

***RETIREMENT PLAN FOR SALARIED  
EMPLOYEES OF LONG BEACH  
PUBLIC TRANSPORTATION COMPANY***

***Actuarial Valuation as of  
July 1, 2019***

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September 2019

**VENUTI & ASSOCIATES**

ACTUARIES AND BENEFITS CONSULTANTS

September 16, 2019

Pension Committee  
Retirement Plan for Salaried Employees of  
Long Beach Public Transportation Company

Dear Pension Committee:

We are pleased to present our actuarial valuation report for the Retirement Plan for Salaried Employees of Long Beach Public Transportation Company as of July 1, 2019. The information in this report provides the means by which we determine the funding requirements for the Plan. The actuarial report serves three main purposes:

- Determine the annual funding levels under the Plan's adopted funding policy and alternative funding levels.
- Determine how the required funding changed from the prior year using what is called an "experience analysis."
- Determine other information pertinent to understanding the Plan's funded status.

Compared to the prior year, the Plan's funding cost for the Plan Year commencing July 1, 2019 decreased from 25.889% of pay to 22.603% of pay as follows:

- |                              |                 |
|------------------------------|-----------------|
| • July 1, 2018 funding cost  | 25.889%         |
| • Plan experience            | 1.440%          |
| • Supplemental Contributions | <u>(4.726%)</u> |
| • July 1, 2019 funding cost  | 22.603%         |

We look forward to discussing our report with you.

Very truly yours,



David W. Venuti  
President

**VENUTI & ASSOCIATES**

ACTUARIES AND BENEFITS CONSULTANTS

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**SECTION 1: VALUATION RESULTS**

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**Executive Summary**

The market value of assets increased \$3,072,411 during 2018-2019 and the return was 2.68%.

The Plan's funded percentage on and Entry Age Normal Accrual Liability basis increased from 89.27% to 92.81%. This was primarily due to the increase in the market value of assets.

The funding policy contribution as of July 1, 2019 is \$1,081,072 which is comprised of the normal cost of \$1,050,030 plus interest required for monthly contributions. The funding policy contribution decreased by \$176,784 from

last year primarily due to the increase in the market value of assets and the decrease in expected payroll.

Contributions made to the Plan were \$3,433,825 which includes a supplemental contribution of \$1,500,000.

The Plan's funding cost as a percentage of compensation for the July 1, 2019 Plan Year is 22.603% compared to 25.889% for the prior year. Plan experience increased the funding cost by 1.440% and the supplemental contribution of \$1,500,000 decreased the funding cost by 4.726%.

Benefit payments decreased from \$1,503,429 to \$951,414 primarily due to fewer lump sums paid in 2018/2019.

**SECTION 1: VALUATION RESULTS**

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**Summary Information**

The following presents some of the important results of the actuarial valuation and compares this information with the prior year.

	July 1, 2019	July 1, 2018	Change
Number of Participants			
Actives			
Vested	82	84	(2)
Non-Vested	<u>0</u>	<u>0</u>	<u>0</u>
Total	82	84	(2)
Inactive Vested	11	12	(1)
In pay status			
Retirees	27	26	1
Disabled	6	6	0
Beneficiaries	<u>4</u>	<u>4</u>	<u>0</u>
Total	37	36	1
Total Participants	130	132	(2)

**SECTION 1: VALUATION RESULTS**

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**Summary Information (continued)**

	July 1, 2019	July 1, 2018	Change
Normal Cost for all benefits for fiscal year	\$1,050,030	\$1,221,738	(\$171,708)
Contribution for the fiscal year under the Company's Funding policy (assuming it is paid uniformly throughout the year)			
Annual amount	\$1,081,072	\$1,257,856	(\$176,784)
Percent of covered compensation	22.603%	25.889%	(3.286%)
Employee contribution	5.000%	5.000%	0.000%
Employer contribution	17.603%	20.889%	(3.286%)
Expected employee contributions	\$239,142	\$242,933	(\$3,791)
Expected employer contributions	\$841,930	\$1,014,923	(\$172,993)
Entry Age Normal Accrued Liability	\$33,336,433	\$31,215,626	\$2,120,807
Funded Percentage	92.81%	89.27%	3.54%
Market Value of Plan Assets	\$30,938,951	\$27,866,540	\$3,072,411
Frozen Initial Liability Remaining Unfunded	\$0	\$0	\$0
Contributions Received	\$3,433,825	\$2,922,605	\$511,220
Benefits Paid	\$951,414	\$1,503,429	(\$552,015)

## **SECTION 1: VALUATION RESULTS**

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### **Annual Funding**

The Plan sponsor has adopted the frozen initial liability method as its actuarial cost method, with costs allocated as a level percentage of future compensation. This funding method is described below.

Each year the present value of future benefits is determined by projecting the expected benefit payments in all future years for current employees and participants in pay status as of the valuation date. This projection is done by applying the actuarial assumptions to the current plan population. The current value of those future expected benefit payments is calculated using the assumed discount rate to arrive at the present value of future benefits (PVFB).

A portion of the PVFB has already been funded through previous contributions and investment return, reduced by previous benefit payments and expenses. This represents the current value of assets held by the Plan.

The portion of the PVFB not currently covered by Plan assets must come from future employer and employee contributions (offset by future plan investment and operational expenses). The total plan contributions are determined through the combination of an actuarial cost method and a funding policy. The funding policy is to contribute each year the normal cost, plus an amount sufficient to amortize the unfunded liability as of July 1, 2007 over a period of 30 years.

As of July 1, 2007, the Plan's actuary determined what the Plan's assets would have been if (1) the Plan benefits had always been the same as they were then, (2) the Plan's actuarial

assumptions had always been met, and (3) contributions had always been an amount sufficient to fund the Plan benefits as a level percent of compensation from each employee's Plan entry date. This amount is known as the entry age normal accrued liability, and it was established as the frozen initial liability. The difference between the frozen initial liability as of July 1, 2007 and the Plan assets as of July 1, 2007 was established as the unfunded liability as of July 1, 2007. The funding policy adopted was to amortize this unfunded liability over a period of 30 years. Effective June 30, 2013, the original frozen initial liability was fully amortized. Changes in assumptions or the terms of the Plan are amortized over a period of 30 years beginning at the effective date of the change.

To reflect expected future asset returns the interest rate assumption was lowered from 8.00% to 7.50% effective July 1, 2007.

The additional liability created by the change in actuarial assumptions effective July 1, 2013 was fully amortized by supplemental contributions effective June 30, 2015.

Based on a reassessment of future returns, effective July 1, 2016 the interest rate assumption was lowered from 7.50% to 6.00% which lead to \$2,816,346 in additional liability. The amortization period for additional liability due to assumption or plan changes was changed from 30 years to 10 years. This liability was fully amortized by supplemental contributions effective June 30, 2018.

**SECTION 1: VALUATION RESULTS**

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**Annual Funding (continued)**

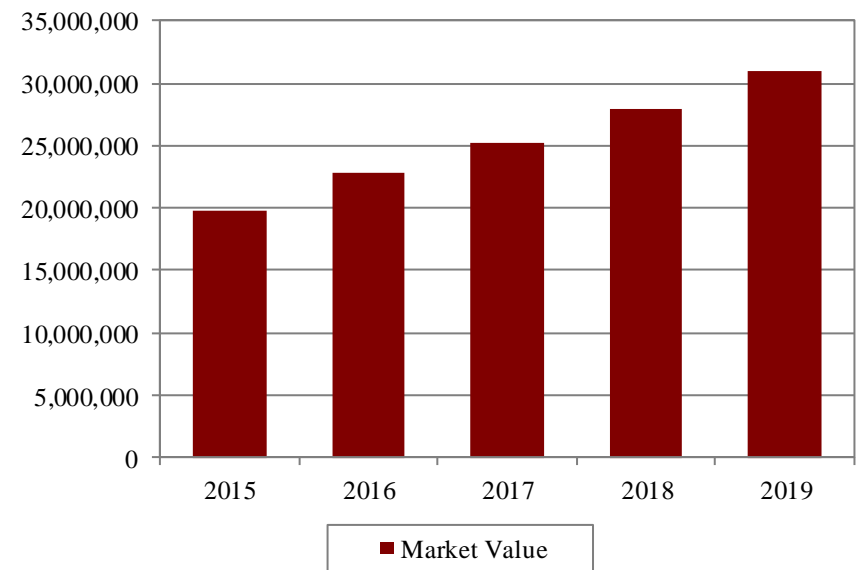
**Assets**

**Assets at June 30, 2019**

Equity Mutual Funds	\$ 20,961,314
Bond Mutual Funds	3,313,281
Corporate Bonds	3,937,718
Government Bonds	858,023
Cash	1,792,194
Contributions Receivable	<u>76,421</u>

**Assets at Market Value                   \$30,938,951**

**Asset Values (June 30)**





**SECTION 1: VALUATION RESULTS**

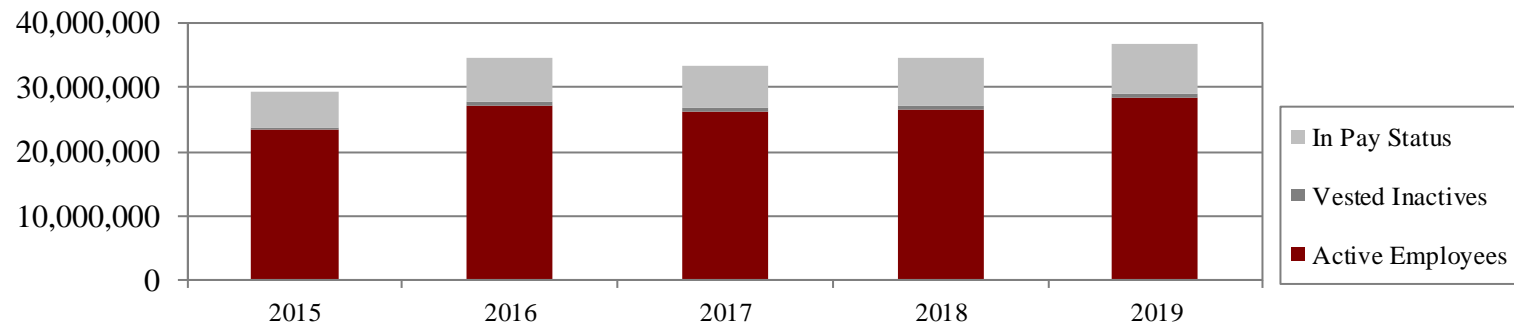
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**Annual Funding (continued)**

**Present Value of Future Benefits**

In Pay Status <sup>(1)</sup>	\$7,722,391
Vested Inactives	722,224
Active Employees	<u>28,378,654</u>
<b>Present Value of Future Benefits<sup>(2)</sup></b>	<b>\$36,823,269</b>

**Present Value of Future Benefits**



<sup>(1)</sup> Retirees, disabled retirees and beneficiaries currently receiving payments.

<sup>(2)</sup> Increased \$2.10M from 2018 due to plan experience.

**SECTION 1: VALUATION RESULTS**

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**Frozen Initial Accrued Liability Remaining Unfunded at July 1, 2019**

1. Frozen Initial Liability remaining unfunded July 1, 2018	\$0
2. Normal Cost as of July 1, 2018	1,221,738
3. Interest on (1) and (2) to June 30, 2019 at 6.0%	73,304
4. Employer contributions for the 2018/2019 Plan year	3,111,520
5. Interest on (4) to June 30, 2019 at 6.0%	91,986
6. Employee contributions for the 2018/2019 Plan year	322,305
7. Interest on (6) to June 30, 2019 at 6.0%	9,528
8. Increase due to assumption changes	0
9. Total FIL remaining unfunded as of July 1, 2019, = (1) + (2) + (3) – (4) – (5) – (6) – (7), not less than \$0 + (8)	0

**SECTION 1: VALUATION RESULTS**

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**Determination of Total Normal Cost**

1. Present Value of Future Benefits	
A. Active Participants	\$28,378,654
B. Terminated participants with Deferred Vested Benefits	722,224
C. In Pay Status	<u>7,722,391</u>
D. Total	\$36,823,269
2. Plan Assets	30,938,951
3. Frozen initial accrued liability remaining unfunded	0
4. Present value of future normal costs = (1) - (2) - (3)	5,884,318
5. Present value of future salaries	32,641,603
6. Normal cost accrual rate = (4) / (5)	18.03%
7. Valuation compensation	4,782,843
8. Preliminary normal cost = (6) x (7)	862,347
9. Administrative Expenses	187,683
10. Total normal cost = (8) + (9)	\$1,050,030
11. Total normal cost accrual rate = (10) / (7)	21.95%

**SECTION 1: VALUATION RESULTS**

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**Determination of Contribution**

Funding Policy

We understand that it is the Company's policy to fund the normal cost plus an amount sufficient to amortize the unfunded accrued liability over 30 years from July 1, 2007. Effective July 1, 2016, changes in unfunded accrued liability are amortized over 10 years. The contribution is made uniformly throughout the year.

	<u>Funding Policy</u>
1 Total normal cost for Plan year	\$1,050,030
2 Amortization of unfunded accrued liability	\$0
3 Interest required for monthly contributions	\$31,042
4 Total annual contribution payable monthly = (1) + (2) + (3)	\$1,081,072
5 Contribution as a percentage of compensation	22.603%

The contributions shown are the total required to meet the Company's Funding Policy.

## **SECTION 1: VALUATION RESULTS**

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### **Actuarial Experience**

A plan's actuarial liability is simply an estimate of the amount of funds required to pay benefits as they come due in the future. This estimate is based on assumptions about future events that impact the plan's funded status; events such as investment earnings on plan assets, how long retirees live, and the probability of an active member remaining in covered employment, among others. Each year the plan's funded status changes due to actual experience different from that anticipated by the actuarial assumptions. This difference is referred to as "actuarial experience."

There are two types of actuarial experience. "Actuarial gains" are generated when experience is more favorable than expected. Actuarial gains serve to improve the funded status of the plan. "Actuarial losses" occur when experience is less favorable than expected. Actuarial losses serve to lessen the funded status of the plan.

Actuarial experience is measured by performing an experience analysis. This analysis is important for two reasons. First, it tells the Plan Sponsor how and why the funded status changed from the prior year. Second, it allows the actuary to monitor whether the assumptions continue to be appropriate for valuing plan liabilities. Differences in actual experience compared to assumed are expected. However, a recurring trend of gains or losses from a particular assumption could indicate that the assumption should be modified.

The Plan's funding cost as a percentage of compensation for the July 1, 2019 Plan Year is 22.603% compared to 25.889% for the prior year. While plan experience increased the funding cost by 1.440%, the funding cost was decreased by 4.726% as a result of a supplemental contribution of \$1.5M made to the Plan during the 2018/2019 Plan Year.

## **SECTION 1: VALUATION RESULTS**

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### **Risk Assessment and Disclosure**

#### **Actuarial Measurements**

An actuarial valuation provides a measurement of pension obligations and actuarially determined pension contributions. These measurements are based on assumptions about future events that impact the plan's funded status; events such as investment earnings on plan assets, how long retirees live, the probability of an active member remaining in covered employment, and the size and composition of the covered group, among others. It is important to understand the risk that the actual cost of a pension plan may differ significantly from the expected cost. In other words, it is important to understand the risks and impact of future plan experience differing from the actuarial assumptions.

#### **Risks to Plan's Financial Status**

There are a number of risks that sponsors may face when funding plan benefits, including the following:

- Investment Risk – The risk that investment returns will be different than expected.
- Demographic Risk – The potential that mortality or other demographic experience will be different than expected.
- Contribution Risk – The risk that contributions received will be different than expected possibly due to lower than expected employee contributions or few hours per participant.

Long Beach Transit has always contributed the full policy requirement.

#### **Plan Maturity**

Plan maturity can have a significant effect on the impact of these risks on a plan's long-term funding requirements.

The number of active employees covered by a pension plan may be an indication of the level of company operations that generates the revenue required to fund the pension plan. As the number of inactive participants (retirees and vested terminated participants) grows compared to active employees, the plan becomes more mature. As a pension plan matures, the revenue generated by active employees may become smaller in proportion to pension plan liabilities making it more expensive on a per-capita basis for the plan sponsor to cover potential funding shortfalls.

In general, a less mature plan represents a lower financial risk to the plan sponsor and a more mature plan represents a higher financial risk.

Following are a number of maturity and risk measurements for the Plan for the current and prior year. A history of maturity and other risk assessment measures are shown in the Historical Information section of this report.

## SECTION 1: VALUATION RESULTS

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### Risk Assessment and Disclosure

#### Active to Inactive (Support Ratio)

The number of active employees covered by a pension plan may be an indication of the level of company operations that generates the revenue required to fund the pension plan. As the number of inactive participants (retirees and vested terminated participants) grows compared to active employees, it becomes more expensive on a per-capita basis for the plan sponsor to cover potential funding shortfalls that may occur.

The ratio of active to inactive participants as of July 1, 2019 is 1.71.

	<u>2019</u>	<u>2018</u>
Inactive	48	48
Active	82	84
Ratio	1.71	1.75

These ratios are higher than most pension plans due to lump sums paid from the Plan. Because the Plan is closed to new entrants, this ratio will decrease over time.

#### Ratio of Inactive to Total Liability

Similar to the active to inactive ratio, a higher ratio of liabilities for inactive participants means it will be more expensive on a per-capita basis and the Plan Sponsor will have fewer remedies to address funding shortfalls.

	<u>2019</u>	<u>2018</u>
Inactive	\$ 8,444,615	\$ 8,193,593
Total	\$ 33,336,433	\$ 31,215,626
Ratio	25.4%	26.2%

These ratios are less than most pension plans due to lump sums paid from the Plan.

#### Historical Information

A history of these maturity measures and other risk assessment measures are shown in the Historical Information section of this report

## **SECTION 2: COMMENTS AND CERTIFICATION**

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### **Certification**

This is to certify that our valuation of the Plan as of July 1, 2019 has been performed in accordance with generally accepted actuarial principles and practices. In preparing this report, we have relied on financial information contained in unaudited financial statements and on participant census information supplied by the Plan sponsor. We did not audit the participant census information. However, we reviewed the data for reasonableness and internal consistency and found no reason to doubt its substantial accuracy.

To the best of our knowledge, the information supplied in this report is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In our opinion each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer our best estimate of anticipated experience under the plan.

We understand that the actuarial assumptions are selected by the Plan sponsor, Long Beach Public Transportation Company. During the last ten plan years, historical rates of return have averaged 6.95% while rates of return averaged 3.32% over the last five plan years. Effective July 1, 2016 the investment return assumption has been lowered from 7.50% per annum to 6.00% per annum to better reflect past experience as well as future expected returns and the amortization period for additional liability due to assumption or plan changes was changed from 30 years to 10 years.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in Plan provisions or applicable law. Due to the nature of this assignment, we did not perform an analysis of the potential range of such measurements.



**SECTION 2: COMMENTS AND CERTIFICATION**

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**Certification (continued)**

This report has been prepared exclusively for the Retirement Plan for Salaried Employees of Long Beach Public Transportation Company for the purposes stated herein.

To the best of our knowledge, the information supplied in this report is complete and accurate.

We, Nancy Teague Lee and David W. Venuti, are members of the American Academy of Actuaries and meet the Qualifications of the American Academy of Actuaries to render the actuarial opinions contained herein.



\_\_\_\_\_  
Nancy Teague Lee  
Consulting Actuary  
Enrolled Actuary No. 17-07500

F.C.A., M.A.A.A



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David W. Venuti  
President and Actuary  
Enrolled Actuary No. 17-03959

F.C.A., M.A.A.A

**SECTION 3**

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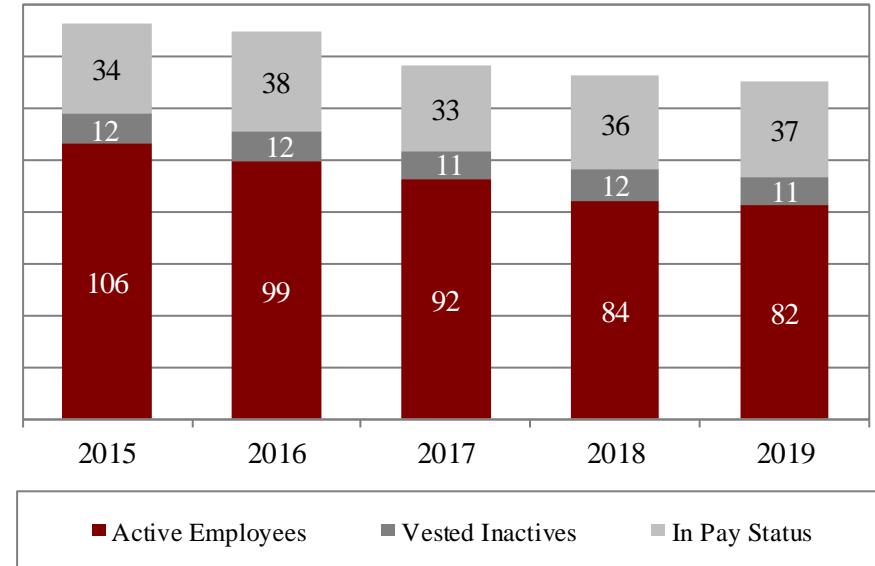
**Supplemental Information**

**SECTION 3: SUPPLEMENTAL INFORMATION**

**Participant Reconciliation**

Active at June 30, 2018	84
Non-Vested Termination	0
Vested Termination	0
Retired Monthly	(2)
Transferred to Contract Plan	0
Transferred from Contract Plan	0
Occupational Disability	0
Lump Sum Distribution	0
Return of Employee Contributions	0
New Actives	0
Disabled Retirement	0
Died	0
Active at June 30, 2019	82
Vested Inactive June 30, 2018	12
Vested Terminations	0
Data Correction	0
Retired Monthly	0
Deceased	0
Lump Sum Distribution	(1)
Vested Inactive June 30, 2019	11
In Pay Status at June 30, 2018	36
New Retiree	2
New Beneficiary	0
New Occupational Disabled	0
Data Correction	0
Deceased	(1)
In Pay Status at June 30, 2019	37

**Participant Count**



**SECTION 3: SUPPLEMENTAL INFORMATION**

**Active Participant Data**

	Years of Credited Service																	
	Under 5		5 to 9		10 too 14		15 to 19		20 to 24		25 to 29		30 to 34		Over 35		Total	
Attained		Avg.		Avg.		Avg.		Avg.		Avg.		Avg.		Avg.		Avg.		Avg.
Age	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.
Under 25	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0
30 to 34	0	0	1	116,255	1	55,725	0	0	0	0	0	0	0	0	0	0	2	85,990
35 to 39	0	0	0	0	4	64,524	2	80,691	0	0	0	0	0	0	0	0	6	69,913
40 to 44	0	0	0	0	7	67,740	2	75,981	1	74,850	0	0	0	0	0	0	10	70,099
45 to 49	0	0	0	0	4	72,434	5	59,474	8	67,875	1	61,320	1	84,479	0	0	19	67,153
50 to 54	0	0	0	0	1	79,803	2	78,546	6	80,885	5	76,383	1	77,523	0	0	15	78,776
55 to 59	0	0	2	70,324	5	84,656	2	112,596	3	93,346	1	83,116	1	85,276	0	0	14	88,397
60 to 64	0	0	0	0	5	76,699	1	147,795	1	83,977	1	88,004	0	0	2	73,187	10	84,964
65 to 69	0	0	0	0	1	73,520	1	83,801	1	50,222	0	0	0	0	0	0	3	69,181
70 & up	0	0	0	0	1	74,285	0	0	2	124,597	0	0	0	0	0	0	3	107,827
Total	0	0	3	85,634	29	72,832	15	81,640	22	80,300	8	76,794	3	82,426	2	73,187	82	77,661

Average Age: 52.05 years

Average Credited Service: 18.49 years

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Vested Inactive Data**

Monthly Accrued Benefit	Number
Under \$100	0
100 to 199	1
200 to 299	0
300 to 399	0
400 to 499	1
500 to 599	0
600 to 699	3
700 to 799	0
800 to 899	1
900 to 999	1
1,000 to 1,099	0
1,100 to 1,199	0
1,200 to 1,299	1
1,300 to 1,399	2
1,400 to 1,499	1
1,500 to 1,599	0
1,600 to 1,699	0
1,700 or more	0
Total	11

Age	Number
Under 30	0
30 to 34	0
35 to 39	1
40 to 44	1
45 to 49	1
50 to 54	2
55 to 59	3
60 to 64	2
65 or over	1
Total	11

Average Age      53.90 years

Average Monthly  
Accrued Benefit      \$891.61

**SECTION 3: SUPPLEMENTAL INFORMATION**

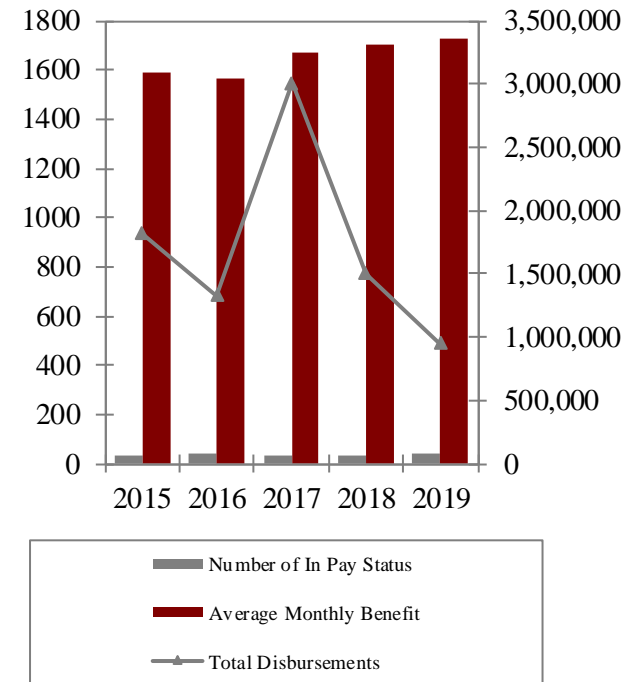
**Retiree Data**

Monthly Benefit <sup>(1)</sup>	Number
Under \$100	0
100 to 199	0
200 to 299	0
300 to 399	0
400 to 499	0
500 to 599	3
600 to 699	1
700 to 799	4
800 to 899	2
900 to 999	0
1,000 to 1,099	2
1,100 to 1,199	2
1,200 to 1,299	0
1,300 to 1,399	2
1,400 to 1,499	1
1,500 to 1,599	0
1,600 to 1,699	0
1,700 to 1,799	3
1,800 to 1,899	1
1,900 to 1,999	2
2,000 or over	10
<b>Total</b>	<b>33</b>

Age <sup>(1)</sup>	Number
Under 55	2
55 to 59	1
60 to 64	11
65 to 69	6
70 to 74	7
75 to 79	3
80 to 84	1
85 to 89	2
90 or over	0
<b>Total</b>	<b>33</b>

Average Age: 68.29 years  
New Retirees: 63.65 years

Ave. Mo. Benefit: \$1,730.37  
New Retirees: \$1,830.43



<sup>(1)</sup>Data excludes 4 beneficiaries who are included in the plan's liabilities.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Asset Information**

<b>Market Value of Assets at July 1, 2018</b>		<b>27,866,540</b>
Employer Contributions		\$3,111,520
Employee Contributions		\$322,305
Net Investment Income		
Interest	\$155,084	
Dividends	1,015,058	
Unrealized Gain (Loss)	(443,172)	
Realized Gain (Loss)	<u>50,713</u>	
Net Investment Income		\$777,683
Benefit Payments	(\$951,414)	
Direct Administrative Costs	(73,481)	
Other Administrative Costs	(114,202)	
Asset Transfer From Contract Plan	<u>0</u>	
		(1,139,097)
<b>Market Value of Assets at June 30, 2019</b>		<b>30,938,951</b>

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Present Value of Accumulated Plan Benefits**

**Reconciliation of Actuarial Present Value  
of Accumulated Plan Benefits**

Actuarial Present Value of Accumulated Plan Benefits at June 30, 2018	\$26,665,302
Benefits Accumulated and Actuarial Experience During the Year	\$859,874
Increase for interest	1,571,791
Benefits Paid	(951,414)
Change in assumptions	<u>0</u>
Net Increase/(Decrease)	<u>1,480,251</u>
Actuarial Present Value of Accumulated Plan Benefits at June 30, 2019	\$28,145,553

**Actuarial Present Value of Vested and  
Non-Vested Accumulated Plan Benefits**

Vested Benefits	
Participants Currently Receiving Benefits	\$7,722,391
Other participants	<u>18,855,323</u>
Vested Benefits	\$26,577,714
Non-Vested Benefits	<u>1,567,839</u>
Actuarial Present Value of Accumulated Plan Benefits at June 30, 2019	\$28,145,553

<sup>(1)</sup> Value of benefits earned by current participants based on pay and service through the valuation date. Approximation of amount due to participants if the plan terminated as of July 1, 2019 and settled all obligations at 6.00%.



**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Summary of Plan Provisions**

**Plan Type:** Public Pension Plan.

**Plan Effective Date:** June 30, 1979.

**Plan Year:** July 1 – June 30.

**Participation:** All full-time employees are eligible on their date of employment. The Plan is frozen to new hires and rehires as of April 1, 2011.

**Average Monthly Final Earnings (AMFE):** 36 month average of compensation out of the last 10 calendar years of employment.

**Monthly Normal Retirement Benefit:** Years of Service (not to exceed 40 years) times 1.70% of AMFE.

**Years of Service:** One year of service is granted for each 12 months of consecutive service in which an employee works at least one hour in each month.

**Normal Form of Benefit:** Lifetime payments to retiree.

**Normal Retirement Age:** Age 64 with 10 Years of Service.

**Early Retirement Age:** Age 54 with 10 Years of Service.

**Early Retirement Benefit:** Accrued benefit reduced 5.0% for each year preceding age 64 (prorated for partial years).

**Late Retirement Benefit:** A participant retiring after Normal Retirement Age is entitled to a benefit based on years of service and final average pay as of retirement.

**70/80 Early Retirement Eligibility:** Any age if sum of age and Years of Service is at least 70.

**70/80 Early Retirement Benefit:** Accrued benefit unreduced if age plus Years of Service is at least 80. If sum is greater than 70 but less than 80 the following reduction table applies:

<u>Sum</u>	<u>Reduction</u>
80 or more	1.000
79	0.937
78	0.879
77	0.825
76	0.776
75	0.730
74	0.688
73	0.648
72	0.612
71	0.578
70	0.546

**Vesting:** 5 Years of Service.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Summary of Plan Provisions (continued)**

**Break-in-Service:** 12 consecutive month period during which an employee does not work at least one hour.

**Permanent Break-in-Service:** 5 consecutive 1-year breaks-in-service.

**Disability Retirement Eligibility:** Disabled while an active employee.

**Monthly Occupational Disability Benefit:** Years of Service at time of disability times 1.70% of AMFE. Minimum disability pension is 17% of AMFE. Benefit is payable immediately.

**Total and Permanent Disability Retirement Benefit:** Monthly Normal Retirement Benefit based on AMFE and Years of Service as of date of disability. Benefit is payable immediately without reduction for early commencement.

**Monthly Pre-Retirement Death Eligibility:** Vested or eligible for Early or Normal Retirement and married.

**Pre-Retirement Death Benefit:** Surviving spouse will receive an annuity equal to 50% of the amount the participant would have received under the 50% joint and survivor form of payment if he/she had terminated on the day before death and survived to early retirement age.

**Post-Retirement Death Benefit:** Survivor benefit, if any, based on the form of payment in effect at time of death.

**Optional Forms of Benefit Payment:** 50%, 75%, or 100% joint and survivor annuity, 25% lump sum/75% annuity, period certain installment payments, annuity purchase or lump sum.

**Employee Contributions:** All employees must contribute 5% of their pre-tax compensation to the Plan. Plan benefits are reduced if a participant chooses to receive a refund of their accumulated contributions.

**Return of Employee Contributions:** Non-vested participants are entitled to a return of their contributions upon termination from the plan.

**Plan Provisions Excluded from Measurement:** None.

**Changes Since Prior Valuation:** None.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Actuarial Method and Assumptions**

**Actuarial Cost Method:** Frozen Initial Liability.

**Actuarial Assumptions:**

**Interest Discount Rate:** 6.00% compounded annually.

**Investment Yield:** 6.00% compounded annually.

**Administrative Expenses:** Actual administrative expenses for the prior year are added to the normal cost as of the beginning of the year. For 2019, the administrative expense assumption is \$187,683.

**Employee Contribution  
Interest Credit:** 5.00% compounded annually.

**Salary Increases:** 3.00% per year.

**Lump Sums:** 4.5% interest; 2019 IRS Applicable Mortality Table

**Mortality:** For funding:

Healthy: IRS 2007 Current Liability Combined table.

Disabled: IRS 2007 Current Liability Combined table.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Actuarial Method and Assumptions (continued)**

**Termination Before Retirement:** Sample rates are shown below:

<u>Age</u>	<u>Turnover Rate</u>
20	7.94%
25	7.72
30	7.22
35	6.28
40	5.15
45	3.98
50	2.56
55	0.94

**Retirement:** The following rates apply for participants eligible for 70/80 Retirement:

<u>Age</u>	<u>Retirement Rate</u>
50-53	5%
54-55	10
56-57	20
58-59	40
60 and older	100

All other active participants, inactive vested participants, and future inactive vested participants are assumed to retire at age 64 after completion of 10 years of service.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Actuarial Method and Assumptions (continued)**

**Disability:**

Sample rates are shown below:

<u>Age</u>	<u>Disability Rate</u>
20	0.01%
25	0.02
30	0.03
35	0.04
40	0.05
45	0.18
50	0.34
55	0.60
60	0.89

**Marital Status:**

80% of non-retired participants are married. Female spouse is assumed to be three years younger than male spouse.

**Form of Payment:**

80% of active participants are assumed to elect the lump sum option. The remaining 20% of active participants are assumed to elect the single life annuity. Vested Terminated participants are assumed to elect the single life annuity.

**Unknown Data:**

Participants with unreported data, such as missing birthdates, are assumed to have the same characteristics as similar participants. If not specified, participants are assumed to be male.

**Asset Valuation Method:**

Market value.

**Changes Since Prior Valuation:**

None.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Six-Year Plan Overview**

	<b>Plan Year Beginning July 1</b>					
	<b><u>2019</u></b>	<b><u>2018</u></b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>
Funding Policy Contribution						
Percentage of Covered Compensation	22.603%	25.889%	27.093%	29.846%	24.551%	27.518%
Annual Amount Paid Monthly	\$1,081,072	\$1,257,856	\$1,405,306	\$1,797,648	\$1,566,470	\$1,905,522
Covered Compensation	4,782,843	4,858,664	5,186,888	6,023,124	6,380,468	6,924,729
Market Value of Assets	30,938,951	27,866,540	25,232,880	22,777,566	19,819,218	16,655,211
Present Value of Vested Benefits	26,577,714	25,129,957	23,302,212	22,999,037	19,067,832	19,011,701
Present Value of Accumulated Benefits	28,145,553	26,665,302	24,949,906	24,794,691	20,757,567	20,712,354
Number of Active Participants	82	84	92	99	106	119
Number of Vested Terms	11	12	11	12	12	8
Number of Retirees	37	36	33	38	34	33
Total Participants	130	132	136	149	152	160

Amounts are based on total employer plus employee contributions.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Determination of 2019 Total Normal Cost  
Estimated Impact of Interest Rate Assumption Change**

	<b>Current 6.00% Interest</b>	<b>5.00% Interest</b>	<b>4.00% Interest</b>
1 Present Value of Future Benefits			
A. Active Participants	28,378,654	30,674,080	33,397,752
B. Terminated participants with Deferred Vested Benefits	722,224	853,642	1,019,961
C. In Pay Status	<u>7,722,391</u>	<u>8,400,838</u>	<u>9,193,104</u>
D. Total	36,823,269	39,928,560	43,610,817
2 Plan Assets	30,938,951	30,938,951	30,938,951
3 Frozen initial accrued liability remaining unfunded	0	2,239,583	4,794,787
4 Present value of future normal costs = (1) - (2) - (3)	5,884,318	6,750,026	7,877,079
5 Present value of future salaries	32,641,603	34,214,227	35,949,373
6 Normal cost accrual rate = (4) / (5)	18.03%	19.73%	21.91%
7 Valuation compensation	4,782,843	4,782,843	4,782,843
8 Preliminary normal cost = (6) x (7)	862,347	943,655	1,047,921
9 Administrative Expenses	187,683	187,683	187,683
10 Total normal cost = (8) + (9)	1,050,030	1,131,338	1,235,604
11 Total normal cost accrual rate = (10) / (7)	21.95%	23.65%	25.83%

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Determination of 2019 Contribution Under Funding Policy  
Estimated Impact of Interest Rate Assumption Change With 10 Year Amortization**

	Current <u>6.00% Interest</u>	<u>5.00% Interest</u>	<u>4.00% Interest</u>
1 Total normal cost for Plan year	1,050,030	1,131,338	1,235,604
2 Amortization of unfunded accrued liability:			
A. Initial unfunded remaining	0	0	0
B. Amortization period remaining (in years)	0	0	0
C. Amortization amount	0	0	0
D. Interest rate change	N/A	2,239,583	4,794,787
E. Amortization period	N/A	10	10
F. Amortization amount	N/A	276,225	568,417
3 Interest required for monthly contributions	31,042	34,760	35,727
4 Total annual contribution payable monthly = (1) + (2C) + (2F) + (3)	1,081,072	1,442,323	1,839,748
A. Employer	841,930	1,203,181	1,600,606
B. Employee	239,142	239,142	239,142
5 Contribution as a percentage of payroll	22.603%	30.156%	38.466%
A. Employer	17.603%	25.156%	33.466%
B. Employee	5.000%	5.000%	5.000%



#### **SECTION 4: HISTORICAL INFORMATION**

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An actuarial valuation provides a measurement of pension obligations and actuarially determined pension contributions. These measurements are based on assumptions about future events that impact the plan's funded status; events such as investment earnings on plan assets, how long retirees live, the probability of an active member remaining in covered employment, and the size and composition of the covered group, among others. It is important to understand the risks that the actual cost of a pension plan may differ significantly from the expected cost of a pension plan. In other words, it is important to understand the risks and impact of future plan experience differing from the actuarial assumptions.

The effect of various risks on a plan's long-term funding requirements will depend on the maturity of the plan. Plan maturity, risk factors and the plan's financial condition change over time depending on plan experience, how actual experience has differed from that anticipated by the actuarial assumptions and by changes in the underlying actuarial assumptions. It is informative to see how these measures have changed over time.

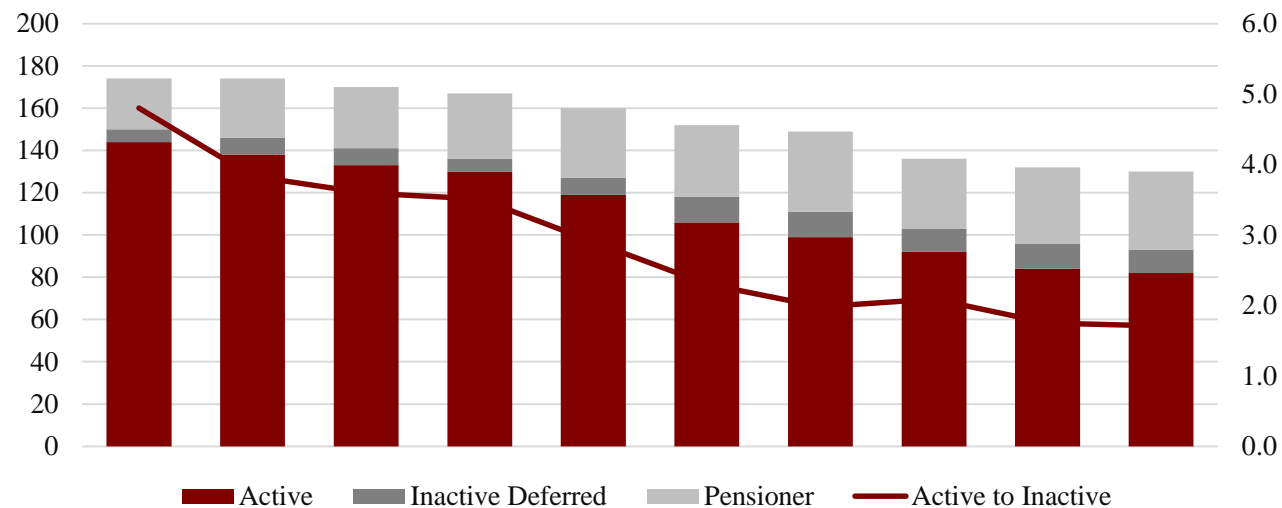
The following pages examine the history of a number of maturity measures, risk measures and other financial information.

- ..... Ratio of Active to Inactive Participants
- ..... Ratio of Inactive Liability to Total Liability
- ..... Investment Return
- ..... Funded Percentage
- ..... Funding Policy Contribution
- ..... Cash Flows

## SECTION 4: HISTORICAL INFORMATION

### Ratio of Active to Inactive Participants

The number of active employees covered by a pension plan may be an indication of the level of company operations that generates the revenue required to fund the pension plan. As the number of inactive participants (retirees and vested terminated participants) grows compared to active employees, it becomes more expensive on a per-capita basis for the plan sponsor to cover potential funding shortfalls that may occur. As of July 1, 2019 the active to inactive ratio for this Plan is 1.71. Because the Plan is closed to new entrants, this ratio will decrease over time.

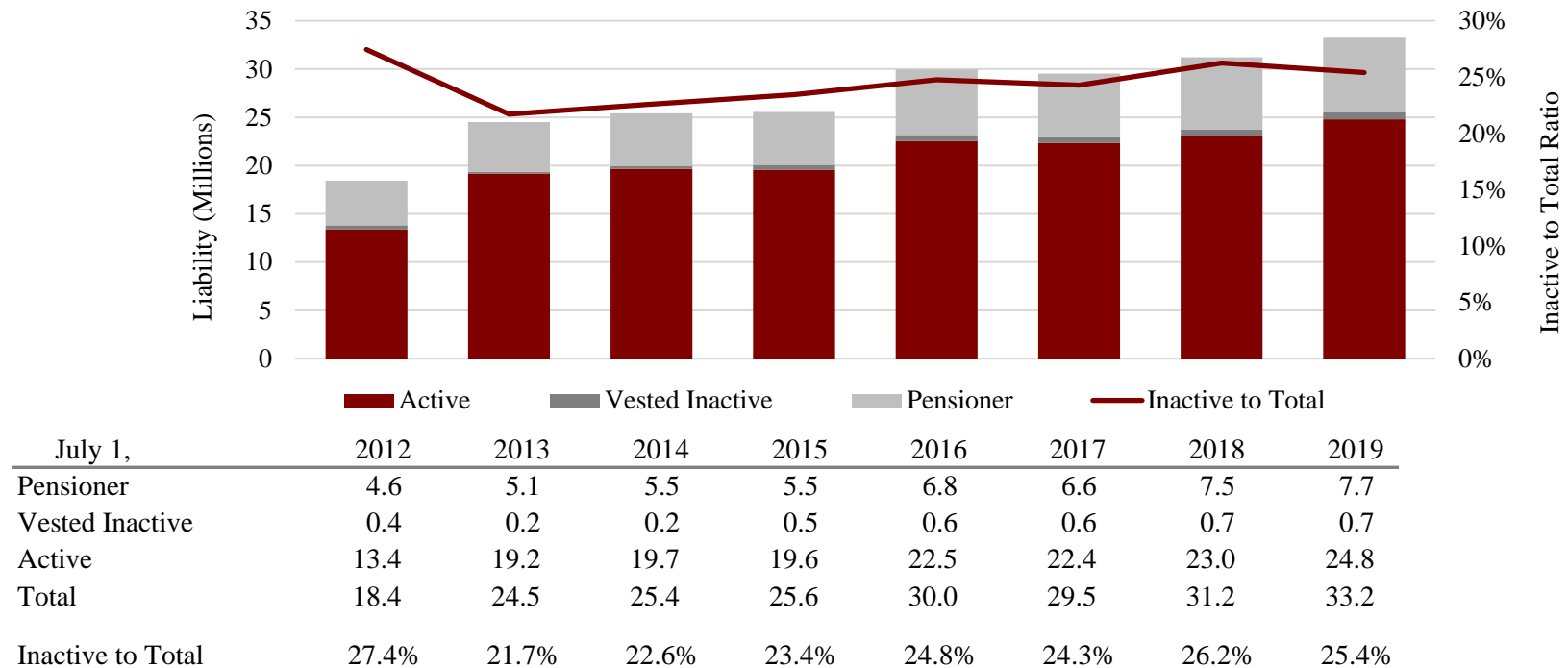


July 1,	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Pensioner	24	28	29	31	33	34	38	33	36	37
Inactive Deferred	6	8	8	6	8	12	12	11	12	11
Active	144	138	133	130	119	106	99	92	84	82
Total	174	174	170	167	160	152	149	136	132	130
Active to Inactive	4.80	3.83	3.59	3.51	2.90	2.30	1.98	2.09	1.75	1.71

**SECTION 4: HISTORICAL INFORMATION**

**Ratio of Inactive Liability to Total Liability**

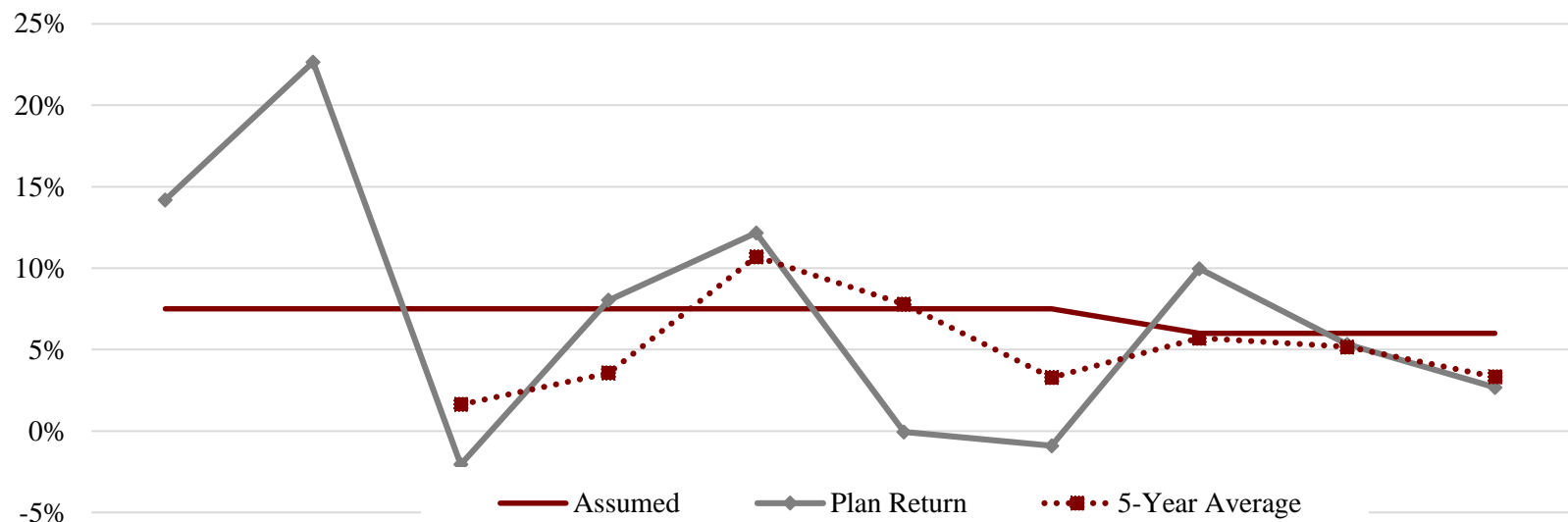
Another measure of a plan's maturity is the ratio of liability for inactive participants to liability for all participants. Similar to the inactive to active ratio, as the ratio of liabilities for inactive participants increases, it will be more expensive on a per-capita basis and the Plan Sponsor may have fewer remedies to address funding shortfalls. As of July 1, 2019 the ratio of inactive liability to total liability for this Plan is 25.4%.



## SECTION 4: HISTORICAL INFORMATION

### Investment Return

The long-term investment return assumption was 7.50% from 2009 through 2015 and was updated to 6.00% in 2016. The return assumption is net of investment expenses. A Plan's ability to meet the benefit requirements is largely determined by its ability to earn the assumed rate of return over the long term. Returns over the past 10 years are shown below.

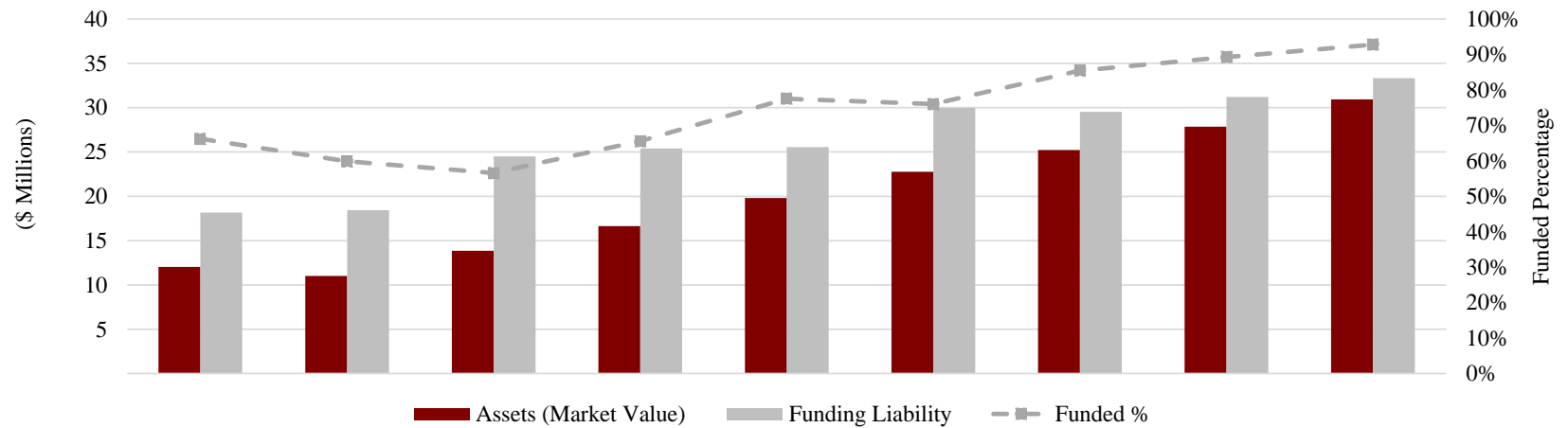


PYE 6/30	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Assumed	7.50	7.50	7.50	7.50	7.50	7.50	7.50	6.00	6.00	6.00
Plan Return	14.19	22.65	-2.05	8.03	12.17	-0.06	-0.91	9.96	5.32	2.68
5-Year Average			1.62	3.55	10.70	7.79	3.28	5.70	5.17	3.32

## SECTION 4: HISTORICAL INFORMATION

### Funded Percentage

One measure of a plan's financial condition is the funded percentage, the ratio of the assets to plan liabilities. The following shows the funded percentage based on the funding ("entry age") liability.

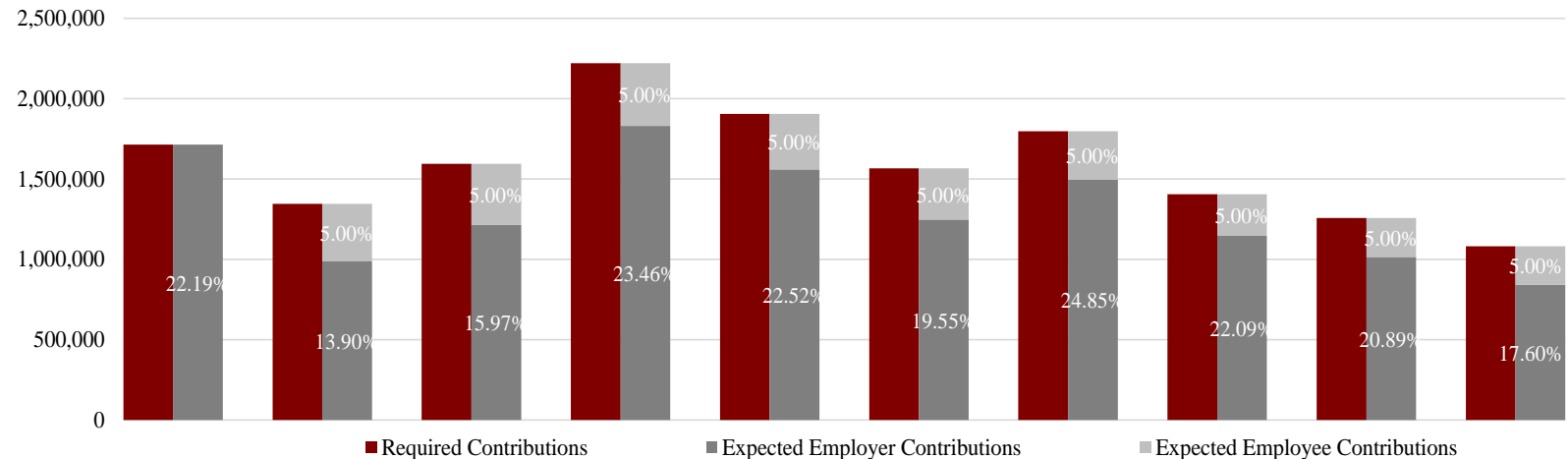


July 1,	2011	2012	2013	2014	2015	2016	2017	2018	2019
Assets (Market Value)	12.0	11.0	13.9	16.7	19.8	22.8	25.2	27.9	30.9
Funding Liability	18.2	18.4	24.5	25.4	25.6	30.0	29.5	31.2	33.3
Funded %	66.2%	59.9%	56.6%	65.5%	77.5%	76.0%	85.5%	89.3%	92.8%

**SECTION 4: HISTORICAL INFORMATION**

**Funding Policy Contribution**

The Company's funding policy is to fund the normal cost plus an amount sufficient to amortize the unfunded accrued liability over 30 years from July 1, 2007. Effective July 1, 2016, changes in unfunded accrued liability are amortized over 10 years. The contribution is made uniformly over the year. The normal cost is the annual cost for actives accruing benefits for the year and a component for prior experience different than assumed. It is impacted by several factors including: active population, interest discount rates, investment return and other demographic experience, and the level of prior-year contributions. The calculation of the normal cost is based on the Frozen Initial Liability cost method and in years following strong asset performance, there may be excess asset returns which can reduce the normal costs.

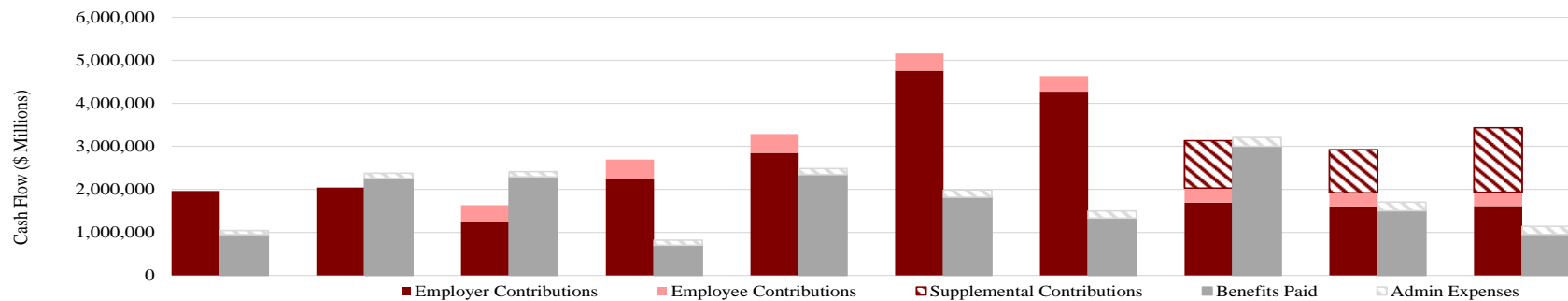


July 1,	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Required Contributions	1,714,810	1,345,851	1,594,167	2,220,360	1,905,522	1,566,470	1,797,648	1,405,306	1,257,856	1,081,072
Covered Compensation	7,729,285	7,121,812	7,602,881	7,800,712	6,924,729	6,380,468	6,023,124	5,186,888	4,858,664	4,782,843
Percent of Covered Compensation	22.19%	18.90%	20.97%	28.46%	27.52%	24.55%	29.85%	27.09%	25.89%	22.60%
Expected Employer Contributions	1,714,810	989,761	1,214,023	1,830,324	1,559,286	1,247,447	1,496,492	1,145,962	1,014,923	841,930
Expected Employee Contributions	-	356,090	380,144	390,036	346,236	319,023	301,156	259,344	242,933	239,142

## SECTION 4: HISTORICAL INFORMATION

### Cash Flows

Each year, a plan pays pension benefits to its participants in pay status as well as operational expenses incurred. Money coming into the plan helps fund and offset these plan costs. A negative cash flow is one indication that a plan may be more mature. In addition, a negative cash flow typically makes it more difficult for a plan to recover from asset losses.



PYE 6/30	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Employer Contributions	1,964,523	2,041,762	1,244,244	2,244,185	2,847,508	4,758,243	4,270,185	1,690,134	1,602,155	1,611,520
Employee Contributions	0	0	387,987	449,958	436,748	402,617	365,367	340,086	320,450	322,305
Supplemental Contributions	0	0	0	0	0	0	0	1,100,000	1,000,000	1,500,000
Total Contributions	1,964,523	2,041,762	1,632,231	2,694,143	3,284,256	5,160,860	4,635,552	3,130,220	2,922,605	3,433,825
Benefits Paid	(950,146)	(2,255,212)	(2,294,168)	(702,018)	(2,342,868)	(1,818,412)	(1,332,112)	(3,003,925)	(1,503,429)	(951,414)
Admin Expenses	(94,633)	(118,827)	(118,457)	(117,013)	(142,202)	(167,173)	(167,603)	(203,559)	(199,961)	(187,683)
Total Benefits and Expenses	(1,044,779)	(2,374,039)	(2,412,625)	(819,031)	(2,485,070)	(1,985,585)	(1,499,715)	(3,207,484)	(1,703,390)	(1,139,097)
Net Cash Flow	919,744	(332,277)	(780,394)	1,875,112	799,186	3,175,275	3,135,837	(77,264)	1,219,215	2,294,728