

June 2, 2017

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

RE: Revised GASB Statement No.67 and No.68 – Police Guarantee Trust of the Employees’ Retirement System of the City of Baton Rouge and Parish of East Baton Rouge

Dear Board:

We are pleased to present to the Board Revised GASB Statements No.67 and No.68 measured as of December 31, 2016 for the Police Guarantee Trust of the Employees’ Retirement System of the City of Baton Rouge and Parish of East Baton Rouge.

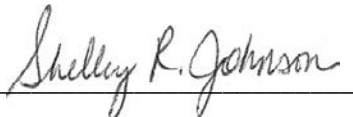
The calculation of the liability associated with the benefits referenced in this report was performed for the purpose of satisfying the requirements of GASB No.67 and No.68 and is not applicable for other purposes, such as determining the plan’s funding requirements. A calculation of the plan’s liability for other purposes may produce significantly different results.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation as of January 1, 2016. The total pension liability was rolled-forward from the valuation date to the plan’s fiscal year ending December 31, 2016 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purposes are internally consistent, reasonable, and comply with the requirements under GASB No.67 and No.68.

Certain schedules should include a 10-year history of information. As provided for in GASB No.67 and No.68, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB No.67 and No.68. To the best of our knowledge, these statements are complete and accurate and are in accordance with generally recognized actuarial practices and methods.

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

Respectfully submitted,
Foster & Foster, Inc.

By: 

Shelley R. Johnson, ASA, MAAA

SRJ/lke
Enclosures

STATEMENT OF FIDUCIARY NET POSITION
DECEMBER 31, 2016

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Money Market	1,059,686
Cash	1,995,907
Total Cash and Equivalents	3,055,593
Receivables:	
Member Contributions	1,037
Employer Contributions	411,596
From Broker for Investments Sold	136,800
Investment Income	427
Total Receivable	549,860
Investments:	
Fixed Income	6,075,059
Equities	6,953,180
Alternative	768,576
Total Investments	13,796,815
Total Assets	17,402,268
<u>LIABILITIES</u>	
Payables:	
Accrued Expenses and Benefits	138,119
Total Liabilities	138,119
NET POSITION RESTRICTED FOR PENSIONS	17,264,149

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

<u>ADDITIONS</u>		
Contributions:		
Member	63,856	
Employer	581,006	
Total Contributions		644,862
Investment Income:		
Net Increase in Fair Value of Investments	1,080,458	
Interest & Dividends	13,218	
Less Investment Expense ¹	(119,086)	
Net Investment Income		974,590
Total Additions		1,619,452
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	589,207	
Lump Sum DROP Distributions	2,062,190	
Refunds of Member Contributions	0	
Total Distributions		2,651,397
Administrative Expense		269,510
Total Deductions		2,920,907
Net Increase in Net Position		(1,301,455)
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		18,565,604
End of the Year		17,264,149

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended December 31, 2016)

Plan Description

Plan Administration

This plan was effective February 26, 2000 and was most recently amended effective February 28, 2001.

The plan is a single employer defined benefit pension plan, established and amended by the City of Baton Rouge, Louisiana and Parish of East Baton Rouge acting through its Board of Trustees.

Eligible police employees who are active members or in the Deferred Retirement Option Plan (DROP) of the City of Baton Rouge and Parish of East Baton Rouge (CPERS) on February 26, 2000 who elected to transfer into the Municipal Police Employees' Retirement System of Louisiana (MPERS) are automatically included in the Police Guarantee Trust (PGT).

Plan Membership as of January 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	177
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	4
Active Plan Members	174
	355

Benefits Provided

The Plan provides retirement and drop benefits.

Retirement Benefits:

Members are paid the full accrued benefit until the MPERS benefit amount is greater than the CPERS benefit amount.

DROP Benefits:

Members enter into PGT DROP with payments credited to the PGT DROP account until the later of two years or eligibility for MPERS DROP. Investment returns for MPERS and PGT DROP Accounts are credited to the PGT DROP Account.

Detail of Plan Provisions:

More detail on the plan provisions for the CPERS and MPERS benefits can be found in the most recent January 1 Actuarial Valuation Reports.

Contributions

Member Contributions: Based on current member contribution rate under CPERS, applied to member's compensation not covered by MPERS. Member contributions are "picked up" by the City.

Employer Contributions: Balance of actuarially required contribution less

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of December 31, 2016:

Asset Class	Target Allocation
Core Fixed Income	21.30%
Core Plus Fixed Income	21.30%
Large Cap Domestic Equity	17.30%
Non-Large Cap Domestic Equity	2.70%
International Large Cap Equity	13.30%
International Small Cap Equity	2.20%
Emerging Market Equity	4.40%
Cash	2.50%
MLP	5.00%
Risk Parity	5.00%
Hedge Funds	5.00%
Total	100.00%

GASB 67

Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:

For the year ended December 31, 2016, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 5.59 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

The DROP balance as December 31, 2016 is \$23,023,196.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on December 31, 2016 were as follows:

Total Pension Liability	\$ 41,009,565
Plan Fiduciary Net Position	\$ (17,264,149)
Sponsor's Net Pension Liability	<u>\$ 23,745,416</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	42.10%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of January 1, 2016 using the following actuarial assumptions:

Inflation	2.75%
Salary Increases	Age based
Discount Rate	5.66%
Investment Rate of Return	7.25%

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	1.2278%	0.1854%
60	0.7237%	0.4089%
70	2.0079%	1.4815%

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

The other significant assumptions are based upon the most recent experience study dated October 14, 2014 performed by the prior actuary, Nyhart.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2016, the inflation rate assumption of the investment advisor was 2.00%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Core Fixed Income	2.00%
Core Plus Fixed Income	2.75%
Large Cap Domestic Equity	5.50%
Non-Large Cap Domestic Equity	5.75%
International Large Cap Equity	6.00%
International Small Cap Equity	6.00%
Emerging Market Equity	8.00%
Cash	1.00%
MLP	9.75%
Risk Parity	6.25%
Hedge Funds	3.75%

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Discount Rate:

The projection of cash flows used to determine the Discount Rate assumed that current Plan Member and Sponsor contributions will be made at the current contribution rate. Future Member's contributions in excess of their normal cost were also included. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to provide future benefit payments for 8 years. These payments were discounted using a discount rate of 7.25%. Future benefits payments beyond 8 years were discounted using a high quality municipal bond rate of 3.78%. The high quality municipal bond rate was based on the week closest to, but not later than, the measurement date of the Bond Buyer 20-Bond Index as published by the Bond Buyer. The single equivalent discount rate was 5.66%.

	1% Decrease 4.66%	Current Discount Rate 5.66%	1% Increase 6.66%
Sponsor's Net Pension Liability	\$ 24,208,358	\$ 23,745,416	\$ 23,313,993

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Years

	12/31/2016	12/31/2015 ¹	12/31/2014 ¹
Total Pension Liability			
Service Cost	477,571	454,961	437,310
Interest	2,423,493	2,338,200	2,565,879
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	2,243,050	1,721,888	-
Changes of assumptions	555,501	(979,283)	340,742
Benefit Payments, including Refunds of Employee Contributions	(2,651,397)	(1,853,004)	(1,679,506)
Net Change in Total Pension Liability	3,048,218	1,682,762	1,664,425
Total Pension Liability - Beginning	37,961,347	36,278,585	34,614,160
Total Pension Liability - Ending (a)	<u>\$ 41,009,565</u>	<u>\$ 37,961,347</u>	<u>\$ 36,278,585</u>
Plan Fiduciary Net Position			
Contributions - Employer	581,006	951,261	763,873
Contributions - Employee	63,856	99,365	90,774
Net Investment Income	974,590	(403,640)	796,414
Benefit Payments, including Refunds of Employee Contributions	(2,651,397)	(1,853,004)	(1,679,506)
Administrative Expense	(269,510)	(313,560)	(333,744)
Net Change in Plan Fiduciary Net Position	(1,301,455)	(1,519,578)	(362,189)
Plan Fiduciary Net Position - Beginning	18,565,604	20,085,182	20,447,371
Plan Fiduciary Net Position - Ending (b)	<u>\$ 17,264,149</u>	<u>\$ 18,565,604</u>	<u>\$ 20,085,182</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 23,745,416</u>	<u>\$ 19,395,743</u>	<u>\$ 16,193,403</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	42.10%	48.91%	55.36%
Covered Employee Payroll	\$ 13,271,888	\$ 14,066,159	\$ 14,282,440
Net Pension Liability as a percentage of Covered Employee Payroll	178.92%	137.89%	113.38%

Notes to Schedule:

¹ The 2014 and 2015 results were provided by the prior actuary, Nyhart.

Changes of assumptions:

For purposes of determining the GASB discount rate at the 12/31/2016 measurement date, a depletion date projection as of that date have been performed. The results of this projection showed a single discount rate of 5.66%. The discount rate was lowered from 6.53% to 5.66%.

SCHEDULE OF CONTRIBUTIONS

Last 10 Years

	12/31/2016	12/31/2015 ¹	12/31/2014 ¹	12/31/2013 ¹	12/31/2012 ¹
Actuarially Determined Contribution	2,752,642	3,029,216	2,646,547	2,679,589	2,225,478
Contributions in relation to the Actuarially Determined Contributions	581,006	951,261	763,873	696,918	238,628
Contribution Deficiency (Excess)	\$ 2,171,636	\$ 2,077,955	\$ 1,882,674	\$ 1,982,671	\$ 1,986,850
Covered Employee Payroll	\$ 13,271,888	\$ 14,066,159	\$ 14,282,440	\$ 15,428,420	\$ 15,966,923
Contributions as a percentage of Covered Employee Payroll	4.38%	6.76%	5.35%	4.52%	1.49%
	12/31/2011 ¹	12/31/2010 ¹	12/31/2009 ¹	12/31/2008 ¹	12/31/2007 ¹
Actuarially Determined Contribution	1,977,834	1,634,905	479,630	215,291	124,607
Contributions in relation to the Actuarially Determined Contributions	202,695	250,114	149,179	127,087	123,140
Contribution Deficiency (Excess)	\$ 1,775,139	\$ 1,384,791	\$ 330,451	\$ 88,204	\$ 1,467
Covered Employee Payroll	\$ 17,315,930	\$ 18,836,479	\$ 20,084,707	\$ 19,754,110	\$ 20,507,475
Contributions as a percentage of Covered Employee Payroll	1.17%	1.33%	0.74%	0.64%	0.60%

¹ Results were provided by the prior actuary, Nyhart.

Notes to Schedule

Valuation Date: 01/01/2015
 Actuarially Determined contribution rates are calculated as of January 1, two years prior of the following year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Investment Return: 7.25% per year, compounded annually, net of investment expenses.
 Inflation: 2.75% per year.
 Annual Pay Increases: Inflation, plus

<u>Age</u>	<u>%</u>
30	4.00%
35	2.00%
40	2.00%
45	1.00%
50	0.00%
55	0.00%

MPERS COLA: 2.00% compounded annually.
 Mortality: RP-2000 Healthy Combined Blue Collar Projected with Scale BB to 2019, producing following specimen rates:

<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	0.7237%	0.4089%
70	2.0079%	1.4815%

Disabled Mortality: RP-2000 Disabled Mortality Projected with Scale BB to 2019.

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Withdrawal Rates:	<u>Age</u>	<u>Turnover</u>
	20	0.079
	25	0.077
	30	0.072
	35	0.063
	40	0.052
	45	0.040
	50	0.026
	55	0.009
	60	0.001

Probabilities of turnover are in accordance with the Eleventh Actuarial Valuation of the Railroad Retirement System based on Table T-5. The turnover rates are modified as follows, based on years of employment:

<u>Years of Service</u>	<u>%</u>
0-1	110%
2	85%
3	45%
4-10	45%
11-15	25%
16+	15%

Retirement Rates: Upon attaining 25.5 years of service or age 61 and 11 years of service, the following rates:

	Before 25 years of creditable service	After 25 years of creditable service	
<u>Age</u>	<u>Retirement</u>	<u>Service</u>	<u>Retirement</u>
55-60	10%	25	20%
61-63	20%	26	30%
64	25%	27	40%
65+	100%	28+	100%

Assumed Transfers to Retirement System (for accumulated vacation and sick leave, e.g.)

Disability Rates:		Total
	Police	1.50 years
	<u>Age</u>	<u>Disability</u>
	20	0.0006
	25	0.0006
	30	0.0006
	35	0.0007
	40	0.0011
	45	0.0022
	50	0.0046
	55	0.0102
	60	0.0320
	61	0.0355
	62	0.0400
	63	0.0450
	64	0.0410
65	0.0195	

Probabilities of disability are in accordance with the Eleventh Actuarial Valuation of the Railroad Retirement System. The disability rates for all members are increased by 100%.

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Type of Disability:	75% service-connected, 25% ordinary.
Actuarial Value of Assets:	Market Value as of January 1, 2000. Beginning January 1, 2002, Expected Value Method, with 20% of investments gains (or losses) recognized each year.
Actuarial Cost Method:	Aggregate Actuarial Cost Method.
Percent Married:	80% of employees are assumed to be married. Female spouses are assumed to be 3 years younger than males.
Interest on Future MPERS DROP Accounts:	7.25%, compounded annually for three years, payable at DROP exit.
Withdrawal of Employee Contributions:	100% of employees who terminate (other than retirement, death, or disability) are assumed to withdraw their contributions.
Ancillary Benefits:	MPERS ancillary benefits (turnover, disability, death) are assumed to be greater than CPERS ancillary benefits.

SCHEDULE OF INVESTMENT RETURNS
Last 10 Years

	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>
Annual Money-Weighted Rate of Return			
Net of Investment Expense	5.59%	N/A	N/A

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended December 31, 2016)

General Information about the Pension Plan

Plan Description

This plan was effective February 26, 2000 and was most recently amended effective February 28, 2001. The plan is a single employer defined benefit pension plan, established and amended by the City of Baton Rouge, Louisiana and Parish of East Baton Rouge acting through its Board of Trustees. Eligible police employees who are active members or in the Deferred Retirement Option Plan (DROP) of the City of Baton Rouge and Parish of East Baton Rouge (CPERS) on February 26, 2000 who elected to transfer into the Municipal Police Employees' Retirement System of Louisiana (MPERS) are automatically included in the Police Guarantee Trust (PGT).

Plan Membership as of January 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	177
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	4
Active Plan Members	174
	355
	355

Benefits Provided

The Plan provides retirement and drop benefits.

Retirement Benefits:

Members are paid the full accrued benefit until the MPERS benefit amount is greater than the CPERS benefit amount.

DROP Benefits:

Members enter into PGT DROP with payments credited to the PGT DROP account until the later of two years or eligibility for MPERS DROP. Investment returns for MPERS and PGT DROP Accounts are credited to the PGT DROP Account.

Detail of Plan Provisions:

More detail on the plan provisions for the CPERS and MPERS benefits can be found in the most recent January 1 Actuarial Valuation Reports.

Contributions

Member Contributions: Based on current member contribution rate under CPERS, applied to member's compensation not covered by MPERS. Member contributions are "picked up" by the City.

Employer Contributions: Balance of actuarially required contribution less member contributions, as determined above.

Net Pension Liability

The measurement date is December 31, 2016.

The measurement period for the pension expense was January 1, 2016 to December 31, 2016.

The reporting period is January 1, 2016 through December 31, 2016.

The Sponsor's Net Pension Liability was measured as of December 31, 2016.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of January 1, 2016 using the following actuarial assumptions:

Inflation	2.75%
Salary Increases	Age based
Discount Rate	5.66%
Investment Rate of Return	7.25%

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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	1.2278%	0.1854%
60	0.7237%	0.4089%
70	2.0079%	1.4815%

The other significant assumptions are based upon the most recent experience study dated October 14, 2014 performed by the prior actuary, Nyhart.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, Net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2016, the inflation rate assumption of the investment advisor was 2.00%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Core Fixed Income	21.30%	2.00%
Core Plus Fixed Income	21.30%	2.75%
Large Cap Domestic Equity	17.30%	5.50%
Non-Large Cap Domestic Equity	2.70%	5.75%
International Large Cap Equity	13.30%	6.00%
International Small Cap Equity	2.20%	6.00%
Emerging Market Equity	4.40%	8.00%
Cash	2.50%	1.00%
MLP	5.00%	9.75%
Risk Parity	5.00%	6.25%
Hedge Funds	5.00%	3.75%
Total	<u>100.00%</u>	

Discount Rate:

The projection of cash flows used to determine the Discount Rate assumed that current Plan Member and Sponsor contributions will be made at the current contribution rate. Future Member's contributions in excess of their normal cost were also included. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to provide future benefit payments for 8 years. These payments were discounted using a discount rate of 7.25%. Future benefits payments beyond 8 years were discounted using a high quality municipal bond rate of 3.78%. The high quality municipal bond rate was based on the week closest to, but not later than, the measurement date of the Bond Buyer 20-Bond Index as published by the Bond Buyer. The single equivalent discount rate was 5.66%.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Balances as of January 1, 2016	\$ 37,961,347	\$ 18,565,604	\$ 19,395,743
Changes for a Year:			
Service Cost	477,571	-	477,571
Interest	2,423,493	-	2,423,493
Differences between Expected and Actual Experience	2,243,050	-	2,243,050
Changes of assumptions	555,501	-	555,501
Changes of benefit terms	-	-	-
Contributions - Employer	-	581,006	(581,006)
Contributions - Employee	-	63,856	(63,856)
Net Investment Income	-	974,590	(974,590)
Benefit Payments, including Refunds of Employee Contributions	(2,651,397)	(2,651,397)	-
Administrative Expense	-	(269,510)	269,510
Net Changes	3,048,218	(1,301,455)	4,349,673
Balances as of December 31, 2016	\$ 41,009,565	\$ 17,264,149	\$ 23,745,416

Sensitivity of the Net Pension Liability to changes in the Discount Rate.

	Current Discount		
	1% Decrease	Rate	1% Increase
	4.66%	5.66%	6.66%
Sponsor's Net Pension Liability	\$ 24,208,358	\$ 23,745,416	\$ 23,313,993

Pension Plan Fiduciary Net Position.

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED
INFLOWS OF RESOURCES RELATED TO PENSIONS**

For the year ended December 31, 2016, the Sponsor will recognize a Pension Expense of \$3,679,561.

On December 31, 2016, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	2,356,311	-
Changes of assumptions	455,518	489,641
Net difference between Projected and Actual Earnings on Pension Plan investments	1,415,483	-
Total	\$ 4,227,312	\$ 489,641

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended December 31:	
2017	\$ 1,710,862
2018	\$ 1,625,681
2019	\$ 368,441
2020	\$ 32,687
2021	\$ -
Thereafter	\$ -

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Years

	12/31/2016	12/31/2015 ¹	12/31/2014 ¹
Total Pension Liability			
Service Cost	477,571	454,961	437,310
Interest	2,423,493	2,338,200	2,565,879
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	2,243,050	1,721,888	-
Changes of assumptions	555,501	(979,283)	340,742
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Total Pension Liability - Beginning	37,961,347	36,278,585	34,614,160
Total Pension Liability - Ending (a)	<u>\$ 41,009,565</u>	<u>\$ 37,961,347</u>	<u>\$ 36,278,585</u>
Plan Fiduciary Net Position			
Contributions - Employer	581,006	951,261	763,873
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Net Change in Plan Fiduciary Net Position	(1,301,455)	(1,519,578)	(362,189)
Plan Fiduciary Net Position - Beginning	18,565,604	20,085,182	20,447,371
Plan Fiduciary Net Position - Ending (b)	<u>\$ 17,264,149</u>	<u>\$ 18,565,604</u>	<u>\$ 20,085,182</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 23,745,416</u>	<u>\$ 19,395,743</u>	<u>\$ 16,193,403</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	42.10%	48.91%	55.36%
Covered Employee Payroll	\$ 13,271,888	\$ 14,066,159	\$ 14,282,440
Net Pension Liability as a percentage of Covered Employee Payroll	178.92%	137.89%	113.38%

Notes to Schedule:

¹ The 2014 and 2015 results were provided by the prior actuary, Nyhart.

Changes of assumptions:

For purposes of determining the GASB discount rate at the 12/31/2016 measurement date, a depletion date projection as of that date have been performed. The results of this projection showed a single discount rate of 5.66%. The discount rate was lowered from 6.53% to 5.66%.

SCHEDULE OF CONTRIBUTIONS
Last 10 Years

	12/31/2016	12/31/2015 ¹	12/31/2014 ¹	12/31/2013 ¹	12/31/2012 ¹
Actuarially Determined Contribution	2,752,642	3,029,216	2,646,547	2,679,589	2,225,478
Contributions in relation to the					
Actuarially Determined Contributions	581,006	951,261	763,873	696,918	238,628
Contribution Deficiency (Excess)	<u>\$ 2,171,636</u>	<u>\$ 2,077,955</u>	<u>\$ 1,882,674</u>	<u>\$ 1,982,671</u>	<u>\$ 1,986,850</u>
Covered Employee Payroll	\$ 13,271,888	\$ 14,066,159	\$ 14,282,440	\$ 15,428,420	\$ 15,966,923
Contributions as a percentage of					
Covered Employee Payroll	4.38%	6.76%	5.35%	4.52%	1.49%
	12/31/2011 ¹	12/31/2010 ¹	12/31/2009 ¹	12/31/2008 ¹	12/31/2007 ¹
Actuarially Determined Contribution	1,977,834	1,634,905	479,630	215,291	124,607
Contributions in relation to the					
Actuarially Determined Contributions	202,695	250,114	149,179	127,087	123,140
Contribution Deficiency (Excess)	<u>\$ 1,775,139</u>	<u>\$ 1,384,791</u>	<u>\$ 330,451</u>	<u>\$ 88,204</u>	<u>\$ 1,467</u>
Covered Employee Payroll	17,315,930	18,836,479	20,084,707	19,754,110	20,507,475
Contributions as a percentage of					
Covered Employee Payroll	1.17%	1.33%	0.74%	0.64%	0.60%

¹ Results were provided by the prior actuary, Nyhart.

Notes to Schedule

Methods and assumptions used to determine contribution rates:

Investment Return 7.25% per year, compounded annually, net of investment expenses.
 Inflation: 2.75% per year.
 Annual Pay Increases: Inflation, plus

<u>Age</u>	<u>%</u>
30	4.00%
35	2.00%
40	2.00%
45	1.00%
50	0.00%
55	0.00%

Mortality: RP-2000 Healthy Combined Blue Collar Projected with Scale BB to 2019, producing following specimen rates:

<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	0.7237%	0.4089%
70	2.0079%	1.4815%

Disabled Mortality: RP-2000 Disabled Mortality Projected with Scale BB to 2019.

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Withdrawal Rates:	<u>Age</u>	<u>Turnover</u>
	20	0.079
	25	0.077
	30	0.072
	35	0.063
	40	0.052
	45	0.04
	50	0.026
	55	0.009
	60	0.001

Probabilities of turnover are in accordance with the Eleventh Actuarial Valuation of the Railroad Retirement System based on Table T-5. The turnover rates are modified as follows, based on years of employment:

<u>Years of Service</u>	<u>%</u>
0-1	110%
2	85%
3	45%
4-10	45%
11-15	25%
16+	15%

Retirement Rates: Upon attaining 25.5 years of service or age 61 and 11 years of service, the following rates:

Before 25 years of creditable service		After 25 years of creditable service	
<u>Age</u>	<u>Retirement</u>	<u>Service</u>	<u>Retirement</u>
55-60	10%	25	20%
61-63	20%	26	30%
64	25%	27	40%
65+	100%	28+	100%

Assumed Transfers to Retirement System (for accumulated vacation and sick leave, e.g.)

		Total
Police		1.50 years
Disability Rates:	<u>Age</u>	<u>Disability</u>
	20	0.0006
	25	0.0006
	30	0.0006
	35	0.0007
	40	0.0011
	45	0.0022
	50	0.0046
	55	0.0102
	60	0.0320
	61	0.0355
	62	0.0400
	63	0.0450
	64	0.0410
	65	0.0195

Probabilities of disability are in accordance with the Eleventh Actuarial Valuation of the Railroad Retirement System. The disability rates for all members are increased by 100%.

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Type of Disability:	75% service-connected, 25% ordinary.
Actuarial Value of Assets:	Market Value as of January 1, 2000. Beginning January 1, 2002, Expected Value Method, with 20% of investments gains (or losses) recognized each year.
Actuarial Cost Method:	Aggregate Actuarial Cost Method.
Percent Married:	80% of employees are assumed to be married. Female spouses are assumed to be 3 years younger than males.
Interest on Future MPERS DROP	
Accounts:	7.25%, compounded annually for three years, payable at DROP exit.
Withdrawal of Employee Contributions:	100% of employees who terminate (other than retirement, death, or disability) are assumed to withdraw their contributions.
Ancillary Benefits:	MPERS ancillary benefits (turnover, disability, death) are assumed to be greater than CPERS ancillary benefits.

COMPONENTS OF PENSION EXPENSE
YEAR ENDING DECEMBER 31, 2016

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Balances as of January 1, 2016	\$ 19,395,743	\$ 734,462	\$ 3,221,015	\$ -
Total Pension Liability Factors:				
Service Cost	477,571	-	-	477,571
Interest	2,423,493	-	-	2,423,493
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	2,243,050	-	2,243,050	-
Current year amortization of experience difference	-	-	(1,178,155)	1,178,155
Change in assumptions about future economic or demographic factors or other inputs	555,501	-	555,501	-
Current year amortization of change in assumptions	-	(244,821)	(270,353)	25,532
Benefit Payments	(2,651,397)	-	-	(2,651,397)
Net change	<u>3,048,218</u>	<u>(244,821)</u>	<u>1,350,043</u>	<u>1,453,354</u>
Plan Fiduciary Net Position:				
Contributions - Employer	581,006	-	-	-
Contributions - Employee	63,856	-	-	(63,856)
Projected Net Investment Income	1,138,021	-	-	(1,138,021)
Difference between projected and actual earnings on Pension Plan investments	(163,431)	-	163,431	-
Current year amortization	-	-	(507,177)	507,177
Benefit Payments	(2,651,397)	-	-	2,651,397
Administrative Expenses	(269,510)	-	-	269,510
Net change	<u>(1,301,455)</u>	<u>-</u>	<u>(343,746)</u>	<u>2,226,207</u>
Balances as of December 31, 2016	<u>\$ 23,745,416</u>	<u>\$ 489,641</u>	<u>\$ 4,227,312</u>	<u>\$ 3,679,561</u>

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Expected and Actual Earnings	Recognition Period (Years)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
2014	\$ 693,691	5	\$ 138,738	\$ 138,738	\$ 138,739	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 1,678,767	5	\$ 335,753	\$ 335,753	\$ 335,753	\$ 335,755	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 163,431	5	\$ 32,686	\$ 32,686	\$ 32,686	\$ 32,686	\$ 32,687	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 507,177	\$ 507,177	\$ 507,178	\$ 368,441	\$ 32,687	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
2014	\$ 340,742	4	\$ 85,186	\$ 85,184	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (979,283)	4	\$ (244,821)	\$ (244,821)	\$ (244,820)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 555,501	3	\$ 185,167	\$ 185,167	\$ 185,167	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 25,532	\$ 25,530	\$ (59,653)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2014	\$ -	4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 1,721,888	4	\$ 430,472	\$ 430,472	\$ 430,472	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 2,243,050	3	\$ 747,683	\$ 747,683	\$ 747,684	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,178,155	\$ 1,178,155	\$ 1,178,156	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -