



A DEFINED BENEFIT ACTUARIALVALUATION

For:

City of Woonsocket, Rhode Island Policemen's Pension Fund Firemen's Pension Fund

As of: July 1, 2020

> Prepared by: USI Consulting Group

Issued: November 5, 2020

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VALUATION AS OF JULY 1, 2020

PRINCIPAL RESULTS OF THE VALUATION

Below is a summary of the principal results of this year's valuation compared with the previous valuation. Amounts for each valuation period reflect the actuarial cost method, assumptions and plan benefits in effect at that time.

	2019	2020
(A) Contribution Limitations		
(1) Actuarially Determined Contribution (Exhibit V)	\$ 6,710,000	\$ 7,234,000 *
(2) Approved Budgetary Contribution (Exhibit II)	\$ 4,223,000	\$ 4,405,000
(3) Alternative Employer Contribution	\$ 12,120,415	\$ 5,277,001
(B) Supporting Information		
(1) Market Value of Assets	\$ 31,344,983	\$ 28,800,490
(2) Actuarial Value of Assets	\$ 33,180,285	\$ 30,168,927
(3) Present Value of Accumulated Benefits	\$ 81,597,292	\$ 95,932,025
(4) Funding Ratio - Market Value (1) ÷ (4)	38.41%	30.02%
(5) Funding Ratio - Actuarial Value (2) ÷ (4)	40.66%	31.45%
(6) Funding Ratio Discount Rate	7.50%	5.00%
(7) Number of Lives Included in the Valuation	214	201
(8) EAN Accrued Liability	\$ 81,597,292	\$ 95,932,025
(9) Present Value of all Future Benefits	\$ 81,597,292	\$ 95,932,025

^{*}Level contribution needed to fully-fund in the 22-year period, presuming the 2020 contribution is the budgeted amount.

VALUATION AS OF JULY 1, 2020

EXECUTIVE SUMMARY

Purpose and Scope

The principal purposes of this actuarial valuation report are:

- 1. To present our calculations of the minimum suggested contribution and the accrued liability for the Plan Year beginning July 1, 2020,
- 2. To review Plan experience during the year ended June 30, 2020 and the funded status of the Plan as of July 1, 2020,
- 3. To provide an assessment and disclosure of risk with respect to pension obligations and contributions,

The valuation is based upon employee data and financial information provided by City of Woonsocket. This data was not audited or otherwise verified by us other than for tests of reasonable consistency with prior year data.

Risk Assessment

This report includes information related to Actuarial Standards of Practice Number 51 (ASOP 51), Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Contributions.

Traditionally, the focus of valuation reports has centered around the current funded status of the Plan, experience during the prior year, and contribution requirements for the current year. This is now supplemented with additional information regarding risks that plan sponsors face as well as more historical information and measurements. The report does not provide: risk assessments related to potential legislative and regulatory changes, investment advice, or assessments of the ability or willingness of plan sponsors to make contributions to the Plan.

Actuarial Methods, Assumptions and Provisions

This report reflects an approved Budget Schedule that follows the contribution schedule developed on February 8, 2017. Please see Exhibit II for more detail. The contribution pattern in Exhibit II replaces the original contribution pattern., illustrated in Exhibit I.

Similar to last year, the asset smoothing method results in an actuarial value of assets that is greater than the market value of assets. This is caused by the investment losses in the last five plan years. Please note that the smoothing method serves only to mitigate the volatility of year-to-year investment performance. The method recognizes each year's investment gain or loss over a five-year period; it does not ignore the current market value, but only adjusts the timing of its recognition.

VALUATION AS OF JULY 1, 2020

(Continued)

The discount rate assumption was decreased from 7.50% to 5.00% to better align with the asset allocation. The mortality table was updated to RP-2014 (Total Dataset for Females and Blue Collar for Males, (adjusting to 2006), with MP-2020 to match the table in use by the state pension. All other methods and assumptions remain the same as the 2019 Valuation Report.

In our opinion, all costs, liabilities, rates of interest and other factors under the Plan have been determined on the basis of actuarial assumptions and methods, which are each reasonable, taking into account the experience of the Plan in addition to future expectations and which, when combined, represent our best estimate of anticipated experience under the Plan.

Plan Experience

As of July 1, 2020, there are no active participants. There are 201 pensioners.

During the plan year ending June 30, 2020, the market value of plan assets decreased from \$31,344,983 to \$28,800,490, with a net investment return of 5.27%. The investment performance is less than the 7.50% assumption, creating a market value loss of approximately \$640,000. This loss will be recognized over five years.

As discussed on the prior page, the actuarial value of assets includes recognition of investment gains/losses over five years. There is also a 20% corridor around the market value of assets. The actuarial value of assets decreased from \$33,180,285 last year to \$30,168,927 as of July 1, 2020. This reflects an investment loss of about \$1,244,000 on the actuarial value of assets. The asset smoothing method recognized each year's investment gains and losses over a 5-year period. Please see page 8 for more details of the method. In this way, the actuarial value of assets methodology smooths out much of the volatility of annual changes in the market value of assets.

The following is a history of the Fund's Market and Actuarial Value of Assets over the last several years:

	Market Value	Actuarial Value
	of Assets	of Assets
7/1/2020	\$28,800,490	\$30,168,927
7/1/2019	\$31,344,983	\$33,180,285
7/1/2018	\$33,589,759	\$36,444,404
7/1/2017	\$36,318,178	\$39,505,148
7/1/2016	\$38,593,619	\$42,735,614

The plan experience a liability loss of approximately \$360,000, due to plan experience and data corrections. In aggregate, the Plan experience an actuarial loss of \$1,604,000.

Changes to plan assumptions, including a decline in the discount rate from 7.5% to 5.0% and updated mortality tables, caused the accrued liability to increase by \$16,472,000.

VALUATION AS OF JULY 1, 2020

(Continued)

Plan Experience (Continued)

A comparison of the actual Actuarial Value of Assets as of 7/1/2020 (\$30,168,927) to the anticipated Actuarial Value of Assets as of 7/1/2020 as projected in Exhibit II (\$32,062,000) illustrates a deficit of \$1,893,000. The Budget Commission approved schedule in Exhibit II assumes an investment return of 7.5% annually on the market value of assets. The market value of assets for the past plan year actually returned 5.27%. The impact of this loss is mitigated by the asset smoothing methodology.

Contribution Requirements

The Plan Sponsor has been contributing based on the Budget Commission Approved Funding Schedule and the revised Funding Schedule. The approved deposit for the 2020 plan year is \$4,405,000.

Plan experience since the adoption of the schedule in Exhibit II, has been such that the schedule will not meet the original goal of reaching a fully funded status in 22 years (starting with the plan year ending 6/30/2013). In addition, the original funding schedule was based on a discount rate and investment return of 7.5%. A more reasonable assumption based on the plan's asset allocation is 5.0%.

Exhibit III illustrates that if contributions continue to be made in accordance with the revised Funding Schedule (shown on Exhibit II), the Plan will be about 56% funded at the end of the 22-year period.

Exhibits IV and V show alternative deposits strategies to fully fund the plan. Exhibit IV shows what happens if the final deposit of \$7.5mm is extended for 3.5 additional years. Exhibit V shows the level contribution necessary to fully fund the plan over the original 22-year period.

Another option would be to look at a 20-year amortization of the unfunded accrued liability. That would produce an annual contribution of \$5,277,001. As you can see, this is larger than the budged contribution of \$4,405,000.

VALUATION AS OF JULY 1, 2020

(Continued)

Funding Status

The Plan's funding ratio, on an actuarial value of assets basis, as shown on Page 1, decreased from 40.66% in 2019 to 31.45% in 2020. The funding ratio on a market value basis decreased from 38.41% in 2019 to 30.02% in 2020.

The main dirver of the decrease in funding status is the change in the discount rate from 7.5% to 5.0%. If the discount rate change was not made, the funded ratio on a market value basis would have resulted in a 36.25% funding ratio.

The funding ratio is appropriate for assessing the need for or the amount of future contributions, based on the assumptions stated in this report.

Future measurements may differ significantly from the information contained within this report. These measurements will be based on the market value of assets, which varies based on the underlying portfolio experience, as well as Plan Sponsor contributions, benefit payments and expenses paid from Plan assets. Liability calculations will be produced in accordance with current census data, as well as the interest rates and mortality tables in effect at that time. There has been no analysis of potential future impacts associated with this report.

Actuarial Certification

This report has been prepared in accordance with generally accepted actuarial standards and procedures and conforms to the Guidelines for Professional Conduct of the American Academy of Actuaries. It is based upon the employee and financial data submitted to USI Consulting Group by the Plan Sponsor and the retirement Plan provisions as outlined herein.

I, Jaime Packer, am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

USI CONSULTING GROUP

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VALUATION AS OF JULY 1, 2020

FINANCIAL STATEMENT AS OF 7/1/2020

I. Statement of Assets and Liabilities	7/1/2019		7/1/2020	
(A) Assets				
(1) Cash (and Money Market Funds)	\$	0	\$	0
(2) Receivables				
(a) Employer Contribution Receivable	\$	0	\$	0
(b) Participant Contribution Receivable		0		0
(c) Interest Receivable		0		0
(d) Investment Receivable		0		0
(e) Other		0		0
(g) Total Receivables	\$	0	\$	0
(3) Investments				
(a) DAA Account #1061636	\$	0	\$	0
(b) Hartford Account #1061100201		0		0
(c) State Street Account #1061100117		0		0
(d) Liquidity Account #1061580		31,344,983		28,800,490
(e) Robeco Boston Account #1061101		0		0
(f) Vanguard Fund Account #1061112		0		0
(g) Total Investments	\$	31,344,983	\$	28,800,490
(4) Other Assets				
(a) Insurance Contracts	\$	0	\$	0
(b) Other		0		0
(c) Total Other Assets	\$	0	\$	0
(5) Total Assets	\$	31,344,983	\$	28,800,490
(B) Liabilities				
(1) Payables	\$	0	\$	0
(2) Other Liabilities		0		0
(3) Other Liabilities		0		0
(4) Total Liabilities	\$	0	\$	0
(C) Net Assets	\$	31,344,983	\$	28,800,490

VALUATION AS OF JULY 1, 2020

FINANCIAL STATEMENT AS OF 7/1/2020 (Continued)

II. Statement of Receipts and Disbursements	
(A) Net Assets at Beginning of Year	\$ 31,344,983
(B) Receipts	
(1) Contributions Received or Receivable	
(a) Employers	\$ 4,223,000
(b) Employees	0
(c) Other	0
(d) Total Contributions	\$ 4,223,000
(2) Income	
(a) Net Investment Return	 1,730,562
(b) Total Income	\$ 1,730,562
(C) Disbursements	
(1) Distribution of Benefits	
(a) Directly to Participants or Beneficiaries	\$ 8,310,409
(b) Other to participants	0
(c) Other	0
(d) Total Distribution of Benefits	\$ 8,310,409
(2) Expenses	
(a) Administrative and Professional Fees	\$ 106,396
(b) Other Investment Expenses	81,250
(c) Other	0
(d) Other	0
(e) Total Expenses	\$ 187,646
(D) Net Income (loss)	\$ (2,544,493)
(E) Net Assets at Year End	\$ 28,800,490
(F) Returns	
(1) Net Investment Return	5.27%
(2) Gross Investment Return	5.93%

VALUATION AS OF JULY 1, 2020

DETERMINATION OF VALUATION ASSETS AS OF 7/1/2020

(A) ASSET GAIN/(LOSS	S) AS OF 7/1/2020							
(1) Expected mark	et value of assets as o	of 7/1/2	2020					
(b) E (c) C (d) B	Market value of assets expected return on assets contributions, excluding the senefit Payments let interest on (c) + (d)	sets at ing rece	7.50% ivables	ī			\$	31,344,983 2,350,874 4,223,000 (8,310,409) (168,056)
(f) T	otal						\$	29,440,392
(2) Actual market	value of assets 7/1/20)20, exc	cluding receival	ble			\$	28,800,490
(3) Asset gain/(loss	s) as of 7/1/2020: (2)	- (1)(f)					\$	(639,902)
(B) DETERMINATION	OF VALUATION ASSE	TS AS C	OF 7/1/2020					
(1) Market value o	f assets as of 7/1/202	.0					\$	28,800,490
(2) Amortization o	f asset gain/(loss) ove	r a 5-ye	ear period					
	Year Ending June 30	Ass	et Gain/(Loss)	x	Portion Not Yet Recognized	=	Defe	rred Gain/(Loss)
(a)	2020	\$	(639,902)		4/5			(511,921)
(b)	2019	,	(548,947)		3/5			(329,368)
(c)	2018		(1,077,604)		2/5			(431,042)
(d)	2017		(480,531)		1/5			(96,106)
(e)	Total Amortization						\$	(1,368,437)
(3) Receivable con	tributions as of 7/1/2	020					\$	0
(4) Valuation asset	s as of 7/1/2020						\$	30,168,927
(C) Valuation assets a	s of 7/1/2020							
(1) Valuation asset	s as of 7/1/2020							
(b) C (c) B (d) E (e) R	Yaluation assets assets Contributions, includir Benefit Payments Expenses Beturn on assets						\$	33,180,285 4,223,000 (8,310,409) (187,646) 1,263,697
(f) T							\$	30,168,927
	orridor, including rece	eivable						
• •	0% of MVA						\$	23,040,392
(b) 1	20% of MVA						\$	34,560,588
(3) Valuation Asset	ts, not less than (2a) o	or more	than (2b)				\$	30,168,927

VALUATION AS OF JULY 1, 2020

VALUATION RESULTS AS OF 7/1/2020

(A) Present Value of Future Benefits

The value of all projected retirement, death, disability, and vested termination benefits expected to be paid to all current plan participants, discounted to the valuation date with interest, mortality, withdrawal, and disability decrements.

	 Police	 Fire	 Total
Active	\$ 0	\$ 0	\$ 0
Disabled	7,407,623	13,893,097	21,300,720
Retired	23,196,668	51,434,637	74,631,305
Total	\$ 30,604,291	\$ 65,327,734	\$ 95,932,025

(B) Entry Age Accrued Liability

The portion of the present value of future benefit attributable to prior normal costs.

	 Police	 Fire	 Total
Active	0	0	0
Disabled	7,407,623	13,893,097	21,300,720
Retired	23,196,668	51,434,637	74,631,305
Total	\$ 30,604,291	\$ 65,327,734	\$ 95,932,025
(C) Valuation Assets			30,168,927
(D) Unfunded Accrued Liability			65,763,098

(E) Entry Age Normal Cost

The amount required to fund the present value of benefits as a level percent of pay from entry age to retirement age.

(1) Total EAN Normal Cost	\$ 0
(2) Expected Employee Contributions	0
(3) Total Employer Normal Cost	\$ 0

VALUATION AS OF JULY 1, 2020

ACCUMULATED PLAN BENEFITS

The actuarial assumptions are set forth in the Summary of Actuarial Methods and Assumptions section of this report.

I. Actuarial Present Value of Accumulated Plan Benefits (P	VAB)			
		7/1/2019		7/1/2020
 (A) Actuarial Present Value of Vested Benefits (1) Participants Currently Receiving Benefits (2) Participants Entitled to Deferred Benefits (3) Other Participants 		81,597,292 0	\$	95,932,025
		0		0
(4) Total Vested	\$	81,597,292	\$	95,932,025
(B) Actuarial Present Value of Non-Vested Benefits	\$	0	\$	0
(C) Total PVAB	\$	81,597,292	\$	95,932,025
(D) Market Value of Assets	\$	31,344,983	\$	28,800,490
(E) Actuarial Value of Assets	\$	33,180,285	\$	30,168,927
II. Statement of Changes in Actuarial Present Value of Accu	ımulated	d Plan Benefits		
(A) PVAB as of July 1, 2019			\$	81,597,292
(B) Increase (Decrease) Attributable to: (a) Decrease in Discount Period (b) Benefits Paid (c) Assumption Changes (d) Plan Amendments (e) Benefits Earned, Incl. Experience Gains and (f) Total Change (C) PVAB as of July 1, 2020	Losses		\$ \$	5,813,790 (8,310,409) 16,471,887 0 359,465 14,334,733 95,932,025
III. Assumptions		7/1/2019		7/1/2020
Discount Rate		7.50%		5.00%
Salary Increase		N/A		N/A
Cost of Living	uni thei	ernating 0%, 2% til FYE 2023, 2% n 3% when 80% funded	unt ther	rnating 0%, 2% il FYE 2023 and n 2% thereafter
Mortality		22000 adjusted, ojected to 2010 using scale AA	(To Fen Col adju	2014 Mortality tal Datasetfor nales and Blue lar for Males) usting to 2006, ith MP-2020

VALUATION AS OF JULY 1, 2020

ASOP 51 ASSESSMENT AND DISCLOSURE OF RISK

Additional Information Regarding Assessment and Disclosure of Risks

The valuation of pension liabilities requires the use of certain assumptions to estimate events that are expected to occur in the future. These events can be economic, non-economic and demographic in nature. When actual experience in the future differs from the expected experience there is a direct effect on future pension liabilities. This in turn can impact both the funded position of the pension plan as well as the actuarially determined contribution amount.

Certain variables carry more risk than others. Included below is a brief explanation of those variables that can potentially have a significant effect on the plan's future financial condition.

Actuarially Determined Contribution Compared to Actual Contribution

The ADC is calculated using an actuarial funding method. The ADC can vary from year to year as actual experience differs from that expected. The funding method's intent is that if the ADC is deposited by the plan sponsor each year, then the plan would be sufficiently funded over the life of the plan so that promised benefits could be paid to all participants. A comparison of the ADC vs. contributions deposited by the plan sponsor for the most recent plan years are as follows:

		roved Budget ommission		
Fiscal Year	Co	ontribution	Co	ontribution
7/1/2019 - 6/30/2020	\$	4,223,000	\$	4,223,000
7/1/2018 - 6/30/2019	\$	4,049,000	\$	4,049,000
7/1/2017 - 6/30/2018	\$	3,881,000	\$	3,881,000
7/1/2016 - 6/30/2017	\$	3,721,000	\$	3,721,000

The Plan Sponsor has been contributing based on the Budget Commission Approved Funding Schedule and the revised Funding Schedule, however due to subsequent plan experience, the original goal of reaching a fully funded status in 22 years (starting with the plan year ending 6/30/2013) is not projected to be met if the contribution amounts are not adjusted upward. Exhibit III illustrates that if contributions continue to be made in accordance with the revised Funding Schedule (shown on Exhibit II), the Plan will be about 56% funded at the end of the 22-year period. Exhibits IV and V show alternative deposits strategies to fully fund the plan.

Risk Assessments

Investment Volatility Risk

There is an expectation that the assets of the pension plan will return an average long-term rate each year. If the actual annual net return on plan assets is consistently below the expected return, then both the funded ratio and ADC would be negatively impacted — the funded ratio would be lower than expected and the ADC would be higher. If the actual net return on Plan assets is consistently below the expected return, then the contributions outlined in the adopted Funding Schedule will be insufficient to fully fund the Plan. Future contributions will need to be higher in order to meet the goal of fully funding the plan in 22 years.

VALUATION AS OF JULY 1, 2020

ASOP 51 ASSESSMENT AND DISCLOSURE OF RISK (Continued)

Investment Return Risk

The interest rate (which is equal to the Plan's expected return on assets rate) is used to discount the projected benefit payments from the Plan to calculate the present value of the liabilities (Accrued Liability). Decreases in the interest rate (as noted above) will lead to increases in the Accrued Liability, which may increase contribution requirements. As an example, a decrease of 100 basis points would lead to an increase in Accrued Liability of about 10.0%, and increase the contributions necessary to fully fund the plan.

Longevity Risk

To the extent participants live longer than expected relative to the mortality assumptions, liabilities (and, thus, the ADC) will increase. We have updated the mortality assumption to the RP-2014 (Total Dataset for females and Blue Collar for males) Table, adjusted back to 2006, and fully generational with Scale MP-2020. The decreased longevity under this new assumption caused the accrued liability to decrease by about 0.8%.

Expense Load

Certain expenses related to the administration of the plan are often paid out of plan assets (to the extent allowed by law). As a way to ensure plan assets are not depleted over time due to administrative costs, an expense load (usually a flat dollar amount or a small % of plan assets) may be added to the plan's normal cost, which is part of the contribution made by the plan sponsor each year. When actual administrative expenses for a given year are different from the assumed load amount, the plan will experience gains or losses that will be factored into the following year's contribution levels.

Plan Maturity Measures

Certain statistics can help to gauge the financial strength of the pension plan as well as to help identify risk that the plan might be subject to as it matures over time. Certain plan maturity statistics for the current valuation year are included below for your review and analysis. Historical statistics incorporating some of the prior year results may be found in the Executive Summary section of this report.

VALUATION AS OF JULY 1, 2020

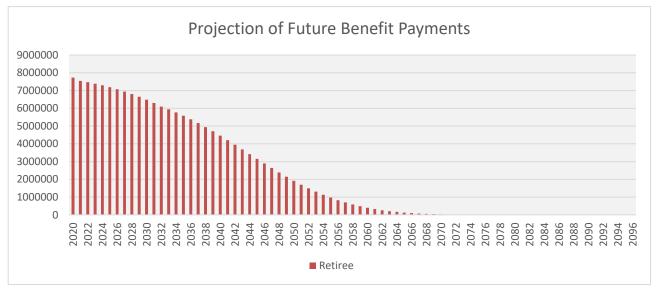
ASOP 51 ASSESSMENT AND DISCLOSURE OF RISK (Continued)

Ratio of Retiree Liability to Total Plan Liability

Ratio = \$95,932,000 / \$95,932,000 = 100.0%

A pension plan with a high ratio (for example, more than 50%) is considered to be a relatively mature plan since the primary liability is associated with former employees who are now in pay status. As a result, a large amount of plan assets is disbursed to retired participants to satisfy the monthly payments due to this group. Plan sponsors should consult with the investment advisors to the pension plan to determine whether plan assets are invested accordingly to account for the benefit outflows.

The following is a chart of expected future benefit payments. This is the amount anticipated to be paid out of the plan annually.



Duration of the Actuarial Accrued Liability

The duration for your pension plan is approximately 9.2, representing the average percentage change in the plan's actuarial accrued liability for a 100bp change in the interest rates used to measure plan liabilities. In general, pension plans with a younger participant group tend to have a larger duration than pension plans with an older population. Plans with a larger duration have liabilities that change more than pension plans with smaller duration when interest rates change. Also, changes in plan liabilities when interest rates drop will be larger than the changes in plan liabilities when interest rates rise by similar amounts. For example, a 100-basis point decrease in interest rates will increase your plan's actuarial accrued liability by 10.0% while a 100-basis point increase in interest rates will decrease your plan's actuarial accrued liability by 8.5%.

VALUATION AS OF JULY 1, 2020

ASOP 51 ASSESSMENT AND DISCLOSURE OF RISK (Continued)

Ratio of Expected Outflows to Plan Assets

Ratio = \$7,916,000 / \$28,800,000 = 27.5%

Outflows are defined as: Benefit Payments + Expenses. This ratio measures the liquidity and time-horizon of the plan's assets. It can be used as one of the considerations of how much of the plan's assets should be allocated to short-term fixed income (or cash). Having sufficient amounts of cash on-hand within plan assets better allows for monthly benefit payments (and expenses, if applicable) to be made throughout the year without having to liquidate funds for cash flow at unexpected points in time.

Ratio of Expected NET Outflows to Plan Assets

Ratio = (\$3,511,000) / \$28,800,000 = -12.2%

Net Outflows are defined as: Contributions – Outflows. This ratio represents the net cash flow of the Plan. A positive ratio means more cash is coming into plan assets than being paid out during the plan year, which is referred to as 'positive cash flow'. Thus, the opposite is true – a negative ratio means 'negative cash flow'. As a defined benefit plan matures, it (by its nature) becomes a negative net cash flow vehicle, so this ratio can be a measure of plan maturity.

Funded Status

Ratio = \$28,800,000 / \$95,932,000 = 30.0%

This statistic measures how well funded the pension plan is as of July 1, 2020 and is based on the ratio of the plan's market value of assets to the actuarial accrued liability. The funded status is impacted primarily by investment returns, interest rate changes, and pension plan funding policies. Additional factors, such as plan benefit or assumption changes, plan demographics and actual experiences, can also impact the funded status from year to year. Investment returns lower than expected may result in a ratio decrease. A drop in the interest rate would result in liability increases and the opposite occurs when interest rates increase. To the extent that more or less than the actuarially determined contribution is deposited to plan assets during the year, then the plan would be better or worse funded than expected.

Summary of Risk Assessments and Maturity Measures

While the risk due to some variables may easily be understood or predictable, there are many risks that are much more variable in nature, making it quite difficult to hedge against drastic changes in the plan's funded status. While past actuarial and demographic experience is not a perfect indicator of what the future will bring, it does provide a strong foundation for setting assumptions related to risk.

VALUATION AS OF JULY 1, 2020

PARTICIPANT DATA AS OF 7/1/2020

Retired participants, beneficiaries, contingent annuitants and disabled participants

Number	201
Average Monthly Benefit	\$ 3,238.85
Average Attained Age	74.63

(H) Reconciliation of Participant Status

	Active	Inactive	Deferred Vested	Disabled	In Pay Status	Total
As of 7/1/2019	0	0	0	47	167	214
Terminated - Vested Terminated - Not vested New Entrant						
Death no beneficiary				(1)	(12)	(13)
Death w/ beneficiary				(2)	(1)	(3)
Disabled						
Beneficiary						
Retired						
Rehired						
Cashed Out						
Spouse					3	3
Data Corrections						
As of 7/1/2020	0	0	0	44	157	201
Fire	0	0	0	26	95	121
Police	0	0	0	18	62	80

VALUATION AS OF JULY 1, 2020

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Cost Method

Individual entry age normal, level percent of pay. Under this method the annual cost is equal to the normal cost plus an amortization of unfunded accrued liabilities over a fixed period of years. The normal cost is zero because all participants are retired.

The actuarial accrued liability is the accumulation, based on the actuarial assumptions, of all assumed prior normal costs. Thus, it represents the amount of reserves, which would be held by the Plan, had it always been in effect for the present group of participants and had Plan experience followed that predicted by the actuarial assumptions. The unfunded accrued liability is the excess, if any, of the accrued liability over the Plan assets.

The actuarial determined contribution is calculated in accordance with the Funding Improvement Plan developed by the Pension Study Commission. The intent is to fully fund the plan in twenty-two years starting with the plan year ending 6/30/2013. The initial budget approved schedule is shown in Exhibit I. This schedule was updated and replaced in 2017 with the schedule in Exhibit II. However, as noted in this report, based on plan experience, this goal is not expected to be met using the current contribution schedule.

Attribution Parameters

Attribution parameters determine how growth in the benefit formula is allocated to years of service.

Attribution - Because all participants are in pay status, there is no further attribution and all benefits are included in the accrued liability as of the valuation date. All benefits are vested.

VALUATION AS OF JULY 1, 2020

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

ACTUAIRAL ASSUMPTIONS

Interest Rate: 5.00%

Mortality: RP-2014 Mortality (Total Dataset for Females and Blue Collar for Males)

adjusting to 2006, with MP-2020 Scaling

The assumption has been updated to match the table in use by the Rhode

Island state plan.

<u>Investment Return:</u> 5.00% per annum. The investment return assumption was lowered this

year from 7.5% to 5.0% to better reflect the plan's investment policy and

allocation.

Expense Loading: None

(COLA):

Note - for projection purposes in Exhibits I-V, the accrued liability includes an expense load equal to the present value of expected future expenses. Future expenses are estimated as the current year's actual expense

reduced by 5% per year, paid mid-year.

Assumed annual benefit increase Benefits are assumed to increase on a schedule that alternates between

0% and 2% until fiscal year ending 2023. After that, benefits are assumed

to increase 2% per year until the plan is 80% funded, at which point

benefits will increase at 3% annually.

ASSET VALUATION

Smoothing: Market value of plan assets adjusted to phase in asset gains and losses

from the fiscal year ending June 1, 2016 over a five-year period at a rate

of 20% per year. Valuation assets are further limited to a 20% corridor

around market value.

CITY OF WOONSOCKET, RHODE ISLAND FIREMEN'S PENSION FUND

VALUATION AS OF JULY 1, 2020

SUMMARY OF PLAN PROVISIONS

Effective Date January 1, 1960

Plan Year Beginning July 1, 2020

<u>Plan Sponsor</u> City of Woonsocket

Pensioner's Benefits All remaining participants in the plan are currently in payment status.

Benefits were determined by the plan sponsor, upon commencement, in

accordance with the terms of the plan.

Cost-of-Living Provision All pensioners and alternate payees (but not beneficiaries or Ronald

Pelletier) are eligible for a variable COLA depending on the pre-

determined schedule and the plan's funding level. The COLA is described

on page 17 and in Exhibits I and II.

Eligibility There are no age or serivce requirements. All members of the Fire

Department hired prior to July 1, 1985 are eligible.

Members hired after July 1, 1985 participate in the State Retirement

System.

Employee Contributions 8% of annual salary during the plan year.

Normal Retirement Date Upon completion of 20 years of service a member is eligible to retire.

Normal Retirement Benefit

Benefit Formula 50% of current annual salary plus 2.5% of salary for each year worked in

excess of 20 years up to a maximum of 75% of salary.

Normal Form of Benefit 66.67% joint and survivor annuity.

Pre-Retirement Death Benefit For a work-related death, the member's beneficiary's is entitled to receive

a benefit of 50% of pay plus an additional 10% of pay for each minor child

up to a maximum of 66.67% of pay.

For a non-work-related death, the member's beneficiary is entitled to

receive a beenfit of 30% of pay plus an additional 10% of pay for each

minor child up to a maximum of 50% of pay.

<u>Disability Benefit</u> 66.7% of current salary for a work-related disablement and 50% of

current salary for a non-work-related disablement.

CITY OF WOONSOCKET, RHODE ISLAND POLICEMEN'S PENSION FUND

VALUATION AS OF JULY 1, 2020

SUMMARY OF PLAN PROVISIONS

Plan Year Beginning July 1, 2020

<u>Plan Sponsor</u> City of Woonsocket

Pensioner's Benefits All remaining participants in the plan are currently in payment status.

Benefits were determined by the plan sponsor, upon commencement, in

accordance with the terms of the plan.

<u>Cost-of-Living Provision</u> All pensioners and alternate payees (but not beneficiaries or Ronald

Pelletier) are eligible for a variable COLA depending on the pre-

determined schedule and the plan's funding level. The COLA is described

on page 17 and in Exhibits I and II.

Eligibility There are no age or serivce requirements. All members of the Police

Department hired prior to July 1, 1980 are eligible.

Members hired after July 1, 1980 participate in the State Retirement

System.

Employee Contributions 7% of annual salary during the plan year.

Normal Retirement Date Upon completion of 20 years of service a member is eligible to retire.

Maximum normal retirement age is 65.

Normal Retirement Benefit

Benefit Formula 60% of current annual salary plus 2.0% of salary for each year worked in

excess of 20 years up to a maximum of 70% of salary.

Normal Form of Benefit 66.67% joint and survivor annuity.

Pre-Retirement Death Benefit For a work-related death, the member's beneficiary's is entitled to receive

a benefit of 50% of pay plus an additional 10% of pay for each minor child

up to a maximum of 66.67% of pay.

For a non-work-related death, the member's beneficiary is entitled to receive a beenfit of 30% of pay plus an additional 10% of pay for each

receive a beenine of 50% of pay plas all additional 10% of pay for e

minor child up to a maximum of 50% of pay.

<u>Disability Benefit</u> 66.7% of current salary for a work-related disablement and 50% of

current salary for a non-work-related disablement.

EXHIBIT I

BUDGET COMMISSION APPROVED FUNDING SCHEDULE

Scenario #2014-9-12 updated 2014-10-11 and 2015-1-30

Contribution Pattern: 2.4% annual increases; at least 100% funded in 22 years (starting with the 7/1/2012 plan year) Investment Return: 7.50%; COLA applied to retirees only;

Compound COLA Pattern: Alternate 0% and 2% until FYE 2023 then 2% unless attain 80% funded (then 3%) RP2000 Mortality Table, projected to 2010 and then fully generational with 115% male and 95% female

	Fiscal				Annual and			
	Year	Estimated	Estimated		Scheduled			
	Ending	Accrued	Actuarial		Required	Benefit		
_	6/30	Liability (AL)	Assets	Unfunded AL	Contribution	Payments	Funded %	Compound COLA
	2015	90,478,000	48,567,000	41,911,000	3,548,000	8,187,000	54%	2%/0%*
	2016	88,742,000	47,194,000	41,548,000	3,633,000	8,059,000	53%	0%
	2017	87,009,000	44,389,000	42,620,000	3,721,000	8,062,000	51%	2%
	2018	86,621,000	42,803,000	43,818,000	3,810,000	7,918,000	49%	0%
	2019	84,685,000	41,605,000	43,080,000	3,901,000	7,904,000	49%	2%
	2020	82,626,000	40,384,000	42,242,000	3,995,000	7,745,000	49%	0%
	2021	80,588,000	39,344,000	41,244,000	4,091,000	7,714,000	49%	2%
	2022	78,438,000	38,365,000	40,073,000	4,189,000	7,538,000	49%	0%
	2023	76,317,000	37,606,000	38,711,000	4,289,000	7,487,000	49%	2%
	2024	74,097,000	36,954,000	37,143,000	4,392,000	7,425,000	50%	2%
	2025	71,781,000	36,431,000	35,350,000	4,498,000	7,352,000	51%	2%
	2026	69,375,000	36,062,000	33,313,000	4,606,000	7,265,000	52%	2%
	2027	66,885,000	35,875,000	31,010,000	4,716,000	7,163,000	54%	2%
	2028	64,320,000	35,899,000	28,421,000	4,830,000	7,047,000	56%	2%
	2029	61,688,000	36,169,000	25,519,000	4,945,000	6,915,000	59%	2%
	2030	59,003,000	36,723,000	22,280,000	5,064,000	6,766,000	62%	2%
	2031	56,276,000	37,601,000	18,675,000	5,186,000	6,600,000	67%	2%
	2032	53,522,000	38,849,000	14,673,000	5,310,000	6,416,000	73%	2%
	2033	50,757,000	40,515,000	10,242,000	5,438,000	6,272,000	80%	3%
	2034	47,939,000	42,593,000	5,346,000	5,500,000	6,109,000	89%	3%
	2035	45,083,000	45,065,000	18,000	0	5,926,000	100%	3%
	2036	42,208,000	42,210,000	(2,000)	0	5,724,000	100%	3%
			_					

^{*}COLA for selected members

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Annual Contributions are determined assuming a mid-year deposit. The accrued liability includes an expense load equal to the present value of expected future expenses.

EXHIBIT II

ALTERNATIVE VALUATION - FULLY FUNDING PLAN IN 22 YEARS - Feb 8, 2017

COLA for retirees: Alternate 0% and 2% until FYE 2023, then 2% unless attain 80% funded (then 3%) Investment Return: 7.50%; Contribution increases at 4.31% per year to fully fund the plan.

Fiscal	Estimated						
Year	Accrued	Estimated		Alternative			
Ending	Liability	Actuarial	Unfunded	Contribution	Benefit		
6/30	(AL)	Assets	AL	Schedule	Payments	Funded %	Compound COLA
2017	87,832,000	42,736,000	45,096,000	3,721,000	8,103,000	49%	2%
2018	87,463,000	39,537,000	47,926,000	3,881,000	7,965,000	45%	0%
2019	85,541,000	36,760,000	48,781,000	4,049,000	7,954,000	43%	2%
2020	83,495,000	34,002,000	49,493,000	4,223,000	7,801,000	41%	0%
2021	81,464,000	32,062,000	49,402,000	4,405,000	7,772,000	39%	2%
2022	79,319,000	30,803,000	48,516,000	4,595,000	7,601,000	39%	0%
2023	77,197,000	29,831,000	47,366,000	4,793,000	7,553,000	39%	2%
2024	74,975,000	29,051,000	45,924,000	5,000,000	7,494,000	39%	2%
2025	72,654,000	28,495,000	44,159,000	5,215,000	7,422,000	39%	2%
2026	70,240,000	28,202,000	42,038,000	5,440,000	7,337,000	40%	2%
2027	67,740,000	28,215,000	39,525,000	5,674,000	7,239,000	42%	2%
2028	65,308,000	28,580,000	36,728,000	5,919,000	7,126,000	44%	2%
2029	62,669,000	29,350,000	33,319,000	6,174,000	6,997,000	47%	2%
2030	59,972,000	30,582,000	29,390,000	6,440,000	6,852,000	51%	2%
2031	57,228,000	32,339,000	24,889,000	6,718,000	6,690,000	57%	2%
2032	54,452,000	34,688,000	19,764,000	7,007,000	6,512,000	64%	2%
2033	51,658,000	37,704,000	13,954,000	7,309,000	6,316,000	73%	2%
2034	48,862,000	41,467,000	7,395,000	7,624,000	6,104,000	85%	3%
2035	46,081,000	46,063,000	18,000	0	5,930,000	100%	3%
2036	43,276,000	43,279,000	(3,000)	0	5,738,000	100%	3%

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Annual Contributions are determined assuming a mid-year deposit. The accrued liability includes an expense load equal to the present value of expected future expenses.

FIREMEN'S PENSION FUND POLICEMEN'S PENSION FUND

CURRENT VALUATION - SCHEDULED CONTRIBUTIONS

COLA for retirees: Alternate 0% and 2% until FYE 2023, then 2% unless attain 80% funded (then 3%) Investment Return: 5.00%

	Fiscal				Budget			
	Year	Estimated	Estimated		Approved			
	Ending	Accrued	Actuarial		Contribution	Benefit		
_	6/30	Liability (AL)	Assets	Unfunded AL	Schedule*	Payments	Funded %	Compound COLA
	2021	97,549,000	30,169,000	67,380,000	4,405,000	7,728,000	31%	2%
	2022	94,308,000	27,470,000	66,838,000	4,595,000	7,541,000	29%	0%
	2023	91,106,000	25,156,000	65,950,000	4,793,000	7,470,000	28%	2%
	2024	87,824,000	23,247,000	64,577,000	5,000,000	7,389,000	26%	2%
	2025	84,469,000	21,669,000	62,800,000	5,215,000	7,297,000	26%	2%
	2026	81,049,000	20,468,000	60,581,000	5,440,000	7,193,000	25%	2%
	2027	77,571,000	19,551,000	58,020,000	5,674,000	7,077,000	25%	2%
	2028	74,044,000	18,954,000	55,090,000	5,919,000	6,948,000	26%	2%
	2029	70,480,000	18,716,000	51,764,000	6,174,000	6,806,000	27%	2%
	2030	66,889,000	18,880,000	48,009,000	6,440,000	6,651,000	28%	2%
	2031	63,284,000	19,490,000	43,794,000	6,718,000	6,481,000	31%	2%
	2032	59,678,000	20,595,000	39,083,000	7,007,000	6,297,000	35%	2%
	2033	56,086,000	22,245,000	33,841,000	7,309,000	6,100,000	40%	2%
	2034	52,522,000	24,494,000	28,028,000	7,624,000	5,890,000	47%	2%
	2035	48,999,000	27,399,000	21,600,000	0	5,668,000	56%	2%
	2036	45,534,000	22,868,000	22,666,000	0	5,435,000	50%	2%

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Annual Contributions are determined assuming a mid-year deposit. The accrued liability includes an expense load equal to the present value of expected future expenses.

ALTERNATIVE SCHEDULED CONTRIBUTION

(1) Employer Normal Cost	0
(2) 20-Year Amortization of \$65,763,098	5,025,715
(3) Maximum Recommended Contribution at beginning of Plan	5,025,715
Year = (1) + (2), not less than zero	
(4) Interest Charge on (1) and (2) to Plan Year End	<u>251,286</u>
(5) Total Recommended Contribution at Plan Year End = (3) + (4)	5,277,001

^{*}See Exhibit II for development. Note that based on current assets and liabilities, the current funding schedule is no longer expected to fully fund the plan within the projection period.

FIREMEN'S PENSION FUND POLICEMEN'S PENSION FUND

CURRENT VALUATION - EXTENDED SCHEDULED CONTRIBUTIONS

COLA for retirees: Alternate 0% and 2% until FYE 2023, then 2% unless attain 80% funded (then 3%) Investment Return: 5.00%

Fiscal				Budget			
Year	Estimated	Estimated		Approved			
Ending	Accrued	Actuarial		Contribution	Benefit		
6/30	Liability (AL)	Assets	Unfunded AL	Schedule*	Payments	Funded %	Compound COLA
2021	98,667,000	30,169,000	68,498,000	4,405,000	7,728,000	31%	2%
2022	95,482,000	27,470,000	68,012,000	4,595,000	7,541,000	29%	0%
2023	92,339,000	25,156,000	67,183,000	4,793,000	7,470,000	27%	2%
2024	89,119,000	23,247,000	65,872,000	5,000,000	7,389,000	26%	2%
2025	85,829,000	21,669,000	64,160,000	5,215,000	7,297,000	25%	2%
2026	82,476,000	20,468,000	62,008,000	5,440,000	7,193,000	25%	2%
2027	79,069,000	19,551,000	59,518,000	5,674,000	7,077,000	25%	2%
2028	75,618,000	18,954,000	56,664,000	5,919,000	6,948,000	25%	2%
2029	72,132,000	18,716,000	53,416,000	6,174,000	6,806,000	26%	2%
2030	68,624,000	18,880,000	49,744,000	6,440,000	6,651,000	28%	2%
2031	65,105,000	19,490,000	45,615,000	6,718,000	6,481,000	30%	2%
2032	61,591,000	20,595,000	40,996,000	7,007,000	6,297,000	33%	2%
2033	58,094,000	22,245,000	35,849,000	7,309,000	6,100,000	38%	2%
2034	54,630,000	24,494,000	30,136,000	7,624,000	5,890,000	45%	2%
2035	51,213,000	27,399,000	23,814,000	7,500,000	5,668,000	54%	2%
2036	47,858,000	30,554,000	17,304,000	7,500,000	5,435,000	64%	2%
2037	44,579,000	34,111,000	10,468,000	7,500,000	5,192,000	77%	2%
2038	41,390,000	38,099,000	3,291,000	3,600,000	4,984,000	92%	3%
2039	38,258,000	38,505,000	(247,000)	0	4,766,000	101%	3%
2040	35,197,000	35,469,000	(272,000)	0	4,537,000	101%	3%
2041	32,222,000	32,520,000	(298,000)	0	4,300,000	101%	3%
2042	29,345,000	29,669,000	(324,000)	0	4,055,000	101%	3%
2043	26,695,000	26,931,000	(236,000)	0	3,805,000	101%	3%

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Annual Contributions are determined assuming a mid-year deposit. The accrued liability includes an expense load equal to the present value of expected future expenses.

^{*}See Exhibit II for development of deposits through fiscal year ending 2034. Note that based on current assets and liabilities, the current funding schedule is no longer expected to fully-fund the plan within the projection period. The schedule above presents one alternative to fully-fund the plan.

FIREMEN'S PENSION FUND POLICEMEN'S PENSION FUND

CURRENT VALUATION - LEVEL CONTRIBUTIONS

COLA for retirees: Alternate 0% and 2% until FYE 2023, then 2% unless attain 80% funded (then 3%) Investment Return: 5.00%

Fiscal				Budget			
Year	Estimated	Estimated		Approved			
Ending	Accrued	Actuarial		Contribution	Benefit		
6/30	Liability (AL)	Assets	Unfunded AL	Schedule*	Payments	Funded %	Compound COLA
2021	99,574,000	30,169,000	69,405,000	4,405,000	7,728,000	30%	2%
2022	96,434,000	27,470,000	68,964,000	7,234,000	7,541,000	28%	0%
2023	93,338,000	27,860,000	65,478,000	7,234,000	7,470,000	30%	2%
2024	90,168,000	28,589,000	61,579,000	7,234,000	7,389,000	32%	2%
2025	86,931,000	29,567,000	57,364,000	7,234,000	7,297,000	34%	2%
2026	83,633,000	30,830,000	52,803,000	7,234,000	7,193,000	37%	2%
2027	80,284,000	32,270,000	48,014,000	7,234,000	7,077,000	40%	2%
2028	76,894,000	33,907,000	42,987,000	7,234,000	6,948,000	44%	2%
2029	73,472,000	35,765,000	37,707,000	7,234,000	6,806,000	49%	2%
2030	70,030,000	37,867,000	32,163,000	7,234,000	6,651,000	54%	2%
2031	66,582,000	40,240,000	26,342,000	7,234,000	6,481,000	60%	2%
2032	63,142,000	42,912,000	20,230,000	7,234,000	6,297,000	68%	2%
2033	59,723,000	45,910,000	13,813,000	7,234,000	6,100,000	77%	2%
2034	56,340,000	49,265,000	7,075,000	7,234,000	5,942,000	87%	3%
				_			

Note: The Accrued Liability, Assets, Unfunded AL, and Funded Percentages are all determined as of the beginning of the fiscal year and the Annual Contributions are determined assuming a mid-year deposit. The accrued liability includes an expense load equal to the present value of expected future expenses.

0

(15,000)

0 5,769,000

0 5,582,000

100%

100%

52,955,000 52,955,000

49,583,000 49,598,000

2035

2036

3%

3%

^{*}This presents an alternative contribution pattern to fully-fund the plan within the 22-year scheduled period.