1	96.5%	$18.1	$2,665.0	$1,593.4	$1,071.6	59.8%
2039	$178.3	$172.1	96.5%	$18.7	$2,605.5	$1,623.7	$981.8	62.3%
2040	$181.6	$175.4	96.5%	$19.2	$2,545.1	$1,662.2	$882.9	65.3%
2041	$185.1	$178.7	96.5%	$19.7	$2,485.1	$1,710.8	$774.3	68.8%
2042	$188.8	$182.3	96.5%	$20.2	$2,426.0	$1,770.8	$655.2	73.0%
2043	$192.6	$185.9	96.5%	$20.7	$2,368.6	$1,843.9	$524.7	77.8%
2044	$196.6	$189.8	96.5%	$21.3	$2,313.6	$1,931.5	$382.0	83.5%
2045	$200.7	$193.7	96.5%	$21.8	$2,261.5	$2,035.2	$226.2	90.0%

FUNDING PROJECTIONS FOR THE GENERAL ASSEMBLY RETIREMENT SYSTEM
Projections Based on the Retirement System's FY 2022 Preliminary Actuarial Valuation
Actuarially Assumed Rate of Return: 6.50%
($ in Millions)

Fiscal Year	Annual Payroll	Total State Contribution	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2023	$9.8	$27.2	278.7%	$1.1	$360.7	$84.6	$276.0	23.5%
2024	**$9.9**	**$26.5**	**267.6%**	**$1.1**	**$357.3**	**$88.7**	**$268.6**	**24.8%**
2025	$9.6	$25.3	263.9%	$1.1	$353.1	$91.7	$261.4	26.0%
2026	$9.5	$24.8	262.1%	$1.1	$348.3	$91.8	$256.4	26.4%
2027	$9.3	$24.2	259.7%	$1.1	$342.9	$93.4	$249.4	27.2%
2028	$9.2	$13.5	146.8%	$1.1	$336.9	$94.2	$242.7	28.0%
2029	$9.1	$23.1	254.0%	$1.1	$330.3	$94.5	$235.7	28.6%
2030	$9.0	$22.7	251.2%	$1.0	$323.2	$94.4	$228.7	29.2%
2031	$8.9	$22.2	248.5%	$1.0	$315.7	$93.9	$221.7	29.8%
2032	$8.9	$22.1	247.5%	$1.0	$307.9	$93.6	$214.3	30.4%
2033	$9.0	$22.2	247.5%	$1.0	$299.8	$93.5	$206.3	31.2%
2034	$9.0	$23.4	260.9%	$1.0	$291.4	$94.9	$196.5	32.6%
2035	$9.0	$23.4	261.2%	$1.0	$282.8	$96.8	$186.0	34.2%
2036	$9.0	$23.4	260.9%	$1.0	$274.0	$99.3	$174.8	36.2%
2037	$9.1	$23.7	261.1%	$1.0	$265.3	$102.8	$162.5	38.7%
2038	$9.1	$23.7	261.0%	$1.0	$256.5	$107.0	$149.5	41.7%
2039	$9.2	$23.9	261.0%	$1.1	$247.8	$112.4	$135.3	45.4%
2040	$9.3	$24.2	260.9%	$1.1	$239.2	$119.2	$120.0	49.8%
2041	$9.4	$24.5	261.1%	$1.1	$230.8	$127.5	$103.3	55.2%
2042	$9.6	$25.1	261.1%	$1.1	$222.7	$137.8	$84.9	61.9%
2043	$9.7	$25.4	261.2%	$1.1	$214.8	$149.8	$65.0	69.7%
2044	$9.8	$25.7	261.2%	$1.1	$207.3	$163.8	$43.6	79.0%
2045	$10.1	$26.4	261.0%	$1.2	$200.2	$180.2	$20.0	90.0%

Guest Editorial: Daniel J. Siblik

Can We Teach Old Pension Plans New Tricks? And Do We Need To?

Defined benefit pension plans are not that different from dogs. I know what you're thinking, but hear me out – pension plans, like dogs, come in all sizes. Some are well behaved and require very little maintenance while others need our constant attention. Some will blame the type (or breed) for the difference but often it is how they were cared for from the beginning that matters most.

Since inception, pension plans – in this case public pension plans – mature according to a rather simple equation: Contributions and Investments ultimately sum up to pay all Benefits and Expenses. This is the somewhat famous (at least in actuarial circles) **C + I = B + E** formula or, using a bit of algebra to solve for just the contribution piece, **C = B + E – I**. And this is true whether you have one participant or 100,000. Over time, if C (contributions) does not keep up with the other items involved, then it will have to be made up somewhere else, sometimes requiring a decrease in B (benefits). Or, if B gets too large, it puts pressure on C to also increase. In certain years the investment return (I) will outperform expectations, which is helpful, but sometimes masks the real imbalance underneath.

An Actuarial Determined Contribution, or "ADC", for a pension plan is calculated by an actuary and is designed to pay off the accruing costs and historic liability of a pension plan over a reasonable period and give plan sponsors the actuary's interpretation of "C" from the equation above. These calculations involve complex mathematics that incorporate a number of factors and assumptions that have gone through rigorous analyses. Without diving into the details, the root theory behind the payment concept is rather simple. For the ADC, the actuary typically calculates two pieces: 1.) The allocation of total costs to the current year plus 2.) The payment for benefits already accrued and not yet funded (the Unfunded Actuarial Accrued Liability or "UAAL"). That's it, that's the crux of it.

As mentioned above, defined benefit public plans can cover just a few people or exist on a much larger scale such as plans that may cover a whole state's worth of select individuals. Public pension debt does not just suddenly drop into the lap of a group of individuals who then have to figure out how to pay for it. But often individuals who work on the Boards or governing bodies of these plans are new to the process, so it can be rather daunting figuring out how a plan got to where it is and what the funding strategy should be going forward. To that end, knowing what would be the most comprehensive, or rather ***sufficient*** contribution on an annual basis helps all stakeholders understand the true cost of the plan.

But let's step back to analyze the word "sufficient" itself. The Merriam-Webster Dictionary will tell you it means, "enough to meet the needs of a situation or a proposed end". More interesting is to look at words considered synonyms to "sufficient". "Enough" is the first one listed. But Merriam-Webster says that the word "enough" is, "less exact in suggestion than 'sufficient'". "Adequate" is listed next and is described as a manner that, "may imply barely meeting a requirement". Again, this synonym seems to not have quite as much punch as "sufficient". Lastly, they present "competent" as, "measuring up to all requirements without question or being adequately adapted to an end". Well, the fact that they used one of the other synonyms ("adequate") in their description, shows that this word has less conviction to our goal than "sufficient". We bring up this mini-analysis to show that "actuarially sufficient contributions" imply something that is not merely the bare minimum means to an end, but something that goes a step beyond that. Even in their example

of use in a sentence, Merriam-Webster states "sufficient savings". The obvious flipside of that would be "insufficient savings" and those will have an unhappy ending for all parties involved.

The liability of a pension plan (funded or unfunded) evolves over a very long period of time with some plans existing for over 100 years. Initially, contributions and investment returns accumulate over time to fund future obligations for retirees. As plans mature and start paying promised benefits to retirees, current active populations and employers pay into the plan while annuitants receiving pension payments make up the main outflow of the plan, often eventually resulting in negative cash flow (benefit payments and expenses exceeding contributions). Along the way, decisions were made that either kept up with the funding of the projected obligations of the plan or unfunded liabilities grew large and got away from sponsors resulting in costs becoming harder and harder to rein in over time.

Plan sponsors and stakeholders can never go back in time to repair pension funding shortfalls, but by learning from past decisions and focusing on how a pension plan should ideally be maintained, we can set all plans on more stable paths going forward. Many plans, however, cannot react quickly to what the actuary calculates as the recommended ADC. While some public pension plans pay the annual ADC calculated by the actuary each year, many local and state-wide plans pay contributions according to a fixed rate schedule, often set in place for a number of years for budgeting purposes. In all cases, sponsors of those plans should still understand the true "actuarially sufficient" cost of funding. Only when we know the attributes and personality of a dog breed can a person properly train and care for it. Likewise, only when we know the true cost of a pension plan can we make an effort to properly pay for it.

Certain terms used when discussing defined benefit pension plan contributions…	
Normal Cost	Current year's accrual of benefits for active employees
Unfunded Actuarial Accrued Liability (**UAAL**)	Liability accrued for past service that is not yet funded
Actuarially Determined Contribution (**ADC**)	The contribution that typically pays the sum of the Normal Cost as well as an amortization of the UAAL

One key component for funding a plan is memorialized in what is called a "Funding Policy". That policy often becomes the blueprint for maintaining a given pension plan. Actually adhering to the Funding Policy is the next, and more critical, step. And that is where pension plan contributions come in. The contributions paid into the fund, and how they are calculated, is where we start "working like a dog", if you will. In order for pension plan contributions to be actuarially sufficient to meet the requirements of a funding policy, the objectives of that policy need to be followed. The primary standard components of such a policy are listed below:

Fund the expected cost of all promised benefits – done via payment on Normal Cost and Amortization of UAAL
Match annual contributions to fund the cost of benefits to years of service
Have costs emerge stable and predictably
Balance competing funding-policy objectives
Establish an enforcement mechanism for making contributions on a consistent actuarially determined basis

Over time, a number of documents written by actuaries and public policy individuals have been released regarding pension plan funding policies, which ultimately (and ideally) affect plan contributions and whether those contributions are satisfactory.

- ***March 2013 "Best Practice" published by the GFOA (Government Finance Officers Association), "Core Elements of a Funding Policy".*** Key elements:
  Item 2 of their recommended funding policy states, "the ADC should be calculated in a manner that fully funds the long-term costs of the promised benefits".
  Item 3 states that the government employer should, "make a commitment to fund the full amount of the ADC."
- ***March 2013, NASRA (National Association of State Retirement Administrators) released, "Pension Funding: A Guide for Elected Officials".*** Key elements:
  Have a funding policy based on an ADC
  Build funding discipline into the policy to ensure that promised benefits can be paid
  Require clear reporting to show how and when pension plans will be fully funded
- ***February 2014 Issue Brief published by the American Academy of Actuaries, "Objectives and Principles for Funding Public Sector Pension Plans".*** Key elements:
  The policies established to fund the pension plan should be premised on the assumption that the obligation to provide the promised benefits must be met.
  Contributions should have a degree of stability and predictability.
- ***February 2014 report by an independent Blue Ribbon Panel, "The Report of the Blue Ribbon Panel on Public Pension Policy".*** Key element:
  Funding entities and plan trustees should strive to fund 100 percent of the obligation for benefits using assumptions that are consistent with median expectations about future economic conditions, i.e., the assumptions are estimated to be realizable 50 percent of the time.
- ***October 2014 White Paper by the Conference of Consulting Actuaries, "Actuarial Funding Policies and Practices for Public Pension Plans".*** Key element:
  Unacceptable amortization period practices include layered fixed period amortization by source of UAAL over longer than 30 years, or rolling/open amortization over longer than 25 years of a single combined gain/loss layer.
- ***October 2021 American Academy of Actuaries Issue Brief, "The 80% Funding Myth".*** Key element:
  Pension plans are generally better evaluated on the strategy in place to attain a funded ratio of 100% within a reasonable period of time.

To expand upon the above findings, Segal's own Public Sector Letter (PSL) from October 2014 stated that, "The most important policy objectives common to all the documents are that a public sector plan should be funded in accordance with an actuarially determined funding policy and that a plan's funding policy should target to fund 100 percent of the plan's actuarial liabilities over a reasonable period." So funding policies and actuarial contributions largely go hand in hand.

Public pension policy is largely a state-to-state item as public pension plans do not operate under the national ERISA "umbrella" (you know, for when it's raining cats and dogs) like corporate and multiemployer plans do. To that end, certain states have made efforts to get pension plans within their borders to focus on ther pension liability and submit a funding policy.

In 2019, Texas required the governing body of a public retirement system and its associated governmental entity (if the system is not a statewide retirement system) to **jointly develop and adopt a written funding policy that details a plan for achieving a funded ratio equal to or greater than 100%.** In addition, guidance was provided that actual contributions made to public pension systems in Texas should be sufficient to cover the normal cost and to amortize the UAAL over as brief a period as possible, but not to exceed 30 years, with 10-25 years being a more preferable target range. Funding policies were submitted by each plan sponsor to the Pension Review Board, which then monitors the progress of plans and calls upon plans falling below certain thresholds to adopt Funding Soundness Restoration Plans. Over time, a similar theme is emerging, whether in Texas or in opinion pieces being spread nationally: Funding policies are looking for contribution approaches that fund the **full value** of the liability in no more than 30 years, preferably less.

Funding of a pension plan largely varies when it comes down to how to pay off the UAAL. This is primarily due to the fact that, at a minimum, the sponsor should pay for benefits accruing in a given year (the normal cost). Also, participants accruing those benefits are often contributing to the plan, so they are effectively helping to pay for those accruals. This is rather straightforward. However, targeting what portion of the UAAL to eventually pay off and over what period is what creates the most variation among pension plan funding. Any sponsor can pay contributions towards a pension plan but are those contributions sufficient to keep the plan on a healthy funding path, one that won't need reevaluation (or "retraining" if you will) in the future?

Should the goal be to get a plan fully funded or to target some other metric? By default, we think of paying off things that we purchase at some point, completely. Most people who buy a car or a house typically do not set a goal to only pay off 80% or 90% of the purchase value. Sure, it is possible that some buyers may go into large purchases with no real plan to pay off the full borrowed value, but this would hardly be considered a best practice.

Financial entities, regulatory bodies, governments and media have been known to cite an 80% funded percentage for a plan as being "healthy" or "actuarially sound". But the focus on the funded ratio at a point in time is often an oversimplification of a pension plan as a whole.

If the funded percentage of a pension plan is less than 100% (i.e. there is a positive UAAL), actuarial determined contributions are typically structured with the objective of paying that amount off in a reasonable time. Being either above or under 80% funded at a given time does not really give a true picture of a plan's health. As the 80% Funding Myth article points out, a plan that is expected to see a steady rise towards the 100% funded level, even if the current ratio is below 80%, would be healthier than a plan currently above 80% but projected to experience stagnating or steadily declining funded ratios over time. In other words, how are you trending?

But it's not all gloom and doom in the public pension arena. In other words, maybe the bark is much worse than the bite. One thing that has public pension plans getting a bit of wind at their backs recently is that public plans are being considered more sustainable, as a whole, as their contribution levels have increased. In a similar vein to "show me the money", in a nutshell, pension plans largely succeed when their liabilities are being paid for (i.e. the money needed is being contributed) and they end up struggling when funding levels cannot keep up with recommendations. Paying the full ADC is roughly the equivalent of paying the rent, or the mortgage. Contribution holidays - when recommended contributions are skipped or not paid in full - are

the exact opposite and suggest that in the future the debt that you owe is likely to grow resulting in only larger payments.

According to an October, 2022 issue brief by the Pew Charitable Trusts[1], based on fiscal 2020 information, pension plan contributions reportedly grew from 2007 to 2020 at an annual rate of 7% and more than doubled from $50 billion to $130 billion. Had employers collectively targeted an amount lower than 100%, say 80% or 90%, less money than that would have been directed into plans which would mean less investment returns in good years and less ability to absorb asset losses in lean years. Targeting 100% funding helps funds in both good and bad market times.

States in 2020 collectively met Pew's "net amortization benchmark" for the first time since Pew began tracking it in 2014. The benchmark, which adjusts each year, is a measure of whether pension contributions are sufficient to keep pension debt from growing on an annual basis, assuming investments hit their target rates of return and demographic assumptions about salaries, worker retention, and retiree longevity hold true. So the good news is that the heavy lifting is having an effect.

Even the best laid plans (and funding policies) can hit difficult times. A number of things can, and do, knock plans off of their projected trajectory to get to 100% funding:
Insufficient contributions
Volatility in financial markets
Benefit increases that are not properly funded
Decreasing contribution base (active population)

There are more nuanced considerations as well that go along with funding policies and making actuarially sufficient contributions such as intergenerational equity and asset smoothing methods which go beyond the scope of this article. These issues may need to be addressed as part of the funding process for plans in which current members have benefits and/or contribution rates significantly different than prior generations.

Conclusion

There are a number of ways for plan sponsors to actually fund a pension plan and sometimes there can certainly be limitations on what the sponsors can do and how quickly they can react to funding recommendations and metrics. As mentioned previously, smaller plans are often more nimble and can react quickly to changing landscapes and funding requirements whereas larger ones, like statewide plans, have a more rigorous process to effect change and are often dealing with much larger legacy liabilities. But funding a pension plan in the most prudent way possible starts with knowing the true cost of the benefits that have been promised. To that end, a plan's Actuarial Determined Contribution should target paying off the full amount of projected benefits over a reasonable time period using a cost method that does not backload the payment on benefits currently accruing.

Defined benefit public pension plans are incredibly important entities for all stakeholders involved. If cared for properly, they can bring many years of positive benefits to the participants. If not properly attended to, they can bring years of frustration and hand wringing. Because, after all, anything not given the proper attention can cause almost as much downside as upside.

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[1] Issue Brief, "State Pension Contributions Hit Important Benchmark", October 19, 2022, https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2022/10/state-pension-contributions-hit-important-benchmark