

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

***Actuarial Valuation as of  
July 1, 2017***

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November 2017

**VENUTI & ASSOCIATES**

ACTUARIES AND BENEFITS CONSULTANTS

November 9, 2017

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, 2017. 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, 2017 decreased from 29.846% of pay to 27.093% of pay as follows:

|                                |               |
|--------------------------------|---------------|
| • July 1, 2016 funding cost    | 29.846%       |
| • Plan experience              | (1.307%)      |
| • Supplemental Contributions   | (3.005%)      |
| • Change in Expense Assumption | <u>1.559%</u> |
| • July 1, 2017 funding cost    | 27.093%       |

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, 2017

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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, 2017 | July 1, 2016 | Change     |
|------------------------|--------------|--------------|------------|
| Number of Participants |              |              |            |
| Actives                |              |              |            |
| Vested                 | 92           | 99           | (7)        |
| Non-Vested             | <u>0</u>     | <u>0</u>     | <u>0</u>   |
| Total                  | 92           | 99           | (7)        |
| Inactive Vested        | 11           | 12           | (1)        |
| In pay status          |              |              |            |
| Retirees               | 25           | 28           | (3)        |
| Disabled               | 4            | 4            | 0          |
| Beneficiaries          | <u>4</u>     | <u>6</u>     | <u>(2)</u> |
| Total                  | 33           | 38           | (5)        |
| Total Participants     | 136          | 149          | (13)       |

**SECTION 1: VALUATION RESULTS**

**Summary Information (continued)**

|   | July 1, 2017 | July 1, 2016 | Change        |
|---|--------------|--------------|---------------|
| Normal Cost for all benefits for fiscal year  | \$1,194,255  | \$1,385,038  | (\$190,783)   |
| Contribution for the fiscal year under the Company's<br>Funding policy (assuming it is paid uniformly<br>throughout the year) |              |              |               |
| Annual amount   | \$1,405,306  | \$1,797,648  | (\$392,342)   |
| Percent of covered compensation   | 27.093%      | 29.846%      | (2.753%)      |
| Expected employee contributions <sup>(1)</sup>  | \$259,344    | \$301,156    | (\$41,812)    |
| Expected employer contributions <sup>(1)</sup>  | \$1,145,962  | \$1,496,492  | (\$350,530)   |
| Entry Age Normal Accrued Liability  | \$29,527,880 | \$29,966,438 | (\$438,558)   |
| Funded Percentage   | 85.45%       | 76.01%       | 9.44%         |
| Market Value of Plan Assets   | \$25,232,880 | \$22,777,566 | \$2,455,314   |
| Frozen Initial Liability Remaining Unfunded <sup>(2)</sup>  | \$1,230,708  | \$2,816,346  | (\$1,585,638) |

<sup>(1)</sup> 2017 employee contribution is 5.00% of compensation. 2017 employer contribution is 22.093% of compensation. Total change in expected employer contributions from 2016 is a decrease of \$350,530 \$258,303

<sup>(2)</sup> The frozen initial liability remaining unfunded 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.

Effective July 1, 2017, the administrative expense assumption changed from \$125,000 per year to actual administrative expenses for the prior year. For 2017, the assumed administrative expense amount is \$203,559. As a result, the annual contribution increased by \$80,881

**SECTION 1: VALUATION RESULTS**

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**Annual Funding (continued)**

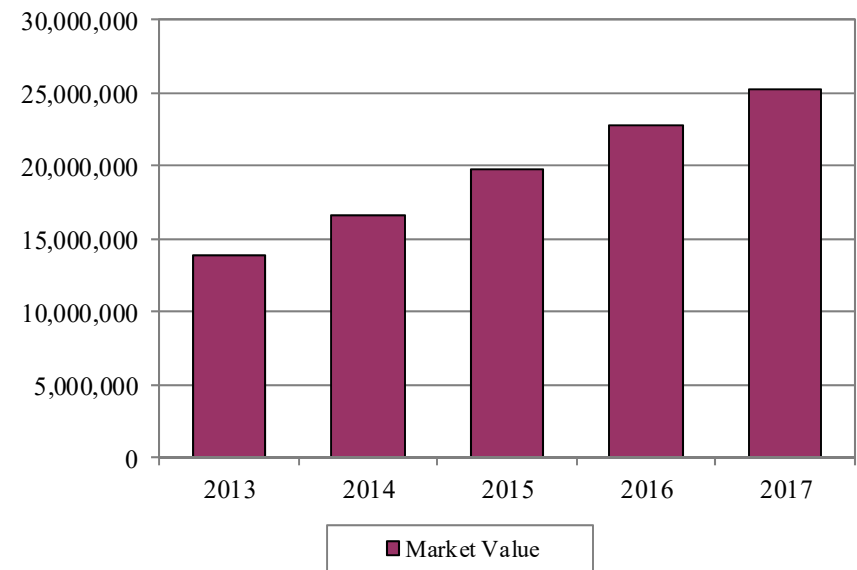
**Assets**

**Assets at June 30, 2017**

|                           |               |
|---------------------------|---------------|
| Equity Mutual Funds       | \$ 17,367,004 |
| Bond Mutual Funds         | 2,156,854     |
| Corporate Bonds           | 4,178,052     |
| Government Bonds          | 751,634       |
| Real Estate Equity Funds  | 11,280        |
| Cash                      | 689,280       |
| Contributions Receivable  | 78,776        |
| Asset Transfer Receivable | <u>0</u>      |

**Assets at Market Value** **\$25,232,880**

**Asset Values (June 30)**



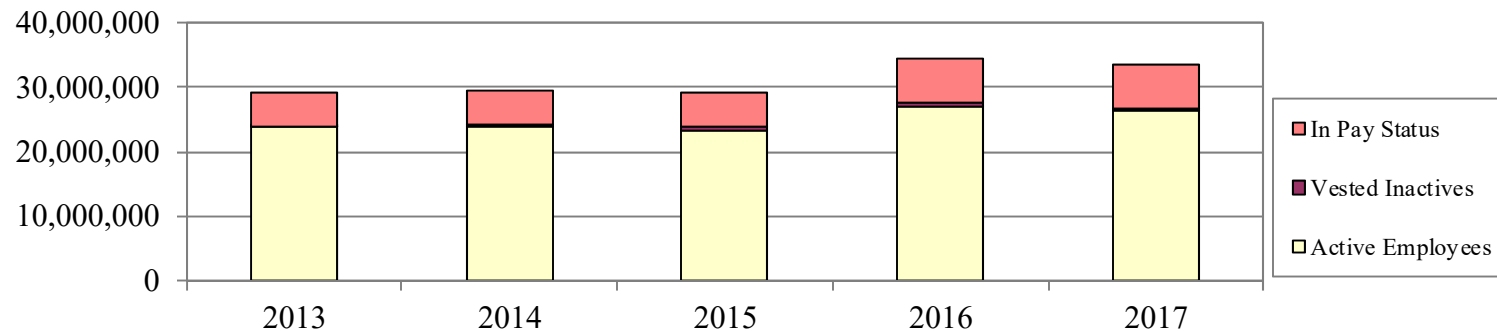
**SECTION 1: VALUATION RESULTS**

**Annual Funding (continued)**

**Present Value of Future Benefits**

|   |                     |
|---|---------------------|
| In Pay Status <sup>(1)</sup>                          | \$6,589,817         |
| Vested Inactives                                      | 580,127             |
| Active Employees                                      | <u>26,264,715</u>   |
| <b>Present Value of Future Benefits<sup>(2)</sup></b> | <b>\$33,434,659</b> |

**Present Value of Future Benefits**



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

<sup>(2)</sup> Decreased \$1.15M from 2016 due to plan experience.



**SECTION 1: VALUATION RESULTS**

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**Frozen Initial Accrued Liability Remaining Unfunded at July 1, 2017**

|   |             |
|---|-------------|
| 1. Frozen Initial Liability remaining unfunded July 1, 2016   | \$2,816,346 |
| 2. Normal Cost as of July 1, 2016   | 1,385,038   |
| 3. Interest on (1) and (2) to June 30, 2017 at 6.0%   | 252,083     |
| 4. Employer contributions for the 2016/2017 Plan year   | 2,790,134   |
| 5. Interest on (4) to June 30, 2017 at 6.0%   | 82,485      |
| 6. Employee contributions for the 2016/2017 Plan year   | 340,086     |
| 7. Interest on (6) to June 30, 2017 at 6.0%   | 10,054      |
| 8. Increase due to assumption changes   | 0           |
| 9. Total FIL remaining unfunded as of July 1, 2017,<br>= (1) + (2) + (3) – (4) – (5) – (6) – (7), not less than \$0 + (8) | 1,230,708   |

**SECTION 1: VALUATION RESULTS**

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**Determination of Total Normal Cost**

|   |                  |
|---|------------------|
| 1. Present Value of Future Benefits                       |                  |
| A. Active Participants                                    | \$26,264,715     |
| B. Terminated participants with Deferred Vested Benefits  | 580,127          |
| C. In Pay Status  | <u>6,589,817</u> |
| D. Total  | \$33,434,659     |
| 2. Plan Assets  | 25,232,880       |
| 3. Frozen initial accrued liability remaining unfunded    | 1,230,708        |
| 4. Present value of future normal costs = (1) - (2) - (3) | 6,971,071        |
| 5. Present value of future salaries                       | 36,505,649       |
| 6. Normal cost accrual rate = (4) / (5)                   | 19.10%           |
| 7. Valuation compensation                                 | 5,186,888        |
| 8. Preliminary normal cost = (6) x (7)                    | 990,696          |
| 9. Administrative Expenses                                | 203,559          |
| 10. Total normal cost = (8) + (9)                         | \$1,194,255      |
| 11. Total normal cost accrual rate = (10) / (7)           | 23.02%           |

**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  | \$1,194,255           |
| 2 Amortization of unfunded accrued liability:                            |                       |
| A. Initial unfunded remaining  | 0                     |
| B. Amortization period remaining (in years)                              | 0                     |
| C. Amortization amount   | 0                     |
| D. Additional unfunded from interest rate change                         | 1,230,708             |
| E. Amortization period   | 9                     |
| F. Amortization amount   | 170,699               |
| 3 Interest required for monthly contributions                            | \$40,352              |
| 4 Total annual contribution payable monthly =<br>(1) + (2C) + (2F) + (3) | \$1,405,306           |
| 5 Contribution as a percentage of compensation                           | 27.093%               |

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.

We have noted that actual administrative expenses have exceeded the assumption. Effective July 1, 2017, the administrative expense assumption was changed from \$125,000 per year to the actual administrative expenses from the prior 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, 2017 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 3.64% while rates of return averaged 5.70% 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.

To better reflect actual and expected administrative expenses, the assumption for administrative expenses was changed from \$125,000 per year to the actual administrative expenses for the prior year.

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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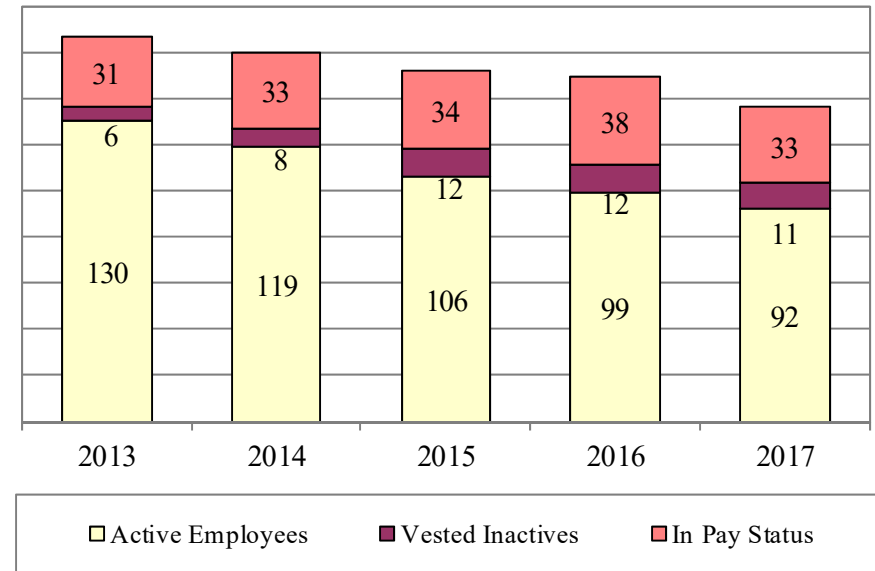
**Supplemental Information**

**SECTION 3: SUPPLEMENTAL INFORMATION**

**Participant Reconciliation**

|                                  |     |
|----------------------------------|-----|
| Active at June 30, 2016          | 99  |
| Non-Vested Termination           | 0   |
| Vested Termination               | (1) |
| Retired Monthly                  | (1) |
| Transferred to Contract Plan     | 0   |
| Transferred from Contract Plan   | 1   |
| Occupational Disability          | 0   |
| Lump Sum Distribution            | (6) |
| Return of Employee Contributions | 0   |
| New Actives                      | 0   |
| Disabled Retirement              | 0   |
| Died                             | 0   |
| Active at June 30, 2017          | 92  |
|                                  |     |
| Vested Inactive June 30, 2016    | 12  |
| Vested Terminations              | 1   |
| Data Correction                  | 1   |
| Retired Monthly                  | 0   |
| Deceased                         | 0   |
| Lump Sum Distribution            | (3) |
| Vested Inactive June 30, 2017    | 11  |
|                                  |     |
| In Pay Status at June 30, 2016   | 38  |
| New Retiree                      | 1   |
| New Beneficiary                  | 0   |
| New Occupational Disabled        | 0   |
| Data Correction                  | (5) |
| Deceased                         | (1) |
| In Pay Status at June 30, 2017   | 33  |

**Participant Count (July 1 )**





**SECTION 3: SUPPLEMENTAL INFORMATION**

**Active Participant Data**

| Attained<br>Age | 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 |        |
|                 | No.                       | Avg.  | No.    | Avg.  | No.    | Avg.   | No.      | Avg.   | No.      | Avg.    | No.      | Avg.   | No.      | Avg.   | No.      | Avg.   | No.   | 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     | 6      | 60,937 | 1        | 72,210 | 0        | 0       | 0        | 0      | 0        | 0      | 0        | 0      | 7     | 62,548 |
| 35 to 39        | 0                         | 0     | 0      | 0     | 1      | 57,587 | 3        | 60,899 | 2        | 70,044  | 0        | 0      | 0        | 0      | 0        | 0      | 6     | 63,396 |
| 40 to 44        | 0                         | 0     | 0      | 0     | 1      | 77,145 | 7        | 54,587 | 3        | 72,215  | 4        | 69,908 | 0        | 0      | 0        | 0      | 15    | 63,702 |
| 45 to 49        | 0                         | 0     | 0      | 0     | 0      | 0      | 4        | 59,456 | 5        | 53,709  | 3        | 50,405 | 2        | 64,394 | 0        | 0      | 14    | 56,170 |
| 50 to 54        | 0                         | 0     | 0      | 0     | 3      | 68,239 | 1        | 77,733 | 5        | 92,631  | 5        | 77,325 | 3        | 68,130 | 1        | 76,596 | 18    | 78,512 |
| 55 to 59        | 0                         | 0     | 0      | 0     | 4      | 68,378 | 4        | 63,508 | 1        | 140,951 | 2        | 85,390 | 1        | 65,167 | 3        | 76,372 | 15    | 75,571 |
| 60 to 64        | 0                         | 0     | 0      | 0     | 3      | 61,614 | 2        | 89,106 | 2        | 77,458  | 3        | 81,403 | 2        | 50,465 | 0        | 0      | 12    | 71,926 |
| 65 to 69        | 0                         | 0     | 0      | 0     | 1      | 70,493 | 0        | 0      | 1        | 166,591 | 1        | 45,513 | 0        | 0      | 0        | 0      | 3     | 94,199 |
| 70 & up         | 0                         | 0     | 0      | 0     | 0      | 0      | 1        | 77,255 | 1        | 73,973  | 0        | 0      | 0        | 0      | 0        | 0      | 2     | 75,614 |
| Total           | 0                         | 0     | 0      | 0     | 19     | 64,943 | 23       | 63,568 | 20       | 81,243  | 18       | 70,999 | 8        | 62,409 | 4        | 76,428 | 92    | 69,607 |

Average Age: 50.58 years

Average Credited Service: 16.67 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          | 1      |
| 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     |

Average Monthly  
Accrued Benefit                      \$827.60

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

Average Age              50.68 years

**SECTION 3: SUPPLEMENTAL INFORMATION**

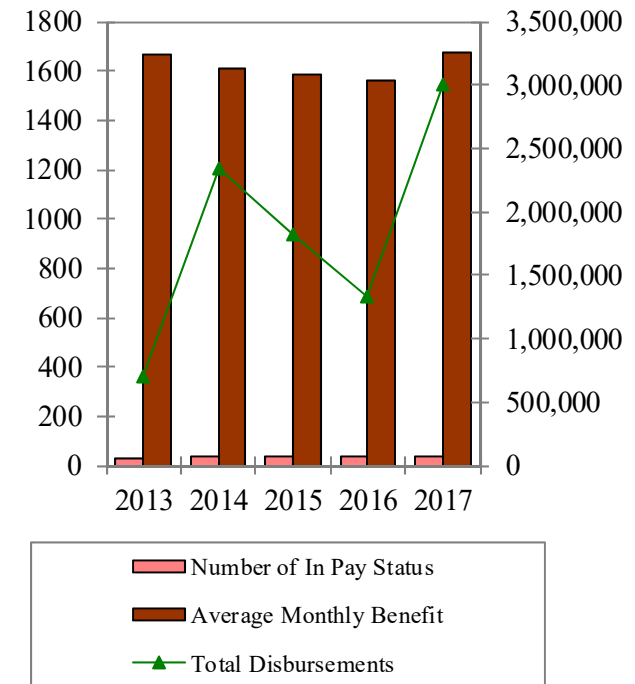
**Retiree Data**

| 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                     | 2         |
| 700 to 799                     | 3         |
| 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                 | 0         |
| 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                  | 8         |
| <b>Total</b>                   | <b>29</b> |

| Age <sup>(1)</sup> | Number    |
|--------------------|-----------|
| Under 55           | 1         |
| 55 to 59           | 3         |
| 60 to 64           | 5         |
| 65 to 69           | 7         |
| 70 to 74           | 8         |
| 75 to 79           | 2         |
| 80 to 84           | 3         |
| 85 to 89           | 0         |
| 90 or over         | 0         |
| <b>Total</b>       | <b>29</b> |

Average Age: 68.51 years  
New Retirees: 71.46 years

Ave. Mo. Benefit: \$1,673.70  
New Retirees: \$1,150.44



<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, 2016</b>  |              | <b>\$22,777,566</b> |
| Employer Contributions                         |              | \$2,790,134         |
| Employee Contributions                         |              | \$340,086           |
| Net Investment Income                          |              |                     |
| Interest                                       | \$165,715    |                     |
| Dividends                                      | 609,023      |                     |
| Unrealized Gain (Loss)                         | 1,288,951    |                     |
| Realized Gain (Loss)                           | 206,576      |                     |
| Other investment revenue                       | <u>7,272</u> |                     |
| Net Investment Income                          |              | \$2,277,537         |
| Benefit Payments                               |              | (\$3,003,925)       |
| Direct administrative costs                    |              | (61,873)            |
| Other administrative costs                     |              | (141,686)           |
| Net Asset Transfers Between Contract Plan      |              | <u>255,041</u>      |
| <b>Market Value of Assets at June 30, 2017</b> |              | <b>\$25,232,880</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<br>Plan Benefits at June 30, 2016 | \$24,794,691   |
| Benefits Accumulated and<br>Actuarial Experience During the Year         | \$1,760,264    |
| Increase for interest  | 1,398,876      |
| Benefits Paid  | (3,003,925)    |
| Change in assumptions  | <u>0</u>       |
| Net Increase/(Decrease)  | <u>155,215</u> |
| Actuarial Present Value of Accumulated<br>Plan Benefits at June 30, 2017 | \$24,949,906   |

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

|  |                   |
|--|-------------------|
| Vested Benefits  |                   |
| Participants Currently<br>Receiving Benefits                             | \$6,589,817       |
| Other participants   | <u>16,712,395</u> |
| Vested Benefits  | \$23,302,212      |
| Non-Vested Benefits  | <u>1,647,694</u>  |
| Actuarial Present Value of Accumulated<br>Plan Benefits at June 30, 2017 | \$24,949,906      |

<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, 2017 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            |

**In-Service Retirement:** A participant who has attained Normal Retirement Age or whose sum of age and Years of Service is at least 90 may receive benefits while an active employee. No future benefits will be accrued.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Summary of Plan Provisions (continued)**

**Vesting:** 5 Years of Service.

**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:** For funding: 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 2017, the administrative expense assumption is \$203,559.

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

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

**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:**

Effective July 1, 2017 the administrative expense assumption changed from \$125,000 to per year to the actual administrative expenses for the prior year.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Six-Year Plan Overview**

|                                       | <b>Plan Year Beginning July 1</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> | <b><u>2012</u></b> |
| Funding Policy Contribution           |                                   |                    |                    |                    |                    |                    |
| Percentage of Covered Compensation    | 27.093%                           | 29.846%            | 24.551%            | 27.518%            | 28.464%            | 20.968%            |
| Annual Amount Paid Monthly            | \$1,405,306                       | \$1,797,648        | \$1,566,470        | \$1,905,522        | \$2,220,360        | \$1,594,167        |
| Covered Compensation                  | 5,186,888                         | 6,023,124          | 6,380,468          | 6,924,729          | 7,800,712          | 7,602,881          |
| Market Value of Assets                | 25,232,880                        | 22,777,566         | 19,819,218         | 16,655,211         | 13,864,092         | 11,028,003         |
| Present Value of Vested Benefits      | 23,302,212                        | 22,999,037         | 19,067,832         | 19,011,701         | 18,156,937         | 13,501,164         |
| Present Value of Accumulated Benefits | 24,949,906                        | 24,794,691         | 20,757,567         | 20,712,354         | 19,794,746         | 14,835,857         |
| Number of Active Participants         | 92                                | 99                 | 106                | 119                | 130                | 133                |
| Number of Vested Terms                | 11                                | 12                 | 12                 | 8                  | 6                  | 8                  |
| Number of Retirees                    | 33                                | 38                 | 34                 | 33                 | 31                 | 29                 |

Amounts are based on total employer plus employee contributions.

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Determination of 2017 Total Normal Cost  
Estimated Impact of Interest Rate Assumption Change**

|  | <b>Current<br/><u>6.00% Interest</u></b> | <b><u>5.00% Interest</u></b> | <b><u>4.00% Interest</u></b> |
|--|--|------------------------------|------------------------------|
| 1 Present Value of Future Benefits                       |  |                              |                              |
| A. Active Participants                                   | 26,264,715                               | 28,606,694                   | 31,413,416                   |
| B. Terminated participants with Deferred Vested Benefits | 580,127                                  | 698,896                      | 852,763                      |
| C. In Pay Status   | <u>6,589,817</u>                         | <u>7,167,160</u>             | <u>7,840,673</u>             |
| D. Total   | 33,434,659                               | 36,472,750                   | 40,106,852                   |
| 2 Plan Assets  | 25,232,880                               | 25,232,880                   | 25,232,880                   |
| 3 Frozen initial accrued liability remaining unfunded    | 1,230,708                                | 3,304,278                    | 5,678,600                    |
| 4 Present value of future normal costs = (1) - (2) - (3) | 6,971,071                                | 7,935,592                    | 9,195,372                    |
| 5 Present value of future salaries                       | 36,505,649                               | 38,395,085                   | 40,495,576                   |
| 6 Normal cost accrual rate = (4) / (5)                   | 19.10%                                   | 20.67%                       | 22.71%                       |
| 7 Valuation compensation                                 | 5,186,888                                | 5,186,888                    | 5,186,888                    |
| 8 Preliminary normal cost = (6) x (7)                    | 990,696                                  | 1,072,130                    | 1,177,942                    |
| 9 Administrative Expenses                                | 203,559                                  | 203,559                      | 203,559                      |
| 10 Total normal cost = (8) + (9)                         | 1,194,255                                | 1,275,689                    | 1,381,501                    |
| 11 Total normal cost accrual rate = (10) / (7)           | 23.02%                                   | 24.59%                       | 26.63%                       |

**SECTION 3: SUPPLEMENTAL INFORMATION**

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**Determination of 2017 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  | 1,194,255                    | 1,275,689                    | 1,381,501                    |
| 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. Assumption change at July 1, 2016   | 1,230,708                    | 1,230,708                    | 1,230,708                    |
| E. Amortization period remaining   | 9                            | 9                            | 9                            |
| F. Amortization amount   | 170,699                      | 164,903                      | 159,155                      |
| G. Interest rate change  | N/A                          | 2,073,570                    | 4,447,892                    |
| H. Amortization period   | N/A                          | 10                           | 10                           |
| I. Amortization amount   | N/A                          | 255,749                      | 527,293                      |
| 3 Interest required for monthly contributions                                | 40,352                       | 41,891                       | 40,953                       |
| 4 Total annual contribution payable monthly = (1) + (2C) + (2F) + (2I) + (3) | 1,405,306                    | 1,738,232                    | 2,108,902                    |
| A. Employer  | 1,145,962                    | 1,478,888                    | 1,849,558                    |
| B. Employee  | 259,344                      | 259,344                      | 259,344                      |
| 5 Contribution as a percentage of payroll                                    | 27.093%                      | 33.512%                      | 40.658%                      |
| A. Employer  | 22.093%                      | 28.512%                      | 35.658%                      |
| B. Employee  | 5.000%                       | 5.000%                       | 5.000%                       |