



February 6, 2017

Retirement Board
50 Service Avenue, 2nd Floor
Warwick, RI 02886-1021

Re: Actuarial Valuation for Non-contributing Judges as of June 30, 2016

Dear Members of the Board:

This is the June 30, 2016 actuarial valuation of judges hired before January 1, 1990 who are currently employed or retired from employment by the State of Rhode Island. This report provides disclosure information the State can use to prepare its June 30, 2017 financial statements, as well as the calculation of the Actuarial Determined Contribution for fiscal year beginning July 1, 2016 assuming the State begins to advance fund the benefits.

Financing Objectives

Currently, Judges who do not participate in the Judicial Retirement Benefits Trust (JRBT) whose benefits are financed by annual contributions equal to the annual benefit payment of current retirees, also known as pay-as-you-go.

For the purpose of this valuation, the expected rate of return on pension plan investments is 2.85%; the municipal bond rate is 2.85% (based on the weekly rate closest to but not later than the measurement date of the “state & local bonds” rate from Federal Reserve statistical release (H.15)). Based on the pay-as-you-go nature of the financing for these benefits, we have used the 2.85% discount rate for all liabilities.

This report also develops the contribution requirement assuming the State begins to advance fund the benefits. This measurement is based on a higher discount rate of 7.50%.

Progress Towards Realization of Financing Objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan’s funded status. There has been minimal advanced funding for this closed group of seven Judges (two of which are now retired), so the funded ratio based on the 2.85% discount rate as of June 30, 2016 is 2.59%. As of June 30, 2016, the market value of assets is \$533,525 and the actuarial accrued liability is \$20,571,178, resulting in an unfunded actuarial accrued liability of \$20,037,653. The following table presents the State’s expected pay-as-you-go cost over the next twenty years.

Expected Benefit		Expected Benefit	
Fiscal Year	Payments	Fiscal Year	Payments
2017	\$890,854	2027	\$1,216,840
2018	\$1,376,987	2028	\$1,189,202
2019	\$1,365,392	2029	\$1,158,171
2020	\$1,352,798	2030	\$1,123,262
2021	\$1,339,350	2031	\$1,084,390
2022	\$1,324,639	2032	\$1,041,624
2023	\$1,307,437	2033	\$994,781
2024	\$1,287,902	2034	\$943,928
2025	\$1,266,362	2035	\$889,461
2026	\$1,242,696	2036	\$831,657

If the State were to advance fund the benefits over a period of 20 years beginning in fiscal year 2017, then the actuarial determined contribution as a level dollar amount would be equal to \$1,241,000. Details of this calculation can be found in Exhibit 1 at the end of this letter. Based on this contribution policy, if all actuarial assumptions are met (including the assumption of the plan earning 7.50% on the actuarial valuation of assets), it is expected that:

1. The employer contribution for fiscal years 2017 and beyond will remain level as a dollar amount,
2. The unfunded actuarial accrued liability will be fully amortized by 2036, and
3. In the absence of benefit improvements, the funded ratio should increase over time, until it reaches 100%.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on June 30, 2016. The benefit provisions are summarized in Appendix B in the June 30, 2016 actuarial valuation of the JRBT dated January 31, 2017.

Assumptions and methods

The assumptions used in this valuation, with the exception of the 2.85% discount rate, are the same as those summarized in Appendix A in the June 30, 2016 actuarial valuation of the JRBT dated January 31, 2017. We believe the assumptions are internally consistent and are reasonable.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities and the calculated contribution rates.

Data

Data for the five active members and two retirees as of June 30, 2016 for this valuation was by the Staff at the Employees Retirement System of Rhode Island. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the data from the JRBT valuation.

Certification

All of our work conforms with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Rhode Island state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The undersigned are independent actuaries. All are Members of the American Academy of Actuaries. They all meet the Qualification Standards of the American Academy of Actuaries, and they are experienced in performing valuations for large public retirement systems.

Respectfully submitted,



Joseph P. Newton, FSA, MAAA, EA
Senior Consultant



Paul T. Wood, ASA, MAAA, FCA
Consultant

Exhibit 1

Rhode Island Judicial Retirement Benefits Pay-as-you-go Actives and Retirees

Year	Net Payment			
Ending June 30,	Pay-as-you-go Cost	Contribution from State	to/ (from) trust	Trust Balance (EOY)
2017	890,854	1,240,501	349,647	938,841
2018	1,376,987	1,240,501	(136,486)	872,038
2019	1,365,392	1,240,501	(124,891)	812,211
2020	1,352,798	1,240,501	(112,297)	760,915
2021	1,339,350	1,240,501	(98,849)	719,674
2022	1,324,639	1,240,501	(84,138)	690,546
2023	1,307,437	1,240,501	(66,936)	677,015
2024	1,287,902	1,240,501	(47,401)	682,662
2025	1,266,362	1,240,501	(25,860)	710,999
2026	1,242,696	1,240,501	(2,195)	765,925
2027	1,216,840	1,240,501	23,661	851,698
2028	1,189,202	1,240,501	51,299	972,473
2029	1,158,171	1,240,501	82,330	1,134,383
2030	1,123,262	1,240,501	117,239	1,344,522
2031	1,084,390	1,240,501	156,112	1,610,603
2032	1,041,624	1,240,501	198,877	1,940,849
2033	994,781	1,240,501	245,720	2,344,283
2034	943,928	1,240,501	296,573	2,830,543
2035	889,461	1,240,501	351,040	3,409,574
2036	831,657	1,240,501	408,844	4,091,785
2037	770,779	0	(770,779)	3,601,913
2038	707,569	0	(707,569)	3,140,641
2039	643,301	0	(643,301)	2,711,207
2040	578,658	0	(578,658)	2,316,387
2041	514,453	0	(514,453)	1,958,325
2042	452,065	0	(452,065)	1,637,898
2043	392,709	0	(392,709)	1,354,796
2044	337,006	0	(337,006)	1,108,042
2045	285,383	0	(285,383)	896,144
2046	238,573	0	(238,573)	716,741
2047	196,980	0	(196,980)	566,878
2048	160,521	0	(160,521)	443,463
2049	129,133	0	(129,133)	343,238
2050	102,689	0	(102,689)	262,831
2051	80,831	0	(80,831)	198,988
2052	62,912	0	(62,912)	148,880
2053	48,343	0	(48,343)	110,074
2054	36,694	0	(36,694)	80,398
2055	27,529	0	(27,529)	57,971
2056	20,411	0	(20,411)	41,220
2057	14,915	0	(14,915)	28,893
2058	10,737	0	(10,737)	19,961
2059	7,614	0	(7,614)	13,588
2060	5,317	0	(5,317)	9,111
2061	3,653	0	(3,653)	6,019
2062	2,469	0	(2,469)	3,918
2063	1,645	0	(1,645)	2,511
2064	1,073	0	(1,073)	1,591
2065	696	0	(696)	991
2066	445	0	(445)	605
2067	282	0	(282)	359
2068	174	0	(174)	206
2069	104	0	(104)	114
2070	63	0	(63)	57
2071	31	0	(31)	29
2072	17	0	(17)	14
2073	8	0	(8)	7
2074	5	0	(5)	2
2075	2	0	(2)	(0)
2076	0	0	0	(0)

Rate of Return on Assets 7.50%
Period to Pre-Fund (1st Pmt. In FY 2017) 20
Initial Asset Value 533,525
Total Present Value as of July 1, 2016 13,645,465
Annual Payment - FYE 2017 and Beyond 1,240,501
If the State contributes a level dollar amount of \$1.24 million beginning in fiscal year ending 2017 for the next 20 years, realizes an annual rate of return on the contributions of 7.50%, and life expectancy is consistent with the most recent actuarial valuation for the Judicial Benefits Trust, the liability for the pay-as-you-go retirement benefits for the Judges hired before January 1, 1990 will be advance funded.