



**Cavanaugh Macdonald**  
CONSULTING, LLC

*The experience and dedication you deserve*

# **Local Governmental Employees' Retirement System Actuarially Determined Employer Contributions (ADEC) Projections for the Local System**

**January 28, 2021 Board of Trustees Meeting**

**Larry Langer, ASA, FCA, EA, MAAA**

**Jonathan Craven, ASA, FCA, EA, MAAA**





# Projections

- Projections of contribution requirements and funded status into the future can be helpful planning tools for stakeholders. This section provides deterministic projections of the actuarial valuation under the assumptions used in the December 31, 2019 as well as the proposed assumptions recommended in our experience study covering the January 1, 2014 – December 31, 2019 period.
- Key Projection Assumptions Proposed from Experience Study
  - Valuation interest rate of 6.50% beginning 12/31/2020 with direct rate smoothing of the employer contribution rate over a 5-year period beginning July 1, 2022.
  - 11.00% investment return on market value of assets for 2020 and 6.5% return after 2020.
  - Actuarial assumptions and methods as described in our January 1, 2015 – December 31, 2019 Experience Study Report. All future demographic experience is assumed to be exactly realized.
  - The contribution rate under the Employer Contribution Rate Stabilization Policy (ECRSP) is contributed until fiscal year ending 2022.
  - The actuarially determined employer contribution rate (subject to direct rate smoothing of changes due to assumption changes) is contributed for fiscal years ending 2023 and beyond.
  - 0% increase in the total active member population
  - No cost-of-living adjustments granted
  - Future pay increases based on long-term salary increase assumptions



# Projections

- The revised ECRSP adopted by the Board of Trustees on January 31, 2019 requires that recommended contributions for general employees be set at 8.95% of payroll for fiscal year ending 2020, 10.15% for fiscal year ending 2021, and 11.35% for fiscal year ending 2022, with the following additional adjustments, if applicable:
  - If the underlying actuarially determined employer contribution rate (ADEC) for a given fiscal year is 50% higher than the scheduled employer contribution rate for that fiscal year, the scheduled employer contribution rate for the current and future fiscal years increases 0.50%;
  - If the underlying ADEC for a given fiscal year is 50% lower than the scheduled employer contribution rate for that fiscal year, the scheduled employer contribution rate for the current and future fiscal year decreases 0.50%;
  - If the General Assembly grants any additional COLA beyond the amount of COLA granted by the Board, increases the multiplier for active employees, or changes the benefit structure in a way that has a cost to the system, the schedule of contributions for the current and future fiscal years will be increased by the cost of the benefit enhancement. The cost of any COLA granted by the Board under the authority allowed by statute will not impact the scheduled contribution rates.
  - Contribution rates for law enforcement officers will be 0.75% higher than contribution rates for general employees.

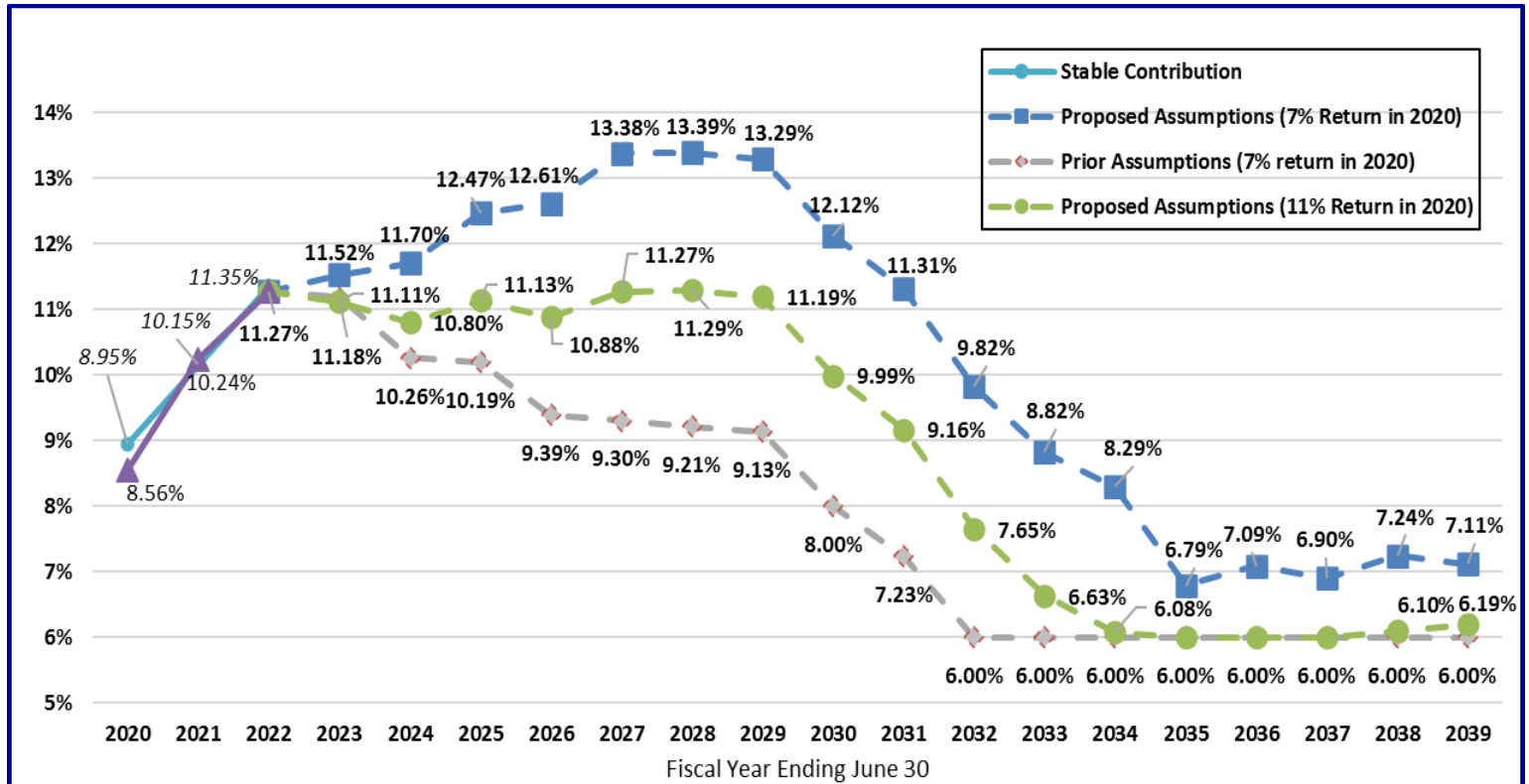


# Projections

- In addition to the baseline projection which uses the proposed assumptions with an 11.0% estimated 2020 return, we have provided two other deterministic projections.
  - One is based on the same assumptions as the baseline deterministic projection except that it is based on the expected asset return of 7.0% for calendar year 2020.
  - Another is based on the assumptions prior to the experience study with the expected asset return of 7.0% for calendar year 2020



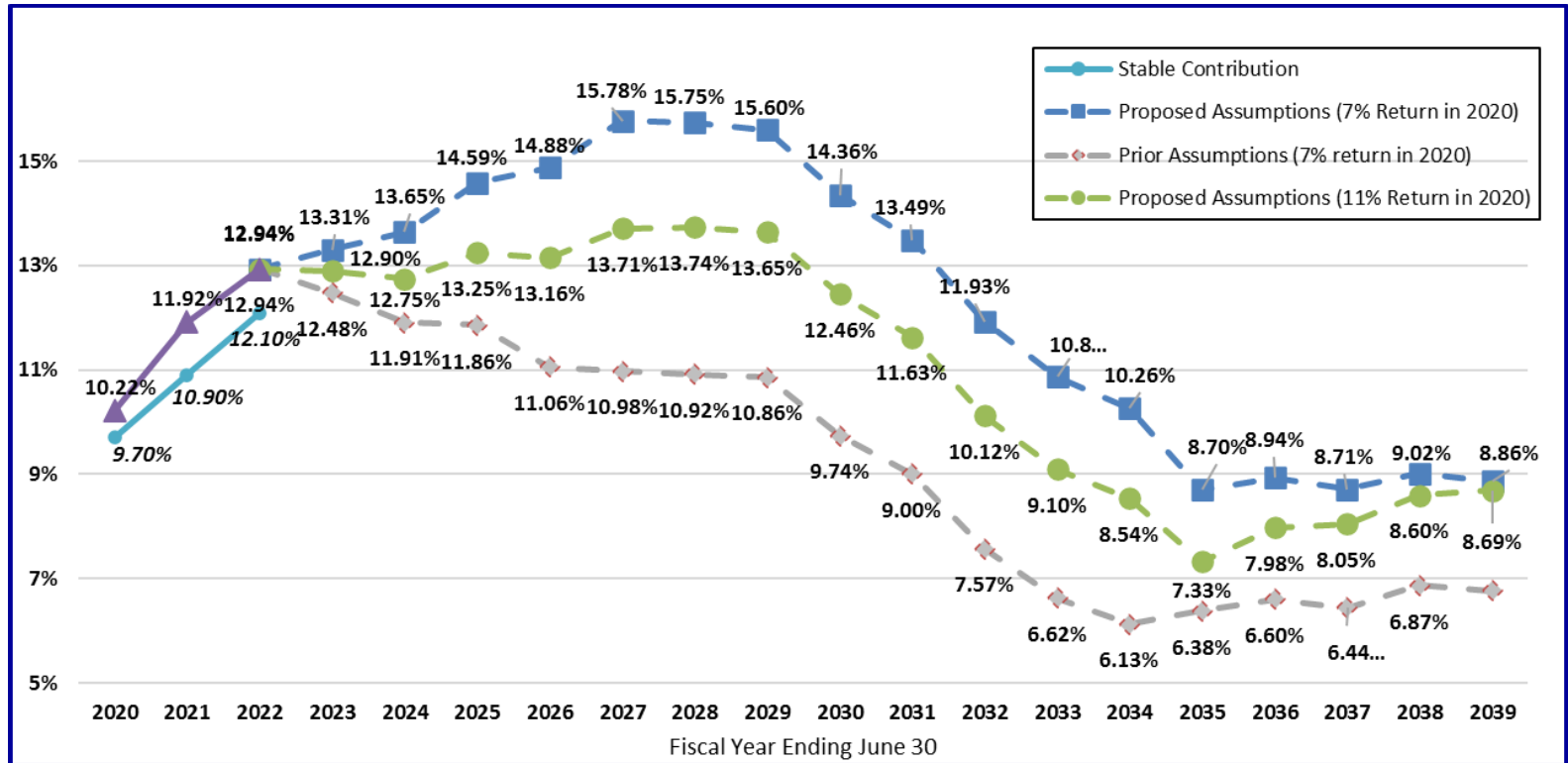
# Projected Contribution Rates - General Employees and Firefighters



Estimated returns were 4.0% higher than expected. Therefore, we are projecting that the unfunded actuarial accrued liability will be lower resulting in lower employer contribution rates.



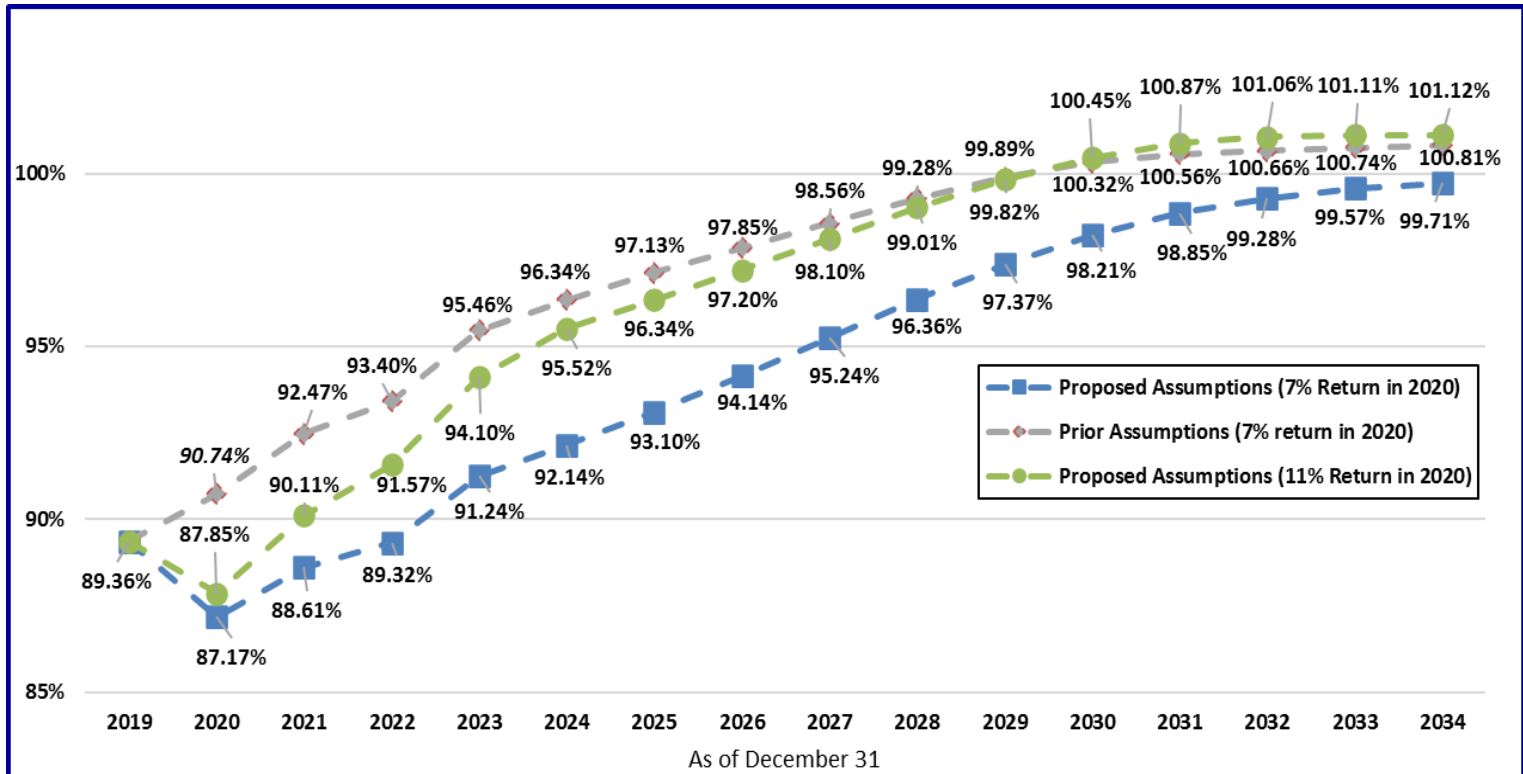
# Projected Contribution Rates - Law Enforcement Officers



Estimated returns were 4.0% higher than expected. Therefore, we are projecting that the unfunded actuarial accrued liability will be lower resulting in lower employer contribution rate.



# Projected Funded Ratio



Estimated returns were 4.0% higher than expected. Therefore, we are projecting that the unfunded actuarial accrued liability will be lower resulting in higher funded ratios.



# Certification

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Cavanaugh Macdonald performed no analysis of the potential range of such future differences, except for some limited analysis in financial projections or required disclosure information. Results prior to December 31, 2017 were provided by the prior consulting actuary. In order to prepare the results in this study, we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

Larry Langer, ASA, EA, FCA, MAAA  
Principal and Consulting Actuary

Jonathan T. Craven, ASA, EA, FCA, MAAA  
Consulting Actuary





# APPENDIX

# Fiscal Year Contribution Projection



**Proposed Assumptions (11% return in 2020)**

Fiscal Year Ending	Employer Contribution Rate - General and Firefighters	Employer Contribution Rate - Law Enforcement Officers	Employer Contributions	Member Contributions	Benefit Payments Val Year
6/30/2022	11.35%	12.10%	852,386,000	435,456,000	1,771,574,000
6/30/2023	11.11%	12.90%	865,148,000	443,794,000	1,700,004,000
6/30/2024	10.80%	12.75%	861,103,000	452,593,000	1,790,700,000
6/30/2025	11.13%	13.25%	907,388,000	461,852,000	1,885,358,000
6/30/2026	10.88%	13.16%	909,143,000	471,552,000	1,985,628,000
6/30/2027	11.27%	13.71%	963,666,000	481,762,000	2,094,452,000
6/30/2028	11.29%	13.74%	983,749,000	492,502,000	2,200,698,000
6/30/2029	11.19%	13.65%	998,170,000	503,702,000	2,308,362,000
6/30/2030	9.99%	12.46%	916,823,000	515,440,000	2,417,555,000
6/30/2031	9.16%	11.63%	864,933,000	527,880,000	2,527,909,000
6/30/2032	7.65%	10.12%	747,664,000	541,093,000	2,636,684,000
6/30/2033	6.63%	9.10%	670,605,000	555,099,000	2,743,714,000
6/30/2034	6.08%	8.54%	634,671,000	569,771,000	2,846,039,000
6/30/2035	6.00%	7.33%	623,990,000	584,944,000	2,946,590,000
6/30/2036	6.00%	7.98%	652,795,000	600,716,000	3,048,842,000
6/30/2037	6.00%	8.05%	672,185,000	617,200,000	3,125,442,000
6/30/2038	6.10%	8.60%	710,645,000	634,325,000	3,225,434,000
6/30/2039	6.19%	8.69%	741,370,000	652,302,000	3,325,998,000



# Asset and Liability Projection

## Proposed Assumptions (11% return in 2020)

Valuation Date	Market Value of Assets	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
12/31/2019	28,224,698,000	27,435,046,000	30,700,921,303	3,265,875,303	89.36%
12/31/2020	30,621,073,000	29,138,461,000	33,169,583,000	4,031,122,000	87.85%
12/31/2021	32,100,487,000	31,086,526,000	34,497,945,000	3,411,419,000	90.11%
12/31/2022	33,649,231,000	32,814,702,000	35,836,745,000	3,022,043,000	91.57%
12/31/2023	35,213,467,000	34,990,245,000	37,183,459,000	2,193,214,000	94.10%
12/31/2024	36,805,625,000	36,805,625,000	38,533,827,000	1,728,202,000	95.52%
12/31/2025	38,422,422,000	38,422,422,000	39,880,217,000	1,457,795,000	96.34%
12/31/2026	40,072,073,000	40,072,073,000	41,226,169,000	1,154,096,000	97.20%
12/31/2027	41,763,813,000	41,763,813,000	42,571,375,000	807,562,000	98.10%
12/31/2028	43,482,589,000	43,482,589,000	43,915,357,000	432,768,000	99.01%
12/31/2029	45,176,647,000	45,176,647,000	45,258,266,000	81,619,000	99.82%
12/31/2030	46,812,521,000	46,812,521,000	46,603,293,000	(209,228,000)	100.45%
12/31/2031	48,371,658,000	48,371,658,000	47,954,197,000	(417,461,000)	100.87%
12/31/2032	49,841,676,000	49,841,676,000	49,317,887,000	(523,789,000)	101.06%
12/31/2033	51,260,733,000	51,260,733,000	50,698,619,000	(562,114,000)	101.11%
12/31/2034	52,657,772,000	52,657,772,000	52,076,621,000	(581,151,000)	101.12%
12/31/2035	54,090,520,000	54,090,520,000	53,520,182,000	(570,338,000)	101.07%
12/31/2036	55,553,429,000	55,553,429,000	54,990,932,000	(562,497,000)	101.02%
12/31/2037	57,053,166,000	57,053,166,000	56,491,506,000	(561,660,000)	100.99%
12/31/2038	58,601,202,000	58,601,202,000	58,029,050,000	(572,152,000)	100.99%
12/31/2039	60,188,392,000	60,188,392,000	59,609,244,000	(579,148,000)	100.97%