City of Warwick, Rhode Island Firefighters/ Police I Pension Fund ACTUARIAL VALUATION AS OF JULY 1, 2022



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SECTION A

DISCUSSION

I. Purpose and Summary

This report presents the results of our July 1, 2022 actuarial valuation of the City of Warwick, Rhode Island Firefighters/Police I Pension Fund. The valuation was performed at the request of the City of Warwick to determine the City's annual contribution for the fiscal year beginning July 1, 2023 under the City's funding ordinance.

The City's contribution level is \$21,733,480 for 2023-2024 fiscal year, as shown on Table 4.

The development of the valuation results is shown in Tables 1 through 10 and is described in more detail on the following pages.

II. Membership Data

The City furnished data for active and retired members as of December 31, 2021. The data was projected to July 1, 2022 for valuation purposes reflecting age, salary and benefit increases, with adjustments of data due to data questions response. Although we did not audit this data, we did review it for reasonableness and consistency with the data collected in the previous valuation (prepared as of July 1, 2021). Tables 5A and 5B provide the schedule of retirees & beneficiaries added to/and removed from rolls, the distributions by age and benefits amount for retirees and beneficiaries. Tables 1A, 1B, and 1C provide information about the retirees and inactive members.

III. Plan Provisions

A summary of the principal plan provisions recognized for purposes of the valuation is provided in Table 10. There were no changes to this plan adopted since the last actuarial valuation.

IV. Assets

The City of Warwick furnished asset information for the fiscal years ending June 30, 2022. Tables 3a, 3b, and 3c provide information about the composition of plan assets and the development of valuation assets.

The asset value used in the determination of the annual contribution level is set equal to the market value of assets, adjusted to phase in the difference between actual and expected investment return over five years, at 20% per year. As shown in Table 3c, the market value of assets on July 1, 2022 was \$66,418,366 while the valuation assets were \$73,255,672, or 110.3% of the market value.

As shown in Table 3b, the dollar-weighted rate of return on the market value of assets for FY 2022 was -14.62%. These returns are net of all investment expenses.



V. Actuarial Methods and Assumptions

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. There have been no changes to the assumptions or methods since the prior valuation.

We believe the assumptions are internally consistent and are reasonable, based on the actual experience of the City of Warwick, Rhode Island Firefighters/Police I Pension Fund.

VI. Funding Policy

Per the funding plan, the contribution for the 2023-2024 fiscal year will be equal to the greater of the actuarially determined amount from the formula below and the 2022-2023 contribution increased by 2.75% until the plan exceeds the 60% funded level. The 2.75% minimum growth policy did not impact the \$21,733,480 for 2023-2024 fiscal year. It is currently expected that contributions will increase slightly faster than the 2.75% minimum over the next 5 years before returning to a 2.75% annual growth rate until the 60% is reached. A projection of employer contribution amounts is provided in Table 7.

The actuarial determined contribution is in accordance with the City's pension ordinances. The unfunded actuarial accrued liability as of July 1, 2022, is amortized using multiple layers as a level percentage of payroll and is anticipated to grow 2.75% annually. The main portion of the current UAAL has 13 years remaining as of the valuation date. As shown in Table 2, the increases in accrued liability as of July 1, 2020 due to the change in mortality assumptions will be ratably recognized over a four-year period beginning in the fiscal year 2024 according to the schedule.

VII. Analysis of Changes

The funded ratio increased from 24.02% to 24.03%, since the last valuation, and the UAAL decreased by \$0.8 million. The funded status measure alone is not appropriate for assessing the need for future contributions. Also, the funded status is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.



VIII. Future Expectations

We commend the City for continuing to meet its actuarial contribution requirements as dictated by the approved funding policy. If the City continues to meet those obligations, we anticipate the funded ratio will increase consistently.

IX. Certification

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

We certify that the information included herein and contained in this Actuarial Valuation Report is accurate and fairly presents the actuarial position of the City of Warwick, Rhode Island Firefighters/Police I Pension Fund as of the valuation date.

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

The undersigned are independent actuaries and consultants. Joseph P. Newton and Paul T. Wood are Members of the American Academy of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries. Finally, both of the undersigned are experienced in performing valuations for large public retirement systems.

We are available to answer any questions in connection with this valuation of the plan or the information presented in this report.

Joseph P. Newton, FSA, EA, MAAA Pension Market Leader and Actuary

Paul T. Wood, ASA, FCA, MAAA Senior Consultant

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SECTION B

TABLES

Table 1A

Valuation Results

Combined Firefighters and Police I

			July 1, 2022	July 1, 2021
Α.	Mer	nbership Data		
	1.	Active members		
		a. Number	2	2
		b. Expected covered payroll	\$ 253,683	\$ 245,152
		c. Average pay	\$ 126,842	\$ 122,576
		d. Average attained age	56.4	55.4
		e. Average past service	31.6	30.6
	2.	Retired members and beneficiaries		
		a. Number	394	399
		b. Average benefit	\$ 61,777	\$ 60,301
		c. Average attained age	73.3	72.7
	3.	Inactive members		
		a. Number	1	1
		b. Refund	\$ 24,378	\$ 24,378
В.	Liab	ilities		
	1.	Normal cost with interest		
		a. Dollar amount	\$ 158,626	\$ 111,620
		b. % of covered payroll	62.53%	45.53%
	2.	Actuarial accrued liability		
		a. Active members	\$ 3,241,210	\$ 3,083,580
		b. Retired members and beneficiaries	301,539,642	302,700,110
		c. Inactive	 24,378	 24,378
		d. Total	\$ 304,805,230	\$ 305,808,068
	3.	Valuation assets	\$ 73,255,672	\$ 73,442,628
	4.	Unfunded actuarial accrued liability [2(d) - (3)]	\$ 231,549,558	\$ 232,365,440
	5.	Funded Ratio	24.03%	24.02%
	6.	City Contribution	\$ 21,733,480	\$ 20,595,957



Table 1B

Valuation Results

Police I Only

				J	uly 1, 2022	J	uly 1, 2021
Α.	Me	mber	ship Data				
	1.	Acti	ive members				
		a.	Number		-		-
		b.	Expected covered payroll	\$	-	\$	-
		c.	Average pay	\$	-	\$	-
		d.	Average attained age		-		-
		e.	Average past service		-		-
	2.	Ret	ired members and beneficiaries				
		a.	Number		81		82
		b.	Average benefit	\$	50,725	\$	50,569
		C.	Average attained age		80.8		80.3
	3.	Inad	ctive members				
		a.	Number		-		-
		b.	Refund	\$	-	\$	-
в.	Liab	oilitie	s				
	1.	Nor	mal cost with interest				
		a.	Dollar amount	\$	-	\$	-
		b.	% of covered payroll		0.00%		0.00%
	2.	Act	uarial accrued liability				
		a.	Active members	\$	-	\$	-
		b.	Retired members and beneficiaries		35,478,536		36,573,245
		c.	Total	\$	35,478,536	\$	36,573,245
	3.	City	Contribution	\$	2,512,125	\$	2,450,993



Table 1C

Valuation Results

Firefighters Only

			 July 1, 2022	July 1, 2021
Α.	Me	mbership Data		
	1.	Active members		
		a. Number	2	2
		b. Expected covered payroll	\$ 253,683	\$ 245,152
		c. Average pay	\$ 126,842	\$ 122,576
		d. Average attained age	56.4	55.4
		e. Average past service	31.6	30.6
	2.	Retired members and beneficiaries		
		a. Number	313	317
		b. Average benefit	\$ 64,637	\$ 62,819
		c. Average attained age	71.4	70.8
	3.	Inactive members (Non-Vesting)		
		a. Number	1	1
		b. Refund	\$ 24,378	\$ 24,378
В.	Liak	pilities		
	1.	Normal cost with interest		
		a. Dollar amount	\$ 53,082	\$ 57,370
		b. % of covered payroll	20.92%	23.40%
	2.	Actuarial accrued liability		
		a. Active members	\$ 3,241,210	\$ 3,083,580
		b. Retired members and beneficiaries	266,061,106	266,126,865
		c. Inactive	24,378	24,378
		d. Total	\$ 269,326,694	\$ 269,234,823
	3.	City Contribution	\$ 19,221,355	\$ 18,144,964



Summary of Amortization Bases

	Date Established	Purpose Initia		Remaining Balance as of July 1, 2022	2023 - 2024 Amortization Payment *		Years Remaining as of July 1, 2023
	7/14	Fresh Start, Offsetting of Prior Bases at 2.75% Growth Rate	\$ 210,830,722	\$ 187,413,233	\$	19,210,881	12
	7/15	2015 Experience (Gain)/Loss	(2,226,779)	(1,984,411)		(203,413)	12
	7/16	2016 Experience (Gain)/Loss	411,071	376,314		36,471	13
**	7/16	2016 Assumption Change - FY19 Stagger	3,306,969	3,613,632		317,581	15
**	7/16	2016 Assumption Change - FY20 Stagger	3,306,969	3,924,646		330,407	16
**	7/16	2016 Assumption Change - FY21 Stagger	3,306,969	4,248,220		343,752	17
**	7/16	2016 Assumption Change - FY22 Stagger	3,306,969	4,584,864		357,636	18
**	7/16	2016 Assumption Change - FY23 Stagger	3,306,969	4,935,105		372,080	19
	7/17	2017 Experience (Gain)/Loss	3,487,210	3,564,628		313,273	15
	7/18	2018 Experience (Gain)/Loss	2,686,841	2,790,338		234,912	16
	7/19	2019 Experience (Gain)/Loss	1,515,728	1,593,915		128,975	17
	7/20	2020 Experience (Gain)/Loss	(4,465,512)	(4,740,856)		(369,804)	18
**	7/20	2020 Assumption Change - FY24 Stagger	2,857,581	3,265,532		256,148	20
**	7/20	2020 Assumption Change - FY25 Stagger	2,857,581	3,265,532		-	21
**	7/20	2020 Assumption Change - FY26 Stagger	2,857,581	3,265,532		-	22
**	7/20	2020 Assumption Change - FY27 Stagger	2,857,581	3,265,532		-	23
	7/21	Pay Negotiations/Settlements - FY28 Stagger	4,625,729	4,944,904		-	24
	7/21	2021 Experience (Gain)/Loss	(187,666)	(200,615)		(15,126)	19
	7/22	2022 Experience (Gain)/Loss	3,423,513	3,423,513		268,540	20
		Total		\$ 231,549,558	\$	21,582,313	

* Assuming payment made throughout of the year.

** Assumption change staggers will begin in the fiscal year indicated and be 20 scheduled payments



Table 3A

Assets Information

Composition of Fund as of June 30, 2022

		Market Value	Percentage of Total
1.	Cash and equivalents	\$ 1,817,396	2.7%
2.	Equities, including index funds	46,623,275	70.2%
3.	Fixed income investments	18,055,961	27.2%
4.	Receivables less payables	(78,266)	-0.1%
5.	Total	\$ 66,418,366	100.0%



Table 3B

Assets Information

Asset Reconciliation and Expected Returns

	FY 2019*	FY 2020	FY 2021	FY 2022
1. Beginning of year market value	73,738,390	71,553,786	67,284,644	82,149,124
2. Contributions				
a. City	18,427,881	18,935,407	19,455,048	19,990,062
b. Member	54,725	39,822	30,470	17,680
c. Other	55,057		(7,136)	-
d. Total	18,537,663	18,975,229	19,478,382	20,007,742
3. Benefits and admin expenses paid	(23,475,659)	(23,777,642)	(24,123,422)	(24,017,627)
4. Net return	2,753,392	533,271	19,509,520	(11,720,873)
5. End of year market value	71,553,786	67,284,644	82,149,124	66,418,366
6. Net market return	3.86%	0.77%	30.03%	-14.62%
Expected market value				
a. Beginning of year	73,738,390	71,553,786	67,284,644	82,149,124
b. Net cash flow	(4,937,996)	(4,802,413)	(4,645,040)	(4,009,885)
c. Earnings assumption	6.90%	6.90%	6.90%	6.90%
d. Expected earnings	4,920,430	4,774,291	4,485,059	5,532,256
e. Excess/(shortfall)	(2,167,038)	(4,241,020)	15,024,461	(17,253,129)

* Contributions and market value of assets FY2019 has been revised based on the restated information.



Table 3C

Assets Information

Development of Actuarial Value of Assets

		ear Ending ne 30, 2022
1.	Market value of assets at beginning of year	\$ 82,149,124
2.	Net new investments	
	a. Contributionsb. Benefits and admin expenses paidc. Subtotal	\$ 20,007,742 (24,017,627) (4,009,885)
3.	Market value of assets at end of year	\$ 66,418,366
4.	Net earnings (3-1-2) (includes misc revenues)	\$ (11,720,873)
5.	Assumed investment return rate for fiscal year	6.90%
6.	Expected return	\$ 5,532,256
7.	Excess return (4-6)	\$ (17,253,129)

8. Development of amounts to be recognized as of June 30, 2022:

Fiscal	Rema	ining Deferrals									
Year	of Exce	ss (Shortfall) of	Of	fsetting of	ſ	Net Deferrals	Years	Reco	ognized for	Rei	maining after
End	Invest	ment Income*	Gair	ns/(Losses)		Remaining*	Remaining	this	valuation	th	is valuation
		(1)		(2)		(3) = (1) + (2)	(4)	(5)	= (3) / (4)	(6	6) = (3) - (5)
2018	\$	0	\$	0	\$	0	1	\$	0	\$	0
2019		0		0		0	2		0		0
2020		0		0		0	3		0		0
2021		8,706,496		(8,706,496)		0	4		0		0
2022		(17,253,129)		8,706,496		(8,546,633)	5		(1,709,327)		(6,837,306)
Total	\$	(8,546,633)	\$	0	\$	(8,546,633)		\$	(1,709,327)	\$	(6,837,306)
Transfer Pa	Transfer Payable \$ -										
. Actuarial value of assets as of June 30, 2022 (Item 3 - Item 8) 73,255,672											
Ratio of actuarial value to market value 110.3%											



9.

10.

11.

Development of Contribution Levels

			tion Results 22 - 2023	Cont	itatutory ribution for 023 - 2024
1.	Gross normal cost	\$	158,626		
2.	Anticipated employee contributions		(11,505)		
3.	Net normal cost [(1) - (2)]	\$	147,121	\$	151,167
4.	Sum of amortization amounts				21,582,313
5.	Total [(3) + (4)]			\$	21,733,480
6.	Determination of Minimum Contribution Per Fu a. Contribution for 2022-2023	-			
	from Prior Year's Report b. Prior Year Contribution with 2.75% growth	\$	20,595,957	\$	21,162,346
7.	Maximum of (5) and (6)			\$	21,733,480



Table 5A

Schedule of Retirees & Beneficiaries

Added to/and Removed from Rolls

	Add	ed to Rolls	Remove	ed from Rolls	Rolls -	End of Year		
Year Ending June 30, (1)	Number (2)	Annual <u>Allowances*</u> (3)	Number (4)	Annual <u>Allowances</u> (5)	Number (6)	Annual Allowances (7)	% Increase/ Decrease in Annual <u>Allowances</u> (8)	Average Annual Benefit (9)
2019	3	530,184	2	62,810	423	23,747,566	2.0%	56,141
2020	10	1,253,925	30	1,329,357	403	23,204,760	-0.3%	57,580
2021	9	1,573,169	13	717,823	399	24,060,106	3.4%	60,301
2022	12	1,201,876	17	922,011	394	24,339,971	4.6%	61,777

* The Annual Allowances added to the rolls in each year include the COLA granted to all retirees for the year. As a result, the Annual Allowances added to the rolls do not necessarily correspond to the number of retirees and beneficiaries added to the rolls in the same year.



Table 5B

Retiree Benefits by Valuation Age

		July 1, 2022	
Age as of Valuation Date	Count	Total Annual Benefit	Average Annual Benefit
50-55	6	\$ 318,087	\$ 53,015
55-60	40	2,822,179	70,554
60-65	52	3,521,430	67,720
65-70	43	3,101,921	72,138
70-75	54	3,462,813	64,126
75-80	85	4,920,591	57,889
80-85	76	4,115,749	54,155
85-90	27	1,500,535	55,575
90-95	10	529,395	52,939
95-100	1	47,272	47,272
Grand Total	394	24,339,971	61,777



History of Investment Return Rates

Year Ending		
June 30 of	Market	Actuarial
(1)	(2)	(3)
2001	(18.81%)	
2002	-6.79%	
2003	3.40%	
2004	16.63%	
2005	9.25%	
2006	8.24%	6.05%
2007	14.79%	10.63%
2008	-4.12%	9.01%
2009	-16.88%	1.88%
2010	14.27%	0.85%
2011	22.30%	3.61%
2012	-0.07%	2.06%
2013	11.91%	12.94%
2014	15.30%	12.68%
2015	1.93%	9.79%
2016	-1.40%	5.83%
2017	14.21%	6.40%
2018	8.47%	7.24%
2019*	3.86%	2.06%
2020	0.77%	5.53%
2021	30.03%	9.64%
2022	-14.62%	5.35%
Average Returns:		F 0 1 0/
Last 5 Years	4.74%	5.94%
Last 10 Years	6.44%	7.70%

* The rate of return on the market value of assets FY2019 has been revised based on the restated information.



Near	Term	Out	look

	ι	Jnfunded				For Fiscal										
Valuation		Actuarial				Year								Benefit		Net
as of	Accr	rued Liability	Funded	Act	uarial Value	Ending	C	overed		Employer	Em	nployee	F	Payments		External
July 1,		(UAAL)	Ratio		of Assets	June 30,	Com	pensation	Сс	ontributions	Cont	tributions	ar	nd Refunds	0	Cash Flow
(1)		(2)	(3)		(4)	(5)		(6)		(7)		(8)		(9)		(10)
2022	\$	231,549,557	24.0%	\$	73,255,672	2023	\$	253,683	\$	20,595,957	\$	11,505	\$	24,355,152	\$	(3,747,690)
2023		226,274,065	24.7%		74,326,360	2024		167,186		21,733,480		7,581		24,589,636		(2,848,575)
2024		219,470,252	25.8%		76,399,492	2025		110,158		22,593,480		2,578		24,789,212		(2,193,155)
2025		211,289,574	27.3%		79,292,431	2026		37,456		23,448,546		1,698		24,896,004		(1,445,759)
2026		201,657,211	29.2%		83,157,255	2027		24,678		24,392,651		1,119		24,947,775		(554,005)
2027		190,381,998	31.7%		88,210,526	2028		16,256		25,558,511		-		24,951,103		607,408

These projections are based on the current funding policy and assumes that all current assumptions are met each year in the future, including 6.9% annual return on smoothed assets.



Schedule of Funding Progress

			Unfunded Actuarial			
	Actuarial Value	Actuarial Accrued	Accrued Liability	Funded Ratio	Annual	UAAL as % of
Date	of Assets (AVA)	Liability (AAL)	(UAAL) (3) - (2)	(2)/(3)	Benefits [*]	Benefits (4)/(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
July 1, 2009	\$ 76,142,283	\$ 286,514,010	\$ 210,371,727	26.6%	\$ 17,787,184	1182.7%
July 1, 2011	69,580,218	311,707,868	242,127,650	22.3%	18,532,731	1306.5%
July 1, 2013	62,796,555	309,774,579	246,978,024	20.3%	19,675,904	1255.2%
July 1, 2014	66,348,673	277,179,395	210,830,722	23.9%	19,753,740	1071.5%
July 1, 2015	69,244,289	277,320,653	208,076,364	25.0%	19,753,740	1053.4%
July 1, 2016	70,662,214	294,678,763	224,016,549	24.0%	20,192,173	1109.4%
July 1, 2017	71,696,888	298,373,349	226,676,461	24.0%	21,106,700	1074.0%
July 1, 2018	72,818,893	301,090,607	228,271,714	24.2%	22,050,369	1035.2%
July 1, 2019	72,362,525	300,138,801	227,776,276	24.1%	23,475,659	970.3%
July 1, 2020	71,425,985	303,108,874	231,682,889	23.6%	23,777,642	974.4%
July 1, 2021	73,442,628	305,808,068	232,365,440	24.0%	24,123,422	963.2%
July 1, 2022	73,255,672	304,805,230	231,549,558	24.0%	24,017,627	964.1%

* Due to closed plan, exhibit was modified to compare the UAAL to the Annual Benefits



Risks Associated with Measuring the Accrued Liability and

Actuarially Determined Contribution

	June 30, 2022	<u>June 30, 2021</u>	<u>June 30, 2020</u>	<u>June 30, 2019*</u>
Ratio of the market value of assets to total payroll	261.8	335.1	150.8	134.9
Ratio of actuarial accrued laibility to payroll	1,201.5	1,247.4	679.2	565.8
Ratio of actives to retirees and beneficiaries	0.0	0.0	0.0	0.0
Ratio of net cash flows to market value of assets	-6.0%	-5.7%	-7.1%	-6.9%
Duration of the actuarial accrued liability	9.4	9.6	9.8	9.5

*Risk measures on June 30, 2019 have bene revised based on the restated information.



TABLE 10

Actuarial Methods and Assumptions

Actuarial Cost Method:	<i>Entry Age Normal actuarial cost method:</i> Under this method, the normal cost is the amount calculated as the level percentage of pay necessary to fully fund each active member's prospective benefit from entry age to retirement age. The total actuarial accrued liability, which is re determined for each individual member as of each valuation date, represents the theoretical accumulation of all prior years' normal costs for the active members as if the present plan had always been in effect, plus the liability for any retirees, beneficiaries, or inactive members. The unfunded actuarial accrued liability represents the excess of the total actuarial accrued liability over the valuation assets.
Amortization Policy:	The amortization of the UAAL is determined as a level percentage of payroll over a closed period using the process of "laddering". Bases that existed prior to this valuation continue to be amortized on their original schedule. New experience losses are amortized over individual periods of either 20 years or the remaining average remaining life expectancy of the group, whichever is lesser. New gains are offset against and amortized over the same period as the current largest outstanding loss which in turn decreases contribution rate volatility.
Asset Valuation Method:	The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of investment expenses.



Actuarial Assumptions:

2. Salary Increases

1. Interest

6.90% per year, net of investment expenses.

The sum of (i) a 3.50% wage inflation assumption (composed of a 2.50% price inflation assumption and a 1.00% additional general increase), and (ii) a service-related component as shown below:

Police/Fire Employees				
Years of Service	Service-Related Component	Total Increase		
1	10.00%	13.50%		
2	9.00	12.50		
3	7.00	10.50		
4	4.00	7.50		
5	2.50	6.00		
6	3.00	6.50		
7	0.50	4.00		
8	0.50	4.00		
9 or more	0.00	3.50		

Salary increases are assumed to occur once a year, on January 1. Therefore, the pay used for the period year following the valuation date is equal to the reported pay for the prior year, increased by the salary increase assumption. For employees with less than one year of service, the reported rate of pay is used rather than the fiscal year salary paid.



3. Mortality

- A. Pre-retirement mortality (combined ordinary and duty):
 - Male employees: PUB(10) Median Table for Healthy General Employee Males, loaded by 115%, projected with Scale Ultimate MP16.
 - Female employees: PUB(10) Median Table for Healthy General Employee Females, loaded by 111%, projected with Scale Ultimate MP16.
 - c. Disabled males PUB(10) Tables for Disabled Males by Occupation for males, loaded by 115%, projected with Scale Ultimate MP16.
 - d. Disabled females PUB(10) Tables for Disabled Females by Occupation for females, loaded by 111%, projected with Scale Ultimate MP16.
- B. Pre-retirement mortality (combined ordinary and duty):
 - a. Male employees: Male employees: PUB(10) Tables for Employees by Occupation for males, projected with Scale Ultimate MP16.
 - b. Female employees: Female employees: PUB(10) Tables for Employees by Occupation for females, projected with Scale Ultimate MP16.



4. Disability

Sample rates per 1,000 active members are shown below. Ordinary disability rates are not applied to members eligible for retirement.

	Number of Disabilities per 1,000		
Age	Ordinary, Males and Females	Accidental, Males and Females	
25	0.26	1.36	
30	0.33	1.76	
35	0.44	2.32	
40	0.66	3.52	
45	1.08	5.76	
50	1.82	9.68	
55	1.82	9.68	
60	1.82	9.68	
65	1.82	9.68	

5.Termination:

Termination rates (for causes other than death, disability, or retirement) are a function of the member's service. Termination rates are not applied to members eligible for retirement. Rates are shown below:

Service	Termination Rate	Service	Termination Rate
1	0.100000	11	0.016586
2	0.055650	12	0.014969
3	0.043890	13	0.013493
4	0.037012	14	0.012135
5	0.032131	15	0.010878
6	0.028346	16	0.009708
7	0.025253	17	0.008613
8	0.022637	18	0.007584
9	0.020372	19	0.006615
10	0.018374	20+	0.000000



6. Retirement Age

Rates of retirement are based on an employee's length of service, as follows:

Firefighters/Police I Members		
Service	Retirement Election	
20	12%	
21	10%	
22	10%	
23	10%	
24	12%	
25	14%	
26	16%	
27	18%	
28	20%	
29	20%	
30+	35%	

- Benefit and Compensation Limits
 Benefit limits under Section 415 and compensation limits under Section 401(a)(17) of the Internal Revenue Code are assumed to have no impact on benefits earned under this plan.
- 8. Marriage / Dependents
 80% of active employees are assumed to be married at retirement or death, with two children ages 11 and 13. Wives are assumed to be three years younger than their husbands. No remarriage is assumed.
- *9. Service Purchase* None assumed.
- 10. Election of Fire IIWe assume members who retire with 27 or more years of
service will elect the Fire II plan.FirefightersFirefighters
- **12.** *Administrative Expenses* It was assumed administrative expenses will be equal to the actual administrative expenses for the previous fiscal year.



TABLE 11

Outline of Principal Plan Provisions

A. FIREFIGHTERS

2.

3.

1. Effective Dates

a. Original Plan	May 7, 1953.
b. Most Recent Amendment	July 23, 1996.
Eligibility	All permanent members of the fire department hired prior to May 29, 1992.
Retirement	
a. Eligibility	Members who have completed 20 years of service may retire.
b. Benefit Formula	The annual benefit at retirement is equal to 50% of highest annual salary, plus 1% of salary for each year of service in excess of 20 (maximum 10). For pension purposes, annual salary includes regular, holiday, and longevity pay. Members may also select the benefit formula for the Firefighters II Pension Fund. The Firefighter II benefit formula is 50% of the final year's compensation, plus 2% for each year of service from 20 to 25 years, plus 3% for each year of service from 25 to 30 years with a fixed 3% compound cost of living adjustment.
c. Commencement Date	Retirement benefits commence as of the first payroll period after retirement.
d. Form of Payment	The annual benefit calculated in accordance with the formula in (b) above is payable semi-monthly for the remainder of the retired member's life, with 67.5% of the member's benefit payable for the lifetime of his surviving spouse.



Outline of Principal Plan Provisions (Continued)

4. Vested Termination

5.

a.	Eligibility	Upon termination of employment after 10 years of service, a member is eligible for a benefit deferred to retirement age.	
b.	Benefit Formula	2.5% of highest annual salary multiplied by full years of service at termination.	
c.	Commencement Date	20th anniversary of employment.	
d.	Form of Payment	Same as retirement.	
Disability Retirement			
a.	Eligibility	A member who is unable to perform active duty as a result of disability which the Board of Public Safety finds to be permanently incapacitating is eligible to receive disability retirement benefits.	
b.	Benefit Formula	Service-Related (and involving heart, lung, cancer or other Social Security disabilities). $66^2/_3\%$ of highest annual salary, reduced for each dollar of earned income in excess of the salary the member would earn as an active employee, to a minimum of 50% of salary.	
		Other Service Related and Non-Service Related. 50% of highest annual salary.	
C.	Commencement Date	Benefits commence as of the first payroll period after disability.	
d.	Form of Payment	Same as retirement.	
Non-vested Termination of Employment		A member who leaves employment prior to completing 10 years of service will receive a lump sum payment of his accumulated contributions without interest.	



6.

Outline of Principal Plan Provisions (Continued)

7. Death Before Retirement -- Survivor Annuity Benefits

- a. Eligibility Death while actively employed.
- b. Benefit Formula
 - (1) Surviving Spouse <u>Service Related</u>. The annual benefit is 50% of the deceased member's highest annual salary, payable to the surviving spouse until death or earlier remarriage.

<u>Non-Service Related</u>. 30% of the deceased member's highest annual salary, payable to the surviving spouse until death or earlier remarriage.

- Surviving Children
 10% of the deceased member's highest annual salary, payable to each surviving child until his 18th birthday (or for life if such child is permanently disabled prior to the member's death).
- (3) Maximum Family Death Benefit <u>Service-Related</u>. 75% of deceased's highest annual salary.

<u>Non-Service Related</u>. 50% of deceased's highest annual salary.

- c. Commencement Date Benefits commence as of the first payroll period after death.
- d. Form of Payment Surviving spouse's and children's benefits are payable semimonthly.

8. Death Before Retirement -- Lump Sum Refund of Contributions

A lump sum payment equal to the member's accumulated contributions without interest shall be paid to the estate of any active member who dies with no surviving spouse or children.



Outline of Principal Plan Provisions (Continued)

9.	Retiree Cost-of-	
	Living Increases	All benefits in pay status are indexed in accordance with the base salary increases provided to active employees. We have assumed 3.0% per annum in this valuation.
10.	Service Purchase	An active employee eligible to retire who has served in the U.S. armed forces may "purchase" additional years of service up to his number of years of military service, but no more than four years. A member may also purchase up to four years of prior civilian employment time with the City of Warwick. Either purchase would require the employee to contribute to the fund, at retirement, an amount which represents the actuarial equivalent value of the benefit increase purchased.
11.	Employee Contributions	Active members contribute 7% of their covered earnings (regular, holiday, and longevity).
12.	Optional Retirement Under Fire II Program	Any firefighter retiring after July 23, 1996 may irrevocably elect to have his or her pension calculated under the City's Fire II program, including final year's compensation, a benefit multiplier increasing from 50% of pay after 20 years of service to 75% of pay after 30 years of service, and a fixed 3.0% annual cost-of-living increase.
B. PO	LICE I	
1.	Eligibility	Active and retired Police hired before February 1, 1971 are covered under this program.
2.	Benefits	Benefits provided to remaining active police are in accordance with the proposed City's Code of Ordinances. Retirement, death, and disability benefits payable to retired members and beneficiaries are indexed in accordance with the base salary increases provided to active members of the police force.
3.	Employee Contributions	Active members contribute 7% of their covered earnings (regular, holiday, and longevity).

