

CITY OF PANAMA CITY
SUPPLEMENTAL RETIREMENT PLAN
FOR DESIGNATED GENERAL EMPLOYEES

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2019

DETERMINES THE CONTRIBUTION
FOR THE 2020/21 FISCAL YEAR



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March 15, 2020

Introduction

This report presents the results of the October 1, 2019 actuarial valuation for the City of Panama City Supplemental Retirement Plan for Designated General Employees. 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, 2019 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2020/21 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 2020/21 plan year. The minimum required contribution rate is 5.99% of covered payroll, which represents a decrease of 0.48% of payroll from the prior valuation.

The normal cost rate is 6.02%, which is 0.62% 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 increased by 0.57% of payroll due to investment shortfalls and decreased by 1.19% of payroll due to demographic experience. The market value of assets only earned 5.25% during the 2018/19 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 2020/21 minimum required contribution will be equal to 5.99% multiplied by the total pensionable earnings for the 2020/21 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 \$4,542,184. As illustrated in Table I-A, current assets are sufficient to cover \$3,464,074 of this amount, the employer's 2019/20 expected contribution will cover \$89,322 of this amount, the employer's 2020/21 expected contribution will cover \$85,981 of this amount, and future employee contributions are expected to cover \$461,154 of this amount, leaving \$441,653 to be covered by future employer funding beyond the 2020/21 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

Identification and Assessment of Risk

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, there is always a risk that, should these assumptions not be realized, the liabilities of the plan, the contributions required to fund the plan, and the funded status of the plan may be significantly different than the amounts shown in this report.

Although a thorough analysis of the risk of not meeting the assumptions is beyond the scope of this report, this discussion is intended to identify the significant risks faced by the plan. In some cases, a more detailed review of the risks, including numerical analysis, may be appropriate to help the plan sponsor and other interested parties assess the specific impact of not realizing certain assumptions. For example, Table I-B illustrates the impact that alternative long-term investment returns would have on the contribution rate. Note that this report is not intended to provide advice on the management or reduction of the identified risks nor is this report intended to provide investment advice.

The most significant risk faced by most defined benefit pension plans is investment risk, i.e. the risk that long-term investment returns will be less than assumed. Other related risks include a risk that, if the investments of the plan decline dramatically over a short period of time (such as occurred with many pension plans in 2008), the plan's assets may not have sufficient time to recover before benefits become due. Even if the assets of the plan grow in accordance with the assumed investment return over time, if benefit payments are expected to be large in the short-term (for example, if the plan provides an actuarial equivalent lump sum payment option and a large number of participants are expected to become entitled to such a lump sum in the near future), the plan's assets may not be sufficient to support such a high level of benefit payments. We have provided a 10-year projection of the expected benefit payments in



Table III-G to help the Trustees in formulating an investment policy that is expected to provide an investment return that meets both the short- and long-term cash flow needs of the pension plan.

Another source of risk is demographic experience. This is the risk that participants will receive salary increases that are different than the amount assumed, that participants will retire, become disabled, or terminate their employment at a rate that is different than assumed, and that participants will live longer than assumed, just to cite a few examples of the demographic risk faced by the plan. Although for most pension plans, the demographic risk is not as significant as the investment risk, particularly in light of the fact that the mortality assumption includes a component for future life expectancy increases, the demographic risk can nevertheless be a significant contributing factor to liabilities and contribution rates that become higher than anticipated.

A third source of risk is the risk that the plan sponsor (or other contributing entities) will not make, or will not have the ability to make, the contributions that are required to keep the plan funded at a sufficient level. Material changes in the number of covered employees, covered payroll, and, in some cases, hours worked by active participants can also significantly impact the plan's liabilities and the level of contributions received by the plan.

Finally, an actuarial funding method has been used to allocate the gap between projected liabilities and assets to each year in the future. The contribution rate under some funding methods is higher during the early years of the plan and then is lower during the later years of the plan. Other funding methods provide for lower contribution rates initially, with increasing contribution rates over time.

The Trustees have adopted the aggregate funding method for this plan, which is expected to result in a contribution rate that is level as a percentage of payroll over the working life of the plan's active participants. A brief description of the actuarial funding method is provided in Table IV-A.

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. 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, 2019, 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

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

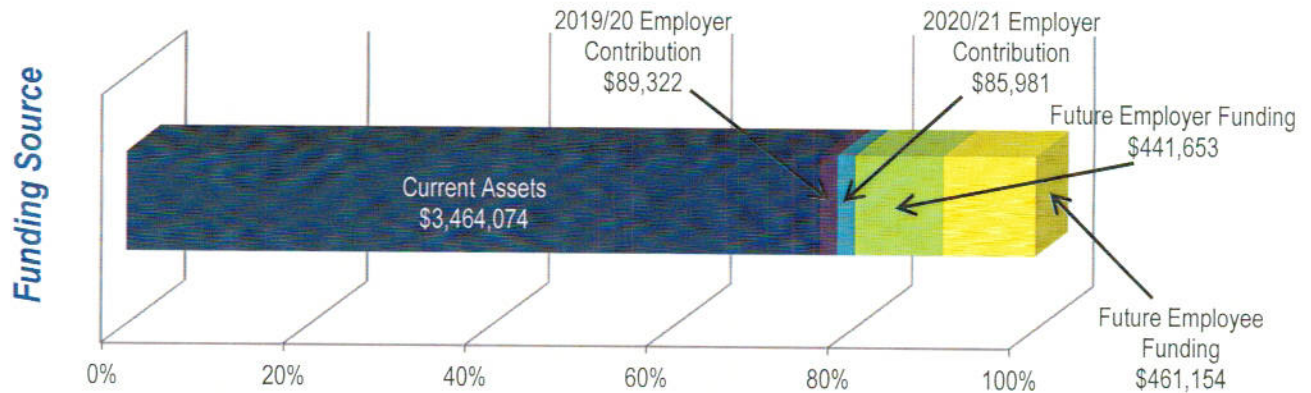
Enrolled Actuary No. 17-04927

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 2020/21 Plan Year

Present Value of Future Benefits	\$4,442,234
Present Value of Future Administrative Expenses	\$99,950
Actuarial Value of Assets	(\$3,464,074)
Present Value of Future Employee Contributions	(\$461,154)
Present Value of Future Normal Costs	\$616,956
Present Value of Future Payroll	÷ \$10,247,885
Normal Cost Rate	= 6.0203%
Expected Payroll	x \$1,380,552
Normal Cost	\$83,114
Adjustment to Reflect Monthly Employer Contributions	\$3,086
Expected Employer Contribution for the 2019/20 Plan Year	(\$89,322)
Remaining Contribution Due/(Credit) for the 2019/20 Plan Year	(\$3,122)
	x 0.07
One Year's Interest Charge/(Credit) on the Remaining Contribution	(\$219)
Preliminary Employer Contribution for the 2020/21 Plan Year	\$85,981
Expected Payroll for the 2020/21 Plan Year	÷ \$1,435,774

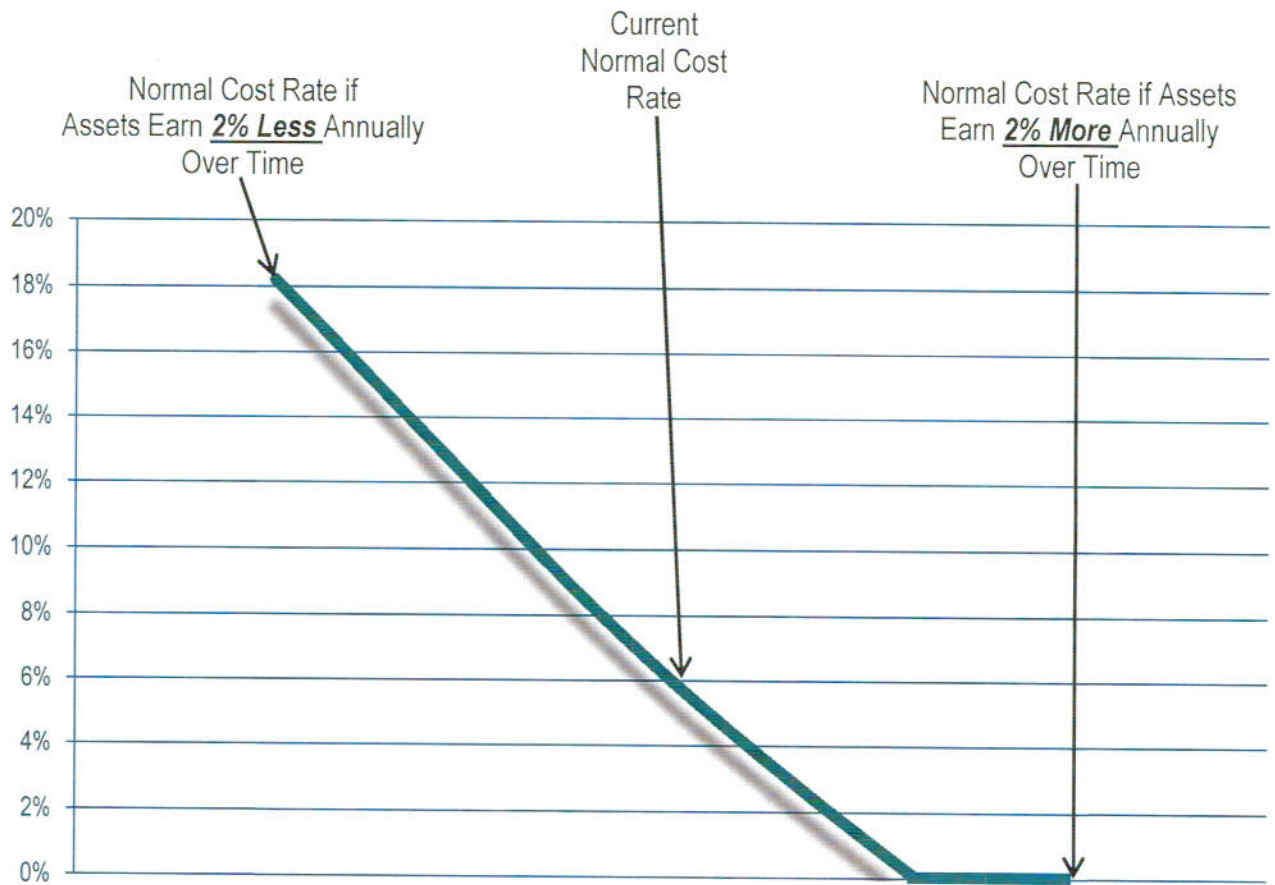
Minimum Required Contribution Rate **5.99%**

(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	6.64%
Increase (decrease) due to investment gains and losses	0.57%
Increase (decrease) due to demographic experience	-1.19%
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>6.02%</u>



Present Value of Future Benefits

Table I-D

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$1,651,769	\$1,651,769	\$1,651,769
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$1,651,769	\$1,651,769	\$1,651,769
<u>Deferred Vested Participants</u>			
Retirement benefits	\$290,310	\$290,310	\$290,310
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$290,310	\$290,310	\$290,310
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$1,908,653	\$1,908,653	\$1,908,653
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$591,502	\$591,502	\$591,502
DROP participants	\$0	\$0	\$0
Sub-total	\$2,500,155	\$2,500,155	\$2,500,155
<u>Grand Total</u>	<u>\$4,442,234</u>	<u>\$4,442,234</u>	<u>\$4,442,234</u>
Present Value of Future Payroll	\$10,247,885	\$10,247,885	\$10,247,885
Present Value of Future Employee Contribs.	\$461,154	\$461,154	\$461,154
Present Value of Future Employer Contribs.	\$616,956	\$616,956	\$616,956



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	\$632,225	\$632,225	\$632,225
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$632,225	\$632,225	\$632,225
<u>Deferred Vested Participants</u>			
Retirement benefits	\$290,310	\$290,310	\$290,310
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$290,310	\$290,310	\$290,310
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$1,908,653	\$1,908,653	\$1,908,653
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$591,502	\$591,502	\$591,502
DROP participants	\$0	\$0	\$0
Sub-total	\$2,500,155	\$2,500,155	\$2,500,155
<u>Grand Total</u>	<u>\$3,422,690</u>	<u>\$3,422,690</u>	<u>\$3,422,690</u>
<u>Funded Percentage</u>	101.34%	101.34%	101.34%

(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	\$468,845	\$468,845	\$468,845
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$468,845	\$468,845	\$468,845
<u>Deferred Vested Participants</u>			
Retirement benefits	\$290,310	\$290,310	\$290,310
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$290,310	\$290,310	\$290,310
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$1,908,653	\$1,908,653	\$1,908,653
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$591,502	\$591,502	\$591,502
DROP participants	\$0	\$0	\$0
Sub-total	\$2,500,155	\$2,500,155	\$2,500,155
<u>Grand Total</u>	<u>\$3,259,310</u>	<u>\$3,259,310</u>	<u>\$3,259,310</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	\$740,638	\$740,638	\$740,638
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$740,638	\$740,638	\$740,638
<u>Deferred Vested Participants</u>			
Retirement benefits	\$290,310	\$290,310	\$290,310
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$290,310	\$290,310	\$290,310
<u>Due a Refund of Contributions</u>	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
<u>Retired Participants</u>			
Service retirements	\$1,908,653	\$1,908,653	\$1,908,653
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$591,502	\$591,502	\$591,502
DROP participants	\$0	\$0	\$0
Sub-total	\$2,500,155	\$2,500,155	\$2,500,155
<u>Grand Total</u>	<u>\$3,531,103</u>	<u>\$3,531,103</u>	<u>\$3,531,103</u>



Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2019	\$3,468,590
Minus advance employer contributions	(\$4,516)
Actuarial Value of Assets as of October 1, 2019	<u>\$3,464,074</u>

Historical Actuarial Value of Assets

October 1, 2010	\$1,522,708
October 1, 2011	\$1,701,792
October 1, 2012	\$2,130,645
October 1, 2013	\$2,546,834
October 1, 2014	\$2,746,790
October 1, 2015	\$2,685,368
October 1, 2016	\$2,859,415
October 1, 2017	\$3,154,825
October 1, 2018	\$3,365,609
October 1, 2019	\$3,464,074

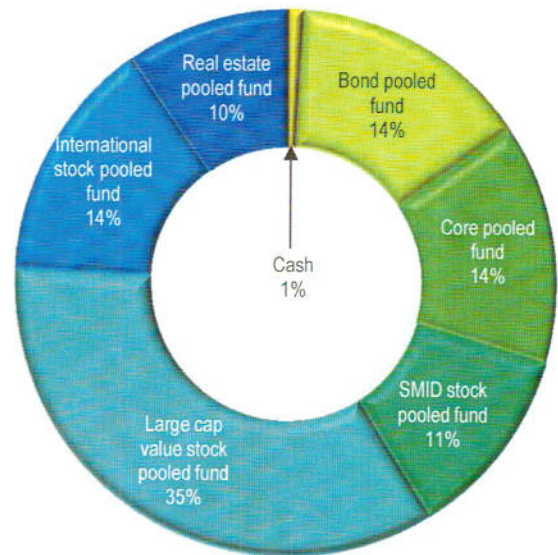


Market Value of Assets

Table II-B

As of October 1, 2019

Market Value of Assets	<u>\$3,468,590</u>
Cash	\$31,200
Bond pooled fund	\$499,195
Core pooled fund	\$495,728
SMID stock pooled fund	\$398,662
Large cap value stock pooled fund	\$1,202,920
International stock pooled fund	\$502,661
Real estate pooled fund	\$336,263
Employee contribution receivable	\$1,961

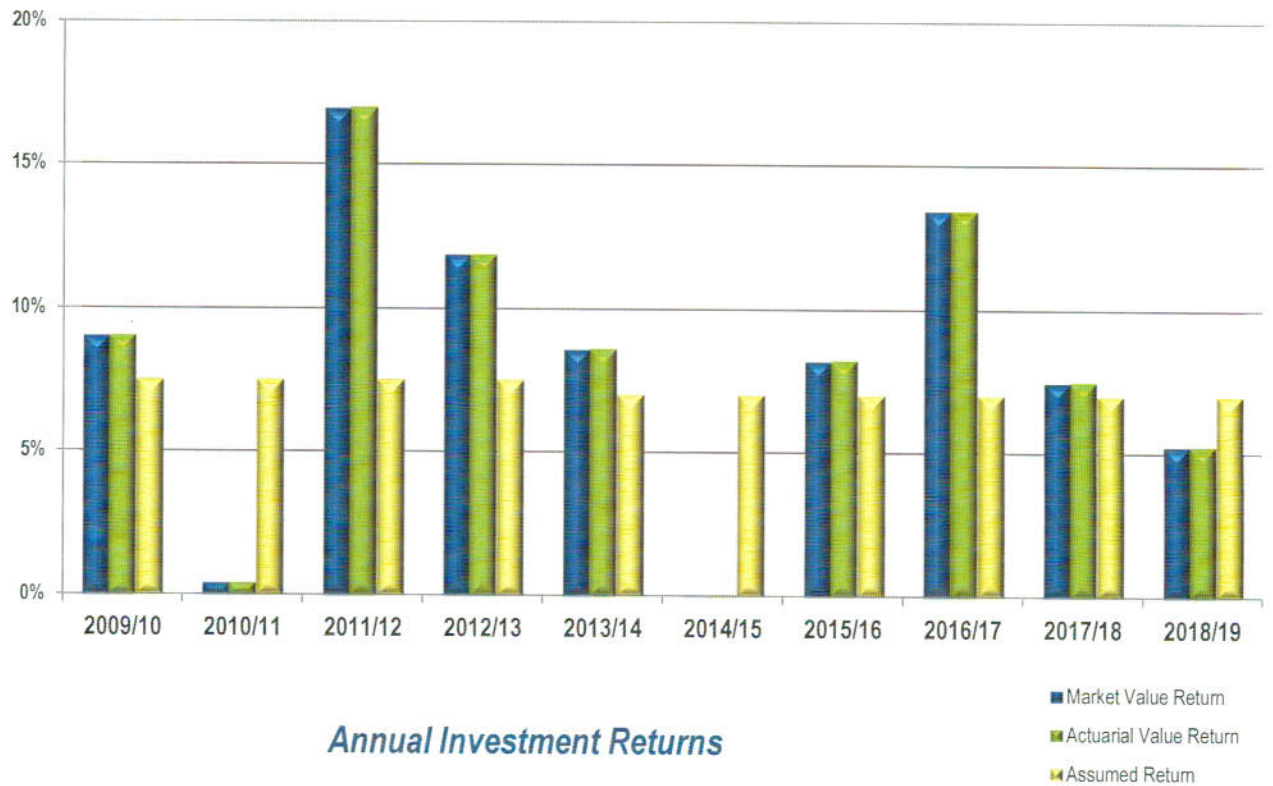
**Historical Market Value of Assets**

October 1, 2010	\$1,522,708
October 1, 2011	\$1,710,525
October 1, 2012	\$2,130,645
October 1, 2013	\$2,546,834
October 1, 2014	\$2,746,790
October 1, 2015	\$2,685,368
October 1, 2016	\$2,859,415
October 1, 2017	\$3,154,825
October 1, 2018	\$3,365,609
October 1, 2019	\$3,468,590

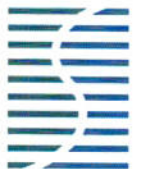


Investment Return

Table II-C



Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2009/10	9.05%	9.05%	7.50%
2010/11	0.43%	0.43%	7.50%
2011/12	16.93%	16.97%	7.50%
2012/13	11.90%	11.90%	7.50%
2013/14	8.60%	8.60%	7.00%
2014/15	0.07%	0.07%	7.00%
2015/16	8.21%	8.21%	7.00%
2016/17	13.45%	13.45%	7.00%
2017/18	7.48%	7.48%	7.00%
2018/19	5.25%	5.25%	7.00%
10yr. Avg.	8.02%	8.02%	7.20%



Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
As of October 1, 2018	\$3,365,609	\$3,365,609
<i>Increases Due To:</i>		
Employer Contributions	\$126,650	\$126,650
Employee Contributions	\$60,396	\$60,396
Service Purchase Contributions	\$0	\$0
Total Contributions	<u>\$187,046</u>	<u>\$187,046</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	\$174,734	
Total Investment Income	<u>\$174,734</u>	\$174,734
Other Income	\$0	
Total Income	<u>\$361,780</u>	<u>\$361,780</u>
<i>Decreases Due To:</i>		
Monthly Benefit Payments	(\$194,529)	(\$194,529)
Refund of Employee Contributions	(\$50,016)	(\$50,016)
Total Benefit Payments	<u>(\$244,545)</u>	<u>(\$244,545)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$14,254)	(\$14,254)
Advance Employer Contribution		(\$4,516)
Total Expenses	<u>(\$258,799)</u>	<u>(\$263,315)</u>
As of October 1, 2019	<u><u>\$3,468,590</u></u>	<u><u>\$3,464,074</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>	
2009/10	\$252,971	\$53,595	\$0	\$0	\$0	\$116,340	\$0
2010/11	\$227,112	\$51,830	\$0	\$0	\$0	\$6,990	\$0
2011/12	\$198,781	\$53,309	\$0	\$0	\$0	\$299,722	\$0
2012/13	\$215,106	\$56,115	\$0	\$0	\$0	\$262,733	\$0
2013/14	\$83,416	\$59,206	\$0	\$0	\$0	\$218,211	\$0
2014/15	\$75,852	\$54,179	\$0	\$0	\$0	\$1,838	\$0
2015/16	\$94,097	\$57,925	\$0	\$0	\$0	\$218,716	\$0
2016/17	\$120,859	\$56,300	\$0	\$0	\$0	\$378,842	\$0
2017/18	\$133,443	\$51,728	\$0	\$0	\$0	\$234,985	\$0
2018/19	\$126,650	\$60,396	\$0	\$0	\$0	\$174,734	\$0

Expenses

Plan	Monthly	Contrib.	Admin.	Invest.
<u>Year</u>	<u>Benefit</u>	<u>Refunds</u>	<u>Expenses</u>	<u>Expenses</u>
	<u>Payments</u>			
2009/10	\$57,471	\$0	\$7,357	\$0
2010/11	\$67,582	\$18,810	\$11,723	\$0
2011/12	\$88,402	\$27,802	\$15,488	\$0
2012/13	\$101,516	\$0	\$16,249	\$0
2013/14	\$127,121	\$15,145	\$18,611	\$0
2014/15	\$171,948	\$2,842	\$18,501	\$0
2015/16	\$181,415	\$0	\$15,276	\$0
2016/17	\$184,543	\$53,725	\$22,323	\$0
2017/18	\$187,835	\$0	\$21,537	\$0
2018/19	\$194,529	\$50,016	\$14,254	\$0

Other Actuarial Adjustments

Advance
Employer
Contribs.

\$0
\$8,733
-\$8,733
\$0
\$0
\$0
\$0
\$0
\$0
\$4,516



Other Reconciliations

Table II-F

Advance Employer Contribution

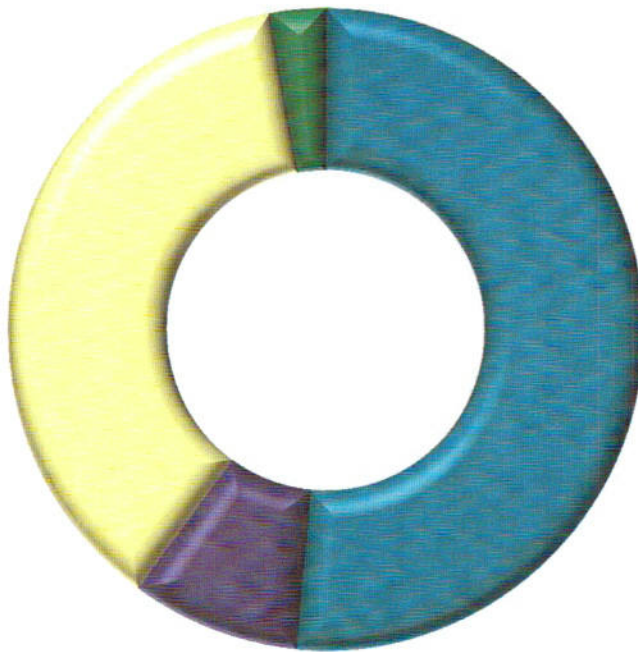
Advance Employer Contribution as of October 1, 2018	\$0
Additional Employer Contribution	\$126,650
Minimum Required Contribution	(\$122,134)
Net Increase in Advance Employer Contribution	\$4,516
Advance Employer Contribution as of October 1, 2019	\$4,516



Summary of Participant Data

Table III-A

As of October 1, 2019

*Participant Distribution by Status*Actively Employed Participants

Active Participants	18
DROP Participants	0

Inactive Participants

Deferred Vested Participants	3
Due a Refund of Contributions	0
Deferred Beneficiaries	0

Participants Receiving a Benefit

Service Retirements	13
Disability Retirements	0
Beneficiaries Receiving	1

Total Participants 35

Number of Participants Included in Prior Valuations

	Active	DROP	Inactive	Retired	Total
October 1, 2010	18	0	3	4	25
October 1, 2011	17	0	3	5	25
October 1, 2012	19	0	2	7	28
October 1, 2013	18	0	1	11	30
October 1, 2014	18	0	2	13	33
October 1, 2015	17	0	1	14	32
October 1, 2016	18	0	1	14	33
October 1, 2017	17	0	2	14	33
October 1, 2018	16	0	4	14	34
October 1, 2019	18	0	3	14	35



Data Reconciliation

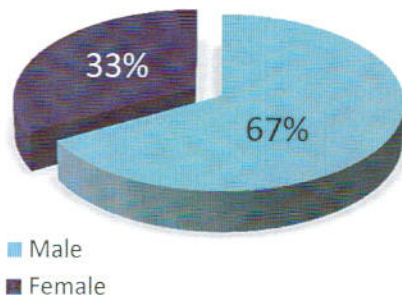
Table III-B

	<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, 2018</u>	16	0	3	1	0	13	0	1	34
<u>Change in Status</u>									
Re-employed									
Terminated	(2)			2					
Retired	(1)					1			
<u>Participation Ended</u>									
Transferred Out									
Cashed Out				(3)					(3)
Died						(1)			(1)
<u>Participation Began</u>									
Newly Hired	5								5
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2019</u>	18	0	3	0	0	13	0	1	35

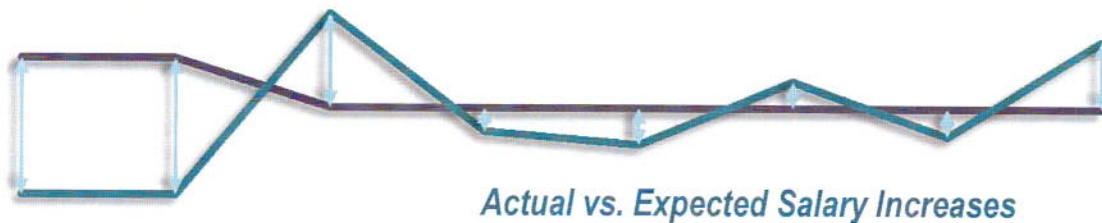


Active Participant Data

Table III-C

Gender Mix**As of October 1, 2019**

Average Age	56.1 years
Average Service	4.6 years
Total Annualized Compensation for the Prior Year	\$1,327,454
Total Expected Compensation for the Current Year	\$1,380,552
Average Increase in Compensation for the Prior Year	5.40%
Expected Increase in Compensation for the Current Year	4.00%
Accumulated Contributions for Active Employees	\$225,742

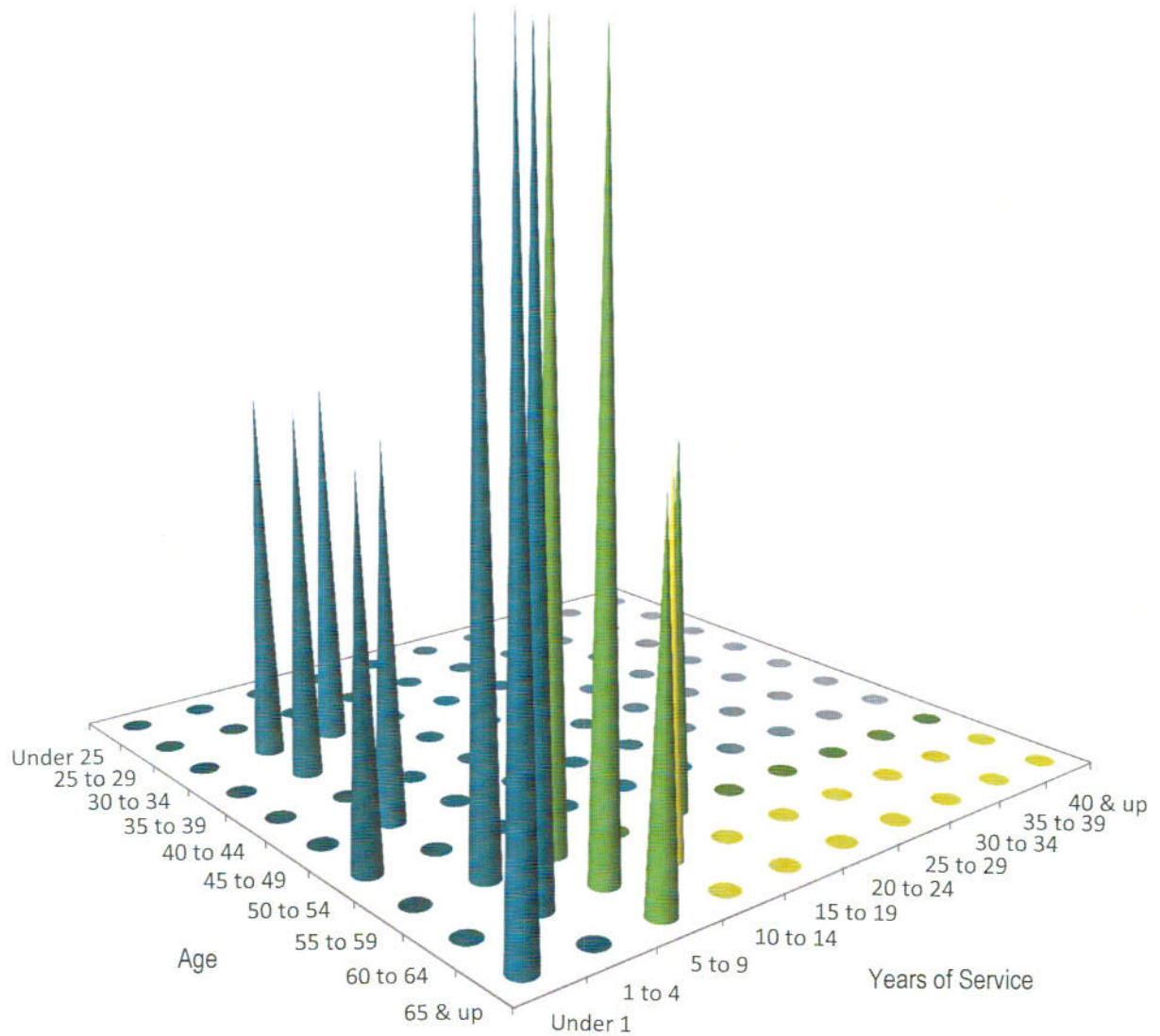
**Active Participant Statistics From Prior Valuations**

	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2010	55.5	7.9	\$66,167	5.00%	2.58%
October 1, 2011	56.8	7.5	\$62,388	5.00%	-1.61%
October 1, 2012	54.1	6.3	\$59,851	5.00%	2.18%
October 1, 2013	51.8	5.7	\$61,160	5.00%	2.19%
October 1, 2014	49.8	3.7	\$62,878	4.00%	5.96%
October 1, 2015	50.7	4.9	\$68,099	4.00%	3.51%
October 1, 2016	51.9	5.4	\$71,514	4.00%	3.24%
October 1, 2017	53.6	5.5	\$64,924	4.00%	4.55%
October 1, 2018	53.8	5.7	\$67,584	4.00%	3.42%
October 1, 2019	56.1	4.6	\$73,747	4.00%	5.40%



Active Age-Service Distribution

Table III-D



Active Age-Service-Salary Table

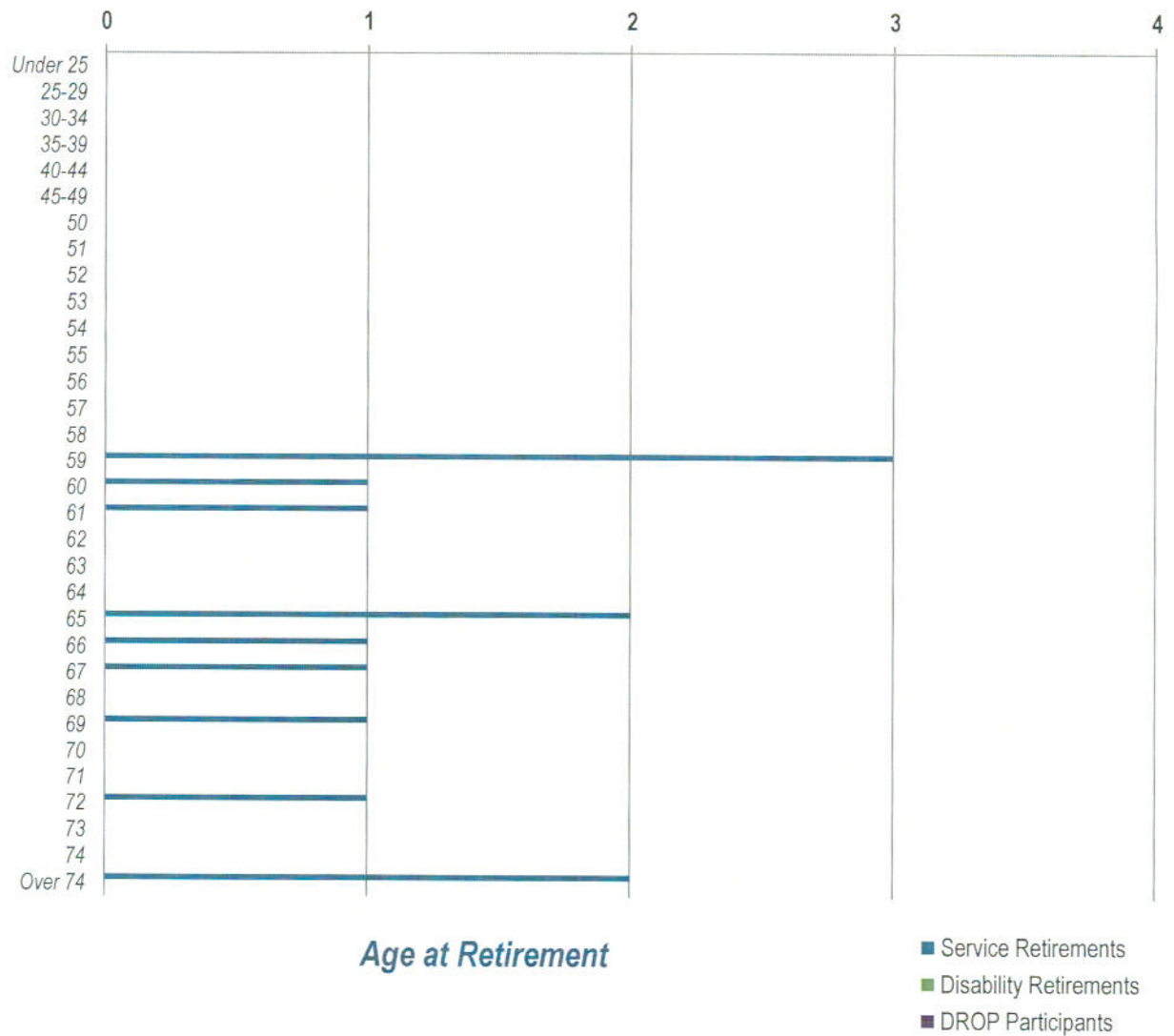
Table III-E

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	1	1	0	0	0	0	0	0	0	2
Avg.Pay	0	71,877	98,765	0	0	0	0	0	0	0	85,321
35 to 39	0	1	0	0	0	0	0	0	0	0	1
Avg.Pay	0	105,945	0	0	0	0	0	0	0	0	105,945
40 to 44	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
45 to 49	0	1	0	0	0	0	0	0	0	0	1
Avg.Pay	0	24,933	0	0	0	0	0	0	0	0	24,933
50 to 54	1	0	0	0	0	0	0	0	0	0	1
Avg.Pay	35,096	0	0	0	0	0	0	0	0	0	35,096
55 to 59	0	2	2	0	1	0	0	0	0	0	5
Avg.Pay	0	120,257	61,656	0	96,913	0	0	0	0	0	92,148
60 to 64	0	2	2	1	0	0	0	0	0	0	5
Avg.Pay	0	78,285	72,599	24,933	0	0	0	0	0	0	65,340
65 & up	2	0	1	0	0	0	0	0	0	0	3
Avg.Pay	89,233	0	24,933	0	0	0	0	0	0	0	67,800
Total	3	7	6	1	1	0	0	0	0	0	18
Avg.Pay	71,187	85,691	65,368	24,933	96,913	0	0	0	0	0	73,747



Inactive Participant Data

Table III-F

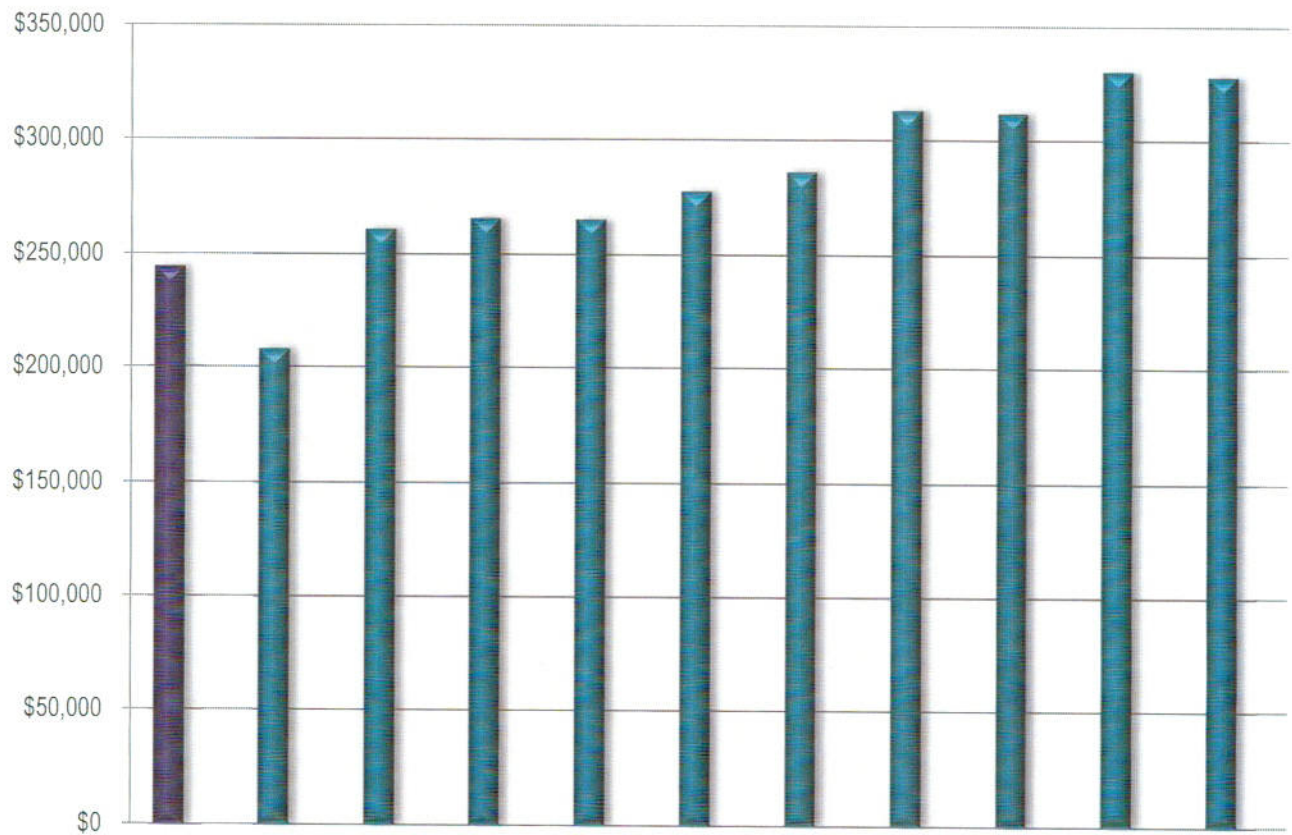
Average Monthly Benefit

Service Retirements	\$1,117.96
Disability Retirements	Not applicable
Beneficiaries Receiving	\$2,784.93
DROP Participants	Not applicable
Deferred Vested Participants	\$789.81
Deferred Beneficiaries	Not applicable



Projected Benefit Payments

Table III-G

Actual

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

\$244,545

Projected

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

\$208,194

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

\$261,343

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

\$266,140

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

\$265,875

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

\$277,958

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

\$286,412

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

\$313,172

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

\$311,720

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

\$330,142

For the period October 1, 2028 through September 30, 2029

\$327,811



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 4.00% 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 Combined 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 normal retirement age.

No decrements are assumed to occur until at least one year following the valuation date.



Summary of Actuarial Methods and Assumptions

Table IV-A

(continued)

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 2.25% 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, 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 Combined Mortality Table as required by State law.*
- (2) Effective October 1, 2013, the interest (or discount) rate was decreased from 7.50% per annum to 7.00% per annum.*
- (3) Effective October 1, 2013, the assumed increase in future salaries was changed from 5.00% per year to 4.00% per year.*
- (4) Effective October 1, 2013, the mortality basis was changed from the RP-2000 Mortality Table, projected to 2007 by Scale AA, to the RP-2000 Mortality Table, projected to 2015 by Scale AA, both as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430.*
- (5) Effective October 1, 2011, no decrements are assumed to occur until at least one year following the valuation date.*
- (6) Effective October 1, 2009, the administrative expense assumption was changed from a flat \$5,000 per year to a 2.25% loading of the total projected benefit liability.*



Summary of Plan Provisions

Table V-A

1. Benefit Formula

1.00% of Average Monthly Earnings multiplied by Credited Service, subject to a minimum benefit of \$50.00 per month for each year of service up to 20 years for Category 1 and 2 employees or \$100.00 per month for each year of service up to 10 years for Category 3 employees [§6.2, Ord. 1917, & §1, Ord. 2204]

2. Service Retirement

Normal retirement: Age 59 with either at least 10 years of credited service for Category 1 employees or at least six years of credited service for Category 2 and 3 employees [§6.1, Ord. 1917]

3. 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 normal retirement age. [§7.2, Ord. 1917]

A non-vested participant who terminates employment receives his accumulated contributions. [§7.1, Ord. 1917]

4. Vesting

A Category 2 or 3 employee becomes 100% vested upon the attainment of six years of credited service. A Category 1 employee becomes 100% vested upon the attainment of 10 years of credited service. Alternatively, a Category 1 becomes partially vested upon the attainment of six years of credited service in accordance with the following table:

<u>Years of Credited Service</u>	<u>Vested Percentage</u>
Less than six	0%
At least six, but less than seven	60%
At least seven, but less than eight	70%
At least eight, but less than nine	80%
At least nine, but less than 10	90%
At least 10	100%

[§7.3, Ord. 1917]

5. Pre-Retirement Death Benefit

If a participant dies prior to retirement, the participant's beneficiary receives the participant's accumulated contributions. [§8, Ord. 1917]



Summary of Plan Provisions

Table V-A

(continued)

6. Form of Payment

Single life annuity (*normal form of payment*);

Actuarially reduced 10-year certain and life annuity (*optional*);

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*);

Any other actuarially equivalent form of payment that is approved by the Trustees (*optional*); or

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

[§1, Ord. 2075]

7. Automatic Cost-of-Living Adjustment

Certain employees receive an automatic annual 2% cost-of-living adjustment beginning on the January 1 immediately following the completion of one year of retirement. Category 1 employees who have earned at least 15 years of credited service and Category 2 and 3 employees who have earned at least 10 years of credited service are entitled to the automatic cost-of-living adjustment. [§6.3, Ord. 1917]

8. Average Monthly Earnings

Average monthly earnings during the highest five years of compensation out of the 10 years immediately preceding the determination date. Earnings include basic annual salary. Earnings cannot exceed the maximum amount allowed under IRC section 401(a)(17). [§1.1, Ord. 1917]



Summary of Plan Provisions

Table V-A

(continued)

9. Credited Service

The elapsed time as an employee in a covered position from the participant's date of hire until his date of termination, retirement, or death. [§1.1 & §6.4, Ord. 1917]

10. Employee Contribution

Employees must contribute 4.50% of basic salary. Employee contributions are accumulated without interest. [§1.1 & §5.1(A), Ord. 1917]

11. City Contribution

The City is required to make periodic contributions at least on a quarterly basis as determined under Chapter 112, Florida Statutes. [§5.2, Ord. 1917]

12. Participant Requirement

All full-time employees of the City of Panama City automatically become participants in the plan on their date of hire as an employee in one of the following categories:

Category 1	Designated managers and directors and the City Engineer
Category 2	City Commission, Assistant City Manager, and City Clerk
Category 3	City Manager

Participation by the Assistant City Manager is optional.

[§2.1, Ord. 1917, & §1, Ord. 2204]

13. Actuarial Equivalence

Based on 7.00% interest per annum and a 50%/50% blend of the male and female mortality rates set forth in the RP-2000 Mortality Table for annuitants [§1.1, Ord. 1917]

14. Plan Effective Date

The plan was originally effective on October 1, 2003.



Summary of Plan Amendments

Table V-B

No 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 December 13, 2016, the plan was amended to substitute the purchasing agent position for the purchasing director position which was eliminated. (Ordinance No. 2598)*
- (2) *During the 2010/11 fiscal year, the pension plan's legal document was restated. The restatement made several modifications and clarifications to the current language of the plan in order to preserve compliance with the requirements of the Internal Revenue Code and the regulations promulgated thereunder. (Ordinance No. 2429)*

