

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

***Actuarial Valuation as of  
July 1, 2018***

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August 2018

**VENUTI & ASSOCIATES**

ACTUARIES AND BENEFITS CONSULTANTS

August 31, 2018

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, 2018. 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, 2018 decreased from 27.093% of pay to 25.889% of pay as follows:

- |                              |                 |
|------------------------------|-----------------|
| • July 1, 2017 funding cost  | 27.093%         |
| • Plan experience            | 2.022%          |
| • Supplemental Contributions | <u>(3.226%)</u> |
| • July 1, 2018 funding cost  | 25.889%         |

We look forward to discussing our report with you.

Very truly yours,



David W. Venuti  
President

**VENUTI & ASSOCIATES**

ACTUARIES AND BENEFITS CONSULTANTS

RETIREMENT PLAN FOR SALARIED EMPLOYEES OF  
LONG BEACH PUBLIC TRANSPORTATION COMPANY  
JULY 1, 2018

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**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, 2018	July 1, 2017	Change
Number of Participants			
Actives			
Vested	84	92	(8)
Non-Vested	<u>0</u>	<u>0</u>	<u>0</u>
Total	84	92	(8)
Inactive Vested	12	11	1
In pay status			
Retirees	26	25	1
Disabled	6	4	2
Beneficiaries	<u>4</u>	<u>4</u>	<u>0</u>
Total	36	33	3
Total Participants	132	136	(4)

**SECTION 1: VALUATION RESULTS**

**Summary Information (continued)**

	July 1, 2018	July 1, 2017	Change
Normal Cost for all benefits for fiscal year	\$1,221,738	\$1,194,255	\$27,483
Contribution for the fiscal year under the Company's Funding policy (assuming it is paid uniformly throughout the year)			
Annual amount	\$1,257,856	\$1,405,306	(\$147,450)
Percent of covered compensation	25.889%	27.093%	(1.204%)
Expected employee contributions <sup>(1)</sup>	\$242,933	\$259,344	(\$16,411)
Expected employer contributions <sup>(1)</sup>	\$1,014,923	\$1,145,962	(\$131,039)
Entry Age Normal Accrued Liability	\$31,215,626	\$29,527,880	\$1,687,746
Funded Percentage	89.27%	85.45%	3.82%
Market Value of Plan Assets	\$27,866,540	\$25,232,880	\$2,633,660
Frozen Initial Liability Remaining Unfunded <sup>(2)</sup>	\$0	\$1,230,708	(\$1,230,708)

<sup>(1)</sup> 2018 employee contribution is 5.00% of compensation. 2018 employer contribution is 20.889% of compensation. Total change in expected employer contributions from 2017 is a decrease of \$131,039

<sup>(2)</sup> The frozen initial liability remaining unfunded at July 1, 2017 is due to the interest rate assumption change from 7.50% to 6.00% as of July 1, 2016.

## **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 has been fully amortized by supplemental contributions effective June 30, 2018.

**SECTION 1: VALUATION RESULTS**

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**Annual Funding (continued)**

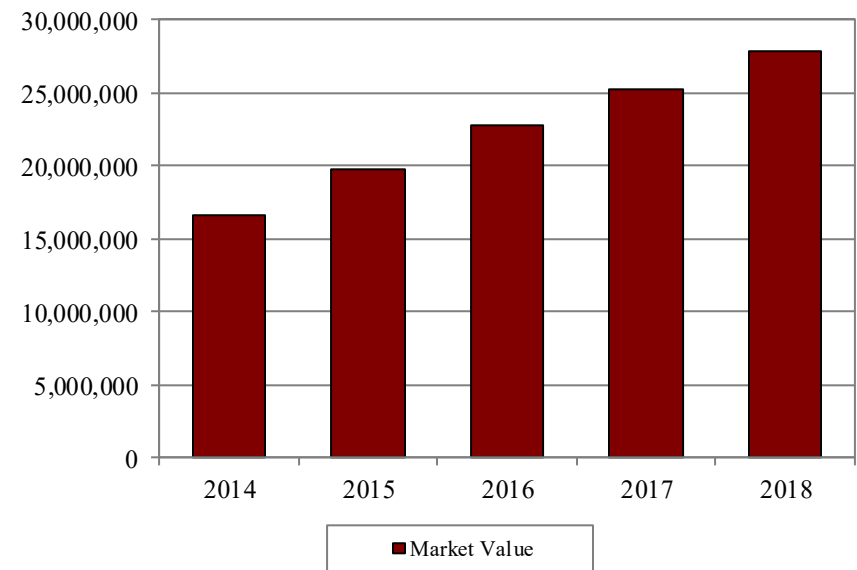
**Assets**

**Assets at June 30, 2018**

Equity Mutual Funds	\$ 19,088,432
Bond Mutual Funds	3,775,257
Corporate Bonds	3,726,295
Government Bonds	737,677
Cash	426,486
Contributions Receivable	74,730
Asset Transfer Receivable	<u>37,663</u>

**Assets at Market Value** **\$27,866,540**

**Asset Values (June 30)**



**SECTION 1: VALUATION RESULTS**

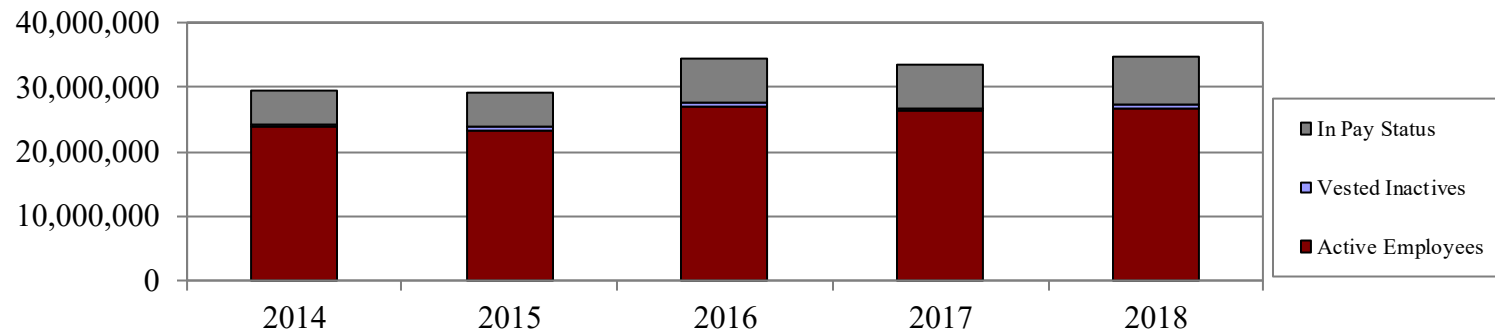
**Annual Funding (continued)**

**Present Value of Future Benefits**

In Pay Status <sup>(1)</sup>	\$7,483,886
Vested Inactives	709,707
Active Employees	<u>26,568,219</u>

<b>Present Value of Future Benefits<sup>(2)</sup></b>	<b>\$34,761,812</b>
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**Present Value of Future Benefits**



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

<sup>(2)</sup> Increased \$1.33M from 2017 due to plan experience.



**SECTION 1: VALUATION RESULTS**

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**Frozen Initial Accrued Liability Remaining Unfunded at July 1, 2018**

1. Frozen Initial Liability remaining unfunded July 1, 2017	\$1,230,708
2. Normal Cost as of July 1, 2017	1,194,255
3. Interest on (1) and (2) to June 30, 2018 at 6.0%	145,498
4. Employer contributions for the 2017/2018 Plan year	2,602,155
5. Interest on (4) to June 30, 2018 at 6.0%	76,928
6. Employee contributions for the 2017/2018 Plan year	320,450
7. Interest on (6) to June 30, 2018 at 6.0%	9,473
8. Increase due to assumption changes	0
9. Total FIL remaining unfunded as of July 1, 2018, = (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	\$26,568,219
B. Terminated participants with Deferred Vested Benefits	709,707
C. In Pay Status	<u>7,483,886</u>
D. Total	\$34,761,812
2. Plan Assets	27,866,540
3. Frozen initial accrued liability remaining unfunded	0
4. Present value of future normal costs = (1) - (2) - (3)	6,895,272
5. Present value of future salaries	32,794,910
6. Normal cost accrual rate = (4) / (5)	21.03%
7. Valuation compensation	4,858,664
8. Preliminary normal cost = (6) x (7)	1,021,777
9. Administrative Expenses	199,961
10. Total normal cost = (8) + (9)	\$1,221,738
11. Total normal cost accrual rate = (10) / (7)	25.15%

**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	\$1,221,738
2 Amortization of unfunded accrued liability	\$0
3 Interest required for monthly contributions	\$36,118
4 Total annual contribution payable monthly = (1) + (2) + (3)	\$1,257,856
5 Contribution as a percentage of compensation	25.889%

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, 2018 Plan Year is 25.889% compared to 27.093% for the prior year. While plan experience increased the funding cost by 2.022%, the funding cost was decreased by 3.226% as a result of a supplemental contribution of \$1M made to the Plan during the 2017/2018 Plan Year.

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

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### **Certification**

This is to certify that our valuation of the Plan as of July 1, 2018 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 4.36% while rates of return averaged 5.17% 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.



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

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



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

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

**SECTION 3**

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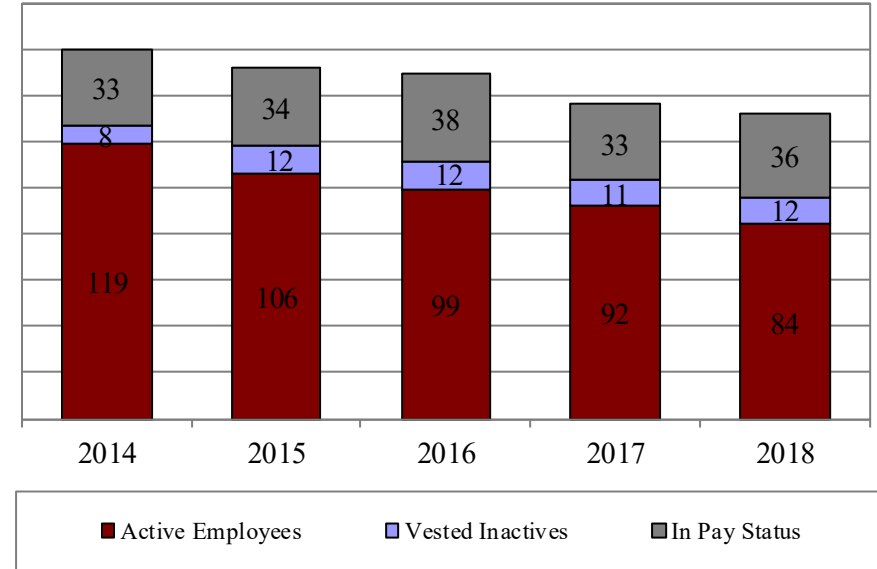
**Supplemental Information**

**SECTION 3: SUPPLEMENTAL INFORMATION**

**Participant Reconciliation**

Active at June 30, 2017	92
Non-Vested Termination	0
Vested Termination	(1)
Retired Monthly	(2)
Transferred to Contract Plan	0
Transferred from Contract Plan	1
Occupational Disability	(2)
Lump Sum Distribution	(4)
Return of Employee Contributions	0
New Actives	0
Disabled Retirement	0
Died	<u>0</u>
Active at June 30, 2018	84
Vested Inactive June 30, 2017	11
Vested Terminations	1
Data Correction	0
Retired Monthly	0
Deceased	0
Lump Sum Distribution	<u>0</u>
Vested Inactive June 30, 2018	12
In Pay Status at June 30, 2017	33
New Retiree	2
New Beneficiary	0
New Occupational Disabled	2
Data Correction	0
Deceased	<u>(1)</u>
In Pay Status at June 30, 2018	36

**Participant Count (July 1 )**





**SECTION 3: SUPPLEMENTAL INFORMATION**

**Active Participant Data**

Years of Credited Service																		
	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		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	0	0	1	108,783	4	63,051	0	0	0	0	0	0	0	0	5	72,198
35 to 39	0	0	0	0	1	67,909	2	51,915	3	73,280	0	0	0	0	0	0	6	65,263
40 to 44	0	0	0	0	1	57,108	8	62,224	2	70,853	5	73,029	0	0	0	0	16	66,359
45 to 49	0	0	0	0	0	0	2	82,363	5	53,962	4	48,253	2	65,570	0	0	13	58,361
50 to 54	0	0	0	0	2	53,974	0	0	3	96,771	8	83,651	3	71,704	1	73,588	17	79,774
55 to 59	0	0	0	0	3	72,709	3	71,533	2	96,213	2	85,644	0	0	3	77,006	13	79,035
60 to 64	0	0	0	0	1	73,683	3	78,685	2	79,083	2	83,679	1	80,338	0	0	9	79,511
65 to 69	0	0	0	0	1	69,300	0	0	1	157,229	1	46,030	0	0	0	0	3	90,853
70 & up	0	0	0	0	0	0	1	80,011	1	75,536	0	0	0	0	0	0	2	77,773
Total	0	0	0	0	10	70,286	23	67,357	19	79,212	22	73,274	6	71,098	4	76,152	84	72,623

Average Age: 50.33 years

Average Credited Service: 17.60 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	4
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	12

Average Monthly  
Accrued Benefit                      \$870.98

Age	Number
Under 30	0
30 to 34	0
35 to 39	2
40 to 44	1
45 to 49	3
50 to 54	2
55 to 59	3
60 to 64	1
65 or over	0
Total	12

Average Age                      50.89 years

**SECTION 3: SUPPLEMENTAL INFORMATION**

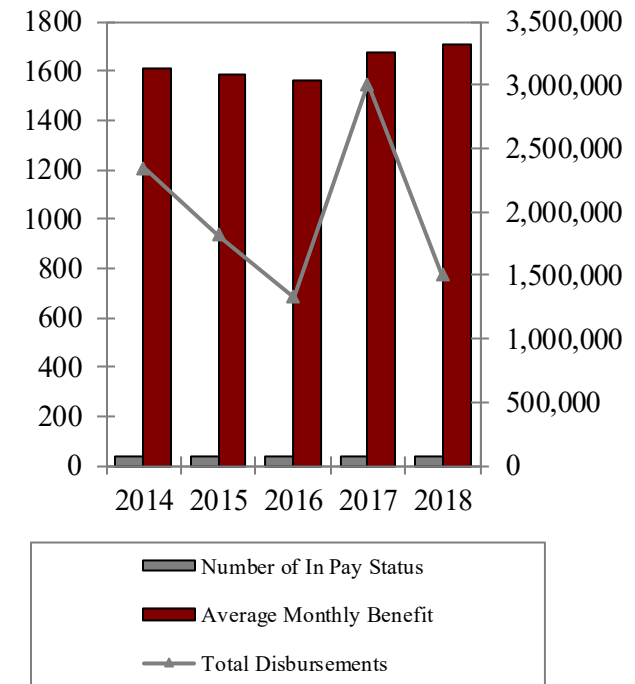
**Retiree Data**

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	3
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	2
1,800 to 1,899	1
1,900 to 1,999	1
2,000 or over	10
<b>Total</b>	<b>32</b>

Age <sup>(1)</sup>	Number
Under 55	2
55 to 59	5
60 to 64	6
65 to 69	7
70 to 74	7
75 to 79	2
80 to 84	3
85 to 89	0
90 or over	0
<b>Total</b>	<b>32</b>

Average Age: 66.85 years  
New Retirees: 56.44 years

Ave. Mo. Benefit: \$1,703.97  
New Retirees: \$1,660.16



<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, 2017</b>		<b>\$25,232,880</b>
Employer Contributions		\$2,602,155
Employee Contributions		\$320,450
Net Investment Income		
Interest	\$158,852	
Dividends	968,219	
Unrealized Gain (Loss)	(277,964)	
Realized Gain (Loss)	<u>527,675</u>	
Net Investment Income		\$1,376,782
Benefit Payments		(\$1,503,429)
Direct Administrative Costs		(69,491)
Other Administrative Costs		(130,470)
Asset Transfer From Contract Plan		<u>37,663</u>
<b>Market Value of Assets at June 30, 2018</b>		<b>\$27,866,540</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, 2017	\$24,949,906
Benefits Accumulated and Actuarial Experience During the Year	\$1,766,277
Increase for interest	1,452,548
Benefits Paid	(1,503,429)
Change in assumptions	<u>0</u>
Net Increase/(Decrease)	<u>1,715,396</u>
Actuarial Present Value of Accumulated Plan Benefits at June 30, 2018	\$26,665,302

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

Vested Benefits	
Participants Currently Receiving Benefits	\$7,483,886
Other participants	<u>17,646,071</u>
Vested Benefits	\$25,129,957
Non-Vested Benefits	<u>1,535,345</u>
Actuarial Present Value of Accumulated Plan Benefits at June 30, 2018	\$26,665,302

<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, 2018 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 2018, the administrative expense assumption is \$199,961.

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

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

**Lump Sums:** 4.5% interest; 2018 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>2018</u></b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>
Funding Policy Contribution						
Percentage of Covered Compensation	25.889%	27.093%	29.846%	24.551%	27.518%	28.464%
Annual Amount Paid Monthly	\$1,257,856	\$1,405,306	\$1,797,648	\$1,566,470	\$1,905,522	\$2,220,360
Covered Compensation	4,858,664	5,186,888	6,023,124	6,380,468	6,924,729	7,800,712
Market Value of Assets	27,866,540	25,232,880	22,777,566	19,819,218	16,655,211	13,864,092
Present Value of Vested Benefits	25,129,957	23,302,212	22,999,037	19,067,832	19,011,701	18,156,937
Present Value of Accumulated Benefits	26,665,302	24,949,906	24,794,691	20,757,567	20,712,354	19,794,746
Number of Active Participants	84	92	99	106	119	130
Number of Vested Terms	12	11	12	12	8	6
Number of Retirees	36	33	38	34	33	31

Amounts are based on total employer plus employee contributions.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Determination of 2018 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	26,568,219	28,794,537	31,445,656
B. Terminated participants with Deferred Vested Benefits	709,707	849,137	1,027,797
C. In Pay Status	<u>7,483,886</u>	<u>8,151,377</u>	<u>8,932,723</u>
D. Total	34,761,812	37,795,051	41,406,176
2 Plan Assets	27,866,540	27,866,540	27,866,540
3 Frozen initial accrued liability remaining unfunded	0	2,159,460	4,632,831
4 Present value of future normal costs = (1) - (2) - (3)	6,895,272	7,769,051	8,906,805
5 Present value of future salaries	32,794,910	34,417,462	36,212,780
6 Normal cost accrual rate = (4) / (5)	21.03%	22.57%	24.60%
7 Valuation compensation	4,858,664	4,858,664	4,858,664
8 Preliminary normal cost = (6) x (7)	1,021,777	1,096,600	1,195,231
9 Administrative Expenses	199,961	199,961	199,961
10 Total normal cost = (8) + (9)	1,221,738	1,296,561	1,395,192
11 Total normal cost accrual rate = (10) / (7)	25.15%	26.69%	28.72%

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Determination of 2018 Contribution Under Funding Policy  
Estimated Impact of Interest Rate Assumption Change With 10 Year Amortization**

	<b>Current</b>		
	<b><u>6.00% Interest</u></b>	<b><u>5.00% Interest</u></b>	<b><u>4.00% Interest</u></b>
1 Total normal cost for Plan year	1,221,738	1,296,561	1,395,192
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	2,159,460	4,632,831
E. Amortization period	N/A	10	10
F. Amortization amount	N/A	266,343	549,217
3 Interest required for monthly contributions	36,118	38,596	38,507
4 Total annual contribution payable monthly = (1) + (2C) + (2F) + (3)	1,257,856	1,601,500	1,982,916
A. Employer	1,014,923	1,358,567	1,739,983
B. Employee	242,933	242,933	242,933
5 Contribution as a percentage of payroll	25.889%	32.962%	40.812%
A. Employer	20.889%	27.962%	35.812%
B. Employee	5.000%	5.000%	5.000%