

October 7, 2020

VIA EMAIL

Board of Trustees
City of Naples
General Retirement System

Re: City of Naples General Retirement System
Actuarial Analysis of Assumptions for Investment Return and Mortality

Dear Board:

As requested, we have performed a special actuarial analysis to determine the impact on Plan liabilities and funding requirements associated with changes to the assumptions for mortality and investment return. Results of this analysis, determined as of October 1, 2019, are shown on the attached schedule. Unless otherwise noted, all data, assumptions, methods and plan provisions are the same as in the October 1, 2019 actuarial valuation report and the GASB Statement No.67 measured as of September 30, 2019. The change in the Unfunded Actuarial Accrued Liability is amortized as a level dollar over 20 years for each scenario.

In reviewing the results presented in this study, it should be noted that there are risks that may not be inherently apparent to the reader that should be carefully considered. For a discussion of key risks please see the Discussion of Risk section of the October 1, 2019 actuarial valuation report.

Additionally, future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of this study, we did not perform an analysis of the potential range of such future measurements.

Mortality Rates

The rate of mortality is the probability of death at a given age. As mortality rates have continued to decline over time, concern has increased about the impact of potential future mortality improvement on the magnitude of pension obligations. ASOP No. 35 discusses the importance of actuaries considering mortality improvements when measuring pension obligations. Specifically, an actuary should adjust mortality rates to reflect mortality improvement prior to the measurement date and include an assumption as to the expected mortality improvement after the measurement date, if reasonable.

The Society of Actuaries underwent a comprehensive experience study with the primary objective to develop mortality tables comprised solely of public-sector lives. Additionally, contributors to the study were asked to identify plan members as teachers, public safety personnel, or general employees. This helped provide new insights into the composition of gender-specific pension mortality by factors such as job category, specifically in the public sector. The published tables were released as the Pub-2010 Public Retirement Plans Mortality Tables.

Chapter 2015-157, Laws of Florida, mandates the Board to employ the mortality tables used in either of the two most recently published actuarial valuation reports of the Florida Retirement System (FRS) including appropriate risk and collar adjustments based on plan demographics. In conjunction with its July 1, 2019 actuarial valuation, the FRS adopted the Pub-2010 tables, as recommended by their actuary.

The published assumed rates of mortality adopted by the FRS are listed below. Please note each item includes the Pub-2010 base table and generational mortality using the MP-2018 mortality improvement projection scale.

Mortality Assumption – Florida Retirement System July 1, 2019 Actuarial Valuation

- ❖ Active Employees (Other than Special Risk)
 - Males – Headcount Weighted General Below Median Employee Male Table, set back 1 year
 - Females – Headcount Weighted General Below Median Employee Female Table

- ❖ Non-Disabled Retirees (Other than Special Risk)
 - Males – Headcount Weighted General Below Median Healthy Retiree Male Table, set back 1 year
 - Females – Headcount Weighted General Below Median Healthy Retiree Female Table

- ❖ Contingent Survivors (Other than Special Risk)
 - Males – Headcount Weighted General Below Median Healthy Retiree Male Table, set back 1 year
 - Females – Headcount Weighted General Below Median Healthy Retiree Female Table

- ❖ Disabled Retirees (Other than Special Risk)
 - Males – Headcount Weighted General Disabled Retiree Male Table, set forward 3 years
 - Females – Headcount Weighted General Disabled Retiree Female Table, set forward 3 years

As previously mentioned, Chapter 2015-157 requires that “appropriate risk and collar adjustments must be made based on plan demographics.” For each job category, the Society of Actuaries published separate mortality rate tables based on varying income levels (below-median and above-median) in addition to the table for the total dataset. We feel that in order to comply with Chapter 2015-157, we must compare the published income level percentile amounts to the income level percentile amounts of your plan to determine which table is appropriate based on plan demographics.

Please note that the published income percentiles effectively represent values as of the central year of the experience study performed by the Society of Actuaries, July 1, 2010 – June 30, 2011. In order to compare these percentiles as benchmarks to the valuation data, we have adjusted the published amounts to account for actual inflation since the central year of the study. The table on the following page illustrates the comparison of the inflation-adjusted published income percentile amounts and the actual income percentile amounts based on the October 1, 2019 valuation data. Based on plan demographics, we compared the gender-specific income levels for active employees and healthy retirees; the Society of Actuaries did not release separate mortality tables based on varying income levels for disabled retirees.

Males:	Active Employees		Retirees		Contingent Survivors	
Percentile	Published	Actual	Published	Actual	Published	Actual
Count		210		167		0
25th (Below)	34,900	40,100	10,500	7,100	3,800	0
50th (Median)	52,800	47,100	24,500	12,500	8,400	0
75th (Above)	75,800	60,300	41,400	24,600	16,900	0
Females:	Active Employees		Retirees		Contingent Survivors	
Percentile	Published	Actual	Published	Actual	Published	Actual
Count		106		57		22
25th (Below)	23,300	38,900	5,900	7,200	6,000	3,200
50th (Median)	40,000	48,300	13,700	15,800	12,700	7,300
75th (Above)	57,900	66,700	27,500	25,600	23,900	13,700

Based on the relevant data in this section, we recommend employing the FRS mortality assumptions with an adjustment to use the not-income adjusted rates for all active and non-disabled inactive categories.

The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of the October 1, 2019 valuation (including applicable GASB 67 Disclosure) report are considered an integral part of the actuarial opinions.

If you have any questions, please let me know.

Sincerely,



Douglas H. Lozen, EA, MAAA

DHL/lke

Enclosure

City of Naples
General Retirement System

Actuarial Analysis of Mortality and Investment Return Assumptions

Determined as of October 1, 2019

Assumptions		Estimated GASB 67	Funded Ratio ²	Annual City Funding		
Mortality	Investment Return	Liability		% of Pay	Dollar ³	Increase
Current (7/1/2018 FRS)	Current (7.30%)	10,032,065	84.2%	11.32%	1,940,000	n/a
7/1/2019 FRS ¹	7.30%	10,222,656	84.0%	11.46%	1,964,000	24,000
7/1/2018 FRS	7.00%	12,149,572	81.7%	12.78%	2,191,000	251,000
7/1/2019 FRS ¹	7.00%	12,343,879	81.5%	12.92%	2,215,000	275,000

¹ As adjusted for plan experience.

² Actuarial Asset Value divided by Entry Age Normal Actuarial Accrued Liability.

³ Estimated City dollar requirement based on payroll under the assumed retirement age.