



# City of East Providence, Rhode Island Police and Fire Fighters Retirement System

10/31/2021 Cost Projections

*January 17, 2023*



# Certification

This report was prepared for the Pension Board of the City of East Providence to show the projected ongoing funded status and cost of the City of East Providence, Rhode Island Police and Fire Fighters Retirement System. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than the intended use.

Except where indicated otherwise, the results included in this report are based on the same data, assumptions, methods, and plan provisions as the 10/31/2021 funding valuation including the determination of contribution for FYE 10/31/2023. As a result, these sections of the 2021 funding report dated December 20, 2022 should be considered part of this report.

In preparing these results, Nyhart used ProVal valuation software developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing pension valuations. We coded the plan provisions, assumptions, methods, and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such facts as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or other additional cost or contribution requirement based on the plan's funded status); and changes in plan provisions of applicable law. The scope of our assignment did not include an analysis of the potential range of future measurements.

This report has been prepared in accordance with generally accepted actuarial principles and practice.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

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# Important Comments About Cost Information Included in this Report

Results and information prior to October 31, 2016 were provided by Fallon Pension Actuaries, Inc.

The cost projections contained in this report are based on data as of October 31, 2021. Assumptions used in measuring the liabilities are consistent with the October 31, 2021 actuarial report unless stated otherwise. Reasonable actuarial techniques and assumptions were used to produce the cost projections. Data was provided by the City of East Providence.

The following pages show cost projections under specific projected scenarios and are intended to be illustrative. Actual results will vary from projections shown in this report due to such factors as deviation in actual participant experience, variance of realized asset returns, future adjustments to actuarial assumptions or methodologies, and changes in the plan's provisions or governing laws. These projections are made in part to satisfy the municipality's obligation to provide a funding improvement plan to emerge from critical status, as described in §45-65-6 of state statutes.

These projections reflect numerous assumptions and one should focus on the general trend of the results rather than the absolute dollar amounts.



# Introduction

- As a result of requirements under the Rhode Island Retirement Security Act of 2011 (RIRSA), the Retirement System's funded percentage had fallen below 60.0% as of 10/31/2011 and thus was considered to be in "critical status" as of 10/31/2011. A Funding Improvement Plan (FIP) was completed November 12, 2012 to demonstrate alternative plans to emerge from critical status within 20 years by 10/31/2031.
- As detailed in the 12/12/2012 report prepared by Fallon Pension Actuaries, Inc., the Budget Commission decided to adopt Options 2 and 3 detailed in the report. As a basic summary, Option 2 detailed the intention to pay the annual recommended contribution determined by the actuary each year and Option 3 detailed changes in plan design to lower the ongoing liability of the Plan.
- The City of East Providence has been consistent with their decision to pay the recommended contribution each year and make plan design changes.

<b>Plan Year Ending 10/31</b>	<b>Payment against the Actuarial Recommended Funding Contribution</b>
2013	97.9%
2014	103.1%
2015	114.6%
2016	98.2%
2017*	86.8%
2018	108.4%
2019	103.9%
2020	100.0%
2021	100.0%

\*Note that due to timing, the contribution made during the plan year ending 10/31/2017 was not yet known when budgeting and contributing for the Plan Year. The intent of the plan sponsor is to continue to contribute the recommended contribution. The recommended contribution methodology had been revised beginning on 10/31/2017 such that the plan year contribution will be determined based on results at least a year in advance.



# Funding Progress

- In addition to the changes made in conjunction with the FIP, the City also made a significant contribution of \$49.2 million in the plan year ending October 31, 2013. These funds were provided to the City as a result of the City's Police participation in an investigation of Google, Inc. for allowing online Canadian pharmacies to place advertisements targeting consumers in the United States, resulting in the unlawful importation of prescription drugs. This significant contribution caused the plan to immediately emerge from critical status.
- The Retirement System's funded percentage was greater than 60.0% from 2013-2015, but the Retirement System's funded percentage dipped below the 60% threshold at 10/31/2016, and is still below the 60% threshold as of 10/31/2021.

<b>Plan Year Ending 10/31</b>	<b>Funded Percentage</b>
2013	62.3%
2014	61.4%
2015	60.0%
2016	54.8%
2017	58.5%
2018	57.2%
2019	56.8%
2020	54.3%
2021	54.4%



# Funding Improvement Plan (FIP)

- It is still the intention of the City of East Providence to make the annual actuarial recommended contribution each year.
- Based on the most recent valuation and cost projections on the following page, it is expected the Retirement System will emerge from critical status starting with the plan year beginning 10/31/2024. Therefore, the Retirement System is still making requisite progress under the Funding Improvement Plan.
- The discount rate for the current year's valuation was lowered from 7.50% to 7.25% to better reflect expected future experience.
- In the previous year, the Retirement System had been projected to emerge from critical status by 10/31/2028. Better than expected asset performance during the plan year ending 10/31/2021 accelerated the projected emergence from critical status by four years.
- We must also note that financial markets have experienced meaningful volatility between the end of the 10/31/2021 plan year and the publication date of this report. We anticipate that the 10/31/2022 valuation will report asset values substantially lower than forecast in this report, with projected emergence from critical status likely to be extended beyond 2024.

# 10/31/2021 Cost Projection

Valuation Date (10/31)	Plan Year Ending (10/31)	Payment against the ARFC	Employer Normal Cost	Amortization	Projected Payroll	Employer Contribution as a % of payroll	Employer ARFC	Employer Contribution	Increase	Benefit Payments	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability	Unfunded Liability	Funded Ratio
2011	2012	21.1%	1,894,000	5,631,388	12,326,000	12.9%	7,525,388	1,590,445		8,964,308	53,521,413	159,321,987	105,800,574	33.6%
2012	2013	97.9%	1,950,978	6,000,482	12,542,000	62.1%	7,951,460	7,784,310*	389.4%	9,314,049	52,075,375	164,802,828	112,727,453	31.6%
2013	2014	103.1%	1,967,342	3,469,538	12,666,939	44.3%	5,436,880	5,606,148	-28.0%	9,746,290	107,769,539	172,949,660	65,180,121	62.3%
2014	2015	114.6%	1,896,610	3,720,901	13,861,789	46.4%	5,617,511	6,435,589	14.8%	10,237,038	111,060,482	180,962,809	69,902,327	61.4%
2015	2016	98.2%	1,886,773	4,034,879	14,628,273	39.8%	5,921,652	5,816,231	-9.6%	10,784,177	113,803,022	189,603,866	75,800,844	60.0%
2016	2017	86.8%	2,134,412	5,155,427	15,021,061	42.1%	7,289,839	6,327,364	8.8%	11,311,227	115,793,717	211,150,930	95,357,213	54.8%
2017	2018	108.4%	1,988,497	5,031,375	14,517,769	52.4%	7,019,872	7,610,501	20.3%	12,246,488	128,310,000	219,314,469	91,004,469	58.5%
2017	2019	103.9%	1,988,497	5,205,611	15,062,185	51.6%	7,470,844	7,764,971	2.0%	12,770,136	128,310,000	219,314,469	91,004,469	58.5%
2018	2020	100.0%	2,039,793	5,853,706	15,842,646	51.7%	8,190,648	8,190,648	5.5%	13,571,437	132,323,097	231,157,560	98,834,463	57.2%
2019	2021	100.0%	2,016,234	6,322,943	15,790,230	54.8%	8,653,046	8,653,046	5.6%	14,231,858	136,158,048	239,751,998	103,593,950	56.8%
2020	2022	100.0%	2,191,246	7,465,129	15,728,613	63.7%	10,019,126	10,019,126	15.8%	15,556,977	140,045,905	257,803,498	117,757,593	54.3%
<b>2021</b>	<b>2023</b>	<b>100.0%</b>	<b>2,361,635</b>	<b>8,026,540</b>	<b>16,280,754</b>	<b>66.2%</b>	<b>10,777,859</b>	<b>10,777,859</b>	<b>7.6%</b>	<b>16,299,510</b>	<b>149,525,489</b>	<b>274,656,092</b>	<b>125,130,603</b>	<b>54.4%</b>
2022	2024	100.0%	2,353,036	8,158,547	16,337,129	66.8%	10,913,202	10,913,202	1.3%	17,065,499	159,562,360	282,645,060	123,082,700	56.5%
2023	2025	100.0%	2,349,786	7,955,051	16,624,200	64.3%	10,689,361	10,689,361	-2.1%	17,915,138	172,225,840	290,462,167	118,236,327	59.3%
2024	2026	100.0%	2,297,085	7,944,937	16,853,974	63.0%	10,618,004	10,618,004	-0.7%	18,618,953	184,386,010	298,078,979	113,692,969	61.9%
2025	2027	100.0%	2,305,958	7,860,881	17,021,538	62.0%	10,553,354	10,553,354	-0.6%	19,574,225	197,574,225	305,312,051	107,737,826	64.7%
2026	2028	100.0%	2,300,418	8,129,477	17,337,050	62.4%	10,818,319	10,818,319	2.5%	20,059,664	205,659,625	312,388,460	106,728,835	65.8%
2027	2029	100.0%	2,315,091	8,431,898	17,669,786	63.1%	11,149,635	11,149,635	3.1%	20,746,864	213,527,623	319,239,255	105,711,632	66.9%
2028	2030	100.0%	2,321,357	8,749,622	18,040,745	63.7%	11,491,955	11,491,955	3.1%	21,442,123	221,554,579	325,909,792	104,355,213	68.0%
2029	2031	100.0%	2,316,130	9,078,866	18,407,332	64.2%	11,817,507	11,817,507	2.8%	22,022,511	229,843,365	332,397,201	102,553,836	69.1%
2030	2032	100.0%	2,343,696	9,419,241	18,794,421	64.9%	12,197,579	12,197,579	3.2%	22,595,978	238,408,913	338,659,605	100,250,692	70.4%
2031	2033	100.0%	2,367,441	9,775,592	19,287,542	65.3%	12,594,765	12,594,765	3.3%	23,175,504	247,391,790	344,855,021	97,463,231	71.7%
2032	2034	100.0%	2,380,808	10,145,471	19,774,726	65.7%	12,991,995	12,991,995	3.2%	23,737,115	256,883,943	350,977,906	94,093,963	73.2%
2033	2035	100.0%	2,402,188	10,528,370	20,284,827	66.1%	13,408,271	13,408,271	3.2%	24,274,705	266,930,265	357,001,331	90,071,066	74.8%
2034	2036	100.0%	2,423,720	10,926,295	20,804,978	66.6%	13,856,115	13,856,115	3.3%	24,784,725	277,596,069	362,951,846	85,355,777	76.5%
2035	2037	100.0%	2,459,145	11,339,531	21,362,237	67.0%	14,312,699	14,312,699	3.3%	25,198,255	288,972,124	368,849,756	79,877,632	78.3%
2036	2038	100.0%	2,526,875	11,768,503	21,969,037	67.5%	14,829,100	14,829,100	3.6%	25,615,941	301,180,254	374,742,958	73,562,704	80.4%
2037	2039	100.0%	2,590,069	12,216,661	22,643,231	67.8%	15,352,111	15,352,111	3.5%	26,041,340	314,407,355	380,783,264	66,375,909	82.6%
2038	2040	100.0%	2,634,086	11,623,503	23,356,824	63.3%	14,784,870	14,784,870	-3.7%	26,484,191	328,782,018	386,966,880	58,184,862	85.0%
2039	2041	100.0%	2,689,439	11,343,788	24,053,353	60.5%	14,552,279	14,552,279	-1.6%	26,930,666	344,377,697	393,266,541	48,888,844	87.6%
2040	2042	100.0%	2,768,804	9,730,717	24,745,768	52.4%	12,966,782	12,966,782	-10.9%	27,439,711	360,101,763	399,691,210	39,589,447	90.1%
2041	2043	100.0%	2,824,321	8,890,876	25,448,111	47.8%	12,164,197	12,164,197	-6.2%	28,001,814	376,333,179	406,286,960	29,953,781	92.6%
2042	2044	100.0%	2,876,209	9,347,662	26,105,577	48.6%	12,687,310	12,687,310	4.3%	28,541,156	391,574,208	412,956,484	21,382,276	94.8%
2043	2045	100.0%	2,944,802	10,621,755	26,725,282	52.7%	14,084,224	14,084,224	11.0%	29,243,051	406,535,073	419,643,587	13,108,514	96.9%
2044	2046	100.0%	2,993,268	11,577,460	27,371,409	55.2%	15,109,018	15,109,018	7.3%	29,937,552	422,651,100	426,401,575	3,750,475	99.1%
2045	2047	100.0%	3,057,650	0	27,884,059	11.4%	3,178,783	3,178,783	-79.0%	30,584,898	440,757,742	433,028,261	-7,729,481	101.8%
2046	2048	100.0%	3,126,857	0	28,413,694	11.4%	3,239,161	3,239,161	1.9%	31,323,213	460,615,698	439,546,874	-21,068,824	104.8%

Unless otherwise noted on the following pages, projections above are based on data, assumptions, methods, and plan provisions as detailed in the 10/31/2021 valuation report dated December 20, 2022.

"ARFC" refers to the "Actuarial Recommended Funding Contribution".

These numbers are estimates only and are not guarantees of future plan costs.

\*Note an additional \$49.2 million was contributed during the plan year ending 10/31/2013 as a result of City of East Providence Police's participation in the investigation of Google, Inc.



# Assumptions for Cost Projection

Category	Assumption
Asset Return, Interest Rate	Plan assets earn 7.25% annually, except as specified otherwise
Active Population	The number of active employees stays constant at 192 throughout the 30-year projection period.
City Contributions	The City contributes the full Actuarial Recommended Contribution (ARC) each year or as otherwise noted
Contributions Shown	Include only Employer Defined Benefit money, unless otherwise noted
Actuarial Recommended Funding Contribution Calculation	Consists of 2 pieces – benefits being earned during the current year and the amount to cover the amortization of the unfunded liability
Future New Entrants	Modeled after actual new entrant data from 2017-2020. New entrants were modeled for Police and Fire employees separately. Fire employees are assumed to be hired as Privates with the City.
Salary Growth	4.0% compounded annually. These include merit, inflation, and any other type of wage increase.  The City provided all pension wages including longevity as part of the reported earnings.





# Assumptions for Cost Projection

Category	Assumption
Mortality	<p>Healthy Lives - Pub-2010 Safety amount-weighted tables, with generational improvements from 2010 based on assumptions from the 2021 Social Security Administration (SSA) Trustees' Report. Survivors and beneficiaries utilize the Pub-2010 Continuing Survivor mortality tables with the same projected generational improvement.</p> <p>Disabled Lives - Pub-2010 Safety Disabled Retiree Mortality table with generational improvements from 2010 based on assumptions from the 2021 SSA Trustees' Report</p>
Inflation	Inflation is assumed at 2.5% per year unless explicitly stated otherwise
Retirement Rates, Withdrawal Rates, Disability Rates, COLA, Married Percentage	All other assumptions match those used in the October 31, 2021 valuation
Results and Information Prior to 10/31/2016	All results and information prior to October 31, 2016 were prepared and provided by Fallon Pension Actuaries, Inc.