

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

ACTUARIAL VALUATION REPORT  
AS OF JANUARY 1, 2023

CONTRIBUTIONS APPLICABLE TO THE PLAN/  
FISCAL YEAR ENDED DECEMBER 31, 2024



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

May 23, 2023

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 Actuarial Assumptions and Methods section starting on page 14 of this report. In our opinion, the assumptions used in this valuation, as recommended by us for 2020 and adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience as of the applicable valuation date. 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.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. 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. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

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.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding and accounting rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.


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. 23-4834

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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, 2023, 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, 2024.

The contribution requirements, compared with those provided in the January 1, 2022 Actuarial Valuation Report, are as follows:

Valuation Date	1/1/2023	1/1/2022
Applicable Plan/Fiscal Year End	<u>12/31/2024</u>	<u>12/31/2023</u>
Employer Required Contribution	60,397,309	56,431,147
% of Total Annual Payroll	38.4%	36.3%

Overall there was net unfavorable actuarial experience during the past year. The primary component of unfavorable experience was an investment return of 5.39% (Actuarial Asset Basis) which fell short of the 7.00% assumption and investment earnings on DROP balances that were more than expected. There were no significant sources of actuarial gain.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

Beginning October 12, 2022, benefits for new part-time return to work employees will be suspended while re-employed, unless the employee:

- is reemployed up to a maximum of 49% of annual earnings at the time of retirement
- signed an acknowledgement at the time of retirement that there is no such agreement in place that the retiree would be rehired in any capacity upon separation
- has a minimum six-month separation of service between retirement and reemployment
- the member has 32 or more years of combined service credit and DROP participation at the time of retirement, if hired prior to September 1, 2015, or
- the member has 37 or more years of combined service credit and DROP participation at the time of retirement, if hired after September 1, 2015

Effective with the first full payroll period in January 2023, employers are required to submit employer contributions for all future employed DROP participants and for all current and future part-time rehired retirees.

### Actuarial Assumption/Method Changes

In conjunction with this actuarial valuation we updated the Administrative Expenses assumption from the actual expenses incurred in the prior fiscal year to an average of actual expenses incurred in the prior fiscal year and the budgeted expenses for the next fiscal year.

The additional employer contributions were not anticipated in this report due to immateriality, but the change is expected to reduce future employer contribution rates.

Any benefit suspension for rehired retirees will result in experience gains (or an offset to experience losses) as these suspensions are not anticipated in plan funding.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>1/1/2023</u>	<u>1/1/2022</u>
A. Participant Data		
Actives	2,856	2,875
Service Retirees	2,669	2,632
DROP Retirees	290	299
Beneficiaries	729	725
Disability Retirees	179	185
Terminated Vested	<u>11</u>	<u>10</u>
 Total	 6,734	 6,726
 Total Annual Payroll	 \$154,800,557	 \$152,715,183
Payroll Under Assumed Ret. Age	153,543,554	151,451,972
 Annual Rate of Payments to:		
Service Retirees	83,370,413	80,684,355
DROP Retirees	14,576,757	14,065,263
Beneficiaries	9,409,914	9,085,167
Disability Retirees	3,038,291	3,075,909
Terminated Vested	103,291	102,953
 B. Assets		
Actuarial Value (AVA) <sup>1</sup>	1,309,125,295	1,293,095,058
Market Value (MVA) <sup>1</sup>	1,213,667,500	1,410,390,086
 C. Liabilities		
Present Value of Benefits (PVB)		
Actives		
Retirement Benefits	653,513,431	661,191,416
Disability Benefits	12,674,107	12,597,368
Death Benefits	8,670,379	8,763,713
Vested Benefits	13,721,150	13,876,939
Service Retirees	833,411,409	808,358,244
Leave Balances	12,238,871	11,105,395
DROP (Future Benefits)	176,910,130	169,437,473
DROP (Accounts) <sup>1</sup>	325,734,651	301,933,864
Beneficiaries	78,000,657	75,349,327
Disability Retirees	26,412,273	26,807,559
Terminated Vested	1,083,174	1,009,455
RBA Benefits	<u>11,383,000</u>	<u>11,383,000</u>
 Total PVB	 2,153,753,232	 2,101,813,753



C. Liabilities - (Continued)	<u>1/1/2023</u>	<u>1/1/2022</u>
Present Value of Future Salaries	1,114,348,538	1,088,283,470
Total Normal Cost	23,040,222	22,949,660
Present Value of Future Normal Costs	175,949,113	172,115,114
Accrued Liability (Retirement)	492,311,246	503,570,708
Accrued Liability (Disability)	7,040,046	7,078,772
Accrued Liability (Death)	5,787,851	5,921,632
Accrued Liability (Vesting)	7,490,811	7,743,210
Accrued Liability (Inactives) <sup>1</sup>	<u>1,465,174,165</u>	<u>1,405,384,317</u>
Total Actuarial Accrued Liability (AL)	1,977,804,119	1,929,698,639
Unfunded Actuarial Accrued Liability (UAAL)	668,678,824	636,603,581
Funded Ratio (AVA / AL)	66.2%	67.0%

Valuation Date Applicable to Fiscal Year Ending	1/1/2023 <u>12/31/2024</u>	1/1/2022 <u>12/31/2023</u>
D. Pension Cost		
Sponsor Normal Cost (with interest) % of Total Annual Payroll <sup>2</sup>	9,477,512 6.0	9,585,160 6.2
Administrative Expenses (with interest) % of Total Annual Payroll <sup>2</sup>	2,153,097 1.4	1,627,157 1.0
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 22 years (as of 01/1/2023, with interest) % of Total Annual Payroll <sup>2</sup>	48,766,700 31.0	45,218,830 29.1
Total Required Sponsor Contribution % of Total Annual Payroll <sup>2</sup>	60,397,309 38.4	56,431,147 36.3

<sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 12/31/2022 and 12/31/2021. The asset values do not include the Supplemental Benefit Payments Account.

<sup>2</sup> Contributions developed as of 1/1/2023 are expressed as a percentage of projected payroll under assumed retirement age projected to 1/1/2024 of \$157,382,143.

## RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of January 1, 2022	\$636,603,581
(2) Normal Cost developed as of January 1, 2022	22,949,660
(3) Expected administrative expenses for the year ended December 31, 2022	1,534,665
(4) Expected interest on (1), (2), (3) and (4)	46,222,440
(5) Contributions to the System during the year ended December 31, 2022	72,500,867
(6) Expected interest on (6)	2,537,530
(7) Expected Unfunded Actuarial Accrued Liability as of December 31, 2022 (1)+(2)+(3)+(4)-(5)-(6)	632,271,949
(8) Change to UAAL due to Actuarial (Gain)/Loss	36,406,875
(9) Unfunded Actuarial Accrued Liability as of January 1, 2023	668,678,824

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of January 1, 2022	\$636,603,581
(2)	Expected UAAL as of January 1, 2023	632,271,949
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	20,488,910
	Salary Increases	1,195,888
	Active Decrements	(2,867,007)
	Inactive Mortality	(111,803)
	Investment Earnings on DROP Account Balances	6,185,817
	Other <sup>1</sup>	<u>11,515,070</u>
	Increase in UAAL due to (Gain)/Loss	36,406,875
(4)	Actual UAAL as of January 1, 2023	\$668,678,824

<sup>1</sup> Includes 1,930,509 due to retirees not included last year, 104,561 due to retiree benefit changes, 2,155,408 due to new active members, 550,562 due to active data changes (primarily past service changes), and 6,774,030 net Other changes.

## ANALYSIS OF FINANCIAL EXPERIENCE

Gains and Losses in Unfunded Actuarial Liability during years ended 2017 - 2022  
resulting from differences between assumed experience and actual experience

\$ Gain or (Loss) for Year:

<b><u>Elements of Experience</u></b>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Investment Return	473,285	(30,400,229)	(19,208,162)	1,079,187	22,967,444	(20,488,910)
Salary Increases	5,500,275	(2,806,302)	(2,622,006)	(4,224,946)	(311,506)	(1,195,888)
Retirements	252,779	(1,573,861)	(267,613)	(1,962,081)	(1,127,215)	(591,305)
Mortality	3,552,858	2,181,709	(472,270)	171,776	1,732,281	2,947,988
Disability	(526,410)	(479,657)	(9,988)	(59,543)	(320,486)	(169,433)
Turnover	(740,321)	85,179	(1,555,198)	(2,504,494)	(540,075)	791,560
New Members	(370,855)	(1,639,910)	(1,141,384)	(525,037)	(1,710,232)	(2,155,408)
Contribution Differences	N/A	N/A	N/A	N/A	N/A	N/A
Other (Leaves, Transfers, etc.)	<u>(7,635,725)</u>	<u>(9,158,023)</u>	<u>(6,272,044)</u>	<u>(4,606,130)</u>	<u>(9,280,697)</u>	<u>(15,545,479)</u>
 Total Gain/(Loss) from Experience	 505,886	 (43,791,094)	 (31,548,665)	 (12,631,267)	 11,409,514	 (36,406,875)
 Nonrecurring Elements:						
Plan Amendment	-	-	-	-	-	-
Assumption Change	-	-	(5,943,063)	-	-	-
Actuarial Method Change	1,893,141	-	-	-	-	-
Data (Optional Forms)	-	-	-	-	-	-
Valuation Software <sup>1</sup>	(18,848,257)					
 Composite Gain/(Loss) During Year	 (16,449,230)	 (43,791,094)	 (37,491,728)	 (12,631,267)	 11,409,514	 (36,406,875)

<sup>1</sup> The valuation software coding was revised to more accurately reflect the liabilities by calculating entry age as the participant's current age minus total service credit provided in the census data rather than date of hire and to project future salary based on salary as of the valuation date rather than annualized salary earned during the previous calendar year.

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rates

*Healthy Active Lives:*  
 RP-2006 Blue Collar Employee Projected back to 2001,  
 Generational with MP-2018 (2016 base year)

*Healthy Inactive Lives:*  
 RP-2006 Blue Collar Annuitant Projected back to 2001,  
 Generational with MP-2018 (2016 base year)

*Disabled Lives:*  
 RP-2006 Disability Table Projected back to 2001,  
 Generational with MP-2018 (2016 base year)

Interest Rate

7.00% per annum, compounded annually, net of investment related expenses.

Inflation

2.25% per year.

Salary Increases

Inflation, plus

<u>Service</u>	<u>Age</u>	<u>BREC/Regular</u>	<u>Fire/Police</u>
<1	22	7.60%	15.50%
	27	4.90%	15.50%
	32	4.90%	15.50%
	37	3.40%	15.50%
	42	3.40%	15.50%
	47	3.40%	15.50%
	52	3.40%	15.50%
	57	3.40%	15.50%
	62	3.40%	15.50%
	67	1.50%	15.50%
1+	22	7.60%	6.50%
	27	3.50%	3.50%
	32	3.50%	3.25%
	37	3.25%	3.00%
	42	2.55%	2.75%
	47	1.85%	2.00%
	52	1.55%	2.00%
	57	1.55%	2.00%
	62	1.55%	2.00%
	67	0.75%	2.00%

Retirement Rates

<u>BREC and General</u>		
<u>Service</u>	<u>Age</u>	<u>Retirement Rates</u>
<25	< 55	5.0%
	55 - 60	15.0%
	61 - 63	20.0%
	64 - 69	25.0%
	70+	100.0%
25	All Ages	50.0%
26	All Ages	55.0%
27	All Ages	90.0%
28+	< 65	20.0%
28+	65 – 69	25.0%
28+	70+	100.0%

<u>Fire and Police</u>		
<u>Service</u>	<u>Age</u>	<u>Retirement Rates</u>
<25	< 55	1.5%
	55 - 60	10.0%
	61 - 63	15.0%
	64	20.0%
	65+	100.0%
25	<55	22.0%
26	<55	22.0%
27	<55	80.0%
28+	<55	100.0%
25	55+	45.0%
26	55+	75.0%
27	55+	80.0%
28+	55+	100.0%

Please note that a 100% probability of retirement will apply once a member reaches age 70 for BREC and General or age 65 for Fire and Police.

Termination Rates

<u>Age</u>	<u>BREC and General</u>					
	<u>Sample Termination Rates</u>					
	<u>&lt; 2 Years of Service</u>	<u>2-3 Years of Service</u>	<u>4 Years of Service</u>	<u>5-7 Years of Service</u>	<u>8-15 Years of Service</u>	<u>16+ Years of Service</u>
< 25	34.1%	24.8%	18.6%	13.2%	7.8%	4.7%
27	27.5%	20.0%	15.0%	10.6%	6.3%	3.8%
32	26.4%	19.2%	14.4%	10.2%	6.0%	3.6%
37	25.3%	18.4%	13.8%	9.8%	5.8%	3.5%
42	22.0%	16.0%	12.0%	8.5%	5.0%	3.0%
47	19.8%	14.4%	10.8%	7.7%	4.5%	2.7%
52	22.0%	16.0%	12.0%	8.5%	5.0%	3.0%
57	16.5%	12.0%	9.0%	6.4%	3.8%	2.3%
62	17.6%	12.8%	9.6%	6.8%	4.0%	2.4%

<u>Fire and Police</u>	
<u>Service</u>	<u>Termination Rate</u>
<10	3.5%
10+	0.5%

Disability Rates

<u>Age</u>	<u>Sample Disability Rates</u>
22	0.01%
27	0.01%
32	0.01%
37	0.06%
42	0.06%
47	0.25%
52	0.30%
57	0.30%
62	0.45%
65	0.70%

It is assumed that 45% of BREC/Regular, 70% of Firefighter, and 55% of Police Officer disablements are service related.

Assumed Converted Leave Transfers to Retirement System

	<u>Hired before April 4, 2015</u>	<u>Hired on or after April 4, 2015</u>
BREC	0.65 Years	0.50 Years
Regular	0.55 Years	0.40 Years
Fire	1.25 Years	0.95 Years
Police	0.75 Years	0.55 Years



<u>Payroll Growth Assumption</u>	2.50% per year.
<u>Administrative Expenses</u>	\$2,030,710 annual, based on the average of actual expenses incurred in the prior fiscal year and the budgeted expenses for the next fiscal year.
<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>Unfunded Actuarial Accrued Liability Amortization Period</u>	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.
<u>Funding Method</u>	The following loads are applied for determination of the Sponsor Contribution:  Interest – A half year, based on the current 7.00% assumption.  Payroll – A full year, based on the current 2.50% assumption.
<u>Asset Valuation Method</u>	All assets are valued at market value with an adjustment to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. This method changed effective January 1, 2018, commencing with a “fresh start”, where the AVA equals the MVA.
<u>Withdrawal of Employee Contributions</u>	75% of employees who terminate other than for retirement, death, or disability, are assumed to withdraw their contributions.
<u>Date of Hire</u>	Date of Hire is interpreted by the Board to be the most recent date of hire.
<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 adopted by the Board in March 2020, effective for the January 1, 2020 actuarial valuation, based on our recommendations contained in the CPERS experience study, which analyzed experience from January 1, 2014 through December 31, 2018. We believe these assumptions are reasonable for purposes of this valuation. In particular, we believe that the mortality rates sufficiently accommodate future mortality improvement.

## DISCUSSION OF RISK

Measuring pension obligations and calculating actuarially determined contributions require the use of assumptions regarding future economic and demographic experience. It should be noted that the liabilities and the corresponding funded status presented in this report would differ if a different assumption set were utilized. Future plan experience may differ from the assumptions used in this valuation resulting in actuarial gains and losses. The extent of these differences will impact the plan's future financial condition, the volatility of future plan measurements, and the volatility of future required contributions. Actuarial losses on assets and liabilities will lead to higher contribution amounts, while actuarial gains on assets and liabilities will lead to lower contribution amounts. Because these risks may not be apparent to the reader, we have included a summary of the key risk factors that should be considered:

1. Investment risk: The liabilities and corresponding funded status presented in this report assume a long-term return expectation of 7.00% in each future year, net of investment expenses. Due to the nature of investments, long-term expectations are not a guarantee and actual average long-term returns may be above or below 7.00% per year. To the extent that the actual long-term rate of return differs from current expectations, investment experience gains and losses will develop. Furthermore, short-term volatility in actual returns is expected and will result in year-over-year fluctuations in financial metrics. Prolonged periods of investment performance below the assumed rate of return can result in a decrease in funded status (i.e. increases unfunded liabilities) and an increase in contributions required in future years. Of course, the opposite is also true. Investment risk is generally a greater risk to most plans than demographic risk.
2. Demographic risk: The results in this report assume demographic characteristics of the plan will follow a pattern consistent with assumptions disclosed for termination of employment, incidence of disabilities, salary increases, timing of retirement, and duration of payments throughout retirement. Actuarial assumptions are applied to large groups of individuals to reasonably estimate plan liabilities and are not necessarily intended to be applied on an individual basis. As such, demographic experience may differ significantly from the assumptions resulting in future experience gains and losses.
3. Contribution risk: This risk results from the potential that actual employer contributions may deviate from actuarially determined contributions, which are determined in accordance with the Board's funding policy. The funding policy is intended to result in contribution requirements that if paid when due, will result in a reasonable expectation that assets will accumulate to be sufficient to pay plan benefits when due. Contribution deficits, particularly large deficits and those that occur

repeatedly, increase future contribution requirements and put the plan at risk for not being able to pay plan benefits when due.

4. Payroll risk: The unfunded accrued liability is amortized with payments increasing by 2.50% annually and is paid as a percentage of projected payroll under assumed retirement age (see footnote 2 on page 10). Maintaining the amortization payment as a level percentage of payroll requires aggregate payroll to increase at the same rate as the increase in the amortization payments. During the last five years, aggregate payroll used to determine the employer contribution rate has increased at an annualized rate of 1.6%. If payroll continues to increase at a rate less than 2.50%, the percentage of pay required to amortize the unfunded liability can be expected to increase in the absence of other experience gains or losses.

#### Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared among active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on the risk characteristics and risk tolerance of the plan. For example, plans with a large amount of liability attributable to retirees have a shorter time horizon to recover from losses (such as investment experience losses due to lower than expected investment returns) than plans where the majority of the liability is attributable to active members. For this reason, highly mature plans with a substantial liability due to retirees and inactive members have less tolerance for risk. Similarly, mature plans paying substantial retirement benefits resulting in a small positive or negative net cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan and assessing risk, we have provided some relevant metrics in the section titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members has decreased from 76.6% to 73.6% since January 1, 2020, meaning the plan is gradually maturing.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the accrued liability associated with those receiving payments (inclusive of DROP members), to the Total Accrued Liability, is 74.1%. With a plan of this maturity, losses due to lower than

expected investment returns or demographic factors will need to be made up for over a shorter time horizon than would be needed for a less mature plan.

- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability has increased from 65.3% to 66.2% since January 1, 2020. If all actuarial assumptions are realized, the funded ratio is expected to increase as unfunded liabilities are amortized in accordance with the funding method.

At the Board’s request, we have included an actuarial projection of future benefit payments and expected future contributions, which are presented below. This projection assumes the actuarially determined employer contribution will be contributed each year. New members are assumed to enter the plan each year such that the total number of active members remains constant. New members are assumed to have the same demographics as the average new members from this year’s valuation. In addition, we assumed 7.5% of the DROP balance will be withdrawn each year based on historical DROP information obtained from prior valuation data. All other assumptions are based on the actuarial assumptions described in this report.

Projected benefit payments are currently approximately 2.09 times greater than the projected Required Sponsor Contributions (see projection below). This ratio is expected to remain approximately stable in 2031 as the plan becomes more mature but the required contribution increases due to the shorter amortization period of the UAAL. It is more difficult for plans with negative net cash flow, where benefit payments exceed contributions, to recover from investment losses than a plan with a positive net cash flow.

Valuation Date	Calendar Year	Required Sponsor Contribution (millions)	Actual/Expected Sponsor Contribution (millions)	Benefit Payments (millions)	Actuarial Value of Assets (millions)	UAAL (millions)	Funded Ratio (AVA/AL)
1/1/2023	2022	56.2	58.3	122.1	1,309.1	668.7	66.2%
1/1/2024	2023	56.4	56.4	126.6	1,338.7	665.9	66.8%
1/1/2025	2024	60.4	60.4	134.8	1,346.2	678.8	66.5%
1/1/2026	2025	61.7	61.7	143.1	1,336.2	702.1	65.6%
1/1/2027	2026	64.3	64.3	146.7	1,309.0	739.9	63.9%
1/1/2028	2027	67.9	67.9	148.1	1,334.1	725.1	64.8%
1/1/2029	2028	73.2	73.2	149.4	1,365.5	703.8	66.0%
1/1/2030	2029	74.4	74.4	151.0	1,398.7	679.9	67.3%
1/1/2031	2030	75.3	75.3	153.0	1,433.5	653.4	68.7%
1/1/2032	2031	76.1	76.1	155.1	1,469.6	624.2	70.2%
1/1/2033	2032	73.5	73.5	157.7	1,502.9	595.7	71.6%

Please note that the statement contained in the cover letter regarding future actuarial measurements pertains to the projection above as well as all other measurements included in this report. Also note that the risks identified and discussed above are the most significant risks based on the characteristics of the plan, however this is not an exhaustive list of potential risks that could be considered. Advanced modelling, as well as the identification of additional risks, can be helpful and can be provided upon request of the Board.

#### Discussion of September 2015 Benefit Changes

The Board sought to amend benefits for members hired on or after September 2015. The savings to the System will be achieved gradually as members under the prior benefits are replaced by members with the new benefit structure. The current savings to the plan is estimated by determining the normal cost and accrued liability assuming ALL active members were in the pre-September 2015 plan and comparing the costs to the most recent valuation results with members in their actual plan.

The current normal cost is lower by approximately \$1.6 million, or approximately 1.1% of payroll, than if all active members were accruing benefits in the pre-September 2015 plan.

- 1) The UAAL is lower by approximately \$8.1 million than if all members than if all members were accruing benefits in the pre-September 2015 plan.
- 2) The 2023 employer contribution rate would be higher by approximately 1.4% of payroll if not for the plan changes.

As expected, this shows that the plan changes are achieving their intended goal of reducing plan costs. Currently, approximately half of active members (1,451 of 2,856) are in the new plan. The savings will continue to increase as members in the new plan replace members in the prior plan.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>1/1/2020</u>	<u>1/1/2021</u>	<u>1/1/2022</u>	<u>1/1/2023</u>
<u>Support Ratio</u>				
Total Actives	2,934	2,889	2,875	2,856
Total Inactives	3,832	3,840	3,851	3,878
Actives / Inactives	76.6%	75.2%	74.7%	73.6%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	1,193,187,649	1,287,666,374	1,415,480,319	1,219,520,062
Total Annual Payroll	147,942,231	151,242,996	152,715,183	154,800,557
MVA / Total Annual Payroll	806.5%	851.4%	926.9%	787.8%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	1,348,267,551	1,366,126,562	1,405,384,317	1,465,174,165
Total Accrued Liability	1,838,970,234	1,885,380,523	1,929,698,639	1,977,804,119
Inactive AL / Total AL	73.3%	72.5%	72.8%	74.1%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA) <sup>1</sup>	1,201,491,055	1,236,056,460	1,293,095,058	1,309,125,295
Total Accrued Liability	1,838,970,234	1,885,380,523	1,929,698,639	1,977,804,119
AVA / Total Accrued Liability	65.3%	65.6%	67.0%	66.2%

<sup>1</sup> Excludes Supplemental Benefit Payments Account.

STATEMENT OF FIDUCIARY NET POSITION  
DECEMBER 31, 2022

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Money Market	2,121,807.53	2,121,807.53
Cash	13,337,243.00	13,337,243.00
Total Cash and Equivalents	15,459,050.53	15,459,050.53
Receivables:		
Member Contributions	982,424.00	982,424.00
Employer Contributions	4,103,461.00	4,103,461.00
From Broker for Investments Sold	2,297,012.00	2,297,012.00
Other	117,861.00	117,861.00
Investment Income	119,070.00	119,070.00
Total Receivable	7,619,828.00	7,619,828.00
Investments:		
Fixed Income	291,029,504.36	343,878,896.25
Equities	331,644,388.87	468,720,555.93
Alternative	182,580,902.08	222,941,986.14
Pooled/Common/Commingled Funds:		
Real Estate	109,532,970.50	165,140,259.00
Total Investments	914,787,765.81	1,200,681,697.32
Properties at Cost, Net of Accumulated Depreciation	625,156.00	625,156.00
Total Assets	938,491,800.34	1,224,385,731.85
Deferred Outflows of Resources - OPEB related	382,180.00	382,180.00
<u>LIABILITIES</u>		
Payables:		
Accrued Expenses and Benefits	1,144,241.00	1,144,241.00
Total OPEB Liability	3,476,005.00	3,476,005.00
To Broker for Investments Purchased	221,037.00	221,037.00
Total Liabilities	4,841,283.00	4,841,283.00
Deferred Inflows of Resources - OPEB related	406,567.00	406,567.00
NET POSITION RESTRICTED FOR PENSIONS	933,626,130.34	1,219,520,061.85



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED DECEMBER 31, 2022  
Market Value Basis

ADDITIONS

Contributions:

Member	14,170,245.90
Employer	54,959,599.56
MERS Contributions	1,365,673.41
DROP Severance Contributions	2,005,347.90

Total Contributions 72,500,866.77

Investment Income:

Net Realized Gain (Loss)	163,642,549.70
Unrealized Gain (Loss)	(302,705,304.50)
Net Increase in Fair Value of Investments	(139,062,754.80)
Interest & Dividends	984,250.71
Less Investment Expense <sup>1</sup>	(6,102,531.00)

Net Investment Income (144,181,035.09)

Total Additions (71,680,168.32)

DEDUCTIONS

Distributions to Members:

Benefit Payments	94,506,399.21
Lump Sum DROP Distributions	21,476,428.93
Supplemental Benefit Payments	1,764,819.00
Excess Benefit Plan	262,639.80
Refunds of Member Contributions	4,128,352.74

Total Distributions 122,138,639.68

Administrative Expense 2,141,449.00

Total Deductions 124,280,088.68

Net Increase in Net Position (195,960,257.00)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 1,415,480,318.85

End of the Year 1,219,520,061.85

Reserve for Supplemental Benefit Payments (SBP) Account 5,852,562.00

Market Value of Assets, less Reserve for SBP Account 1,213,667,499.85

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

ACTUARIAL ASSET VALUATION  
December 31, 2022

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2023	2024	2025	2026	2027
12/31/2018	(152,001,147)	0	0	0	0	0
12/31/2019	100,040,674	20,008,135	0	0	0	0
12/31/2020	61,265,254	24,506,102	12,253,051	0	0	0
12/31/2021	88,649,794	53,189,876	35,459,918	17,729,959	0	0
12/31/2022	(241,452,385)	(193,161,908)	(144,871,431)	(96,580,954)	(48,290,477)	0
<b>Total</b>		<b>(95,457,795)</b>	<b>(97,158,462)</b>	<b>(78,850,995)</b>	<b>(48,290,477)</b>	<b>0</b>

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, including beginning of year adjustment, 12/31/2021	1,415,480,319
Contributions Less Benefit Payments & Admin Expenses	(51,779,222)
Expected Investment Earnings*	97,271,350
Actual Net Investment Earnings	(144,181,035)
2023 Actuarial Investment Gain/(Loss)	<u>(241,452,385)</u>

\*Expected Investment Earnings = 0.07 \* [1,415,480,319 + 0.5 \* (51,779,222)]

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 12/31/2022	1,219,520,062
(2) Gains/(Losses) Not Yet Recognized	(95,457,795)
(3) Actuarial Value of Assets, 12/31/2022, (1) - (2)	<u>1,314,977,857</u>
(A) 12/31/2021 Actuarial Assets:	1,298,185,291
(I) Net Investment Income:	
1. Interest and Dividends	984,251
2. Realized Gain (Loss)	163,642,550
3. Unrealized Gain (Loss)	(302,705,305)
4. Change in Actuarial Value	212,752,823
5. Investment Expenses	(6,102,531)
Total	<u>68,571,788</u>
(B) 12/31/2022 Actuarial Assets:	1,314,977,857
Actuarial Asset Rate of Return = 2I/(A+B-I):	5.39%
Market Value of Assets Rate of Return:	-10.38%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(20,488,910)
01/01/2023 Limited Actuarial Assets:	1,314,977,857
Reserve for Supplemental Benefit Payments (SBP) Account	5,852,562
Actuarial Value of Assets, less Reserve for SBP Account	1,309,125,295

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
DECEMBER 31, 2022  
Actuarial Asset Basis

REVENUES

Contributions:		
Member	14,170,245.90	
Employer	54,959,599.56	
MERS Contributions	1,365,673.41	
DROP Severance Contributions	2,005,347.90	
<b>Total Contributions</b>		<b>72,500,866.77</b>
Earnings from Investments:		
Interest & Dividends	984,250.71	
Net Realized Gain (Loss)	163,642,549.70	
Unrealized Gain (Loss)	(302,705,304.50)	
Change in Actuarial Value	212,752,823.00	
<b>Total Earnings and Investment Gains</b>		<b>74,674,318.91</b>

EXPENDITURES

Distributions to Members:		
Benefit Payments	94,506,399.21	
Lump Sum DROP Distributions	21,476,428.93	
Supplemental Benefit Payments	1,764,819.00	
Excess Benefit Plan	262,639.80	
Refunds of Member Contributions	4,128,352.74	
<b>Total Distributions</b>		<b>122,138,639.68</b>
Expenses:		
Investment related <sup>1</sup>	6,102,531.00	
Administrative	2,141,449.00	
<b>Total Expenses</b>		<b>8,243,980.00</b>
<b>Change in Net Assets for the Year</b>		<b>16,792,566.00</b>
<b>Net Assets Beginning of the Year</b>		<b>1,298,185,290.85</b>
<b>Net Assets End of the Year<sup>2</sup></b>		<b>1,314,977,856.85</b>
<b>Reserve for Supplemental Benefit Payments (SBP) Account</b>		<b>5,852,562.00</b>
<b>Actuarial Value of Assets, less Reserve for SBP Account</b>		<b>1,309,125,294.85</b>

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

<sup>2</sup>Net Assets may be limited for actuarial consideration.

TRANSFER OF EXCESS INVESTMENT INCOME

1. Actuarial Value of Assets as of 1/1/2022	\$1,298,185,291
2. Contributions from Employer, Members, Other	\$72,500,867
3. Benefits, Refunds, and Administrative Expenses	(124,280,089)
4. Theoretical Actuarial Value of Assets without Return at 12/31/2022 (1. + 2. + 3.)	\$1,246,406,069
5. Average Actuarial Value of Assets during 2022 (1. + 4.)/2	\$1,272,295,680
6. Expected Return at 7.00%	\$89,060,699
7. Actual Return	\$68,571,788
8. Excess Investment Return	\$0
9. Excess Investment Return Transfer	
(a) 10% of first 2% (10% X \$0,000)	\$0
(b) 5% of Additional Return (5% X \$0,000)	\$0
(c) Total Preliminary Excess Return Transfer	\$0
10. Experience Gain/(Loss) for 2022	(\$36,406,875)
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 2022 (1/1/2023)</u>	<u>CY 2021 (1/1/2022)</u>	<u>CY 2020 (1/1/2021)</u>	<u>CY 2019 (1/1/2020)</u>	<u>CY 2018 (1/1/2019)</u>
a. Valuation Interest Rate	7.00%	7.00%	7.00%	7.25%	7.25%
b. Balance at beginning of the Year	5,090,233	3,373,766	2,864,743	2,418,651	2,033,266
c. Interest on Balance	356,316	236,164	200,532	175,352	147,412
d. RBA Payments in Year	255,930	285,270	311,160	336,120	370,500
e. Addition to SBP Account	527,520	498,180	472,290	447,330	412,950
f. MERS Contribution for Previous Year	1,280,855	1,260,271	1,223,294	1,156,705	1,138,339
I. Date Received	6/9/2022	5/26/2021	6/9/2020	8/9/2019	6/11/2018
II. Number of Days	205	219	205	145	204
g. Interest on f.	50,357	52,931	47,962	33,315	46,126
h. MERS Contribution for Current Year	1,365,673	1,280,855	1,260,272	1,223,295	1,160,713
I. Date Received	--/--/2023	6/9/2022	5/26/2021	6/9/2020	8/9/2019
II. Adjustment for Previous Year *	0	-1	-1	-4,008	-184
i. Distribution from SBP Account	1,508,889	1,494,625	1,445,220	1,400,539	1,354,196
I. Date distributed	9/23/2022	9/23/2021	9/25/2020	9/20/2019	9/21/2018
II. Number of Days	99	99	97	103	102
j. Interest on i.	28,648	28,377	26,812	28,653	27,436
k. Preliminary Balance at the end of the Year	5,852,562	3,918,893	3,373,766	2,864,743	2,418,651
l. Transfer of Excess Investment Income **	0	1,171,340	0	0	0
m. Final Balance at the end of the Year	5,852,562	5,090,233	3,373,766	2,864,743	2,418,651

\* Adjusts for difference between the prior year expected MERS contribution and the actual MERS contribution received.

\*\* 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 <sup>1</sup>	Terminated Vested Members	Retirees and Survivors <sup>2</sup>	Active Member Employer Provided		(1)	(2)	(3)	(4)
	-\$-	-\$-	-\$-	-\$-	-\$-	-%-	-%-	-%-	-%-
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
1/1/2018	340,087,199	1,838,007	1,025,213,152	367,813,516	1,178,878,851	100.0	100.0	81.6	0.0
1/1/2019	360,926,159	1,851,006	1,049,464,845	373,713,506	1,190,267,261	100.0	100.0	78.8	0.0
1/1/2020	378,730,258	1,996,035	1,062,122,817	396,121,124	1,201,491,055	100.0	100.0	77.3	0.0
1/1/2021	394,394,393	1,227,715	1,068,678,381	421,080,034	1,236,056,460	100.0	100.0	78.6	0.0
1/1/2022	411,060,269	1,009,455	1,091,335,603	426,293,312	1,293,095,058	100.0	100.0	80.7	0.0
1/1/2023	432,867,067	1,083,174	1,126,117,469	417,736,409	1,309,125,295	100.0	100.0	77.7	0.0

<sup>1</sup> Includes DROP Accounts.

<sup>2</sup> Includes DROP Participants' Future Benefits.

STATISTICAL DATA

	<u>1/1/2020</u>	<u>1/1/2021</u>	<u>1/1/2022</u>	<u>1/1/2023</u>
<u>Actives</u>				
Number	2,934	2,889	2,875	2,856
Average Current Age	43.8	44.0	43.9	43.6
Average Age at Employment	34.8	34.7	34.7	34.7
Average Past Service	9.0	9.3	9.2	8.9
Average Annual Valuation Salary	\$50,423	\$52,351	\$53,119	\$54,202
<u>Service Retirees</u>				
Number	2,568	2,596	2,632	2,669
Average Current Age	69.2	69.5	69.9	70.1
Average Annual Benefit	\$29,610	\$30,245	\$30,655	\$31,237
<u>DROP Retirees</u>				
Number	340	305	299	290
Average Current Age	58.6	59.1	59.0	58.4
Average Annual Benefit	\$44,256	\$44,662	\$47,041	\$50,265
<u>Beneficiaries</u>				
Number	710	735	725	729
Average Current Age	72.1	72.8	73.5	73.9
Average Annual Benefit	\$11,960	\$12,203	\$12,531	\$12,908
<u>Disability Retirees</u>				
Number	199	192	185	179
Average Current Age	65.6	66.2	66.8	66.6
Average Annual Benefit	\$16,426	\$16,497	\$16,627	\$16,974
<u>Terminated Vested</u>				
Number	15	12	10	11
Average Current Age	57.8	59.4	61.3	63.8
Average Annual Benefit	\$12,911	\$10,606	\$10,295	\$9,390

ACTIVE MEMBER 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 Salary
15 - 19	10	0	0	0	0	0	0	0	0	0	0	0	10	\$35,589
20 - 24	103	36	11	5	1	0	0	0	0	0	0	0	156	\$38,572
25 - 29	103	53	27	33	29	38	2	0	0	0	0	0	285	\$43,611
30 - 34	71	39	21	30	19	116	42	2	0	0	0	0	340	\$48,672
35 - 39	51	25	12	22	25	94	98	67	1	0	0	0	395	\$56,780
40 - 44	42	22	11	20	15	62	71	123	45	0	0	0	411	\$63,161
45 - 49	30	12	12	16	11	55	80	71	67	15	0	0	369	\$65,454
50 - 54	25	23	8	13	12	54	37	70	59	11	0	0	312	\$55,440
55 - 59	18	17	11	14	11	46	36	46	38	7	0	0	244	\$52,209
60 - 64	14	13	11	9	11	48	28	36	22	3	0	1	196	\$49,473
65 - 69	11	6	2	5	6	31	12	10	8	1	0	1	93	\$52,201
70+	4	2	1	2	3	21	6	0	5	0	0	1	45	\$50,792
Total	482	248	127	169	143	565	412	425	245	37	0	3	2,856	\$54,202



ACTIVE MEMBER 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 Salary
15 - 19	2	0	0	0	0	0	0	0	0	0	0	0	2	\$27,677
20 - 24	20	4	1	0	0	0	0	0	0	0	0	0	25	\$30,324
25 - 29	18	8	3	6	6	0	0	0	0	0	0	0	41	\$38,750
30 - 34	13	6	5	8	3	8	0	0	0	0	0	0	43	\$40,208
35 - 39	6	9	3	3	3	12	3	5	0	0	0	0	44	\$47,706
40 - 44	13	3	3	3	3	12	6	16	1	0	0	0	60	\$52,166
45 - 49	8	1	2	5	6	8	11	10	4	1	0	0	56	\$58,848
50 - 54	6	5	1	1	5	9	4	12	2	0	0	0	45	\$50,356
55 - 59	5	3	2	5	3	10	8	8	4	0	0	0	48	\$53,422
60 - 64	5	4	1	3	1	17	9	7	1	0	0	0	48	\$49,602
65 - 69	4	3	0	0	1	5	4	4	1	0	0	0	22	\$48,602
70+	1	0	0	0	1	4	1	0	0	0	0	0	7	\$34,267
Total	101	46	21	34	32	85	46	62	13	1	0	0	441	\$48,018

ACTIVE MEMBER 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 Salary
15 - 19	5	0	0	0	0	0	0	0	0	0	0	0	5	\$41,291
20 - 24	57	26	10	3	0	0	0	0	0	0	0	0	96	\$40,274
25 - 29	72	37	20	22	15	17	0	0	0	0	0	0	183	\$41,904
30 - 34	49	27	14	17	13	78	9	1	0	0	0	0	208	\$46,264
35 - 39	44	15	8	17	20	57	55	20	0	0	0	0	236	\$50,753
40 - 44	29	19	8	17	12	46	51	63	21	0	0	0	266	\$56,177
45 - 49	22	11	10	11	5	43	57	41	37	7	0	0	244	\$59,325
50 - 54	19	18	7	12	7	44	33	52	40	6	0	0	238	\$51,738
55 - 59	13	14	9	9	8	36	28	37	31	5	0	0	190	\$50,187
60 - 64	9	9	10	6	10	31	19	29	21	3	0	1	148	\$49,677
65 - 69	7	3	2	5	5	26	8	6	7	1	0	1	71	\$53,317
70+	3	2	1	2	2	17	5	0	4	0	0	1	37	\$49,856
Total	329	181	99	121	97	395	265	249	161	22	0	3	1,922	\$50,776

ACTIVE MEMBER AGE AND SERVICE DISTRIBUTION

FIRE

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	Average Salary
15 - 19	3	0	0	0	0	0	0	0	0	0	0	0	3	\$31,360
20 - 24	26	6	0	2	1	0	0	0	0	0	0	0	35	\$39,793
25 - 29	13	8	4	5	8	21	2	0	0	0	0	0	61	\$51,999
30 - 34	9	6	2	5	3	30	33	1	0	0	0	0	89	\$58,389
35 - 39	1	1	1	2	2	25	40	42	1	0	0	0	115	\$72,621
40 - 44	0	0	0	0	0	4	14	44	23	0	0	0	85	\$92,779
45 - 49	0	0	0	0	0	4	12	20	22	7	0	0	65	\$93,074
50 - 54	0	0	0	0	0	1	0	6	16	5	0	0	28	\$92,740
55 - 59	0	0	0	0	0	0	0	1	3	2	0	0	6	\$106,529
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	1	0	0	0	1	\$201,129
Total	52	21	7	14	14	85	101	114	66	14	0	0	488	\$72,910

ACTIVE MEMBER AGE AND SERVICE DISTRIBUTION

POLICE

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	Average Salary
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	0	0	0	0	0	0	N/A
40 - 44	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
45 - 49	0	0	0	0	0	0	0	0	4	0	0	0	4	\$82,971
50 - 54	0	0	0	0	0	0	0	0	1	0	0	0	1	\$120,911
55 - 59	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
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	0	5	0	0	0	5	\$90,559

## MEMBERSHIP DATA

### 1. Actives

	<u>Count</u>	<u>Average Salary</u>
		-\$-
BREC	441	48,018
Regular	1,922	50,776
Fire	488	72,910
Police	<u>5</u>	90,559
Total	<u>2,856</u>	54,202

### 2. Annuitants

	<u>Count</u>	<u>Average Annuity</u>
		-\$-
Retirees	2,669	31,237
Beneficiaries	729	12,908
Disabilities	179	16,974
DROP	<u>290</u>	50,265
Total	<u>3,867</u>	28,548

### 3. Inactive Members

	<u>Count</u>	<u>Average Deferred Annuity</u>
		-\$-
Deferred Vested	11	9,390

RETIREES AND TERMINATED MEMBERS DATA

<b>BREC</b>	Members	Benefits
Service Retirees	160	4,082,610
DROP Retirees	17	427,583
Beneficiaries	39	390,345
Disability Retirees	7	121,621
Terminated Vested	0	0
	<u>223</u>	<u>5,022,159</u>

<b>Regular</b>	Members	Benefits
Service Retirees	1,870	51,844,769
DROP Retirees	192	8,105,544
Beneficiaries	420	5,232,563
Disability Retirees	129	2,135,822
Terminated Vested	8	36,104
	<u>2,619</u>	<u>67,354,802</u>

<b>Firefighters</b>	Members	Benefits
Service Retirees	472	21,824,283
DROP Retirees	71	5,314,663
Beneficiaries	168	2,556,031
Disability Retirees	23	499,394
Terminated Vested	2	43,058
	<u>736</u>	<u>30,237,429</u>

<b>Police Officers</b>	Members	Benefits
Service Retirees	167	5,618,751
DROP Retirees	10	728,967
Beneficiaries	102	1,230,975
Disability Retirees	20	281,454
Terminated Vested	1	24,129
	<u>300</u>	<u>7,884,276</u>

	Total Members	Total Benefits
Service Retirees	2,669	83,370,413
DROP Retirees	290	14,576,757
Beneficiaries	729	9,409,914
Disability Retirees	179	3,038,291
Terminated Vested	11	103,291
	<u>3,878</u>	<u>110,498,666</u>

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 1/1/2022	2,875
b. Departures	(375)
c. Deaths	(9)
d. Disabled	(4)
e. Retired	(30)
f. DROP	(87)
g. Continuing participants	2,370
h. New entrants / Rehires	<u>486</u>
i. Total active life participants in valuation	2,856

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

	Service Retirees, Vested Receiving	DROP Benefits	Receiving Beneficiary Benefits	Receiving Disability Benefits	Vested Deferred	Total
	<u>Benefits</u>	<u>Benefits</u>	<u>Benefits</u>	<u>Benefits</u>	<u>Deferred</u>	<u>Total</u>
a. Number prior valuation	2,632	299	725	185	10	3,851
Retired	121	(91)	0	0	0	30
DROP	0	87	0	0	0	87
Vested Deferred	0	0	0	0	0	0
Death	(90)	(1)	(44)	(10)	0	(145)
Disabled	0	0	0	4	0	4
Refund of Contributions	0	0	0	0	0	0
Rehires	0	0	0	0	0	0
Departures	(1)	(4)	(1)	0	0	(6)
Additions	7	0	49	0	1	57
b. Number current valuation	2,669	290	729	179	11	3,878

SUMMARY OF PLAN PROVISIONS  
(Through Ordinance 18720)

EFFECTIVE DATE	This plan was effective December 31, 1953 and was most recently amended effective December 14, 2022 (Ord. No. 18720).
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.
SERVICE RETIREMENT	
Eligibility for 2.50% Accrual Rate	
Members Hired Prior to 9/1/2015:	Earlier of: (i) Age 55 and 10 years of Creditable Service, or (ii) the completion of 20 years of Creditable Service, regardless of age.
Public Safety Employees Hired On/After 9/1/2015:	Earlier of: (i) Age 55 and 10 years of Creditable Service, or (ii) the completion of 20 years of Creditable Service, regardless of age.
Non-Public Safety Employees Hired On/After 9/1/2015:	Earlier of: (i) Age 60 and 10 years of Creditable Service, or (ii) 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 or member may choose an actuarially equivalent 75% or 100% Joint and Contingent Survivor Annuity.

Members Hired On/After 9/1/2015: Life Annuity.  
Member may choose an actuarially equivalent 50%, 75% or 100% Joint and Contingent Survivor Annuity.

#### 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.

## PRE-RETIREMENT SURVIVOR

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.

### Form of Benefit

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

Non-Service Connected

Life Annuity.

Service-Connected

Life Annuity. Married members may choose an actuarially equivalent 50% Joint and Contingent Survivor Annuity.

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).

## GLOSSARY

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 the plan's amortization period. The required amount is adjusted for interest according to the timing of contributions during the year. The City of Baton Rouge Budget Department prepares adjustments to this rate for general and special funds. The adjustment is expected to be cost neutral, where the average contributed rate equals the actuarially determined rate.

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 is the method used to determine the Actuarial Value of Assets, which are used for funding purposes. The purpose of the Asset Valuation Method is to smooth out fluctuations in investment returns in order to reduce the volatility of required contributions.