

RETIREMENT PLAN FOR THE FIREFIGHTERS  
OF THE CITY OF OLDSMAR

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2018

DETERMINES THE CONTRIBUTION  
FOR THE 2018/19 FISCAL YEAR



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February 27, 2019

## Introduction

This report presents the results of the October 1, 2018 actuarial valuation for the Retirement Plan for the Firefighters of the City of Oldsmar. 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 V-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 37.04% of covered payroll, which represents an increase of 2.35% of payroll from the prior valuation.

The normal cost rate is 35.71%, which is 2.26% of payroll greater 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 increased by 0.85% of payroll due to investment losses and increased by another 1.41% of payroll due to demographic experience. The market value of assets earned 5.81% 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 37.04% multiplied by the total pensionable earnings for the 2018/19 plan year for the active employees who are covered by the plan and reduced by the portion of the Chapter 175/185 contribution that is allowed to be recognized during the 2018/19 plan year.

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 \$7,688,682. As illustrated in Table I-A, current assets are sufficient to cover \$5,731,241 of this amount, the employer's 2018/19 expected contribution will cover \$243,072 of this amount, and future employee contributions are expected to cover \$240,418 of this amount, leaving \$1,473,951 to be covered by future employer funding beyond the 2018/19 plan year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

### 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 equal to the market value of assets adjusted to reflect any advance employer contributions and excess Chapter 175/185 contributions. 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, Jr.*

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

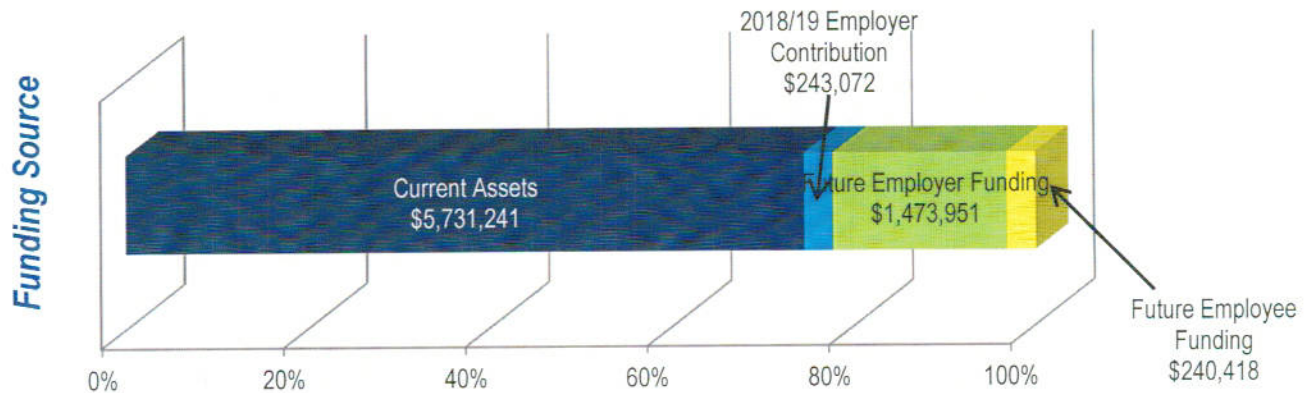
Enrolled Actuary No. 17-04927

*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	\$7,482,902
Present Value of Future Administrative Expenses	\$205,780
Actuarial Value of Assets	(\$5,731,241)
Present Value of Future Employee Contributions	(\$240,418)
Present Value of Future Normal Costs	\$1,717,023
Present Value of Future Payroll	÷ \$4,808,371
Normal Cost Rate	= 35.709%
Expected Payroll	x \$656,329
Normal Cost	\$234,369
Adjustment to Reflect Monthly Employer Contributions	\$8,703
Preliminary Employer Contribution for the 2018/19 Plan Year	\$243,072
Expected Payroll for the 2018/19 Plan Year	÷ \$656,329

**Minimum Required Contribution Rate** 37.04%

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



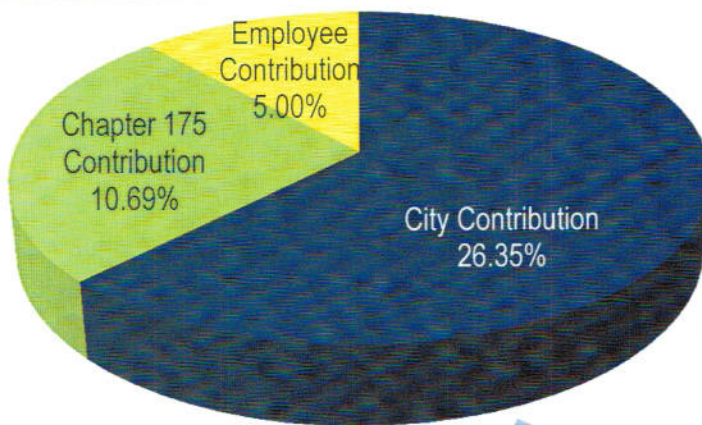


## Minimum Required Contribution

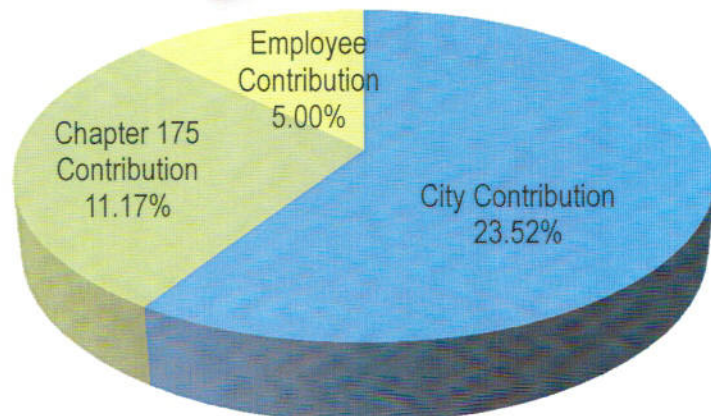
Table I-A  
(continued)

The minimum required contribution rate of 37.04% includes both the City contribution and the allowable Chapter 175 contribution. In addition, employees are required to contribute 5.00% of pensionable earnings. The actual City contribution rate is expected to be approximately 26.35% based on the allowable Chapter 175 contribution for the previous year. The chart below shows the expected contribution rate by source for the 2018/19 plan year based on the expected payroll. A comparative chart shows the contribution rate by source for the previous plan year.

### For the 2018/19 Plan Year

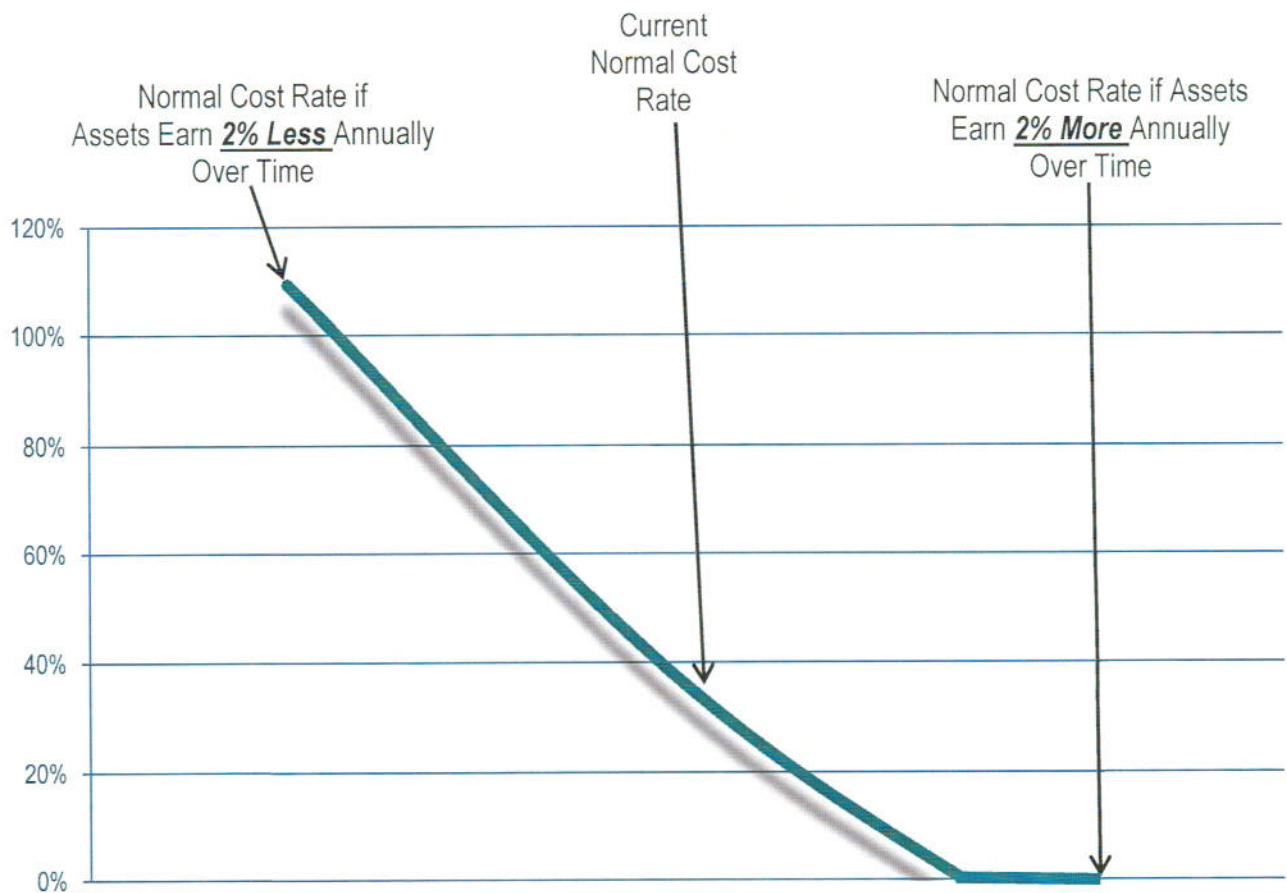


### For the 2017/18 Plan Year



## 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	33.45%
Increase (decrease) due to investment gains and losses	0.85%
Increase (decrease) due to demographic experience	1.41%
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>35.71%</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	\$6,161,923	\$6,161,923	\$6,161,923
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$6,161,923</b>	<b>\$6,161,923</b>	<b>\$6,161,923</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$168,422	\$168,422	\$168,422
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$168,422</b>	<b>\$168,422</b>	<b>\$168,422</b>
<u>Due a Refund of Contributions</u>	<b>\$14,091</b>	<b>\$14,091</b>	<b>\$14,091</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$0	\$0	\$0
Disability retirements	\$897,573	\$897,573	\$897,573
Beneficiaries receiving	\$240,893	\$240,893	\$240,893
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$1,138,466</b>	<b>\$1,138,466</b>	<b>\$1,138,466</b>
<u>Grand Total</u>	<b><u>\$7,482,902</u></b>	<b><u>\$7,482,902</u></b>	<b><u>\$7,482,902</u></b>
Present Value of Future Payroll	\$4,808,371	\$4,808,371	\$4,808,371
Present Value of Future Employee Contribs.	\$240,418	\$240,418	\$240,418
Present Value of Future Employer Contribs.	\$1,717,023	\$1,717,023	\$1,717,023





## 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	\$2,947,024	\$2,947,024	\$2,947,024
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$2,947,024</b>	<b>\$2,947,024</b>	<b>\$2,947,024</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$168,422	\$168,422	\$168,422
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$168,422</b>	<b>\$168,422</b>	<b>\$168,422</b>
<u>Due a Refund of Contributions</u>	<b>\$14,091</b>	<b>\$14,091</b>	<b>\$14,091</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$0	\$0	\$0
Disability retirements	\$897,573	\$897,573	\$897,573
Beneficiaries receiving	\$240,893	\$240,893	\$240,893
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$1,138,466</b>	<b>\$1,138,466</b>	<b>\$1,138,466</b>
<u>Grand Total</u>	<b><u>\$4,268,003</u></b>	<b><u>\$4,268,003</u></b>	<b><u>\$4,268,003</u></b>
<u>Funded Percentage</u>	134.28%	134.28%	134.28%

(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	\$2,863,767	\$2,863,767	\$2,863,767
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$2,863,767</b>	<b>\$2,863,767</b>	<b>\$2,863,767</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$168,422	\$168,422	\$168,422
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$168,422</b>	<b>\$168,422</b>	<b>\$168,422</b>
<u>Due a Refund of Contributions</u>	<b>\$14,091</b>	<b>\$14,091</b>	<b>\$14,091</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$0	\$0	\$0
Disability retirements	\$897,573	\$897,573	\$897,573
Beneficiaries receiving	\$240,893	\$240,893	\$240,893
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$1,138,466</b>	<b>\$1,138,466</b>	<b>\$1,138,466</b>
<u>Grand Total</u>	<b><u>\$4,184,746</u></b>	<b><u>\$4,184,746</u></b>	<b><u>\$4,184,746</u></b>





## 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	\$4,404,058	\$4,404,058	\$4,404,058
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$4,404,058</b>	<b>\$4,404,058</b>	<b>\$4,404,058</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$168,422	\$168,422	\$168,422
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$168,422</b>	<b>\$168,422</b>	<b>\$168,422</b>
<u>Due a Refund of Contributions</u>	<b>\$14,091</b>	<b>\$14,091</b>	<b>\$14,091</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$0	\$0	\$0
Disability retirements	\$897,573	\$897,573	\$897,573
Beneficiaries receiving	\$240,893	\$240,893	\$240,893
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$1,138,466</b>	<b>\$1,138,466</b>	<b>\$1,138,466</b>
<u>Grand Total</u>	<b><u>\$5,725,037</u></b>	<b><u>\$5,725,037</u></b>	<b><u>\$5,725,037</u></b>



Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2018	\$5,859,921
Minus advance employer contributions	\$0
Minus excess Chapter 175/185 contributions	(\$128,680)
<b>Actuarial Value of Assets as of October 1, 2018</b>	<b><u>\$5,731,241</u></b>



<u>Historical Actuarial Value of Assets</u>	
October 1, 2009	\$1,252,175
October 1, 2010	\$1,706,045
October 1, 2011	\$1,987,344
October 1, 2012	\$2,714,391
October 1, 2013	\$3,360,995
October 1, 2014	\$3,880,449
October 1, 2015	\$3,965,362
October 1, 2016	\$4,434,842
October 1, 2017	\$5,244,531
October 1, 2018	\$5,731,241



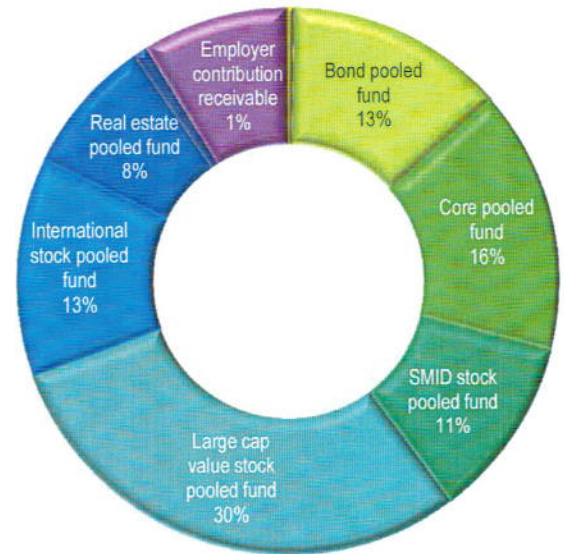


## Market Value of Assets

Table II-B

As of October 1, 2018

<b>Market Value of Assets</b>	<b><u>\$5,859,921</u></b>
Cash	\$25,622
Bond pooled fund	\$928,799
Core pooled fund	\$1,101,748
SMID stock pooled fund	\$768,661
Large cap value stock pooled fund	\$2,094,602
International stock pooled fund	\$909,582
Real estate pooled fund	\$576,496
Employer contribution receivable	\$61,713
Employee contribution receivable	\$2,433
Payable to the share plan	(\$609,735)

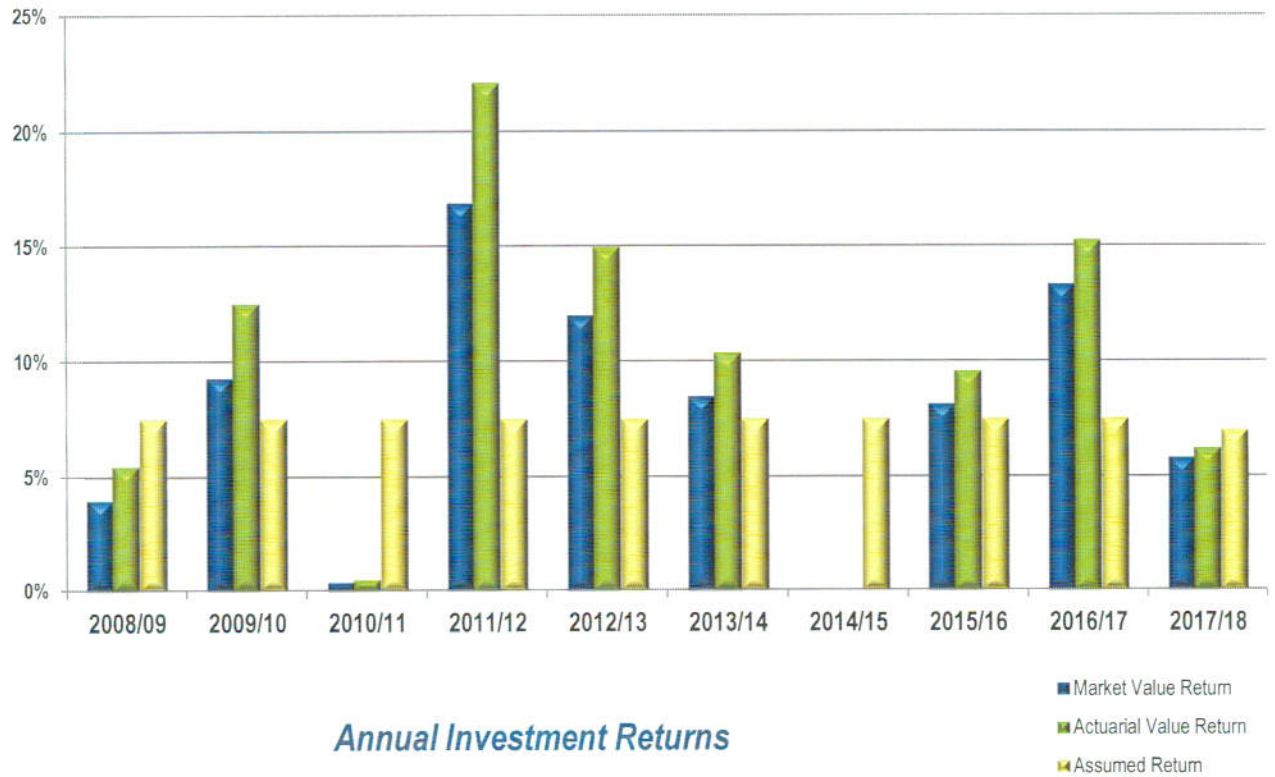
Historical Market Value of Assets

October 1, 2009	\$1,692,152
October 1, 2010	\$2,231,621
October 1, 2011	\$2,628,391
October 1, 2012	\$3,379,771
October 1, 2013	\$4,118,968
October 1, 2014	\$4,635,902
October 1, 2015	\$4,689,517
October 1, 2016	\$5,113,926
October 1, 2017	\$5,873,211
October 1, 2018	\$5,859,921



## Investment Return

Table II-C

*Annual Investment Returns*

Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2008/09	3.99%	5.47%	7.50%
2009/10	9.29%	12.51%	7.50%
2010/11	0.37%	0.49%	7.50%
2011/12	16.88%	22.09%	7.50%
2012/13	11.97%	14.98%	7.50%
2013/14	8.49%	10.36%	7.50%
2014/15	0.01%	0.01%	7.50%
2015/16	8.15%	9.58%	7.50%
2016/17	13.32%	15.26%	7.50%
2017/18	5.81%	6.23%	7.00%
10yr. Avg.	7.70%	9.50%	7.45%



## Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
As of October 1, 2017	\$5,873,211	\$5,244,531
<i>Increases Due To:</i>		
Employer Contributions	\$147,698	\$147,698
Chapter 175/185 Contributions	\$70,178	\$70,178
Employee Contributions	\$31,403	\$31,403
Service Purchase Contributions	\$0	\$0
Total Contributions	<u>\$249,279</u>	<u>\$249,279</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	<u>\$331,450</u>	
Total Investment Income	\$331,450	\$331,450
Transfer to Share Plan	(\$500,000)	
<b>Total Income</b>	<u><b>\$80,729</b></u>	<u><b>\$580,729</b></u>
<i>Decreases Due To:</i>		
Monthly Benefit Payments	(\$53,093)	(\$53,093)
Refund of Employee Contributions	\$0	\$0
Total Benefit Payments	<u>(\$53,093)</u>	<u>(\$53,093)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$40,926)	(\$40,926)
Advance Employer Contribution		\$0
Excess Chapter 175/185 Contribution		\$0
<b>Total Expenses</b>	<u><b>(\$94,019)</b></u>	<u><b>(\$94,019)</b></u>
<b>As of October 1, 2018</b>	<u><b>\$5,859,921</b></u>	<u><b>\$5,731,241</b></u>





## Historical Trust Fund Detail

Table II-E

Income

Plan	Employer	Chapter	Employee	Service Purchase	Interest / Dividends	Realized Gains / Losses	Unrealized Gains / Losses	Transfer to Share Plan
<u>Year</u>	<u>Contribs.</u>	<u>Contribs.</u>	<u>Contribs.</u>	<u>Contribs.</u>				
2008/09	\$206,913	\$128,206	\$10,902	\$0	\$0	\$0	\$58,487	\$0
2009/10	\$253,138	\$119,214	\$11,234	\$0	\$0	\$0	\$174,167	\$0
2010/11	\$294,077	\$109,710	\$11,678	\$0	\$0	\$0	\$9,051	\$0
2011/12	\$201,125	\$110,420	\$22,684	\$0	\$0	\$0	\$467,578	\$0
2012/13	\$229,402	\$115,949	\$36,579	\$0	\$0	\$0	\$423,352	\$0
2013/14	\$86,101	\$117,005	\$34,887	\$0	\$0	\$0	\$356,532	\$0
2014/15	\$0	\$112,900	\$29,561	\$0	\$0	\$0	\$251	\$0
2015/16	\$0	\$99,574	\$29,640	\$0	\$0	\$0	\$383,825	\$0
2016/17	\$51,993	\$81,623	\$29,767	\$0	\$0	\$0	\$686,134	\$0
2017/18	\$147,698	\$70,178	\$31,403	\$0	\$0	\$0	\$331,450	-\$500,000

Expenses

Plan	Monthly Benefit	Contrib.	Admin.	Invest.
<u>Year</u>	<u>Payments</u>	<u>Refunds</u>	<u>Expenses</u>	<u>Expenses</u>
2008/09	\$0	\$3,093	\$8,818	\$0
2009/10	\$0	\$0	\$18,284	\$0
2010/11	\$0	\$0	\$27,746	\$0
2011/12	\$12,418	\$0	\$38,009	\$0
2012/13	\$35,210	\$0	\$30,875	\$0
2013/14	\$36,885	\$0	\$40,706	\$0
2014/15	\$43,486	\$9,048	\$36,563	\$0
2015/16	\$50,045	\$0	\$38,585	\$0
2016/17	\$51,547	\$0	\$38,685	\$0
2017/18	\$53,093	\$0	\$40,926	\$0

Other Actuarial Adjustments

Advance Employer	Excess Chapter
<u>Contribs.</u>	<u>Contribs.</u>
-\$11,009	\$94,591
\$0	\$85,599
\$39,376	\$76,095
-\$52,472	\$76,805
\$92,593	\$0
-\$2,520	\$0
-\$31,298	\$0
-\$45,071	\$0
-\$50,404	\$0
\$0	\$0

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	\$0
Additional Employer Contribution	\$217,876
Minimum Required Contribution	(\$217,876)
Net Increase in Advance Employer Contribution	\$0
Advance Employer Contribution as of October 1, 2018	\$0

**Excess Chapter 175/185 Contribution**

Excess Chapter 175/185 Contribution as of October 1, 2017	\$628,680
Additional Chapter 175/185 Contribution	\$70,178
One-Time Use of Excess Chapter Contributions	\$0
Transfer to Share Plan	(\$500,000)
Allowable Chapter 175/185 Contribution	(\$70,178)
Net Increase in Excess Chapter 175/185 Contribution	(\$500,000)
Excess Chapter 175/185 Contribution as of October 1, 2018	\$128,680



## Historical Chapter 175/185 Contributions

Table II-G

<b>Total Accumulated Excess Chapter 175/185 Contribution</b>				<b>\$128,680</b>
	<u>Chapter 175 Regular Distribution</u>	<u>Chapter 175 Supplemental Distribution</u>	<u>Chapter 185 Distribution</u>	<u>Allowable Amount</u>
1998 Distribution	\$30,507	\$2,631	\$0	(\$30,516)
1999 Distribution	\$24,765	\$6,598	\$0	(\$27,396)
2000 Distribution	\$25,240	\$14,131	\$0	(\$27,871)
2001 Distribution	\$26,934	\$13,263	\$0	(\$30,815)
2002 Distribution	\$34,838	\$14,931	\$0	(\$31,766)
2003 Distribution	\$42,087	\$19,412	\$0	(\$31,766)
2004 Distribution	\$46,781	\$25,276	\$0	(\$84,390)
2005 Distribution	\$57,300	\$27,018	\$0	(\$33,615)
2006 Distribution	\$76,372	\$34,384	\$0	(\$33,615)
2007 Distribution	\$64,337	\$65,044	\$0	(\$33,615)
2008 Distribution	\$77,707	\$50,499	\$0	(\$33,615)
2009 Distribution	\$77,824	\$41,390	\$0	(\$33,615)
2010 Distribution	\$71,369	\$38,341	\$0	(\$33,615)
2011 Distribution	\$76,267	\$34,153	\$0	(\$33,615)
2012 Distribution	\$74,537	\$41,412	\$0	(\$115,949)
2013 Distribution	\$76,683	\$40,322	\$0	(\$117,005)
2014 Distribution	\$70,492	\$42,408	\$0	(\$112,900)
2015 Distribution	\$68,859	\$30,715	\$0	(\$99,574)
2016 Distribution	\$64,277	\$17,346	\$0	(\$81,623)
2017 Distribution	\$66,681	\$3,497	\$0	(\$70,178)
Interest Adjustment				\$9,106
Transfer to Share Plan				(\$500,000)

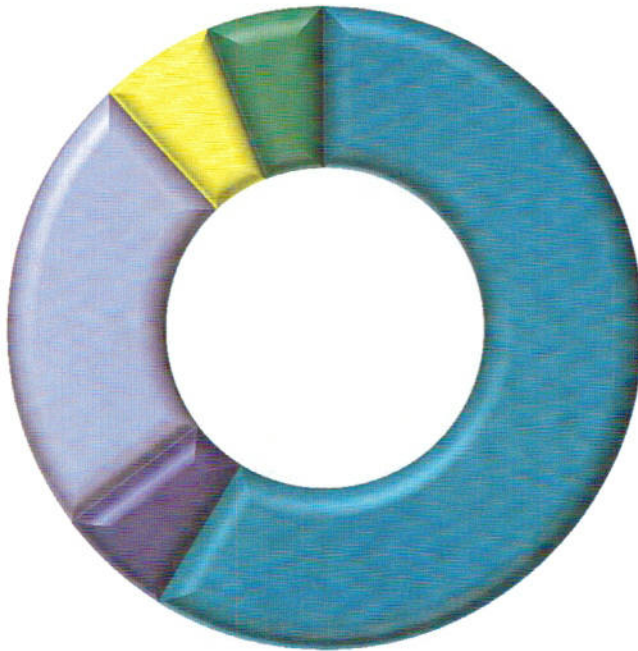




## Summary of Participant Data

Table III-A

As of October 1, 2018

Actively Employed Participants

Active Participants	10
DROP Participants	0

Inactive Participants

Deferred Vested Participants	1
Due a Refund of Contributions	4
Deferred Beneficiaries	0

Participants Receiving a Benefit

Service Retirements	0
Disability Retirements	1
Beneficiaries Receiving	1

**Total Participants 17**Number of Participants Included in Prior Valuations

	<i>Active</i>	<i>DROP</i>	<i>Inactive</i>	<i>Retired</i>	<i>Total</i>
October 1, 2009	15	0	3	0	18
October 1, 2010	15	0	3	0	18
October 1, 2011	15	0	3	0	18
October 1, 2012	14	0	3	1	18
October 1, 2013	14	0	3	1	18
October 1, 2014	12	0	5	1	18
October 1, 2015	10	0	5	2	17
October 1, 2016	10	0	5	2	17
October 1, 2017	10	0	5	2	17
October 1, 2018	10	0	5	2	17



## 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>	10	0	1	4	0	0	1	1	17
<u>Change in Status</u>									
Re-employed									
Terminated									
Retired									
<u>Participation Ended</u>									
Transferred Out									
Cashed Out									
Died									
<u>Participation Began</u>									
Newly Hired									
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2018</u>	10	0	1	4	0	0	1	1	17

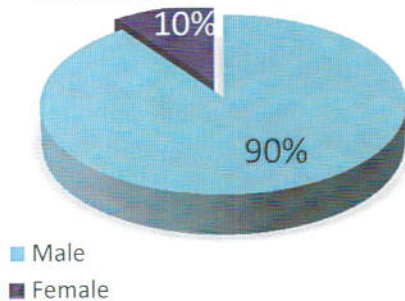


## Active Participant Data

## Table III-C

As of October 1, 2018

## Gender Mix



Average Age	44.6 years
Average Service	13.4 years
Total Annualized Compensation for the Prior Year	\$628,065
Total Expected Compensation for the Current Year	\$656,329
Average Increase in Compensation for the Prior Year	5.43%
Expected Increase in Compensation for the Current Year	4.50%
Accumulated Contributions for Active Employees	\$250,802



Actual vs. Expected Salary Increases

## Active Participant Statistics From Prior Valuations

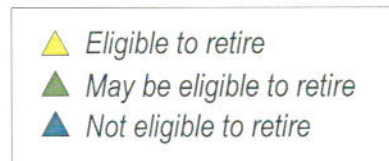
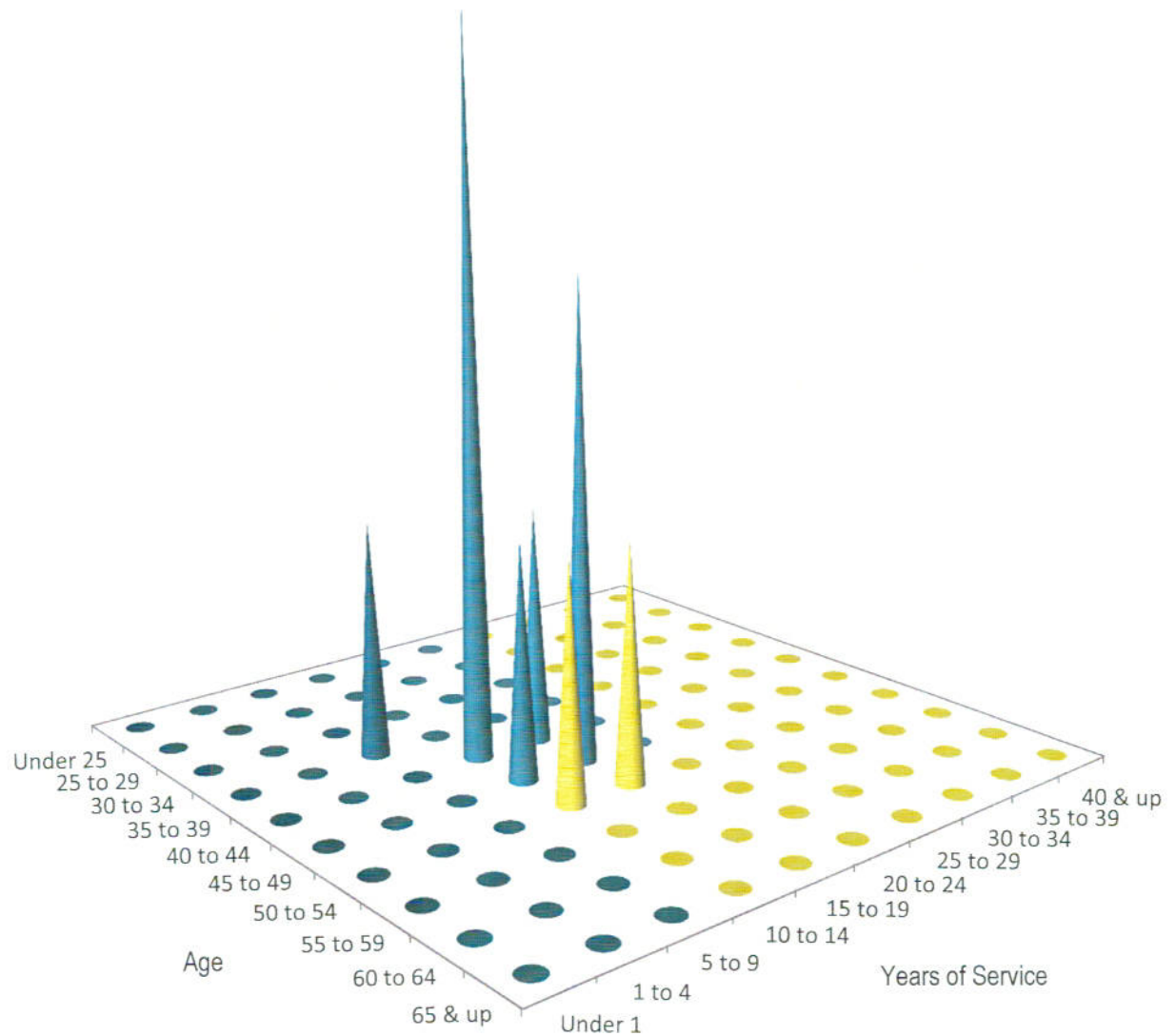
	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2009	34.7	4.3	\$47,119	5.73%	8.13%
October 1, 2010	35.7	5.3	\$49,927	5.70%	9.28%
October 1, 2011	36.7	6.3	\$51,202	5.40%	2.71%
October 1, 2012	37.6	7.1	\$51,231	5.13%	1.63%
October 1, 2013	38.6	8.1	\$52,241	5.07%	1.89%
October 1, 2014	40.1	9.4	\$52,928	4.50%	1.90%
October 1, 2015	41.6	10.4	\$55,309	4.50%	3.44%
October 1, 2016	42.6	11.4	\$59,280	4.50%	7.25%
October 1, 2017	43.6	12.4	\$59,534	4.50%	0.69%
October 1, 2018	44.6	13.4	\$62,807	4.50%	5.43%





# 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	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	1	0	0	0	0	0	0	0	1
Avg. Pay	0	0	46,918	0	0	0	0	0	0	0	46,918
40 to 44	0	0	0	3	1	0	0	0	0	0	4
Avg. Pay	0	0	0	54,404	75,088	0	0	0	0	0	59,575
45 to 49	0	0	0	1	2	0	0	0	0	0	3
Avg. Pay	0	0	0	59,292	76,465	0	0	0	0	0	70,741
50 to 54	0	0	0	1	1	0	0	0	0	0	2
Avg. Pay	0	0	0	67,517	63,109	0	0	0	0	0	65,313
55 to 59	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
60 to 64	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
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	0	1	5	4	0	0	0	0	0	10
Avg. Pay	0	0	46,918	58,004	72,782	0	0	0	0	0	62,807



Inactive Participant Data

Table III-F



**Age at Retirement**

- Service Retirements
- Disability Retirements
- DROP Participants

Average Monthly Benefit

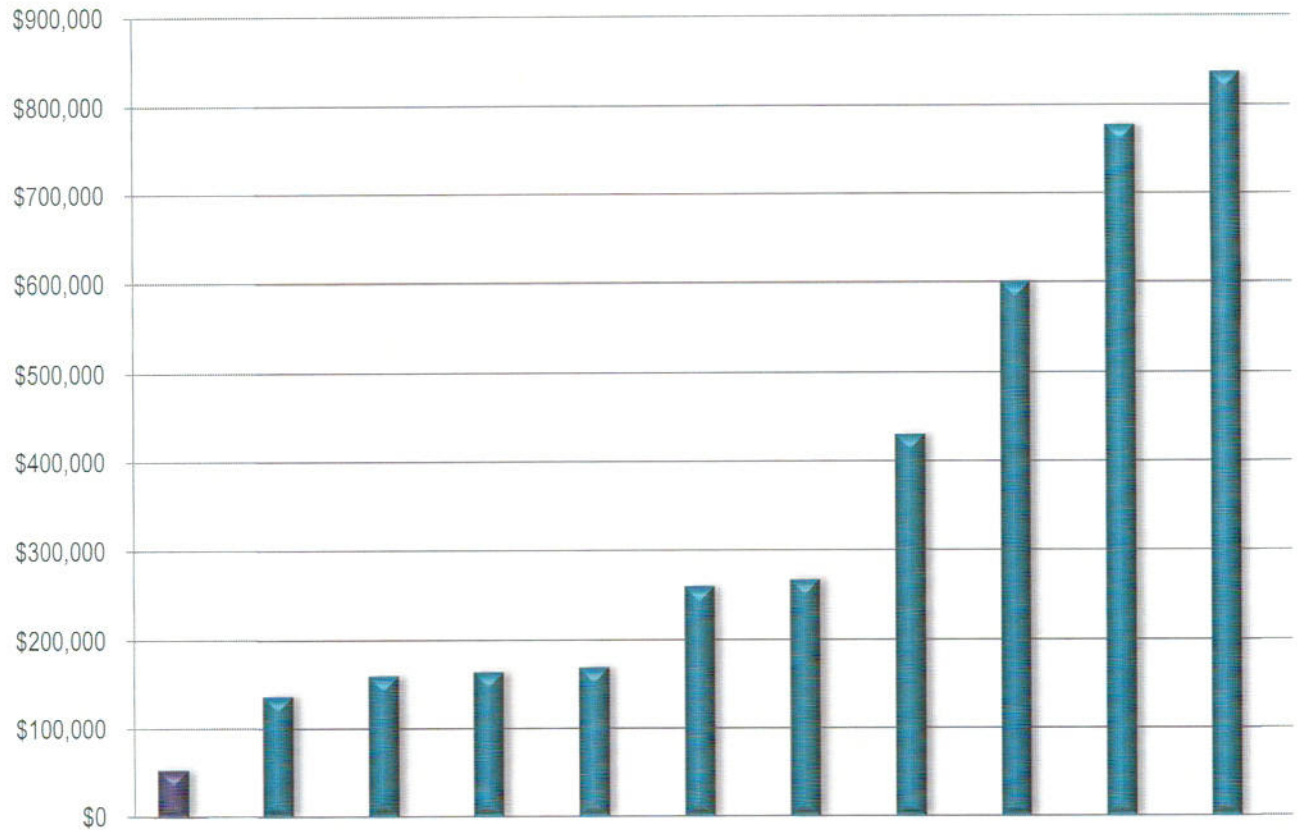
Service Retirements	Not applicable
Disability Retirements	\$3,527.95
Beneficiaries Receiving	\$1,029.21
DROP Participants	Not applicable
Deferred Vested Participants	\$1,501.24
Deferred Beneficiaries	Not applicable





## Projected Benefit Payments

Table III-G

Actual

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

\$53,093

Projected

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

\$137,530

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

\$160,258

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

\$164,916

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

\$169,790

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

\$260,130

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

\$267,830

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

\$431,096

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

\$601,282

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

\$778,220

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

\$837,404



## 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 generally assumed to increase at the rate of 4.50% per annum, unless actual plan compensation is known for a prior plan year.

5. **Decrements**

- Pre-retirement mortality: None is assumed.
- Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Blue Collar Mortality Table, with full generational improvements in mortality using Scale BB
- Disability: None is assumed.
- Termination: None is assumed.
- Retirement: Retirement is assumed to occur at the most valuable retirement age.



## Summary of Actuarial Methods and Assumptions

Table IV-A

(continued)

6. Form of Payment

Future retirees have been assumed to select the 10-year certain and life annuity.

7. Expenses

The total projected benefit liability has been loaded by 2.75% 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 have been 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 7.50% per annum to 7.00% per annum.*
- (2) *Effective October 1, 2016, the mortality basis was changed from a 2015 projection of the RP-2000 Mortality Table for annuitants to a full generational projection using Scale BB of the RP-2000 Blue Collar Mortality Table as required by State law.*
- (3) *Effective October 1, 2013, the assumed increase in future salaries was changed from a range of rates based on service to 4.50% per year.*
- (4) *Effective October 1, 2013, the mortality basis was changed from the 1994 Group Annuity Reserving Table, projected to 2002 by Scale AA, to the RP-2000 Mortality Table for annuitants, projected to 2015 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430.*
- (5) *Effective October 1, 2009, the administrative expense assumption was changed from a flat \$4,250 per year to a 2.75% loading of the total projected benefit liability.*



## Summary of Plan Provisions

## Table V-A

### 1. Benefit Formula

3.25% of Average Monthly Earnings multiplied by Credited Service earned prior to June 1, 2012 plus 3.125% of Average Monthly Earnings multiplied by Credited Service earned after May 31, 2012

*(The benefit formula is applied separately to periods of service as a full-time firefighter and as a volunteer firefighter.)*

### 2. Service Retirement

Normal retirement: Age 55 with at least 10 years of credited service; or

Any age with at least 25 years of credited service

Early retirement: Age 50 with at least 10 years of credited service

*(Note: In the case of early retirement, the participant's benefit is reduced by 3% for each year by which the participant's early retirement age precedes his normal retirement age.)*

### 3. Disability Retirement

The disability benefit is a monthly 10-year certain and life annuity equal to the accrued normal retirement benefit, but offset as necessary to preclude the total of the participant's worker's compensation, disability benefit, and other City-financed disability or salary continuation benefit from exceeding his average monthly earnings. The disability benefit is not reduced to an amount less than either 66% of average monthly earnings (for service-based disability) or 25% of average monthly earnings (for non-service disability). The participant may convert his disability benefit into any of the optional forms of payment that are otherwise available under the plan.

*(A participant is disabled if he is found to have a mental or physical condition resulting from bodily injury, disease, or a mental disorder that renders him incapable of employment as a police officer. However, a participant will not be eligible for a disability benefit if his disability is caused by excessive and habitual use of drugs, intoxicants, or narcotics; by injury or disease sustained while serving in the armed forces; by injury or disease sustained while willfully and illegally participating in fights, riots, or civil insurrections, or while committing a crime; by injury or disease sustained after termination of employment; or by an injury or disease sustained while working for another employer and arising from such employment.)*



## Summary of Plan Provisions

## Table V-A

(continued)

### 4. Deferred Vested Retirement

A vested participant who terminates employment before becoming eligible for retirement receives a deferred vested retirement benefit payable at the participant's early or normal retirement age. If the benefit is payable prior to normal retirement age, then the benefit is reduced by 3% for each year by which the participant's early retirement age precedes his normal retirement age.

A non-vested participant who terminates employment receives his accumulated contributions.

### 5. Vesting

An employee becomes 100% vested upon the attainment of 10 years of credited service.

### 6. Pre-Retirement Death Benefit

If a participant dies in the line of duty prior to retirement, the participant's beneficiary receives an immediate monthly life annuity equal to the greater of 50% of the deceased participant's plan compensation at the time of his death or 100% of the participant's accrued benefit.

If a vested participant dies prior to retirement other than in the line of duty, the participant's beneficiary receives a life annuity commencing immediately. The life annuity is equal to 50% of the participant's accrued benefit.

If a non-vested participant dies prior to retirement other than in the line of duty, the participant's beneficiary receives the participant's accumulated contributions.

### 7. Form of Payment

Actuarially increased single life annuity (*optional*);

10-year certain and life annuity (*normal form of payment*);

Actuarially reduced 50% joint and contingent annuity (*optional*);

Actuarially reduced 66⅔% joint and contingent annuity (*optional*);

Actuarially reduced 75% joint and contingent annuity (*optional*);

Actuarially reduced 100% joint and contingent annuity (*optional*); or





## Summary of Plan Provisions

## Table V-A

(continued)

Actuarially equivalent single lump sum distribution (*automatic if the single sum value of the participant's benefit is less than or equal to \$5,000 or if the monthly benefit is less than \$100*)

(Note: All forms of payment guarantee at least the return of the participant's accumulated contributions. Furthermore, a participant may change his joint annuitant up to two times after retirement subject to an actuarially equivalent adjustment.)

### 8. Automatic Cost-of-Living Adjustment

Participants receive an automatic annual 3% cost-of-living adjustment (COLA) as of each October 1 after having been retired for at least one year. The COLA applies to all benefits payable from the plan including the supplemental benefit.

### 9. Supplemental Benefit

Participants receiving an early or normal retirement benefit receive a supplemental monthly benefit equal to \$3.00 for each year of credited service to a maximum of \$90.00 per month and payable as a single life annuity.

### 10. Average Monthly Earnings

Average monthly earnings during the highest five years of compensation out of the 10 years immediately preceding the determination date or career average earnings, if greater. Earnings include total W-2 compensation, except that, effective February 8, 2012, payments for accrued sick and vacation leave in excess of the amount of leave accrued immediately prior to that date and overtime pay in excess of 156 hours per fiscal year are excluded from earnings. Earnings cannot exceed the maximum amount allowed under IRC section 401(a)(17).

### 11. Credited Service

The elapsed time from the participant's date of hire until his date of termination, retirement, or death.

(Participants may purchase up to four additional years of credited service with another qualified fire department by paying into the plan the full actuarial cost thereof.)

### 12. Employee Contribution

Employees must contribute 5.00% of basic salary (2.00% prior to June 1, 2012). Employee contributions are accumulated without interest.



## Summary of Plan Provisions

## Table V-A

(continued)

### 13. City Contribution

The City is required to make periodic contributions at least on a quarterly basis as determined under Chapter 112, Florida Statutes.

### 14. Participant Requirement

All full-time firefighters of the City of Oldsmar who are hired prior to October 1, 2014 automatically become participants in the plan on their date of hire.

### 15. Actuarial Equivalence

Based on 7.00% interest per annum and the unisex mortality table promulgated by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 417(e)(3)

### 16. Plan Effective Date

The plan was originally effective on October 1, 1996.



## Summary of Plan Amendments

## Table V-B

Since the completion of the previous valuation, Ordinance 2018-01 was adopted to be effective January 16, 2018. This ordinance created a share plan to receive \$500,000 of the accumulated excess Chapter 175 monies and to allow the City to use the remainder of the excess Chapter 175 monies as a one-time reduction of the unfunded liability. The ordinance had no actuarial impact on the plan.

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

- (1) *Effective September 30, 2014, employees hired after that date were precluded from participating in the plan and existing participating employees were allowed to make an irrevocable election to transfer out of the plan into the Florida Retirement System (FRS). (Ordinance 2014-09)*
- (2) *Effective February 8, 2012, payments for accrued sick and vacation leave in excess of the amount of leave accrued immediately prior to that date and overtime pay in excess of 156 hours per fiscal year are excluded from the definition of plan compensation. (Ordinance 2012-01)*
- (3) *Effective June 1, 2012, the 2.00% employee contribution rate was increased to 5.00%. (Ordinance 2012-01)*
- (4) *Effective June 1, 2012, the benefit formula multiplier was decreased from 3.25% to 3.125% for service earned on and after that date. (Ordinance 2012-01)*
- (5) *During the 2010/11 fiscal year, the employee contribution rate was increased from 1.50% of covered compensation to 2.00% of covered compensation.*
- (6) *During the 2009/10 fiscal year, the mortality table used for actuarial equivalence was changed from the 1994 Group Annuity Reserving Table, projected to 2002 by Scale AA, to the unisex mortality table promulgated by the IRS for purposes of IRC section 417(e)(3).*

