

EMPLOYEES' RETIREMENT SYSTEM OF THE  
CITY OF BATON ROUGE AND PARISH OF EAST BATON ROUGE

ACTUARIAL VALUATION REPORT  
AS OF JANUARY 1, 2017

CONTRIBUTIONS APPLICABLE TO THE PLAN/  
FISCAL YEAR ENDED DECEMBER 31, 2018

May 11, 2017

Board of Trustees  
Employees Retirement System  
City of Baton Rouge and Parish of East Baton Rouge  
209 St. Ferdinand Street  
P.O. Box 1471  
Baton Rouge, LA 70821

Re: Employees' Retirement System of the City of Baton Rouge and Parish of East Baton Rouge

Dear Board Members:

We are pleased to present this report of the annual actuarial valuation of Employees' Retirement System of the City of Baton Rouge and Parish of East Baton Rouge. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Please note that this valuation may not be applicable for any other purposes.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to applicable federal laws and regulations, unless otherwise noted in the Valuation Notes starting on page 15 of this report. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Also, in our opinion, the funding method, which includes the actuarial cost method and amortization of Unfunded Actuarial Accrued Liability, is expected to accumulate sufficient assets to make plan benefits when due, assuming that the actuarially determined contributions will be paid when due and all actuarial assumptions will be realized. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuation, we have relied on personnel, plan design, asset information, and financial reports supplied by the retirement system, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we

have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.


The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Baton Rouge and Parish of East Baton Rouge, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Employees' Retirement System of the City of Baton Rouge and Parish of East Baton Rouge. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

  
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Shelley R. Johnson, ASA, MAAA

  
\_\_\_\_\_  
D. Patrick McDonald, FSA, EA, MAAA, FCA  
Enrolled Actuary No. 17-04834

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the Employees' Retirement System of the City of Baton Rouge and Parish of East Baton Rouge performed as of January 1, 2017, has been completed, and the results are presented in this Report. The contribution amounts developed in this valuation are applicable to the plan/fiscal year ended December 31, 2018.

The contribution requirements, compared with those developed in the January 1, 2016 Actuarial Valuation Report (as prepared by Nyhart), are as follows:

Valuation Date	1/1/2017	1/1/2016
Applicable Plan/Fiscal Year End	<u>12/30/2018</u>	<u>12/30/2017</u>
Employer Required Contribution	46,328,083	41,887,796
% of Total Annual Payroll	33.1%	30.4%

As can be seen, the Employer Required Contribution has increased, both in dollar amount and when expressed as a percentage of Projected Annual Payroll. Overall there was unfavorable actuarial experience during the past year. The primary components of unfavorable experience included a 5.45% investment return (Actuarial Asset basis), that fell short of the 7.25% assumption, average increases in pensionable compensation that exceeded the assumed rate, and unfavorable turnover experience. These losses were partially offset by the effect of greater than expected retiree mortality. More detail on the sources of gain and loss can be found on page 11.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By: Shelley R. Johnson  
Shelley R. Johnson, ASA, MAAA

By: D. Patrick McDonald  
D. Patrick McDonald, FSA, EA, MAAA, FCA

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

There have been no changes in assumptions or methods since the prior valuation.

### Other

The estimated Sponsor Contribution requirement expressed as a dollar amount is now increased to the next fiscal year with the payroll growth assumption. The required Sponsor Contribution Rate is now developed utilizing payroll only for those members younger than the assumed retirement age.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>1/1/2017</u>	<u>1/1/2016</u>
A. Participant Data		
Actives	3,062	3,138
Service Retirees	2,436	2,401
DROP Retirees	357	341
Beneficiaries	666	654
Disability Retirees	202	202
Terminated Vested	<u>19</u>	<u>20</u>
 Total	 6,742	 6,756
 Total Annual Payroll	 \$139,807,313	 \$137,591,450
Payroll Under Assumed Ret. Age	136,334,630	134,613,512
 Annual Rate of Payments to:		
Service Retirees	67,320,969	65,470,602
DROP Retirees	16,135,410	15,278,030
Beneficiaries	7,267,951	6,763,228
Disability Retirees	3,212,403	3,153,067
Terminated Vested	229,319	239,447
 B. Assets		
Actuarial Value (AVA) <sup>1</sup>	1,137,769,215	1,119,731,517
Market Value (MVA) <sup>1</sup>	1,058,626,496	1,021,631,460
 C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	553,148,253	541,251,690
Disability Benefits	28,281,042	29,439,690
Death Benefits	8,848,278	8,495,579
Vested Benefits	18,159,431	17,785,017
Service Retirees	697,855,867	683,109,330
Leave Balances	7,488,296	6,277,801
DROP (Future Benefits)	194,232,097	184,285,311
DROP (Accounts) <sup>1</sup>	217,056,218	203,241,944
Beneficiaries	63,802,226	58,968,737
Disability Retirees	29,770,952	29,285,979
Terminated Vested	2,019,223	2,005,865
RBA Benefits	<u>10,997,000</u>	<u>10,446,000</u>
 Total	 1,831,658,883	 1,774,592,943

C. Liabilities - (Continued)	<u>1/1/2017</u>	<u>1/1/2016</u>
Present Value of Future Salaries	981,970,692	970,204,430
Total Normal Cost	21,731,940	21,919,079
Present Value of Future Normal Costs	156,868,003	159,614,309
Accrued Liability (Retirement)	419,388,340	405,647,236
Accrued Liability (Disability)	17,370,544	17,580,287
Accrued Liability (Death)	5,578,919	5,325,545
Accrued Liability (Vesting)	9,231,198	8,804,599
Accrued Liability (Inactives) <sup>1</sup>	<u>1,223,221,879</u>	<u>1,177,620,967</u>
Total Actuarial Accrued Liability (AL)	1,674,790,880	1,614,978,634
Unfunded Actuarial Accrued Liability (UAAL)	537,021,665	495,247,117
Funded Ratio (AVA / AL)	67.9%	69.3%



Valuation Date	1/1/2017	1/1/2016
Applicable to Fiscal Year Ending	<u>12/31/2018</u>	<u>12/31/2017</u>
<b>D. Pension Cost</b>		
Sponsor Normal Cost (with interest)	\$9,793,003	\$9,455,996
% of Total Annual Payroll <sup>2</sup>	7.0	6.9
Administrative Expenses (with interest)	1,407,127	1,365,049
% of Total Annual Payroll <sup>2</sup>	1.0	1.0
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 28 years (as of 01/1/2017, with interest)	35,127,953	31,066,752
% of Total Annual Payroll <sup>2</sup>	25.1	22.5
Total Required Sponsor Contribution	46,328,083	41,887,796
% of Total Annual Payroll <sup>2</sup>	33.1	30.4

<sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 12/31/2016 and 12/31/2015. The asset values do not include the Supplemental Benefit Payments Account.

<sup>2</sup> Contributions developed as of 01/1/2017 are expressed as a percentage of projected payroll under assumed retirement age projected to 01/1/2018 of \$139,742,996.

## RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1)	Unfunded Actuarial Accrued Liability as of January 1, 2016	\$495,247,117
(2)	Normal Cost developed as of January 1, 2016	21,919,079
(3)	Expected administrative expenses for the year ended December 31, 2016	1,318,104
(4)	Expected interest on (1), (2) and (3)	37,541,494
(5)	Contributions to the System during the year ended December 31, 2016	58,225,006
(6)	Expected interest on (5)	2,073,728
(7)	Expected Unfunded Actuarial Accrued Liability as of December 31, 2016 (1)+(2)+(3)+(4)-(5)-(6)	495,727,060
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	41,294,605
(10)	Unfunded Actuarial Accrued Liability as of January 1, 2017	537,021,665

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of January 1, 2016	\$495,247,117
(2) Expected UAAL as of January 1, 2017	495,727,060
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	19,785,680
Salary Increases	12,876,120
Active Decrements	5,892,712
Inactive Mortality	(1,507,344)
Other	<u>4,247,437</u>
Increase in UAAL due to (Gain)/Loss	41,294,605
Assumption Changes	<u>0</u>
(4) Actual UAAL as of January 1, 2017	\$537,021,665

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rates

RP-2000 Combined Healthy Mortality with a Blue Collar Adjustment, Projected to 2019 using Scale BB.

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.0326%	0.0180%
30	0.0686%	0.0277%
40	0.1295%	0.0829%
50	0.2278%	0.1854%
60	0.7273%	0.4089%
70	2.0079%	1.4815%

*Disabled Lives:*

RP-2000 Disabled Mortality, projected to 2019 using Scale BB.

Interest Rate

7.25% per annum, compounded annually, net of investment related expenses.

Inflation

2.75% per year.

Salary Increases

Inflation, plus

<u>Age</u>	<u>BREC/Regular</u>	<u>Fire/Police</u>
30	2.50%	4.00%
35	1.50%	2.00%
40	1.25%	2.00%
45	0.75%	1.00%
50	0.50%	0
55	0	0

Retirement Rates

Before 25 Years of Creditable Service

<u>Age</u>	<u>Retirement</u>
55 – 60	10%
61 – 63	20%
64	25%
65+	100%

After 25 Years of Creditable Service

<u>Years of Service</u>	<u>Retirement</u>
25	20%
26	30%
27	40%
28+	100%

Termination Rates

<u>Age</u>	<u>Turnover</u>
20	7.9%
25	7.7%
30	7.2%
35	6.3%
40	5.2%
45	4.0%
50	2.6%
55	0.9%
60	0.1%

The turnover rates are modified as followed, based on years of employment:

<u>Years of Service</u>	<u>BREC/Regular</u>	<u>Fire/Police</u>
0 – 1	400%	110%
2	270%	85%
3	220%	45%
4 – 10	180%	45%
11 – 15	70%	25%
16+	50%	15%

Disability Rates

<u>Age</u>	<u>Disability</u>
20	0.06%
25	0.06%
30	0.06%
35	0.07%
40	0.11%
45	0.22%
50	0.46%
55	1.02%
60	3.20%
61	3.55%
62	4.00%
63	4.50%
64	4.10%
65	1.95%

It is assumed that 25% of BREC/Regular, 50% of Firefighter, and 75% of Police Officer disablements are service related.

Assumed Converted Leave Transfers to Retirement System

For Members Hired Prior to 4/5/2015:

BREC	1.00 year
Regular	1.00 year
Fire	1.75 years
Police	1.50 years

For Members Hired On/After 4/5/2015:

None

<u>Payroll Growth Assumption</u>	2.50% per year.
<u>Administrative Expenses</u>	Equal to prior year's actual expenses.
<u>Percent Married</u>	80% of Members are assumed to be married with husbands 3 years older than wives.
<u>Actuarial Cost Method</u>	Entry Age Normal.
<u>Funding Method</u>	The following loads are applied for determination of the Sponsor Contribution:  Interest – A half year, based on the current 7.25% assumption.  Payroll – A full year, based on the current 2.50% assumption.
<u>Asset Valuation Method</u>	Expected Value Method. 20% of investment gains or losses are recognized annually.
<u>Withdrawal of Employee Contributions</u>	100% of employees who terminate other than for retirement, death, or disability, are assumed to withdraw their contributions.
<u>Other</u>	The liability for the Retirement Benefit Adjustments and the funding of the Supplemental Benefit Payments from decreases in the Retirement Benefit Adjustments is combined into a perpetuity.

The above assumptions were selected by the Board, with the advice of the prior actuary. We believe these assumptions are reasonable for purposes of this valuation. In particular, we believe that the mortality rates sufficiently accommodate future mortality improvement.

## VALUATION NOTES

Total Annual Payroll is the annual rate of pay for the fiscal year following the valuation date of all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Actuarial Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Amortization of Unfunded Actuarial Accrued Liability – Beginning January 1, 2015, the UAAL is amortized over a 30-year period using an annual total payroll growth assumption of 2.50%. The period will be reduced in successive years until reaching a 15-year open period.

Entry Age Normal Cost Method - Under this method, the normal cost is determined as a level percentage of pay over the service life of each participant. The total normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

- (a) The normal cost accrual rate equals the present value of future benefits for the participant, determined as of the participant's entry age, divided by the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

- (d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Asset Valuation Method – The assets used for funding purposes are developed using an asset valuation method adopted by the Board of Trustees, beginning in 2002. The method recognizes the expected actuarial value of assets plus 20% of the total actuarial investment gain or loss during the prior year. The actuarial investment gain or loss is defined as the actual market value of assets minus the expected actuarial value of assets. Actuarial Standard of Practice No. 44 states that an essential element of an asset valuation method is that the actuarial value of assets should converge to the market value of assets within a reasonable period of time, assuming the investment return assumption is realized in future periods. In our view, the current method does not meet this description. However, we believe the value produced is within an acceptable corridor around the market value of assets, and is not out of range from results that could be determined using an approach that satisfies the Standard. We will provide recommended alternative methods for the Board to consider adopting for future valuations.



STATEMENT OF FIDUCIARY NET POSITION  
DECEMBER 31, 2016

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Money Market	4,009,468.75	4,009,468.75
Cash	11,043,324.00	11,043,324.00
Total Cash and Equivalents	15,052,792.75	15,052,792.75
Receivables:		
Member Contributions	622,272.00	622,272.00
Employer Contributions	6,210,877.00	6,210,877.00
From Broker for Investments Sold	3,077,879.00	3,077,879.00
Other	109,200.00	109,200.00
Investment Income	17,227.00	17,227.00
Total Receivable	10,037,455.00	10,037,455.00
Investments:		
Fixed Income	229,829,908.08	298,748,779.30
Equities	396,981,207.10	591,825,233.06
Alternative	65,283,661.80	78,033,687.73
Real Estate	54,532,970.50	67,579,331.00
Total Investments	746,627,747.48	1,036,187,031.09
Properties at Cost, Net of Accumulated Depreciati	564,262.00	564,262.00
Total Assets	772,282,257.23	1,061,841,540.84
<u>LIABILITIES</u>		
Payables:		
Accrued Expenses and Benefits	889,224.00	889,224.00
To Broker for Investments Purchased	586,617.00	586,617.00
Total Liabilities	1,475,841.00	1,475,841.00
Net Assets:		
Active and Retired Members' Equity	769,067,212.23	1,058,626,495.84
RBA and Supplemental Benefit Account	1,739,204.00	1,739,204.00
NET POSITION RESTRICTED FOR PENSIONS	770,806,416.23	1,060,365,699.84

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED DECEMBER 31, 2016  
Market Value Basis

ADDITIONS

Contributions:

Member	13,831,480.35
Employer	42,003,065.78
MERS Contributions	1,046,828.98
DROP Severance Contributions	1,343,630.84

Total Contributions 58,225,005.95

Investment Income:

Net Realized Gain (Loss)	17,335,881.66
Unrealized Gain (Loss)	67,397,515.79
Net Increase in Fair Value of Investments	84,733,397.45
Interest & Dividends	428,070.74
Less Investment Expense <sup>1</sup>	(6,116,630.44)

Net Investment Income 79,044,837.75

Total Additions 137,269,843.70

DEDUCTIONS

Distributions to Members:

Benefit Payments	76,341,262.76
Lump Sum DROP Distributions	17,703,923.62
Supplemental Benefit Payments	1,773,693.01
Excess Benefit Plan	291,531.90
Refunds of Member Contributions	2,655,064.13

Total Distributions 98,765,475.42

Administrative Expense 1,325,595.44

Total Deductions 100,091,070.86

Net Increase in Net Position 37,178,772.84

**NET POSITION RESTRICTED FOR PENSIONS**

Beginning of the Year 1,023,186,927.00

End of the Year 1,060,365,699.84

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
December 31, 2016

Actuarial Assets for funding purposes are developed by recognizing the expected actuarial value of assets plus 20% of the total actuarial investment gain or loss during the prior year. The actuarial investment gain or loss is defined as the actual Market Value of Assets minus the Expected Actuarial Value of Assets.

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, less Reserve Assets, 12/31/2015	1,021,631,460
Actuarial Value of Assets, 12/31/2015	1,119,731,517
Contributions Less Benefit Payments & Admin Expenses	(41,866,065)
Expected Investment Earnings on Actuarial Value	79,689,443
Expected Actuarial Value of Assets, 12/31/2016	<u>1,157,554,895</u>
Market Value of Assets, less Reserve Assets, 12/31/2016	1,058,626,496
Asset Gain/(Loss)	(98,928,399)

<u>Development of Actuarial Value of Assets</u>	
Expected Actuarial Value of Assets, 12/31/2016	1,157,554,895
20% Recognition of Asset Gain/(Loss)	(19,785,680)
Actuarial Value of Assets, 12/31/2016	<u>1,137,769,215</u>

(A) 12/31/2015 Actuarial Assets: 1,119,731,517

(I) Net Investment Income:	
1. Interest and Dividends	428,071
2. Realized Gains (Losses)	17,335,882
3. Change in Actuarial Value	48,256,441
4. Investment Expenses	(6,116,630)
Total	<u>59,903,763</u>

(B) 12/31/2016 Actuarial Assets: 1,137,769,215

Actuarial Asset Rate of Return = $2I/(A+B-I)$ :	5.45%
Market Value of Assets Rate of Return:	7.89%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) (19,785,680)

01/01/2017 Limited Actuarial Assets: 1,137,769,215

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
DECEMBER 31, 2016  
Actuarial Asset Basis

REVENUES

Contributions:		
Member	13,831,480.35	
Employer	42,003,065.78	
MERS Contributions	1,046,828.98	
DROP Severance Contributions	1,343,630.84	
 Total Contributions		 58,225,005.95
Earnings from Investments:		
Interest & Dividends	428,070.74	
Net Realized Gain (Loss)	17,335,881.66	
Change in Actuarial Value	48,256,441.04	
 Total Earnings and Investment Gains		 66,020,393.44

EXPENDITURES

Distributions to Members:		
Benefit Payments	76,341,262.76	
Lump Sum DROP Distributions	17,703,923.62	
Supplemental Benefit Payments	1,773,693.01	
Excess Benefit Plan	291,531.90	
Refunds of Member Contributions	2,655,064.13	
 Total Distributions		 98,765,475.42
Expenses:		
Investment related <sup>1</sup>	6,116,630.44	
Administrative	1,325,595.44	
 Total Expenses		 7,442,225.88
 Change in Net Assets for the Year		 18,037,698.09
 Net Assets Beginning of the Year		 1,119,731,517.00
 Net Assets End of the Year		 1,137,769,215.09

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

TRANSFER OF EXCESS INVESTMENT INCOME

1. Actuarial Value of Assets as of 1/1/2016	\$1,119,731,517
2. Contributions from Employer, Members, Other	58,225,006
3. Benefits, Refunds, and Administrative Expenses	(100,091,072)
4. Theoretical Actuarial Value of Assets without Return at 12/31/2016 (1. + 2. + 3.)	\$1,077,865,451
5. Average Actuarial Value of Assets during 2016 (1. + 4.)/2	\$1,098,798,484
6. Expected Return at 7.25%	79,689,443
7. Actual Return	159,903,758
8. Excess Investment Return	\$80,214,315
9. Excess Investment Return Transfer	
(a) 10% of first 2% (10% X \$0)	\$0
(b) 5% of Additional Return (5% X \$0)	\$0
(c) Total Preliminary Excess Return Transfer	\$0
10. Experience Gain/(Loss) for 2016	\$ 41,294,605
11. Final Excess Investment Return Transfer (Lesser of 9(c) and 10, but not less than zero)	\$0

SUPPLEMENTAL BENEFIT PAYMENTS ACCOUNT

1.) RBA Payments in 2002 \$783,450

2.) Accumulation of the Supplemental Benefit Account	<u>CY 2016 (1/1/2017)</u>	<u>CY 2015 (1/1/2016)</u>	<u>CY 2014 (1/1/2015)</u>	<u>CY 2013 (1/1/2014)</u>
a. Valuation Interest Rate	7.25%	7.25%	7.50%	7.50%
b. Balance at beginning of the Year	1,555,467	1,415,096	1,322,485	1,247,763
c. Interest on Balance	112,771	102,594	99,186	93,582
d. RBA Payments in Year	436,740	471,570	518,160	548,490
e. Addition to SBP Account	346,710	311,880	265,290	234,960
f. MERS Contribution for Previous Year	1,033,486	1,005,503	973,406	939,361
I. Date Received	6/13/2016	6/26/2015	6/16/2014	6/3/2013
II. Number of Days	202	189	199	212
g. Interest on f.	41,467	37,748	39,803	40,920
h. MERS Contribution for Current Year	1,046,829	1,033,486	1,005,503	973,406
I. Date Received	--/--/2016	6/13/2016	6/26/2015	6/16/2014
i. Distribution from SBP Account	1,336,953	1,317,083	1,288,575	1,240,864
I. Date distributed	9/21/2016	9/15/2015	9/15/2014	9/16/2013
II. Number of Days	102	108	108	107
j. Interest on i.	27,087	28,254	28,596	27,282
k. Preliminary Balance at the end of the Year	1,739,204	1,555,467	1,415,096	1,322,485
l. Transfer of Excess Investment Income*	0	0	0	0
m. Final Balance at the end of the Year	1,739,204	1,555,467	1,415,096	1,322,485

\* 1/10 of the first 2% and 1/20 of additional excess returns

SUMMARY OF ACTUARIAL ACCRUED LIABILITIES AND PERCENTAGE COVERED BY NET ASSETS AVAILABLE FOR BENEFITS

Valuation Date	(1)	(2)	(3)	(4)	Actuarial Value of Assets ***	Percentage of Actuarial Liabilities Covered by Assets			
	Active Member Contributions*	Terminated Vested Members	Retirees and Survivors**	Active Member Employer Provided		(1)	(2)	(3)	(4)
	-\$-	-\$-	-\$-	-\$-		-%-	-%-	-%-	-%-
1/1/2007	196,143,559	3,398,410	629,048,416	334,584,762	979,584,762	100.0	100.0	100.0	45.1
1/1/2008	212,407,644	3,229,816	660,297,629	330,713,124	1,020,575,797	100.0	100.0	100.0	43.7
1/1/2009	235,554,734	3,719,456	689,274,354	341,556,008	997,853,412	100.0	100.0	100.0	20.3
1/1/2010	256,663,672	4,156,485	720,761,899	368,492,011	1,002,378,598	100.0	100.0	100.0	5.6
1/1/2011	267,075,592	4,396,791	742,436,557	371,813,179	1,023,450,890	100.0	100.0	100.0	2.6
1/1/2012	270,043,946	4,255,920	762,106,926	386,811,384	1,027,953,907	100.0	100.0	98.9	0.0
1/1/2013	270,204,544	3,909,968	788,868,802	383,826,148	1,041,229,857	100.0	100.0	97.2	0.0
1/1/2014	271,758,390	2,267,254	831,113,713	366,837,917	1,074,038,336	100.0	100.0	96.3	0.0
1/1/2015	284,306,327	2,236,906	932,088,088	340,643,742	1,106,575,866	100.0	100.0	88.0	0.0
1/1/2016	306,319,701	2,005,865	966,095,357	340,557,711	1,119,731,517	100.0	100.0	84.0	0.0
1/1/2017	315,984,448	2,019,223	996,658,142	300,316,821	1,137,769,215	100.0	100.0	82.3	0.0

\* Includes DROP Accounts.

\*\* Includes DROP Participants' Future Benefits.

\*\*\* Changed from prior valuation to show Actuarial value of Assets rather than Market Value of Assets, to be consistent with CAFR Reporting.

## STATISTICAL DATA

	<u>1/1/2016</u>	<u>1/1/2017</u>
<u>Actives</u>		
Number	3,138	3,062
Average Current Age	43.4	43.5
Average Age at Employment	34.6	34.7
Average Past Service	8.8	8.8
Average Annual Salary	\$43,847	\$45,659
<u>Service Retirees</u>		
Number	2,401	2,436
Average Current Age	67.9	68.3
Average Annual Benefit	\$27,268	\$27,636
<u>DROP Retirees</u>		
Number	341	357
Average Current Age	57.7	57.8
Average Annual Benefit	\$44,804	\$45,197
<u>Beneficiaries</u>		
Number	654	666
Average Current Age	70.7	70.9
Average Annual Benefit	\$10,341	\$10,913
<u>Disability Retirees</u>		
Number	202	202
Average Current Age	62.6	63.3
Average Annual Benefit	\$15,609	\$15,903
<u>Terminated Vested</u>		
Number	20	19
Average Current Age	54.6	55.6
Average Annual Benefit	\$11,972	\$12,069



## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	Average Comp
15 - 19	2	0	0	0	0	0	0	0	0	0	0	0	2	\$26,870
20 - 24	44	36	13	7	7	1	0	0	0	0	0	0	108	\$30,469
25 - 29	70	66	71	41	27	55	3	0	0	0	0	0	333	\$36,291
30 - 34	44	41	56	44	35	152	67	2	0	0	0	0	441	\$41,364
35 - 39	37	31	30	28	20	114	120	47	3	0	0	0	430	\$48,905
40 - 44	34	18	20	15	19	85	82	82	35	0	0	0	390	\$51,017
45 - 49	21	24	29	16	14	50	80	81	77	12	0	0	404	\$52,498
50 - 54	21	15	24	15	11	63	69	55	55	15	0	0	343	\$48,733
55 - 59	16	19	18	13	14	77	57	39	47	11	1	0	312	\$43,246
60 - 64	12	11	14	11	11	49	32	19	26	3	0	0	188	\$47,764
65 - 69	5	7	6	6	7	16	12	8	12	0	0	1	80	\$44,779
70+	3	1	2	1	1	12	2	4	4	1	0	0	31	\$39,728
<b>Total</b>	<b>309</b>	<b>269</b>	<b>283</b>	<b>197</b>	<b>166</b>	<b>674</b>	<b>524</b>	<b>337</b>	<b>259</b>	<b>42</b>	<b>1</b>	<b>1</b>	<b>3,062</b>	<b>\$45,659</b>

AGE AND SERVICE DISTRIBUTION

BREC

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	Average Comp
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
20 - 24	20	5	3	0	0	0	0	0	0	0	0	0	28	\$22,806
25 - 29	16	7	5	4	1	2	0	0	0	0	0	0	35	\$32,699
30 - 34	14	9	13	5	1	12	3	0	0	0	0	0	57	\$34,942
35 - 39	6	10	8	4	1	11	19	1	0	0	0	0	60	\$41,322
40 - 44	12	4	5	2	2	11	13	5	3	0	0	0	57	\$44,708
45 - 49	7	4	3	3	3	5	10	2	1	0	0	0	38	\$41,005
50 - 54	4	4	7	2	3	13	14	5	2	1	0	0	55	\$43,640
55 - 59	4	10	6	2	1	16	9	2	1	0	0	0	51	\$37,002
60 - 64	4	3	3	2	1	10	7	5	1	0	0	0	36	\$45,935
65 - 69	1	3	2	2	0	3	2	0	0	0	0	0	13	\$35,623
70+	1	0	1	0	0	5	1	1	0	0	0	0	9	\$33,347
Total	89	59	56	26	13	88	78	21	8	1	0	0	439	\$38,872

AGE AND SERVICE DISTRIBUTION

REGULAR

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	Average Comp
15 - 19	2	0	0	0	0	0	0	0	0	0	0	0	2	\$26,870
20 - 24	24	19	8	1	0	0	0	0	0	0	0	0	52	\$29,738
25 - 29	52	49	51	27	14	28	1	0	0	0	0	0	222	\$34,524
30 - 34	30	26	33	29	27	94	20	0	0	0	0	0	259	\$38,554
35 - 39	30	21	20	21	13	86	58	21	0	0	0	0	270	\$46,131
40 - 44	22	14	15	11	16	64	51	45	8	0	0	0	246	\$45,381
45 - 49	14	20	26	13	11	42	62	60	40	2	0	0	290	\$47,279
50 - 54	17	11	17	13	8	50	55	43	44	6	0	0	264	\$46,447
55 - 59	12	9	12	11	13	61	48	36	41	9	1	0	253	\$43,230
60 - 64	8	8	11	9	10	38	25	13	24	3	0	0	149	\$47,373
65 - 69	4	4	4	4	7	13	10	8	12	0	0	1	67	\$46,555
70+	2	1	1	1	1	7	1	3	4	1	0	0	22	\$42,339
Total	217	182	198	140	120	483	331	229	173	21	1	1	2,096	\$43,363

AGE AND SERVICE DISTRIBUTION

FIREFIGHTERS

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	Average Comp
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
20 - 24	0	12	2	6	7	1	0	0	0	0	0	0	28	\$39,490
25 - 29	2	10	15	10	12	25	2	0	0	0	0	0	76	\$43,105
30 - 34	0	6	10	10	7	46	44	2	0	0	0	0	125	\$50,116
35 - 39	1	0	2	3	6	17	43	24	3	0	0	0	99	\$61,015
40 - 44	0	0	0	2	1	10	18	27	22	0	0	0	80	\$70,495
45 - 49	0	0	0	0	0	3	8	16	31	9	0	0	67	\$78,277
50 - 54	0	0	0	0	0	0	0	6	7	7	0	0	20	\$84,962
55 - 59	0	0	0	0	0	0	0	1	3	2	0	0	6	\$88,501
60 - 64	0	0	0	0	0	1	0	1	1	0	0	0	3	\$89,143
65 - 69	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
70+	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
Total	3	28	29	31	33	103	115	77	67	18	0	0	504	\$59,660

AGE AND SERVICE DISTRIBUTION

POLICE OFFICERS

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	Average Comp
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
20 - 24	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
25 - 29	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
30 - 34	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
35 - 39	0	0	0	0	0	0	0	1	0	0	0	0	1	\$53,887
40 - 44	0	0	0	0	0	0	0	5	2	0	0	0	7	\$77,842
45 - 49	0	0	0	0	0	0	0	3	5	1	0	0	9	\$77,287
50 - 54	0	0	0	0	0	0	0	1	2	1	0	0	4	\$88,465
55 - 59	0	0	0	0	0	0	0	0	2	0	0	0	2	\$68,748
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
65 - 69	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
70+	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
Total	0	0	0	0	0	0	0	10	11	2	0	0	23	\$77,640

RETIREES AND TERMINATED MEMBERS DATA

<b>BREC</b>	Members	Benefits
Service Retirees	145	3,255,702
DROP Retirees	13	419,490
Beneficiaries	31	252,069
Disability Retirees	6	76,260
Terminated Vested	2	23,577
	<u>197</u>	<u>4,027,098</u>

<b>Regular</b>	Members	Benefits
Service Retirees	1,642	40,678,220
DROP Retirees	256	9,991,949
Beneficiaries	381	3,947,065
Disability Retirees	145	2,268,649
Terminated Vested	13	138,488
	<u>2,437</u>	<u>57,024,371</u>

<b>Firefighters</b>	Members	Benefits
Service Retirees	447	17,214,841
DROP Retirees	83	5,450,851
Beneficiaries	149	1,917,900
Disability Retirees	27	541,517
Terminated Vested	3	43,125
	<u>709</u>	<u>25,168,234</u>

<b>Police Officers</b>	Members	Benefits
Service Retirees	202	6,172,206
DROP Retirees	5	273,120
Beneficiaries	105	1,150,917
Disability Retirees	24	325,977
Terminated Vested	1	24,129
	<u>337</u>	<u>7,946,349</u>

	Total Members	Total Benefits
Service Retirees	2,436	67,320,969
DROP Retirees	357	16,135,410
Beneficiaries	666	7,267,951
Disability Retirees	202	3,212,403
Terminated Vested	19	229,319
	<u>3,680</u>	<u>94,166,052</u>

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 1/1/2016	3,138
b. Departures	(260)
c. Deaths	(3)
d. Disabled	(7)
e. Retired	(24)
f. DROP	(97)
g. Continuing participants	2,747
h. New entrants	<u>315</u>
i. Total active life participants in valuation	3,062

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	2,401	341	654	202	20	3,618
Retired	101	(76)	0	0	(1)	24
DROP	0	97	0	0	0	97
Vested Deferred	0	0	0	0	0	0
Death	(73)	(3)	(37)	(7)	0	(120)
Disabled	0	0	0	7	0	7
Refund of Contributions	0	0	0	0	0	0
Rehires	0	0	0	0	0	0
Departures	0	(2)	(2)	0	0	(4)
Additions	7	0	51	0	0	58
b. Number current valuation	2,436	357	666	202	19	3,680

## SUMMARY OF PLAN PROVISIONS

(Through Ordinance 16040)

EFFECTIVE DATE	This plan was effective December 31, 1953 and was most recently amended effective September 1, 2015 (Ord. Nos. 16039 and 16040).
ELIGIBILITY	Any regular employee of the City-Parish, excluding Police Officers who elected to transfer into the Municipal Police Employees' Retirement System of Louisiana (MPERS) as of February 26, 2000 and Police Officers hired after that date. Part-time council members with service prior to January 1, 1997, retroactive to December 31, 1976.
CREDITABLE SERVICE	Service credited under the Retirement System; military service (maximum of three years); additional military service as required under USERRA for which Member Contributions are received.
EARNED COMPENSATION	The annual compensation paid to any member for employment covered by this system. No employer shall include any form of compensation not allowed by the city-parish for retirement purposes.
FINAL AVERAGE COMPENSATION	
For Members Hired Prior to 9/1/2015:	Average Earned Compensation paid during the highest thirty-six (36) consecutive months of Creditable Service.
For Members Hired On/After 9/1/2015:	Average Earned Compensation paid during the highest sixty (60) consecutive months of Creditable Service.
NORMAL RETIREMENT	
Eligibility for 2.50% Accrual Rate	
Members Hired Prior to 9/1/2015:	Earlier of: 1) Age 55 and 10 years of Creditable Service, or 2) the completion of 20 years of Creditable Service, regardless of age.
Public Safety Employees Hired On/After 9/1/2015:	Earlier of: 1) Age 55 and 10 years of Creditable Service, or 2) the completion of 20 years of Creditable Service, regardless of age.
Non-Public Safety Employees Hired On/After 9/1/2015:	Earlier of: 1) Age 60 and 10 years of Creditable Service, or 2) the completion of 20 years of Creditable Service, regardless of age.



#### Eligibility for 3.00% Accrual Rate

Members Hired Prior to 9/1/2015: The completion of 25 years of Creditable Service, regardless of age.

Public Safety Employees Hired On/After 9/1/2015: Age 50 and 25 years of Creditable Service.

Non-Public Safety Employees Hired On/After 9/1/2015: Age 55 and 25 years of Creditable Service.

Benefit Amount 2.50% or 3.00% (depending on Eligibility described above) of Final Average Compensation for all years of Creditable Service.

Maximum Benefit 90% of Average Final Compensation for Retirement with the 3.00% Accrual Rate

#### Form of Benefit

Members Hired Prior to 9/1/2015: For unmarried Members, Life Annuity. For married Members, 50% Joint and Contingent Survivor Annuity.

Members Hired On/After 9/1/2015: Life Annuity.

Actuarially equivalent optional forms are available for all Members.

#### EARLY RETIREMENT

##### Eligibility

Members Hired Prior to 9/1/2015: Less than 25 Years of Creditable Service and prior to age 55

Public Safety Employees Hired On/After 9/1/2015: Less than 25 Years of Creditable Service and prior to age 50.

Non-Public Safety Employees Hired On/After 9/1/2015: Less than 25 Years of Creditable Service and prior to age 55.

##### Benefit Amount

Members Hired Prior to 9/1/2015: Accrued benefit, reduced 3.0%/year prior to age 55.

Public Safety Employees Hired On/After 9/1/2015: Accrued benefit, reduced actuarially.

Non-Public Safety Employees Hired On/After 9/1/2015: Accrued benefit, reduced actuarially.

## VESTING (TERMINATION)

Less than 10 years of Creditable Service:	Refund of Accumulated Member Contributions, without interest.
10 or more years of Creditable Service:	100% of Accrued Benefit payable at age 55, or Refund of Member Contributions. If Member Contributions are refunded, Accrued Benefit is forfeited.

## DEATH

Eligible for Retirement	Surviving spouse may elect 100% Joint & Survivor benefit option (actuarially equivalent to the 50% Joint and Survivor), without reduction for early commencement, or a Refund of Member Contributions.
Not Eligible for Retirement	Surviving spouse may elect a monthly benefit of \$600 payable until remarriage, or a Refund of Member Contributions.
Eligible Children Under Age 18	Monthly benefit of \$150 per child (maximum \$300), payable until age 18. These benefits are in addition to any other benefits payable above.
Other	If no benefits are payable above, then \$150 monthly benefit payable to unmarried dependent parent until death or remarriage.

## DISABILITY

Eligibility	
Non-Service Connected	10 Years of Creditable Service.
Service Connected	Immediate coverage.
Benefit Amount	
Non-Service Connected	2.50% of Final Average Compensation times Credited Service, but not less than 50% of Final Average Compensation.
Service Connected	50% of Final Average Compensation, plus 1.50% of Final Average Compensation per year of Creditable Service in excess of 10 years. Maximum benefit of 90% of Final Average Compensation.

## MEMBER CONTRIBUTIONS

Equal to the Maximum Employer Contribution, if less than 8.00%. If the Maximum Employer Contribution is 17% or greater, Member Contribution is 50% of Employer Contribution (but not more than 9.5%). Maximum Employer Contribution rate is the larger of the City rate and the Special Funds rate.

EMPLOYER CONTRIBUTIONS

Balance of actuarially required contribution less member contributions, as determined above. City then determines equivalent City Rate and the Special Funds Rate.

MERS payments received for 2006 and later are reserved for future Supplemental Benefit Payments.

RETIREMENT BENEFIT ADJUSTMENTS

For Members who retired prior to 12/31/1989, or surviving spouses of such Members, who did not enter DROP, an annual payment of \$600 on 7/1/1992 plus \$30 for each year retired since then (exclusive of the first year).

SUPPLEMENTAL BENEFIT PAYMENTS

To be funded from (i) 1/10 of the first 2%, and 1/20 of the remainder, of excess return on the actuarial value of assets, provided the aggregate experience from all sources is an actuarial gain; (ii) decreases in Retirement Benefit Adjustment payments under 1:269 since July 2002; and (iii) MERS payments received for 2006 and later.

COMPENSATED ABSENCES

Eligibility

Upon written agreement by a member or his surviving spouse, the Retirement System will provide a benefit to retiring members, DROP participants, or a member's surviving spouse.

Benefit

(a) Cash payment for a portion, with the remainder added to the Member's creditable service, on the basis of one hour for each two hours of unused time.

(b) Conversion of all of the accumulated time to creditable service, on the basis of one hour for each hour of unused accumulated time and sick leave.

DEFERRED RETIREMENT OPTION PLAN

Eligibility and Participation Period

Members Hired Prior to 9/1/2015

Members with 25 to 30 years of service, regardless of age, are eligible for the lesser of five (5) years of participation, or combined service and DROP participation up to thirty-two (32) years. Members with at least 10 years of service up to 25 years of service are eligible for up to 3 years of participation.

Members Hired On/After 9/1/2015      Non-public safety members must have between 25 and 33 years of service at age 55. Public safety members must meet an age 50 requirement. Members with 10 or up to 25 years of service and are age 60 for non-public safety or age 55 for public safety are eligible for up to 3 years of participation.

All other Members eligible for DROP      Not more than thirty-six (36) months.

For Members who are not eligible to participate at thirty (30) years of Creditable Service due to age, the participation period is the difference of the earliest date of eligibility plus five (5) years and the date of election to enter DROP, provided this difference is at least two (2) years.

Form of Distribution      Cash Lump Sum (options available).