

City of Warwick, Rhode Island
Fire II Pension Fund
Actuarial Valuation
as of July 1, 2022



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DISCUSSION

I. Purpose and Summary

This report presents the results of our July 1, 2022 actuarial valuation of the City of Warwick, Rhode Island Fire II Pension Fund. The valuation was performed at the request of the City of Warwick for purposes of determining the employer and member contribution rates for the City's fiscal year beginning July 1, 2023.

The total contribution level for the 2023-2024 fiscal year is 43.03% of covered earnings as compared to 44.20% of covered earnings determined by the previous valuation. In accordance with the City's ordinances, two-thirds of the cost (or 28.69% of earnings) will be met by the City, with the remaining one-third (or 14.34% of earnings) contributed by covered active members.

The development of the valuation results is shown in Tables 1 through 9 and is described in more detail on the following pages.

II. Membership Data

The City furnished data for active members as of December 31, 2021. The data was projected to July 1, 2022 for valuation purposes reflecting anticipated age, salary and benefit increases, with some data adjustment after data questions were answered. Although we did not audit this data, we did review it for reasonableness and consistency with the data collected for the previous valuation (prepared as of July 1, 2021). Table 4 provides a distribution by age and service for active members. There were 42 retirees as of June 30, 2022. There was also 1 inactive, non-retired member entitled to a future retirement benefit or a future refund.

III. Plan Provisions

A summary of the principal plan provisions recognized for purposes of the valuation is provided in Table 9. Tier II benefits will be granted to all members hired after 06/30/2021 (i.e. Tier II members).

IV. Assets

The City of Warwick furnished asset information for the fiscal year 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 June 30, 2022 was \$106,780,952 while the valuation assets were \$117,125,698 or 109.7% 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 -14.55% and 5.36% on the actuarial value of assets reflecting the deferred gains from fiscal year 2022. This return is 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 actuarial 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 Fire II Pension Fund.

VI. Funding Policy

The plan is funded on an actuarially determined basis in accordance with the City's pension ordinances. The contribution amount determined by the July 1, 2022 valuation is projected with assumed base pay increases (2.75%) to determine the statutory contribution level for the 2023-2024 fiscal year. As shown in Table 2, new gains or losses with each valuation are amortized over individual 20 year periods-

VII. Analysis of Changes

The following shows a reconciliation of the contribution rate from the prior valuation to the new rate set by this valuation.

Contribution rate set by prior valuation	44.20%
Changes of assumptions	0.00
Demographic and payroll changes	-1.89
Asset Performance	0.72
Contribution rate set by current valuation	<u>43.03%</u>

As shown, the largest impact was -1.89% due to demographic experience, primarily due to growth of payroll from the increase in active members from 170 to 192. A projection of future contribution rates is provided on Table 6.

The funded ratio increased from 82.8% to 84.4%. 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

With the Tier II benefit provisions for new hires, the normal cost (and ultimately the total contribution requirement) should be trending slowly lower over the next couple of decades as members in Tier I or in the Firefighters I Pension Fund who terminate or retire are replaced by members in Tier II. 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 towards 100%.

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 II 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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TABLES

Table 1

Valuation Results

	<u>July 1, 2022</u>	<u>July 1, 2021</u>
A. Membership Data		
1. Active members		
a. Number	192	170
b. Annualized Salaries	\$ 17,221,056	\$ 15,824,410
c. Average pay	\$ 89,693	\$ 93,085
d. Average attained age	39.5	40.4
e. Average past service	12.8	13.5
2. Retired members, beneficiaries, and inactives		
a. Number	43	41
b. Average benefit	\$ 55,267	\$ 51,683
c. Average attained age	54.7	53.6
B. Liabilities		
1. Actuarial accrued liability		
a. Active members	\$ 93,017,324	\$ 84,895,483
b. Retired members and beneficiaries	45,354,343	41,929,805
c. Inactive members	444,328	1,671,800
d. Total	<u>\$ 138,815,995</u>	<u>\$ 128,497,088</u>
2. Valuation assets	\$ 117,125,698	\$ 106,422,984
3. Unfunded actuarial accrued liability [(1)(d) - (2)]	\$ 21,690,297	\$ 22,074,104
4. Funded Ratio [(2)/(1)(d)]	84.4%	82.8%
C. Determination of City Contribution for FY+1		
1. Normal cost with interest	\$ 5,887,142	\$ 5,568,906
2. Amortization of unfunded liability (Table 2)	<u>\$ 1,914,687</u>	<u>\$ 1,876,748</u>
3. Total annual contribution [(1) + (2)]	\$ 7,801,829	\$ 7,445,654
4. Projected Covered Payroll	\$ 18,129,944	\$ 16,844,637
5. Contribution as a percentage of covered payroll [(3) / (4)]	43.03%	44.20%
6. City contribution as a percentage of payroll [2/3 x (5)]	28.69%	29.47%
7. Average member contribution rate [(5) - (6)]	14.34%	14.73%
a. Tier I Rate	14.72%	14.97%
b. Tier II Rate	12.37%	12.62%

Table 2

Summary of Amortization Bases

Date Established	Purpose	Initial Amount	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	\$ 3,779,979	\$ 2,977,490	\$ 409,632	8
7/15	2015 Experience (Gain)/Loss	(255,999)	(201,650)	(27,743)	8
7/16	2016 Experience (Gain)/Loss	211,851	193,939	18,796	13
** 7/16	2016 Assumption Change - FY19 Stagger	1,040,297	1,136,767	99,904	15
** 7/16	2016 Assumption Change - FY20 Stagger	1,040,297	1,234,604	103,939	16
** 7/16	2016 Assumption Change - FY21 Stagger	1,040,297	1,336,394	108,136	17
** 7/16	2016 Assumption Change - FY22 Stagger	1,040,297	1,442,294	112,504	18
** 7/16	2016 Assumption Change - FY23 Stagger	1,040,297	1,552,472	117,048	19
7/17	2017 Experience (Gain)/Loss	321,145	328,274	28,850	15
7/18	2018 Experience (Gain)/Loss	2,872,959	2,983,626	251,185	16
7/19	2019 Experience (Gain)/Loss	4,851,885	5,102,163	412,851	17
7/20	2020 Experience (Gain)/Loss	(1,016,126)	(1,078,780)	(84,149)	18
** 7/20	2020 Assumption Change	4,048,571	4,298,207	335,275	18
7/21	2021 Experience (Gain)/Loss	522,754	558,824	42,133	19
7/22	2022 Experience (Gain)/Loss	(174,327)	<u>(174,327)</u>	<u>(13,674)</u>	20
	Total		\$ 21,690,297	\$ 1,914,687	

* Assuming payment made at the middle of the year.

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



Table 3A

Asset Information

Composition of Fund as of June 30, 2022

	Market Value	Percentage of Total
1. Cash and equivalents	\$ 744,081	0.7%
2. Equities, including index funds	77,020,227	72.1%
3. Fixed income investments	29,106,888	27.3%
4. Receivables less payables	<u>(90,244)</u>	<u>(0.1%)</u>
5. Total	\$ 106,780,952	100.0%

Table 3B

Asset Information

Asset Reconciliation and Expected Returns

	FY 2018	FY 2019*	FY 2020	FY 2021	FY 2022
1. Beginning of year market value	64,558,640	73,583,027	81,199,968	87,143,761	119,682,795
2. Contributions					
a. City	3,561,858	3,646,246	4,282,728	4,574,311	4,906,175
b. Member	1,780,929	1,823,301	2,141,361	2,308,382	2,452,125
c. Other	-	-	-	4,796	-
d. Total	<u>5,342,787</u>	<u>5,469,547</u>	<u>6,424,089</u>	<u>6,887,489</u>	<u>7,358,300</u>
3. Benefits and admin expenses paid	(861,743)	(1,254,527)	(1,623,664)	(1,883,091)	(2,492,580)
4. Net return	4,543,343	3,401,922	1,143,368	27,534,636	(17,767,563)
5. End of year market value	73,583,027	81,199,968	87,143,761	119,682,795	106,780,952
6. Net market return	6.80%	4.49%	1.37%	30.71%	-14.55%
7. Expected market value					
a. Beginning of year	64,558,640	73,583,027	81,199,968	87,143,761	119,682,795
b. Net cash flow	4,481,044	4,215,020	4,800,425	5,004,398	4,865,720
c. Earnings assumption	6.90%	6.90%	6.90%	6.90%	6.90%
d. Expected earnings	4,606,564	5,220,222	5,765,650	6,182,691	8,423,180
e. Excess/(shortfall)	(63,221)	(1,818,300)	(4,622,282)	21,351,945	(26,190,743)

Table 3C

Asset Information

Development of Actuarial Value of Assets

	Year Ending July 1, 2022					
1. Market value of assets at beginning of year*	\$ 119,682,795					
2. Net new investments						
a. Contributions	\$ 7,358,300					
b. Benefits and admin expenses paid	(2,492,580)					
c. Subtotal	<u>4,865,720</u>					
3. Market value of assets at end of year	\$ 106,780,952					
4. Net earnings (3-1-2)	\$ (17,767,563)					
5. Assumed investment return rate	6.90%					
6. Expected return	\$ 8,423,180					
7. Excess return (4-6)	\$ (26,190,743)					
8. Development of amounts to be recognized as of June 30, 2022:						
	Remaining Deferrals					
Fiscal Year End	of Excess (Shortfall)	Offsetting of	Net Deferrals	Years	Recognized for	Remaining after
	of Investment	Gains/(Losses)	Remaining*	Remaining	this valuation	this valuation
	Income*					
	(1)	(2)	(3) = (1) + (2)	(4)	(5) = (3) / (4)	(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	13,259,811	(13,259,811)	0	4	0	0
2022	<u>(26,190,743)</u>	<u>13,259,811</u>	<u>(12,930,932)</u>	5	<u>(2,586,186)</u>	<u>(10,344,746)</u>
	\$ (12,930,932)	\$ 0	\$ (12,930,932)		\$ (2,586,186)	\$ (10,344,746)
9. Actuarial value of assets as of June 30, 2022 (Item 3 - Item 8)	\$ 117,125,698					
10. Ratio of actuarial value to market value	109.7%					

* Market value of assets and the remaining deferrals of shortfall of investment income FY 2019 have been revised based on the restated information.



Table 4

Distribution of Active Members by Age and by Years of Service

As of July 1, 2022

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	7 \$52,769	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	7 \$52,769
25-29	11 \$54,062	0 \$0	0 \$0	0 \$0	0 \$0	4 \$85,049	1 \$80,006	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	16 \$63,430
30-34	4 \$53,705	0 \$0	0 \$0	0 \$0	0 \$0	32 \$86,492	4 \$91,523	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	40 \$83,716
35-39	1 \$55,015	0 \$0	0 \$0	0 \$0	0 \$0	24 \$87,091	17 \$92,526	1 \$86,605	0 \$0	0 \$0	0 \$0	0 \$0	43 \$88,482
40-44	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	4 \$90,691	8 \$90,628	10 \$98,088	3 \$96,859	0 \$0	0 \$0	0 \$0	25 \$94,370
45-49	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	15 \$96,443	7 \$104,042	1 \$122,719	0 \$0	0 \$0	23 \$99,898
50-54	0 \$0	0 \$0	0 \$0	1 \$133,354	0 \$0	0 \$0	0 \$0	8 \$98,811	15 \$109,011	5 \$121,150	0 \$0	0 \$0	29 \$109,129
55-59	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	5 \$93,605	2 \$93,793	2 \$103,078	0 \$0	0 \$0	9 \$95,752
60-64	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
65 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
Total	23 \$53,648	0 \$0	0 \$0	1 \$133,354	0 \$0	64 \$86,889	30 \$91,468	39 \$96,734	27 \$105,245	8 \$116,828	0 \$0	0 \$0	192 \$89,693



Table 5

History of Investment Return Rates

Year Ending June 30 of	Market	Actuarial
(1)	(2)	(3)
2001	-30.40%	
2002	-13.11%	
2003	3.75%	
2004	13.73%	
2005	8.23%	
2006	7.71%	
2007	14.05%	9.46%
2008	-3.48%	7.26%
2009	-16.90%	1.67%
2010	13.14%	2.06%
2011	20.89%	5.74%
2012	0.28%	4.48%
2013	11.17%	10.56%
2014	14.69%	10.56%
2015	1.66%	7.85%
2016	-1.82%	5.55%
2017	14.33%	6.47%
2018	6.80%	6.92%
2019*	4.49%	5.85%
2020	1.37%	5.81%
2021	30.71%	10.06%
2022	-14.55%	5.36%
Average Returns:		
Last 5 Years	4.79%	6.79%
Last 10 Years	6.28%	7.48%

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

Table 6

Near Term Outlook

Valuation as of July 1,	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Actuarial Value of Fund	For Fiscal Year Ending June 30,	Employer Contribution Rate	Covered Compensation	Employer Contributions	Employee Contributions	Benefit Payments and Refunds	Net External Cash Flow
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2022	\$ 21,690,297	84.4%	\$ 117,125,698	2023	29.5%	\$ 17,644,714	\$ 5,199,897	\$ 2,599,066	\$ 2,991,951	\$ 4,807,013
2023	20,794,846	86.2%	130,083,513	2024	28.7%	18,129,944	5,201,481	2,599,834	3,446,129	4,355,186
2024	19,891,204	87.8%	143,468,264	2025	28.2%	18,628,517	5,245,790	2,622,895	4,005,773	3,862,912
2025	18,871,974	89.3%	157,265,006	2026	27.7%	19,140,801	5,296,260	2,649,087	4,686,458	3,258,889
2026	17,701,391	90.6%	171,386,553	2027	27.1%	19,667,173	5,333,737	2,666,869	5,359,273	2,641,333
2027	16,417,630	91.9%	185,841,252	2028	26.5%	20,208,020	5,359,167	2,679,583	6,017,605	2,021,146

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

Table 7

Schedule of Funding Progress

Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial		Annual Payroll	UAAAL as % of Payroll (4)/(6)
			Accrued Liability (UAAAL) (3) - (2)	Funded Ratio (2)/(3)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
July 1, 2011	\$ 24,781,826	\$ 31,782,763	\$ 7,000,937	78.0%	\$ 9,354,240	74.8%
July 1, 2013	34,394,949	41,218,696	6,823,747	83.4%	11,299,967	60.4%
July 1, 2014	42,195,568	46,060,602	3,865,034	91.6%	11,548,952	33.5%
July 1, 2015	49,682,745	53,252,922	3,570,177	93.3%	13,302,964	26.8%
July 2, 2016	56,561,310	65,498,628	8,937,318	86.4%	13,917,985	64.2%
July 1, 2017	64,469,586	74,002,098	9,532,512	87.1%	14,141,458	67.4%
July 1, 2018	73,563,652	86,274,815	12,711,163	85.3%	15,114,478	84.1%
July 1, 2019	82,206,795	100,168,951	17,962,155	82.1%	15,484,971	116.0%
July 1, 2020	91,920,943	113,334,408	21,413,465	81.1%	15,684,216	136.5%
July 1, 2021	106,422,984	128,497,088	22,074,104	82.8%	15,824,410	139.5%
July 1, 2022	117,125,698	138,815,995	21,690,297	84.4%	17,221,056	126.0%

Table 8

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

	<u>June 30, 2022</u>	<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	6.2	7.6	5.6	5.0
Ratio of actuarial accrued liability to payroll	8.1	8.1	7.2	6.5
Ratio of actives to retirees and beneficiaries	4.5	4.1	5.4	5.9
Ratio of net cash flows to market value of assets	4.6%	4.2%	5.5%	5.2%
Duration of the actuarial accrued liability	20.9	21.0	21.7	21.7

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

TABLE 9

Actuarial Methods and Assumptions

- Actuarial Cost Method:** *Entry Age Normal actuarial cost method.* 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 or beneficiaries. 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 20 years. 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 administrative and investment expenses.

Actuarial Methods and Assumptions (Continued)

- 1. **Interest** 6.90% per year, net of investment expenses.

- 2. **Salary Increases** 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.

Actuarial Methods and Assumptions (Continued)

3. Mortality

A. Pre-retirement mortality (combined ordinary and duty):

- a. Male employees: PUB(10) Median Table for Healthy General Employee Males, loaded by 115%, projected with Scale Ultimate MP16.
- b. 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: PUB(10) Tables for Employees by Occupation for males, projected with Scale Ultimate MP16.
- b. 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.

Age	Number of Disabilities per 1,000	
	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

Actuarial Methods and Assumptions (Continued)

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

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

Retirement Election for Fire II Members		
Service	Tier I	Tier II
20	12%	
21	10%	
22	10%	
23	10%	
24	12%	
25	14%	10%
26	16%	2%
27	18%	2%
28	20%	2%
29	20%	2%
30+	35%	100%

Actuarial Methods and Assumptions (Continued)

- 7. 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. Administrative and Investment Expenses** None. The 6.90% investment return assumption represents the assumed return net of all investment expenses. Administrative expenses are assumed to equal the actual administrative expenses from the prior fiscal year.

Outline of Principal Plan Provisions (Continued)

4. Vested Termination:

- 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 average salary multiplied by full years of service at termination.
- c. Commencement Date 20th anniversary of employment.
- d. Form of Payment Same as retirement.

5. 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:
For Tier I members: The benefit would be equal to 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.
For Tier II members: The benefit would initially be the same, but once the member reached 25 years of service, including service while disabled, the benefit would be converted to a regular retirement benefit (The age 50 minimum for retirement would not apply to this benefit.).

Other Service Related and Non-Service Related: 50% of average salary.
- c. Commencement Date Benefits commence as of the first payroll period after disability.
- d. Form of Payment Same as retirement.

6. 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.



Outline of Principal Plan Provisions (Continued)

9. Retiree Cost-of-Living Increases

For Tier I members: All benefits in pay status are increased by 3% annually.

For Tier II members: All benefits in pay status are increased by 75% of CPI, annual cap of 3%.

10. Service Purchase

For Tier I member:

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.

For Tier II member: the right to buy municipal service is eliminated.

11. Employee Contributions

Members contribute a percentage of their covered earnings (regular, holiday, and longevity) equal to one third of the actuarially determined contribution rate.