City of Warwick, Rhode Island Police II 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 Police 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 56.20% of covered earnings as compared to 53.70% of covered earnings determined by the previous valuation. In accordance with the City's ordinances, two-thirds of the cost (or 37.47% of earnings) will be met by the City, with the remaining one-third (or 17.90%) contributed by covered active members.

The member contribution rate of 18.73% is a blended rate between Tier I and Tier II members where the difference between the two is a constant 3.77%. Based on this difference and the size of the current population of active members, that produces a member contribution rate of 20.76% for Tier I members and 16.99% for Tier II 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 and retired 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 adjustment due to data questions response. 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 three inactive, non-retired members 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. 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 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 $221,035,910 while the valuation assets were $242,645,935, or 109.8% 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 -14.86%, while the return on the actuarial value of assets was higher at 5.48% reflecting deferred losses from this year's market value return. 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 were no changes in 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 Police 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, 2016 valuation is projected with assumed overall wage inflation (2.75%) to determine the statutory contribution level for the 2022-2023 fiscal year. As shown in Table 2 the increases in accrued liability as of July 1, 2020 due to the change in mortality assumptions will be partially recognized with the previous valuation to the extent the increases were offset by other assumption changes and then the remainder ratably recognized over a two-year period beginning in the fiscal year 2024 according to the schedule. This was done to provide a partial phase in to the higher contribution levels.

As part of the negotiation process, the member contribution rate for fiscal year 2022 was not increased from the levels from 2021. This will equal to total contributions being approximately 1% of payroll lower than determined by the funding policy for that one fiscal year. It is our understanding that beginning with the fiscal year 2023 contributions the member rate will revert to the normal funding policy.

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	53.70%
Staggered recognition of 2019 assumption changes	1.39
Changes in 2020 assumptions (see note below)	0.00
Demographic and payroll changes	(0.60)
Asset Performance	1.71
Contribution rate set by current valuation	56.20%

As shown, the largest impacts were the further recognition of the 2020 assumption changes of 1.39% and 1.71% from asset performance. The remaining impact from the 2020 assumption changes will be recognized in the contribution rates over the next year, fiscal year 2025. A projection of this pattern is shown on Table 6.

The funded ratio increased from 81.15% to 81.56%. 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 begin to trend slowly lower over the next decade as members in Tier I or in the Police I Pension Fund who terminate or retire are replaced by members in Tier II. We recommend 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 Police 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

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

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SECTION B

TABLES

Table 1

Valuation Results

	July 1, 2022	July 1, 2021
Membership Data		
1. Active members		
a. Number	167	158
b. Annualized Salaries	$ 14,638,009	$ 13,840,969
c. Average pay	$ 87,653	$ 87,601
d. Average attained age	38.4	38.3
e. Average past service	11.2	11.2
2. Retired members and beneficiaries		
a. Number	236	232
b. Average benefit	$ 58,594	$ 56,613
c. Average attained age	61.5	60.9
3. Inactive members (Vesting)		
a. Number	2	3
b. Average benefit	$ 21,912	$ 23,033
c. Average attained age	44.5	46.2
Liabilities		
Actuarial accrued liability		
1. a. Active members	$ 67,826,164	$ 64,943,508
b. Retired members and beneficiaries	228,784,985	224,771,050
c. Inactive members	911,711	1,336,279
d. Total	$ 297,522,860	$ 291,050,837
2. Valuation assets	$ 242,645,935	$ 236,176,021
3. Unfunded actuarial accrued liability [(1)(d)-(2)]	$ 54,876,925	$ 54,874,816
4. Funded Ratio [(2)/(1)(d)]	81.56%	81.15%
Determination of City Contribution for FY+1		
1. Normal cost	$ 4,568,568	$ 4,585,454
2. Amortization charges	$ 4,281,031	$ 3,957,913
3. Total annual contribution	$ 8,849,599	$ 8,543,367
4. Projected Covered Payroll	$ 15,745,502	$ 15,909,173
5. Annual contribution as a percentage of covered payroll [(3) / (4)]	56.20%	53.70%
6. Annual City contribution as a percentage of payroll [2/3 x (5)]	37.47%	35.80%
7. Member contribution rate [(5) - (6)]	18.73%	17.90%
a. Tier I Rate	20.76%	19.86%
b. Tier II Rate	16.99%	16.09%

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	$ 23,498,366	$ 22,662,108	$ 1,907,872	16
	7/15	2015 Experience (Gain)/Loss	(1,868,979)	(1,802,466)	(151,745)	16
	7/16	2016 Experience (Gain)/Loss	2,085,352	1,909,032	185,017	13
**	7/16	2016 Assumption Change - FY19 Stagger	3,179,680	3,474,539	305,357	15
**	7/16	2016 Assumption Change - FY20 Stagger	3,179,680	3,773,581	317,690	16
**	7/16	2016 Assumption Change - FY21 Stagger	3,179,680	4,084,701	330,521	17
**	7/16	2016 Assumption Change - FY22 Stagger	3,179,680	4,408,387	343,870	18
**	7/16	2016 Assumption Change - FY23 Stagger	3,179,680	4,745,146	357,759	19
	7/17	2017 Experience (Gain)/Loss	(943,623)	(964,572)	(84,771)	15
	7/18	2018 Experience (Gain)/Loss	(485,661)	(504,368)	(42,461)	16
	7/19	2019 Experience (Gain)/Loss	1,475,351	1,551,455	125,539	17
	7/20	2020 Experience (Gain)/Loss	2,757,197	2,927,207	228,333	18
**	7/20	2020 Assumption Change - FY22 Stagger	4,032,939	4,281,611	333,981	18
**	7/20	2020 Assumption Change - FY24 Stagger	2,446,100	2,795,306	219,263	20
**	7/20	2020 Assumption Change - FY25 Stagger	2,446,100	2,795,306	0	21
	7/22	2021 Experience (Gain)/Loss	(1,119,206)	(1,196,432)	(90,204)	19
	7/22	2022 Experience (Gain)/Loss	(63,616)	(63,616)	(4,990)	20
		Total		$ 54,876,925	$ 4,281,031	

* 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	$ 1,733,417	0.8%
2.	Equities, including index funds	157,250,686	71.1%
3.	Fixed income investments	62,225,218	28.2%
4.	Receivables less payables	(173,411)	-0.1%
5.	Total	$ 221,035,910	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	193,183,186	206,142,558	210,257,908	208,004,463	266,467,262
2.	Contributions					
a.	City	4,179,364	4,483,039	4,610,514	5,037,561	5,003,559
b.	Member	2,089,682	2,171,138	2,347,752	2,447,961	2,500,022
c.	Other	500	-	150,000	2,340	-
d.	Total	6,269,546	6,654,177	7,108,266	7,487,862	7,503,581
3.	Benefits and admin expenses paid	(9,678,659)	(10,764,329)	(11,579,392)	(12,528,431)	(13,803,674)
4.	Net return	16,368,484	8,225,502	2,217,681	63,503,368	(39,131,259)
5.	End of year market value	206,142,558	210,257,908	208,004,463	266,467,262	221,035,910
6.	Net market return	8.55%	4.03%	1.07%	30.90%	-14.86%
7.	Expected market value					
a.	Beginning of year	193,183,186	206,142,558	210,257,908	208,004,463	266,467,262
b.	Net cash flow	(3,409,112)	(4,110,151)	(4,471,126)	(5,040,569)	(6,300,093)
c.	Earnings assumption	6.90%	6.90%	6.90%	6.90%	6.90%
d.	Expected earnings	13,213,987	14,084,401	14,356,115	14,181,309	18,172,513
e.	Excess/(shortfall)	3,154,497	(5,858,899)	(12,138,434)	49,322,059	(57,303,772)

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

Table 3C

Asset Information

Development of Actuarial Value of Assets (Police II)

		Year Ending July 1, 2022
1.	Market value of assets at beginning of year	$ 266,467,262
2.	Net new investments	
	a. Contributions	$ 7,503,581
	b. Benefits and admin expenses paid	(13,803,674)
	c. Subtotal	(6,300,093)
3.	Market value of assets at end of year	$ 221,035,910
4.	Net earnings (3-1-2)	$ (39,131,259)
5.	Assumed investment return rate	6.90%
6.	Expected return	$ 18,172,513
7.	Excess return (4-6)	$ (57,303,772)

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

Fiscal Year End	Remaining Deferrals of Excess (Shortfall) of Investment Income*	Offsetting of Gains/(Losses)	Net Deferrals Remaining	Years Remaining	Recognized for this valuation	Remaining after this valuation
	(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	30,291,241	(30,291,241)	0	4	0	0
2022	(57,303,772)	30,291,241	(27,012,531)	5	(5,402,506)	(21,610,025)
	$ (27,012,531)	$ 0	$ (27,012,531)		$ (5,402,506)	$ (21,610,025)

9.	Actuarial value of assets as of June 30, 2022 (Item 3 - Item 8)	$ 242,645,935
10.	Ratio of actuarial value to market value	109.8%

Table 4

Distribution of Active Members by Age and by Years of Service (Police II)

As of July 1, 2022

	Years of Credited Service												
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	**Total**
Attained Age	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.	**Count & Avg. Comp.**
Under 25	1	2	0	0	0	0	0	0	0	0	0	0	3
	$49,316	$53,927	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$52,390
25-29	3	7	6	6	5	2	0	0	0	0	0	0	29
	$49,316	$59,999	$65,208	$74,962	$82,222	$76,066	$0	$0	$0	$0	$0	$0	$68,007
30-34	4	3	2	6	7	12	4	0	0	0	0	0	38
	$49,316	$54,921	$68,096	$75,456	$81,763	$85,846	$95,949	$0	$0	$0	$0	$0	$77,296
35-39	0	1	0	2	2	10	12	0	0	0	0	0	27
	$0	$56,807	$0	$76,431	$67,132	$89,510	$100,824	$0	$0	$0	$0	$0	$90,701
40-44	0	0	0	0	0	5	5	10	5	0	0	0	25
	$0	$0	$0	$0	$0	$92,424	$101,466	$94,246	$118,759	$0	$0	$0	$100,228
45-49	0	0	0	0	0	0	1	11	7	2	0	0	21
	$0	$0	$0	$0	$0	$0	$85,603	$98,798	$99,325	$124,658	$0	$0	$100,808
50-54	0	0	0	0	0	0	0	6	4	6	0	0	16
	$0	$0	$0	$0	$0	$0	$0	$98,239	$99,767	$108,136	$0	$0	$102,332
55-59	0	0	0	0	0	0	0	2	1	4	0	1	8
	$0	$0	$0	$0	$0	$0	$0	$97,981	$127,594	$109,313	$0	$101,690	$107,812
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	**8**	**13**	**8**	**14**	**14**	**29**	**22**	**29**	**17**	**12**	**0**	**1**	**167**
	$49,316	**$57,647**	**$65,930**	**$75,383**	**$79,837**	**$87,569**	**$99,391**	**$97,056**	**$106,808**	**$111,282**	**$0**	**$101,690**	**$87,653**

Table 5

History of Investment Return Rates

Year Ending June 30 of (1)	Market (2)
2001	(13.52%)
2002	-3.93%
2003	5.22%
2004	15.04%
2005	9.49%
2006	8.73%
2007	15.65%
2008	-4.92%
2009	-16.26%
2010	14.16%
2011	22.24%
2012	0.68%
2013	11.99%
2014	15.71%
2015	2.30%
2016	-1.42%
2017	13.19%
2018	8.55%
2019*	4.03%
2020	1.07%
2021	30.90%
2022	-14.86%
Average Returns:	
Last 5 Years	4.93%
Last 10 Years	6.53%

* 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	$ 54,876,925	81.6%	$ 242,645,935	2023	35.8%	$ 15,324,090	$ 5,486,024	$ 2,743,012	$ 14,598,297	$ (6,369,260)
2023	54,337,354	82.3%	252,552,518	2024	37.5%	15,745,502	5,899,840	2,949,133	15,294,986	(6,446,014)
2024	53,161,423	83.2%	263,063,296	2025	38.0%	16,178,503	6,147,831	3,073,916	16,042,309	(6,820,563)
2025	51,547,209	84.2%	273,905,171	2026	37.5%	16,623,412	6,235,442	3,116,890	16,842,293	(7,489,961)
2026	49,683,912	85.1%	284,795,945	2027	37.0%	17,080,556	6,318,098	3,158,195	17,662,667	(8,186,375)
2027	47,541,676	86.1%	295,710,865	2028	36.4%	17,550,271	6,395,319	3,197,659	18,478,163	(8,885,185)

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 smoothed assets.

Table 7

Schedule of Funding Progress

Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (3) - (2)	Funded Ratio (2)/(3)	Annual Payroll	UAAL as % of Payroll (4)/(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
July 1, 2011	$ 140,644,601	$ 162,563,786	$ 21,919,185	86.5%	$ 11,082,010	197.8%
July 1, 2013	147,587,524	182,130,783	34,543,259	81.0%	11,822,199	292.2%
July 1, 2014	163,070,867	186,157,733	23,086,866	87.6%	12,212,862	189.0%
July 1, 2015	175,253,154	196,709,719	21,456,565	89.1%	12,764,469	168.1%
July 1, 2016	183,553,638	223,166,775	39,613,137	82.2%	13,201,530	300.1%
July 1, 2017	192,618,919	232,361,869	39,742,950	82.9%	12,745,851	311.8%
July 1, 2018	203,195,759	243,489,800	40,294,040	83.5%	12,822,547	314.2%
July 1, 2019	211,791,057	254,389,181	42,598,124	83.3%	13,297,638	320.3%
July 1, 2020	219,462,471	274,421,675	54,959,204	80.0%	13,930,062	394.5%
July 1, 2021	236,176,021	291,050,837	54,874,816	81.1%	13,840,969	396.5%
July 1, 2022	242,645,935	297,522,860	54,876,925	81.6%	14,638,009	374.9%

Table 8

Risks Associated with Measuring the Accrued Liability and

Actuarially Determined Contribution

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019*
Ratio of the market value of assets to total payroll	15.1	19.3	14.9	15.8
Ratio of actuarial accrued laibility to payroll	20.3	21.0	19.7	19.1
Ratio of actives to retirees and beneficiaries	0.7	0.7	0.8	0.8
Ratio of net cash flows to market value of assets	-2.9%	-1.9%	-2.1%	-2.0%
Duration of the actuarial accrued liability	15.4	15.5	15.6	15.3

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

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)

Actuarial Assumptions:

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 July 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: 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: 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

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

Actuarial Methods and Assumptions (Continued)

6. Retirement

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

Retirement Election for Police II Members		
Service	Tier I	Tier II
20	12%	
21	10%	
22	10%	
23	10%	
24	12%	
25	14%	15%
26	16%	5%
27	18%	5%
28	20%	5%
29	20%	5%
30	35%	33%
31	35%	5%
32	35%	5%
33	35%	5%
34	35%	5%
35+	100%	100%

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 be equal to the actual administrative expenses from the previous fiscal year.

TABLE 10
Outline of Principal Plan Provisions

1.	***Effective Dates:***	
	a. Original Plan	February 1, 1971.
	b. Most Recent Amendment	July 1, 1991.
2.	***Eligibility:***	All permanent members of the police department appointed on or after February 1, 1971.
3.	***Tier:***	Members who hire by June 30, 2012 are in Tier I, while members who join later are in Tier II.
4.	***Final Average Salary(FAC):***	Tier I: Salary received in the highest year of creditable service. Tier II: Average of the salaries received in the last three years of creditable service. For pension purposes, annual salary includes regular, holiday, and longevity pay.
5.	***Retirement:***	
	a. Eligibility	Tier I: Members who have completed 20 years of service may retire. Tier II: Members attain age 50 or older and with at least 25 years of service may retire.
	b. Benefit Formula	Tier I: The annual benefit at retirement is equal to 50% of annual salary at retirement, plus 2% of annual salary for each year of service between 20 and 25, plus 3% of annual salary for each year of service between 25 and 30. Tier II: 2% of FAC times years of service.
	c. Maximum Benefit	Tier I: 75% of FAC. Tier II: 70% of FAC.
	d. Commencement Date	Retirement benefits commence as of the first payroll period after retirement.
	e. 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.
6.	***Vested Termination:***	
	a. Eligibility	Upon termination of employment after 10 years of service a member is eligible for a benefit deferred to retirement age.

Outline of Principal Plan Provisions (Continued)

b.	Benefit Formula	2.5% of annual salary multiplied by full years of service at termination
c.	Commencement Date	Benefits commence as of normal retirement age.
d.	Form of Payment	Same as retirement.

7. 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.) 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.

8. 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. Death Before Retirement -- Survivor Annuity Benefits

a. Eligibility	Death while actively employed.
b. Benefit Formula	
(1) Surviving spouse	Service Related. The annual benefit is 50% of the deceased member's highest annual salary, payable to the surviving spouse until death or earlier remarriage. Non-Service Related. 30% of the deceased member's highest annual salary, payable to the surviving spouse until death or earlier remarriage.
(2) 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 becomes permanently disabled prior to the member's death).
(3) Maximum family death benefit	Service Related. 75% of deceased's highest annual salary. Non-Service Related. 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 semi-monthly.

10. 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.

11. Retiree Cost-of-Living Increases

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

Outline of Principal Plan Provisions (Continued)

12. 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 additional year's contribution (at the then current contribution percentage) for each year of service purchased. However, the right to buy municipal service would be eliminated for Tier II members.
13. Employee Contributions	Members contribute a percentage of their covered earnings (regular, holiday, and longevity) equal to one third of the actuarially determined contribution rate.