

EMPLOYEE PENSION PLAN OF THE
CITY OF FROSTPROOF, FLORIDA

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2018

DETERMINES THE CONTRIBUTION
FOR THE 2018/19 FISCAL YEAR



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January 31, 2019

Introduction

This report presents the results of the October 1, 2018 actuarial valuation for the Employee Pension Plan of the City of Frostproof, Florida. The report is based on the participant data and asset information provided by the pension plan administrator and, except for a cursory review for reasonableness including a comparison to the data provided for the previous valuation, we have not attempted to verify the accuracy of this information.

The primary purpose of this report is to provide a summary of the funded status of the plan as of October 1, 2018 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2018/19 plan year. In addition, this report provides a projection of the long-term funding requirements of the plan, statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an estimate of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table IV-A. If any of the assumptions is changed, then the cost shown in this report will change accordingly. Likewise, if any of the assumptions is not completely realized, then the cost shown in this report will change in the future.

Certain assumptions play a bigger role than others in determining the cost of the post-employment pension benefits. In some cases, relatively small changes in a particular assumption can have a dramatic impact on the anticipated cost of benefits. Although a thorough analysis of the impact of such changes is beyond the scope of this report, Table I-B illustrates the impact that alternative long-term investment returns would have on the normal cost rate.

Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the 2018/19 plan year. The minimum required contribution rate is 4.64% of covered payroll, which represents a decrease of 1.63% of payroll from the prior valuation.

The normal cost rate is 4.48%, which is 1.58% of payroll less than the normal cost rate that was developed in the prior valuation. Table I-C provides a breakdown of the sources of change in the normal cost rate. Significantly, the rate decreased by 2.32% of payroll due to investment gains and increased by 0.74% of payroll due to demographic experience. The market value of assets earned 7.52% during the 2017/18 plan year, whereas a 7.00% annual investment return was required to maintain a stable contribution rate.



Chapter 112, Florida Statutes, sets forth the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the City must contribute an amount equal to the annual normal cost of the plan plus an adjustment as necessary to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the City's 2018/19 minimum required contribution will be equal to 4.64% multiplied by the total pensionable earnings for the 2018/19 fiscal year for the active employees who are covered by the plan.

Based on the current assets, participant data, and actuarial assumptions and methods that are used to value the plan, the present-day value of the total long-term funding requirement is \$1,746,531. As illustrated in Table I-A, current assets are sufficient to cover \$1,455,839 of this amount, the employer's 2018/19 expected contribution will cover \$23,906 of this amount, and future employee contributions are expected to cover \$53,048 of this amount, leaving \$213,738 to be covered by future employer funding beyond the 2018/19 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

Advance Employer Contribution

The City has made contributions to the plan in excess of the minimum amount that was required to be contributed pursuant to Chapter 112. In this report, the excess contributions are referred to as an "advance employer contribution." As of October 1, 2018, the advance employer contribution is \$151,856, which reflects the advance employer contribution of \$155,172 as of October 1, 2017 minus \$3,316 to cover the shortfall between actual employer contributions and the minimum required contribution for the 2017/18 plan year as shown in Table II-F.

The City may apply all or any portion of the advance employer contribution towards the minimum required contribution for the 2018/19 plan year or for any later plan year. The minimum required contribution for that plan year will be reduced dollar-for-dollar by the amount of the advance employer contribution that is applied in this manner.

Alternatively, at any time, the City may apply all or any portion of the advance employer contribution as an *extra* contribution in excess of the minimum required contribution. In this case, the immediate application of the entire balance of the advance employer contribution as of October 1, 2018 would reduce the minimum required contribution rate for the 2018/19 plan year to 1.67% of payroll.

Contents of the Report

Tables I-D through I-G provide a detailed breakdown of various liability amounts by type of benefit and by participant group. Tables II-A through II-F provide information concerning the assets of the trust fund. Specifically, Table II-A shows the development of the actuarial value of assets, which is based on the market value of assets, adjusted to reflect the advance employer contribution. Tables III-A through III-G provide statistical information concerning the plan's participant population. In particular, Table III-G gives a 10-year projection of the cash that is expected to be required from the trust fund in order to pay benefits to the current group of participants. Finally, Tables IV-A through V-B provide a summary of the actuarial assumptions and methods that are used to value the plan's benefits and of the



relevant plan provisions as of October 1, 2018, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

Certification

This actuarial valuation was prepared by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate and, in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material change in plan costs or required contribution rates have been taken into account in the valuation.

For the firm,



Charles T. Carr
Consulting Actuary
Southern Actuarial Services Company, Inc.

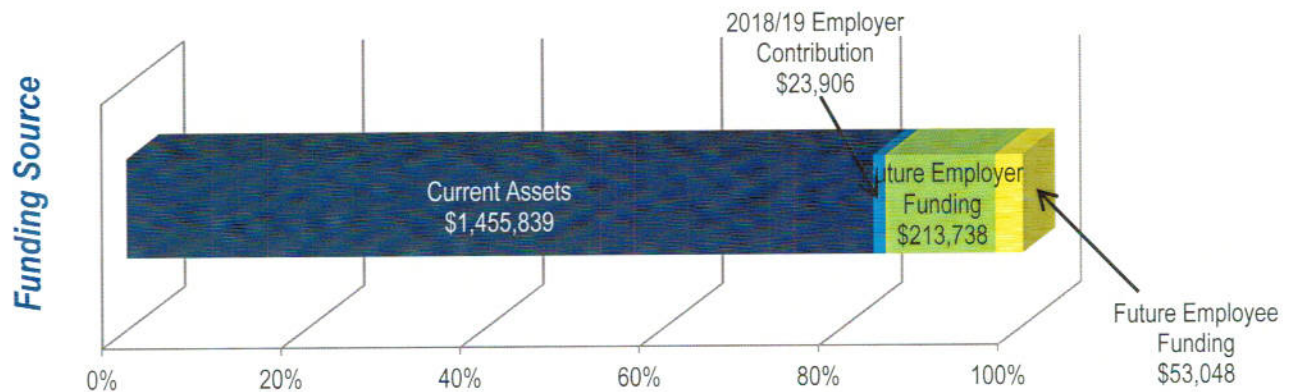
Enrolled Actuary No. 17-04927

The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Minimum Required Contribution

Table I-A



For the 2018/19 Plan Year

Present Value of Future Benefits	\$1,671,322
Present Value of Future Administrative Expenses	\$75,209
Actuarial Value of Assets	(\$1,455,839)
Present Value of Future Employee Contributions	(\$53,048)
Present Value of Future Normal Costs	\$237,644
Present Value of Future Payroll	÷ \$5,304,784
Normal Cost Rate	= 4.4798%
Expected Payroll	x \$515,265
Normal Cost	\$23,083
Adjustment to Reflect Semi-Monthly Employer Contributions	\$823
Preliminary Employer Contribution for the 2018/19 Plan Year	\$23,906
Expected Payroll for the 2018/19 Plan Year	÷ \$515,265

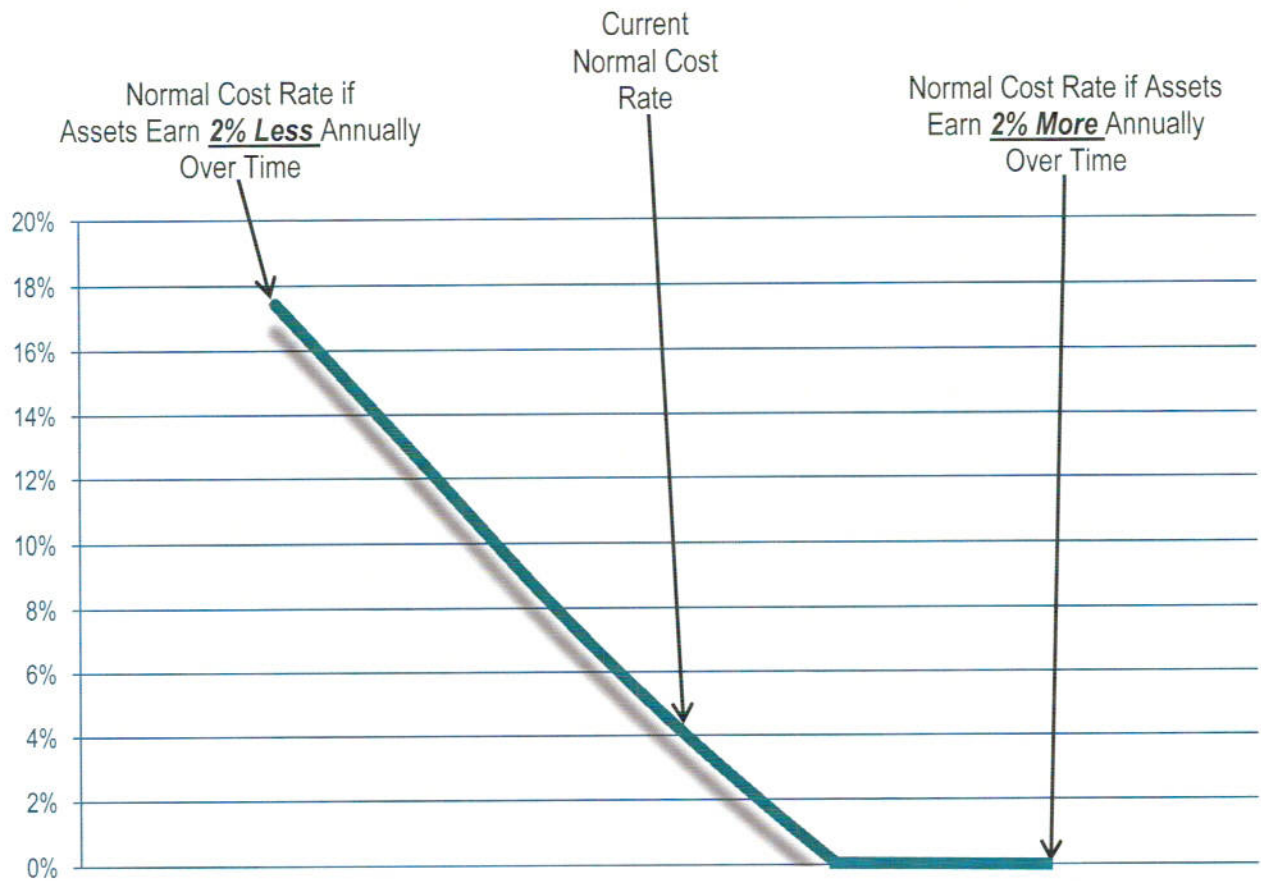
Minimum Required Contribution Rate 4.64%

(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the year.)



Sensitivity Analysis

Table I-B



The line above illustrates the sensitivity of the normal cost rate to changes in the long-term investment return.



Gain and Loss Analysis

Table I-C

Previous normal cost rate	6.06%
Increase (decrease) due to investment gains and losses	-2.32%
Increase (decrease) due to demographic experience	0.74%
Increase (decrease) due to plan amendments	0.00%
Increase (decrease) due to actuarial assumption changes	0.00%
Increase (decrease) due to actuarial method changes	0.00%
Current normal cost rate	<u>4.48%</u>



Present Value of Future Benefits

Table I-D

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<u>Actively Employed Participants</u>			
Retirement benefits	\$1,078,277	\$1,078,277	\$1,078,277
Termination benefits	\$64,690	\$64,690	\$64,690
Disability benefits	\$28,402	\$28,402	\$28,402
Death benefits	\$37,909	\$37,909	\$37,909
Refund of employee contributions	\$505	\$505	\$505
Sub-total	\$1,209,783	\$1,209,783	\$1,209,783
<u>Deferred Vested Participants</u>			
Retirement benefits	\$13,342	\$13,342	\$13,342
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$13,342	\$13,342	\$13,342
<u>Due a Refund of Contributions</u>	\$12,887	\$12,887	\$12,887
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$400,809	\$400,809	\$400,809
Disability retirements	\$13,866	\$13,866	\$13,866
Beneficiaries receiving	\$20,635	\$20,635	\$20,635
DROP participants	\$0	\$0	\$0
Sub-total	\$435,310	\$435,310	\$435,310
<u>Grand Total</u>	<u>\$1,671,322</u>	<u>\$1,671,322</u>	<u>\$1,671,322</u>
Present Value of Future Payroll	\$5,304,784	\$5,304,784	\$5,304,784
Present Value of Future Employee Contribs.	\$53,048	\$53,048	\$53,048
Present Value of Future Employer Contribs.	\$237,644	\$237,644	\$237,644



Present Value of Accrued Benefits

Table I-E

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<u>Actively Employed Participants</u>			
Retirement benefits	\$365,706	\$365,706	\$365,706
Termination benefits	\$34,452	\$34,452	\$34,452
Disability benefits	\$14,395	\$14,395	\$14,395
Death benefits	\$15,959	\$15,959	\$15,959
Refund of employee contributions	\$316	\$316	\$316
Sub-total	\$430,828	\$430,828	\$430,828
<u>Deferred Vested Participants</u>			
Retirement benefits	\$13,342	\$13,342	\$13,342
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$13,342	\$13,342	\$13,342
<u>Due a Refund of Contributions</u>	\$12,887	\$12,887	\$12,887
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$400,809	\$400,809	\$400,809
Disability retirements	\$13,866	\$13,866	\$13,866
Beneficiaries receiving	\$20,635	\$20,635	\$20,635
DROP participants	\$0	\$0	\$0
Sub-total	\$435,310	\$435,310	\$435,310
<u>Grand Total</u>	<u>\$892,367</u>	<u>\$892,367</u>	<u>\$892,367</u>
<u>Funded Percentage</u>	180.16%	180.16%	180.16%

(Note: Funded percentage is equal to the ratio of the usable portion of the market value of assets divided by the present value of accrued benefits.)



Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$365,706	\$365,706	\$365,706
Termination benefits	\$33,367	\$33,367	\$33,367
Disability benefits	\$14,395	\$14,395	\$14,395
Death benefits	\$15,995	\$15,995	\$15,995
Refund of employee contributions	\$945	\$945	\$945
Sub-total	\$430,408	\$430,408	\$430,408
<u>Deferred Vested Participants</u>			
Retirement benefits	\$13,342	\$13,342	\$13,342
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$13,342	\$13,342	\$13,342
<u>Due a Refund of Contributions</u>	\$12,887	\$12,887	\$12,887
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$400,809	\$400,809	\$400,809
Disability retirements	\$13,866	\$13,866	\$13,866
Beneficiaries receiving	\$20,635	\$20,635	\$20,635
DROP participants	\$0	\$0	\$0
Sub-total	\$435,310	\$435,310	\$435,310
<u>Grand Total</u>	<u>\$891,947</u>	<u>\$891,947</u>	<u>\$891,947</u>



Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<u>Actively Employed Participants</u>			
Retirement benefits	\$646,811	\$646,811	\$646,811
Termination benefits	\$42,533	\$42,533	\$42,533
Disability benefits	\$19,122	\$19,122	\$19,122
Death benefits	\$23,981	\$23,981	\$23,981
Refund of employee contributions	\$325	\$325	\$325
Sub-total	\$732,772	\$732,772	\$732,772
<u>Deferred Vested Participants</u>			
Retirement benefits	\$13,342	\$13,342	\$13,342
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$13,342	\$13,342	\$13,342
<u>Due a Refund of Contributions</u>	\$12,887	\$12,887	\$12,887
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$400,809	\$400,809	\$400,809
Disability retirements	\$13,866	\$13,866	\$13,866
Beneficiaries receiving	\$20,635	\$20,635	\$20,635
DROP participants	\$0	\$0	\$0
Sub-total	\$435,310	\$435,310	\$435,310
<u>Grand Total</u>	<u>\$1,194,311</u>	<u>\$1,194,311</u>	<u>\$1,194,311</u>



Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2018	\$1,607,695
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Minus advance employer contributions	(\$151,856)
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Actuarial Value of Assets as of October 1, 2018	<u>\$1,455,839</u>
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Historical Actuarial Value of Assets

October 1, 2009	\$951,934
October 1, 2010	\$1,044,732
October 1, 2011	\$986,391
October 1, 2012	\$1,106,835
October 1, 2013	\$1,250,105
October 1, 2014	\$1,284,071
October 1, 2015	\$1,235,125
October 1, 2016	\$1,203,578
October 1, 2017	\$1,368,693
October 1, 2018	\$1,455,839

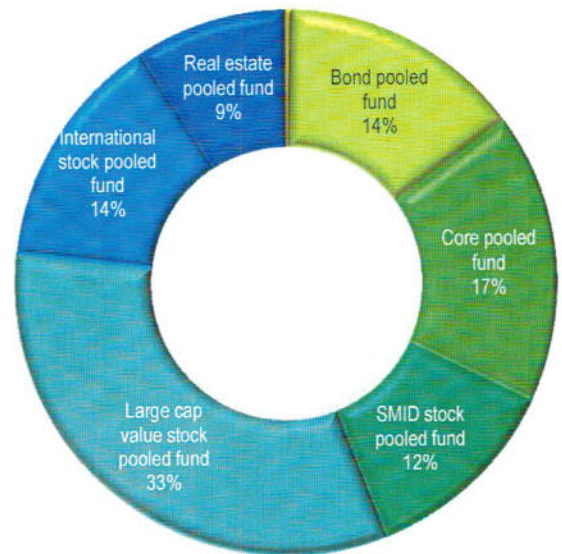


Market Value of Assets

Table II-B

As of October 1, 2018

Market Value of Assets	<u>\$1,607,695</u>
Cash	\$6,425
Bond pooled fund	\$232,926
Core pooled fund	\$276,298
SMID stock pooled fund	\$192,766
Large cap value stock pooled fund	\$525,288
International stock pooled fund	\$228,107
Real estate pooled fund	\$144,575
Employer contribution receivable	\$1,123
Employee contribution receivable	\$187

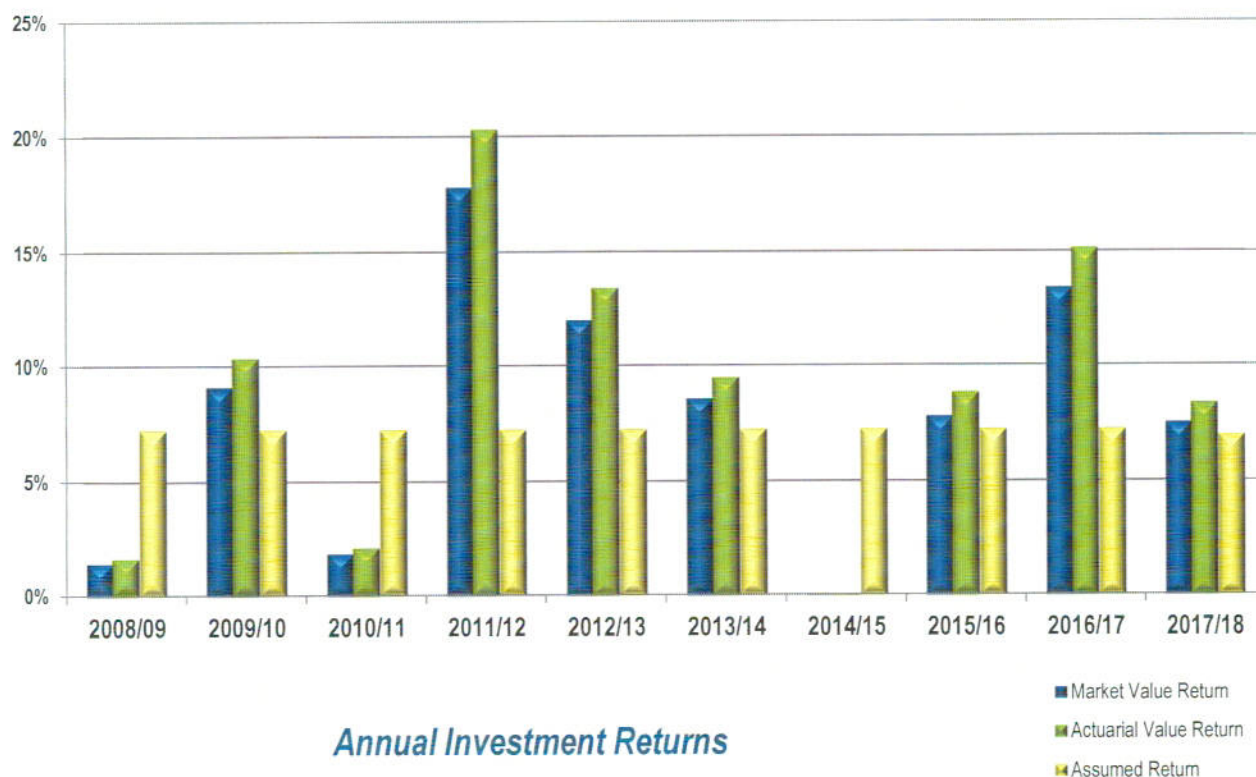
**Historical Market Value of Assets**

October 1, 2009	\$1,085,194
October 1, 2010	\$1,178,546
October 1, 2011	\$1,119,463
October 1, 2012	\$1,239,176
October 1, 2013	\$1,381,206
October 1, 2014	\$1,414,070
October 1, 2015	\$1,389,126
October 1, 2016	\$1,363,565
October 1, 2017	\$1,523,865
October 1, 2018	\$1,607,695



Investment Return

Table II-C



Plan	Market Value	Actuarial Value	Assumed
Year	Return	Return	Return
2008/09	1.45%	1.65%	7.25%
2009/10	9.08%	10.36%	7.25%
2010/11	1.87%	2.11%	7.25%
2011/12	17.81%	20.30%	7.25%
2012/13	12.00%	13.43%	7.25%
2013/14	8.57%	9.49%	7.25%
2014/15	0.06%	0.07%	7.25%
2015/16	7.80%	8.85%	7.25%
2016/17	13.40%	15.16%	7.25%
2017/18	7.52%	8.37%	7.00%
10yr. Avg.	7.82%	8.81%	7.22%



Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
As of October 1, 2017	\$1,523,865	\$1,368,693
<i>Increases Due To:</i>		
Employer Contributions	\$30,801	\$30,801
Employee Contributions	\$5,133	\$5,133
Service Purchase Contributions	\$0	\$0
Total Contributions	<u>\$35,934</u>	<u>\$35,934</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	\$113,453	
Total Investment Income	<u>\$113,453</u>	\$113,453
Other Income	\$0	
Total Income	<u>\$149,387</u>	<u>\$149,387</u>
<i>Decreases Due To:</i>		
Monthly Benefit Payments	(\$54,472)	(\$54,472)
Refund of Employee Contributions	\$0	\$0
Total Benefit Payments	<u>(\$54,472)</u>	<u>(\$54,472)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$11,085)	(\$11,085)
Advance Employer Contribution		\$3,316
Total Expenses	<u>(\$65,557)</u>	<u>(\$62,241)</u>
As of October 1, 2018	<u><u>\$1,607,695</u></u>	<u><u>\$1,455,839</u></u>



Historical Trust Fund Detail

Table II-E

Income

Plan	Employer	Employee	Service	Interest /	Realized	Unrealized	Other
<u>Year</u>	<u>Contribs.</u>	<u>Contribs.</u>	<u>Purchase</u>	<u>Dividends</u>	<u>Gains /</u>	<u>Gains /</u>	<u>Income</u>
			<u>Contribs.</u>		<u>Losses</u>	<u>Losses</u>	
2008/09	\$27,221	\$4,537	\$0	\$0	\$0	\$15,761	\$0
2009/10	\$31,635	\$5,273	\$0	\$0	\$0	\$98,326	\$0
2010/11	\$34,140	\$5,690	\$0	\$0	\$0	\$21,249	\$0
2011/12	\$33,742	\$5,624	\$0	\$0	\$0	\$192,891	\$0
2012/13	\$33,793	\$5,632	\$0	\$0	\$0	\$148,295	\$0
2013/14	\$30,010	\$5,002	\$0	\$0	\$0	\$114,850	\$0
2014/15	\$32,578	\$5,394	\$0	\$0	\$0	\$827	\$0
2015/16	\$33,151	\$5,521	\$0	\$0	\$0	\$103,295	\$0
2016/17	\$35,973	\$5,981	\$0	\$0	\$0	\$181,290	\$0
2017/18	\$30,801	\$5,133	\$0	\$0	\$0	\$113,453	\$0

Expenses

Plan	Monthly	Contrib.	Admin.	Invest.	Other Actuarial Adjustments
<u>Year</u>	<u>Benefit</u>	<u>Refunds</u>	<u>Expenses</u>	<u>Expenses</u>	<u>Advance</u>
	<u>Payments</u>				<u>Employer</u>
					<u>Contribs.</u>
2008/09	\$37,499	\$26,324	\$9,812	\$0	-\$2,500
2009/10	\$37,499	\$786	\$3,597	\$0	\$554
2010/11	\$32,979	\$78,051	\$9,132	\$0	-\$742
2011/12	\$32,979	\$74,647	\$4,918	\$0	-\$731
2012/13	\$32,979	\$3,291	\$9,420	\$0	-\$1,240
2013/14	\$108,058	\$4,020	\$4,920	\$0	-\$1,102
2014/15	\$51,462	\$1,434	\$10,847	\$0	\$24,002
2015/16	\$156,316	\$397	\$10,815	\$0	\$5,986
2016/17	\$51,462	\$1,577	\$9,905	\$0	-\$4,815
2017/18	\$54,472	\$0	\$11,085	\$0	-\$3,316

Note: Information was not available to separate the investment expenses from the investment income nor was information available to separate the investment income by source.



Other Reconciliations

Table II-F

Advance Employer Contribution

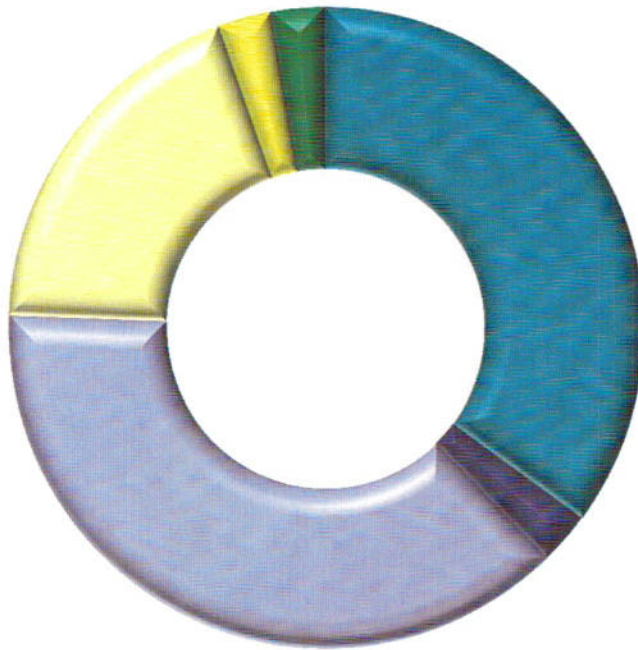
Advance Employer Contribution as of October 1, 2017	\$155,172
Additional Employer Contribution	\$30,801
Minimum Required Contribution	(\$34,117)
Net Increase in Advance Employer Contribution	(\$3,316)
Advance Employer Contribution as of October 1, 2018	<u>\$151,856</u>



Summary of Participant Data

Table III-A

As of October 1, 2018

Actively Employed Participants

Active Participants	13
DROP Participants	0

Inactive Participants

Deferred Vested Participants	1
Due a Refund of Contributions	14
Deferred Beneficiaries	0

Participants Receiving a Benefit

Service Retirements	7
Disability Retirements	1
Beneficiaries Receiving	1

Total Participants 37Number of Participants Included in Prior Valuations

	Active	DROP	Inactive	Retired	Total
October 1, 2009	N/A	N/A	N/A	N/A	N/A
October 1, 2010	19	0	10	5	34
October 1, 2011	N/A	N/A	N/A	N/A	N/A
October 1, 2012	19	0	7	5	31
October 1, 2013	N/A	N/A	N/A	N/A	N/A
October 1, 2014	18	0	7	7	32
October 1, 2015	15	0	10	7	32
October 1, 2016	20	0	9	7	36
October 1, 2017	16	0	12	8	36
October 1, 2018	13	0	15	9	37



Data Reconciliation

Table III-B

	<u>Active</u>	<u>DROP</u>	<u>Deferred Vested</u>	<u>Due a Refund</u>	<u>Def. Benef.</u>	<u>Service Retiree</u>	<u>Disabled Retiree</u>	<u>Benef. Rec'v.</u>	<u>Total</u>
<u>October 1, 2017</u>	16	0	1	11	0	6	1	1	36
<u>Change in Status</u>									
Re-employed									
Terminated	(4)		1	3					
Retired			(1)			1			
<u>Participation Ended</u>									
Transferred Out									
Cashed Out									
Died									
<u>Participation Began</u>									
Newly Hired	1								1
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2018</u>	13	0	1	14	0	7	1	1	37

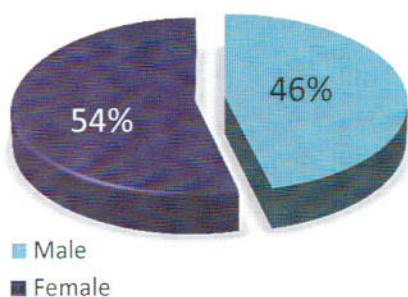


Active Participant Data

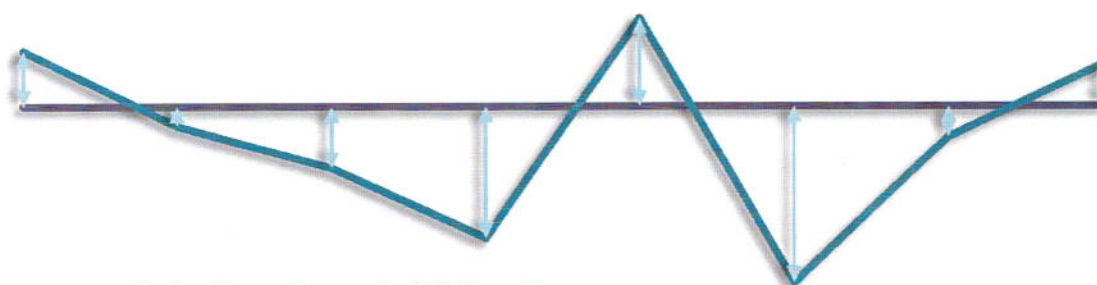
Table III-C

As of October 1, 2018

Gender Mix



Average Age	47.2 years
Average Service	11.7 years
Total Annualized Compensation for the Prior Year	\$494,798
Total Expected Compensation for the Current Year	\$515,265
Average Increase in Compensation for the Prior Year	7.25%
Expected Increase in Compensation for the Current Year	5.50%



Actual vs. Expected Salary Increases

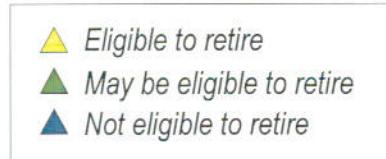
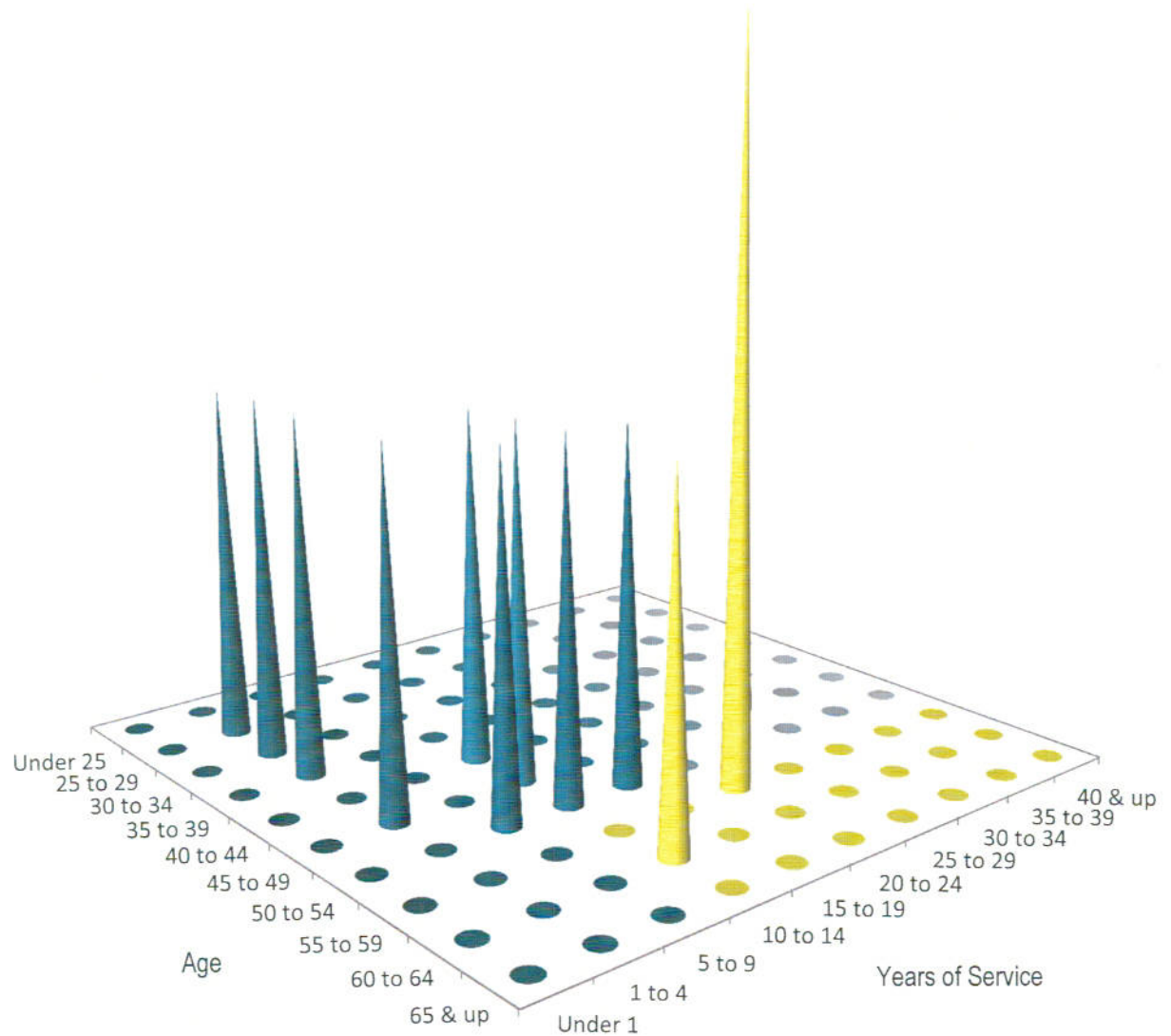
Active Participant Statistics From Prior Valuations

	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2009	N/A	N/A	N/A	5.50%	4.18%
October 1, 2010	48.4	8.6	\$25,903	5.50%	2.15%
October 1, 2011	N/A	N/A	N/A	5.50%	7.83%
October 1, 2012	46.1	9.4	\$28,588	5.50%	4.67%
October 1, 2013	N/A	N/A	N/A	5.50%	2.91%
October 1, 2014	47.6	7.4	\$25,763	5.50%	0.02%
October 1, 2015	46.7	9.1	\$31,195	5.50%	9.21%
October 1, 2016	44.8	7.9	\$26,615	5.50%	-1.82%
October 1, 2017	46.3	9.8	\$33,547	5.50%	4.21%
October 1, 2018	47.2	11.7	\$38,061	5.50%	7.25%



Active Age-Service Distribution

Table III-D



Active Age-Service-Salary Table

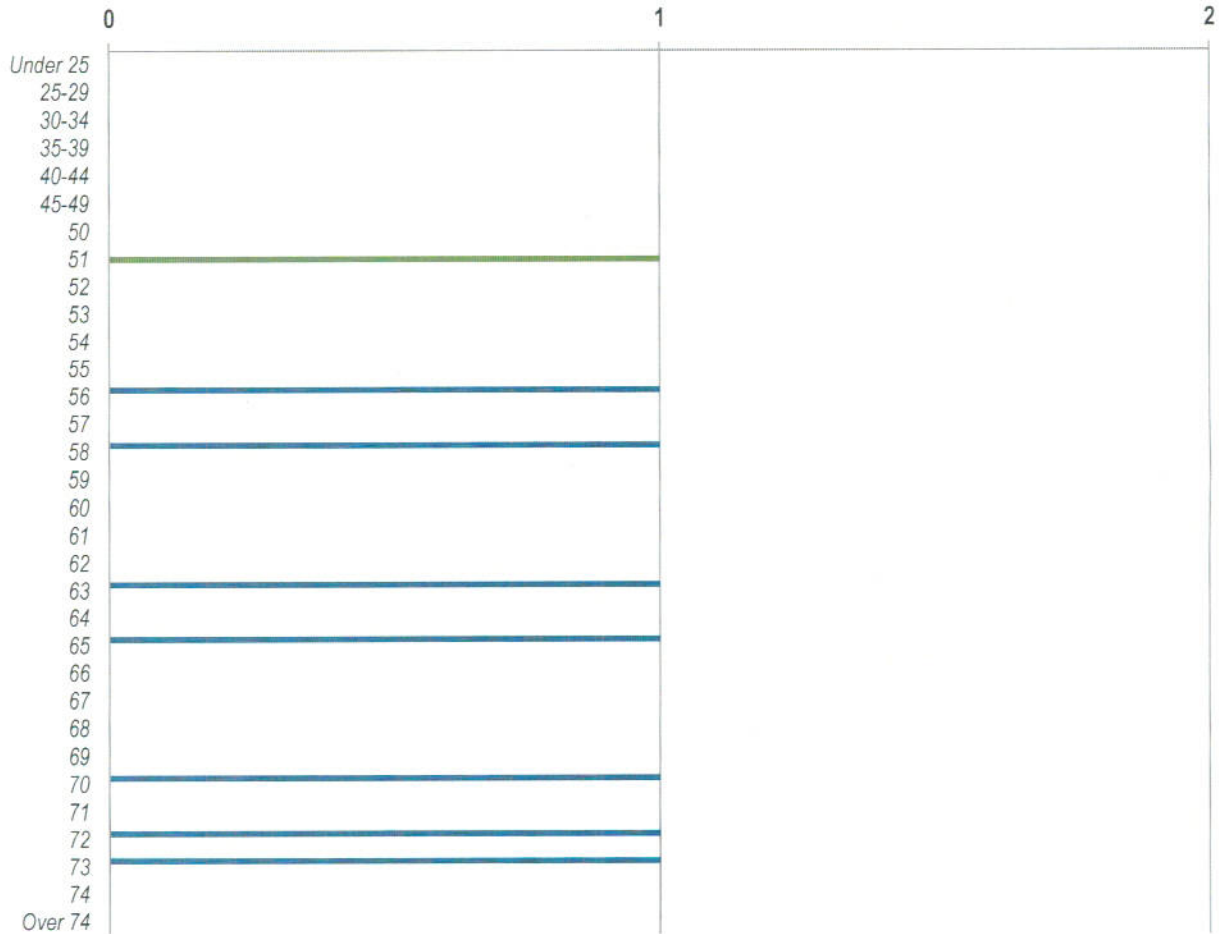
Table III-E

Attained Age	Completed Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	1	0	0	0	0	0	0	0	0	1
Avg. Pay	0	4,060	0	0	0	0	0	0	0	0	4,060
30 to 34	0	1	0	0	0	0	0	0	0	0	1
Avg. Pay	0	52,644	0	0	0	0	0	0	0	0	52,644
35 to 39	0	1	0	0	0	0	0	0	0	0	1
Avg. Pay	0	23,793	0	0	0	0	0	0	0	0	23,793
40 to 44	0	0	0	1	0	0	0	0	0	0	1
Avg. Pay	0	0	0	35,945	0	0	0	0	0	0	35,945
45 to 49	0	1	0	1	0	0	0	1	0	0	3
Avg. Pay	0	32,422	0	61,110	0	0	0	49,959	0	0	47,830
50 to 54	0	0	1	1	1	0	0	0	0	0	3
Avg. Pay	0	0	35,531	59,119	29,513	0	0	0	0	0	41,388
55 to 59	0	0	0	0	0	2	0	0	0	0	2
Avg. Pay	0	0	0	0	0	29,191	0	0	0	0	29,191
60 to 64	0	0	0	1	0	0	0	0	0	0	1
Avg. Pay	0	0	0	52,321	0	0	0	0	0	0	52,321
65 & up	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	1	4	1	2	0	1	0	0	13
Avg. Pay	0	28,230	35,531	52,124	29,513	29,191	0	49,959	0	0	38,061



Inactive Participant Data

Table III-F

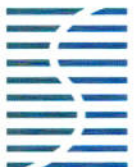


Age at Retirement

- Service Retirements
- Disability Retirements
- DROP Participants

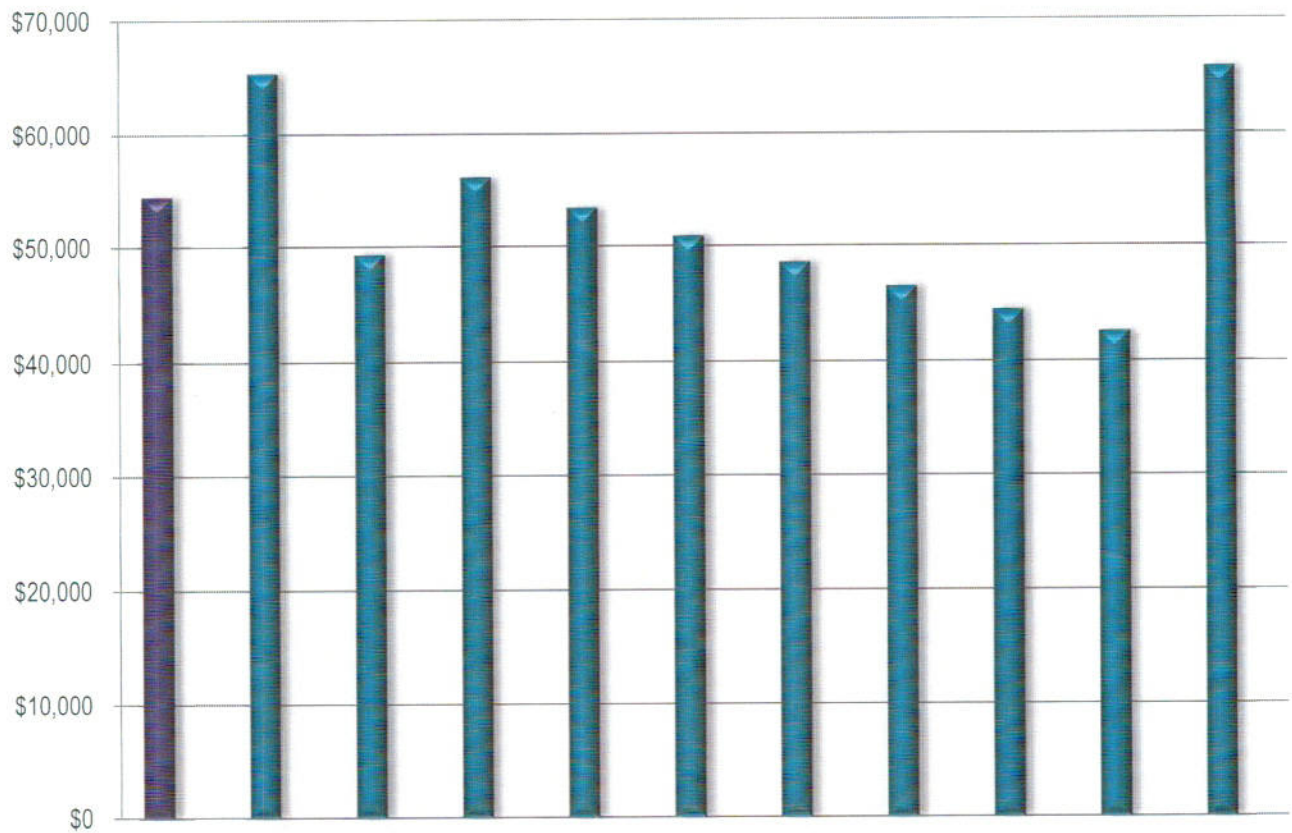
Average Monthly Benefit

Service Retirements	\$596.45
Disability Retirements	\$91.64
Beneficiaries Receiving	\$376.68
DROP Participants	Not applicable
Deferred Vested Participants	\$253.13
Deferred Beneficiaries	Not applicable



Projected Benefit Payments

Table III-G

Actual

For the period October 1, 2017 through September 30, 2018

\$54,472

Projected

For the period October 1, 2018 through September 30, 2019

\$65,346

For the period October 1, 2019 through September 30, 2020

\$49,349

For the period October 1, 2020 through September 30, 2021

\$56,167

For the period October 1, 2021 through September 30, 2022

\$53,409

For the period October 1, 2022 through September 30, 2023

\$50,894

For the period October 1, 2023 through September 30, 2024

\$48,604

For the period October 1, 2024 through September 30, 2025

\$46,499

For the period October 1, 2025 through September 30, 2026

\$44,506

For the period October 1, 2026 through September 30, 2027

\$42,624

For the period October 1, 2027 through September 30, 2028

\$65,802



Summary of Actuarial Methods and Assumptions

Table IV-A

NOTE: The following assumptions and methods have been selected and approved by the Board of Trustees based in part on the advice of the plan's enrolled actuary in accordance with the authority granted to the Board under the pension ordinances and State law.

1. **Actuarial Cost Method**

Aggregate cost method. Under this actuarial cost method, a funding cost is developed for the plan as a level percentage of payroll. The level funding percentage is calculated as the excess of the total future benefit liability over accumulated assets and future employee contributions, with this excess spread over the expected future payroll for current active participants. The normal cost is equal to the level funding percentage multiplied by the expected payroll for the year immediately following the valuation date. The actuarial accrued liability is equal to the accumulated assets. Therefore, under the aggregate cost method, no unfunded accrued liability is developed.

2. **Asset Method**

The actuarial value of assets is equal to the market value of assets.

3. **Interest (or Discount) Rate**

7.00% per annum

4. **Salary Increases**

Plan compensation is assumed to increase at the rate of 5.50% per annum, unless actual plan compensation is known for a prior plan year. In addition, average monthly earnings have been loaded by 2.50% to account for accumulated sick leave and vacation payments upon termination of employment.

5. **Decrements**

- Pre-retirement mortality: Sex-distinct rates set forth in the RP-2000 Combined Mortality Table, with full generational improvements in mortality using Scale BB
- Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Combined Mortality Table, with full generational improvements in mortality using Scale BB
- Disability: Age-based rates of disability were assumed, ranging from 0.03% at age 20 to 0.80% at age 60; no disabilities are assumed to be service-related.



Summary of Actuarial Methods and Assumptions

Table IV-A

(continued)

- Termination: With respect to participants with less than seven years of service, the termination rates are service-based, ranging from 8.70% for participants with less than one year of service to 6.00% for participants with between six and seven years of service; with respect to participants with at least seven years of service, the termination rates are age-based, ranging from 5.40% at age 20 to 0.00% at age 60.
- Retirement: 20% of eligible participants are assumed to retire at age 62, 10% of eligible participants are assumed to retire at each of ages 63 and 64, and 100% of eligible participants are assumed to retire at age 65.

6. Form of Payment

Future retirees have been assumed to select the single life annuity.

7. Expenses

The total projected benefit liability has been loaded by 4.50% to account for anticipated administrative expenses. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.



Changes in Actuarial Methods and Assumptions

Table IV-B

No assumptions or methods were changed since the completion of the previous valuation.

The following additional assumption and method changes were made during the past 10 years:

- (1) Effective October 1, 2017, the interest (or discount) rate was decreased from 7.25% per annum to 7.00% per annum.*
- (2) Effective October 1, 2016, the mortality basis was changed from a 2007 projection of the RP-2000 Mortality Table for annuitants to a full generational projection using Scale BB of the RP-2000 Combined Mortality Table as required by State law.*
- (3) Effective October 1, 2010, the administrative expense assumption was changed from a flat \$5,000 per year to a 4.50% loading of the total projected benefit liability.*
- (4) Effective October 1, 2008, the pre-retirement mortality assumption was changed from the 1983 Group Annuity Mortality Table, set back five years for females, to the RP-2000 Mortality Table for non-annuitants.*
- (5) Effective October 1, 2008, the post-retirement healthy mortality assumption was changed from the 1983 Group Annuity Mortality Table, set back five years for females, to the RP-2000 Mortality Table for annuitants.*
- (6) Effective October 1, 2008, the post-retirement disabled mortality assumption was changed from the 1983 Group Annuity Mortality Table, set forward five years for males, to the RP-2000 Mortality Table for annuitants.*
- (7) Effective October 1, 2008, the interest (or discount) rate was decreased from 7.50% per annum to 7.25% per annum.*



Summary of Plan Provisions

Table V-A

1. Monthly Accrued Benefit

1.50% of Final Monthly Compensation multiplied by Credited Service

2. Normal Retirement Age and Benefit

- **Age**
Age 65 with at least 10 years of Vested Service
- **Amount**
Monthly Accrued Benefit
- **Form of Payment**
Single life annuity (normal form of payment);
Actuarially reduced certain and life annuity (optional);
Actuarially reduced joint and contingent annuity with 50% to 100% of the benefit payable to the participant's spouse for life after the participant's death (optional);
Actuarially equivalent series of fixed monthly installments (optional); or
Actuarially equivalent lump sum distribution (automatic if the single sum value of the participant's benefit is less than or equal to \$3,500)

3. Early Retirement Age and Benefit

- **Age**
Age 55 with at least 10 years of Vested Service
- **Amount**
Monthly Accrued Benefit (payable at Normal Retirement Age); or
Actuarial Equivalent of the Monthly Accrued Benefit (payable at Early Retirement Age)
- **Form of Payment**
Same as for Normal Retirement

4. Delayed Retirement Age and Benefit

- **Age**
After Normal Retirement Age
- **Amount**
Monthly Accrued Benefit
- **Form of Payment**
Same as for Normal Retirement



Summary of Plan Provisions

Table V-A

(continued)

5. Disability Eligibility and Benefit

- **Eligibility**

All participants are eligible.

- **Condition**

A licensed physician selected by the Trustees must find that the participant is wholly prevented from engaging in any occupation for wage or profit and that he is likely to remain so disabled on a continuous and permanent basis.

- **Amount Payable**

A monthly single life annuity equal to the Actuarial Equivalent of the Monthly Accrued Benefit which would otherwise be payable at Normal Retirement Age

6. Deferred Vested Benefit

- **Age**

Any age with at least five years of Vested Service

- **Amount**

Monthly Accrued Benefit multiplied by the Vested Percentage (payable at Normal Retirement Age); or Actuarial Equivalent of the Monthly Accrued Benefit multiplied by the Vested Percentage (payable at Early Retirement Age)

- **Form of Payment**

Same as for Normal Retirement

7. Pre-Retirement Death Benefit

In the case of the death of a participant prior to retirement, his beneficiary will receive the participant's Monthly Accrued Benefit reduced actuarially as if the participant had elected to retire on his date of death. This benefit is payable as a five-year certain monthly annuity beginning as of the first day of the month following the participant's date of death. In lieu of receiving the five-year certain annuity, the beneficiary may elect to receive an actuarially equivalent single lump sum payment.

8. Final Monthly Compensation

Average of the highest five consecutive plan years of Compensation out of the last 10 plan years of employment



Summary of Plan Provisions

Table V-A

(continued)

9. Compensation

Compensation includes regular earnings and overtime payments, but excludes bonuses, commissions, expense allowances, and all other extraordinary compensation; annual compensation in excess of \$200,000 (as indexed) is excluded in accordance with Internal Revenue Code (IRC) §401(a)(17).

10. Credited Service

Years and completed months of employment, to a maximum of 30 years

11. Vested Service

Plan years during which the participant earns at least 1,000 hours of service

12. Vested Percentage

50% for participants who have earned at least five years of vested service; 60% for participants who have earned at least six years of vested service; 70% for participants who have earned at least seven years of vested service; 80% for participants who have earned at least eight years of vested service; 90% for participants who have earned at least nine years of vested service; or 100% for participants who have earned at least 10 years of vested service

13. Participation Requirement

All employees of the City of Frostproof, Florida, automatically become a participant in the plan on the one-year anniversary of their date of hire, other than firefighters, police officers, and those employees who work less than 20 hours per week or less than five hours per day.

14. Accumulated Contributions

The Employee Contributions accumulated with interest at the rate of 5% per annum; if the participant terminates his employment with less than 10 years of Credited Service, he receives his Accumulated Contributions in lieu of any other benefits payable from the plan.

15. Participant Contribution

1.00% of earnings



Summary of Plan Provisions

Table V-A

(continued)

16. Definition of Actuarially Equivalent

- **Interest Rate**
8.00% per annum
- **Mortality Table (Applied Only After Retirement Age)**
1984 Uninsured Pensioner (UP-84) Mortality Table

17. Plan Effective Date

October 1, 1985



Summary of Plan Amendments

Table V-B

No significant plan changes were adopted since the completion of the previous valuation.

The following additional plan amendments were adopted during the past 10 years and were reflected in prior valuation reports:

- (1) *Effective January 8, 2018, a graded vesting schedule was added for those participants who have earned between five and 10 years of vested service. (Ordinance 2017-14)*

