

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION
JANUARY 1, 2018**

July 2018

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**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION FOR
JANUARY 1, 2018**

ACTUARIAL STATEMENT

This report is provided to the Plan Sponsor of the City of Rutland Employees Retirement System as the intended user, and reflects the actuarial valuation for the City of Rutland Employees Retirement System ("Plan") for the 2018 plan year.

The actuarial valuation for the Plan has been prepared as of January 1, 2018 in accordance with generally accepted actuarial standards and practices, and to the best of my knowledge fairly reflects the actuarial position of the Plan as of the date.

The preparation of the actuarial valuation is based on the employee census data and Plan asset data furnished by the Plan Sponsor. The valuation is based on the Plan provisions as reflected in this valuation report. All information has been reviewed for reasonableness and consistency, but has otherwise been accepted and relied upon without audit.

The actuarial valuation is based on the actuarial assumptions outlined herein, which in my opinion, are reasonable in the aggregate, and when applied in combination, represent the best estimate of the measure of anticipated experience under the Plan.

Future actuarial valuation results may differ from the results reflected in this valuation due to such factors as follows: plan experience that differs from the anticipated experience; changes in economic or demographic assumptions; changes in plan provisions or applicable law; and changes in the operation of the funding methodology used in the plan valuation (such as the end of an amortization period).

I 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.



Erik Schait, EA, MAAA

17-8161
Enrollment No.

7/5/2018
Date

INTRODUCTION

This report reflects the actuarial valuation for the City of Rutland Employees Retirement System ("Plan") for the 2018 plan year. The valuation is performed as of the beginning of the plan year, January 1, 2018. The valuation measures the Plan liabilities as of January 1, 2018 and compares those liabilities with the Plan assets as of that date, to determine the contribution required to properly fund the Plan on an ongoing basis.

In preparing this valuation we have relied on the asset information and distribution information provided by Prudential and the employee data provided by the City of Rutland for the 2017 calendar year.

Valuation Results

The following is a summary of the valuation results, compared to the prior valuation report:

	City	Board of Education	Total 1/1/2018	Total 1/1/2017
Total Participants	246	875	1,121	1,108
Active:	89	454	543	547
Retiree/Beneficiaries:	127	283	410	406
Terminated:	30	138	168	155
Total Covered Payroll:	\$5,475,654	\$23,344,915	\$28,820,569	\$27,934,380
Market Value of Assets:	\$26,529,083	\$60,902,241	\$87,431,324	\$77,176,168
Actuarial Value of Assets:	\$25,662,790	\$58,754,673	\$84,417,463	\$79,368,034
Actuarial Accrued Liability:	\$45,156,254	\$69,383,878	\$114,540,130	\$107,663,468
Unfunded Accrued Liability:	\$19,493,463	\$10,629,205	\$30,122,667	\$28,295,434
Actuarial Funded Status:	56.83%	84.68%	73.70%	73.72%
Market Funded Status:	58.75%	87.78%	76.33%	71.68%
Recommended Employer Plan Contribution (end of year):				
Normal Cost:	\$614,396	\$824,820	\$1,439,215	\$1,481,943
Amortization Payment:	\$1,650,536	\$1,232,270	\$2,882,805	\$2,395,809
Total:	\$2,264,931	\$2,057,090	\$4,322,021	\$3,877,752
Percent of Payroll:	41.36%	8.81%	15.00%	13.88%
Employer Contribution:	n/a	n/a	n/a	\$3,289,316
<i>(Includes receivable contributions)</i>				

Value of Plan Assets

The market value of total assets is \$87,431,324 as of the valuation date, January 1, 2018. The asset reconciliation reflected a gain of approximately 15.38% in 2017, versus the expected return of 7.50%.

For purposes of determining the recommended contribution, a smoothing method is applied to the market value of the assets to generate an actuarial value of the assets. This methodology mitigates the effect of significant swings in the investment market. In applying this methodology, the resulting actuarial value of assets is limited to no less than 80% and no more than 120% of the actual market value. This year the actuarial value of assets is \$84,417,463, which is 96.55% of the market value of assets. Please refer to pages 6-7, 21-22, and 30-32 of the valuation report for more detail.

Funded Status

The actuarial accrued liability under the Plan as of 1/1/2018 is \$114,540,130 which is made up of \$45,156,254 actuarial accrued liability for City employees and \$69,383,878 for Board of Education (BOE) employees. Compared to the actuarial asset value of \$79,368,034, the plan is 73.70% funded overall, with the City at 56.83% and the BOE at 84.68%.

The breakdown of total plan Unfunded Accrued Liability (UAL) over the period from 1/1/2017 to 1/1/2018 is as follows:

	<u>2017</u>	<u>2018</u>	<u>Change</u>
Total Unfunded Accrued Liability:	\$28,295,434	\$30,122,667	6.46%
City Unfunded Accrued Liability:	\$18,565,758	\$19,493,463	4.99%
BOE Unfunded Accrued Liability:	\$9,729,677	\$10,629,205	9.25%

The mortality table had a large impact on the change in unfunded liability during 2017. Please see below for more detail.

Change in Plan Provisions

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

Employee Data

Based on employee data provided by the City, the covered employee group increased from 1,108 to 1,121. The City covered group decreased from 250 to 246. The BOE covered group increased from 858 to 875.

Active participants decreased from 547 to 543. Active City employees decreased from 98 to 89. Active BOE employees increased from 449 to 454. The retired participants increased from 406 to 410. Retired City participants increased from 125 to 127. Retired BOE employees increased from 281 to 283.

Terminated participants due a benefit increased from 155 to 168. Terminated City participants increased from 27 to 30. Terminated BOE participants increased from 128 to 138. Please refer to Page 8, 23, and 33 of the valuation report for the details for each employee group.

Assumptions

We last did a full comprehensive review of plan assumptions in the 2013 valuation. The Society of Actuaries has since released an updated mortality table and mortality projection scale. In past years the mortality assumption has been set to be the IRS section 430 funding tables that would apply to single employer pension plans. These tables are updated annually to the table applicable for each year.

The 2018 version of the mortality tables were updated to reflect the more recent Society of Actuaries mortality. As a result, there was a loss in 2018 generated from the mortality underlying mortality update. This effectively resulted in the adoption of a version of the most recent mortality tables.

The incorporation of the updated mortality increased liabilities by \$2,914,363. The City's liabilities increased by \$876,826 and the Board of Education by \$2,037,539. The BOE had greater impact due to the population being larger, younger, and subject to the COLA.

Had the underlying mortality basis not changed, the funded status would have increased to 75.63% based on actuarial value of assets. The funding would have increased to 78.33% based on the market value of assets.

VMERS and VSTRS are two plans which have demographics which closely resemble the demographic makeup of the City of Rutland Pension Plan. Participants in this plan are largely a subset of the Vermont State plan demographics. All Board of Education participants are also participants of VSTRS. City employees hired after the soft freezes are currently VMERS participants.

The State plans have greater levels experience necessary to fully assess mortality experience. These plans have recently adopted the updated base mortality and projection scales from the Society of Actuaries report.

A detailed review of assumptions is scheduled for the second half of 2018. The mortality may be adjusted slightly to be the most up to date version of the Society of Actuaries mortality, however, the resulting effect on the plan would be minimal.

Funding Method

The current recommended contribution is calculated separately for the City and the Board of Education. The assumptions between the two entities currently differ in several areas. The City recommended funding contribution is based on a 30 year amortization of unfunded liabilities. This amortization is rolling and resets at each valuation date.

The Board of education has changed the calculation of their recommended contribution to better align with their goals of fully funding plan liabilities. The change is based on the amortization of the 1/1/2017 unfunded liability over a closed 20 year period. Changes in the unfunded liability after 1/1/2017 are now amortized over an open 5 year amortization period.

The January 1, 2018 recommended contribution in this report reflects the updated amortization schedule.

Recommended Employer Contribution for 2018

The recommended employer contribution for 2018 is \$4,322,021 which is 15.00% of covered payroll compared to \$ 3,877,752 in 2017 (13.88% of payroll).

The recommended employer contribution for the City is \$2,264,931 which is 41.36% of payroll, compared to \$2,243,277 in 2017 (37.80% of payroll). The recommended employer contribution for the Board of Education is \$2,057,090 which is 8.81% of payroll, compared to \$1,634,475 in 2017 (7.43% of payroll). The \$1,634,475 in 2017 was based on the 30 year amortization method.

Plan Contributions and Future Funding

The Rutland City Board of Aldermen passed a resolution on July 18, 2016 that was adopted into the City's budget to increase pension funding to \$1,352,000 beginning in fiscal year 2018. The increased contributions have only partially begun to impact the actuarial valuation. This increase was based on paying down the unfunded liability over a 45 year period. The contribution level should be continuously monitored based on changes in the plan's status.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF ACTUARIAL VALUATION

Summary of Contribution for the Plan Year	City	Board of Education	2018	2017
Recommended Contribution:	2,264,931	2,057,090	4,322,021	3,877,752
Actual Contribution:	----	----	----	3,289,316
Participant Data				
Participants currently employed:	89	454	543	547
Terminated Participants :	30	138	168	155
Retired Participants receiving benefits:	127	283	410	406
Total participants included in current year valuation:	246	875	1,121	1,108
Aggregate compensation of active participants:	5,475,654	23,344,915	28,820,569	27,934,380
Average annual compensation:	61,524	51,421	53,077	51,068
Asset Data				
Fair market value of Plan assets:	26,529,083	60,902,241	87,431,324	77,176,168
Actuarial asset value:	25,662,790	58,754,673	84,417,463	79,368,034
IRS determined rate of return on market value during year	15.38%	15.38%	15.38%	7.11%
Summary of Funding and Recommended Contribution				
Actuarial Accrued Liability:	45,156,254	69,383,878	114,540,130	107,663,468
Actuarial Value of Assets:	25,662,790	58,754,673	84,417,463	79,368,034
Unfunded Actuarial Accrued Liability:	19,493,463	10,629,205	30,122,667	28,295,434
Employer Normal Cost as of the end of the Plan Year:	614,396	824,820	1,439,215	1,481,943
Amortization of Unfunded Liability as of the end of Year:	1,650,536	1,232,270	2,882,805	2,395,809
Total Recommended Employer Contribution:	2,264,931	2,057,090	4,322,021	3,877,752
Funded ratio based on Actuarial Value of Assets:	56.83%	84.68%	73.70%	73.72%
Funded ratio based on Market Value of Assets:	58.75%	87.78%	76.33%	71.68%
Valuation Date:	01/01/2018	01/01/2018	01/01/2018	01/01/2017

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF ACTUARIAL VALUATION

	Police	Fire	DPW	General	City Total	Board of Education	Total
1. Total Normal Cost:	\$234,609	\$214,225	\$303,738	\$145,494	\$898,066	\$1,737,202	\$2,635,268
2. Expected Employee Contributions:	\$90,805	\$109,674	\$124,347	\$49,018	\$373,844	\$1,042,619	\$1,416,463
3. Administrative Expenses:	\$13,725	\$11,302	\$13,282	\$8,999	\$47,309	\$72,691	\$120,000
4. Employer Normal Cost as of January 1, 2018: (1) - (2) + (3)	\$157,529	\$115,853	\$192,673	\$105,475	\$571,531	\$767,274	\$1,338,805
5. Employer Normal Cost as of December 31, 2018:	\$169,344	\$124,542	\$207,123	\$113,386	\$614,396	\$824,820	\$1,439,215
6. Actuarial Accrued Liability:	\$13,100,874	\$10,787,797	\$12,677,557	\$8,590,025	\$45,156,253	\$69,383,877	\$114,540,130
7. Actuarial Value of Assets:	\$7,445,369	\$6,130,822	\$7,204,794	\$4,881,805	\$25,662,790	\$58,754,673	\$84,417,463
Unfunded Actuarial Accrued Liability (UAAL) (6) - (7):	\$5,655,505	\$4,656,975	\$5,472,763	\$3,708,220	\$19,493,463	\$10,629,204	\$30,122,667
Amortization of UAAL Payable December 31, 2018:	\$478,859	\$394,312	\$463,386	\$313,980	\$1,650,536	\$1,232,270	\$2,882,805
Recommended Employer Contribution Payable December 31, 2018:	\$648,203	\$518,854	\$670,509	\$427,366	\$2,264,931	\$2,057,090	\$4,322,021
Covered Payroll:	\$1,164,169	\$1,312,670	\$2,107,571	\$891,244	\$5,475,654	\$23,344,915	\$28,820,569
Expected Employee Contributions as a % of Covered Payroll:	7.80%	8.36%	5.90%	5.50%	6.83%	4.47%	4.91%
Recommended Employer Contribution as a % of Covered Payroll:	55.68%	39.53%	31.81%	47.95%	41.36%	8.81%	15.00%

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

CITY EMPLOYEES

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PLAN ASSET EXPERIENCE DURING THE PLAN YEAR - CITY

Summary of Income, Expenses and Rate of Return	2016	2017
1. Asset Fair Market Value at January 1:	23,600,690	23,970,581
2. Employer Contribution for prior Plan year:	60,304	58,224
3. Employee Contribution for prior Plan Year	35,310	35,377
4. Adjusted Beginning Balance at January 1:	23,696,304	24,064,182
5. Employer Contribution for current Plan Year	622,493	950,700
6. Employee Contribution for current Plan Year	345,580	333,503
7. Benefit Payments made from the Plan:	(2,327,231)	(2,518,787)
8. Fees Paid:	(26,774)	(38,584)
9. Net Investment Earnings (including realized and unrealized):	1,660,208	3,638,389
10. Asset Fair Market Value at December 31 (1+2+3+5+6+7+8+9):	23,970,581	26,429,403
11. Receivable Employer Contribution for prior Plan Year:	58,224	60,679
12. Receivable Employee Contributions for prior Plan Year:	35,377	39,000
13. Total Plan Assets:	24,064,182	26,529,083
14. IRS determined annual rate of return for year:	7.11%	15.38%

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

DETERMINATION OF ACTUARIAL VALUE OF ASSETS - CITY

	Year End	
	12/31/2016	12/31/2017
1. Actuarial value of assets at beginning of year:	24,499,459	24,806,929
2. Contribution less benefit payments and operating expenses:	(1,385,931)	(1,273,168)
3. Average actuarial value of the fund, 1 + 50%(2):	23,806,493	24,170,345
4. Assumed net investment income, at 7.5%:	1,785,487	1,812,776
5. Preliminary value of assets at the end of the year, 1+2+4:	24,899,015	25,346,537
6. Market Value of assets at the end of the year (excludes receivables):	23,970,581	26,429,403
7. Smoothing adjustment, 20%(6-5):	(185,687)	216,573
8. Actuarial value of assets, 5+7 but not <80% or >120% of 6:	24,713,328	25,563,110
9. Contribution receivables:	93,601	99,680
10. Final actuarial value of assets, 8+9:	24,806,929	25,662,790
11. Actuarial value of assets as a percent of market value of assets, 8/(6+9):	103.09%	96.73%

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

RECONCILIATION OF PARTICIPANT DATA - CITY

<u>Actively Employed Participants</u>	2017	2018
a. Police:	18	17
b. Fire:	22	22
c. DPW:	41	37
d. General:	17	13
e. Total:	98	89
Average Age	49	50
Average Monthly Accrued Benefit	\$1,680	\$1,831
<u>Terminated and Inactive Participants</u>		
a. Police:	11	11
b. Fire:	0	0
c. DPW:	6	6
d. General:	10	13
e. Total:	27	30
<u>Retired Participants/Beneficiaries in Pay Status</u>		
a. Police:	32	33
b. Fire:	27	26
c. DPW:	35	37
d. General:	31	31
e. Total:	125	127
Average Age	68	69
Average Monthly Benefit	\$1,675	\$1,706
Total Participants at end of plan year:	250	246

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

RECOMMENDED CONTRIBUTION FOR CITY EMPLOYEES

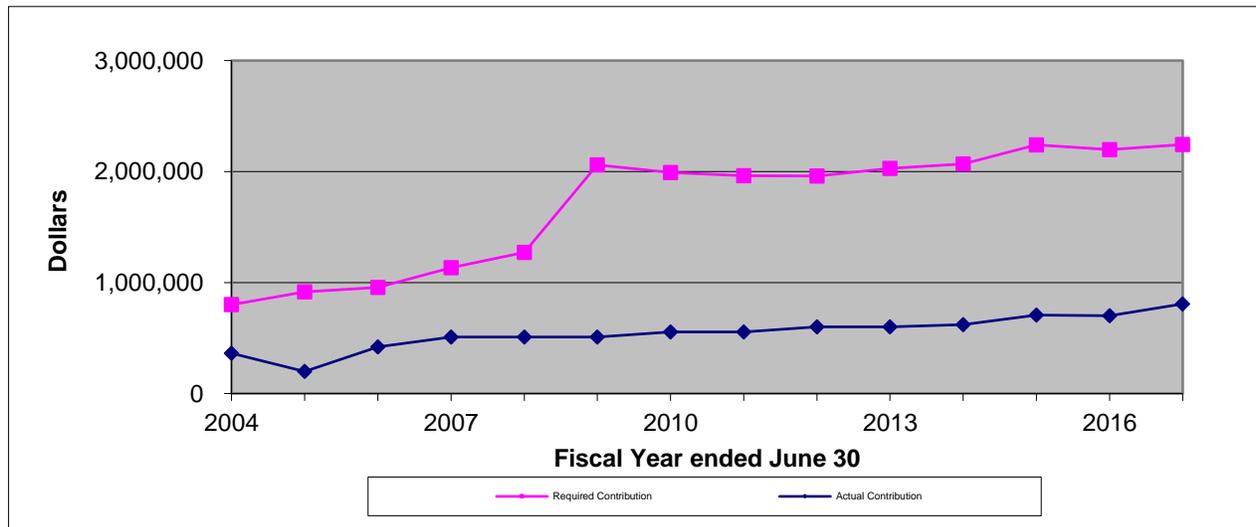
	2017	% of Payroll	2018	% of Payroll
1. Total normal cost as of January 1:	964,668	16.26%	898,066	16.40%
2. Administrative expenses:	36,257	0.61%	47,309	0.86%
3. Expected employee contributions:	(376,467)	6.34%	(373,844)	6.83%
4. Employer normal cost, 1+2+3:	624,458	10.52%	571,531	10.44%
5. Actuarial accrued liability:				
Active Participants:	17,171,229		18,165,475	
Terminated Vested Participants:	1,849,650		1,251,904	
Retirees and Beneficiaries:	24,351,808		25,738,874	
Total:	43,372,687		45,156,254	
6. Actuarial value of assets:	24,806,929		25,662,790	
7. Unfunded actuarial accrued liability:	18,565,758		19,493,463	
8. Employer normal cost projected to December 31:	671,292		614,396	
9. Payment on unfunded actuarial accrued liability:	1,571,985	26.49%	1,650,536	30.14%
10. Total recommended contribution, 8+9:	2,243,277	37.80%	2,264,931	41.36%
11. Annualized Payroll:	5,934,271		5,475,654	
12. Funded Status:	57.19%		56.83%	

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SCHEDULE OF FUNDING PROGRESS BASED ON FISCAL YEAR - CITY ONLY

Fiscal Year Ended June 30	Annual Required Contributions	Actual Contribution	Percentage Contributed
2004	800,067	361,708	45.21%
2005	916,949	198,237	21.62%
2006	954,528	418,543	43.85%
2007	1,134,839	510,000	44.94%
2008	1,272,606	510,000	40.08%
2009	2,058,984	510,000	24.77%
2010	1,991,572	555,000	27.87%
2011	1,962,172	555,000	28.28%
2012	1,959,704	600,000	30.62%
2013	2,028,112	600,000	29.58%
2014	2,067,870	621,135	30.04%
2015	2,239,864	707,081	31.57%
2016	2,196,517	701,816	31.95%
2017	2,243,277	806,888	35.97%



In prior fiscal years the actuarially determined contribution for the January 1 prior to the beginning of the fiscal year was reported as the actuarially determined contribution for the fiscal year. The alignment was changed with GASB 67/68. The actuarially contributions shown are the January 1 contribution during the fiscal year. For example, the 2015 fiscal year actuarially required contribution is the January 1, 2015 funding contribution.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

ACTUARIAL ASSUMPTIONS AND COST METHOD - CITY

ACTUARIAL VALUATION DATE:	January 1, 2018
VALUATION INTEREST RATES:	
Pre-retirement period:	7.50%
Post-retirement period:	7.50%
SALARY INCREASES:	4.00%
EMPLOYEE CONTRIBUTION CREDITING RATE:	Varies - See Plan Provisions
VALUATION MORTALITY:	
Healthy:	2018 430(h) Annuitant & Non-Annuitant
Disabled:	PBGC Table for Disabled Participants receiving Social Security Benefits
TURNOVER:	<u>Fire and DPW:</u> Crocker Sarason T-1 Table <u>All Others:</u> Crocker Sarason T-6 Table
DISABILITY AND DEATH:	<u>Police and Fire:</u> 75% of disabilities and deaths assumed to be service related. <u>All Others:</u> 25% of disabilities and deaths assumed to be service related.
ASSUMED RETIREMENT AGE:	
Deferred Vested Participants:	Normal Retirement Age
Active Employees:	<u>Police:</u> Earlier of age 62 or age plus service equal to 80. <u>Fire:</u> Earlier of age 65 or age plus service equal to 85. <u>DPW:</u> Earlier of age 62 or 5 years of service (if later) or age plus service equal to 85. <u>General:</u> Earlier of age 62 or 5 years of service (if later), or age plus service equal to 80 at age 55 or later
COMPENSATION BASIS:	Rate of annual basic compensation on January 1, excluding overtime, bonuses, commissions, and any other additional compensation.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

ACTUARIAL ASSUMPTIONS AND COST METHOD - CITY

IRC SECTION 401(a)(17) MAXIMUM COMPENSATION LIMIT:	\$270,000
IRC SECTION 415(b) MAXIMUM BENEFIT LIMIT:	\$220,000
ADMINISTRATIVE EXPENSE:	\$47,309
FORM OF PAYMENT:	Life Annuity
PERCENT MARRIED (3 year setback on females):	75%
AMORTIZATION PERIOD:	Rolling 30 year
ASSET VALUATION METHOD:	

The actuarial value of assets is calculated as follows:

- (1) the actuarial value at the beginning of the year, plus contributions and expected investment earnings, less benefit payments; plus
- (2) 20% of the difference between the market value at the end of the year and the adjusted actuarial value in (1) above
- (3) Not to exceed 80-120% of the actual market value.

ACTUARIAL COST METHOD: Projected Unit Credit

Under the Projected Unit Credit actuarial cost method, annual contributions are the sum of the normal cost, plus the amortization of the unfunded actuarial accrued liability over a fixed period of years. The normal cost is the sum of the present value of the projected benefit allocable to each participant during the current plan year. The actuarial accrued liability is the actuarial present value of the projected benefits allocable to all participants based on service as of the valuation date. The unfunded actuarial accrued liability is the excess, if any, of the accrued liability over the plan assets. Actuarial gains and losses, resulting from the difference between the actual and expected unfunded accrued liabilities are amortized over 30 years.

Assumptions were last set effective January 1, 2013 based on an experience study performed using plan year data from 2008 to 2012. Each assumption was set based on a combination of past experience and future expectations. Assumptions are reviewed annually for reasonableness.

The discount rate is set by the City of Rutland. It is our understanding the City sets this assumption with consultation from their investment provider. We believe the discount rate to be reasonable but lack the expertise to properly evaluate the expected return on plan assets based on the asset allocation of the plan. All other assumptions are set by the Actuary in consultation with the City of Rutland.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - POLICE

PLAN EFFECTIVE DATE:	January 1, 1938
PLAN YEAR:	January 1 through December 31
ELIGIBILITY:	No age or service requirement. Police employees hired after 10/31/2014 shall not be eligible to participate.
ENTRY DATES:	First day of the month coinciding with or next following completion of the eligibility requirements.
NORMAL RETIREMENT DATE:	First day of the month following age 62, or if Rule of 75 met, age 60
EARLY RETIREMENT DATE:	First day of the month coinciding with or next following the date the participant attains age 55, and completes 10 years of vesting service.
ADJUSTED RETIREMENT DATE:	First day of the month following the date that age plus credited service equals 75
COMPENSATION:	Rate of annual basic compensation on January 1, excluding overtime except as provided in the collective bargaining agreement, bonuses, commissions and any other additional compensation.
FINAL AVERAGE COMPENSATION:	Average of the 5 highest rates of Compensation on January 1, in the last 10 years prior to distribution.
RETIREMENT BENEFIT:	2.00% of Final Average Compensation for each year of service before 01/01/2007, plus 2.5% of Final Average Compensation for each year of service after 01/01/2007.
NORMAL BENEFIT PAYMENT FORM:	Life Annuity, with refund.
ADJUSTED RETIREMENT BENEFIT:	Retirement Benefit unreduced for payment at Adjusted Retirement Date
EARLY RETIREMENT BENEFIT:	Retirement Benefit is reduced for early commencement of payments, by reducing the Retirement Benefit at Normal Retirement Date by the following percentages: 1/2 of 1% for each month prior to the employee's Normal Retirement Date.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - POLICE

POSTPONED RETIREMENT:	Benefit calculated and payable as of actual retirement date.
DISABILITY RETIREMENT:	<p><u>Non-Service Related:</u> No age requirement; 5 years of participation. Benefit is accrued benefit at date of disability.</p> <p><u>Service Related:</u> No age or service requirement. Benefit is 100% of the projected normal retirement benefit assuming constant future earnings and service to age 62, payable after 6 months.</p>
PRE-RETIREMENT DEATH BENEFIT:	<p><u>Non Service Related:</u></p> <ul style="list-style-type: none">(1) Must be active employee and eligible to retire early.(2) Benefit is 75% of participant's accrued benefit, reduced for early commencement and paid as if 50% Joint and Survivor option had been elected, payable to spouse.(3) If not eligible for spouse benefit, death benefit is return of employee contributions with interest. <p><u>Service Related:</u></p> <ul style="list-style-type: none">(1) No age or service requirement.(2) 100% of deceased participant's projected normal retirement benefit based on service to age 62, payable to spouse or children up to age 19.
POST-RETIREMENT DEATH BENEFIT:	Death benefits payable after retirement are payable in accordance with the form of payment option selected by the retiree.
TERMINATION OF EMPLOYMENT:	Vested participants will be entitled to the Retirement Benefit calculated as of the date of termination and payable at age 62. A reduced benefit will be available for payments beginning after age 55, in accordance with the plan's Early Retirement provisions. Participant may elect a return of employee contributions in lieu of the retirement benefit
VESTING:	Five year cliff vesting. Non-vested participants receive a return of employee contributions plus interest.
ACTUARIAL EQUIVALENCE:	6% interest and Mortality based on the 1971 Group Annuity Mortality Table for males, with a 1 year setback for the participant and a 5 year setback for the beneficiary.
EMPLOYEE CONTRIBUTIONS:	7.08% of compensation 7/1/2017 +

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - FIRE

PLAN EFFECTIVE DATE:	January 1, 1938
PLAN YEAR:	January 1 through December 31
ELIGIBILITY:	No age or service requirement. Fire employees hired after 2/5/2013 shall not be eligible to participate.
ENTRY DATES:	First day of the month coinciding with or next following completion of the eligibility requirements.
NORMAL RETIREMENT DATE:	First day of the month following age 65
EARLY RETIREMENT DATE:	First day of the month coinciding with or next following the date the participant attains age 55, and completes 10 years of vesting service.
ADJUSTED RETIREMENT DATE:	First day of the month following the date that age plus credited service equals 75
COMPENSATION:	Rate of annual basic compensation on January 1, excluding overtime except as provided in the collective bargaining agreement, bonuses, commissions and any other additional compensation.
FINAL AVERAGE COMPENSATION:	Average of the 5 highest rates of Compensation on January 1, in the last 10 years prior to distribution.
RETIREMENT BENEFIT:	2.00% of Final Average Compensation for each year of credited service, multiplied by 1.17.
NORMAL BENEFIT PAYMENT FORM:	Life Annuity, with refund
ADJUSTED RETIREMENT BENEFIT:	Retirement Benefit unreduced for payment at Adjusted Retirement Date
EARLY RETIREMENT BENEFIT:	Retirement Benefit is reduced for early commencement of payments, by reducing the Retirement Benefit at Normal Retirement Date by the following percentages: 1/2 of 1% for each month prior to the employee's Normal Retirement Date.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - FIRE

POSTPONED RETIREMENT:	Benefit calculated and payable as of actual retirement date.
DISABILITY RETIREMENT:	<p><u>Non-Service Related:</u> No age requirement; 5 years of participation. Benefit is accrued benefit at date of disability.</p> <p><u>Service Related:</u> No age or service requirement. Benefit is 100% of the projected normal retirement benefit assuming constant future earnings and service to age 62, payable after 6 months</p>
PRE-RETIREMENT DEATH BENEFIT:	<p><u>Non Service Related:</u></p> <p>(1) Must be active employee and eligible to retire early. (2) Benefit is 75% of participant's accrued benefit, reduced for early commencement and paid as if 50% Joint and Survivor option had been elected, payable to spouse. (3) If not eligible for spouse benefit, death benefit is return of employee contributions with interest.</p> <p><u>Service Related:</u></p> <p>(1) No age or service requirement. (2) 100% of deceased participant's projected normal retirement benefit based on service to age 62, payable to spouse or children up to age 19.</p>
POST-RETIREMENT DEATH BENEFIT:	Death benefits payable after retirement are payable in accordance with the form of payment option selected by the retiree.
TERMINATION OF EMPLOYMENT:	<p>Vested participants will be entitled to the Retirement Benefit calculated as of the date of termination and payable at age 62. A reduced benefit will be available for payments beginning after age 55, in accordance with the plan's Early Retirement provisions.</p> <p>Participant may elect a return of employee contributions in lieu of the retirement benefit</p>
VESTING:	Five year cliff vesting. Non-vested participants receive a return of employee contributions plus interest.
ACTUARIAL EQUIVALENCE:	6% interest and Mortality based on the 1971 Group Annuity Mortality Table for males, with a 1 year setback for the participant and a 5 year setback for the beneficiary.
EMPLOYEE CONTRIBUTIONS:	8.355% 7/1/2016+

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - DPW

PLAN EFFECTIVE DATE:	January 1, 1938
PLAN YEAR:	January 1 through December 31
ELIGIBILITY:	No age or service requirement. DPW employees hired after 9/17/2013 shall not be eligible to participate.
ENTRY DATES:	First day of the month coinciding with or next following completion of the eligibility requirements.
NORMAL RETIREMENT DATE:	First day of the month following the later of age 62 or 5 years of participation in the plan
EARLY RETIREMENT DATE:	First day of the month coinciding with or next following the date the participant attains age 55, and completes 10 years of vesting service.
ADJUSTED RETIREMENT DATE:	First day of the month following the date that age plus credited service equals 75
COMPENSATION:	Rate of annual basic compensation on January 1, excluding overtime, bonuses, commissions and any other additional compensation.
FINAL AVERAGE COMPENSATION:	Average of the 5 highest rates of Compensation on January 1, in the last 10 years prior to distribution.
RETIREMENT BENEFIT:	2.00% of Final Average Compensation for each year of credited service.
NORMAL BENEFIT PAYMENT FORM:	Life Annuity, with refund
ADJUSTED RETIREMENT BENEFIT:	Retirement Benefit unreduced for payment at Adjusted Retirement Date
EARLY RETIREMENT BENEFIT:	Retirement Benefit is reduced for early commencement of payments, by reducing the Retirement Benefit at Normal Retirement Date by the following percentages: 1/2 of 1% for each month prior to the employee's Normal Retirement Date.
POSTPONED RETIREMENT:	Benefit calculated and payable as of actual retirement date.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - DPW

DISABILITY RETIREMENT:	<p><u>Non-Service Related:</u> No age requirement; 15 years of participation. Benefit is accrued benefit at date of disability.</p> <p><u>Service Related:</u> No age or service requirement. Benefit is 100% of the projected normal retirement benefit assuming constant future earnings and service to age 62, payable after 6 months</p>
PRE-RETIREMENT DEATH BENEFIT:	<p><u>Non Service Related:</u></p> <ul style="list-style-type: none">(1) Must be active employee and eligible to retire early.(2) Benefit is 75% of participant's accrued benefit, reduced for early commencement and paid as if 50% Joint and Survivor option had been elected, payable to spouse.(3) If not eligible for spouse benefit, death benefit is return of employee contributions with interest. <p><u>Service Related:</u></p> <ul style="list-style-type: none">(1) No age or service requirement.(2) 100% of deceased participant's projected normal retirement benefit based on service to age 62, payable to spouse or children up to age 19.
POST-RETIREMENT DEATH BENEFIT:	Death benefits payable after retirement are payable in accordance with the form of payment option selected by the retiree.
TERMINATION OF EMPLOYMENT:	Vested participants will be entitled to the Retirement Benefit calculated as of the date of termination and payable at age 62. A reduced benefit will be available for payments beginning after age 55, in accordance with the plan's Early Retirement provisions. Participant may elect a return of employee contributions in lieu of the retirement benefit
VESTING:	Five year cliff vesting. Non-vested participants receive a return of employee contributions plus interest.
ACTUARIAL EQUIVALENCE:	6% interest and Mortality based on the 1971 Group Annuity Mortality Table for males, with a 1 year setback for the participant and a 5 year setback for the beneficiary.
EMPLOYEE CONTRIBUTIONS:	5.70% 7/1/2017 - 6/30/2018 5.90% 7/1/2018 +

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - GENERAL

PLAN EFFECTIVE DATE:	January 1, 1938
PLAN YEAR:	January 1 through December 31
ELIGIBILITY:	No age or service requirement. Non union employees hired after 4/1/2013 shall not be eligible to participate.
ENTRY DATES:	First day of the month coinciding with or next following completion of the eligibility requirements.
NORMAL RETIEMENT DATE	First day of the month following the later of age 62 or 5 years of participation in the plan
EARLY RETIREMENT DATE:	First day of the month coinciding with or next following the date the participant attains age 55, and completes 10 years of vesting service.
ADJUSTED RETIREMENT DATE:	For employees who are at least age 55, the first of the month following the date that age plus credited service equals 80
COMPENSATION:	Rate of annual basic compensation on January 1, excluding overtime, bonuses, commissions and any other additional compensation.
FINAL AVERAGE COMPENSATION:	Average of the 5 highest rates of Compensation on January 1, in the last 10 years prior to distribution.
RETIREMENT BENEFIT:	2.00% of Final Average Compensation for each year of credited service.
NORMAL BENEFIT PAYMENT FORM:	Life Annuity, with refund
ADJUSTED RETIREMENT BENEFIT:	Retirement Benefit unreduced for payment at Adjusted Retirement Date
EARLY RETIREMENT BENEFIT:	Retirement Benefit is reduced for early commencement of payments, by reducing the Retirement Benefit at Normal Retirement Date by the following percentages: 1/2 of 1% for each month prior to the employee's Normal Retirement Date.
POSTPONED RETIREMENT:	Benefit calculated and payable as of actual retirement date.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - GENERAL

DISABILITY RETIREMENT:	<p><u>Non-Service Related:</u> No age requirement; 15 years of participation. Benefit is accrued benefit at date of disability.</p> <p><u>Service Related:</u> No age or service requirement. Benefit is 100% of the projected normal retirement benefit assuming constant future earnings and service to age 62, payable after 6 months</p>
PRE-RETIREMENT DEATH BENEFIT:	<p><u>Non Service Related:</u></p> <ul style="list-style-type: none">(1) Must be active employee and eligible to retire early.(2) Benefit is 75% of participant's accrued benefit, reduced for early commencement and paid as if 50% Joint and Survivor option had been elected, payable to spouse.(3) If not eligible for spouse benefit, death benefit is return of employee contributions with interest. <p><u>Service Related:</u></p> <ul style="list-style-type: none">(1) No age or service requirement.(2) 100% of deceased participant's projected normal retirement benefit based on service to age 62, payable to spouse or children up to age 19.
POST-RETIREMENT DEATH BENEFIT:	Death benefits payable after retirement are payable in accordance with the form of payment option selected by the retiree.
TERMINATION OF EMPLOYMENT:	Vested participants will be entitled to the Retirement Benefit calculated as of the date of termination and payable at age 62. A reduced benefit will be available for payments beginning after age 55, in accordance with the plan's Early Retirement provisions. Participant may elect a return of employee contributions in lieu of the retirement benefit
VESTING:	Five year cliff vesting. Non-vested participants receive a return of employee contributions plus interest.
ACTUARIAL EQUIVALENCE:	6% interest and Mortality based on the 1971 Group Annuity Mortality Table for males, with a 1 year setback for the participant and a 5 year setback for the beneficiary.
EMPLOYEE CONTRIBUTIONS:	5.40% 7/1/2017 - 6/30/2018 5.50% 7/1/2018 +

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM
BOARD OF EDUCATION EMPLOYEES**

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PLAN ASSET EXPERIENCE DURING THE PLAN YEAR - BOARD OF EDUCATION

Summary of Income, Expenses and Rate of Return	2016	2017
1. Asset Fair Market Value at January 1:	49,735,352	52,964,530
2. Employer Contribution for prior Plan year:	99,065	100,324
3. Employee Contribution for prior Plan Year	46,176	47,132
4. Adjusted Beginning Balance at January 1:	49,880,593	53,111,986
5. Employer Contribution for current Plan Year	2,142,104	2,173,036
6. Employee Contribution for current Plan Year	909,102	937,167
7. Benefit Payments made from the Plan:	(3,492,877)	(3,593,255)
8. Fees Paid:	(56,422)	(85,253)
9. Net Investment Earnings (including realized and unrealized):	3,582,031	8,204,349
10. Asset Fair Market Value at December 31 (1+2+3+5+6+7+8+9):	52,964,530	60,748,031
11. Receivable Employer Contribution for prior Plan Year:	100,324	104,901
12. Receivable Employee Contributions for prior Plan Year:	47,132	49,309
13. Total Plan Assets:	53,111,986	60,902,241
14. IRS determined annual rate of return for year:	7.11%	15.38%

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

DETERMINATION OF ACTUARIAL VALUE OF ASSETS - BOARD OF EDUCATION

	Year End	
	12/31/2016	12/31/2017
1. Actuarial value of assets at beginning of year:	51,435,070	54,561,104
2. Contribution less benefit payments and operating expenses:	(498,094)	(568,305)
3. Average actuarial value of the fund, 1 + 50%(2):	51,186,023	54,276,952
4. Assumed net investment income, at 7.5%:	3,838,952	4,070,771
5. Preliminary value of assets at the end of the year, 1+2+4:	54,775,929	58,063,571
6. Market Value of assets at the end of the year (excludes receivables):	52,964,530	60,748,031
7. Smoothing adjustment, 20%(6-5):	(362,280)	536,892
8. Actuarial value of assets, 5+7 but not <80% or >120% of 6:	54,413,649	58,600,463
9. Contribution receivables:	147,456	154,210
10. Final actuarial value of assets, 8+9:	54,561,104	58,754,673
11. Actuarial value of assets as a percent of market value of assets, 8/(6+9):	102.73%	96.47%

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

RECONCILIATION OF PARTICIPANT DATA - BOARD OF EDUCATION

<u>Actively Employed Participants</u>	<u>2017</u>	<u>2018</u>
Active Participants	449	454
Average Age	48	48
Average Monthly Accrued Benefit	\$677	\$711
<u>Terminated and Inactive Participants</u>		
Terminated and Inactive Participants	128	138
<u>Retired Participants/Beneficiaries in Pay Status</u>		
Retired Participants/Beneficiaries in Pay Status	281	283
Average Age	71	72
Average Monthly Accrued Benefit	\$1,035	\$1,055
<u>Total Participants at end of plan year:</u>	858	875

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

RECOMMENDED CONTRIBUTION FOR BOARD OF EDUCATION EMPLOYEES

	2017	% of Payroll	2018	% of Payroll
1. Total normal cost as of January 1:	1,663,589	7.56%	1,737,202	7.44%
2. Administrative expenses:	53,743	0.24%	72,691	0.31%
3. Expected employee contributions:	(963,238)	4.38%	(1,042,619)	4.47%
4. Employer normal cost, 1+2+3:	754,094	3.43%	767,274	3.29%
5. Actuarial accrued liability:				
Active Participants:	30,054,459		32,476,017	
Terminated Vested Participants:	1,939,213		2,915,363	
Retirees and Beneficiaries:	32,297,110		33,992,498	
Total:	64,290,782		69,383,878	
6. Actuarial value of assets:	54,561,105		58,754,673	
7. 1/1/2017 Unfunded actuarial accrued liability:	9,729,677		9,729,677	*
8. Payment on 1/1/2017 unfunded actuarial accrued liability:	954,405		954,405	
9. PV of Remaining Pmts on 1/1/17 unfunded actuarial liability:	9,729,677		9,504,998	
10. New Unfunded Liability Above or (Below) #9:	0		1,124,207	
11. Payment on new unfunded actuarial accrued liability:	0		277,864	
12. Employer normal cost projected to December 31:	810,651		824,820	
13. Total recommended contribution, 8+11+12:	1,765,056	8.02%	2,057,090	8.81%
14. Annualized Payroll:	22,000,109		23,344,915	
15. Funded Status:	84.87%		84.68%	

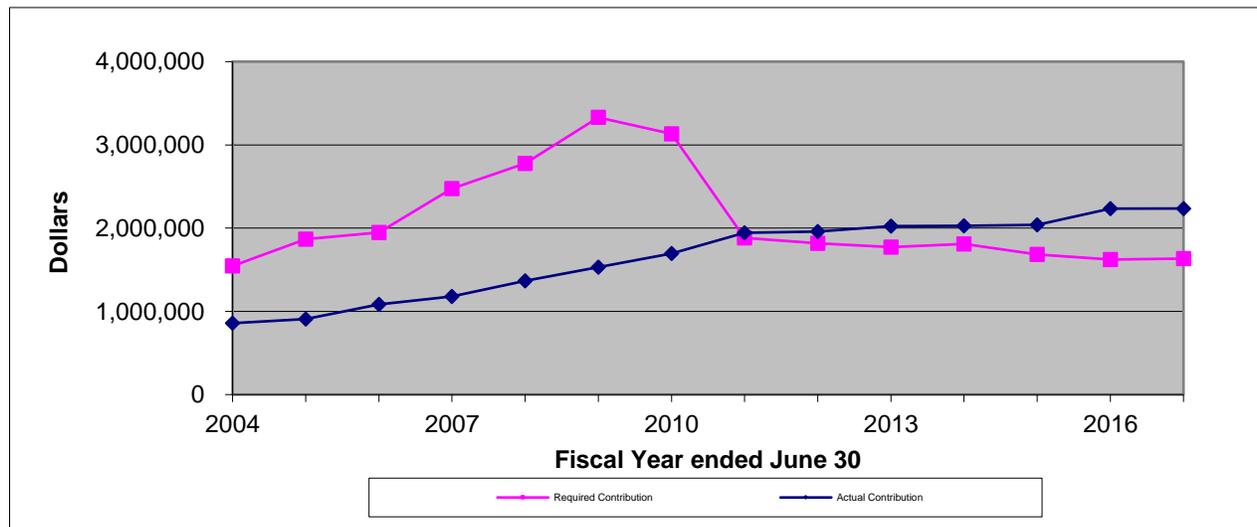
** The unfunded liability on 1/1/2017 has been set to be paid down over a closed 20 year period. The total unfunded liability on 1/1/2018 is the sum of line 9 and line 10.*

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SCHEDULE OF FUNDING PROGRESS BASED ON FISCAL YEAR - BOARD OF EDUCATION ONLY

Fiscal Year Ended June 30	Annual Required Contributions	Actual Contribution	Percentage Contributed
2004	1,545,049	857,750	55.52%
2005	1,868,802	908,932	48.64%
2006	1,945,392	1,083,251	55.68%
2007	2,475,055	1,180,334	47.69%
2008	2,775,697	1,367,860	49.28%
2009	3,329,996	1,529,388	45.93%
2010	3,134,103	1,694,457	54.07%
2011	1,880,413	1,943,651	103.36%
2012	1,816,168	1,959,636	107.90%
2013	1,770,979	2,022,349	114.19%
2014	1,810,608	2,028,783	114.56%
2015	1,681,933	2,039,020	121.23%
2016	1,622,165	2,233,697	137.70%
2017	1,634,475	2,235,476	136.77%



In prior fiscal years the actuarially determined contribution for the January 1 prior to the beginning of the fiscal year was reported as the actuarially determined contribution for the fiscal year. The alignment was changed with GASB 67/68. The actuarially contributions shown are the January 1 contribution during the fiscal year. For example, the 2015 fiscal year actuarially required contribution is the January 1, 2015 funding contribution.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

ACTUARIAL ASSUMPTIONS AND COST METHOD - BOARD OF EDUCATION

ACTUARIAL VALUATION DATE:	January 1, 2018
VALUATION INTEREST RATES:	
Pre-retirement period:	7.50%
Post-retirement period:	7.50%
SALARY INCREASES:	4.00%
EMPLOYEE CONTRIBUTION CREDITING RATE:	Varies - See Plan Provisions
VALUATION MORTALITY:	
Healthy:	2018 430(h) Annuitant & Non-Annuitant
Disabled:	PBGC Table for Disabled Participants receiving Social Security Benefits
TURNOVER:	Crocker Sarason T-6 Table
DISABILITY AND DEATH:	25% of disabilities and deaths assumed to be service related.
ASSUMED RETIREMENT AGE:	
Deferred Vested Participants:	Normal Retirement Age
Active Employees:	<u>Board of Education:</u> For employees age 60 on 7/1/2014 - the earlier of age 62 or 5 years of service (if later), or attainment of Rule at age 55 or later For employees not age 60 on 7/1/2014 - the earlier of age 65 or 5 years of service (if later), or attainment of Rule, at age 55 or later If employee met Rule of 80 on 7/1/2014 the applicable Rule is when age plus service equal 80. For all other employees the applicable Rule is when age plus service equals 85. Rule applicable at age 55 or later.
COMPENSATION BASIS:	Rate of annual basic compensation on January 1, excluding overtime, bonuses, commissions, and any other additional compensation.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

ACTUARIAL ASSUMPTIONS AND COST METHOD - BOARD OF EDUCATION

IRC SECTION 401(a)(17) MAXIMUM COMPENSATION LIMIT:	\$270,000
IRC SECTION 415(b) MAXIMUM BENEFIT LIMIT:	\$220,000
ADMINISTRATIVE EXPENSE:	\$72,691
FORM OF PAYMENT:	Life Annuity
PERCENT MARRIED (3 year setback on females):	75%
COST OF LIVING INCREASES	1.5% for applicable employees
AMORTIZATION PERIOD:	20 year closed amortization of 1/1/17 unfunded liability. 5 year open amortization of gains/losses occurring after 1/1/2017.
ASSET VALUATION METHOD:	

The actuarial value of assets is calculated as follows:

- (1) the actuarial value at the beginning of the year, plus contributions and expected investment earnings, less benefit payments; plus
- (2) 20% of the difference between the market value at the end of the year and the adjusted actuarial value in (1) above
- (3) Not to exceed 80-120% of the actual market value.

ACTUARIAL COST METHOD: Projected Unit Credit

Under the Projected Unit Credit actuarial cost method, annual contributions are the sum of the normal cost, plus the amortization of the unfunded actuarial accrued liability over a fixed period of years. The normal cost is the sum of the present value of the projected benefit allocable to each participant during the current plan year. The actuarial accrued liability is the actuarial present value of the projected benefits allocable to all participants based on service as of the valuation date. The unfunded actuarial accrued liability is the excess, if any, of the accrued liability over the plan assets. Actuarial gains and losses, resulting from the difference between the actual and expected unfunded accrued liabilities are amortized over 30 years.

Assumptions were last set effective January 1, 2013 based on an experience study performed using plan year data from 2008 to 2012. Each assumption was set based on a combination of past experience and future expectations. Assumptions are reviewed annually for reasonableness.

The discount rate is set by the City of Rutland. It is our understanding the City sets this assumption with consultation from their investment provider. We believe the discount rate to be reasonable but lack the expertise to properly evaluate the expected return on plan assets based on the asset allocation of the plan. All other assumptions are set by the Actuary in consultation with the City of Rutland.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - BOARD OF EDUCATION

PLAN EFFECTIVE DATE:	January 1, 1938
PLAN YEAR:	January 1 through December 31
ELIGIBILITY:	No age or service requirement
ENTRY DATES:	First day of the month coinciding with or next following completion of the eligibility requirements.
NORMAL RETIREMENT DATE:	First day of the month following: For employees at least age 60 on 7/1/2014 - the later of age 62 or 5 years of participation. For all other employees the later of age 65 or 5 years of participation
EARLY RETIREMENT DATE:	First day of the month coinciding with or next following the date the participant attains age 55, and completes 10 years of vesting service.
ADJUSTED RETIREMENT AGE	For any employee who is at least age 55: For employees whose age plus credited service equaled 80 on 7/1/2014 - when age plus credited service equal 80. All other employees - when age plus credited service equals 85
COMPENSATION:	Rate of annual basic compensation on January 1, excluding overtime, bonuses, commissions and any other additional compensation.
FINAL AVERAGE COMPENSATION:	Average of the highest 5 rates of Compensation on January 1, in the last 10 years prior to distribution.
RETIREMENT BENEFIT:	Prior to July 1, 2010: 2.00% of Final Average Compensation for each year of credited service. After June 30, 2010: 2.00% of Final Average Compensation for each year of credited service for Paraeducators, Maintenance and Busing Employees; 1.00% of Final Earnings for each year of credited service for Teachers, Administrators and School Nonaligned Employees.
NORMAL BENEFIT PAYMENT FORM:	Life Annuity, with refund.
ADJUSTED RETIREMENT DATE:	Retirement Benefit unreduced for payment at Adjusted Retirement Date
EARLY RETIREMENT BENEFIT:	Retirement Benefit is reduced for early commencement of payments, by reducing the Retirement Benefit at Normal Retirement Date by the following percentages: 1/2 of 1% for each month prior to the employee's Normal Retirement Date.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - BOARD OF EDUCATION

POSTPONED RETIREMENT:	Benefit calculated and payable as of actual retirement date increased by 6% for each year past Normal Retirement.
DISABILITY RETIREMENT:	<p><u>Non-Service Related:</u> No age requirement; 15 years of participation. Benefit is accrued benefit at date of disability.</p> <p><u>Service Related:</u> No age or service requirement. Benefit is 100% of the projected normal retirement benefit assuming constant future earnings and service to NRA, payable after 6 months.</p>
PRE-RETIREMENT DEATH BENEFIT:	<p><u>Non Service Related:</u></p> <ul style="list-style-type: none">(1) Must be active employee and eligible to retire early.(2) Benefit is 75% of participant's accrued benefit, reduced for early commencement and paid as if 50% Joint and Survivor option had been elected, payable to spouse.(3) If not eligible for spouse benefit, death benefit is return of employee contributions with interest. <p><u>Service Related:</u></p> <ul style="list-style-type: none">(1) No age or service requirement.(2) 100% of deceased participant's projected normal retirement benefit based on service to NRA, payable to spouse or children up to age 19.
POST-RETIREMENT DEATH BENEFIT:	Death benefits payable after retirement are payable in accordance with the form of payment option selected by the retiree.
TERMINATION OF EMPLOYMENT:	Vested participants will be entitled to the Retirement Benefit calculated as of the date of termination and payable at NRA. A reduced benefit will be available for payments beginning after age 55, in accordance with the plan's Early Retirement provisions. Participant may elect a return of employee contributions in lieu of the retirement benefit.
VESTING:	Five year cliff vesting. Non-vested participants receive a return of employee contributions plus interest.
ACTUARIAL EQUIVALENCE:	6% interest and Mortality based on the 1971 Group Annuity Mortality Table for males, with a 1 year setback for the participant and a 5 year setback for the beneficiary.
COST OF LIVING INCREASES:	Benefits for Paraeducators, Maintenance, and Bussing employees who were active on 7/1/2014 and retire shall be increased 1.50% per year.
EMPLOYEE CONTRIBUTIONS:	Variable rates based on employee groups.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

ALL EMPLOYEE GROUPS

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PLAN ASSET EXPERIENCE DURING THE PLAN YEAR

Summary of Income, Expenses and Rate of Return	City	Board of Education	Combined 2017	Combined 2016
1. Asset Fair Market Value at January 1:	23,970,581	52,964,530	76,935,111	73,336,042
2. Employer Contribution for prior Plan year:	58,224	100,324	158,548	159,369
3. Employee Contribution for prior Plan Year	35,377	47,132	82,509	81,485
4. Adjusted Beginning Balance at January 1:	24,064,182	53,111,986	77,176,168	73,576,897
5. Employer Contribution for current Plan Year	950,700	2,173,036	3,123,736	2,764,598
6. Employee Contribution for current Plan Year	333,503	937,167	1,270,670	1,254,682
7. Benefit Payments made from the Plan:	(2,518,787)	(3,593,255)	(6,112,042)	(5,820,108)
8. Fees Paid:	(38,584)	(85,253)	(123,836)	(83,196)
9. Net Investment Earnings (including realized and unrealized):	3,638,389	8,204,349	11,842,738	5,242,239
10. Asset Fair Market Value at December 31 (1+2+3+5+6+7+8+9)	26,429,403	60,748,031	87,177,434	76,935,111
11. Receivable Employer Contribution for prior Plan Year:	60,679	104,901	165,580	158,548
12. Receivable Employee Contributions for prior Plan Year:	39,000	49,309	88,310	82,509
13. Total Plan Assets:	26,529,083	60,902,241	87,431,324	77,176,168
14. IRS determined annual rate of return for year:	15.38%	15.38%	15.38%	7.11%

Allocation of Assets

For the January 1, 2009 Valuation the plan assets were allocated separately to the City of Rutland and the Board of Education. This allocation was based on the historical transactions from 01/01/2001 through 01/01/2009. On 01/01/2001 the Plan Assets were 107% of the Plan Liabilities. Since 01/01/2001 changes were made in benefit levels and contribution levels by the City and the Board of Education, therefore, the assets have been allocated based on actual plan liability for each group and actual contributions.

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

DETERMINATION OF ACTUARIAL VALUE OF ASSETS

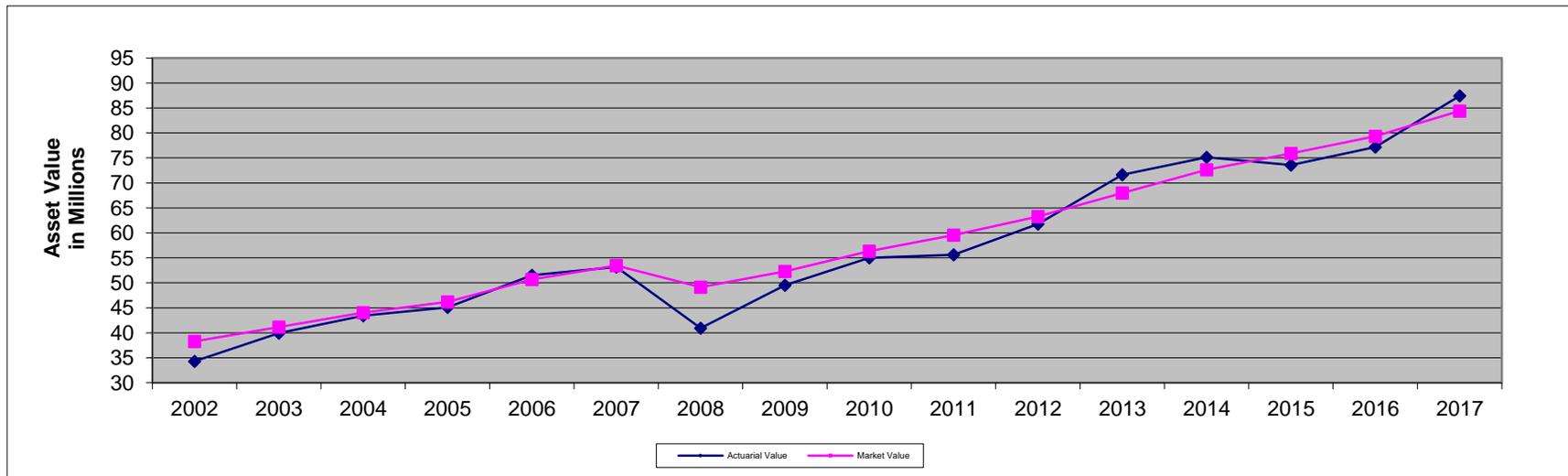
	Year End	
	12/31/2016	12/31/2017
1. Actuarial value of assets at beginning of year:	75,934,529	79,368,034
2. Contribution less benefit payments and operating expenses:	(1,884,025)	(1,841,472)
3. Average actuarial value of the fund, 1 + 50%(2):	74,992,516	78,447,298
4. Assumed net investment income, at 7.5%:	5,624,439	5,883,547
5. Preliminary value of assets at the end of the year, 1+2+4:	79,674,943	83,410,109
6. Market Value of assets at the end of the year (excludes receivables):	76,935,111	87,177,434
7. Smoothing adjustment, 20%(6-5):	(547,966)	753,465
8. Actuarial value of assets, 5+7 but not <80% or >120% of 6:	79,126,977	84,163,574
9. Contribution receivables:	241,057	253,890
10. Final actuarial value of assets, 8+9:	79,368,034	84,417,463
11. Actuarial value of assets as a percent of market value of assets, 8/(6+9):	102.84%	96.55%
12. Allocation of Actuarial Value of Assets		
City of Rutland:	24,806,929	25,662,790
Board of Education:	54,561,105	58,754,673
Total:	79,368,034	84,417,463

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SUMMARY OF PLAN ASSET EXPERIENCE DURING THE PLAN YEAR

Year Ended December 31	Employer Contributions	Employee Contributions	Net Investment Return	Administrative Expenses	Benefit Payments	Market Value of Assets	Actuarial Value of Assets
2002	1,560,078	487,140	1,850,005	42,111	1,395,403	34,308,508	38,282,217
2003	1,209,778	403,259	2,742,732	41,746	1,461,294	39,943,385	41,134,946
2004	1,256,699	418,890	3,116,245	71,737	1,806,900	43,411,905	44,048,143
2005	756,733	308,280	3,202,083	14,600	2,106,977	45,075,493	46,193,632
2006	2,490,603	443,545	3,886,775	9,200	2,309,369	51,525,766	50,695,986
2007	1,717,816	795,470	2,786,827	28,065	2,605,285	53,172,934	53,455,121
2008	2,682,486	918,085	(12,788,325)	118,835	2,928,526	40,927,819	49,113,382
2009	1,864,294	1,015,802	8,656,469	90,857	3,172,215	49,512,330	52,277,707
2010	2,655,901	1,109,869	5,292,308	74,610	3,490,271	55,005,527	56,345,063
2011	2,533,378	1,112,541	945,008	95,017	3,853,461	55,647,975	59,550,538
2012	2,593,278	1,131,988	6,828,345	101,722	4,299,715	61,800,149	63,249,120
2013	2,637,514	1,181,866	10,747,830	73,273	4,634,815	71,659,271	67,988,181
2014	2,701,519	1,304,191	4,494,552	86,605	4,938,334	75,134,595	72,646,720
2015	2,723,199	1,348,232	(51,910)	116,609	5,460,610	73,576,897	75,934,529
2016	2,923,145	1,337,191	5,242,239	83,196	5,820,108	77,176,168	79,368,034
2017	3,289,316	1,358,979	11,842,738	123,836	6,112,042	87,431,324	84,417,463



**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

RECONCILIATION OF PARTICIPANT DATA

A. Actively Employed Participants	2017	2018	Change
1. City of Rutland			
a. Police:	18	17	
b. Fire:	22	22	
c. DPW:	41	37	
d. General:	17	13	
e. Total:	98	89	
2. Board of Education:	449	454	
3. Total Plan:	547	543	-0.73%
B. Terminated and Inactive Participants			
1. City of Rutland			
a. Police:	11	11	
b. Fire:	0	0	
c. DPW:	6	6	
d. General:	10	13	
e. Total:	27	30	
2. Board of Education:	128	138	
3. Total Plan:	155	168	8.39%
C. Retired Participants/Beneficiaries in Pay Status			
1. City of Rutland			
a. Police:	32	33	
b. Fire:	27	26	
c. DPW:	35	37	
d. General:	31	31	
e. Total:	125	127	
2. Board of Education:	281	283	
3. Total Plan:	406	410	0.99%
D. Total Participants at end of plan year (A3+B3+C3):	1,108	1,121	1.17%

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

RECOMMENDED CONTRIBUTION FOR THE ENTIRE PLAN

	2017	% of Payroll	2018	% of Payroll
1. Total normal cost as of January 1:	2,628,257	9.41%	2,635,268	9.14%
2. Administrative expenses:	90,000	0.32%	120,000	0.42%
3. Expected employee contributions:	(1,339,706)	4.80%	(1,416,463)	4.91%
4. Employer normal cost, 1+2+3:	1,378,552	4.93%	1,338,805	4.65%
5. Actuarial accrued liability:				
Active Participants:	47,225,688		50,641,491	
Terminated Vested Participants:	3,788,863		4,167,268	
Retirees and Beneficiaries:	56,648,918		59,731,371	
Total:	107,663,469		114,540,130	
6. Actuarial value of assets:	79,368,034		84,417,463	
7. Unfunded actuarial accrued liability:	28,295,435		30,122,667	
8. Employer normal cost projected to December 31:	1,481,943		1,439,215	
9. Payment on unfunded actuarial accrued liability:	2,395,809	8.58%	2,882,805	10.00%
10. Total recommended contribution, 8+9:	3,877,752	13.88%	4,322,021	15.00%
11. Annualized Payroll:	27,934,380		28,820,569	
12. Funded Status:	73.72%		73.70%	

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SCHEDULE OF FUNDING PROGRESS

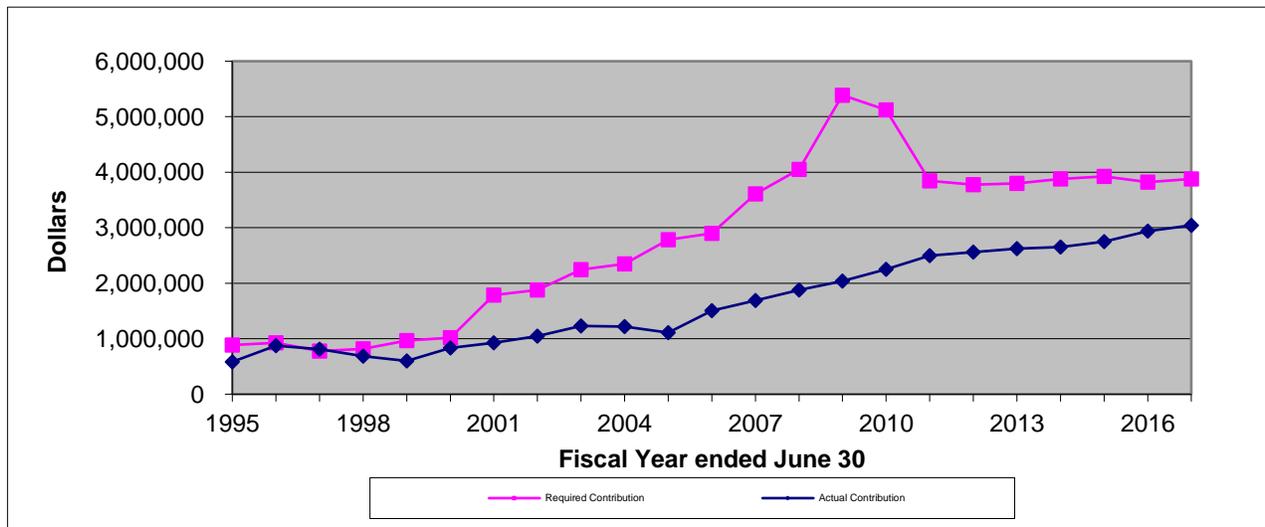
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Underfunded/ (Overfunded) AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
1/1/1997	21,887,900	19,977,000	(1,910,900)	109.57%	12,078,200	-15.82%
1/1/1998	N/A	N/A	N/A	N/A	N/A	N/A
1/1/1999	27,234,000	24,768,100	(2,465,900)	109.96%	14,460,600	-17.05%
1/1/2000	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2001	33,351,605	33,510,388	158,783	99.53%	17,495,402	0.91%
1/1/2002	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2003	38,282,217	40,132,181	1,849,964	95.39%	19,456,272	9.51%
1/1/2004	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2005	44,048,143	48,348,202	4,300,059	91.11%	22,137,295	19.42%
1/1/2006	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2007	50,695,986	59,831,977	9,135,991	84.73%	24,161,425	37.81%
1/1/2008	53,598,552	66,495,591	12,897,039	80.60%	25,641,832	50.30%
1/1/2009	49,414,401	71,277,825	21,863,424	69.33%	26,389,650	82.85%
1/1/2010	52,555,207	76,305,676	23,750,469	68.87%	26,914,829	88.24%
1/1/2011	56,345,063	79,951,469	23,606,406	70.47%	27,594,551	85.55%
1/1/2012	59,550,537	82,683,836	23,133,299	72.02%	27,838,575	83.10%
1/1/2013	63,249,120	89,935,809	26,686,689	70.33%	28,416,600	93.91%
1/1/2014	67,988,181	94,836,584	26,848,403	71.69%	28,733,550	93.44%
1/1/2015	72,646,720	99,765,241	27,118,521	72.82%	29,597,118	91.63%
1/1/2016	75,934,529	103,751,528	27,816,999	73.19%	28,114,946	98.94%
1/1/2017	79,368,034	107,663,468	28,295,434	73.72%	27,934,380	101.29%
1/1/2018	84,417,463	114,540,130	30,122,667	73.70%	28,820,569	104.52%

**CITY OF RUTLAND
EMPLOYEES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION AS OF
JANUARY 1, 2018**

SCHEDULE OF FUNDING PROGRESS BASED ON FISCAL YEAR - ENTIRE PLAN

Fiscal Year Ended June 30	Annual Required Contributions	Actual Contribution	Percentage Contributed
1995	883,300	582,900	65.99%
1996	925,200	873,800	94.44%
1997	776,500	812,600	104.65%
1998	815,800	683,900	83.83%
1999	964,800	599,900	62.18%
2000	1,015,000	834,711	82.24%
2001	1,787,161	923,954	51.70%
2002	1,877,432	1,048,297	55.84%
2003	2,246,572	1,227,415	54.64%
2004	2,345,116	1,219,458	52.00%
2005	2,785,751	1,107,169	39.74%
2006	2,899,920	1,501,794	51.79%
2007	3,609,894	1,690,335	46.83%
2008	4,048,303	1,877,860	46.39%
2009	5,388,980	2,039,388	37.84%
2010	5,125,675	2,249,457	43.89%
2011	3,842,585	2,498,651	65.03%
2012	3,775,872	2,559,636	67.79%
2013	3,799,091	2,622,349	69.03%
2014	3,878,478	2,649,918	68.32%
2015	3,921,797	2,746,100	70.02%
2016	3,818,682	2,935,514	76.87%
2017	3,877,752	3,042,364	78.46%



In prior fiscal years the actuarially determined contribution for the January 1 prior to the beginning of the fiscal year was reported as the actuarially determined contribution for the fiscal year. The alignment was changed with GASB 67/68. The actuarially contributions shown are the January 1 contribution during the fiscal year. For example, the 2015 fiscal year actuarially required contribution is the January 1, 2015 funding contribution.