Segal's Actuarial Consulting Services to the City of Providence and The Employee Retirement System of the City of Providence

July 27, 2021 / Kathleen A. Riley, FSA, MAAA, EA, Senior Vice President and Actuary

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The results shown in this presentation are based on the results of the July 1, 2019 Actuarial Valuation and Review of The Employee Retirement System of the City of Providence, dated March 18, 2021, prepared under the supervision of Kathleen A. Riley, FSA, MAAA, EA, and the June 30, 2018 City of Providence OPEB Actuarial Valuation and Review, dated December 23, 2019, prepared under the supervision of Kathleen A. Riley, FSA, MAAA, EA and Mark J. Noonan, ASA, MAAA. Unless otherwise noted, the assumptions and plan of benefits are the same as those in the valuation reports.

This report has been prepared solely for the benefit of The Employees Retirement System of the City of Providence and the City of Providence and may not be copied or reproduced in any form without the express written consent of the City and Segal.

This presentation is intended to be part of a verbal presentation by a representative of Segal.

Retirement Consulting Services

- Segal completes an annual actuarial valuation of The Employee Retirement System of the City of Providence.
- The annual actuarial valuation is a review of the recent year's experience and establishes the funding requirements (Actuarially Determined Contribution or ADC) for future fiscal years.
- Segal also completes an Experience Study of The Employee Retirement System of the City of Providence which is the basis for Segal's recommended economic and demographic assumptions to be used in the annual actuarial valuation.
- The most recent Experience Study was for the period July 1, 2015 through June 30, 2018 and was used to establish the assumptions for the July 1, 2019 actuarial valuation.
- Segal provides the disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 for reporting in the Retirement System's and the City's financial statements.
- Segal also provides actuarial and consulting services as requested. Examples of these services include the pricing of alternative plan designs and alternative approaches to the funding the Retirement System.

Actuarial Valuation and Review as of July 1, 2019

- The results of the July 1, 2019 actuarial valuation are used to establish the funding requirements for the fiscal year ending June 30, 2022 and later years (fiscal 2020 and fiscal 2021 have already been budgeted).
- The July 1, 2019 actuarial valuation reflected the following assumption changes recommended with the Experience Study for the period July 1, 2015 through June 30, 2018:
  - The assumed net investment return was decreased from 8.00% to 7.00%.
  - The salary scale was decreased from 3.5% to 3.0% before reflecting longevity.
  - The mortality assumptions for Class A and Class B were updated.
  - The disability, withdrawal and retirement rates for Class A were updated.
- The results of the July 1, 2019 actuarial valuation and the development of the Actuarially Determined Contribution are shown on the following slides.
- The Actuarially Determined Contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. For fiscal 2020 through fiscal 2022, the Actuarially Determined Contribution is set to the previously budgeted amounts of $86,723,405, $90,483,926, and $93,585,059, respectively. The results of this valuation will first be reflected in the fiscal 2023 employer contribution of $98,475,108 and will be phased in through fiscal 2040. The unfunded liability, less the liability associated with the 1995 Deferral, is amortized through June 30, 2040 with amortization payments that are calculated to increase 5.3% per year (beginning in fiscal 2023). The 1995 deferral liability is amortized through June 30, 2031 in level payments.
- Actuarially Determined Contributions are assumed to be paid on June 30. If the contribution is made on a different date, Segal adjusts the interest charge based on the actual date of payment.

Actuarial Valuation and Review as of July 1, 2019

- A comparison of the July 1, 2019 and July 1, 2018 valuation is shown below:

		2019		2018	
		Amount	% of Projected Compensation	Amount	% of Projected Compensation
1	Total normal cost	$24,016,171	15.06%	$20,393,606	13.11%
2	Expected employee contributions	-12,692,801	-7.96%	-12,375,314	-7.95%
3	Employer normal cost: (1) + (2)	$11,323,370	7.10%	$8,018,292	5.15%
4	Actuarial accrued liability	1,593,646,026		1,378,187,364	
5	Actuarial value of assets	380,468,536		367,599,364	
6	Unfunded actuarial accrued liability: (4) - (5)	$1,213,177,490		$1,010,588,000	
7	Amortization of unfunded actuarial accrued liability	69,726,541	43.71%	69,164,456	44.45%
8	Actuarially Determined Contribution for fiscal 2020 and 2019: **(3) + (7)**, adjusted for timing	$86,723,404	54.37%	$83,357,367	53.57%
9	Projected compensation	$159,504,851		$155,595,815	

Contribution by class and department

- The chart below shows the contribution for fiscal 2021 and fiscal 2022 for Class A and Class B.

		Class A		Class B - Police		Class B - Fire		Class B - Total	
		Amount	% of Pay	Amount	% of Pay	Amount	% of Pay	Amount	% of Pay
1	Total normal cost	$9,860,141	10.03%	$7,389,746	23.30%	$6,766,284	22.98%	$14,156,030	23.15%
2	Expected employee contributions	-7,858,337	-7.99%	-2,373,169	-7.48%	-2,461,295	-8.36%	-4,834,464	-7.91%
3	Employer normal cost: (1) + (2)	$2,001,804	2.04%	$5,016,577	15.82%	$4,304,989	14.62%	$9,321,566	15.24%
4	Actuarial accrued liability	545,124,418		501,225,773		547,295,835		1,048,521,608	
5	Actuarial value of assets	130,143,511		119,663,108		130,661,917		250,325,025	
6	Unfunded actuarial accrued liability (UAAL): (4) - (5)	$414,980,907		$381,562,665		$416,633,918		$798,196,583	
7	Total fiscal 2021 contribution	$30,599,540	29.30%	$29,007,841	87.65%	$30,876,545	105.98%	$59,884,386	96.23%
8	Projected compensation as of July 1, 2020	104,448,938		33,093,607		29,135,581		62,229,188	
9	Total fiscal 2022 contribution	29,878,505	28.64%	31,089,072	92.40%	32,617,482	104.43%	63,706,554	98.19%
10	Projected compensation as of July 1, 2021	104,337,855		33,647,747		31,233,095		64,880,842	

Actuarial Valuation and Review as of July 1, 2019 - Funding Schedule

(1) Fiscal Year Ended June 30:	(2) Employer Normal Cost	(3) Amortization of Deferral Liability	(4) Amortization of Remaining Unfunded Liability	(5) Actuarially Determined Contribution: (2)+(3)+(4)	(6) Increase	(7) Payroll	(8) Contributions as a % of Payroll	(9) Actuarial Accrued Liability	(10) Actuarial Value of Assets	(11) Total Unfunded Actuarial Accrued Liability	(12) Funded Ratio
2020	$12,116,006	$440,457	$74,166,942	$86,723,404	- -	$159,504,851	54.37%	$1,593,646,026	$380,468,536	$1,213,177,490	23.87%
2021	12,519,188	440,457	77,524,281	90,483,926	4.34%	164,289,997	55.08%	1,618,219,018	388,283,360	1,229,935,659	23.99%
2022	12,935,719	440,457	80,208,882	93,585,059	3.43%	169,218,696	55.30%	1,650,379,918	410,137,142	1,240,242,776	24.85%
2023	13,366,037	440,457	84,668,614	98,475,108	5.23%	174,295,257	56.50%	1,684,016,601	433,796,847	1,250,219,754	25.76%
2024	13,810,597	440,457	89,360,187	103,611,241	5.22%	179,524,115	57.71%	1,718,491,770	463,003,651	1,255,488,119	26.94%
2025	14,269,870	440,457	94,096,277	108,806,604	5.01%	184,909,838	58.84%	1,753,131,232	499,559,588	1,253,571,644	28.50%
2026	14,744,338	440,457	99,083,379	114,268,174	5.02%	190,457,134	60.00%	1,787,933,550	541,148,626	1,246,784,924	30.27%
2027	15,234,503	440,457	104,334,799	120,009,758	5.02%	196,170,848	61.18%	1,823,118,411	588,582,379	1,234,536,031	32.28%
2028	15,740,881	440,457	109,864,543	126,045,881	5.03%	202,055,973	62.38%	1,858,659,178	642,480,880	1,216,178,298	34.57%
2029	16,264,009	440,457	115,687,364	132,391,829	5.03%	208,117,652	63.61%	1,894,478,019	703,472,240	1,191,005,779	37.13%
2030	16,804,435	440,457	121,818,794	139,063,685	5.04%	214,361,182	64.87%	1,930,894,196	772,645,834	1,158,248,362	40.01%
2031	17,362,731	440,457	128,275,190	146,078,377	5.04%	220,792,017	66.16%	1,967,890,859	850,824,362	1,117,066,497	43.24%
2032	17,939,483	0	135,073,775	153,013,258	4.75%	227,415,778	67.28%	2,005,623,965	939,078,461	1,066,545,504	46.82%
2033	18,535,301	0	142,232,685	160,767,985	5.07%	234,238,251	68.63%	2,044,775,305	1,038,645,391	1,006,129,914	50.80%
2034	19,150,812	0	149,771,017	168,921,829	5.07%	241,265,399	70.01%	2,085,801,757	1,151,475,433	934,326,324	55.21%
2035	19,786,663	0	157,708,881	177,495,543	5.08%	248,503,361	71.43%	2,129,270,295	1,279,312,146	849,958,150	60.08%
2036	20,443,524	0	166,067,452	186,510,975	5.08%	255,958,461	72.87%	2,175,463,111	1,423,716,771	751,746,340	65.44%
2037	21,122,087	0	174,869,027	195,991,114	5.08%	263,637,215	74.34%	2,224,945,022	1,586,643,888	638,301,133	71.31%
2038	21,823,065	0	184,137,085	205,960,150	5.09%	271,546,332	75.85%	2,278,020,855	1,769,907,669	508,113,186	77.69%
2039	22,547,195	0	193,896,350	216,443,546	5.09%	279,692,722	77.39%	2,335,443,669	1,975,899,646	359,544,023	84.60%
2040	23,295,241	0	204,172,858	227,468,099	5.09%	288,083,503	78.96%	2,397,306,924	2,206,491,169	190,815,756	92.04%
2041	24,067,987	0	0	24,067,987	-89.42%	296,726,008	8.11%	2,464,161,904	2,464,161,904	0	100.00%

Notes:
Fiscal 2020, 2021 and 2022 contributions set at previously budgeted amounts.
Contributions are assumed to be paid on June 30. If the contribution is made on a different date, Segal will adjust the interest charge based on the actual date of payment.
Item (2) reflects 3.0% growth in payroll as well as a 0.15% adjustment to total normal cost to reflect the effects of mortality improvements due to the generational mortality assumption.
Amortization payments of remaining unfunded liability increase at 5.3% per year beginning with fiscal year 2023.
Projected unfunded actuarial accrued liability reflects deferred investment losses. Recognizing deferred investment losses means the System is anticipating investment losses on an actuarial basis.
Normal cost is projected based on plan of benefits of current employees and does not reflect different benefits for new hires, if applicable.

OPEB Consulting Services

- Segal completes a biennial actuarial valuation of Other Postemployment Benefits (OPEB) provided by the City of Providence.
- The biennial actuarial valuation is a review of the recent years' experience and determines the Actuarially Determined Contribution (ADC) and other disclosure information required by GASB Statement No. 75 for reporting in the City's financial statements.
- Unlike the retirement valuation, where the discount rate used is the 7% expected return on assets assumption, the discount rate used for the OPEB valuation is the yield of index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher because there are no assets set aside to fund these obligations. This rate was 3.87% as of June 30, 2019 and 3.50% as of June 30, 2019.
- The Total OPEB Liability (TOL) was $1,122,063,410 as of June 30, 2019 and $1,062,700,510 as of June 30, 2018
- Segal also provides actuarial and consulting services as requested.

Caveats and Questions

- **Caveat regarding snapshot results:** This actuarial valuation report is based on financial and demographic information as of that date. The Plan’s actuarial status does not reflect short-term fluctuations of the financial markets or employment levels, but rather is based on the market values on the last day of the Plan Year. While it is impossible to determine how economic conditions will change in the future, Segal is available to prepare projections of potential outcomes upon request.
- **Caveat regarding projections**: Projections, by their nature, are not a guarantee of future results. The projections are intended to serve as estimates of future outcomes, based on the information available to us and the assumptions described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions.