



nyhart  
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# Town of Narragansett Pension Plan

July 1, 2021  
Actuarial Valuation Report

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At the request of the plan sponsor, this report summarizes the Town of Narragansett Pension Plan as of July 1, 2021. The purpose of this report is to communicate the following results of the valuation:

- Funded Status; and
- Actuarially Determined Contribution as of July 1, 2021 for the plan year ending June 30, 2023

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by the Town. Asset information has been provided to us by the Board. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Board. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors 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); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report.

To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

In preparing the 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 material weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.

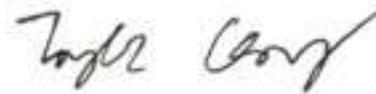
The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart



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Lawrence Watts, Jr., FSA, CFA, EA, MAAA



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Taylor Clary, ASA

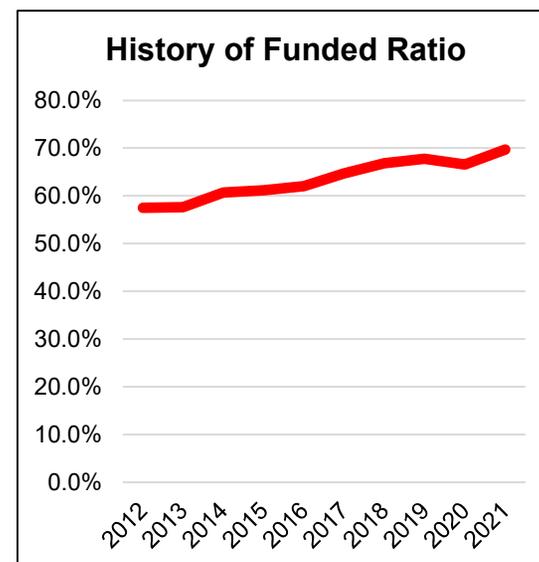
December 23, 2021

Date

## Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay method.

Valuation Date For Plan Year Ending	July 1, 2020 June 30, 2022	July 1, 2021 June 30, 2023
<b>Funded Status Measures</b>		
Entry Age Accrued Liability	\$158,521,049	\$166,245,445
Actuarial Value of Assets	105,455,477	115,890,940
Unfunded Accrued Liability	\$53,065,572	\$50,354,505
Funded Percentage (AVA)	66.5%	69.7%
Funded percentage (MVA)	63.4%	75.3%
<b>Cost Measures</b>		
Actuarially Determined Contribution	\$7,011,892	\$7,332,341
Actuarially Determined Contribution (as a percentage of projected payroll)	45.2%	48.2%
<b>Asset Performance</b>		
Market Value of Assets (MVA)	\$100,562,115	\$125,232,182
Actuarial Value of Assets (AVA)	\$105,455,477	\$115,890,940
Actuarial Value/Market Value	104.9%	92.5%
<b>Participant Information</b>		
Active Participants	249	248
Terminated Vested Participants	26	31
Retirees, Beneficiaries, and Disabled Participants	230	238
Total	505	517
Total Expected Payroll For Plan Year Ending	\$14,697,899	N/A
Projected Payroll For Plan Year Ending	\$15,513,036	\$15,212,325



## **Changes Since Prior Valuation and Key Notes**

There have been no changes to the plan provisions since the last valuation.

The mortality for municipal members has been updated from the PubG-2010 Mortality Table with generational improvements from 2010 based on the MP-2019 mortality improvement scale to the PubG-2010 Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale. This change caused a decrease in the funding liability.

The mortality for police and fire members has been updated from the PubS-2010 Mortality Table with generational improvements from 2010 based on the MP-2019 mortality improvement scale to the PubS-2010 Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale. This change caused a decrease in the funding liability.

The mortality for school members has been updated from the PubT-2010 Mortality Table with generational improvements from 2010 based on the MP-2019 mortality improvement scale to the PubT-2010 Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale. This change caused a decrease in the funding liability.

The mortality for disabled municipal and school participants has been updated from the PubNS-2010 Disabled Mortality Table with generational improvements from 2010 based on the MP-2019 mortality improvement scale to the PubNS-2010 Disabled Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale. This change caused a decrease in the funding liability.

The mortality for disabled police and fire participants has been updated from the PubS-2010 Disabled Mortality Table with generational improvements from 2010 based on the MP-2019 mortality improvement scale to the PubS-2010 Disabled Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale. This change caused a decrease in the funding liability.

The mortality for survivors has been updated from the Pub-2010 Continuing Survivor Mortality Table with generational improvements from 2010 based on the MP-2019 mortality improvement scale to the Pub-2010 Continuing Survivor Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale. This change caused a decrease in the funding liability.

The assumed interest rate has been updated from 7.20% to 7.15%. This change caused an increase in the funding liability.

Retirement rates and assumed annual pay increases have been updated as outlined in the experience study report dated June 16, 2021 which covered experience from July 1, 2010 through July 1, 2020. These changes resulted in a slight decrease in the funding liability. Additionally, the assumed payroll growth rate utilized to amortize unfunded liabilities has been adjusted to 3.5% from 4.0%.

**Town of Narragansett Pension Plan  
Actuarial Valuation as of July 1, 2021  
Executive Summary**

**Five Year Valuation Summary**

	<b>07/01/2017</b>	<b>07/01/2018</b>	<b>07/01/2019</b>	<b>07/01/2020</b>	<b>07/01/2021</b>
<b>Funding</b>					
Accrued Liability	\$134,830,699	\$140,878,874	\$147,346,509	\$158,521,049	\$166,245,445
Actuarial Value of Assets	\$87,163,231	\$94,104,936	\$99,830,602	\$105,455,477	\$115,890,940
Unfunded Actuarial Accrued Liability	\$47,667,468	\$46,773,938	\$47,515,907	\$53,065,572	\$50,354,505
Funded Percentage	64.6%	66.8%	67.8%	66.5%	69.7%
Total Normal Cost (NC)	\$2,955,588	\$2,959,880	\$3,007,323	\$3,084,668	\$3,258,089
NC as a Percent of Covered Payroll	21.4%	21.2%	21.3%	20.7%	22.2%
Actual Contribution	\$6,133,571	\$6,176,556	\$6,268,731	TBD	TBD
Recommended Contribution	\$6,057,902	\$6,080,003	\$6,343,867	\$7,011,892	\$7,332,341
Recommended Contribution (% of Pay)	42.1%	41.9%	43.1%	45.2%	48.2%
Interest Rate	7.20%	7.20%	7.20%	7.20%	7.15%
<b>Rate of Return</b>					
Actuarial Value of Assets	6.5%	5.7%	4.4%	4.6%	9.0%
Market Value of Assets	10.4%	5.9%	6.0%	1.8%	23.6%
<b>Demographic Information</b>					
Active Participants	250	247	250	249	248
Terminated Vested Participants	17	20	22	26	31
Retired Participants	170	185	197	198	205
Beneficiaries	12	10	13	17	18
Disabled Participants	13	15	16	15	15
Total Participants	462	477	498	505	517
Covered Payroll	\$13,835,881	\$13,952,640	\$14,152,836	\$14,916,381	\$14,697,899
Average Covered Pay	\$55,344	\$56,488	\$56,611	\$59,905	\$59,266

**Identification of Risks**

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the Town of Narragansett Pension Plan. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

<b>Type of Risk</b>	<b>Method to Assess Risk</b>
Investment Return	Scenario Testing; Asset Liability Study
Contribution Risk	Scenario Testing
Participant Longevity	Projections and Contribution Strategy
Salary Growth	Stress Testing
Demographic Risk	Stress Testing

## **Plan Maturity Measures - July 1, 2021**

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the Town of Narragansett Pension Plan falls in its life-cycle.

### **Duration of Liabilities: 12.3**

Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

### **Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 40.4%**

A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

### **Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: 11.7%**

Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

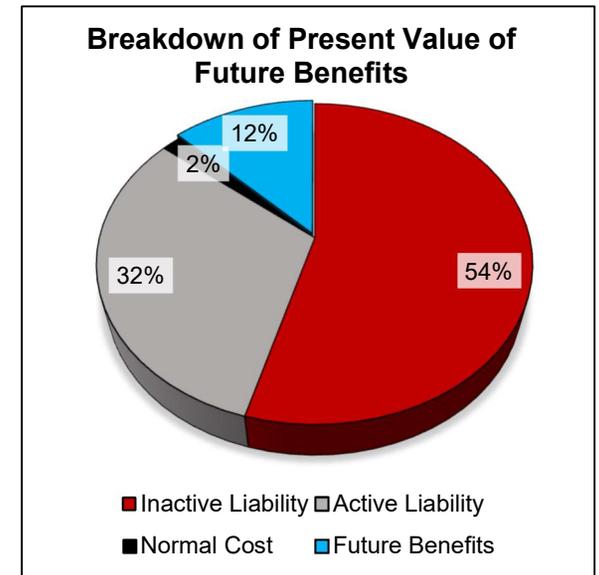
### **Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 5.6%**

As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.

**Present Value of Future Benefits**

The Present Value of Future Benefits represents the future benefits payable to the existing participants.

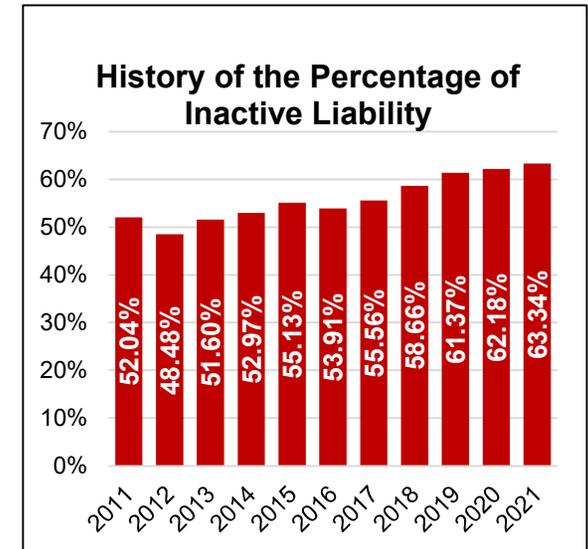
	<b>July 1, 2021</b>
<b>Present Value of Future Benefits</b>	
Active participants	
Retirement	\$84,423,087
Disability	2,262,298
Death	578,346
Termination	956,579
Refund of contributions	0
Total active	\$88,220,310
Inactive participants	
Retired participants	\$95,510,775
Beneficiaries	2,562,998
Disabled participants	5,242,337
Terminated vested participants	1,990,009
Total inactive	\$105,306,119
Total	\$193,526,429
 Present value of future payrolls	 \$107,810,048



**Funding Liability**

The Funding Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions.

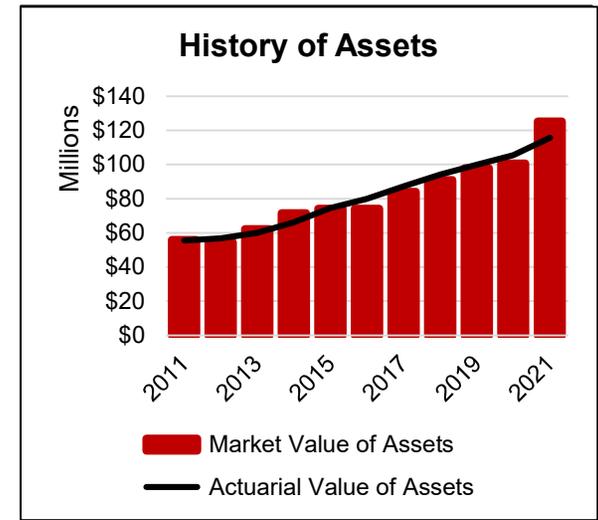
	July 1, 2021
<b>Entry Age Normal Liabilities</b>	
Active participants	
Retirement	\$60,165,376
Disability	662,363
Death	148,265
Termination	(36,678)
Refund of contributions	0
Total Active	\$60,939,326
Inactive participants	
Retired participants	\$95,510,775
Beneficiaries	2,562,998
Disabled participants	5,242,337
Terminated vested participants	1,990,009
Total Inactive	\$105,306,119
Total	\$166,245,445
 Total Normal Cost	 \$3,258,089



**Asset Information**

The amount of assets backing the pension promise is often the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

	<b>July 1, 2021</b>
<b>Market Value Reconciliation</b>	
Market value of assets, beginning of prior year	\$100,562,115
Contributions	
Employer contributions	6,268,731
Member contributions	1,660,956
Non-employer contributing entity	0
Total	7,929,687
Investment income	23,778,722
Benefit payments	(7,038,342)
Market value of asset, beginning of current year	\$125,232,182
Return on Market Value	23.6%
 <b>Actuarial value of assets</b>	
Value at beginning of current year	\$115,890,940



**Asset Information (continued) - 20% Phase in**

Plan Assets are used to develop funded percentages and contribution requirements.

**July 1, 2021**

1.	Expected market value of assets		
	(a) Market value of assets, beginning of prior year	\$100,562,115	
	(b) Contributions	7,929,687	
	(c) Benefit payments	(7,038,342)	
	(d) Expected return	7,272,002	
	(e) Expected market value of assets, beginning of current year	\$108,725,462	
2.	Market value of assets, beginning of current year	\$125,232,182	
3.	Actual return on market value	\$23,778,722	
4.	Amount subject to phase in [(3)-(1d)]	\$16,506,720	
5.	Phase in of asset gain/(loss)		
	(a) Current year (80% x \$16,506,720)	\$13,205,376	
	(b) First prior year (60% x (\$5,321,813))	(3,193,088)	
	(c) Second prior year (40% x (\$1,124,955))	(449,982)	
	(d) Third prior year (20% x \$(1,105,322))	(221,064)	
	(e) Total phase-in	\$9,341,242	
6.	Preliminary actuarial value of assets, beginning of current year [(2)-(5e)]	\$115,890,940	
7.	80% Market value of assets	\$100,185,746	
8.	120% Market value of assets	\$150,278,618	
9.	Adjustment to actuarial value of assets due to 20% corridor	\$0	
10.	Final actuarial value of assets (6) - (9)	\$115,890,940	
11.	Return on actuarial value of assets	9.0%	

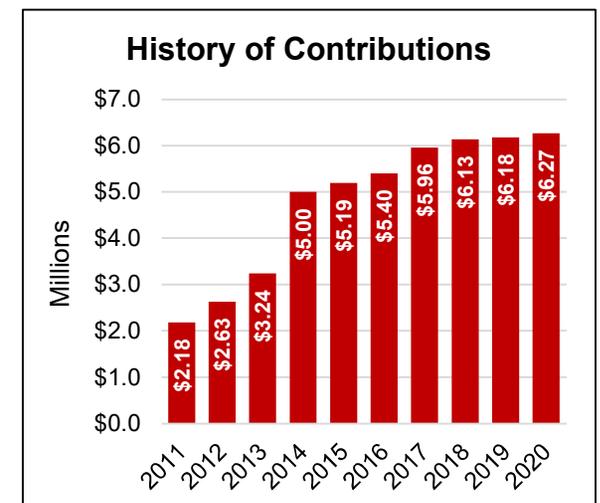
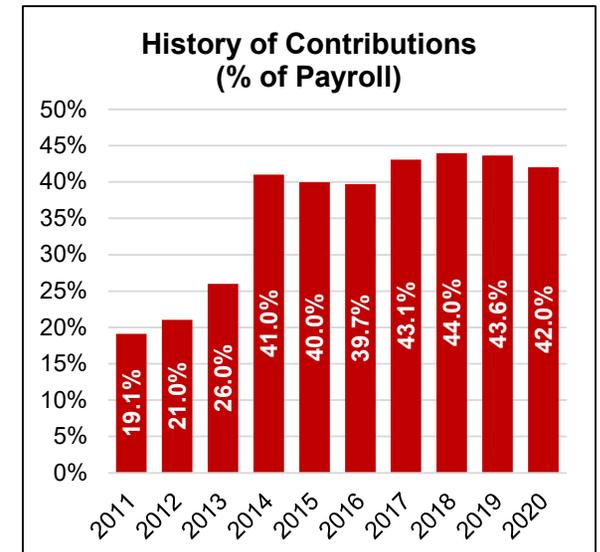
**Reconciliation of Gain/Loss**

	<b>July 1, 2021</b>
<b>Liability (gain)/loss</b>	
Actuarial liability, beginning of prior year	\$158,521,049
Normal cost	\$3,084,669
Benefit payments	(7,038,342)
Expected Interest	11,386,635
Change in actuarial assumptions	64,274
Change in plan provisions	0
Expected actuarial liability, beginning of current year	\$166,018,285
Actual actuarial liability	\$166,245,445
Liability (gain)/loss	\$227,160
<b>Asset (gain)/loss</b>	
Actuarial value of assets, beginning of prior year	\$105,455,477
Contributions	7,929,687
Benefit payments	(7,038,342)
Expected investment return	7,624,324
Expected actuarial value of assets, beginning of current year	\$113,971,146
Actual actuarial value of assets, beginning of current year	\$115,890,940
Asset (gain)/loss	(\$1,919,794)
<b>Total (gain)/loss</b>	<b>(\$1,692,634)</b>

**Development of Actuarially Determined Contribution for Plan Year Ending June 30, 2023**

The actuarially determined contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

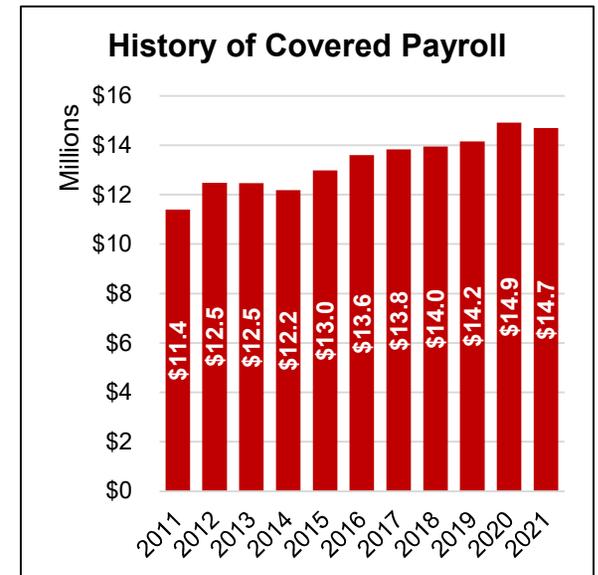
Valuation Date For Plan Year Ending	July 1, 2021 June 30, 2023
<b>Funded Position</b>	
1. Entry age accrued liability	\$166,245,445
2. Actuarial value of assets	\$115,890,940
3. Unfunded actuarial accrued liability (UAAL)	\$50,354,505
<b>Employer Contributions</b>	
1. Normal Cost	
(a) Total normal cost	\$3,258,089
(b) Expected participant contributions	(1,235,555)
(c) Net normal cost	\$2,022,534
2. Amortization of UAAL	4,594,756
3. Applicable interest	473,136
4. Calculated contribution at valuation date	\$7,090,426
5. Total payroll	\$14,697,899
6. Calculated contribution as a percentage of total payroll (4) / (5)	48.2%
7. Projected payroll	\$15,212,325
8. Actuarially determined contribution (6) x (7)	\$7,332,341



**Demographic Information**

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

	July 1, 2020	July 1, 2021
<b>Participant Counts</b>		
Active Participants	249	248
Retired Participants	198	205
Beneficiaries	17	18
Disabled Participants	15	15
Terminated Vested Participants	26	31
<b>Total Participants</b>	<b>505</b>	<b>517</b>
<b>Active Participant Demographics</b>		
Average Age	47.2	46.6
Average Service	10.4	10.3
Average Compensation	\$59,905	\$59,266
<b>Total Payroll</b>	<b>\$14,916,381</b>	<b>\$14,697,899</b>



	July 1, 2020	July 1, 2021
<b>Retiree Statistics</b>		
Average Age	67.2	67.2
Average Monthly Benefit	\$2,582	\$2,684
<b>Beneficiary Statistics</b>		
Average Age	73.8	74.9
Average Monthly Benefit	\$1,222	\$1,120
<b>Disabled Participant Statistics</b>		
Average Age	64.8	65.8
Average Monthly Benefit	\$2,298	\$2,327
<b>Terminated Vested Participant Statistics</b>		
Average Age	53.0	54.3
Average Monthly Benefit	\$1,178	\$1,171
<b>Terminated Participants Due a Return of Employee Contributions Statistics</b>		
Average Age	48.7	47.0
Total Employee Contributions Payable	\$220,359	\$288,611

**Participant Reconciliation**

	<b>Active</b>	<b>Terminated Vested</b>	<b>Disabled</b>	<b>Retired</b>	<b>Survivor</b>	<b>Totals</b>
<b>Prior Year</b>	249	26	15	198	17	505
<b>Active</b>						
To Terminated Vested	(6)	6	0	0	0	0
To Disabled	0	0	0	0	0	0
To Retired	(13)	0	0	13	0	0
To Lump Sum Cash-Out	(6)	0	0	0	0	(6)
To Death	0	0	0	0	0	0
<b>Disabled</b>						
To Death	0	0	0	0	0	0
<b>Terminated Vested</b>						
To Active	2	(2)	0	0	0	0
To Retired	0	(1)	0	1	0	0
To Lump Sum Cash-Out	0	(1)	0	0	0	(1)
<b>Terminated Non-Vested</b>						
To Active	0	0	0	0	0	0
<b>Retired</b>						
To Death	0	0	0	(7)	0	(7)
<b>Lump Sum Cash-Out</b>						
To Active	0	0	0	0	0	0
<b>Survivor</b>						
To Death	0	0	0	0	(2)	(2)
<b>Additions</b>	22	3	0	0	3	28
<b>Departures</b>	0	0	0	0	0	0
<b>Current Year</b>	248	31	15	205	18	517

**Active Participant Schedule**

Active participant information grouped based on age and service.

Age Group	Years of Service										Total	Average Pay*
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up		
Under 25	4	5									9	\$39,721
25 to 29	5	14	5								24	\$47,013
30 to 34	5	7	11	6							29	\$62,324
35 to 39	1	2	8	11	4						26	\$70,004
40 to 44		2	4	3	11	1					21	\$66,972
45 to 49	2	8	6	2	2	8	2	1			31	\$59,959
50 to 54		8	5	3	6	5	4	1			32	\$56,467
55 to 59		9	5	8	6			4			32	\$58,210
60 to 64	2	4	8	4	4	4	1				27	\$49,706
65 to 69		3	2	3	2	1		1			12	\$34,885
70 & up		2	2	1							5	\$25,877
<b>Total</b>	<b>19</b>	<b>64</b>	<b>56</b>	<b>41</b>	<b>35</b>	<b>19</b>	<b>7</b>	<b>7</b>			<b>248</b>	<b>\$56,412</b>

\*Average Pay shown above is based on pensionable compensation from 7/1/2020 – 6/30/2021.

**Name of plan**

Town of Narragansett Pension Plan

**Effective date**

The plan was originally effective as of July 1, 1984.

**Participation**

All permanent, regular and probationary status employees who work for at least five months of a year and for at least twenty hours per week who elect to contribute to the Plan at the prescribed rates are eligible to participate in the Plan.

School Department employees who have been, are, or will be eligible for membership in the State Teacher’s Retirement System shall be excluded from this Plan.

The Plan shall exclude any Police Officer covered under the 1666 Plan who has refused to join the Plan.

**Normal retirement benefit**

For all employees hired prior to July 1, 2011: A benefit equal to 2.5% of Final Average Compensation multiplied by years of credited service (subject to a maximum benefit of 75% of Final Average Compensation).

For Council 94 and Local 1033 employees hired on or after July 1, 2011: A benefit equal to 2.0% of Final Average Compensation multiplied by years of credited service up to 20 and 2.5% of Final Average Compensation multiplied by years of service in excess of 20, limited to 14 (subject to a maximum benefit of 75% of Final Average Compensation).

For Council 94 and Local 1033 employees hired on or after July 1, 2014: A benefit equal to 2.0% of Final Average Compensation multiplied by years of credited service (subject to a maximum benefit of 75% of Final Average Compensation).

For School employees hired on or after July 1, 2015: A benefit equal to 2.0% of Final Average Compensation multiplied by years of credited service (subject to a maximum benefit of 75% of Final Average Compensation).

For Police and Fire Union members hired on or after July 1, 2013: A benefit equal to 2.0% of Final Average Compensation multiplied by years of credited service.

**Normal retirement date**

Municipal Employees	<p>A member may retire upon the later of attainment of age 58 or the completion of 10 years of credited service, but, in any case, he can retire immediately after completing 20 years of credited service</p> <p>For Local 1033 members hired on or after 7/1/2014: A member may retire after completing 25 years of service</p> <p>For Council 94 members hired on or after 7/1/2014: A member may retire upon the later of attainment of age 65 or the completion of 10 years of credited service, but, in any case, he can retire immediately after completing 25 years of credited service</p> <p>For School employees hired on or after 7/1/2015: A member may retire upon the later of attainment of age 65 or the completion of 10 years of credited service, or at any age after the completion of 25 years of credited service.</p>
Firefighters	<p>For Firefighters hired prior to July 1, 2011: A Firefighter may retire upon completion of 20 years of credited service</p> <p>For Firefighters hired on or after July 1, 2011, except Blanchette and Hultzman: A Firefighter may retire 23 years from their date of hire with a minimum 20 years of credited service</p> <p>For Firefighters hired on or after July 1, 2013: A Firefighter may retire upon completion of 25 years of credited service</p>
Police Officers (including Chapter 1666)	<p>For Police Union members hired before July 1, 2013: A Police Union member may retire upon the earlier of attainment of age 58 or the completion of 20 years of credited service</p> <p>For Police Union members hired on or after July 1, 2013: A Police Union member may retire upon the completion of 25 years of credited service</p>

**Average monthly salary**

Average annual basic compensation during the highest three consecutive years of service.

**Early retirement**

A member who has attained age 55 with 10 years of credited service, or has attained age 50 with 20 years of credited service may elect to retire and receive a monthly benefit equal to the actuarial equivalent of the accrued benefit determined as of the normal retirement date.

**Disability retirement**

Non-Occupational Causes

Municipal Employees      After the completion of seven years of credited service but prior to attainment of age 58, a disabled member is entitled to the greater of (a) 2.5% of Final Average Compensation multiplied by years of credited service (subject to a minimum of 25% and maximum of 50%) or (b) 1 2/3% of Final Average Compensation multiplied by years of credited service (subject to a minimum of 25%)

Firefighters and Police Officers      After the completion of seven years of credited service but prior to attainment of age 58 (age 55 for firefighters), a benefit equal to 2.5% of Final Average Compensation multiplied by years of credited service (subject to a minimum of 25% and a maximum of 50%)

Occupational Causes      A benefit equal to 66 2/3% of the annualized rate of compensation determined as of the date of disability, reduced by the monthly value of any payments provided for the member under any worker's compensation law.

**Preretirement death benefit**

Municipal Employees

Non-Occupational Causes      Upon the death of a member his beneficiary shall be entitled to the greater of (a) a refund of employee contributions with interest plus a lump sum benefit equal to \$400 times years of credited service (subject to a minimum of \$2,000 and a maximum of \$8,000) or (b) for a member with 10 or more years of credited service, a refund of employee contributions with interest, plus a monthly benefit equal to 50% of the member's accrued benefit.

Occupational Causes      Upon the death of a member, his beneficiary shall receive a refund of employee contributions with interest, plus a benefit equal to 50% of compensation.

Firefighters and Police Officers      Upon the death of a Firefighter or Police Officer who has completed 10 years of credited service, the beneficiary may elect either a refund of employee contributions with interest or a benefit equal to 50% of the accrued benefit. Special rules apply for death after meeting the eligibility for retirement.

**Termination Benefit**

For vested participants: Accrued benefit payable at normal retirement date

For non-vested participants: A return of employee contributions with interest payable as a lump sum

**Vesting**

For non-Firefighters: 100% vested after 10 years of Credited Service

For Firefighters: 100% vested after 20 years of Credited Service (25 years of Credited Service for Firefighters hired on or after 7/1/2013)

**Compensation**

Annual base compensation excluding longevity, incentive and holiday pay. School employees shall have longevity pay included in compensation.

**Credited service**

Contributing employees will receive credit for all service rendered to the Town from date of membership subject to certain special provisions.

**Cost of Living Adjustments**

Municipal Employees	Who retire on or after July 1, 2002 shall receive annual 3% compounded COLAs beginning on the July 1 of the year that the employee turns 58 years old.  Council 94 employees hired on or after 7/1/2014 shall receive annual 3% simple COLAs beginning on the July 1 of the year that the employee turns 58 years old.  School employees hired on or after 7/1/2015 shall receive a compounded COLA on each July 1 <sup>st</sup> based on the COLA given to Social Security recipients, if any.
Firefighters	Who retire on or after July 1, 2002 and before July 1, 2015 shall receive annually a 3% compounded COLA beginning on the July 1 of the year that the firefighter turns 52 years old.  Who retire on or after July 1, 2015 shall receive annually a 3% simple COLA beginning on the July 1 of the year that the firefighter turns 52 years old, subject to the suspension below.  The COLA has been suspended for 8 years for active members as of July 1, 2013.

Police Officers

Who retire on or after July 1, 2002, if employed before July 1, 2013, shall receive annual 3% compounded COLAs beginning on the earlier of July 1 or the year that the employee turns 52 years old of July 1 of the year that is the fifth anniversary of the police officer’s retirement, subject to the suspension below.

Employees hired on or after July 1, 2013 shall receive a 3% simple COLA at retirement and when eligible

The COLA has been suspended for 8 years for active members as of July 1, 2013

**Optional forms of payment**

In lieu of the normal form of benefit, any member who is married at the time of retirement may elect a pension that provides, upon the member’s death, for 67.5% of the pension to continue to the dependent spouse or dependent children.

**Participant contributions**

As of July 1, 2018

Municipal Employees	10% of salary; for Council 94 and Local 1033 employees, 11% of salary
Firefighters	11% of salary, holiday, incentive & longevity
Police Officers	11% of base salary, holiday, incentive & longevity
Laborers & Clerical	10% of base salary & longevity
Mid-managers	10% of base salary & longevity
Non Union	10% of base salary
School	10% of base salary & longevity

Contributions cease once a participant has reached 30 years of service

Except where otherwise indicated, the following assumptions were selected by the plan sponsor with the concurrence of the actuary. Prescribed assumptions are based on the requirements of the relevant law, the Internal Revenue Code, and applicable regulation.

**Valuation Date**

July 1, 2021

**Participant and Asset Information Collected as of**

July 1, 2021

**Cost Method (CO)**

Individual Entry Age Cost Method % of pay

**Amortization Method (CO)**

20 year closed level percent of pay amortization of Unfunded Actuarial Accrued Liability. For this purpose, pay is assumed to grow at 3.50% annually

**Asset Valuation Method**

The actuarial value of assets is equal to the fair market value of assets on the valuation date adjusted for a 5-year phase in of gains and losses on fair market value of assets.

**Interest Rates (CO)**

7.15%

This assumption has been set by the plan sponsor in conjunction with their asset advisor.

**Annual Pay Increases (FE)**

Age	Percent
20-24	10.00%
25-29	8.00%
30-34	6.00%
35-39	5.00%
40-44	4.50%
45-54	4.25%
55+	4.00%

The annual pay increases are based on a study of actual experience for the plan from July 1, 2010 – July 1, 2020.

**Mortality Rates (FE)**

Healthy Lives

Municipal Employees	PubG-2010 Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale
Firefighters and Police	PubS-2010 Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale
School Employees	PubT-2010 Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale
Survivors	Pub-2010 Continuing Survivor Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale

Disabled Lives

Municipal Employees & School Employees	PubNS-2010 Disabled Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale
Firefighters and Police	PubS-2010 Disabled Mortality Table with generational improvements from 2010 based on the MP-2020 mortality improvement scale

As the plan is not large enough to have credible experience, mortality assumptions are set to reflect general population trends.

**Retirement Rates (FE)**

Non-Public Safety Employees

Local 1033 Hired On or After 7/1/2014

100% at the earlier of 25 years of service or age 58 with 10 years of service

Council 94 Hired On or After 7/1/2014 and School Hired On or After 7/1/2015

100% at the earlier of 25 years of service or age 65 with 10 years of service

All others

25% at 20 years of service, 20% at 21-24 years of service, 100% at 25 years of service and 100% at age 58 with 10 years of service

Public Safety Employees

Police Hired On or After 7/1/2013

100% at the earlier of 25 years of service or age 58

Fire Hired On or After 7/1/2013

100% at 25 years of service

All others

35% at 20 years of service, 20% at 21-24 years of service, 100% at 25 years of service and 100% at age 58

The retirement rates are based on a study of actual experience for the plan from July 1, 2010 – July 1, 2020.

**Disability Rates (FE)**

50% of the rates in accordance with the 1985 Pension Disability Table

<u>Age</u>	<u>Percent</u>
25	0.05%
35	0.11%
45	0.26%
55	0.75%

As the plan is not large enough to have credible experience, disability rates are determined based on the results of broad population studies.

**Withdrawal Rates (FE)**

Non-Public Safety Employees A rate of 7.5% annually up to 10 years of service, followed by rates in accordance with the T-2 Table of *The Pension Actuary's Handbook*

<u>Age</u>	<u>Percent</u>
25	5.29%
35	4.70%
45	1.77%
55	0.00%

Public Safety Employees No withdrawal is assumed

The withdrawal rates are based on a study of actual experience for the plan from July 1, 2010 – July 1, 2020.

**Marital Status and Ages (FE)**

85% of Participants assumed to be married with wives assumed to be 4 years younger than husbands.

**Cost of Living Adjustment (CO)**

For Council 94: 3% increase is assumed once the participant is eligible with a simple COLA occurring once the benefit reaches \$35,000

For Local 1033: 3% increase is assumed once the participant is eligible. For employees retiring after January 1, 2012, a 3% increase with a simple COLA occurring once the benefit reaches \$45,000

For Police and Fire: the COLA is suspended for active members as of July 1, 2013 for 8 years

For Fire members expected to retire before July 1, 2015: the COLA is 3% compounded when eligible and subject to the suspension noted above

For Fire members expected to retire on or after July 1, 2015: the COLA is 3% simple when eligible and subject to the suspension noted above

**Cost of Living Adjustment** - continued

For Police members hired on  
or after July 1, 2013:           a 3% simple COLA when eligible

For School employees hired  
on or after July 1, 2015:       2% increase is assumed once the participant is eligible

For all other employees:       3% compound COLA is assumed once eligible

**Expense and/or Contingency Loading (FE)**

None

**Contribution Timing**

The Actuarially Determined Contribution is calculated assuming contributions are made at the end of the current plan year and presented as the same percentage of projected payroll for the following plan year.

**Other procedures**

Benefits projected to assumed retirement age for active participants have been limited so as not to exceed maximum benefit limits imposed by Code Section 415(b) and/or maximum compensation limits of Code Section 401(a)(17).

FE indicates an assumption representing an estimate of future experience

MD indicates an assumption representing observations of estimates inherent in market data

CO indicates an assumption representing a combination of an estimate of future experience and observations of market data

The actuarial report also shows the necessary items required for plan reporting and any state requirements.

- ✓ Schedule of Amortizations
- ✓ Actuarially Determined Contribution by Division

**Schedule of Amortizations**

**July 1, 2021**

<u>Date Established</u>	Remaining Period <u>Years</u>	Outstanding <u>Balance</u>	Annual <u>Payment</u>
7/1/2014	13	\$41,434,583	3,891,214
7/1/2015	14	3,120,328	276,490
7/1/2016	15	1,752,139	147,225
7/1/2017	16	(1,143,912)	(91,545)
7/1/2018	17	(546,798)	(41,836)
7/1/2019	18	1,264,108	92,780
7/1/2020	19	6,272,286	442,937
7/1/2021	20	(1,798,229)	(122,509)
	Total	\$50,354,505	\$4,594,756

**Actuarially Determined Contribution by Division**

	<b>Town</b>	<b>Police</b>	<b>Fire</b>	<b>Beach</b>	<b>Water</b>	<b>Wastewater</b>	<b>Library</b>	<b>School</b>	<b>Total</b>
(1) Total Normal Cost	915,155	1,077,143	581,140	8,886	45,573	74,989	0	555,203	3,258,089
(2) Expected Employee Contributions	391,139	355,327	217,254	2,992	18,720	32,078	0	218,045	<u>1,235,555</u>
(3) Employer Normal Cost = (1) - (2)	524,016	721,816	363,886	5,894	26,853	42,911	0	337,158	2,022,534
(4) Net Amortization Payment	<u>1,122,590</u>	<u>1,167,091</u>	<u>1,023,964</u>	<u>9,946</u>	<u>104,411</u>	<u>163,125</u>	<u>87,100</u>	<u>916,529</u>	<u>4,594,756</u>
(5) Interest at Valuation rate on (3) + (4)	<u>117,731</u>	<u>135,057</u>	<u>99,231</u>	<u>1,133</u>	<u>9,385</u>	<u>14,732</u>	<u>6,228</u>	<u>89,639</u>	<u>473,136</u>
(6) Calculated contribution at valuation date (3) + (4) + (5)	1,764,337	2,023,964	1,487,081	16,973	140,649	220,768	93,328	1,343,326	7,090,426
(7) Valuation Payroll	4,480,287	3,512,627	2,540,840	29,050	315,802	450,195	195,842	3,173,256	14,697,899
(8) Calculated contribution at valuation date as a percentage of valuation payroll (6) ÷ (7)	39.4%	57.6%	58.5%	58.4%	44.5%	49.0%	47.7%	42.3%	48.2%
(9) Projected Payroll	<u>4,637,097</u>	<u>3,635,569</u>	<u>2,629,769</u>	<u>30,067</u>	<u>326,855</u>	<u>465,952</u>	<u>202,696</u>	<u>3,284,320</u>	<u>15,212,325</u>
(10) Actuarially determined contribution (8) x (9), with adjustments due to rounding	1,825,658	2,093,023	1,537,645	17,550	145,354	228,179	96,627	1,388,305	7,332,341