Connecticut Pension Stress Test
State Employees Retirement System (SERS) and Teacher Retirement System (TRS)

Pursuant to Title 4, Ch 50m, Sec 4-68ee of the Connecticut General Statutes, this report contains a stress test analysis for the Connecticut State Employees Retirement System (SERS) and the Teachers Retirement System (TRS). The analysis was prepared based on the results of the most recently published annual actuarial valuation for SERS (2022) and biennial valuation for TRS (2022).

The SERS results were rolled forward one year to account for the actual Fiscal Year 2023 investment return of 9.02%, higher than assumed COLAs due to the high level of inflation, and planned $1.0 billion supplemental contribution scheduled for early Fiscal Year 2024.

The TRS results were rolled forward one year to account for the actual investment return of 8.35% in Fiscal Year 2023, higher than assumed COLAs due to the high level of inflation, as well as the planned $824M in supplemental contributions scheduled for early Fiscal Year 2024.

The report is divided into four sections: 1) 24-year baseline projection 2) Stress test analysis 3) Sensitivity analysis and 4) budget impact analysis. Results are presented on a combined basis that includes both SERS and TRS to provide a holistic view of pension funding and costs from a statewide perspective. Plan-specific results for the stress test are included at the end of this report as Exhibits 1-6.

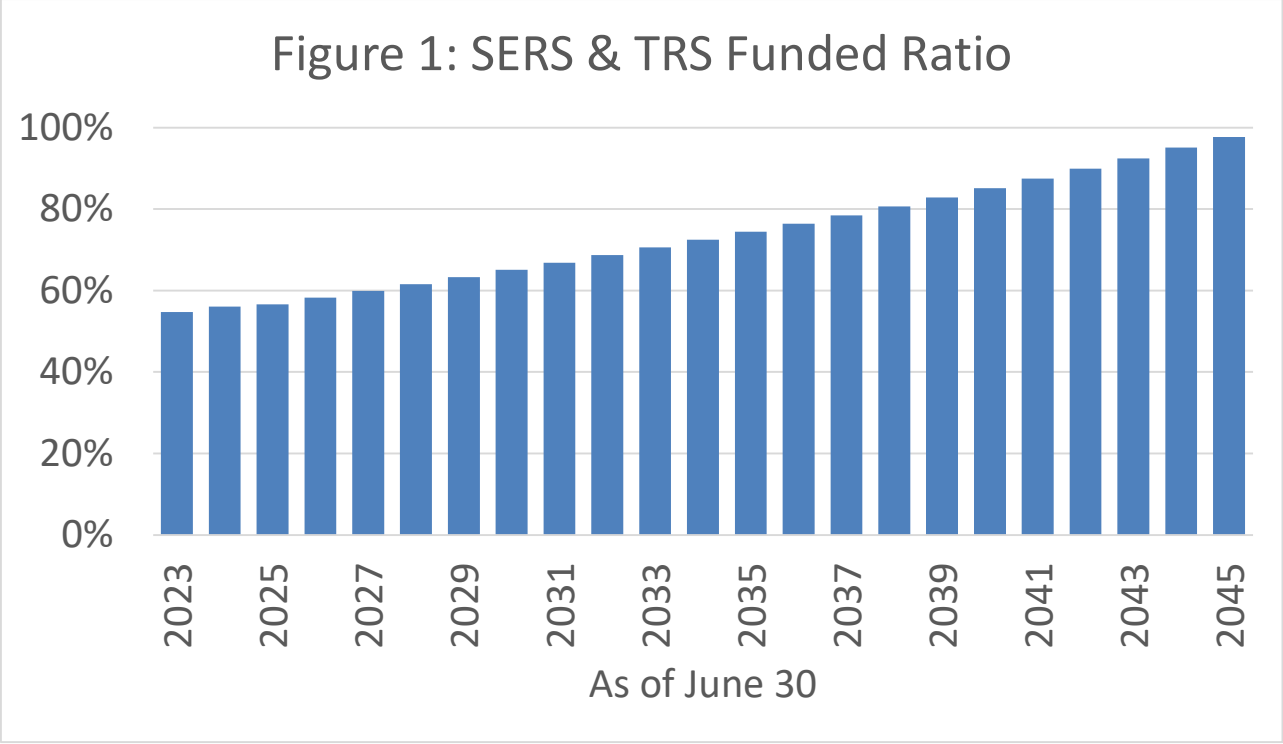
Key Findings from the analysis include:

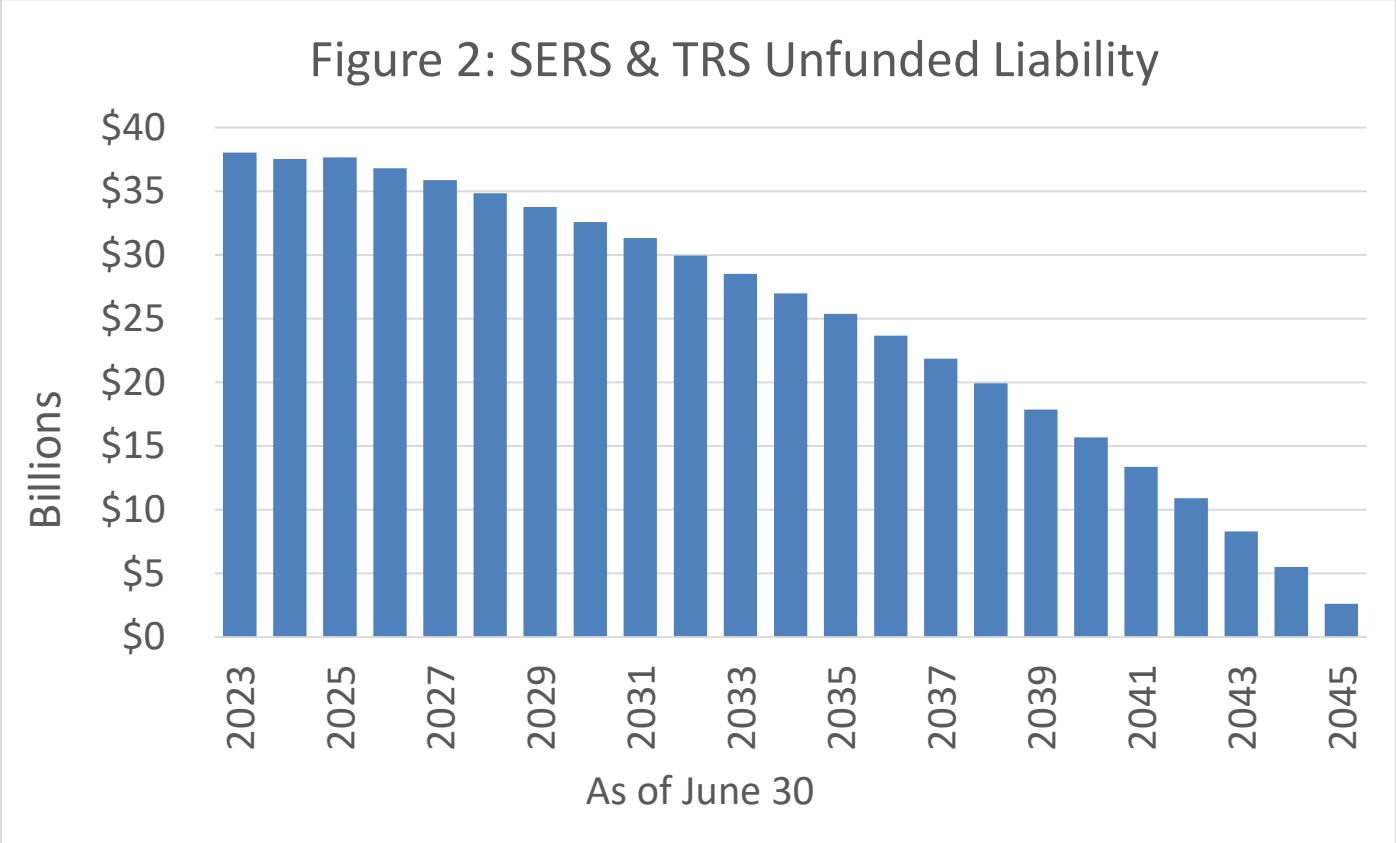
- Baseline contribution requirements are projected to grow from current levels of $3.6 billion in Fiscal Year 2024 to $4.0 billion by Fiscal Year 2027 and then remain stable for the next 20 years until the Unfunded Liability is paid off in Fiscal Year 2047. This combined result reflects modest contribution reductions for SERS over this period and modest growth for TRS.
- Without the recent supplemental payments totaling $1.8 billion, the annual contribution plateau would have occurred around $4.2 billion and cost the state an additional $3.8 billion over the projection period.
- Funding levels would continue to improve over time even when investments underperform if contributions are adjusted according to the funding policy. Maintaining baseline contribution patterns in an asset shock scenario, which includes a significant asset loss in Fiscal Year 2024, instead of following the Actuarially Determined Contribution (ADC) would lead to slower funding recovery for both SERS and TRS and persistently low operating cash flow ratio for SERS.
- In the near term, the asset shock scenario causes contribution requirements to grow faster than projected revenues over the next 5 years, potentially leading to budget crowd out. Increases at TRS drive this growth, increasing almost 10% per year on average from Fiscal Year 24-28 under these scenarios.

Baseline Projections

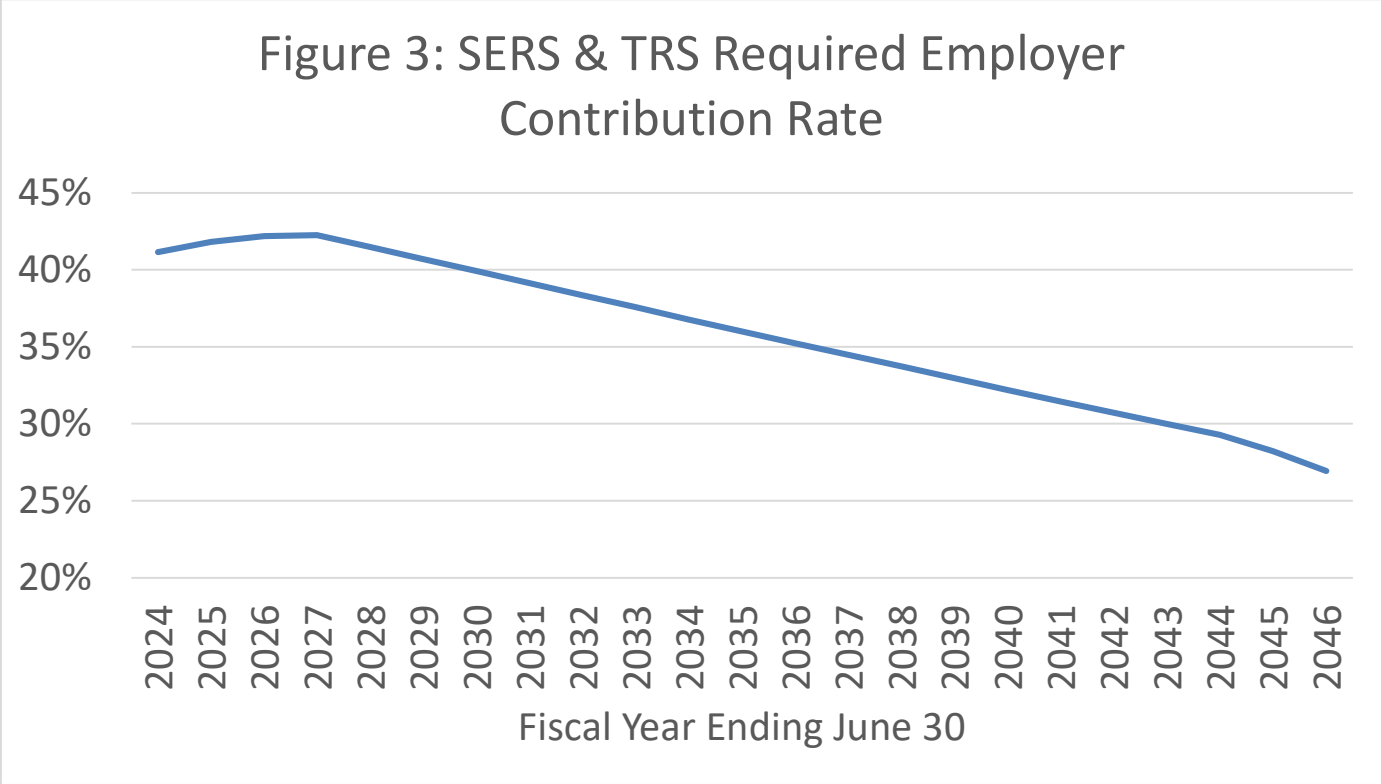
The starting point for this risk assessment is a 24-year baseline projection of combined SERS and TRS funding levels and required employer contributions under a scenario where all assumptions are met each year, including the 6.9% assumed rate of return on investments. As of June 30, 2022, SERS was 49% funded on an actuarial value basis with a total Unfunded Liability of $21 billion while TRS was 57% funded with an Unfunded Liability of $17 billion. On a market value basis, SERS was 46% funded with an Unfunded Liability of $22 billion while TRS was 54% funded with an Unfunded Liability of $18 billion.

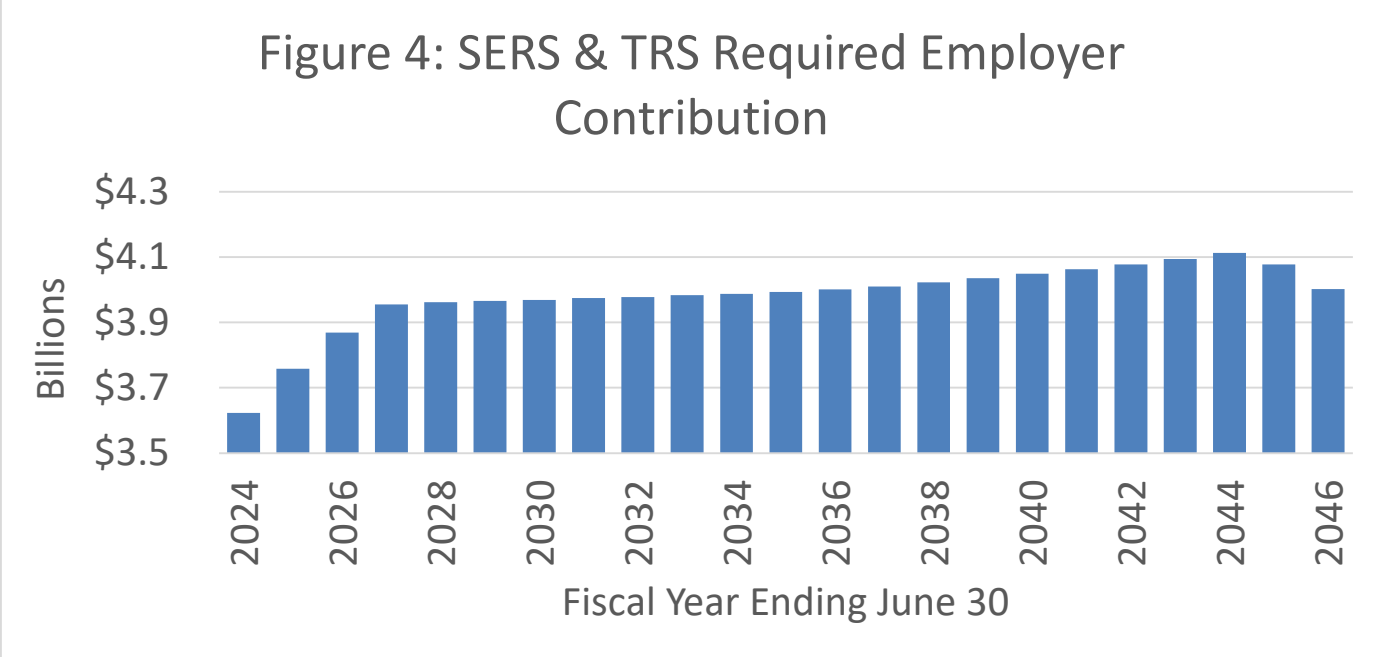
The State's Funded Ratio is projected to gradually and consistently increase from the current level to reach 100% in Fiscal Year 2046, as illustrated in Figure 1. The dollar amount of the Unfunded Liability, as shown in Figure 2, initially decreases slowly over the next few years, as the investment losses in Fiscal Year 22 are offset are offset by investment gains from Fiscal Year 21 and State contributions toward the Unfunded Liability. From there, the plans follow a steady path of paying down the Unfunded Liability until reaching full funding in Fiscal Year 2046.





Employer contributions increase as a percentage of payroll in the initial years of the projection period - rising from 41% in Fiscal Year 2024 to almost 47% in Fiscal Year 2030 before declining steadily as a percentage of payroll beginning in Fiscal Year 2031 until the Unfunded Liability is eliminated in Fiscal Year 2046. In dollar terms, the employer contributions will increase consistently





As noted previously, these projections include the recent supplemental payments totaling more than $1.8 Billion. Had these additional payments not occurred, annual contributions would have been approximately $170 million more each year, on average. Over 24 years, this translates to a savings of nearly $3.8 billion.

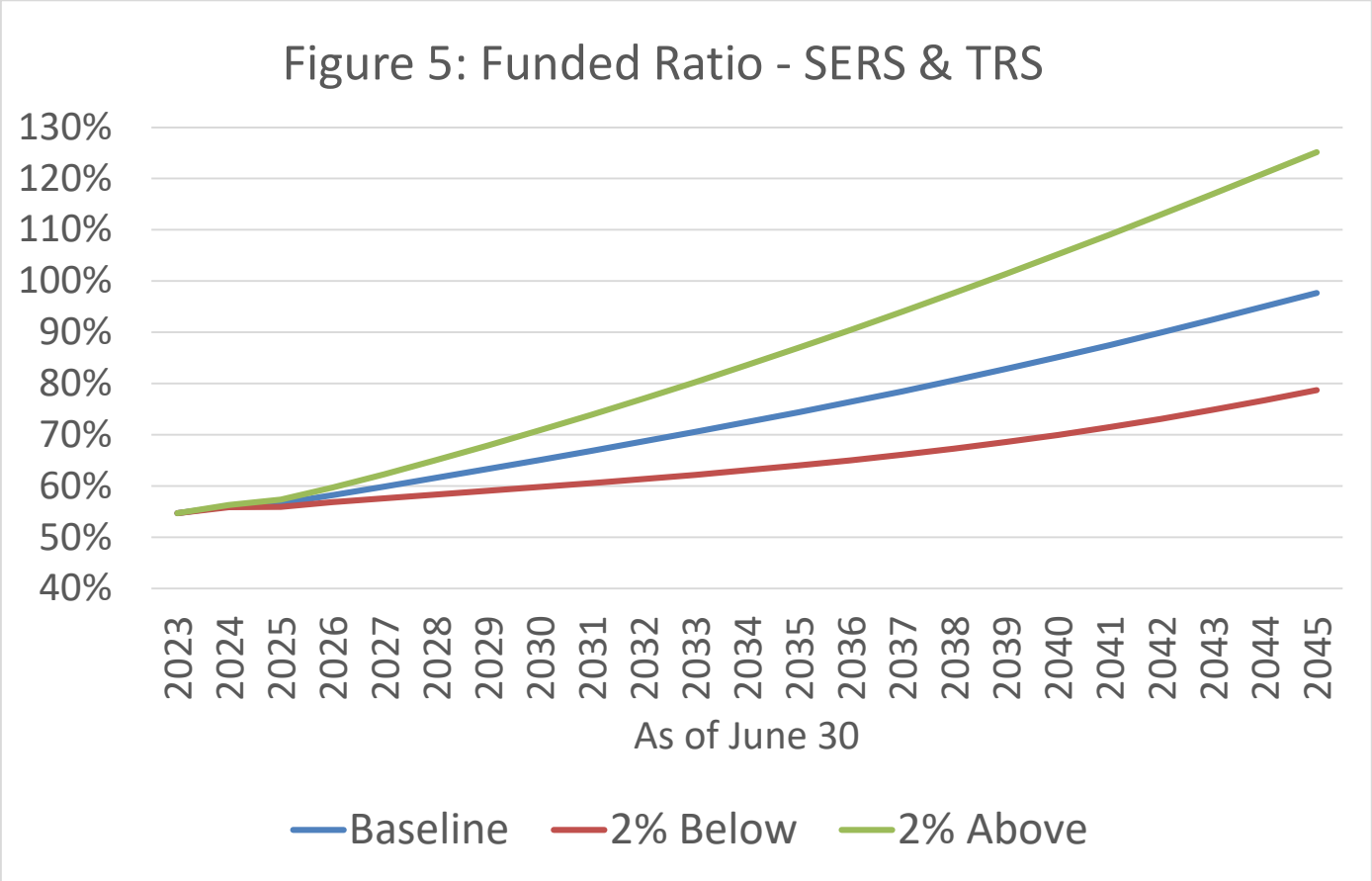
Stress Test Analysis

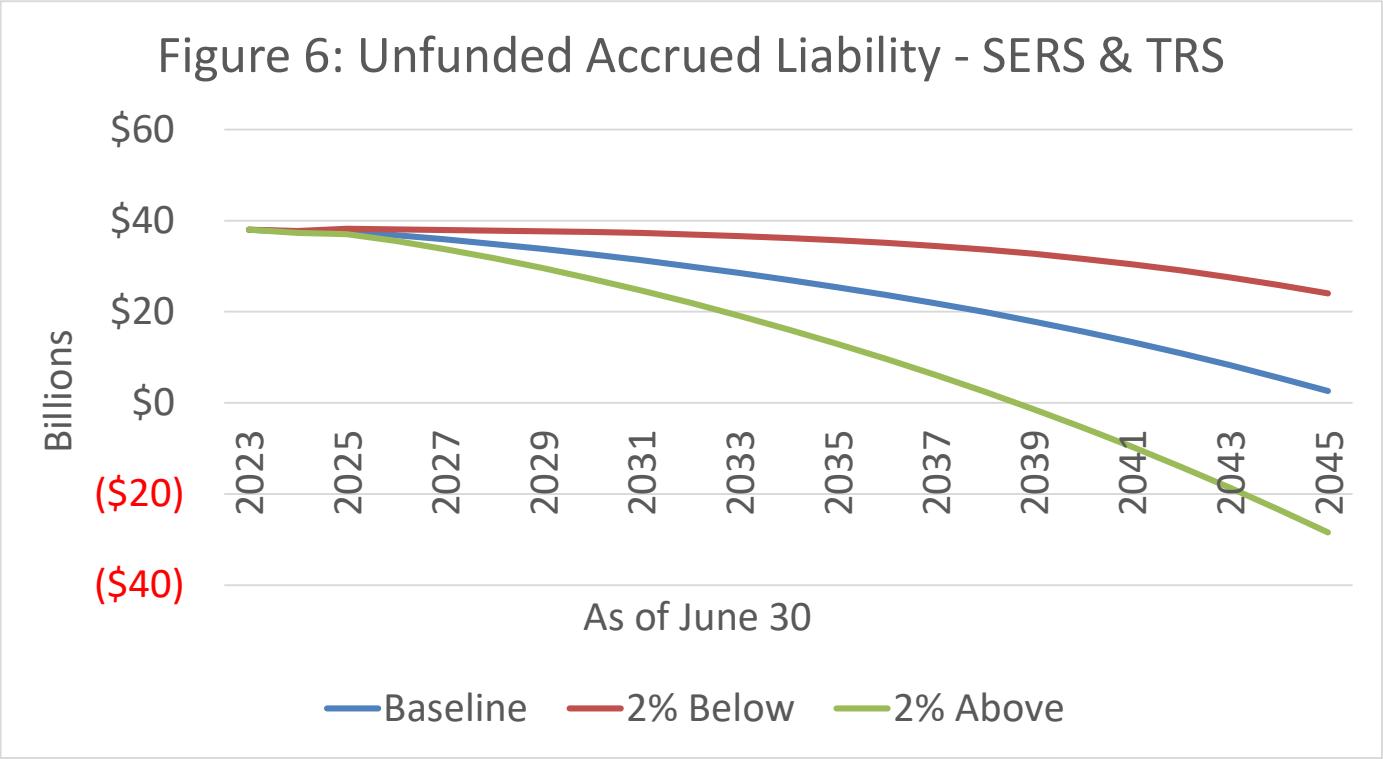
Traditionally, of all aspects of pension funding, investment returns have the largest impact on the plans' funded percentage and contribution requirements. This impact is even more significant if the plan sponsor does not continue to make the Actuarially Determined Contribution (ADC).

Scenario 1: Investment Returns Above and Below

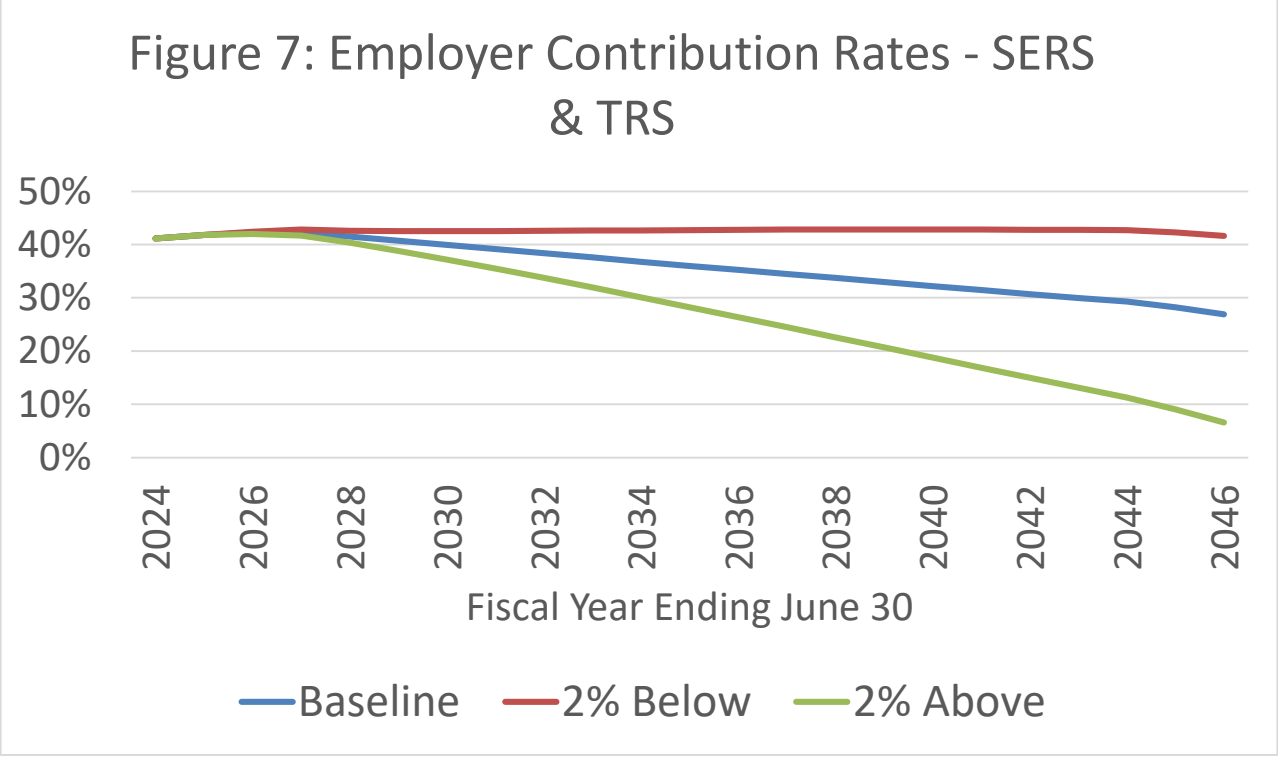
Assumptions	Baseline	2% Above	2% Below
Investment Return	6.9%	8.9%	4.9%
Contribution Behavior	Full ADC	Full ADC	Full ADC

Scenario 1 analyzes the sensitivity of pension funding levels and employer contribution requirements to investment returns above and below the 6.9% assumed rate.

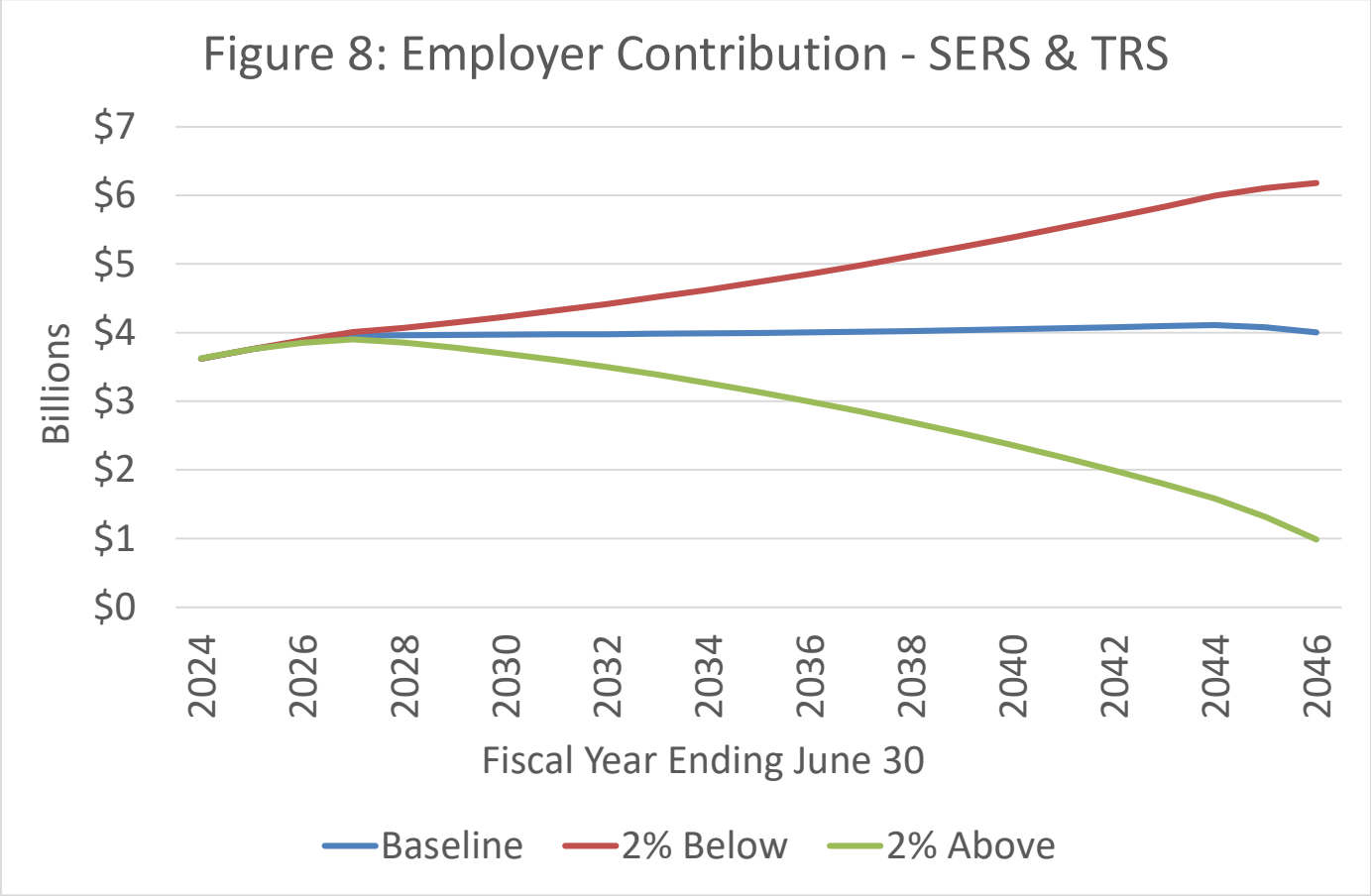




Combined funding levels improve under all three scenarios as asset levels rise when the State continues to make the ADC. The excess investment returns accelerate the full funding date by seven years in the 2% Above scenario. Funding in this projection peaks at 80% when returns fall short of the assumed rate. This is true even though the ADC is lower under the 2% Above scenario, and higher under the 2% Below scenario, as shown in Figure 7.



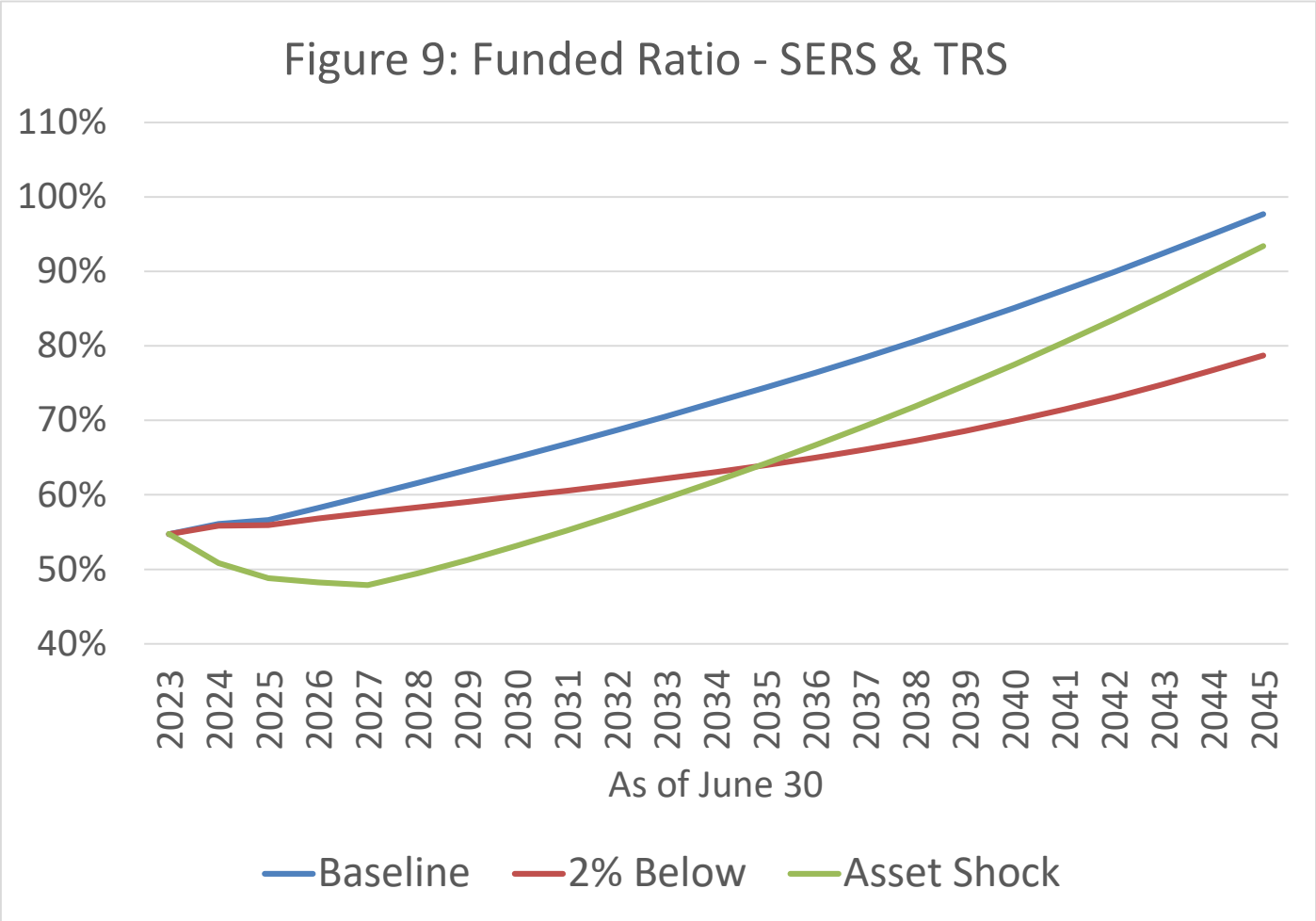
Contribution rates under the baseline and 2% Above scenarios decline from current levels while rates stabilize around 43% when returns fall short. In dollars over the life of the projection period, these rates generate total contributions that range from $67B in the 2% Above scenario to $111B in the 2% Below scenario.



Scenario 2: -20% Asset Shock

Assumptions	Baseline	2% Below	Asset Shock
Investment Return	6.9%	4.9%	FY 23: -20% FY 24-25: 10% FY 25-47: 6.9%
Contribution Behavior	Full ADC	Full ADC	Full ADC

Scenario 2 analyzes the impacts of a large investment loss and recovery period followed by expected returns over the long term.



The initial asset loss in Fiscal Year 2024 drives funding levels down to 48% by Fiscal Year 27, due to the phasing in of investment losses under the actuarial asset smoothing methodology, 7 percentage points below the baseline. Two years of positive 10% returns offset a portion of the initial loss and then funding steadily improves as contribution requirements rise and asset levels recover.

Figure 10: Unfunded Accrued Liability - SERS & TRS

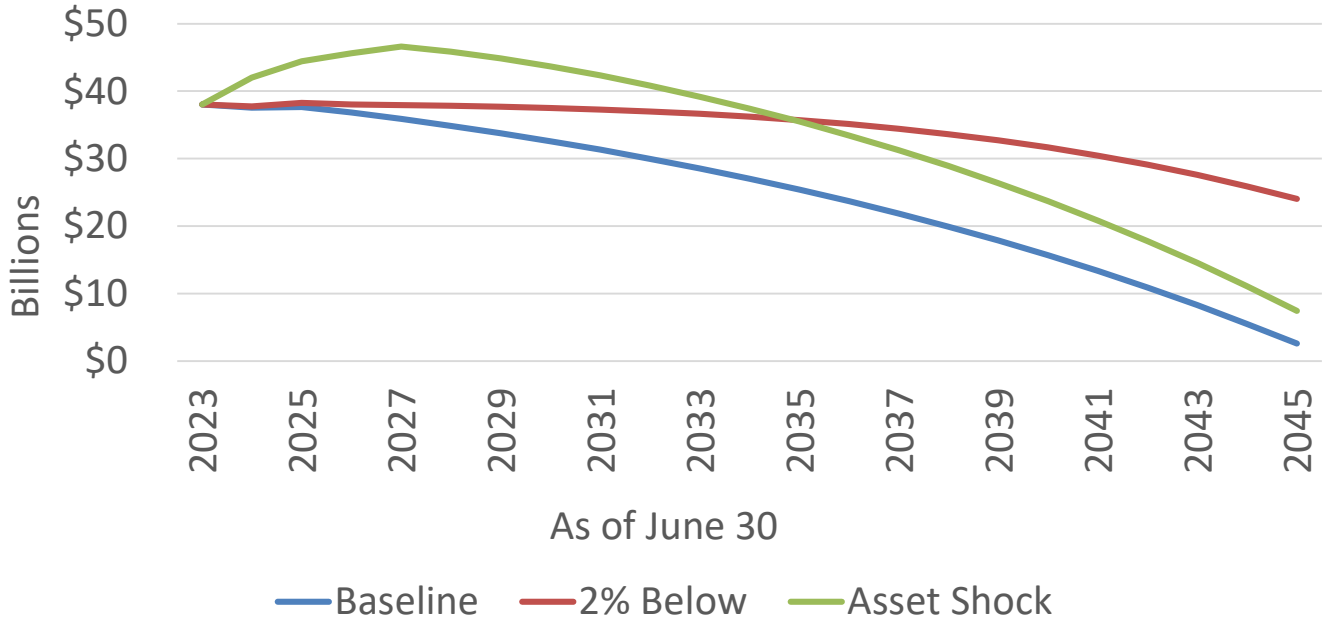
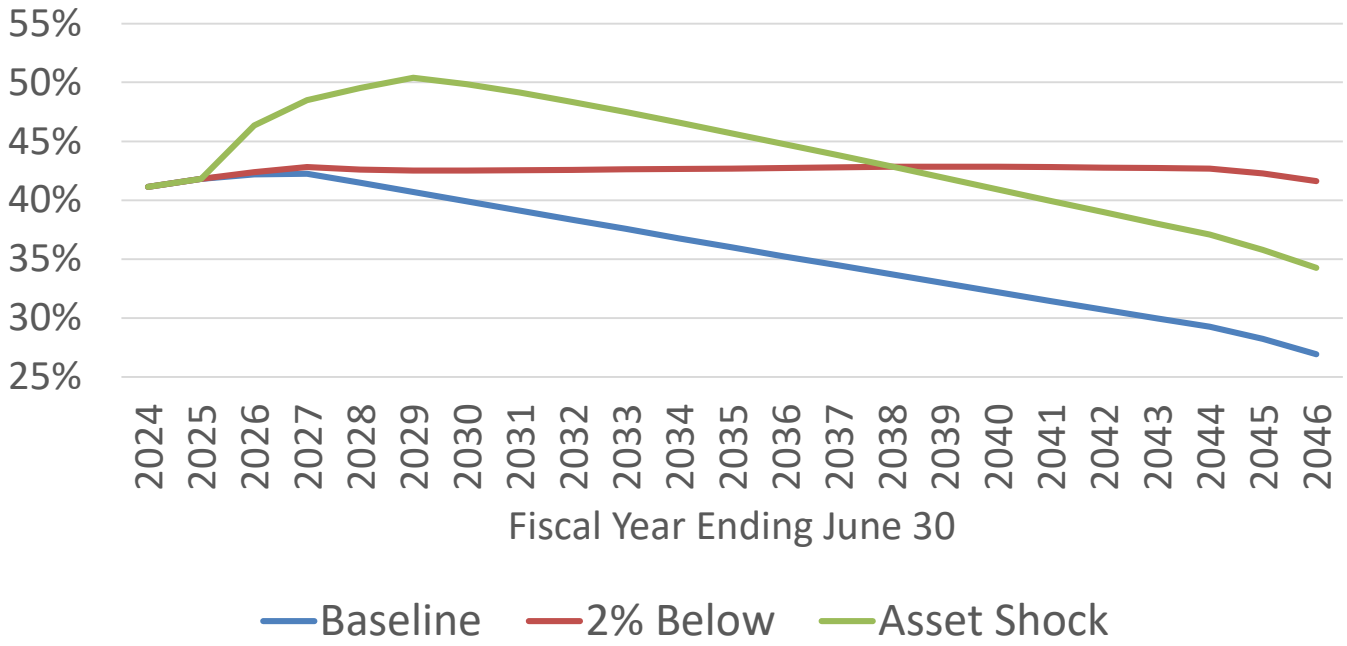
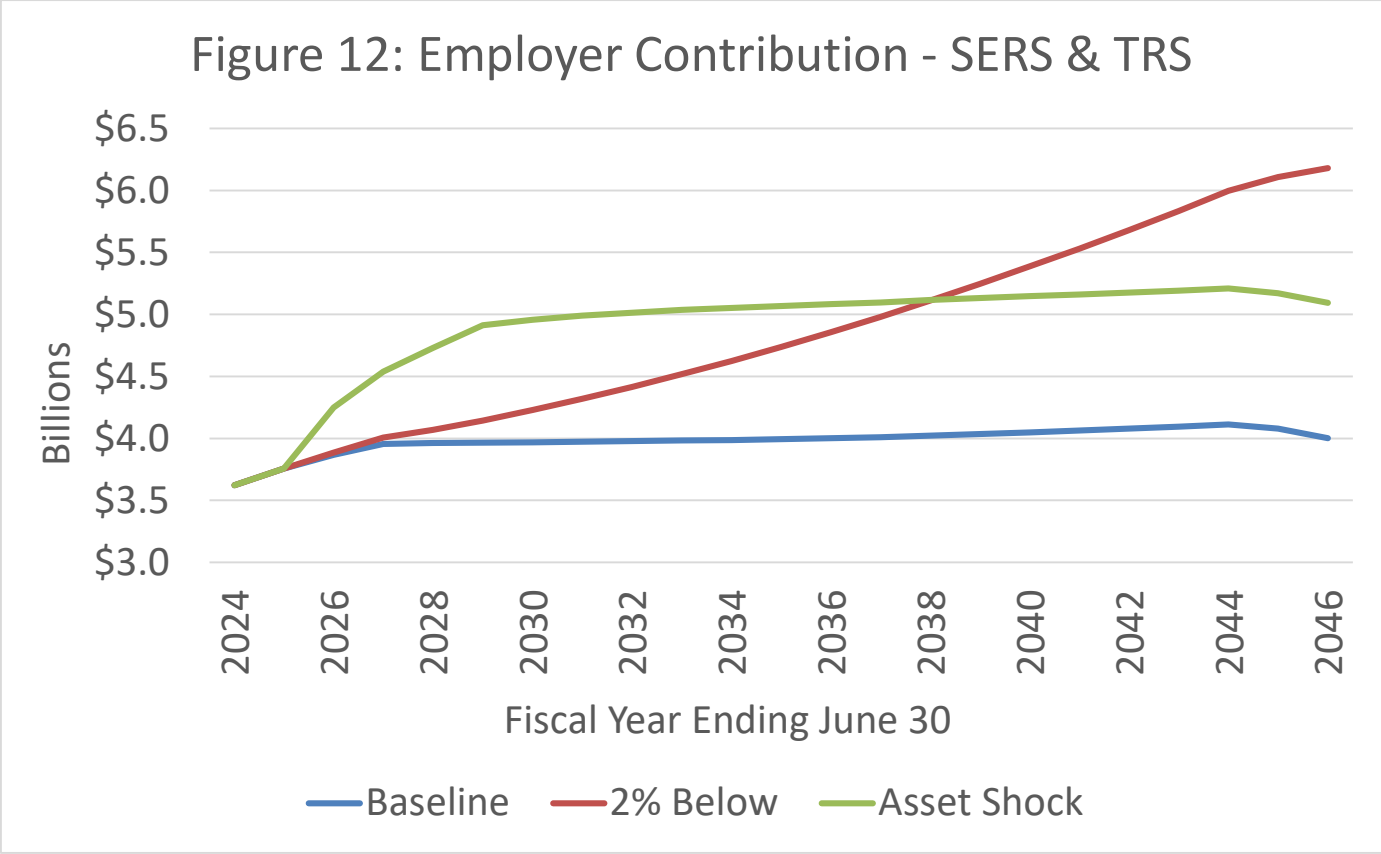


Figure 11: Employer Contribution Rates - SERS & TRS



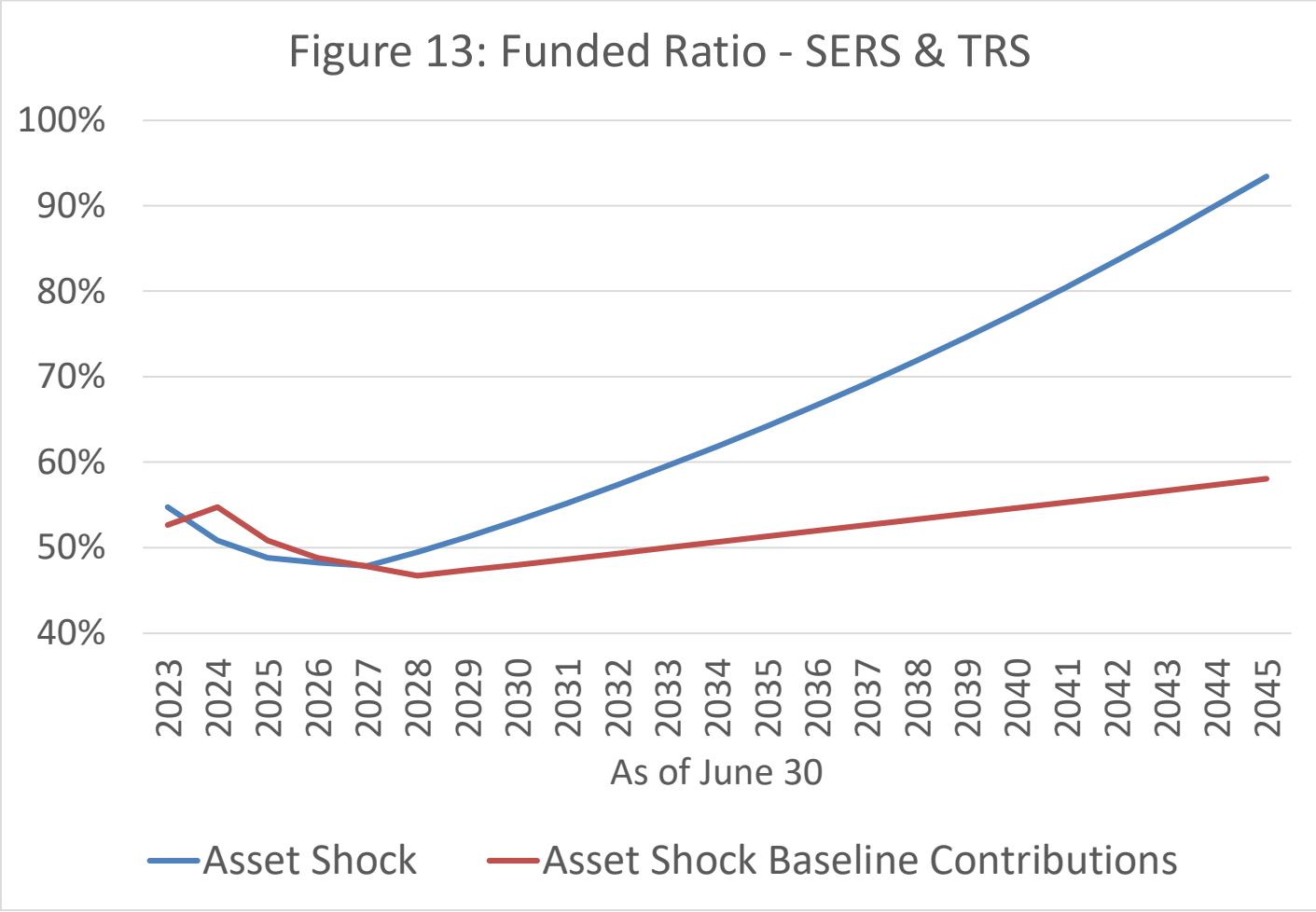
The asset shock causes contribution rates to rise from 41% in Fiscal Year 24 to 50% in Fiscal Year 2029 before declining back below 40% by Fiscal Year 2041. Combined total contributions under the Asset Shock scenario over the full projection period reach $112B.



Scenario 3: Asset Shock with Contribution Risk

Assumptions	Asset Shock, Full ADC	Asset Shock, Partial ADC
Investment Return	FY 23: -20% FY 24-25: 10% FY 25-47: 4.9%	FY 23: -20% FY 24-25: 10% FY 25-47: 4.9%
Contribution Behavior	Full ADC	Baseline Contributions

Scenario 3 analyzes the impact on plan funding under an asset shock scenario if contributions are held constant at baseline levels instead of rising as required under the funding policy.



The funded ratio and asset levels grow at a slower pace under the asset shock scenario if the State's contributions do not get adjusted above the baseline amounts, reaching just 58% funded by the end of the projection compared to 93% if contributions adjust. This analysis demonstrates the importance of making full payments as the additional contributions are necessary to achieve full funding.

Figure 14: Unfunded Accrued Liability - SERS & TRS

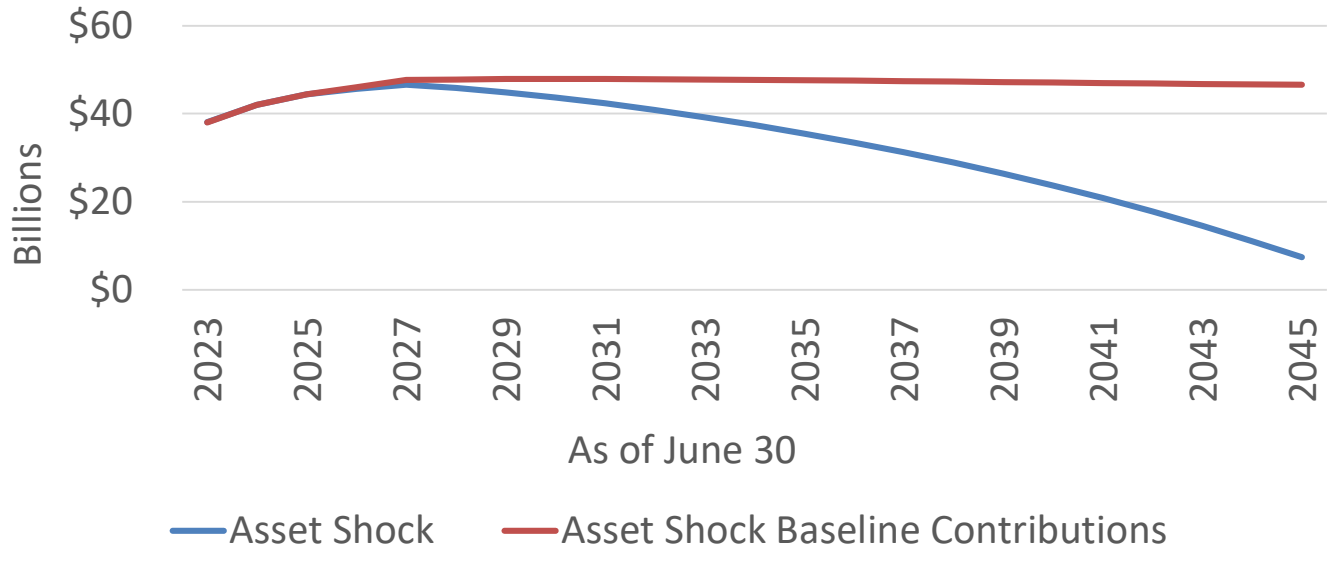
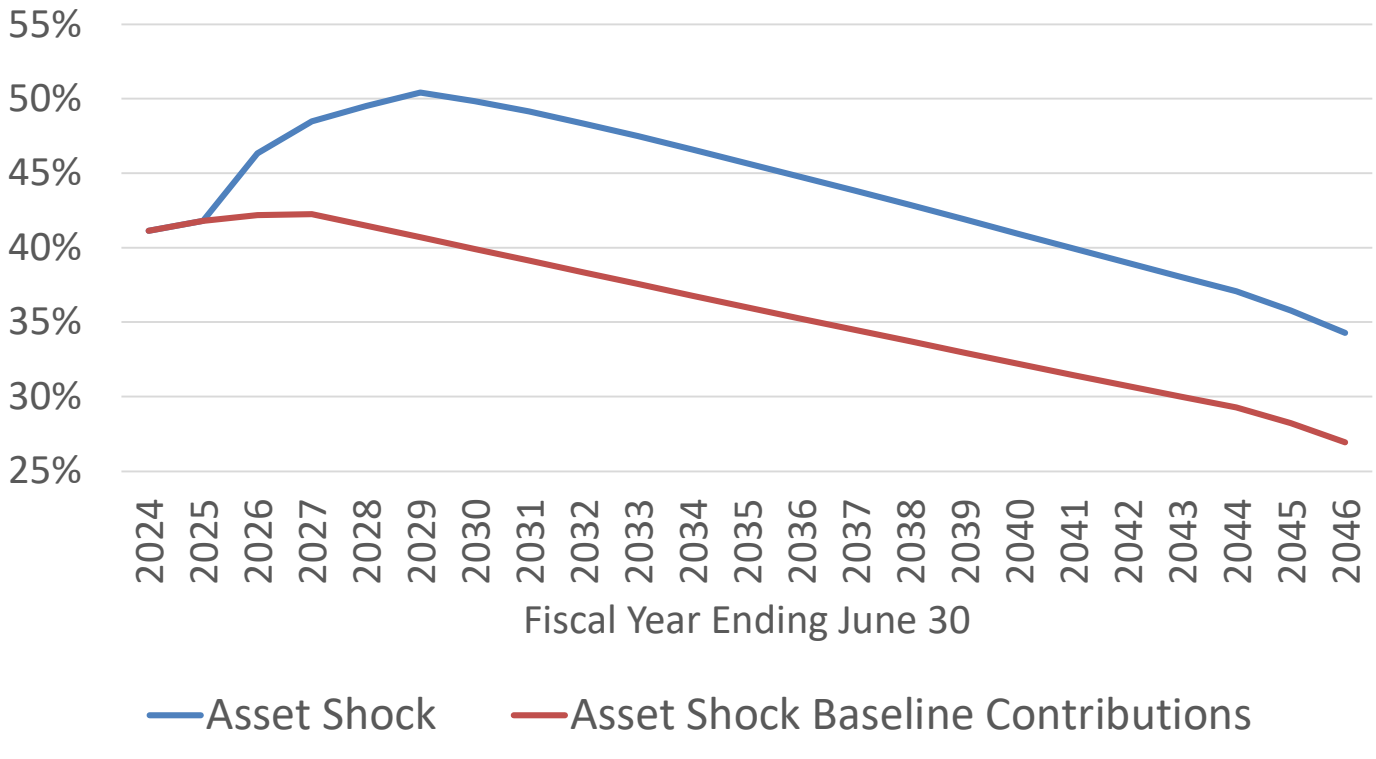
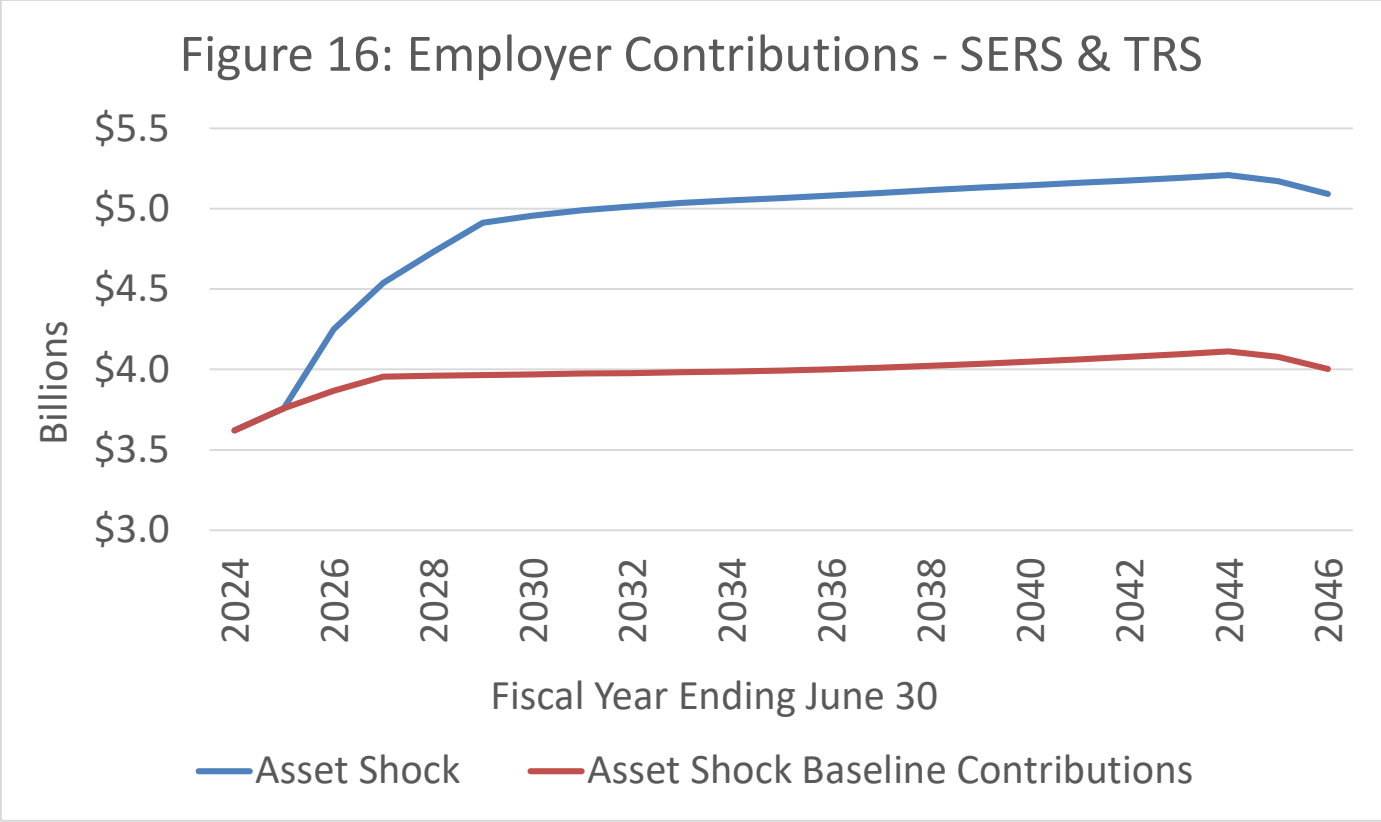


Figure 15: Employer Contribution Rates - SERS & TRS



For SERS, full contributions also prevent the operating cash flow ratio from reaching -5% in Fiscal Year 2031 and remaining at or below that level for more than a decade before improving toward the end of the projection period.



Scenario 4: High Retiree COLAs

Assumptions	Baseline	Max COLA
Annual COLA Amount	Plan Assumptions	FY 23-26: Maximum FY 27 – 47: Plan Assumptions
Investment Return	6.9%	6.9%
Contribution Behavior	Full ADC	Full ADC

Scenario 4 analyzes the impact of multiple years of retiree COLA benefits that exceed plan assumptions due to elevated levels of inflation. Retiree COLA benefits vary by plan and tier, but are generally tied to CPI with a cap as summarized below:

Table 1: SERS and TRS COLA Provisions

Plan	Tier	Plan Assumption	Maximum
SERS	Pre- 1980	3.25%	5%
	1980-1997	3%	3%
	1997-2011	2.6%	6%
	2011-2022	2.25%	7.5%
	Post 2022	1.95% 30-month COLA moratorium	7.5% 30-month COLA moratorium
TRS	Pre 1992	3%	5%
	1992-2007	2%	6%
	Post 2007	1.75%	5%

Figure 17: Funded Ratio - SERS & TRS

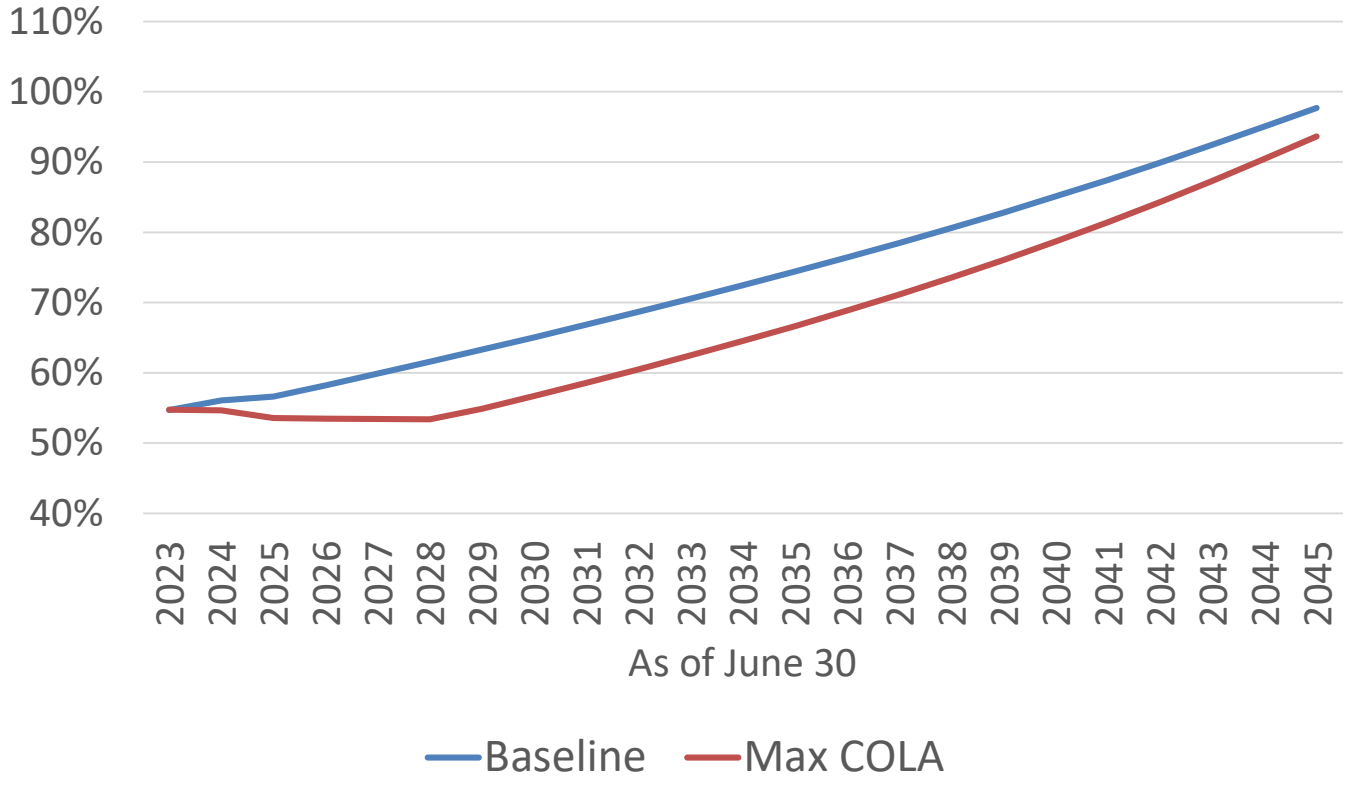
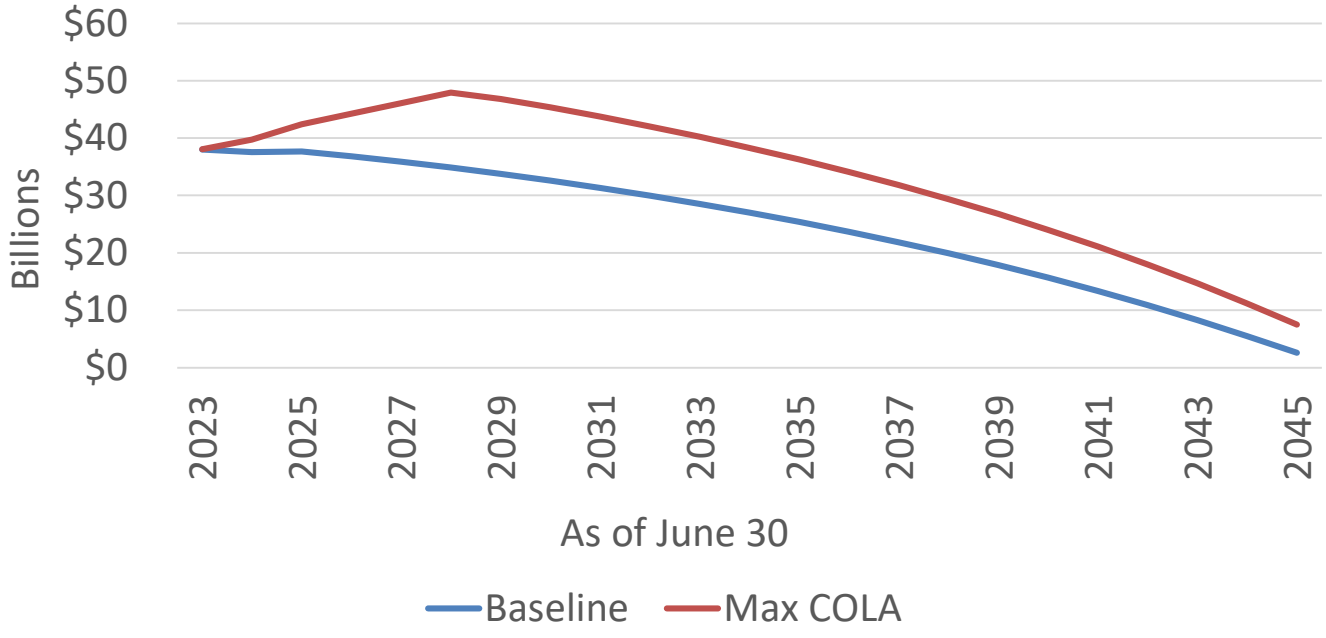
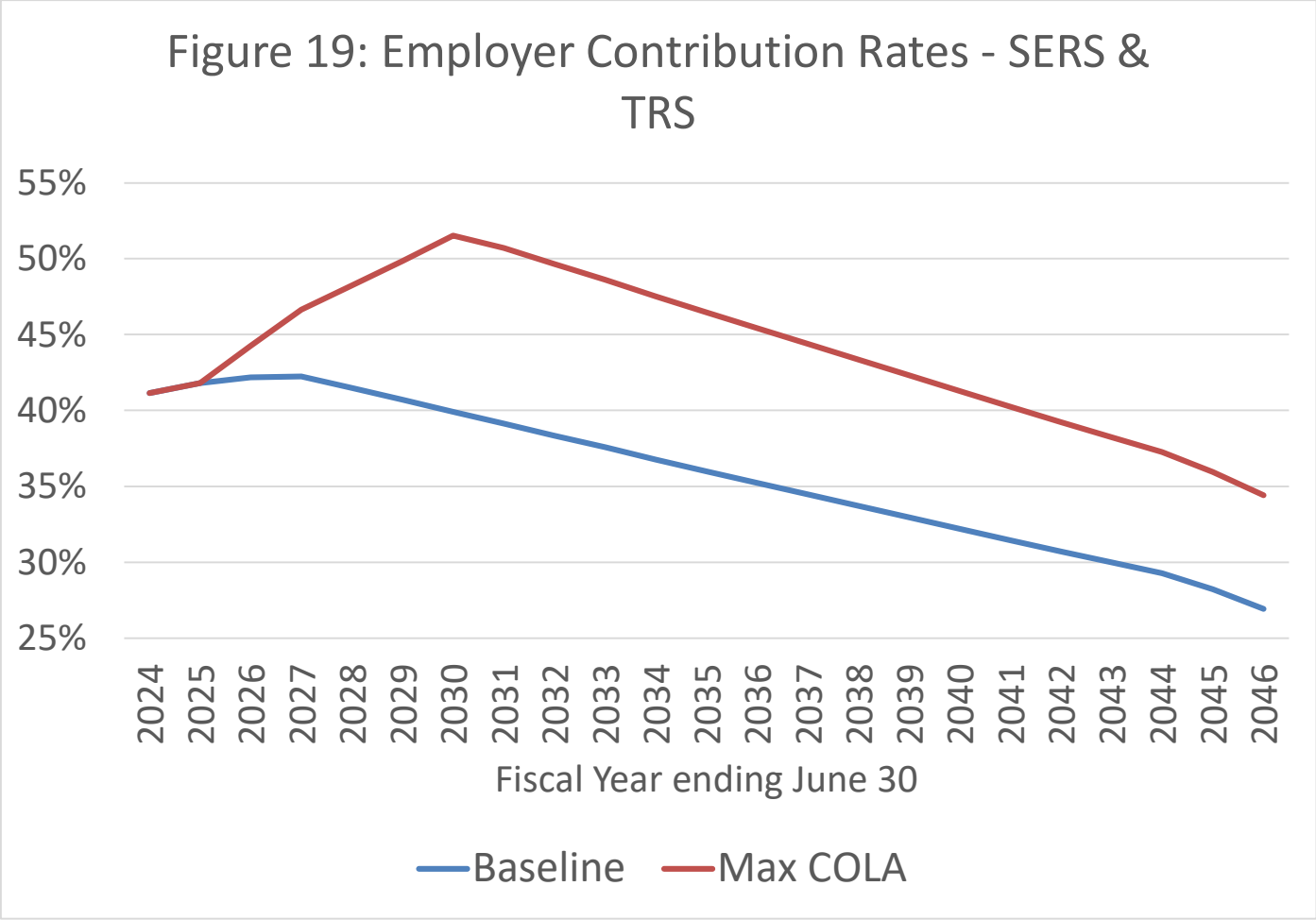
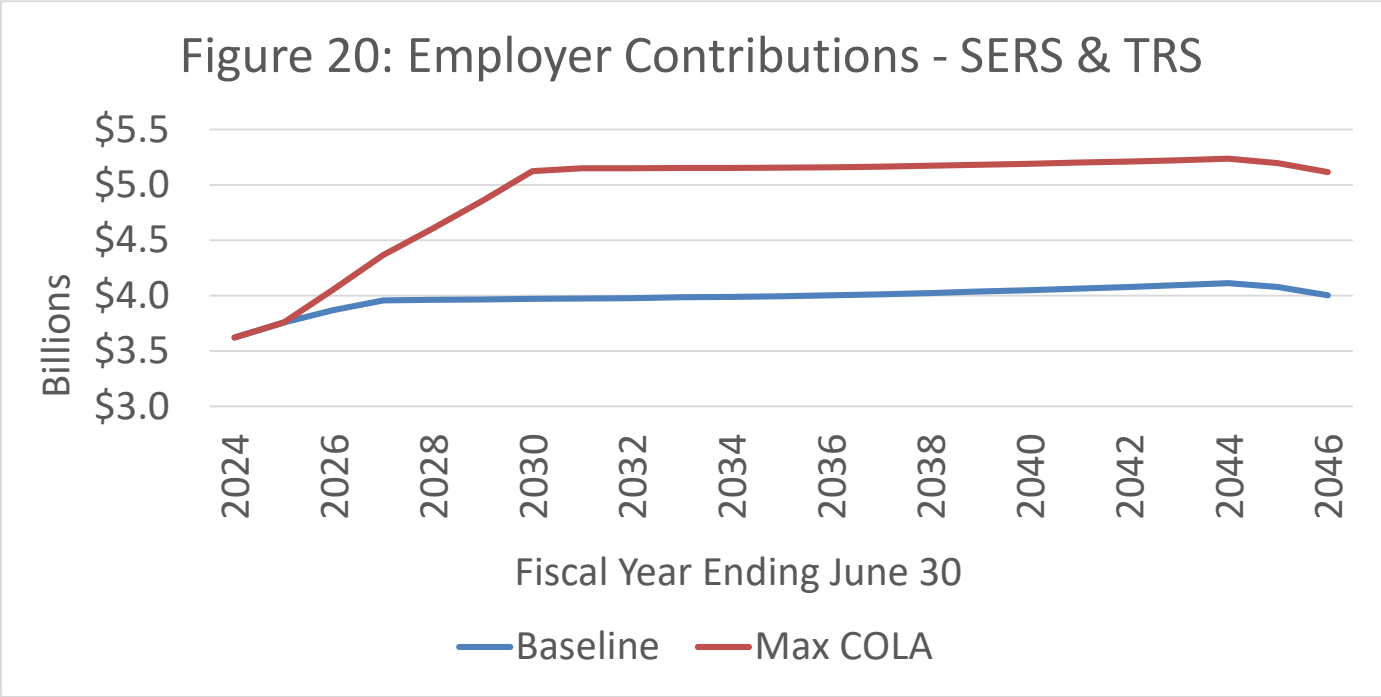


Figure 18: Unfunded Accrued Liability - SERS & TRS



Four years of maximum COLAs benefits have three impacts on plan funding relative to the baseline. This includes a higher actuarially accrued liability, higher benefit payments, and lower dollar amount of investment returns due to a smaller asset base. In combination, these factors cause funding levels to decline slightly to around 53% through Fiscal Year 2028 before rising over the next two decades and achieving parity with the baseline by 2048.



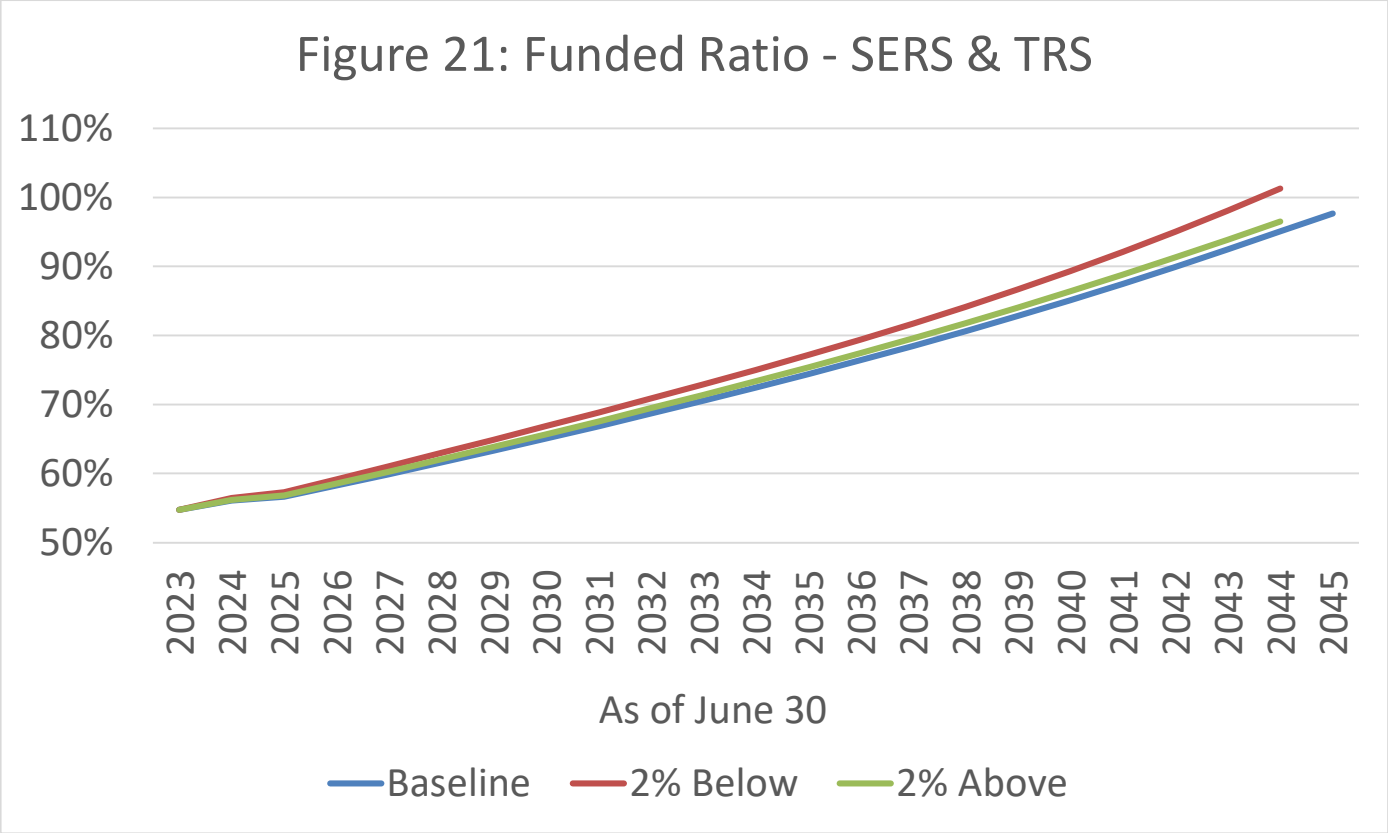


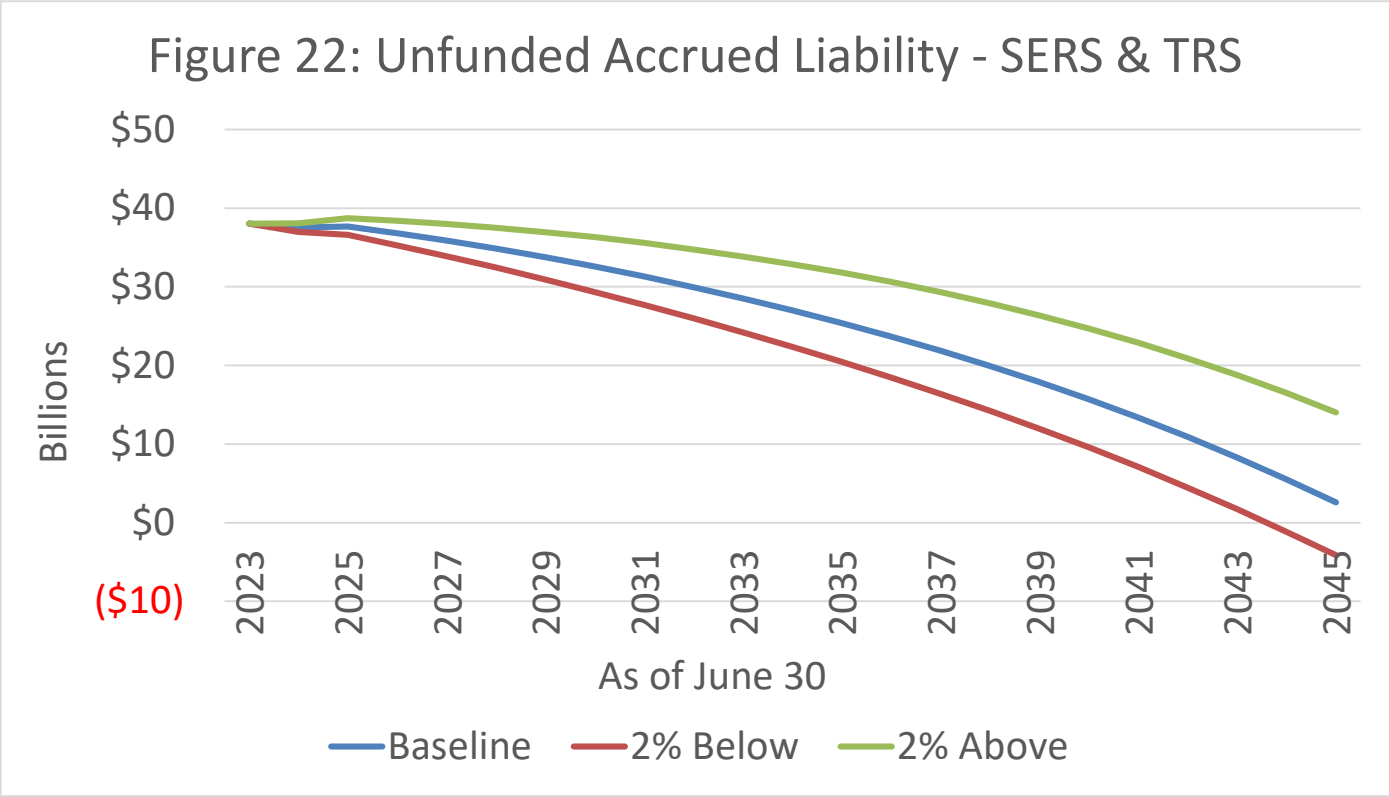
Lower funding levels cause contributions to rise above the baseline in a trajectory similar to the asset shock scenario, topping 51% of payroll in Fiscal Year 2030 before declining over the remainder of the projection.

Scenario 5: Salary Growth Above and Below

Assumptions	Baseline	2% Above	2% Below
Salary Growth	3%	5%	1%
Contribution Behavior	Full ADC	Full ADC	Full ADC

Scenario 5 analyzes the sensitivity of pension funding levels and employer contribution requirements to salary growth above and below the 3% assumed rate.





Pension benefits are related to plan participants salary at retirement. As pay increases, so do pension benefits, but only for current and future active employees. Pay increases higher than assumed will increase the Unfunded Liability and lower the Funded Ratio, as shown in Figure 21 and Figure 22. The movement, though, is not as great as for similar changes in investment return.

The dollar amount of Employer Contributions increases compared to the baseline when salary increases are higher than assumed and decreases compared to the baseline when salary increases are less than assumed. This is consistent with the analysis above. Larger benefits require greater contributions. The relationship is reversed when looking at Contributions as a Percent of Pay. While the Normal Cost remains relatively consistent as a percentage of pay, the contributions required to pay off the Unfunded Liability change less rapidly than the change in payroll, because benefits for current retirees are not affected by the salary changes. This can be seen in Figures 23 and 24.

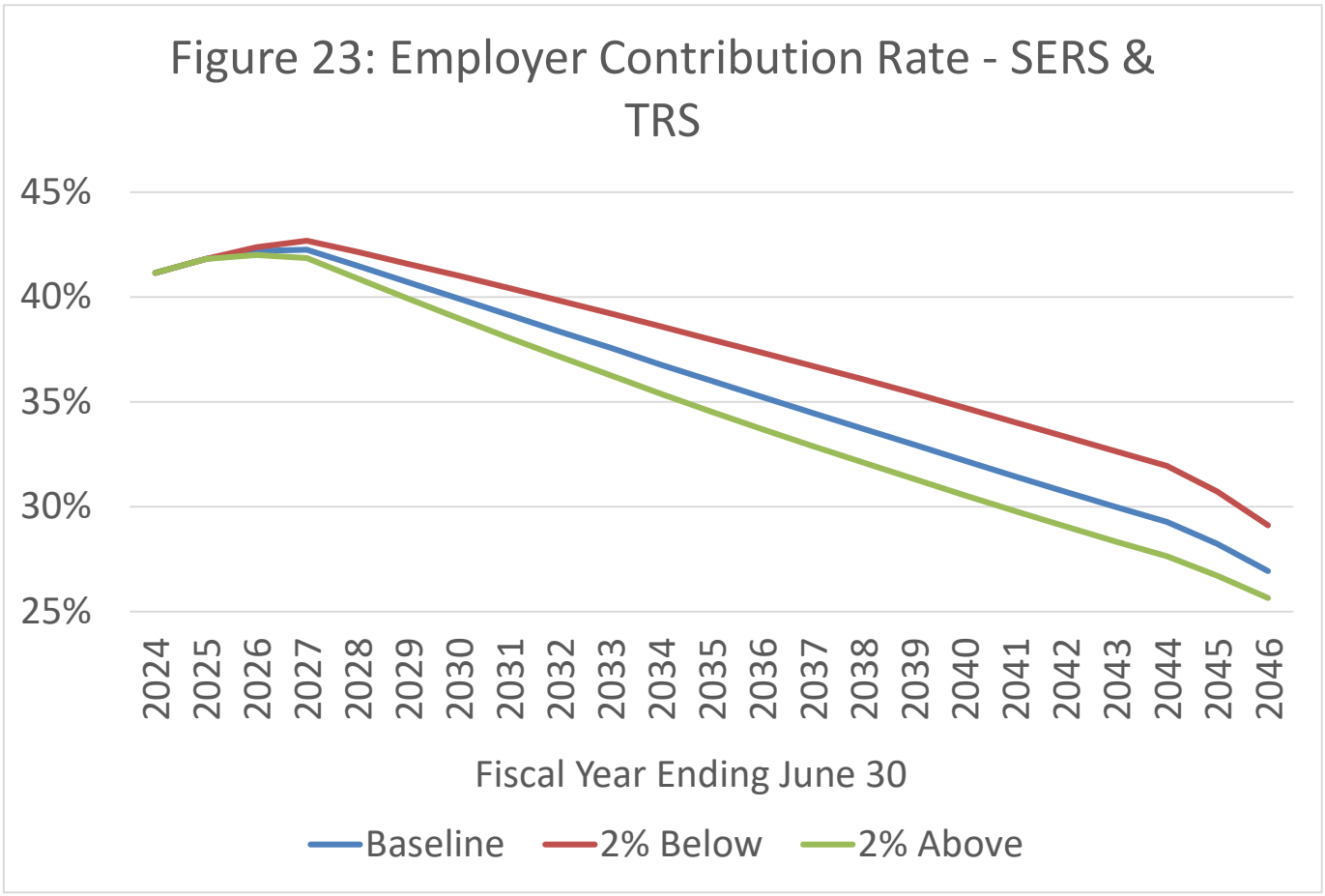


Figure 23: Employer Contribution Rate - SERS & TRS
45%
40%
35%
30%
25%
2024
2025
2026
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2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046
Fiscal Year Ending June 30
Baseline
2% Below
2% Above

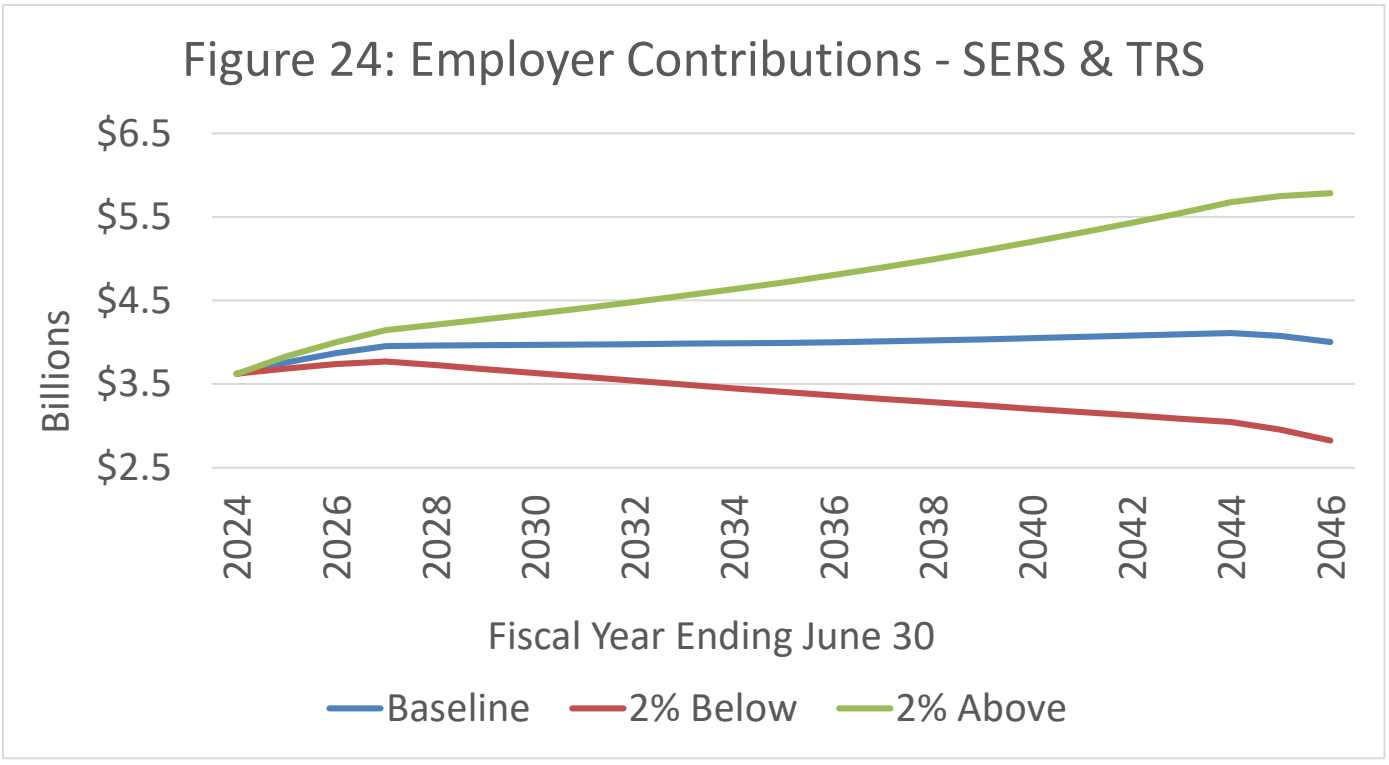


Figure 24: Employer Contributions - SERS & TRS
$6.5
$5.5
$4.5
$3.5
$2.5
Billions
2024
2026
2028
2030
2032
2034
2036
2038
2040
2042
2044
2046
Fiscal Year Ending June 30
Baseline
2% Below
2% Above

Sensitivity Analysis

Table 2 below summarizes the results of the SERS and TRS sensitivity analysis included in each plan's 2022 GASB 67 disclosure. This analysis demonstrates how changes in the plan investment return assumption impact the reported liability and funded ratio. In addition to the three discount rates included in GASB 67, we also include a measure of the liability at 3.69% which serves as an estimate of the Low Default Risk Obligation Measure (LDROM) outlined in the recently update ASOP No. 4.

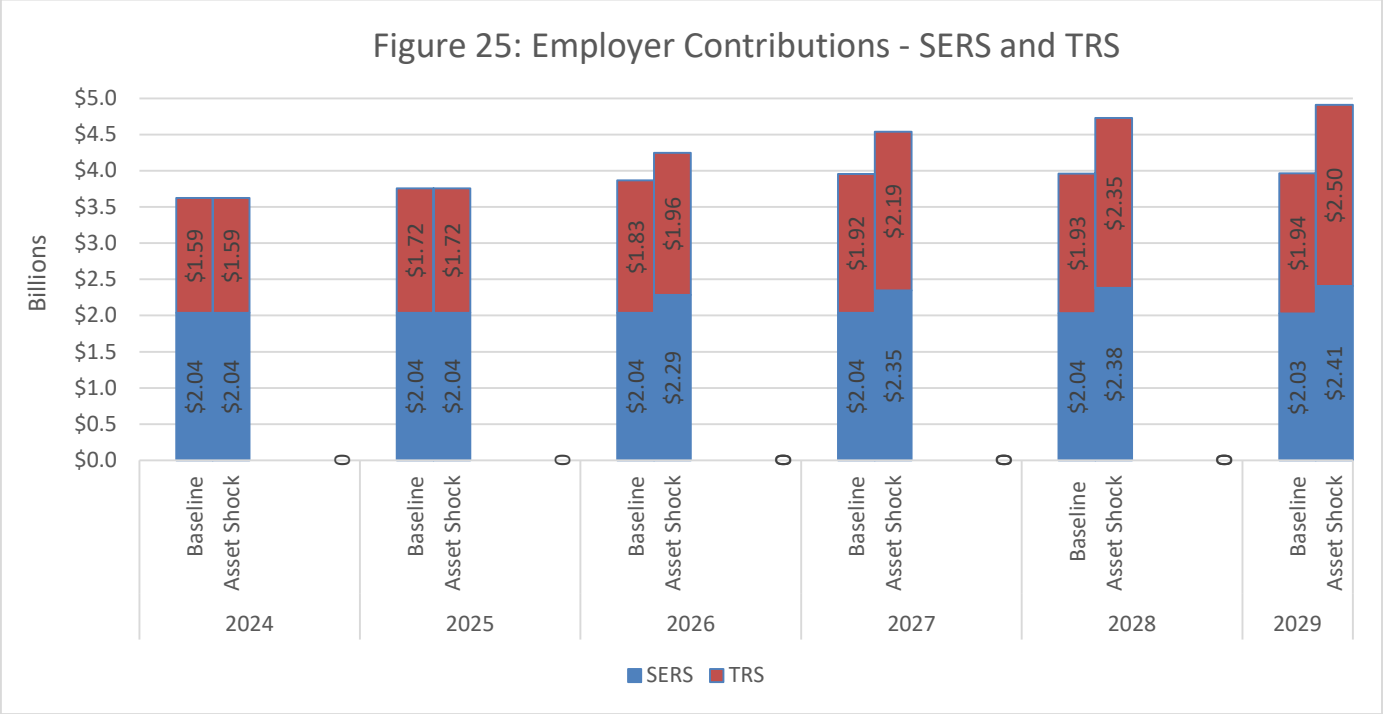
Table 2: 2022 Net Pension Liability Sensitivity Analysis to Alternative Investment Return Assumptions

$ in Millions	Expected Returns (6.9%)	High Returns (7.9%)	Low Returns (5.9%)	LDROM (3.69%)
SERS				
Assets	$18,603	$18,603	$18,603	$18,603
Liability	$40,656	$36,607	$45,513	$60,144
Net Pension Liability	$22,053	$18,004	$26,910	$41,541
Funded Ratio	46%	51%	41%	31%
TRS				
Assets	$21,549	$21,549	$21,549	$21,549
Liability	$39,860	$35,656	$44,920	$60,826
Net Pension Liability	$19,751	$14,107	$23,371	$39,277
Funded Ratio	54%	60%	48%	35%

Source: SERS 2022 GASB 67. TRS 2022 GASB 67. GovInvest analysis.

Budget Impact Analysis

For budget planning purposes it can be useful to take a closer look at the period of rising contribution rates under the asset shock scenario to understand how those translate to required annual payments. Chart 1 below compares annual employer contributions for SERS and TRS under baseline and asset shock from Fiscal Year 2024-2029.



The combined contribution in the baseline totals $23.1 billion over 6 years with annual contributions ranging from $3.6B to $4.0B. SERS payments are stable in the Baseline projection at $2.0 B, while TRS grows throughout.

In the asset shock the SERS payments jump by 12% in Fiscal Year 2026, and another 3% in Fiscal Year 2027, followed by increases of approximately 1% per year through Fiscal Year 2029 while the average annual contribution increase for TRS accelerates from 4% to 10%.

To provide perspective around the scale of these increases and potential impact to the Connecticut budget overall, table 3 presents the combined annual employer contribution as a share of general fund revenue. General fund revenues for Fiscal Years 2024-2028 reflect the projections included in a letter to the Governor from the Office of Policy and Management (OPM) and the Office of Fiscal Analysis (OFA) dated November 13, 2023. To extend the projection an additional year, GovInvest applied the Fiscal Year 28 annual growth rate of 2.65% to Fiscal Year 2029.

Table 3: SERS & TRS Pension Costs Compared to General Fund Revenue

	GF Revenue ($ Billions)	Contributions ($ Billions)		Contributions (% of revenue)	
		Baseline	*Asset Shock*	*Baseline*	*Asset Shock*
FY 2024	$22.5	$3.6	$3.6	16.0%	16.0%
FY 2025	$23.1	$3.8	$3.8	16.5%	16.5%
FY 2026	$23.5	$3.9	$4.2	16.6%	17.9%
FY 2027	$24.0	$4.2	$4.5	17.5%	18.8%
FY 2028	$24.7	$4.3	$4.7	17.4%	19.0%
FY 2029	$25.3	$4.5	$4.9	17.8%	19.4%

Source: *Connecticut OPM & OFA letter to Governor dated November 11, 2023, and GovInvest analysis*.
Note*: Assumes the 2.65% revenue growth in FY 2028 continues in FY 2029.*

As shown in Table 3, baseline pension contributions increase moderately during this time period from 16.0% to 17.8% of revenue, while they grow more rapidly to nearly 19.4% under the asset shock scenario.

This highlights a risk of potential budget crowd as contributions would need to rise faster than revenue to pay down the additional unfunded liabilities resulting from the 20% asset shock loss.

Exhibit 1

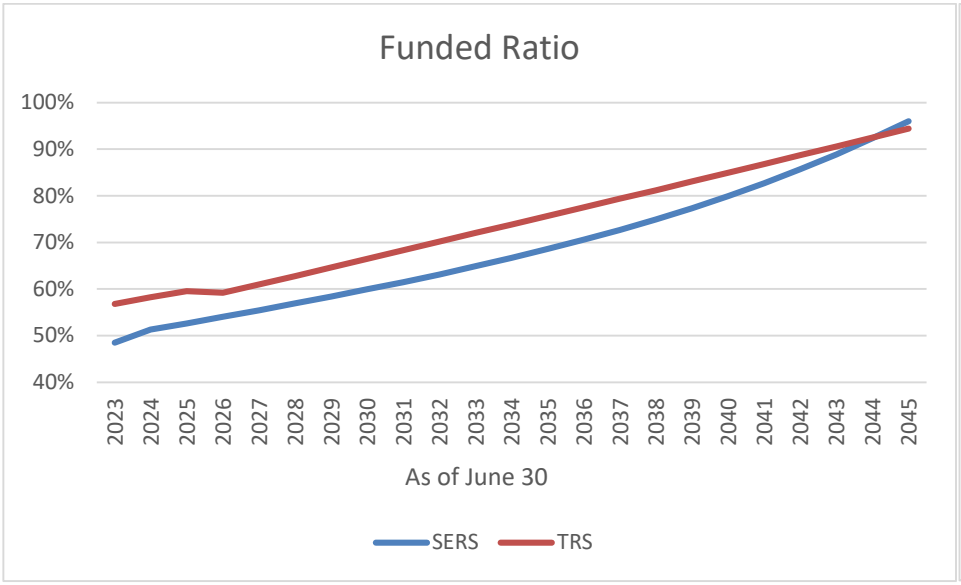
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

Scenario: Baseline

$ Billions

	SERS									TRS								
		Funding - Market Value				Employer Cost					Funding - Market Value				Employer Cost			
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage
2023	$ 4.0	$ 40.7	$ 19.7	$ 20.9	49%	$ 2.0	$ (2.8)	$ 1.3	51.0%	$ 4.8	$ 40.0	$22.7	$17.3	56.8%	$ 1.6	$ (2.5)	$ 1.7	32.9%
2024	$ 4.0	$ 42.3	$ 21.7	$ 20.6	51%	$ 2.0	$ (2.8)	$ 1.4	50.4%	$ 4.9	$ 41.7	$24.3	$17.4	58.3%	$ 1.7	$ (2.6)	$ 0.9	34.8%
2025	$ 4.1	$ 42.8	$ 22.5	$ 20.3	53%	$ 2.0	$ (2.9)	$ 1.5	49.8%	$ 5.1	$ 42.6	$25.4	$17.3	59.5%	$ 1.8	$ (2.6)	$ 1.8	36.0%
2026	$ 4.1	$ 43.2	$ 23.3	$ 19.9	54%	$ 2.0	$ (3.0)	$ 1.5	49.2%	$ 5.2	$ 43.6	$25.8	$17.8	59.2%	$ 1.9	$ (2.7)	$ 1.8	36.7%
2027	$ 4.2	$ 43.5	$ 24.1	$ 19.4	55%	$ 2.0	$ (3.1)	$ 1.6	48.6%	$ 5.4	$ 44.6	$27.2	$17.4	61.0%	$ 1.9	$ (2.7)	$ 1.9	35.9%
2028	$ 4.2	$ 43.8	$ 24.9	$ 18.9	57%	$ 2.0	$ (3.1)	$ 1.7	47.9%	$ 5.5	$ 45.6	$28.6	$17.0	62.8%	$ 1.9	$ (2.8)	$ 2.1	35.1%
2029	$ 4.3	$ 44.1	$ 25.7	$ 18.3	58%	$ 2.0	$ (3.2)	$ 1.7	47.3%	$ 5.7	$ 46.7	$30.2	$16.5	64.6%	$ 1.9	$ (2.9)	$ 2.2	34.4%
2030	$ 4.3	$ 44.3	$ 26.5	$ 17.7	60%	$ 2.0	$ (3.3)	$ 1.8	46.5%	$ 5.8	$ 47.8	$31.7	$16.0	66.5%	$ 2.0	$ (2.9)	$ 2.3	33.6%
2031	$ 4.4	$ 44.4	$ 27.3	$ 17.1	61%	$ 2.0	$ (3.3)	$ 1.9	45.7%	$ 6.0	$ 48.9	$33.4	$15.5	68.3%	$ 2.0	$ (3.0)	$ 2.4	32.9%
2032	$ 4.5	$ 44.5	$ 28.1	$ 16.4	63%	$ 2.0	$ (3.4)	$ 1.9	44.9%	$ 6.1	$ 50.0	$35.1	$14.9	70.2%	$ 2.0	$ (3.1)	$ 2.5	32.2%
2033	$ 4.6	$ 44.5	$ 28.8	$ 15.6	65%	$ 2.0	$ (3.4)	$ 2.0	44.0%	$ 6.3	$ 51.2	$36.9	$14.3	72.0%	$ 2.0	$ (3.2)	$ 2.6	31.5%
2034	$ 4.6	$ 44.4	$ 29.6	$ 14.8	67%	$ 2.0	$ (3.5)	$ 2.0	43.1%	$ 6.5	$ 52.4	$38.7	$13.7	73.8%	$ 2.0	$ (3.3)	$ 2.8	30.9%
2035	$ 4.7	$ 44.4	$ 30.4	$ 14.0	69%	$ 2.0	$ (3.5)	$ 2.1	42.2%	$ 6.6	$ 53.6	$40.6	$13.0	75.7%	$ 2.0	$ (3.3)	$ 2.9	30.3%
2036	$ 4.8	$ 44.3	$ 31.3	$ 13.0	71%	$ 2.0	$ (3.5)	$ 2.2	41.3%	$ 6.8	$ 54.9	$42.5	$12.3	77.5%	$ 2.0	$ (3.4)	$ 3.0	29.7%
2037	$ 4.9	$ 44.2	$ 32.1	$ 12.1	73%	$ 2.0	$ (3.5)	$ 2.2	40.3%	$ 7.0	$ 56.2	$44.6	$11.6	79.4%	$ 2.0	$ (3.5)	$ 3.2	29.1%
2038	$ 5.0	$ 44.0	$ 33.0	$ 11.0	75%	$ 2.0	$ (3.5)	$ 2.3	39.3%	$ 7.2	$ 57.5	$46.7	$10.8	81.2%	$ 2.1	$ (3.6)	$ 3.3	28.5%
2039	$ 5.1	$ 43.9	$ 33.9	$ 9.9	77%	$ 2.0	$ (3.6)	$ 2.4	38.3%	$ 7.4	$ 58.9	$48.9	$10.0	83.1%	$ 2.1	$ (3.7)	$ 3.5	28.0%
2040	$ 5.3	$ 43.7	$ 34.9	$ 8.8	80%	$ 2.0	$ (3.5)	$ 2.4	37.3%	$ 7.6	$ 60.3	$51.2	$ 9.1	84.9%	$ 2.1	$ (3.8)	$ 3.7	27.4%
2041	$ 5.4	$ 43.5	$ 36.0	$ 7.5	83%	$ 2.0	$ (3.5)	$ 2.5	36.3%	$ 7.9	$ 61.8	$53.6	$ 8.2	86.8%	$ 2.1	$ (3.9)	$ 3.8	26.8%
2042	$ 5.5	$ 43.3	$ 37.1	$ 6.2	86%	$ 2.0	$ (3.5)	$ 2.6	35.3%	$ 8.1	$ 63.3	$56.2	$ 7.2	88.7%	$ 2.1	$ (4.0)	$ 4.0	26.3%
2043	$ 5.7	$ 43.2	$ 38.4	$ 4.8	89%	$ 2.0	$ (3.5)	$ 2.7	34.4%	$ 8.4	$ 64.9	$58.8	$ 6.1	90.6%	$ 2.2	$ (4.1)	$ 4.2	25.8%
2044	$ 5.8	$ 43.1	$ 39.8	$ 3.3	92%	$ 1.9	$ (3.4)	$ 2.8	32.5%	$ 8.6	$ 66.5	$61.6	$ 5.0	92.5%	$ 2.2	$ (4.2)	$ 4.4	25.3%
2045	$ 6.0	$ 43.0	$ 41.3	$ 1.7	96%	$ 1.8	$ (3.4)	$ 2.9	30.1%	$ 8.9	$ 68.2	$64.4	$ 3.8	94.4%	$ 2.2	$ (4.3)	$ 4.6	24.8%
2046	$ 6.1	$ 43.0	$ 42.9	$ 0.1	100%	$ 1.7	$ (3.4)	$ 3.0	28.5%	$ 9.1	$ 69.9	$67.4	$ 2.5	96.4%	$ 2.1	$ (4.5)	$ 4.8	23.2%

Exhibit 1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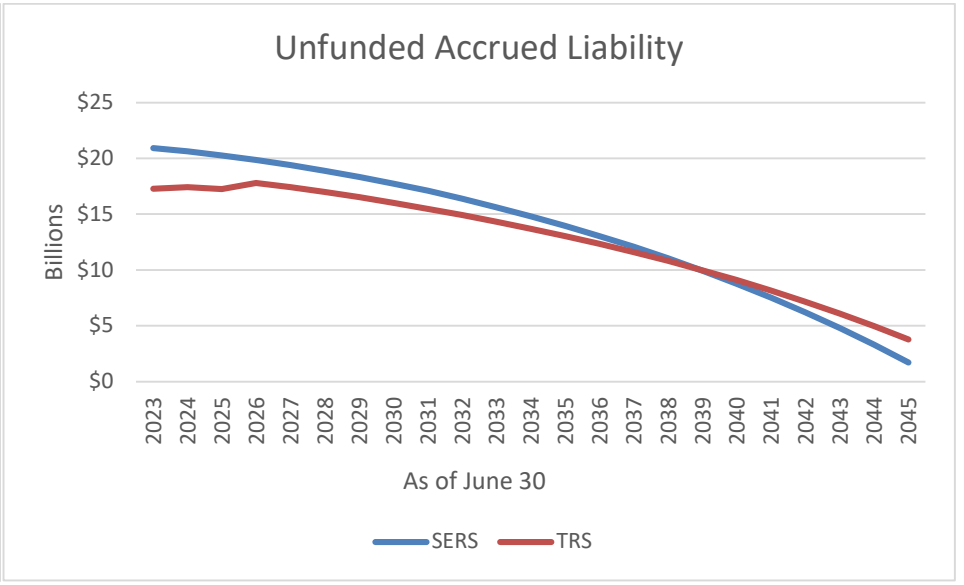
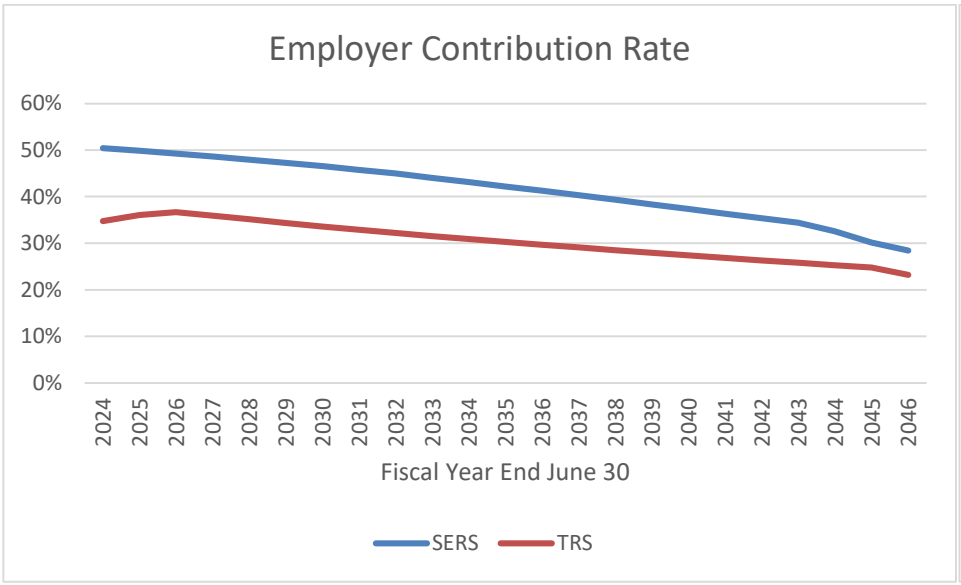
100%
90%
80%
70%
60%
50%
40%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Unfunded Accrued Liability
$25
$20
$15
$10
$5
$0
Billions
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Employer Contribution Rate
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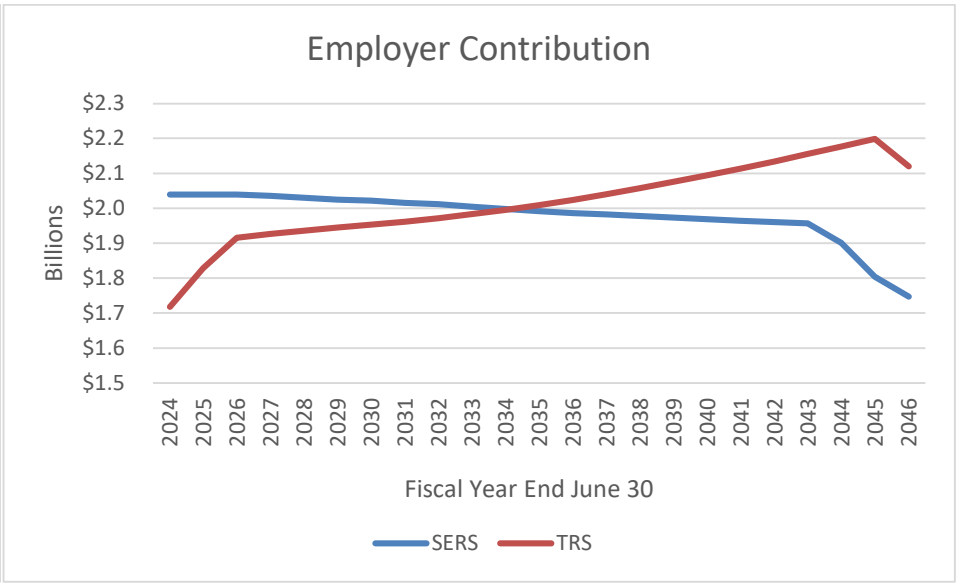
50%
40%
30%
20%
10%
0%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS


Employer Contribution
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$2.2
$2.1
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$1.8
$1.7
$1.6
$1.5
Billions
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Exhibit 2

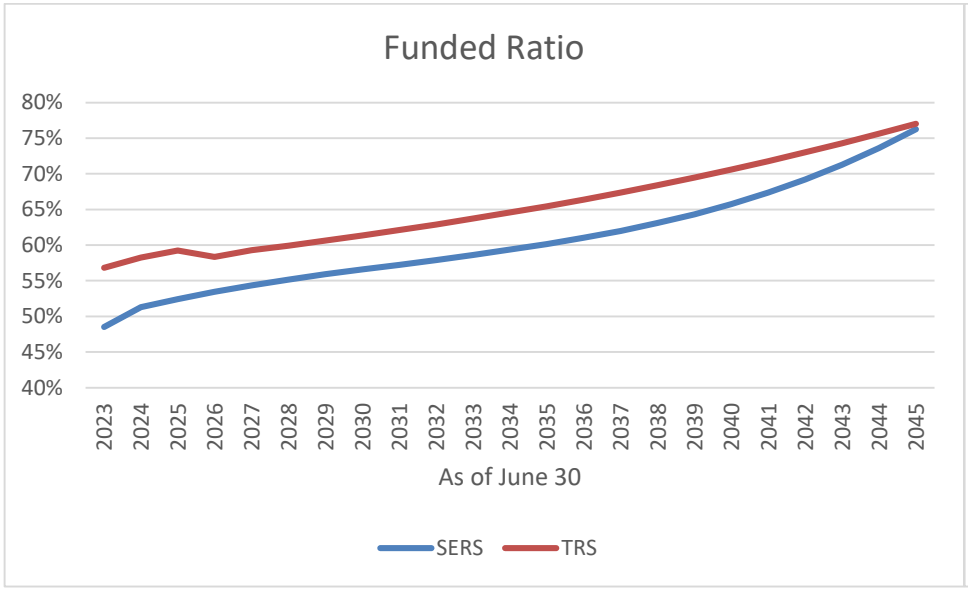
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

Scenario: 2% Below Assumed Investment Returns

$ Billions

	SERS										TRS									
		Funding - Market Value				Employer Cost						Funding - Market Value				Employer Cost				
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contributio	Benefit Payment	Investment Return	Contribution Percentage		Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	
2023	$ 4.0	$ 40.7	$ 19.7	$ 20.9	49%	$ 2.0	$ (2.8)	$ 1.2	51.0%		$ 4.8	$ 40.0	$ 22.7	$ 17.3	56.8%	$ 1.6	$ (2.5)	$ 1.5	32.9%	
2024	$ 4.0	$ 42.3	$ 21.7	$ 20.6	51%	$ 2.0	$ (2.8)	$ 1.2	50.4%		$ 4.9	$ 41.7	$ 24.3	$ 17.4	58.3%	$ 1.7	$ (2.6)	$ 0.7	34.8%	
2025	$ 4.1	$ 42.8	$ 22.4	$ 20.3	52%	$ 2.0	$ (2.9)	$ 1.2	50.0%		$ 5.1	$ 42.6	$ 25.3	$ 17.4	59.3%	$ 1.8	$ (2.6)	$ 1.4	37.7%	
2026	$ 4.1	$ 43.2	$ 23.1	$ 20.1	53%	$ 2.1	$ (3.0)	$ 1.2	49.7%		$ 5.2	$ 43.6	$ 25.4	$ 18.2	58.4%	$ 1.9	$ (2.7)	$ 1.3	40.2%	
2027	$ 4.2	$ 43.5	$ 23.7	$ 19.9	54%	$ 2.1	$ (3.1)	$ 1.2	49.6%		$ 5.4	$ 44.6	$ 26.4	$ 18.2	59.3%	$ 2.0	$ (2.7)	$ 1.3	41.2%	
2028	$ 4.2	$ 43.8	$ 24.2	$ 19.7	55%	$ 2.1	$ (3.1)	$ 1.2	49.5%		$ 5.5	$ 45.6	$ 27.3	$ 18.3	59.9%	$ 2.0	$ (2.8)	$ 1.4	42.1%	
2029	$ 4.3	$ 44.1	$ 24.6	$ 19.4	56%	$ 2.1	$ (3.2)	$ 1.2	49.5%		$ 5.7	$ 46.7	$ 28.3	$ 18.4	60.6%	$ 2.1	$ (2.9)	$ 1.4	43.1%	
2030	$ 4.3	$ 44.3	$ 25.0	$ 19.2	57%	$ 2.2	$ (3.3)	$ 1.2	49.5%		$ 5.8	$ 47.8	$ 29.3	$ 18.5	61.4%	$ 2.2	$ (2.9)	$ 1.5	42.2%	
2031	$ 4.4	$ 44.4	$ 25.4	$ 19.0	57%	$ 2.2	$ (3.3)	$ 1.2	49.5%		$ 6.0	$ 48.9	$ 30.3	$ 18.5	62.1%	$ 2.2	$ (3.0)	$ 1.5	41.3%	
2032	$ 4.5	$ 44.5	$ 25.7	$ 18.7	58%	$ 2.2	$ (3.4)	$ 1.2	49.6%		$ 6.1	$ 50.0	$ 31.5	$ 18.6	62.9%	$ 2.3	$ (3.1)	$ 1.6	40.3%	
2033	$ 4.6	$ 44.5	$ 26.1	$ 18.4	59%	$ 2.3	$ (3.4)	$ 1.2	49.5%		$ 6.3	$ 51.2	$ 32.6	$ 18.6	63.7%	$ 2.4	$ (3.2)	$ 1.6	39.4%	
2034	$ 4.6	$ 44.4	$ 26.4	$ 18.1	59%	$ 2.3	$ (3.5)	$ 1.2	49.5%		$ 6.5	$ 52.4	$ 33.8	$ 18.6	64.6%	$ 2.4	$ (3.3)	$ 1.7	38.6%	
2035	$ 4.7	$ 44.4	$ 26.7	$ 17.7	60%	$ 2.3	$ (3.5)	$ 1.3	49.5%		$ 6.6	$ 53.6	$ 35.1	$ 18.5	65.5%	$ 2.5	$ (3.3)	$ 1.8	37.7%	
2036	$ 4.8	$ 44.3	$ 27.0	$ 17.3	61%	$ 2.4	$ (3.5)	$ 1.3	49.4%		$ 6.8	$ 54.9	$ 36.4	$ 18.4	66.4%	$ 2.6	$ (3.4)	$ 1.8	36.9%	
2037	$ 4.9	$ 44.2	$ 27.4	$ 16.8	62%	$ 2.4	$ (3.5)	$ 1.3	49.4%		$ 7.0	$ 56.2	$ 37.8	$ 18.3	67.4%	$ 2.7	$ (3.5)	$ 1.9	36.1%	
2038	$ 5.0	$ 44.0	$ 27.8	$ 16.3	63%	$ 2.5	$ (3.5)	$ 1.3	49.2%		$ 7.2	$ 57.5	$ 39.3	$ 18.2	68.4%	$ 2.8	$ (3.6)	$ 2.0	35.3%	
2039	$ 5.1	$ 43.9	$ 28.2	$ 15.6	64%	$ 2.5	$ (3.6)	$ 1.3	49.0%		$ 7.4	$ 58.9	$ 40.9	$ 18.0	69.5%	$ 2.9	$ (3.7)	$ 2.1	34.5%	
2040	$ 5.3	$ 43.7	$ 28.7	$ 15.0	66%	$ 2.6	$ (3.5)	$ 1.3	48.8%		$ 7.6	$ 60.3	$ 42.6	$ 17.7	70.6%	$ 3.0	$ (3.8)	$ 2.2	33.7%	
2041	$ 5.4	$ 43.5	$ 29.3	$ 14.2	67%	$ 2.6	$ (3.5)	$ 1.4	48.6%		$ 7.9	$ 61.8	$ 44.3	$ 17.4	71.8%	$ 3.1	$ (3.9)	$ 2.2	33.0%	
2042	$ 5.5	$ 43.3	$ 30.0	$ 13.4	69%	$ 2.7	$ (3.5)	$ 1.4	48.4%		$ 8.1	$ 63.3	$ 46.2	$ 17.1	73.0%	$ 3.2	$ (4.0)	$ 2.3	32.2%	
2043	$ 5.7	$ 43.2	$ 30.8	$ 12.4	71%	$ 2.7	$ (3.5)	$ 1.5	48.1%		$ 8.4	$ 64.9	$ 48.2	$ 16.7	74.3%	$ 3.3	$ (4.1)	$ 2.5	31.5%	
2044	$ 5.8	$ 43.1	$ 31.7	$ 11.4	74%	$ 2.7	$ (3.4)	$ 1.5	46.9%		$ 8.6	$ 66.5	$ 50.3	$ 16.2	75.6%	$ 3.4	$ (4.2)	$ 2.6	30.8%	
2045	$ 6.0	$ 43.0	$ 32.8	$ 10.2	76%	$ 2.7	$ (3.4)	$ 1.6	45.1%		$ 8.9	$ 68.2	$ 52.6	$ 15.7	77.0%	$ 3.5	$ (4.3)	$ 2.7	30.1%	
2046	$ 6.1	$ 43.0	$ 34.0	$ 9.0	79%	$ 2.7	$ (3.4)	$ 1.7	44.1%		$ 9.1	$ 69.9	$ 54.9	$ 15.0	78.5%	$ 3.5	$ (4.5)	$ 2.8	28.4%	

Exhibit 2


Funded Ratio
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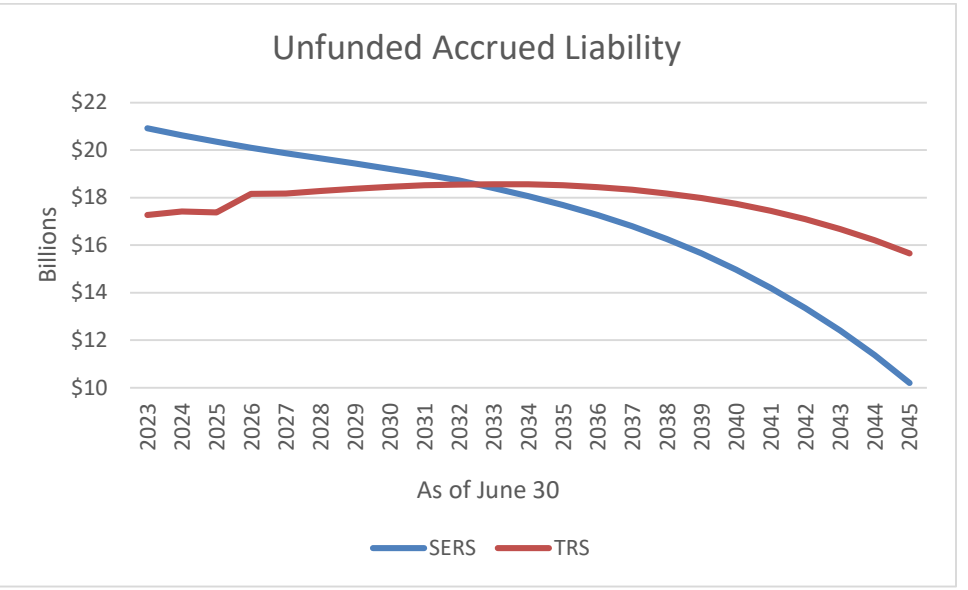
75%
70%
65%
60%
55%
50%
45%
40%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Unfunded Accrued Liability
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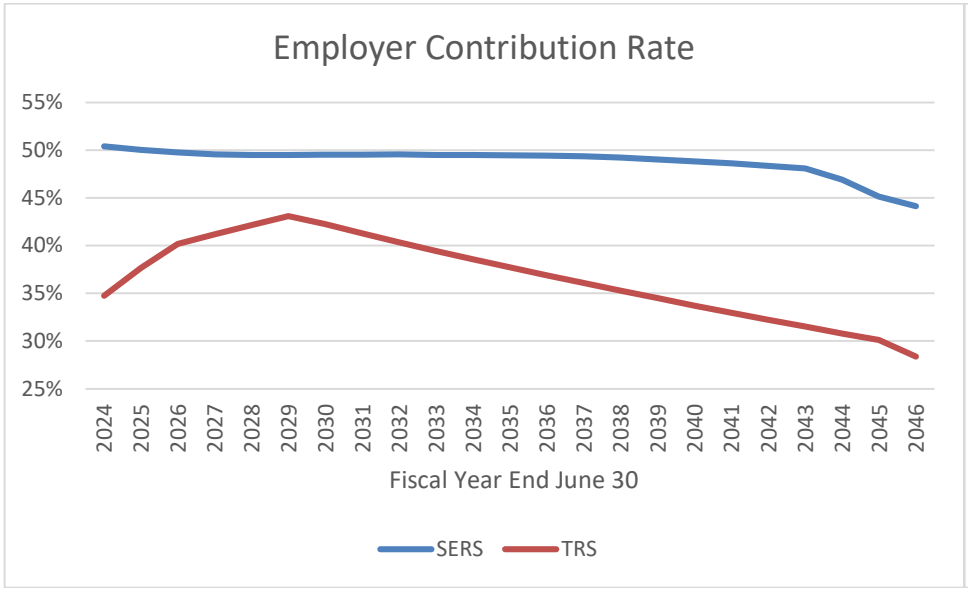
$20
$18
$16
$14
$12
$10
Billions
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Employer Contribution Rate
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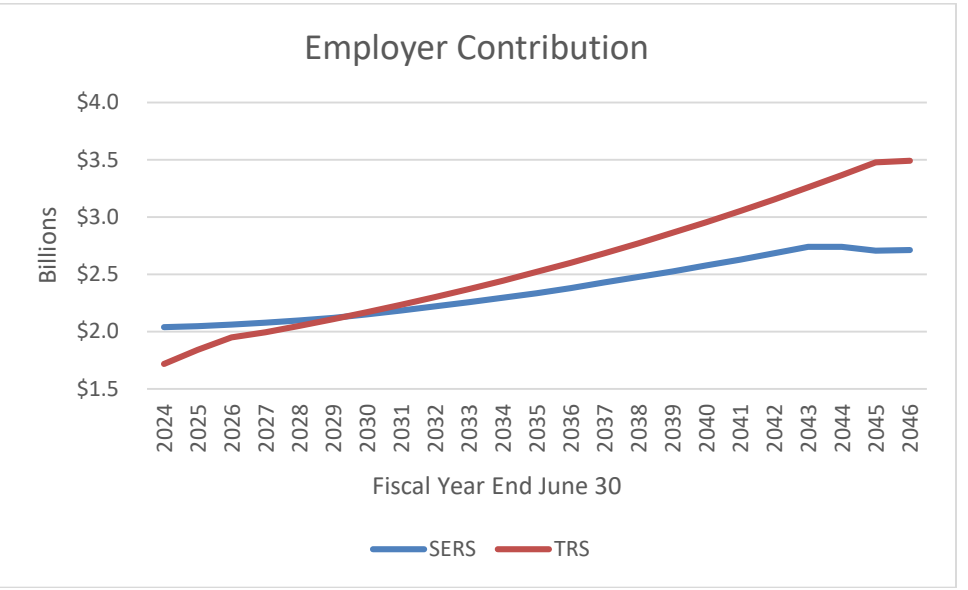
50%
45%
40%
35%
30%
25%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS


Employer Contribution
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$3.5
$3.0
$2.5
$2.0
$1.5
Billions
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Exhibit 3

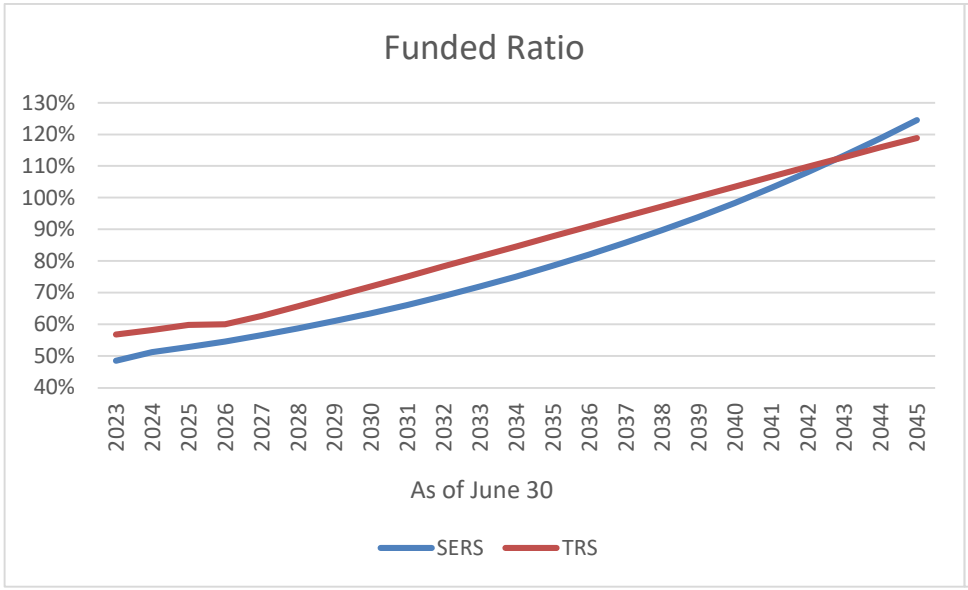
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

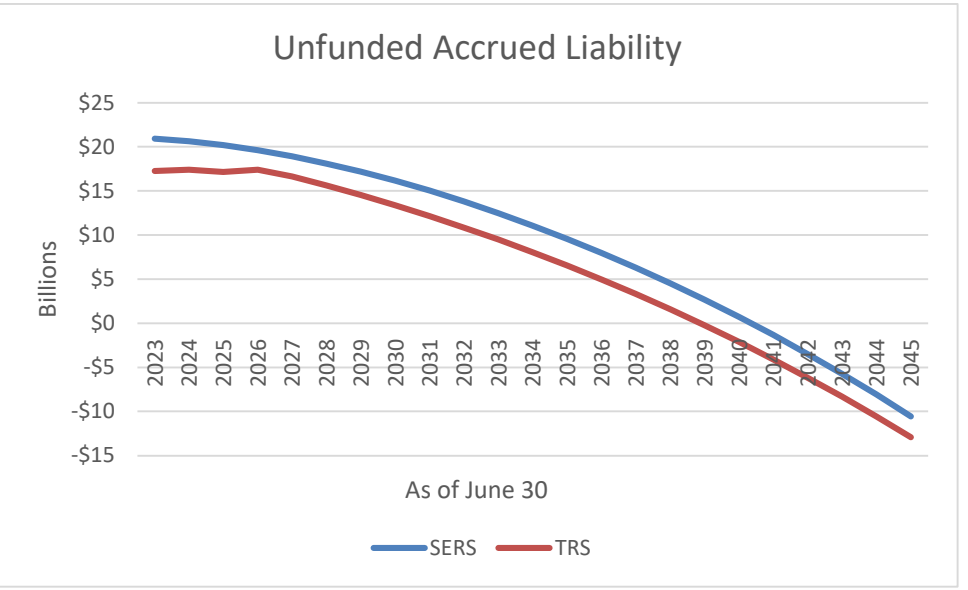
Scenario: 2% Above Assumed Investment Returns

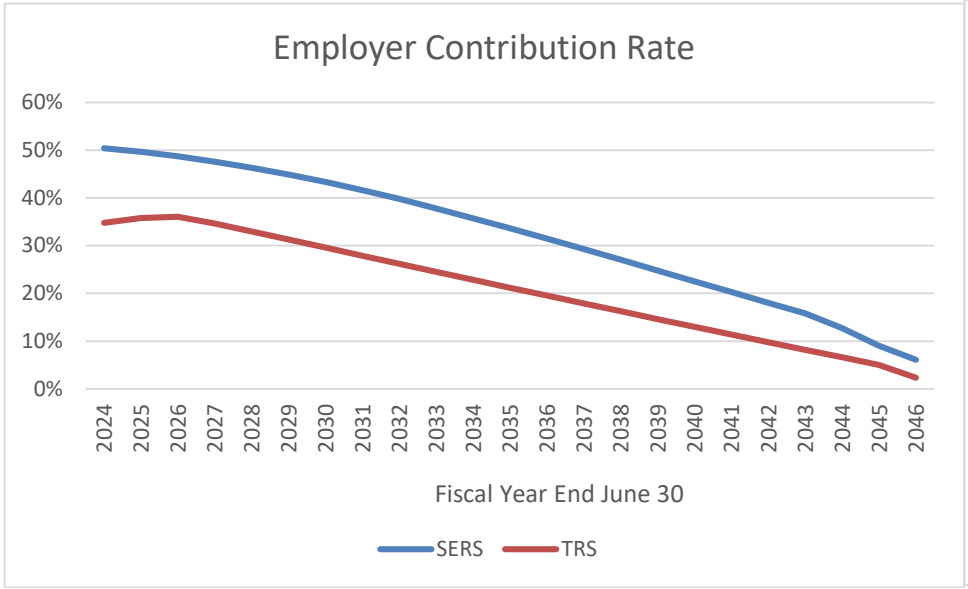
$ Billions

	SERS									TRS								
		Funding - Market Value				Employer Cost					Funding - Market Value				Employer Cost			
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage
2023	$ 4.0	$ 40.7	$19.7	$ 20.9	49%	$ 2.0	$ (2.8)	$ 1.4	51.0%	$ 4.8	$ 40.0	$22.7	$ 17.3	56.8%	$ 1.6	$ (2.5)	$ 1.8	32.9%
2024	$ 4.0	$ 42.3	$21.7	$ 20.6	51%	$ 2.0	$ (2.8)	$ 1.6	50.4%	$ 4.9	$ 41.7	$24.3	$ 17.4	58.3%	$ 1.7	$ (2.6)	$ 1.2	34.8%
2025	$ 4.1	$ 42.8	$22.6	$ 20.2	53%	$ 2.0	$ (2.9)	$ 1.7	49.7%	$ 5.1	$ 42.6	$25.5	$ 17.1	59.8%	$ 1.8	$ (2.6)	$ 2.2	35.8%
2026	$ 4.1	$ 43.2	$23.6	$ 19.6	55%	$ 2.0	$ (3.0)	$ 1.9	48.7%	$ 5.2	$ 43.6	$26.2	$ 17.4	60.0%	$ 1.9	$ (2.7)	$ 2.4	36.1%
2027	$ 4.2	$ 43.5	$24.6	$ 18.9	57%	$ 2.0	$ (3.1)	$ 2.0	47.6%	$ 5.4	$ 44.6	$28.0	$ 16.6	62.7%	$ 1.9	$ (2.7)	$ 2.6	34.7%
2028	$ 4.2	$ 43.8	$25.7	$ 18.1	59%	$ 2.0	$ (3.1)	$ 2.2	46.3%	$ 5.5	$ 45.6	$30.0	$ 15.6	65.7%	$ 1.8	$ (2.8)	$ 2.8	33.0%
2029	$ 4.3	$ 44.1	$26.9	$ 17.2	61%	$ 1.9	$ (3.2)	$ 2.3	44.9%	$ 5.7	$ 46.7	$32.1	$ 14.6	68.8%	$ 1.8	$ (2.9)	$ 3.0	31.3%
2030	$ 4.3	$ 44.3	$28.1	$ 16.2	63%	$ 1.9	$ (3.3)	$ 2.5	43.3%	$ 5.8	$ 47.8	$34.4	$ 13.4	72.0%	$ 1.7	$ (2.9)	$ 3.3	29.6%
2031	$ 4.4	$ 44.4	$29.4	$ 15.0	66%	$ 1.8	$ (3.3)	$ 2.6	41.6%	$ 6.0	$ 48.9	$36.7	$ 12.2	75.1%	$ 1.7	$ (3.0)	$ 3.5	27.9%
2032	$ 4.5	$ 44.5	$30.6	$ 13.8	69%	$ 1.8	$ (3.4)	$ 2.8	39.8%	$ 6.1	$ 50.0	$39.2	$ 10.9	78.3%	$ 1.6	$ (3.1)	$ 3.7	26.2%
2033	$ 4.6	$ 44.5	$32.0	$ 12.5	72%	$ 1.7	$ (3.4)	$ 2.9	37.8%	$ 6.3	$ 51.2	$41.7	$ 9.5	81.5%	$ 1.5	$ (3.2)	$ 3.9	24.5%
2034	$ 4.6	$ 44.4	$33.4	$ 11.1	75%	$ 1.7	$ (3.5)	$ 3.0	35.7%	$ 6.5	$ 52.4	$44.3	$ 8.1	84.6%	$ 1.5	$ (3.3)	$ 4.2	22.9%
2035	$ 4.7	$ 44.4	$34.8	$ 9.6	78%	$ 1.6	$ (3.5)	$ 3.2	33.6%	$ 6.6	$ 53.6	$47.1	$ 6.5	87.8%	$ 1.4	$ (3.3)	$ 4.4	21.2%
2036	$ 4.8	$ 44.3	$36.3	$ 8.0	82%	$ 1.5	$ (3.5)	$ 3.4	31.5%	$ 6.8	$ 54.9	$49.9	$ 5.0	90.9%	$ 1.3	$ (3.4)	$ 4.7	19.5%
2037	$ 4.9	$ 44.2	$37.9	$ 6.3	86%	$ 1.4	$ (3.5)	$ 3.5	29.3%	$ 7.0	$ 56.2	$52.8	$ 3.3	94.1%	$ 1.3	$ (3.5)	$ 4.9	17.9%
2038	$ 5.0	$ 44.0	$39.5	$ 4.5	90%	$ 1.4	$ (3.5)	$ 3.7	27.1%	$ 7.2	$ 57.5	$55.9	$ 1.6	97.2%	$ 1.2	$ (3.6)	$ 5.2	16.3%
2039	$ 5.1	$ 43.9	$41.2	$ 2.7	94%	$ 1.3	$ (3.6)	$ 3.9	24.8%	$ 7.4	$ 58.9	$59.1	$ (0.2)	100.4%	$ 1.1	$ (3.7)	$ 5.5	14.6%
2040	$ 5.3	$ 43.7	$43.0	$ 0.7	98%	$ 1.2	$ (3.5)	$ 4.0	22.5%	$ 7.6	$ 60.3	$62.4	$ (2.1)	103.5%	$ 1.0	$ (3.8)	$ 5.8	13.0%
2041	$ 5.4	$ 43.5	$44.8	$ (1.3)	103%	$ 1.1	$ (3.5)	$ 4.2	20.3%	$ 7.9	$ 61.8	$65.9	$ (4.1)	106.6%	$ 0.9	$ (3.9)	$ 6.1	11.4%
2042	$ 5.5	$ 43.3	$46.8	$ (3.5)	108%	$ 1.0	$ (3.5)	$ 4.4	18.0%	$ 8.1	$ 63.3	$69.5	$ (6.2)	109.7%	$ 0.8	$ (4.0)	$ 6.5	9.8%
2043	$ 5.7	$ 43.2	$48.9	$ (5.7)	113%	$ 0.9	$ (3.5)	$ 4.6	15.8%	$ 8.4	$ 64.9	$73.2	$ (8.3)	112.8%	$ 0.7	$ (4.1)	$ 6.8	8.2%
2044	$ 5.8	$ 43.1	$51.2	$ (8.1)	119%	$ 0.7	$ (3.4)	$ 4.8	12.7%	$ 8.6	$ 66.5	$77.1	$ (10.6)	115.9%	$ 0.6	$ (4.2)	$ 7.2	6.6%
2045	$ 6.0	$ 43.0	$53.5	$ (10.5)	125%	$ 0.5	$ (3.4)	$ 5.1	9.0%	$ 8.9	$ 68.2	$81.1	$ (12.9)	118.9%	$ 0.4	$ (4.3)	$ 7.5	5.0%
2046	$ 6.1	$ 43.0	$56.0	$ (13.1)	130%	$ 0.4	$ (3.4)	$ 5.3	6.1%	$ 9.1	$ 69.9	$85.3	$ (15.3)	121.9%	$ 0.2	$ (4.5)	$ 7.9	2.4%

Exhibit 3


Funded Ratio
130%
120%
110%
100%
90%
80%
70%
60%
50%
40%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Unfunded Accrued Liability
$25
$20
$15
$10
$5
$0
-$5
-$10
-$15
Billions
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Employer Contribution Rate
60%
50%
40%
30%
20%
10%
0%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

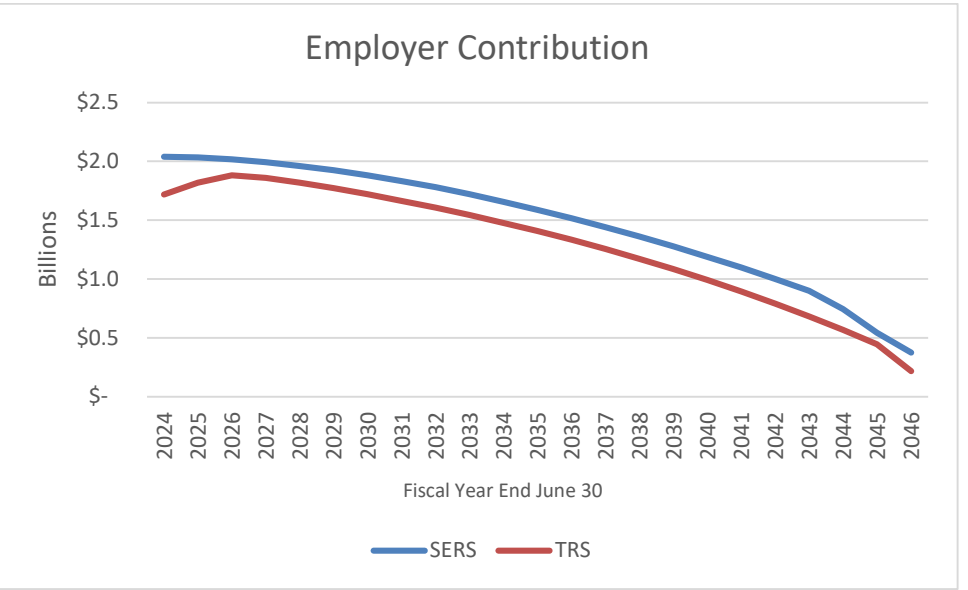

Employer Contribution
$2.5
$2.0
$1.5
$1.0
$0.5
$-
Billions
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Exhibit 4

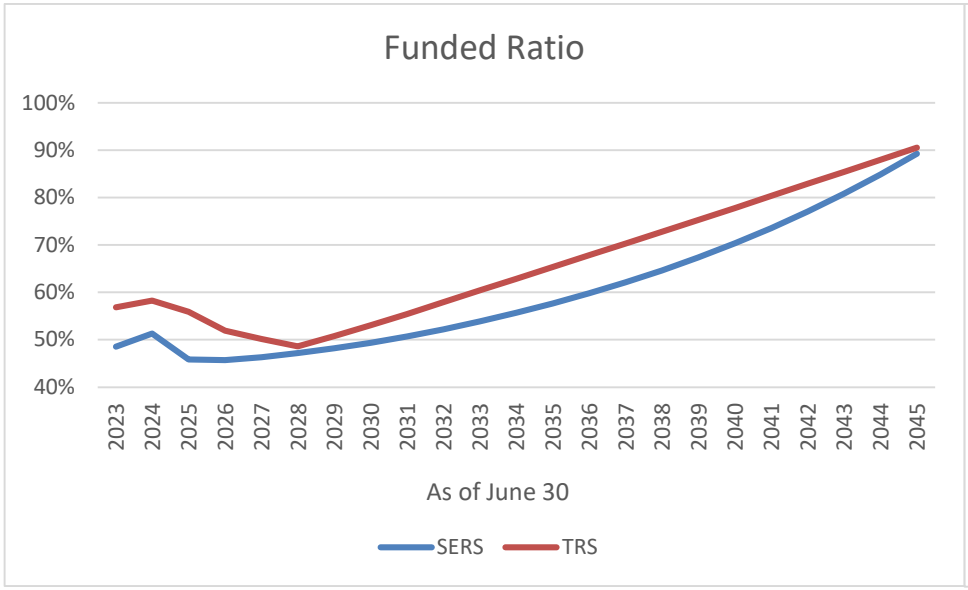
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

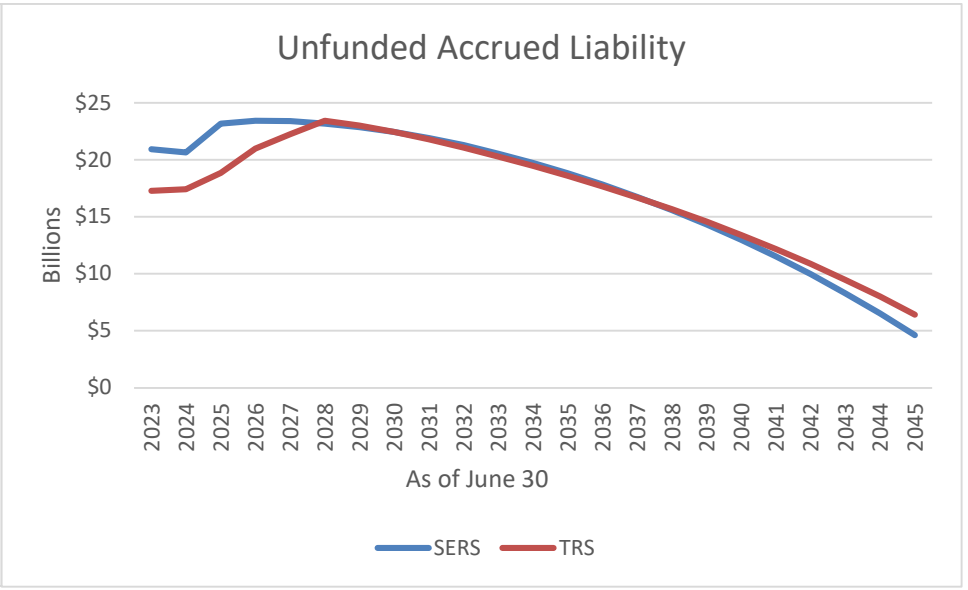
Scenario: Asset Shock

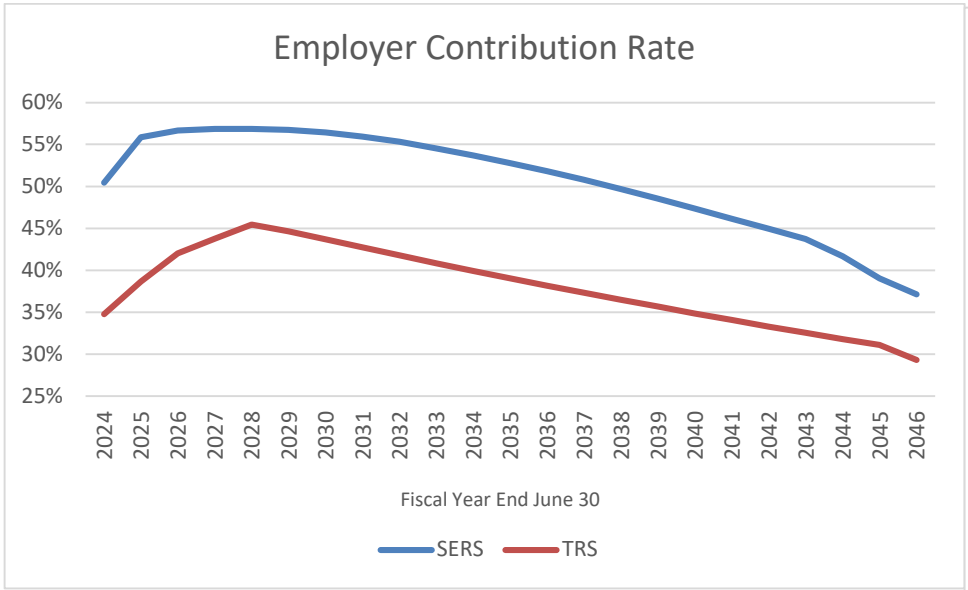
$ Billions

	SERS									TRS								
		Funding - Market Value				Employer Cost					Funding - Market Value				Employer Cost			
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage
2023	$ 4.0	$ 40.7	$19.7	$ 20.9	49%	$ 2.0	$ (2.8)	$ (1.6)	51.0%	$ 4.8	$ 40.0	$22.7	$ 17.3	56.8%	$ 1.6	$ (2.5)	$ 0.1	32.9%
2024	$ 4.0	$ 42.3	$21.7	$ 20.6	51%	$ 2.0	$ (2.8)	$ 0.7	50.4%	$ 4.9	$ 41.7	$24.3	$ 17.4	58.3%	$ 1.7	$ (2.6)	$ (0.7)	34.8%
2025	$ 4.1	$ 42.8	$19.6	$ 23.2	46%	$ 2.3	$ (2.9)	$ 0.8	55.9%	$ 5.1	$ 42.6	$23.8	$ 18.8	55.9%	$ 2.0	$ (2.6)	$ 0.0	38.7%
2026	$ 4.1	$ 43.2	$19.7	$ 23.4	46%	$ 2.3	$ (3.0)	$ 0.9	56.7%	$ 5.2	$ 43.6	$22.6	$ 21.0	51.9%	$ 2.2	$ (2.7)	$ (0.1)	42.0%
2027	$ 4.2	$ 43.5	$20.2	$ 23.4	46%	$ 2.4	$ (3.1)	$ 1.0	56.9%	$ 5.4	$ 44.6	$22.4	$ 22.2	50.2%	$ 2.3	$ (2.7)	$ 1.5	43.8%
2028	$ 4.2	$ 43.8	$20.7	$ 23.2	47%	$ 2.4	$ (3.1)	$ 1.1	56.9%	$ 5.5	$ 45.6	$22.2	$ 23.4	48.6%	$ 2.5	$ (2.8)	$ 1.6	45.5%
2029	$ 4.3	$ 44.1	$21.2	$ 22.9	48%	$ 2.4	$ (3.2)	$ 1.2	56.7%	$ 5.7	$ 46.7	$23.7	$ 23.0	50.7%	$ 2.5	$ (2.9)	$ 1.7	44.6%
2030	$ 4.3	$ 44.3	$21.8	$ 22.4	49%	$ 2.5	$ (3.3)	$ 1.3	56.4%	$ 5.8	$ 47.8	$25.3	$ 22.4	53.0%	$ 2.5	$ (2.9)	$ 1.9	43.7%
2031	$ 4.4	$ 44.4	$22.5	$ 21.9	51%	$ 2.5	$ (3.3)	$ 1.4	55.9%	$ 6.0	$ 48.9	$27.1	$ 21.8	55.4%	$ 2.5	$ (3.0)	$ 2.0	42.7%
2032	$ 4.5	$ 44.5	$23.2	$ 21.3	52%	$ 2.5	$ (3.4)	$ 1.5	55.3%	$ 6.1	$ 50.0	$29.0	$ 21.1	57.9%	$ 2.6	$ (3.1)	$ 2.1	41.8%
2033	$ 4.6	$ 44.5	$23.9	$ 20.5	54%	$ 2.5	$ (3.4)	$ 1.5	54.5%	$ 6.3	$ 51.2	$30.9	$ 20.3	60.4%	$ 2.6	$ (3.2)	$ 2.3	40.8%
2034	$ 4.6	$ 44.4	$24.7	$ 19.7	56%	$ 2.5	$ (3.5)	$ 1.6	53.7%	$ 6.5	$ 52.4	$32.9	$ 19.5	62.9%	$ 2.6	$ (3.3)	$ 2.4	39.9%
2035	$ 4.7	$ 44.4	$25.6	$ 18.8	58%	$ 2.5	$ (3.5)	$ 1.7	52.8%	$ 6.6	$ 53.6	$35.0	$ 18.6	65.3%	$ 2.6	$ (3.3)	$ 2.6	39.0%
2036	$ 4.8	$ 44.3	$26.5	$ 17.8	60%	$ 2.5	$ (3.5)	$ 1.8	51.8%	$ 6.8	$ 54.9	$37.2	$ 17.7	67.8%	$ 2.6	$ (3.4)	$ 2.7	38.2%
2037	$ 4.9	$ 44.2	$27.4	$ 16.7	62%	$ 2.5	$ (3.5)	$ 1.9	50.8%	$ 7.0	$ 56.2	$39.5	$ 16.7	70.3%	$ 2.6	$ (3.5)	$ 2.9	37.3%
2038	$ 5.0	$ 44.0	$28.5	$ 15.6	65%	$ 2.5	$ (3.5)	$ 1.9	49.7%	$ 7.2	$ 57.5	$41.8	$ 15.7	72.8%	$ 2.6	$ (3.6)	$ 3.0	36.5%
2039	$ 5.1	$ 43.9	$29.5	$ 14.3	67%	$ 2.5	$ (3.6)	$ 2.0	48.5%	$ 7.4	$ 58.9	$44.3	$ 14.6	75.3%	$ 2.6	$ (3.7)	$ 3.2	35.7%
2040	$ 5.3	$ 43.7	$30.7	$ 13.0	70%	$ 2.5	$ (3.5)	$ 2.1	47.3%	$ 7.6	$ 60.3	$46.9	$ 13.4	77.8%	$ 2.7	$ (3.8)	$ 3.4	34.8%
2041	$ 5.4	$ 43.5	$32.0	$ 11.5	74%	$ 2.5	$ (3.5)	$ 2.2	46.1%	$ 7.9	$ 61.8	$49.6	$ 12.2	80.3%	$ 2.7	$ (3.9)	$ 3.6	34.1%
2042	$ 5.5	$ 43.3	$33.4	$ 10.0	77%	$ 2.5	$ (3.5)	$ 2.3	44.9%	$ 8.1	$ 63.3	$52.5	$ 10.9	82.9%	$ 2.7	$ (4.0)	$ 3.8	33.3%
2043	$ 5.7	$ 43.2	$34.9	$ 8.3	81%	$ 2.5	$ (3.5)	$ 2.5	43.7%	$ 8.4	$ 64.9	$55.4	$ 9.5	85.4%	$ 2.7	$ (4.1)	$ 4.0	32.5%
2044	$ 5.8	$ 43.1	$36.6	$ 6.5	85%	$ 2.4	$ (3.4)	$ 2.6	41.7%	$ 8.6	$ 66.5	$58.5	$ 8.0	88.0%	$ 2.7	$ (4.2)	$ 4.2	31.8%
2045	$ 6.0	$ 43.0	$38.4	$ 4.6	89%	$ 2.3	$ (3.4)	$ 2.7	39.0%	$ 8.9	$ 68.2	$61.8	$ 6.4	90.6%	$ 2.8	$ (4.3)	$ 4.5	31.1%
2046	$ 6.1	$ 43.0	$40.3	$ 2.7	94%	$ 2.3	$ (3.4)	$ 2.9	37.1%	$ 9.1	$ 69.9	$65.2	$ 4.8	93.2%	$ 2.7	$ (4.5)	$ 4.7	29.3%

Exhibit 4


Funded Ratio
100%
90%
80%
70%
60%
50%
40%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Unfunded Accrued Liability
Billions
$25
$20
$15
$10
$5
$0
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Employer Contribution Rate
60%
55%
50%
45%
40%
35%
30%
25%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

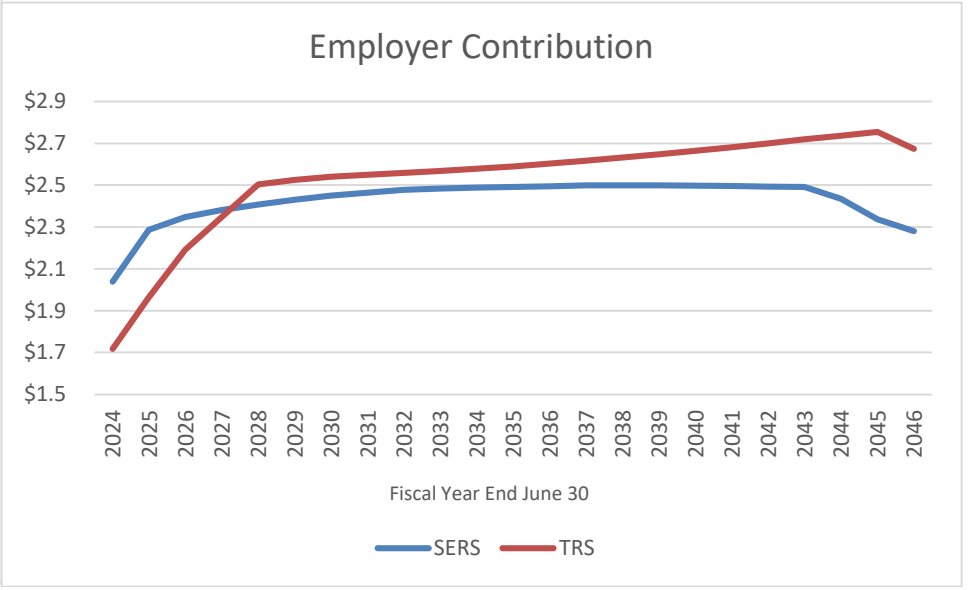

Employer Contribution
$2.9
$2.7
$2.5
$2.3
$2.1
$1.9
$1.7
$1.5
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Exhibit 5

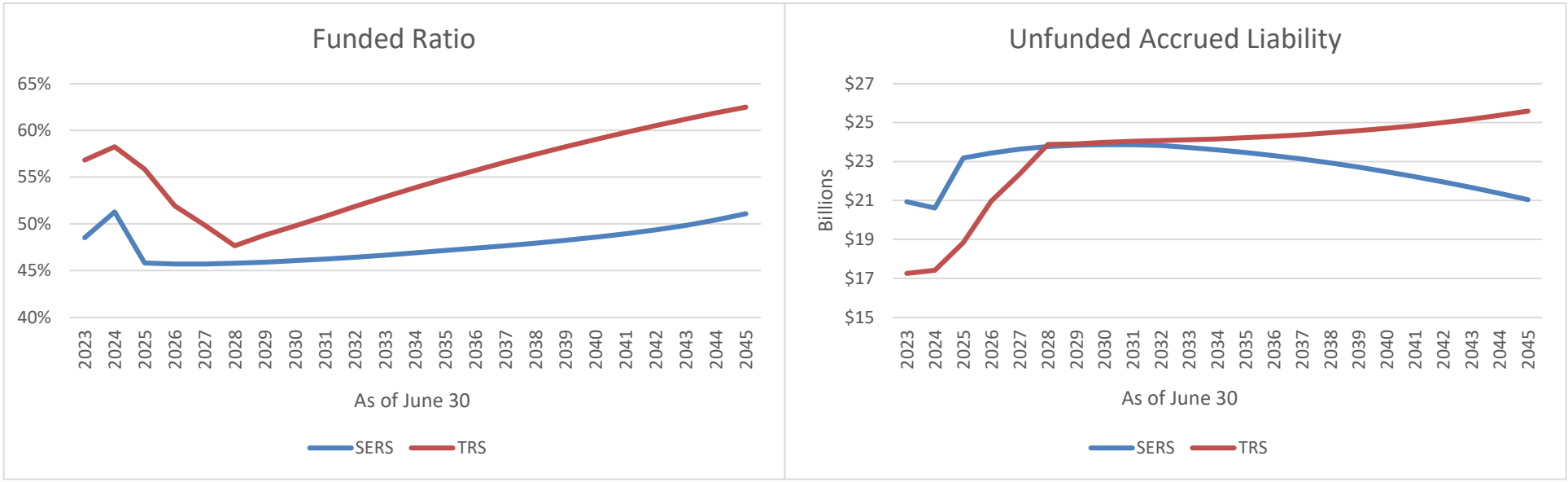
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

Scenario: Asset Shock, Partial ADC

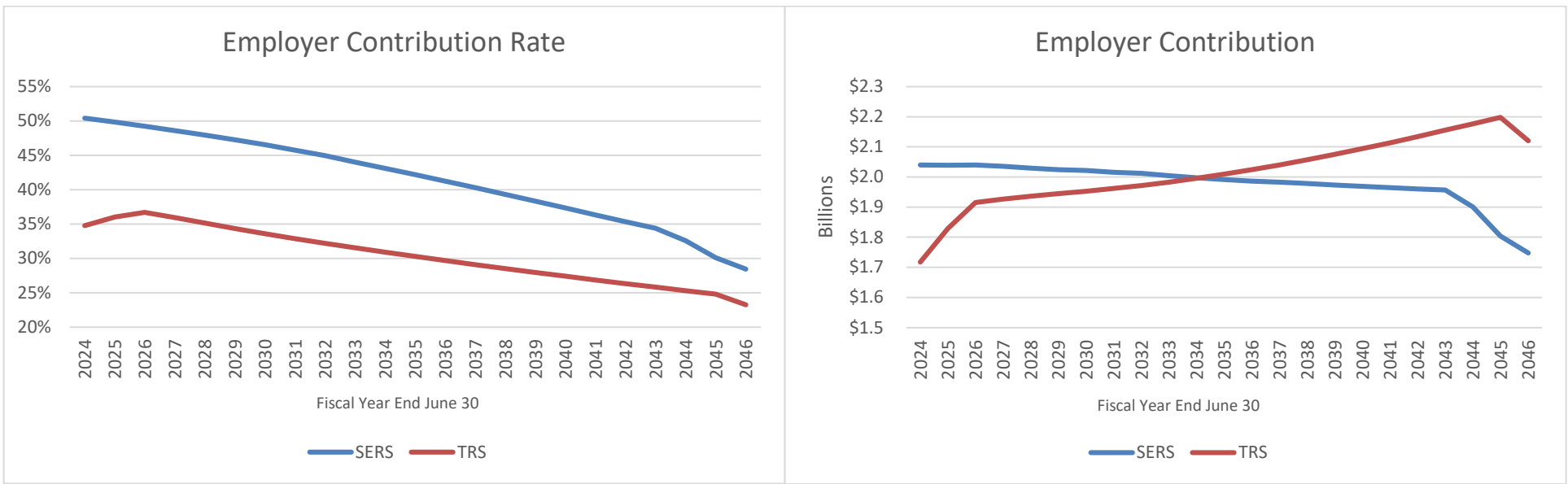
$ Billions

	SERS									TRS								
		Funding - Market Value				Employer Cost					Funding - Market Value				Employer Cost			
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage
2023	$ 4.0	$ 40.7	$19.7	$ 20.9	49%	$ 2.0	$ (2.8)	$ (1.6)	51.0%	$ 4.8	$ 40.0	$22.7	$ 17.3	56.8%	$ 1.6	$ (2.5)	$ 0.1	32.9%
2024	$ 4.0	$ 42.3	$21.7	$ 20.6	51%	$ 2.0	$ (2.8)	$ 0.7	50.4%	$ 4.9	$ 41.7	$24.3	$ 17.4	58.3%	$ 1.7	$ (2.6)	$ (0.7)	34.8%
2025	$ 4.1	$ 42.8	$19.6	$ 23.2	46%	$ 2.0	$ (2.9)	$ 0.8	49.8%	$ 5.1	$ 42.6	$23.8	$ 18.8	55.9%	$ 1.8	$ (2.6)	$ 0.0	36.0%
2026	$ 4.1	$ 43.2	$19.7	$ 23.4	46%	$ 2.0	$ (3.0)	$ 0.9	49.2%	$ 5.2	$ 43.6	$22.6	$ 21.0	51.9%	$ 1.9	$ (2.7)	$ (0.1)	36.7%
2027	$ 4.2	$ 43.5	$19.9	$ 23.6	46%	$ 2.0	$ (3.1)	$ 1.0	48.6%	$ 5.4	$ 44.6	$22.2	$ 22.4	49.8%	$ 1.9	$ (2.7)	$ 1.4	35.9%
2028	$ 4.2	$ 43.8	$20.1	$ 23.8	46%	$ 2.0	$ (3.1)	$ 1.0	47.9%	$ 5.5	$ 45.6	$21.7	$ 23.9	47.7%	$ 1.9	$ (2.8)	$ 1.5	35.1%
2029	$ 4.3	$ 44.1	$20.2	$ 23.8	46%	$ 2.0	$ (3.2)	$ 1.1	47.3%	$ 5.7	$ 46.7	$22.8	$ 23.9	48.8%	$ 1.9	$ (2.9)	$ 1.6	34.4%
2030	$ 4.3	$ 44.3	$20.4	$ 23.9	46%	$ 2.0	$ (3.3)	$ 1.1	46.5%	$ 5.8	$ 47.8	$23.8	$ 24.0	49.8%	$ 2.0	$ (2.9)	$ 1.7	33.6%
2031	$ 4.4	$ 44.4	$20.5	$ 23.9	46%	$ 2.0	$ (3.3)	$ 1.2	45.7%	$ 6.0	$ 48.9	$24.8	$ 24.0	50.8%	$ 2.0	$ (3.0)	$ 1.8	32.9%
2032	$ 4.5	$ 44.5	$20.6	$ 23.8	46%	$ 2.0	$ (3.4)	$ 1.2	44.9%	$ 6.1	$ 50.0	$25.9	$ 24.1	51.9%	$ 2.0	$ (3.1)	$ 1.8	32.2%
2033	$ 4.6	$ 44.5	$20.7	$ 23.7	47%	$ 2.0	$ (3.4)	$ 1.3	44.0%	$ 6.3	$ 51.2	$27.1	$ 24.1	52.9%	$ 2.0	$ (3.2)	$ 1.9	31.5%
2034	$ 4.6	$ 44.4	$20.8	$ 23.6	47%	$ 2.0	$ (3.5)	$ 1.3	43.1%	$ 6.5	$ 52.4	$28.2	$ 24.2	53.9%	$ 2.0	$ (3.3)	$ 2.0	30.9%
2035	$ 4.7	$ 44.4	$20.9	$ 23.5	47%	$ 2.0	$ (3.5)	$ 1.3	42.2%	$ 6.6	$ 53.6	$29.4	$ 24.2	54.8%	$ 2.0	$ (3.3)	$ 2.1	30.3%
2036	$ 4.8	$ 44.3	$21.0	$ 23.3	47%	$ 2.0	$ (3.5)	$ 1.3	41.3%	$ 6.8	$ 54.9	$30.6	$ 24.3	55.7%	$ 2.0	$ (3.4)	$ 2.2	29.7%
2037	$ 4.9	$ 44.2	$21.1	$ 23.1	48%	$ 2.0	$ (3.5)	$ 1.3	40.3%	$ 7.0	$ 56.2	$31.8	$ 24.4	56.6%	$ 2.0	$ (3.5)	$ 2.2	29.1%
2038	$ 5.0	$ 44.0	$21.1	$ 22.9	48%	$ 2.0	$ (3.5)	$ 1.3	39.3%	$ 7.2	$ 57.5	$33.0	$ 24.5	57.4%	$ 2.1	$ (3.6)	$ 2.3	28.5%
2039	$ 5.1	$ 43.9	$21.2	$ 22.7	48%	$ 2.0	$ (3.6)	$ 1.4	38.3%	$ 7.4	$ 58.9	$34.3	$ 24.6	58.2%	$ 2.1	$ (3.7)	$ 2.4	28.0%
2040	$ 5.3	$ 43.7	$21.2	$ 22.5	49%	$ 2.0	$ (3.5)	$ 1.4	37.3%	$ 7.6	$ 60.3	$35.6	$ 24.7	59.0%	$ 2.1	$ (3.8)	$ 2.5	27.4%
2041	$ 5.4	$ 43.5	$21.3	$ 22.2	49%	$ 2.0	$ (3.5)	$ 1.4	36.3%	$ 7.9	$ 61.8	$36.9	$ 24.8	59.8%	$ 2.1	$ (3.9)	$ 2.6	26.8%
2042	$ 5.5	$ 43.3	$21.4	$ 22.0	49%	$ 2.0	$ (3.5)	$ 1.4	35.3%	$ 8.1	$ 63.3	$38.3	$ 25.0	60.5%	$ 2.1	$ (4.0)	$ 2.7	26.3%
2043	$ 5.7	$ 43.2	$21.5	$ 21.7	50%	$ 2.0	$ (3.5)	$ 1.4	34.4%	$ 8.4	$ 64.9	$39.7	$ 25.2	61.2%	$ 2.2	$ (4.1)	$ 2.8	25.8%
2044	$ 5.8	$ 43.1	$21.7	$ 21.4	50%	$ 1.9	$ (3.4)	$ 1.4	32.5%	$ 8.6	$ 66.5	$41.2	$ 25.4	61.9%	$ 2.2	$ (4.2)	$ 2.9	25.3%
2045	$ 6.0	$ 43.0	$22.0	$ 21.0	51%	$ 1.8	$ (3.4)	$ 1.5	30.1%	$ 8.9	$ 68.2	$42.6	$ 25.6	62.5%	$ 2.2	$ (4.3)	$ 3.0	24.8%
2046	$ 6.1	$ 43.0	$22.2	$ 20.8	52%	$ 1.7	$ (3.4)	$ 1.5	28.5%	$ 9.1	$ 69.9	$44.1	$ 25.8	63.1%	$ 2.1	$ (4.5)	$ 3.1	23.2%

Exhibit 5


Funded Ratio
65%
60%
55%
50%
45%
40%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS

Unfunded Accrued Liability
$27
$25
$23
$21
$19
$17
$15
Billions
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Employer Contribution Rate
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50%
45%
40%
35%
30%
25%
20%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Employer Contribution
$2.3
$2.2
$2.1
$2.0
$1.9
$1.8
$1.7
$1.6
$1.5
Billions
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Exhibit 6

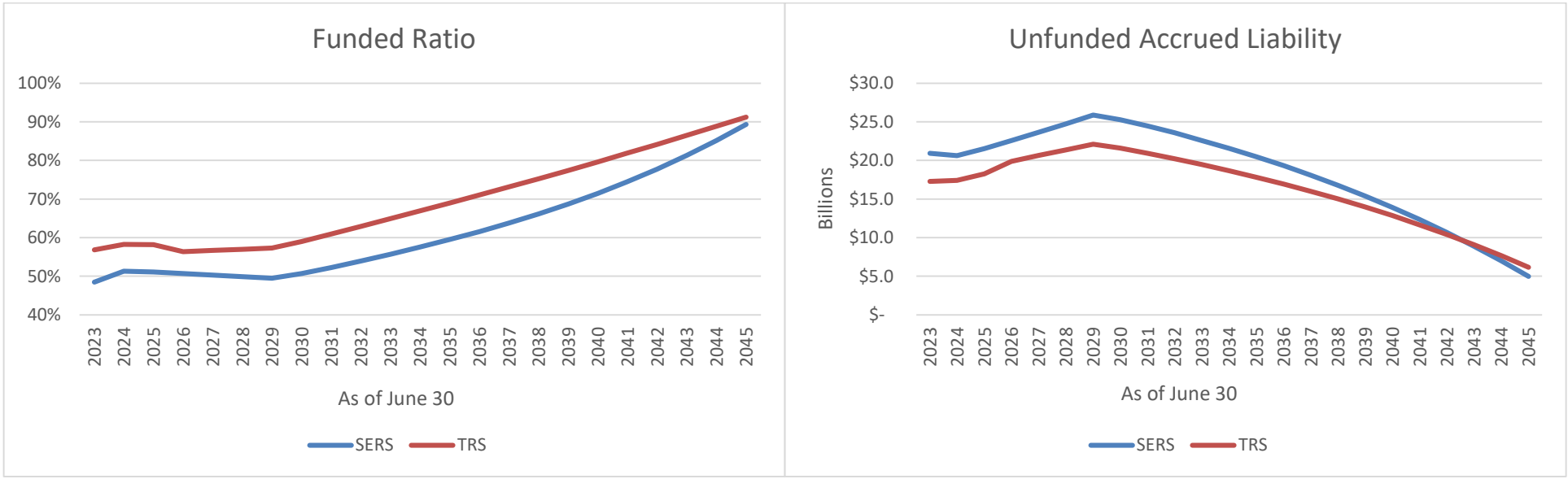
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

Scenario: 4 Years Max COLA

$ Billions

	SERS									TRS								
		Funding - Market Value				Employer Cost					Funding - Market Value				Employer Cost			
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage
2023	$ 4.0	$ 40.7	$19.7	$ 20.9	49%	$ 2.0	$ (2.8)	$ 1.3	51.0%	$ 4.8	$ 40.0	$22.7	$ 17.3	56.8%	$ 1.6	$ (2.5)	$ 1.7	32.9%
2024	$ 4.0	$ 42.3	$21.7	$ 20.6	51%	$ 2.0	$ (2.9)	$ 1.4	50.4%	$ 4.9	$ 41.7	$24.3	$ 17.4	58.3%	$ 1.7	$ (2.6)	$ 0.9	34.8%
2025	$ 4.1	$ 44.0	$22.5	$ 21.5	51%	$ 2.1	$ (3.1)	$ 1.5	52.4%	$ 5.1	$ 43.6	$25.4	$ 18.2	58.2%	$ 1.9	$ (2.8)	$ 1.8	37.7%
2026	$ 4.1	$ 45.8	$23.2	$ 22.6	51%	$ 2.3	$ (3.3)	$ 1.5	54.8%	$ 5.2	$ 45.6	$25.7	$ 19.9	56.4%	$ 2.1	$ (3.0)	$ 1.8	40.2%
2027	$ 4.2	$ 47.6	$23.9	$ 23.6	50%	$ 2.4	$ (3.5)	$ 1.6	57.3%	$ 5.4	$ 47.6	$27.0	$ 20.6	56.7%	$ 2.2	$ (3.1)	$ 1.9	41.2%
2028	$ 4.2	$ 49.4	$24.6	$ 24.7	50%	$ 2.5	$ (3.7)	$ 1.6	59.9%	$ 5.5	$ 49.6	$28.3	$ 21.4	57.0%	$ 2.3	$ (3.3)	$ 2.0	42.1%
2029	$ 4.3	$ 51.2	$25.3	$ 25.9	49%	$ 2.7	$ (3.8)	$ 1.7	62.6%	$ 5.7	$ 51.7	$29.6	$ 22.1	57.3%	$ 2.4	$ (3.4)	$ 2.1	43.1%
2030	$ 4.3	$ 51.2	$26.0	$ 25.3	51%	$ 2.7	$ (3.9)	$ 1.8	62.0%	$ 5.8	$ 52.6	$31.0	$ 21.6	59.0%	$ 2.5	$ (3.4)	$ 2.2	42.2%
2031	$ 4.4	$ 51.2	$26.8	$ 24.4	52%	$ 2.7	$ (3.9)	$ 1.8	61.0%	$ 6.0	$ 53.5	$32.6	$ 20.9	60.9%	$ 2.5	$ (3.5)	$ 2.3	41.3%
2032	$ 4.5	$ 51.1	$27.6	$ 23.6	54%	$ 2.7	$ (4.0)	$ 1.9	59.9%	$ 6.1	$ 54.5	$34.3	$ 20.2	62.9%	$ 2.5	$ (3.6)	$ 2.5	40.3%
2033	$ 4.6	$ 51.0	$28.4	$ 22.6	56%	$ 2.7	$ (4.0)	$ 1.9	58.7%	$ 6.3	$ 55.4	$36.0	$ 19.5	64.9%	$ 2.5	$ (3.7)	$ 2.6	39.4%
2034	$ 4.6	$ 50.8	$29.2	$ 21.6	58%	$ 2.7	$ (4.1)	$ 2.0	57.5%	$ 6.5	$ 56.4	$37.7	$ 18.7	66.9%	$ 2.5	$ (3.7)	$ 2.7	38.6%
2035	$ 4.7	$ 50.6	$30.1	$ 20.5	60%	$ 2.7	$ (4.1)	$ 2.1	56.3%	$ 6.6	$ 57.4	$39.6	$ 17.8	69.0%	$ 2.5	$ (3.8)	$ 2.8	37.7%
2036	$ 4.8	$ 50.3	$31.0	$ 19.3	62%	$ 2.6	$ (4.1)	$ 2.1	55.0%	$ 6.8	$ 58.5	$41.5	$ 16.9	71.0%	$ 2.5	$ (3.9)	$ 3.0	36.9%
2037	$ 4.9	$ 49.9	$31.9	$ 18.1	64%	$ 2.6	$ (4.1)	$ 2.2	53.8%	$ 7.0	$ 59.5	$43.5	$ 16.0	73.1%	$ 2.5	$ (3.9)	$ 3.1	36.1%
2038	$ 5.0	$ 49.6	$32.8	$ 16.8	66%	$ 2.6	$ (4.1)	$ 2.3	52.4%	$ 7.2	$ 60.6	$45.6	$ 15.0	75.2%	$ 2.5	$ (4.0)	$ 3.3	35.3%
2039	$ 5.1	$ 49.2	$33.8	$ 15.4	69%	$ 2.6	$ (4.1)	$ 2.4	51.1%	$ 7.4	$ 61.8	$47.8	$ 14.0	77.4%	$ 2.6	$ (4.1)	$ 3.4	34.5%
2040	$ 5.3	$ 48.8	$34.9	$ 13.9	71%	$ 2.6	$ (4.1)	$ 2.4	49.7%	$ 7.6	$ 63.0	$50.2	$ 12.8	79.6%	$ 2.6	$ (4.1)	$ 3.6	33.7%
2041	$ 5.4	$ 48.4	$36.0	$ 12.3	74%	$ 2.6	$ (4.1)	$ 2.5	48.4%	$ 7.9	$ 64.3	$52.6	$ 11.7	81.9%	$ 2.6	$ (4.2)	$ 3.8	33.0%
2042	$ 5.5	$ 48.0	$37.3	$ 10.7	78%	$ 2.6	$ (4.0)	$ 2.6	47.0%	$ 8.1	$ 65.6	$55.2	$ 10.4	84.1%	$ 2.6	$ (4.3)	$ 4.0	32.2%
2043	$ 5.7	$ 47.5	$38.6	$ 8.9	81%	$ 2.6	$ (4.0)	$ 2.7	45.7%	$ 8.4	$ 67.0	$57.9	$ 9.1	86.5%	$ 2.6	$ (4.4)	$ 4.2	31.5%
2044	$ 5.8	$ 47.2	$40.2	$ 7.0	85%	$ 2.5	$ (3.9)	$ 2.8	43.5%	$ 8.6	$ 68.4	$60.8	$ 7.7	88.8%	$ 2.7	$ (4.5)	$ 4.4	30.8%
2045	$ 6.0	$ 46.9	$41.9	$ 5.0	89%	$ 2.4	$ (3.9)	$ 3.0	40.8%	$ 8.9	$ 69.9	$63.8	$ 6.2	91.2%	$ 2.7	$ (4.6)	$ 4.6	30.1%
2046	$ 6.1	$ 46.6	$43.7	$ 2.9	94%	$ 2.4	$ (3.9)	$ 3.1	38.8%	$ 9.1	$ 71.5	$66.9	$ 4.6	93.6%	$ 2.6	$ (4.7)	$ 4.8	28.4%

Exhibit 6


Funded Ratio
100%
90%
80%
70%
60%
50%
40%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS
Unfunded Accrued Liability
Billions
$30.0
$25.0
$20.0
$15.0
$10.0
$5.0
$-
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS

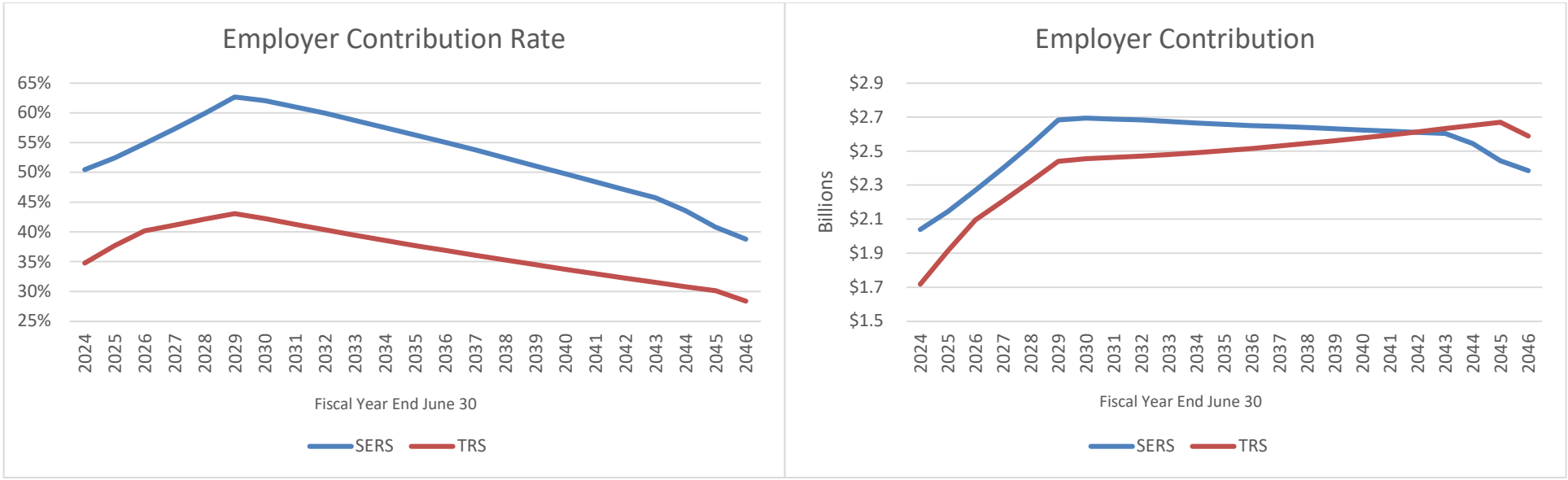

Employer Contribution Rate
65%
60%
55%
50%
45%
40%
35%
30%
25%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS
Employer Contribution
Billions
$2.9
$2.7
$2.5
$2.3
$2.1
$1.9
$1.7
$1.5
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Exhibit 7

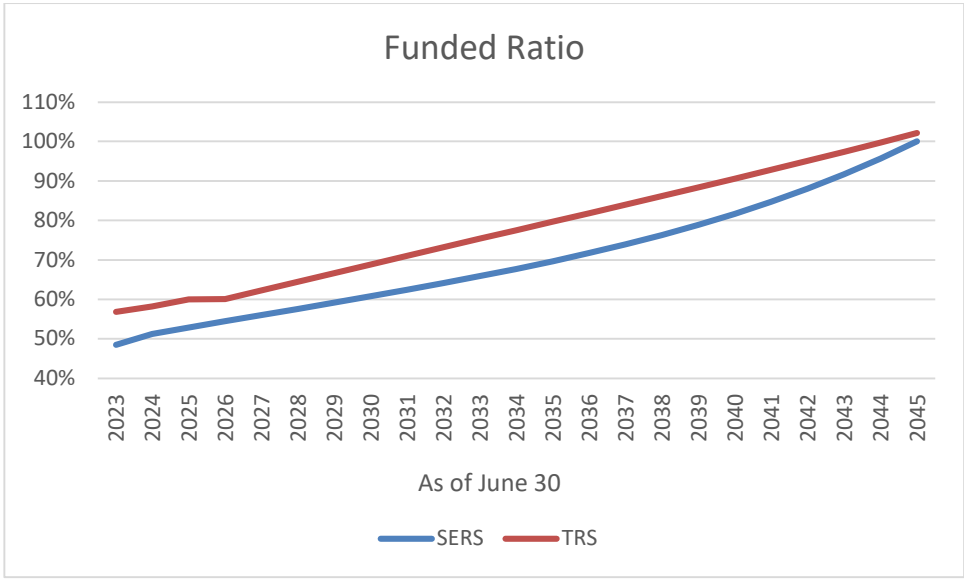
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

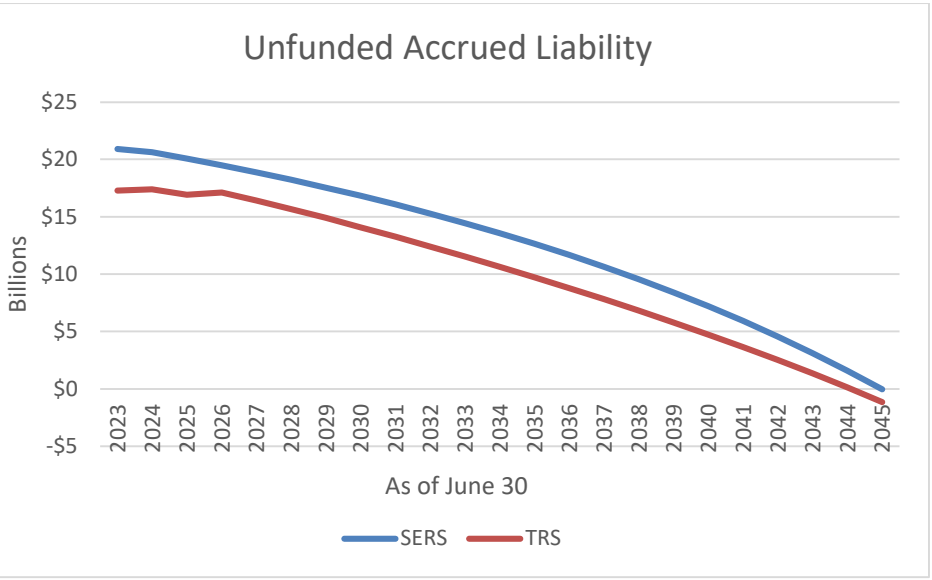
Scenario: 2% Below Assumed Salary Growth

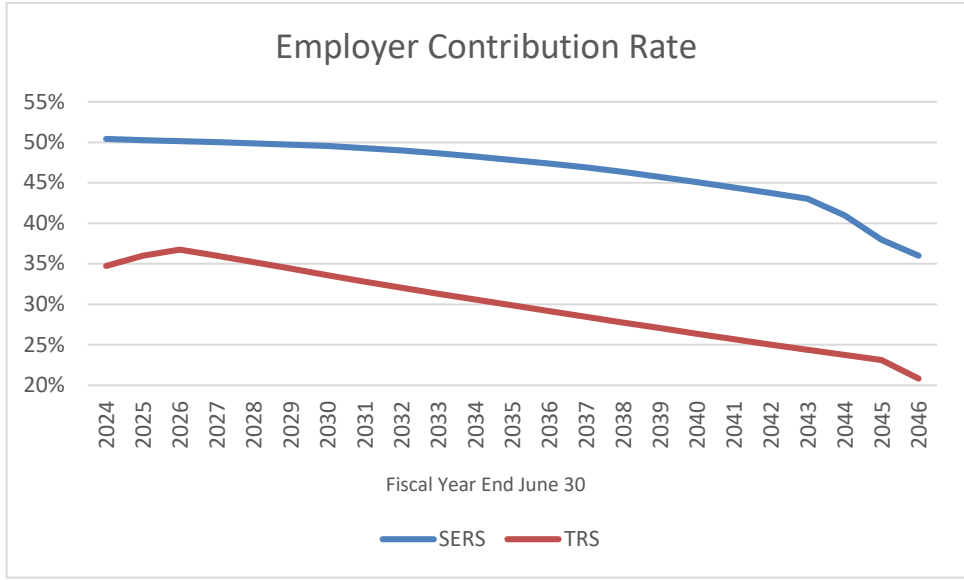
$ Billions

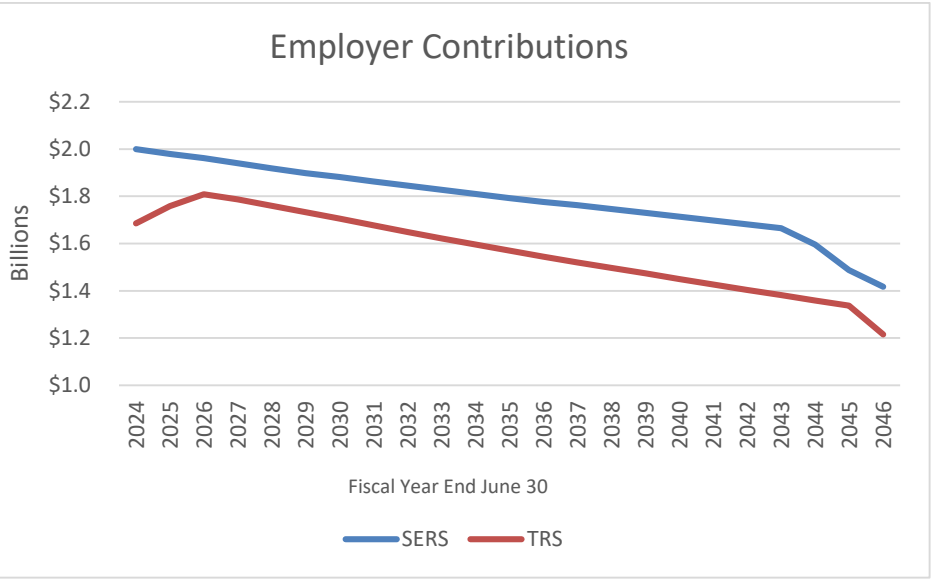
	SERS									TRS								
		Funding - Market Value				Employer Cost					Funding - Market Value				Employer Cost			
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage
2023	$ 4.0	$ 40.7	$ 19.7	$ 20.9	49%	$ 2.0	$ (2.8)	$ 1.3	51.0%	$ 4.8	$ 40.0	$ 22.7	$ 17.3	56.8%	$ 1.6	$ (2.5)	$ 1.7	32.9%
2024	$ 4.0	$ 42.3	$ 21.7	$ 20.6	51%	$ 2.0	$ (2.8)	$ 1.4	50.4%	$ 4.8	$ 41.7	$ 24.3	$ 17.4	58.3%	$ 1.7	$ (2.5)	$ 0.9	34.8%
2025	$ 3.9	$ 42.6	$ 22.5	$ 20.1	53%	$ 2.0	$ (2.9)	$ 1.5	50.3%	$ 4.9	$ 42.3	$ 25.4	$ 16.9	60.0%	$ 1.8	$ (2.6)	$ 1.8	36.0%
2026	$ 3.9	$ 42.8	$ 23.3	$ 19.5	54%	$ 2.0	$ (3.0)	$ 1.5	50.1%	$ 4.9	$ 42.9	$ 25.8	$ 17.1	60.1%	$ 1.8	$ (2.7)	$ 1.8	36.8%
2027	$ 3.9	$ 42.9	$ 24.0	$ 18.9	56%	$ 1.9	$ (3.0)	$ 1.6	50.0%	$ 5.0	$ 43.5	$ 27.1	$ 16.4	62.3%	$ 1.8	$ (2.7)	$ 1.9	36.0%
2028	$ 3.8	$ 43.0	$ 24.7	$ 18.2	58%	$ 1.9	$ (3.1)	$ 1.7	49.9%	$ 5.0	$ 44.1	$ 28.4	$ 15.7	64.4%	$ 1.8	$ (2.8)	$ 2.0	35.2%
2029	$ 3.8	$ 43.0	$ 25.4	$ 17.5	59%	$ 1.9	$ (3.2)	$ 1.7	49.7%	$ 5.0	$ 44.6	$ 29.7	$ 14.9	66.6%	$ 1.7	$ (2.8)	$ 2.1	34.4%
2030	$ 3.8	$ 42.9	$ 26.1	$ 16.8	61%	$ 1.9	$ (3.2)	$ 1.8	49.5%	$ 5.1	$ 45.2	$ 31.1	$ 14.1	68.8%	$ 1.7	$ (2.9)	$ 2.2	33.6%
2031	$ 3.8	$ 42.8	$ 26.7	$ 16.1	62%	$ 1.9	$ (3.3)	$ 1.8	49.3%	$ 5.1	$ 45.7	$ 32.5	$ 13.3	71.0%	$ 1.7	$ (2.9)	$ 2.3	32.8%
2032	$ 3.8	$ 42.6	$ 27.3	$ 15.3	64%	$ 1.8	$ (3.3)	$ 1.8	49.0%	$ 5.1	$ 46.3	$ 33.9	$ 12.4	73.2%	$ 1.6	$ (3.0)	$ 2.4	32.1%
2033	$ 3.8	$ 42.3	$ 27.9	$ 14.4	66%	$ 1.8	$ (3.3)	$ 1.9	48.6%	$ 5.2	$ 46.8	$ 35.3	$ 11.5	75.4%	$ 1.6	$ (3.1)	$ 2.5	31.3%
2034	$ 3.8	$ 42.0	$ 28.4	$ 13.6	68%	$ 1.8	$ (3.4)	$ 1.9	48.2%	$ 5.2	$ 47.3	$ 36.7	$ 10.6	77.5%	$ 1.6	$ (3.1)	$ 2.6	30.6%
2035	$ 3.7	$ 41.7	$ 29.0	$ 12.6	70%	$ 1.8	$ (3.4)	$ 2.0	47.8%	$ 5.3	$ 47.8	$ 38.1	$ 9.7	79.7%	$ 1.6	$ (3.2)	$ 2.7	29.9%
2036	$ 3.7	$ 41.3	$ 29.6	$ 11.7	72%	$ 1.8	$ (3.4)	$ 2.0	47.4%	$ 5.3	$ 48.3	$ 39.5	$ 8.8	81.8%	$ 1.5	$ (3.2)	$ 2.8	29.1%
2037	$ 3.8	$ 40.8	$ 30.2	$ 10.6	74%	$ 1.8	$ (3.4)	$ 2.1	46.9%	$ 5.3	$ 48.8	$ 41.0	$ 7.8	84.0%	$ 1.5	$ (3.3)	$ 2.9	28.4%
2038	$ 3.8	$ 40.3	$ 30.8	$ 9.6	76%	$ 1.7	$ (3.4)	$ 2.1	46.3%	$ 5.4	$ 49.3	$ 42.4	$ 6.8	86.1%	$ 1.5	$ (3.3)	$ 3.0	27.8%
2039	$ 3.8	$ 39.8	$ 31.4	$ 8.4	79%	$ 1.7	$ (3.4)	$ 2.1	45.7%	$ 5.4	$ 49.7	$ 43.9	$ 5.8	88.3%	$ 1.5	$ (3.4)	$ 3.1	27.1%
2040	$ 3.8	$ 39.2	$ 32.0	$ 7.2	82%	$ 1.7	$ (3.4)	$ 2.2	45.1%	$ 5.5	$ 50.2	$ 45.5	$ 4.7	90.6%	$ 1.4	$ (3.4)	$ 3.2	26.4%
2041	$ 3.8	$ 38.7	$ 32.7	$ 5.9	85%	$ 1.7	$ (3.3)	$ 2.3	44.4%	$ 5.6	$ 50.7	$ 47.1	$ 3.6	92.8%	$ 1.4	$ (3.4)	$ 3.3	25.7%
2042	$ 3.8	$ 38.1	$ 33.5	$ 4.6	88%	$ 1.7	$ (3.3)	$ 2.3	43.7%	$ 5.6	$ 51.2	$ 48.7	$ 2.5	95.1%	$ 1.4	$ (3.5)	$ 3.4	25.0%
2043	$ 3.9	$ 37.5	$ 34.3	$ 3.1	92%	$ 1.7	$ (3.2)	$ 2.4	43.0%	$ 5.7	$ 51.7	$ 50.4	$ 1.3	97.4%	$ 1.4	$ (3.5)	$ 3.5	24.4%
2044	$ 3.9	$ 36.9	$ 35.3	$ 1.6	96%	$ 1.6	$ (3.2)	$ 2.5	41.0%	$ 5.7	$ 52.2	$ 52.1	$ 0.1	99.8%	$ 1.4	$ (3.6)	$ 3.7	23.7%
2045	$ 3.9	$ 36.3	$ 36.3	$ (0.0)	100%	$ 1.5	$ (3.1)	$ 2.5	38.0%	$ 5.8	$ 52.7	$ 53.9	$ (1.1)	102.1%	$ 1.3	$ (3.7)	$ 3.8	23.1%
2046	$ 3.9	$ 35.7	$ 37.4	$ (1.7)	105%	$ 1.4	$ (3.1)	$ 2.6	36.0%	$ 5.8	$ 53.3	$ 55.7	$ (2.4)	104.6%	$ 1.2	$ (3.7)	$ 3.9	20.8%

Exhibit 7


Funded Ratio
110%
100%
90%
80%
70%
60%
50%
40%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Unfunded Accrued Liability
$25
$20
$15
$10
$5
$0
-$5
Billions
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Employer Contribution Rate
55%
50%
45%
40%
35%
30%
25%
20%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS


Employer Contributions
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$2.0
$1.8
$1.6
$1.4
$1.2
$1.0
Billions
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS

Exhibit 8

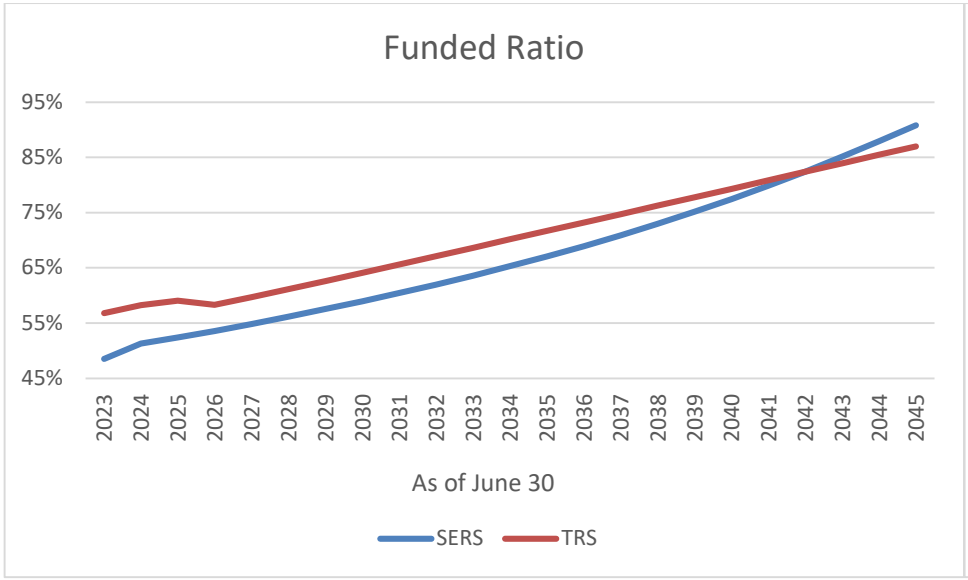
24 Year Projections: Connecticut State Employees Retirement System and Connecticut State Teachers' Retirement System

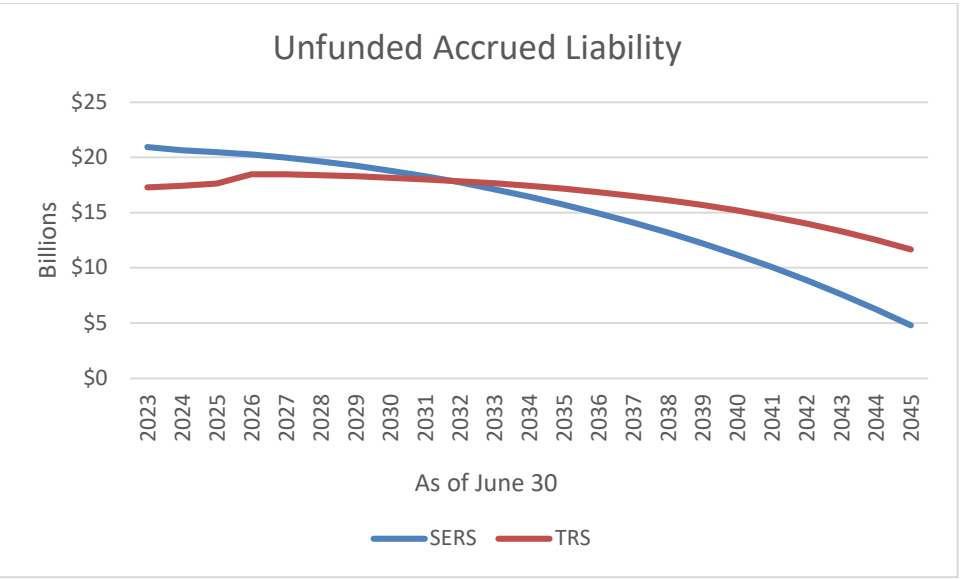
Scenario: 2% Above Assumed Salary Growth

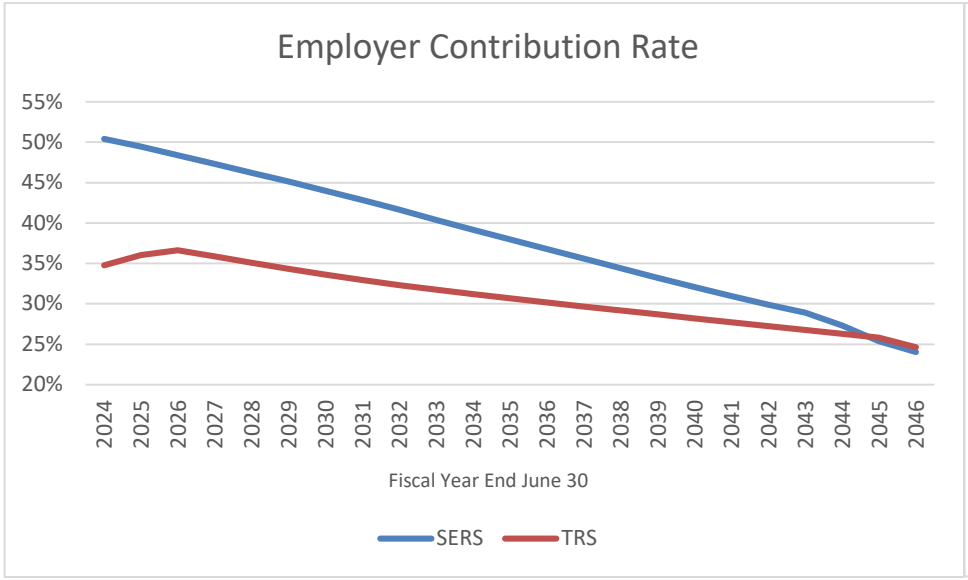
$ Billions

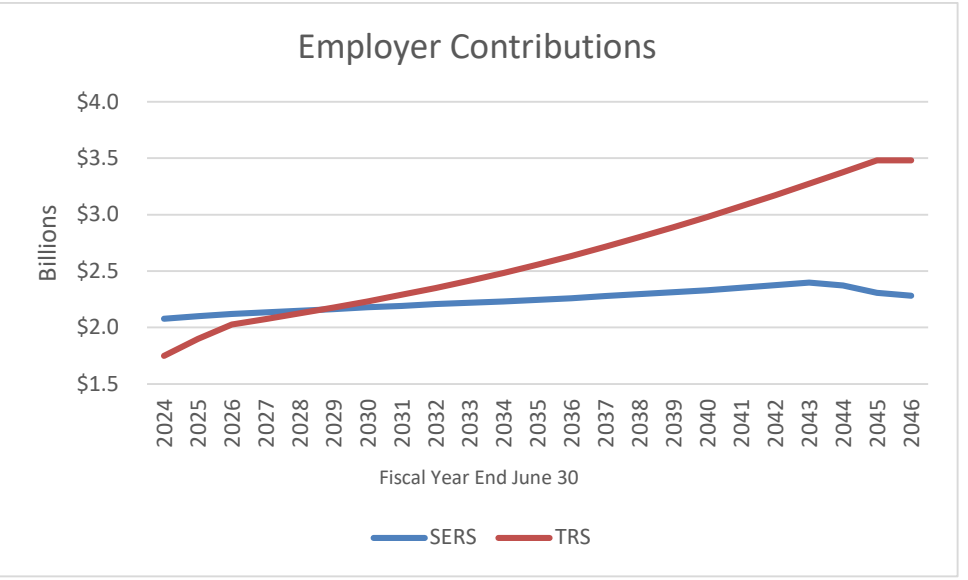
	SERS										TRS									
		Funding - Market Value				Employer Cost						Funding - Market Value				Employer Cost				
Fiscal Year	Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage		Payroll	Liability	Assets	UAL	Funded Ratio	Total Contribution	Benefit Payment	Investment Return	Contribution Percentage	
2023	$ 3.99	$ 40.65	$ 19.73	$ 20.93	48.5%	$ 2.04	$ (2.75)	$ 1.33	$ 0.51		$ 4.8	$ 40.0	$ 22.7	$ 17.3	56.8%	$ 1.6	$ (2.5)	$ 1.7	32.9%	
2024	$ 4.12	$ 42.33	$ 21.71	$ 20.62	51.3%	$ 2.08	$ (2.83)	$ 1.41	$ 0.50		$ 5.0	$ 41.7	$ 24.3	$ 17.4	58.3%	$ 1.8	$ (2.6)	$ 0.9	34.8%	
2025	$ 4.25	$ 42.98	$ 22.51	$ 20.47	52.4%	$ 2.10	$ (2.91)	$ 1.48	$ 0.49		$ 5.3	$ 43.0	$ 25.4	$ 17.6	59.0%	$ 1.9	$ (2.6)	$ 1.8	36.0%	
2026	$ 4.38	$ 43.60	$ 23.36	$ 20.24	53.6%	$ 2.12	$ (2.99)	$ 1.56	$ 0.48		$ 5.5	$ 44.3	$ 25.9	$ 18.5	58.3%	$ 2.0	$ (2.7)	$ 1.8	36.7%	
2027	$ 4.51	$ 44.20	$ 24.24	$ 19.96	54.8%	$ 2.14	$ (3.08)	$ 1.63	$ 0.47		$ 5.8	$ 45.8	$ 27.3	$ 18.5	59.7%	$ 2.1	$ (2.8)	$ 2.0	35.9%	
2028	$ 4.65	$ 44.76	$ 25.14	$ 19.62	56.2%	$ 2.15	$ (3.16)	$ 1.70	$ 0.46		$ 6.1	$ 47.3	$ 28.9	$ 18.4	61.1%	$ 2.1	$ (2.8)	$ 2.1	35.1%	
2029	$ 4.79	$ 45.28	$ 26.05	$ 19.23	57.5%	$ 2.16	$ (3.24)	$ 1.77	$ 0.45		$ 6.3	$ 48.9	$ 30.6	$ 18.3	62.6%	$ 2.2	$ (2.9)	$ 2.2	34.3%	
2030	$ 4.95	$ 45.76	$ 26.98	$ 18.79	58.9%	$ 2.18	$ (3.32)	$ 1.85	$ 0.44		$ 6.6	$ 50.6	$ 32.4	$ 18.2	64.1%	$ 2.2	$ (3.0)	$ 2.4	33.6%	
2031	$ 5.12	$ 46.22	$ 27.92	$ 18.30	60.4%	$ 2.19	$ (3.39)	$ 1.92	$ 0.43		$ 6.9	$ 52.4	$ 34.3	$ 18.0	65.6%	$ 2.3	$ (3.1)	$ 2.5	32.9%	
2032	$ 5.30	$ 46.63	$ 28.88	$ 17.75	61.9%	$ 2.21	$ (3.44)	$ 1.99	$ 0.42		$ 7.3	$ 54.2	$ 36.4	$ 17.8	67.1%	$ 2.4	$ (3.2)	$ 2.7	32.3%	
2033	$ 5.49	$ 46.98	$ 29.88	$ 17.11	63.6%	$ 2.22	$ (3.50)	$ 2.07	$ 0.40		$ 7.6	$ 56.2	$ 38.6	$ 17.6	68.6%	$ 2.4	$ (3.3)	$ 2.8	31.7%	
2034	$ 5.70	$ 47.36	$ 30.92	$ 16.44	65.3%	$ 2.23	$ (3.56)	$ 2.15	$ 0.39		$ 8.0	$ 58.3	$ 40.9	$ 17.4	70.1%	$ 2.5	$ (3.4)	$ 3.0	31.2%	
2035	$ 5.91	$ 47.73	$ 32.00	$ 15.72	67.1%	$ 2.25	$ (3.62)	$ 2.23	$ 0.38		$ 8.3	$ 60.5	$ 43.4	$ 17.2	71.7%	$ 2.6	$ (3.5)	$ 3.2	30.7%	
2036	$ 6.15	$ 48.07	$ 33.13	$ 14.94	68.9%	$ 2.26	$ (3.66)	$ 2.31	$ 0.37		$ 8.7	$ 62.8	$ 46.0	$ 16.9	73.2%	$ 2.6	$ (3.7)	$ 3.3	30.2%	
2037	$ 6.40	$ 48.41	$ 34.31	$ 14.10	70.9%	$ 2.28	$ (3.70)	$ 2.40	$ 0.36		$ 9.2	$ 65.2	$ 48.7	$ 16.5	74.7%	$ 2.7	$ (3.8)	$ 3.5	29.7%	
2038	$ 6.67	$ 48.76	$ 35.57	$ 13.19	72.9%	$ 2.30	$ (3.73)	$ 2.50	$ 0.34		$ 9.6	$ 67.8	$ 51.6	$ 16.1	76.2%	$ 2.8	$ (3.9)	$ 3.8	29.2%	
2039	$ 6.96	$ 49.12	$ 36.90	$ 12.22	75.1%	$ 2.31	$ (3.76)	$ 2.60	$ 0.33		$ 10.1	$ 70.4	$ 54.8	$ 15.7	77.7%	$ 2.9	$ (4.1)	$ 4.0	28.7%	
2040	$ 7.27	$ 49.51	$ 38.34	$ 11.17	77.4%	$ 2.33	$ (3.78)	$ 2.71	$ 0.32		$ 10.6	$ 73.3	$ 58.1	$ 15.2	79.3%	$ 3.0	$ (4.2)	$ 4.2	28.2%	
2041	$ 7.59	$ 49.94	$ 39.88	$ 10.06	79.9%	$ 2.35	$ (3.79)	$ 2.82	$ 0.31		$ 11.1	$ 76.2	$ 61.6	$ 14.6	80.8%	$ 3.1	$ (4.4)	$ 4.5	27.7%	
2042	$ 7.94	$ 50.42	$ 41.55	$ 8.87	82.4%	$ 2.37	$ (3.76)	$ 2.95	$ 0.30		$ 11.6	$ 79.3	$ 65.4	$ 14.0	82.4%	$ 3.2	$ (4.6)	$ 4.8	27.3%	
2043	$ 8.31	$ 50.98	$ 43.37	$ 7.60	85.1%	$ 2.40	$ (3.77)	$ 3.10	$ 0.29		$ 12.2	$ 82.6	$ 69.3	$ 13.3	83.9%	$ 3.3	$ (4.8)	$ 5.1	26.8%	
2044	$ 8.69	$ 51.66	$ 45.40	$ 6.26	87.9%	$ 2.37	$ (3.78)	$ 3.25	$ 0.27		$ 12.8	$ 86.0	$ 73.5	$ 12.5	85.4%	$ 3.4	$ (5.0)	$ 5.4	26.3%	
2045	$ 9.08	$ 52.42	$ 47.61	$ 4.81	90.8%	$ 2.31	$ (3.80)	$ 3.41	$ 0.25		$ 13.5	$ 89.6	$ 77.9	$ 11.7	87.0%	$ 3.5	$ (5.2)	$ 5.7	25.8%	
2046	$ 9.49	$ 53.26	$ 49.95	$ 3.32	93.8%	$ 2.28	$ (3.81)	$ 3.58	$ 0.24		$ 14.1	$ 93.3	$ 82.6	$ 10.7	88.5%	$ 3.5	$ (5.5)	$ 6.0	24.6%	

Exhibit 8


Funded Ratio
95%
85%
75%
65%
55%
45%
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Unfunded Accrued Liability
Billions
$25
$20
$15
$10
$5
$0
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045
As of June 30
SERS
TRS


Employer Contribution Rate
55%
50%
45%
40%
35%
30%
25%
20%
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS


Employer Contributions
Billions
$4.0
$3.5
$3.0
$2.5
$2.0
$1.5
2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046
Fiscal Year End June 30
SERS
TRS