



DATE: 7/12/2023

TIME: 10:30 a.m.

LOCATION: Executive Boardroom

COMMITTEE MEMBERS: Joseph Peychaud, Chair | Maurice Sholas | Carol Markowitz | Kenneth Davis | Mubashir Maqbool | Rebecca Johnsey | Harold Heller

Pension Committee Meeting Agenda

I. Roll Call

II. Presentation Items

- A. Employees' Retirement Systems of the Sewerage & Water Board of New Orleans Actuarial Valuation Report as of January 1, 2023– Mitchell Bilbe, Rudd & Wisdom
- B. 2023 Annual Cost of Living Adjustment for Eligible Pensioners – Mitchell Bilbe, Rudd & Wisdom

III. Action Items

- A. Resolution (R-095-2023) Acceptance of 2023 Contribution to the Employees' Retirement System of the Sewerage & Water Board of New Orleans
- B. Resolution (R-096-2023) Acceptance of 2023 Cost of Living Adjustment for Board Pensioners

IV. Information Item

- A. Actuarial Valuation Report as of January 1, 2023 - Employees' Retirement Systems of the Sewerage & Water Board of New Orleans

V. Executive Session

- A. Pursuant to La. R.S. 42:17(A)(1), the Pension Committee of the Sewerage and Water Board of New Orleans will meet in Executive Session to discuss the following: assess a Disability Retirement Allowance Application.

VI. Public Comment

VII. Adjournment

Employees' Retirement System of the Sewerage and Water Board of New Orleans

ACTUARIAL VALUATION

AS OF JANUARY 1, 2023



Rudd and Wisdom, Inc.

www.ruddwisdom.com

9500 Arboretum Blvd., Suite 200
Austin, Texas 78759
Phone: 512-346-1590
Fax: 512-345-7437

Mitchell L. Bilbe, F.S.A.
Evan L. Dial, F.S.A.
Philip S. Dial, F.S.A.
Charles V. Faerber, F.S.A., A.C.A.S.
Mark R. Fenlaw, F.S.A.
Brandon L. Fuller, F.S.A.
Christopher S. Johnson, F.S.A.
Oliver B. Kiel, F.S.A.
Dustin J. Kim, F.S.A.
Edward A. Mire, F.S.A.



Rebecca B. Morris, A.S.A.
Amanda L. Murphy, F.S.A.
Michael J. Muth, F.S.A.
Khiem Ngo, F.S.A., A.C.A.S.
Timothy B. Seifert, F.S.A.
Chelsea E. Stewart, F.S.A.
Raymond W. Tilotta
Ronald W. Tobleman, F.S.A.
David G. Wilkes, F.S.A.

June 5, 2023

PERSONAL AND CONFIDENTIAL

Board of Trustees
Sewerage and Water Board of New Orleans
625 St. Joseph Street
New Orleans, Louisiana 70165

Re: Actuarial Valuation as of January 1, 2023

Members of the Board of Trustees:

Enclosed is the Actuarial Valuation of the Employees' Retirement System of the Sewerage and Water Board of New Orleans (the "Plan") as of January 1, 2023. The purpose of this report is to evaluate the funded status of the plan and to determine an actuarially reasonable contribution level that comports with the employer's funding policy for the plan year beginning January 1, 2023.

Note: This report may be provided to third parties only if distributed in its entirety.

Funding Policy

The ultimate goal of a funding policy is to ensure that plan assets will be sufficient to pay all benefits to all plan participants and their beneficiaries as payments come due. A funding policy that requires contributions that are sufficient to pay the plan's Normal Cost and to amortize the plan's Unfunded Accrued Liability (UAL) over a reasonable period of time should be adequate to achieve this goal, subject to the risks inherent in any pension plan as further discussed below in the "Variability in Future Actuarial Measurement and Related Risks" section of this letter.

The Sewerage and Water Board of New Orleans has utilized a funding policy that determines the Normal Cost and Accrued Liability using the Entry Age Normal (EAN) funding method. The UAL is the difference between this Entry Age Normal Accrued Liability and the Actuarial Value of Plan Assets as of the valuation date.

Under the funding policy adopted by the Board of Trustees in 2021 under Board Resolution R-061-2021, the employer is required to make an annual Actuarially Determined Contribution (ADC) sufficient to fund the sum of the Normal Cost under the EAN funding method and a level dollar amortization of the UAL utilizing a closed period, layered amortization approach. The UAL comprises various sources, and under the layered amortization approach each component source of UAL is amortized over a separate closed period as follows:

Source of UAL Amortization Layers	UAL Closed Amortization Period ¹
Actuarial Experience Gain/Loss	25 years
Assumption and Method Changes	25 years
Plan Amendments	15 years
Transition to New Policy	29 years ²

¹ Each layer is amortized using the level dollar approach over the specified closed period.

² The current funding policy became effective on January 1, 2021. As of January 1, 2023, the remaining amortization period for the Transition amortization layer is 27 years.

The total ADC (i.e., the sum of the Normal Cost and the amortization amounts for each of the UAL layers) is determined as a percentage of total estimated *Earnable Compensation*, where such term is defined under the Rules and Regulations of the Plan, for the calendar year containing the valuation date. The Employer's portion of the total ADC is equal to the difference between the total ADC and the Employee Members' portion of the ADC and is also expressed as a percentage of total estimated Earnable Compensation. The Employer's contribution each year is determined by applying the percentage so determined to the actual Earnable Compensation paid during the year. The table below summarizes the current and prior year ADC.

	Annual Contribution		Increase / (Decrease) from 2022 to 2023
	2022	2023	
1. Total Funding Policy Contribution			
a. Normal Cost ¹	\$ 5,494,013	\$ 6,029,391	
b. UAL Amortization ¹	7,872,239	8,373,639	
c. Total	\$ 13,366,252	\$ 14,403,030	
2. Employee Contribution²	(2,787,294)	(3,195,858)	
3. Employer Contribution (ADC)	\$ 10,578,958	\$ 11,207,172	\$ 628,214
4. Projected Pension Payroll³	\$ 46,454,896	\$ 53,264,307	14.7%
5. Employer ADC as a Percent of Pension Payroll (Line 3. / Line 4.)	22.773%	21.041%	(1.732)%

¹ Includes interest to middle of year to reflect payment of contributions throughout the year.

² In accordance with Board Resolution R-140-2020 the Employer's portion of the ADC is determined by offsetting the total ADC by the actual Employee Contributions of 6% of Earnable Compensation.

³ Based on projected Earnable Compensation (i.e., Pension Payroll) for each plan year. Earnable Compensation is not equal to Total Compensation. For example, Earnable Compensation excludes overtime pay. (See page VI-8 of this report for the definition of Earnable Compensation.)

The Employer Contribution reflecting the current funding policy for the 2023 plan year is 21.041% of 2023 Earnable Compensation. This amount is in addition to the Employee Member Contributions of 6.0% of Earnable Compensation. (See page III-1 of this report for the development of the Employer Contribution and page VI-8 for the definition of Earnable Compensation.)

As shown in the table above, the expected employer contribution for 2023 is approximately \$628,000 more than the expected employer contribution for 2022 due to actuarial losses during the year. Such actuarial losses reflect investment losses in excess of 14% during 2022, but the smoothing of investment gains and losses under the Actuarial Value of Assets (AVA) method mitigates the effect of investment losses on the 2023 employer contribution. (See page IV-2 of this report for details on the 2022 investment returns and page VII-1 for a description of the AVA method.)

Despite this increase in the amount of contribution, the employer contribution expressed as a percentage of Earnable Compensation decreased from 2022 to 2023 by over 1.7% of Earnable Compensation, where such decrease is driven by the 14.7% increase in projected pension payroll from 2022 to 2023. A significant portion of this 14.7% increase is attributable to City Ordinance Cal. No. 33,858 which provided a one-time cost-of-living salary adjustment of 5% in 2022 and budgeted another 5% pay raise in 2023 for city employees. Thus, when the employer contribution is expressed as a percentage of pension payroll, the percentage decreased despite the increase in the expected employer contribution expressed as a dollar figure.

Lastly, the funded status of the plan (i.e., the ratio of the Plan Assets to the Plan Liabilities as determined for funding purposes) decreased from 71.83% as of January 1, 2022 to 71.00% as of January 1, 2023. A portion of this decrease is attributable to the adverse investment returns during 2022.

Action Items

The following list contains certain action items for company management:

1. Review the Management Summary (Section II) of this report.
2. As soon as administratively possible, change the rate of the Employer Contribution to 21.041% of Earnable Compensation for each payroll period.
3. Notify us of any activities during the remainder of the 2023 plan year that could require updates to the next valuation on January 1, 2024 (e.g., a plan amendment, a change in the funding policy or a change in the investment policy, etc.).

Variability in Future Actuarial Measurement and Related Risks

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- Plan experience differing from that anticipated by the current economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements;
- Changes in economic or demographic assumptions; and
- Changes in plan provisions.

Risks that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- Investment Risk (i.e., the potential that investment returns will be different than expected);

Adverse investment experience can increase employer contribution requirements in future years. Favorable investment experience can have the opposite effect.

- Asset/Liability mismatch (i.e., the potential that changes in asset values are not matched by changes in the value of liabilities);

Mismatches can produce effects similar to adverse investment experience, but they can be amplified by assets and liabilities moving in opposite directions. This plan's assets are not matched to its liabilities. Instead, the employer has elected to invest with an asset mix intended to produce higher long-term returns on average than might be expected with an asset/liability matched portfolio, but this will frequently produce short term variances between asset growth and liability growth.

- Longevity and other demographic risks (i.e., the potential that mortality or other demographic experience will be different than expected);

Adverse longevity and other demographic experience can increase employer contribution requirements in future years. Favorable demographic experience can have the opposite effect.

- Contribution risk (i.e., the potential that actual future contributions deviate from expected future contributions).

June 5, 2023

If employer contributions are made below the level required by the funding policy contemplated in this valuation, the employer contribution requirements will grow in the future, compounded with interest.

We can provide more detailed assessments of one or more of the above risks upon request. Assessment methods may include, but are not limited to, scenario tests and sensitivity tests. We have not been asked to perform and have not performed any stochastic or deterministic sensitivity analyses of the potential ranges of such future measurements, nor any of the more detailed assessments described above. If you have an interest in the results of any such analysis, please let us know.

If you have any questions concerning this information, please do not hesitate to call or write.

Respectfully submitted,

RUDD AND WISDOM, INC.

A handwritten signature in black ink, appearing to read "Mitchell L. Bilbe".

Mitchell L. Bilbe, F.S.A.

A handwritten signature in black ink, appearing to read "Christopher S. Johnson".

Christopher S. Johnson, F.S.A.

MLB/CSJ:nm

Enclosures

cc: Stephanie Chambliss

Yolanda Grinstead

Ghassan Korban

E. Grey Lewis

Courtney Reed



**EMPLOYEES' RETIREMENT SYSTEM OF THE
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

ACTUARIAL VALUATION

AS OF

JANUARY 1, 2023



TABLE OF CONTENTS

	<u>Page No.</u>
Section I: Certification of Actuarial Valuation	I-1
Section II: Management Summary	II-1
Section III: Detailed Actuarial Valuation Results	III-1
Section IV: Summary of Assets	IV-1
Section V: Actuarial Methods and Assumptions	V-1
Section VI: Outline of Principal Plan Provisions	VI-1
Section VII: Summary of Participant Data	VII-1
Section VIII: Glossary of Actuarial Terms	VIII-1



Section I – Certification of Actuarial Valuation as of January 1, 2023

At the request of the Sewerage and Water Board of New Orleans (SWBNO), we have performed an actuarial valuation of the Employees' Retirement System of the Sewerage and Water Board of New Orleans as of January 1, 2023. The purpose of this report is to evaluate the funded status of the plan and to determine an actuarially reasonable contribution level for the plan year ending December 31, 2023 that comports with the employer's funding policy.

We have based our valuation on current employee, former employee and retiree data as of January 1, 2023 provided by the SWBNO, asset information as of January 1, 2023 provided by Capital One, Whitney Hancock and LAMP, financial statements provided by Postlethwaite & Netterville and plan provisions as of January 1, 2023 provided by the SWBNO. We have used the actuarial methods and assumptions described in Section V of this report. The actuarial valuation has been performed on the basis of the plan benefits described in Section VI.

To the best of our knowledge, all current employees eligible to participate in the plan as of the valuation date and all other individuals who have a remaining vested benefit or a remaining nonvested benefit under the plan have been included in the valuation. Further, all plan benefits have been considered in the development of plan costs.

The plan sponsor remains solely responsible for the accuracy and comprehensiveness of the data provided. However, to the best of our knowledge, no material biases exist with respect to any imperfections in the data provided by these sources. To the extent that any data imperfections exist in the historical compensation database, we have addressed the imperfections by application of the increase assumptions specified in Section V. To the extent any imperfections exist in service records, we have relied on best estimates provided by the employer. We have not audited the data provided, but have reviewed it for reasonableness and consistency relative to previously provided information. We have utilized software licensed from Winklevoss Technologies, LLC in the development of the liabilities summarized in the report. We have independently confirmed the model developed by Winklevoss and have sufficiently tested it to ensure the model is an accurate representation of the plan's liabilities.

To the best of our knowledge, the actuarial information supplied in this report is complete and accurate. In our opinion the assumptions used, in the aggregate and individually, are reasonably related to the experience of the plan and to reasonable expectations. The assumptions represent a reasonable estimate of anticipated experience of the plan over the long-term future, and their selection complies with the applicable actuarial standards of practice. We are neither aware of any material inconsistencies among the assumptions nor are we aware of any unreasonable results caused by the aggregation of the assumptions.

We hereby certify that we are members of the American Academy of Actuaries who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Mitchell L. Bilbe, F.S.A.
Enrolled Actuary Number 23-6302
Member of American Academy of Actuaries

Christopher S. Johnson, F.S.A.
Enrolled Actuary Number 23-7100
Member of American Academy of Actuaries



Section II – Management Summary

All employer liabilities presented throughout this report have been determined based upon the actuarial methods and assumptions outlined in Section V and the plan provisions outlined in Section VI.

A. Contribution Amount Under Employer's Funding Policy

	Annual Contribution	
	2022	2023
1. Total Funding Policy Contribution		
a. Normal Cost ¹	\$ 5,494,013	\$ 6,029,391
b. UAL Amortization ¹	7,872,239	8,373,639
c. Total	\$ 13,366,252	\$ 14,403,030
2. Employee Funding Policy Contribution²	(2,787,294)	(3,195,858)
3. Employer Funding Policy Contribution	\$ 10,578,958	\$ 11,207,172
4. Employer Funding Policy Contribution as a Percent of Pension Payroll³	22.773%	21.041%

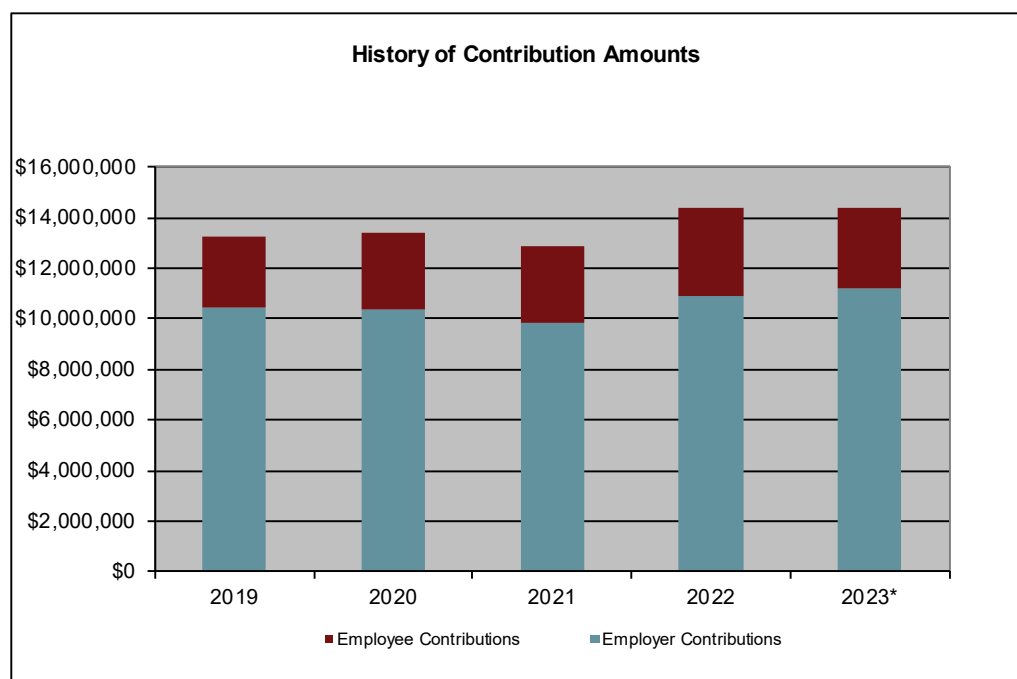
¹ Includes interest to middle of year to reflect payment of contributions throughout the year.

² In accordance with Board Resolution R-140-2020 the Employer's portion of the ADC is determined by offsetting the total ADC by the actual Employee Contributions of 6% of Earnable Compensation.

³ Based on projected Earnable Compensation (i.e., Pension Payroll) of \$46,454,896 for 2022 and \$53,264,307 for 2023.

The employer's Funding Policy determines the annual contribution amount as the sum of the **Normal Cost** and a closed period layered amortization of the **Unfunded Accrued Liability (UAL)**, where the UAL is the difference between the **Actuarial Value of Assets** and the **Actuarial Accrued Liability (AAL)**. (See page III-3 of this report for details about the sources of the amortization layers.) The AAL and the Normal Cost are determined using the **Entry Age Normal (EAN)** actuarial funding method as described in Section V.A. of this report.

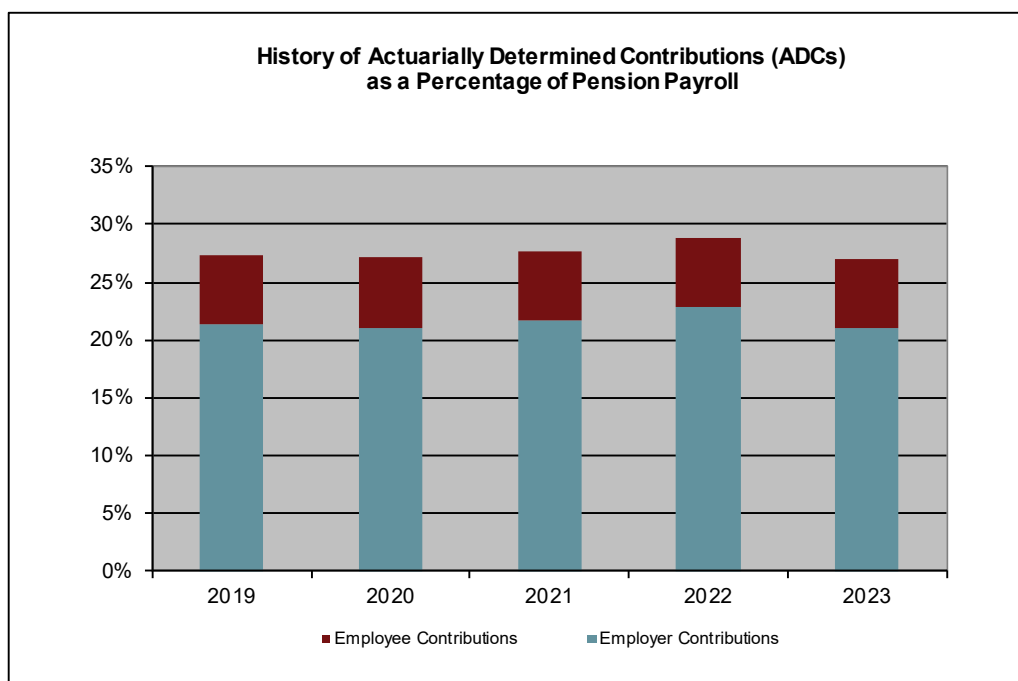
A 5-year history of the plan's actual contribution amounts under the employer's Funding Policy is shown on the following page.



* Assuming the funding policy contribution from this report is contributed by employer.



Below is a history of the Plan's Actuarially Determined Contributions (ADCs) determined under the funding policy in effect for each year and shown as a percentage of Pension Payroll.



B. Participant Demographics as of January 1, 2023

Participants	Number	Estimated Earnable Compensation for 2023
Actives	1,113	\$ 53,264,307
Vested Terminated	74	N/A
Nonvested Terminated	237 ¹	N/A
Retirees and Beneficiaries	900 ²	N/A
Total	2,324	\$ 53,264,307

¹ Nonvested Terminated employees whose employee contribution account balances have not yet been refunded as of the valuation date.

² Includes 73 DROP participants whose period of participation in the DROP has not yet expired as of the valuation date.



C. Funding Liabilities and Assets

	As of January 1, 2022	As of January 1, 2023
1. a. Market Value of Assets	\$ 274,480,175	\$ 223,360,219
b. Actuarial Value of Assets	\$ 251,768,289	\$ 253,449,401
2. Discount Rate	7.00%	7.00%
3. Present Value of Future Benefits		
a. Actives	\$ 132,649,941	\$ 146,252,369
b. Retirees ¹ and Beneficiaries	196,180,665	199,989,058
c. DROP ² Retirees	45,810,990	38,318,959
d. Disabled Retirees	8,426,666	8,234,527
e. Vested Terminated	3,310,449	3,939,044
f. Nonvested Terminated	489,834	519,063
g. Total	\$ 386,868,545	\$ 397,253,020
h. Funded Status [1.b./3.g.]	65.08%	63.80%
4. Entry Age Normal Accrued Liabilities		
a. Actives	\$ 96,265,108	\$ 105,975,289
b. Retirees ¹ and Beneficiaries	196,180,665	199,989,058
c. DROP ² Retirees	45,810,990	38,318,959
d. Disabled Retirees	8,426,666	8,234,527
e. Vested Terminated	3,310,449	3,939,044
f. Nonvested Terminated	489,834	519,063
g. Total	\$ 350,483,712	\$ 356,975,940
h. Funded Status [1.b./4.g.]	71.83%	71.00%

¹ Excludes DROP Retirees whose DROP balance has not been paid as of the valuation date.

² DROP Retirees whose DROP balance has not been paid as of the valuation date.

1. Liabilities

The **Present Value of Future Benefits (PVFB)** is the actuarial present value of the cost to finance projected benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

The **Entry Age Normal Accrued Liability** attributes a portion of the PVFB to the past service of each individual, where the amount attributed to each year is spread on a level basis over the earnings of an individual from their plan entry date to their assumed exit dates from the plan.

The liability measurements in this report are not appropriate for assessing the sufficiency of plan assets to cover the cost of settling plan obligations in the event the plan is terminated.

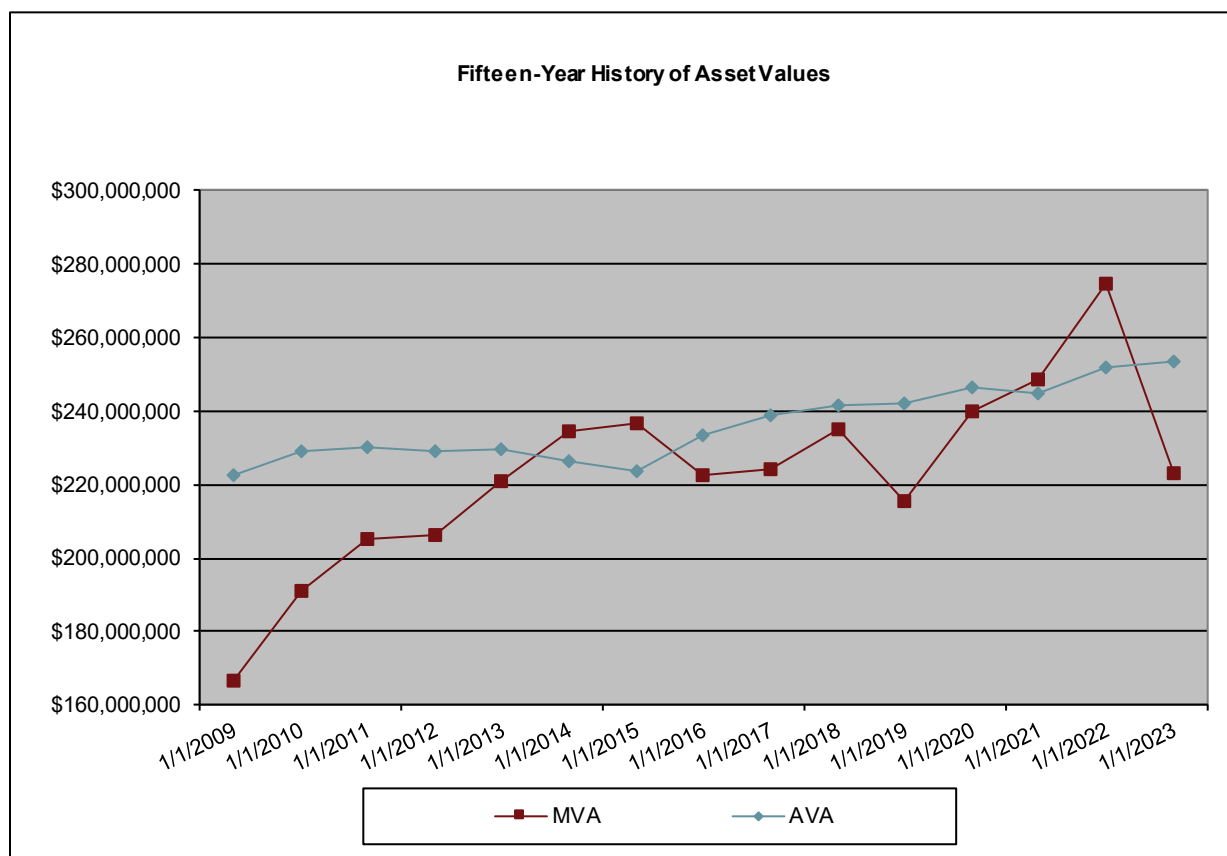
Further, additional contributions from the employer could be needed in the future even if asset values were equal to 100% of liabilities as measured for funding purposes.



2. Assets

The **Actuarial Value of Assets (AVA)** smooths the volatility of the Market Value of Assets (MVA) by deferring recognition of asset gains or losses over a seven-year period. This smoothing of the MVA in turn reduces the year over year fluctuation of Employer Contributions and can make it easier for the employer to budget its contribution each year.

Below is a 15-year history of the MVA and the AVA.



The investment policy's targeted weighted-average asset allocations by asset class are as follows:

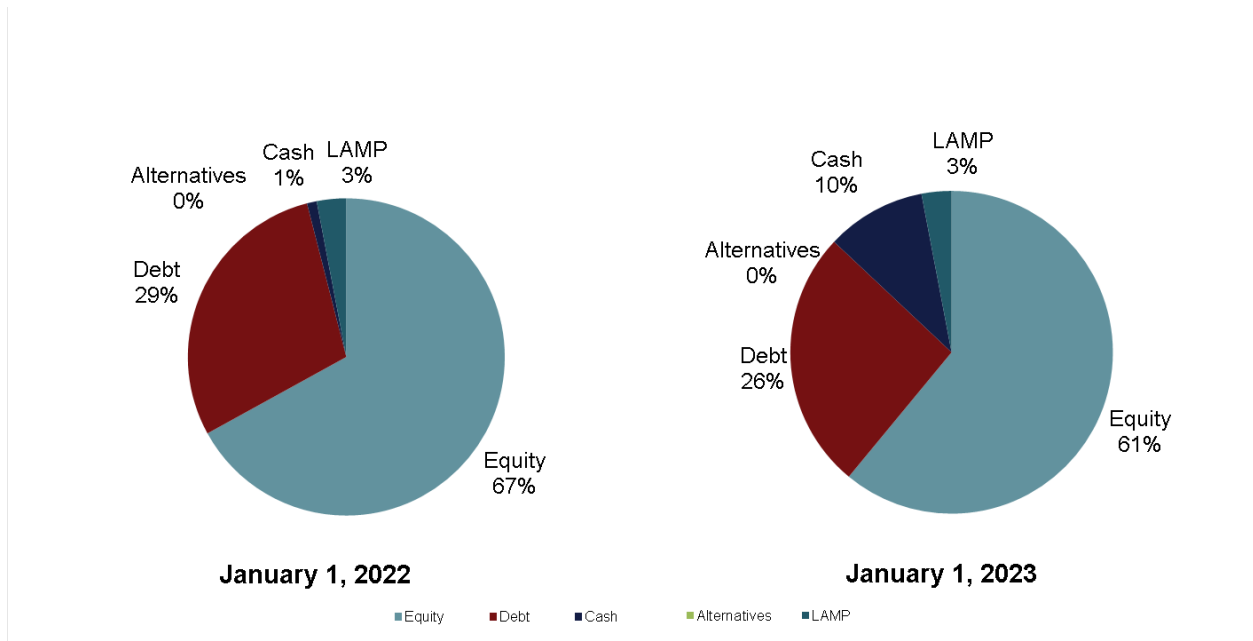
Investment Policy Targeted Asset Allocations			
Asset Class	Minimum Allocation	Target Allocation	Maximum Allocation
Equity Securities	45%	55%	65%
Debt Securities	20%	25%	30%
Alternatives ¹	7%	20%	35%
Cash	0%	0%	0%
Total	N/A	100%	N/A

¹ Real Estate/REITs, Private Equity and Global Infrastructure investments.



The target asset allocation above should be reviewed periodically against actual asset allocations as shown below. Furthermore, from time to time the plan's investment policy itself should be reviewed to ensure that the objectives stated in the policy are consistent with the plan sponsor's investment goals and risk tolerance, particularly as the plan approaches the point at which the value of plan assets equals or exceeds PVFB.

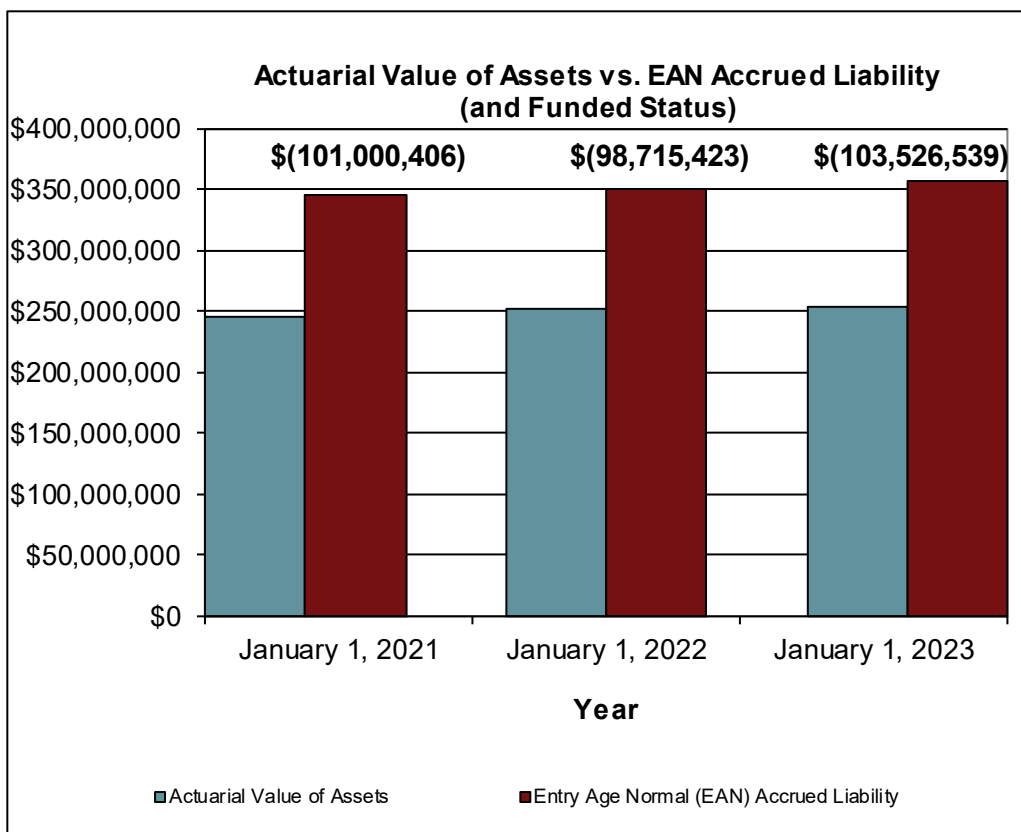
Asset Allocation as of Prior and Current Valuation Dates





D. Funded Status Based on Entry Age Normal Accrued Liability

The **Funded Status** compares a measure of a plan's liabilities to its assets. The graph below compares the Actuarial Value of Assets to the EAN Accrued Liability for each of the last three years. The corresponding Funded Status (or Unfunded Accrued Liability) is shown above each year's column.



E. No Changes in Plan Provisions

This valuation reflects identical plan provisions to those recognized in the prior valuation prepared for the plan. Plan provisions are summarized in Section VI.

F. No Changes in Actuarial Methods and Assumptions

This valuation reflects identical actuarial methods and assumptions to those recognized in the prior valuation prepared for the plan. Actuarial methods and assumptions are summarized in Section V.



G. Plan Maturity Measures

The following measures as of January 1, 2023 may help the employer assess the relative risks associated with a particular asset mix for the trust's portfolio, a particular funding policy, whether to consider or reconsider asset/liability matching for all or a portion of the portfolio, and other risks disclosed in the transmittal letter to this report.

Measure	Calculation	Result
1. Ratio of Retired Life Accrued Liability to Total Accrued Liability	$\frac{246,542,544}{356,975,940}$	69.1%
2. Ratio of Expected Annual Benefit Payments to Market Value of Assets	$\frac{25,312,074}{223,360,219}$	11.3%
3. Ratio of Expected Annual Benefit Payments to Expected Annual Contributions	$\frac{25,312,074}{14,403,030}$	175.7%
4. Duration of Accrued Liability ¹	$[1 - \frac{356,975,940}{365,730,825}] / (0.0025)$	9.6

¹ Modified duration of the plan's Accrued Liability (AL) estimated by examining the impact of a 25 basis point shift in discount rates on AL. We used the following formula for this purpose:

$$[1 - (\frac{AL_1}{AL_2})] / (i_1 - i_2)$$



Section III – Detailed Actuarial Valuation Results

A. Determination of Employer Contribution

	January 1, 2023	As a % of Pension Payroll
1. Projected Participant Earnable Compensation for Current Plan Year (i.e., Pension Payroll)	\$ 53,264,307	
2. Present Value of Future Benefits	\$ 397,253,020	
3. Accrued Liability	\$ 356,975,940	
4. Actuarial Value of Assets	\$ 253,449,401	
5. Unfunded Accrued Liability (UAL) (Item 3. – Item 4.)	\$ 103,526,539	
6. Present Value of Future Normal Costs (Item 2. – Item 3.)	\$ 40,277,080	
7. Normal Cost at Beginning of Year	\$ 5,828,832	
8. Total Funding Policy Actuarially Determined Contribution (ADC)		
a. Normal Cost ¹	\$ 6,029,391	11.320%
b. Amortization of UAL ^{1,2}	8,373,639	15.721%
c. Total	\$ 14,403,030	27.041%
9. Employee Funding Policy Portion of ADC³ (Item 1. x 6%)	\$ 3,195,858	6.000%
10. Employer Funding Policy Portion of ADC (Item 8.c. – Item 9.)	\$ 11,207,172	21.041%

¹ Includes interest to middle of year to reflect payment of contributions throughout the year.

² Calculated using a layered amortization approach with different closed amortization periods for each layer. (See page III-3 for details.)

³ In accordance with Board Resolution R-140-2020, the Employer Portion of the ADC is determined using actual employee contributions of 6% of Earnable Compensation to offset the total ADC.



B. Development of Expected Unfunded Accrued Liability and Actuarial (Gain)/Loss

	January 1, 2023
1. Prior Year Actual Unfunded Accrued Liability	\$ 98,715,423
2. Prior Year Normal Cost as of Beginning of Year	5,311,263
3. Interest on above amounts	7,281,868
4. Expected Employer and Employee Contributions for Prior Year (with credited interest)	(13,826,159)
5. Current Year Expected Unfunded Accrued Liability (prior to adjustments)	\$ 97,482,395
6. Adjustment for Plan Amendments	0
7. Adjustment for Change in Actuarial Assumptions	0
8. Adjustment for Change in Actuarial Methods	0
9. Current Year Expected Unfunded Actuarial Liability	\$ 97,482,395
10. Current Year Actual Unfunded Accrued Liability	\$ 103,526,539
11. Actuarial (Gain)/Loss [(10) – (9)]	\$ 6,044,144



C. Schedule of Unfunded Accrued Liability Layers and Amortization Payments

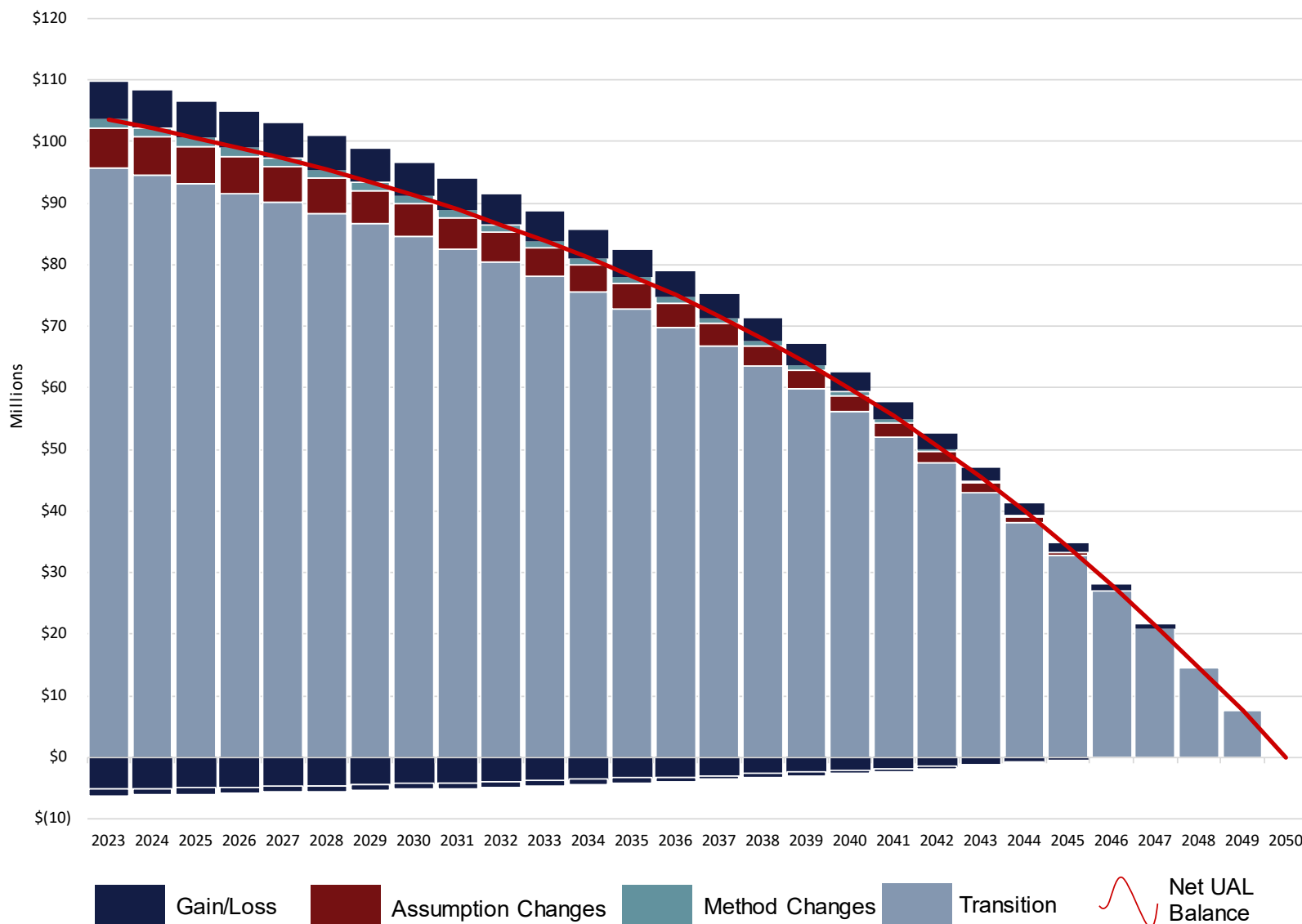
As of January 1, 2023						
UAL Source	Date Established	Initial Amount	Amortization Period		Outstanding Balance	Annual Amortization Payment
			Initial Years	Years Remaining		
Transition to New Policy	January 1, 2020	\$ 99,176,322	30	27	\$ 95,800,932	\$ 7,469,405
Actuarial (Gain)/Loss	January 1, 2021	(5,304,129)	25	23	(5,130,537)	(425,374)
Assumption Changes	January 1, 2021	6,514,569	25	23	6,301,361	522,447
Method Changes	January 1, 2021	1,663,565	25	23	1,609,120	133,413
Actuarial (Gain)/Loss	January 1, 2022	(1,116,128)	25	24	(1,098,481)	(89,510)
Actuarial (Gain)/Loss	January 1, 2023	6,044,144	25	25	6,044,144	484,721
Total					\$ 103,526,539	\$ 8,095,102 ¹

¹ Amount determined as of beginning of the year. The total Annual Amortization Payment with interest to the middle of the year is \$8,373,639.



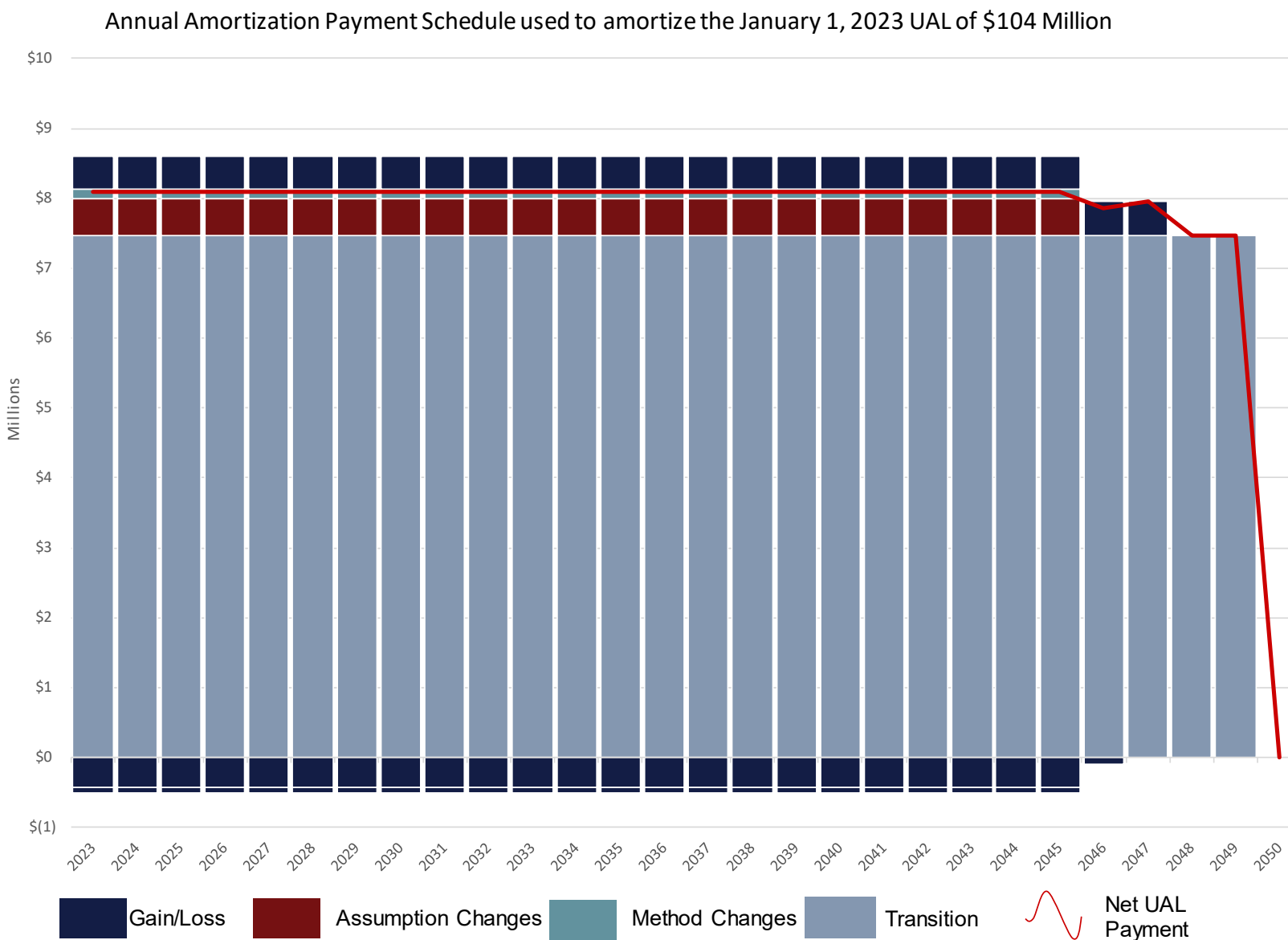
D. Projected Balance of January 1, 2023 UAL

Projected Balance of January 1, 2023 UAL of \$104 Million until UAL is Fully Amortized





E. UAL Annual Amortization Schedule as of January 1, 2023





F. Present Value of Accrued Benefits (PVAB)

The Present Value of Accrued Benefits (PVAB) only considers past service and past pay in the determination of the plan's liabilities. This actuarial cost method would not be as useful as the current cost method (i.e., the Entry Age Normal cost method) for determining the funding policy contribution since it does not consider the effect of future pay and service accruals on the plan's liabilities. However, the PVAB is useful in determining how the funded status of the plan is progressing relative to the current level of accrued benefits since it determines the present value of the plan benefits as if plan benefits were frozen on the valuation date.

	As of January 1, 2022	As of January 1, 2023
1. PVAB	\$ 326,924,918	\$ 326,412,847
2. Actuarial Value of Assets	\$ 251,768,289	\$ 253,449,401
3. Funded Status of PVAB [Item 2. ÷ Item 1.]	77.01%	77.65%



Section IV – Summary of Assets

A. Summary of Market Value of Assets

	01/01/2022	01/01/2023
1. Assets		
a. Cash equivalents	\$ 2,393,781	\$ 3,835,405
b. Receivables:		
i. Employee and Employer Contributions ¹	\$ 429,831	\$ 463,151
ii. Due from broker for investments sold	0	0
iii. Investment income	19,805	19,805
iv. Due from other funds	0	0
v. Total receivables	\$ 449,636	\$ 482,956
c. Investments:		
i. Money Market	\$ 671,676	\$ 17,443,193
ii. LAMP	9,055,895	7,273,191
iii. Debt Securities	79,064,736	58,746,580
iv. Hedge Funds	0	0
v. Equities	182,870,091	135,578,894
vi. Total investments	\$ 271,662,398	\$ 219,041,858
d. Total assets [a. + b.v. + c.vi.]	\$ 274,505,815	\$ 223,360,219
2. Liabilities		
a. Payables:		
i. Investment management fees	\$ 0	\$ 0
ii. Due to broker for investments purchased	0	0
iii. Due to other fund	(25,640)	0
b. Total liabilities	\$ (25,640)	\$ 0
3. Market Value of Assets	\$ 274,480,175	\$ 223,360,219

¹ Includes receivables for City annuities and other transfers-in.



B. Income Statement for Market Value of Assets

	2021	2022
1. Additions		
a. Contributions:		
i. Employer	\$ 9,861,935	\$ 10,914,917
ii. Member	2,979,077	3,486,071
iii. City annuity and other transfers in	486,961	729,192
iv. Total contributions	\$ 13,327,973	\$ 15,130,180
b. Investment income:		
i. Net appreciation in market value of investments	\$ 36,623,055	\$ (39,593,478)
ii. Interest income	6,424	164,265
iii. Dividend income	1,225,104	1,285,933
iv. Less investment expenses	(982,492)	(545,239)
v. Net investment income	\$ 36,872,091	\$ (38,688,519)
c. Other	\$ 0	\$ 0
d. Total additions [a.iv. + b.v. + c.]	\$ 50,200,064	\$ (23,558,339)
2. Deductions		
a. Benefit payments including refunds of employee contributions	\$ 24,120,913	\$ 27,561,617
b. Administrative expenses	0	0
c. Other	0	0
d. Total deductions	\$ 24,120,913	\$ 27,561,617
3. Net increase/(decrease) in Market Value [1.d. – 2.d.]	\$ 26,079,151	\$ (51,119,956)
4. Market Value of Assets		
a. Beginning of Year	\$ 248,401,024	\$ 274,480,175
b. End of Year [4.a. + 3.]	\$ 274,480,175	\$ 223,360,219
5. Money-weighted Rate of Return		
a. Net of Investment-Related Expenses	14.96%	(14.41)%
b. Gross	15.30%	(14.23)%
6. Direct Investment-Related Expenses [5.b. – 5.a.]	0.34%	0.18%



C. Development of Actuarial Value of Assets

1. Calculation of Adjusted Market Value of Assets	01/01/2017 – 12/31/2017	01/01/2018 – 12/31/2018	01/01/2019 – 12/31/2019	01/01/2020 – 12/31/2020	01/01/2021 – 12/31/2021	01/01/2022 – 12/31/2022
a. Market Value of Assets (MVA) at beginning of period	\$ 224,356,261	\$ 235,284,317	\$ 215,279,783	\$ 239,677,702	\$ 248,401,024	\$ 274,480,175
b. Net Cash Flows	(12,398,217)	(12,136,255)	(9,264,872)	(12,137,113)	(10,792,940)	(12,431,437)
c. Expected Investment Return	15,278,340	16,052,317	14,750,799	16,359,825	17,016,708	18,785,871
d. Expected MVA at end of period	\$ 227,236,384	\$ 239,200,379	\$ 220,765,710	\$ 243,900,414	\$ 254,624,792	\$ 280,834,609
e. Actual MVA at end of period	\$ 235,284,317	\$ 215,279,783	\$ 239,677,702	\$ 248,401,024	\$ 274,480,175	\$ 223,360,219
f. Asset (Gain) / Loss [Item 1.d. – Item 1.e.]	\$ (8,047,933)	\$ 23,920,596	\$ (18,911,992)	\$ (4,500,610)	\$ (19,855,383)	\$ 57,474,390

2. Calculation of Deferred (Gain)/Loss			
Year Ending	Asset (Gain)/Loss	Fraction Deferred	Deferred (Gain) / Loss
a. December 31, 2022	\$ 57,474,390	6/7	\$ 49,263,763
b. December 31, 2021	(19,855,383)	5/7	(14,182,416)
c. December 31, 2020	(4,500,610)	4/7	(2,571,777)
d. December 31, 2019	(18,911,992)	3/7	(8,105,139)
e. December 31, 2018	23,920,596	2/7	6,834,456
f. December 31, 2017	(8,047,933)	1/7	(1,149,705)
g. Total			\$ 30,089,182

3. Calculation of Actuarial Value of Assets	As of January 1, 2023
a. Market Value of Assets (MVA)	\$ 223,360,219
b. Total Deferred (Gain) / Loss [Item 2.g.]	\$ 30,089,182
c. Preliminary Actuarial Value of Assets (AVA) [Item 3.a. + Item 3.b.]	\$ 253,449,401
d. Corridor for AVA	
i. 70% of Item 3.a.	\$ 156,352,153
ii. 130% of Item 3.a.	\$ 290,368,285
e. AVA [Item 3.c. but not less than Item 3.d.i. nor greater than Item 3.d.ii.]	\$ 253,449,401
f. Ratio of AVA to MVA [Item 3.e. ÷ Item 3.a.]	113.47%



Section V – Actuarial Methods and Assumptions

A. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal actuarial funding method is used in determining the contribution requirements for the plan. The actuarial funding method is the procedure by which the actuary annually identifies a series of annual contributions which, along with current assets and future investment earnings, will fund the expected plan benefits. The Entry Age Normal funding method compares the excess of the present value of expected future plan benefits over the current value of plan assets. This difference represents the expected present value of current and future contributions that will be paid into the plan. The contributions are divided into two components: an annual normal cost (or current cost) and an amortization charge for the unfunded accrued liability.

The normal cost for the plan is the sum of individually determined normal costs for each active participant. Each active participant's normal cost is the current annual contribution in a series of annual contributions which, if made throughout the participant's total period of employment, would fund his expected benefits from the plan. Each participant's normal cost is calculated to be an annual constant percentage of his expected compensation in each year of employment.

The plan's current accrued liability is the excess of the present value of expected future benefits over the present value of all future remaining normal cost contributions of active participants.

2. Actuarial Value of Assets

Fair value is equal to the market value of assets as determined by the plan trustee, including any receivable contributions made for a prior plan year after the asset valuation date.

The Actuarial Value of Assets (AVA) is equal to the fair value adjusted by deferred recognition of asset gains and losses over a seven-year period. The asset gains/(losses) are equal to the excess/(shortfall) of actual market value over/(under) expected market value determined using the assumed investment return of 7.00%. The asset gains/(losses) are determined at the end of the year in which they occur. These gains/(losses) are recognized one-seventh (1/7) each year over the next seven (7) years beginning in the year in which the gain or loss occurs. The AVA is subject to a 30% corridor such that the fair value adjusted by the deferred asset gains and losses will not be less than 70% nor greater than 130% of the fair value of assets.

B. Actuarial Assumptions

1. **Mortality:** The active, vested terminated and retired members of the plan are expected to exhibit mortality in accordance with the following published mortality tables:

- a. Pre-retirement Mortality: Amount-weighted General Employee Table (i.e., PubG-2010) multiplied by 122% for Males and 119% for Females projected generationally using Scale MP-2019 mortality improvement rates with Male projection factors multiplied by 86% and Female projection factors multiplied by 79%
- b. Post-retirement Mortality:
 - i. Healthy Retirees: Amount-weighted General Table for Healthy Retirees (i.e., PubG-2010) multiplied by 122% for Males and 119% for Females projected generationally using Scale MP-2019 mortality improvement rates with Male projection factors multiplied by 86% and Female projection factors multiplied by 79%



- ii. **Disabled Retirees:** Amount-weighted General Table for Disabled Retirees (i.e., PubG-2010) multiplied by 122% for Males and 119% for Females projected generationally using Scale MP-2019 mortality improvement rates with Male projection factors multiplied by 86% and Female projection factors multiplied by 79%
- iii. **Contingent Survivors:** Amount-weighted General Table for Retirees prior to the Retired Member's death and Amount-weighted General Table for Contingent Survivors after the Retired Member's death (i.e., PubG-2010) multiplied by 122% for Males and 119% for Females projected generationally using Scale MP-2019 mortality improvement rates with Male projection factors multiplied by 86% and Female projection factors multiplied by 79%

2. **Termination:** The active members are assumed to terminate their employment for causes other than death, disability or retirement in accordance with annual rates as illustrated below.

Terminations Per 100 Members						
Age	Years of Credited Service					
	<1	1-2	2-3	3-4	4-5	5+
<25	30	25	25	25	25	15
25-29	25	18	18	11	11	8
30-34	25	18	18	11	11	8
35-39	25	18	18	11	11	8
40-44	25	18	18	11	11	5
45-49	25	18	18	11	11	5
50-54	25	18	18	11	11	4
55-59	25	18	18	11	11	4
60+	10	10	10	4	4	4

3. **Interest Rate:** 7.00% (net of investment-related expenses) per annum.
4. **Earnings Progression:** The increase in the levels of member compensation is assumed to increase in accordance with annual rates as illustrated below.

Annual Compensation Increases*	
Age	Annual Rate
20 - 24	6.25%
25 - 29	5.75%
30 - 34	5.25%
35 - 39	4.75%
40 - 44	4.75%
45 - 49	4.75%
50 - 54	4.75%
55 - 59	4.75%
60 - 64	4.75%
65+	4.00%

* Includes a 2.50% inflation component.



5. **Retirement Age:** Active members are assumed to retire in accordance with the annual rates illustrated below.

Age	Retirements per 100 Members												
	Years of Credited Service												
	<5	5-19	20	21	22	23	24	25	26	27	28	29	30+
45													
46													
47													
48													5
49													15
50													15
51												15	15
52											25	15	15
53										35	25	15	15
54									35	35	15	15	15
55								50	35	18	18	18	18
56							50	50	18	18	18	18	18
57						50	50	20	20	20	20	20	20
58					50	50	30	30	30	30	30	30	30
59				50	50	25	25	25	25	25	25	25	25
60		25	50	50	25	25	25	25	25	25	25	25	25
61		35	50	35	35	35	35	35	35	35	35	35	35
62		35	35	35	35	35	35	35	35	35	35	35	35
63		15	15	15	15	15	15	15	15	15	15	15	15
64		30	30	30	30	30	30	30	30	30	30	30	30
65		40	40	40	40	40	40	40	40	40	40	40	40
66		25	25	25	25	25	25	25	25	25	25	25	25
67		25	25	25	25	25	25	25	25	25	25	25	25
68		25	25	25	25	25	25	25	25	25	25	25	25
69		25	25	25	25	25	25	25	25	25	25	25	25
70		25	25	25	25	25	25	25	25	25	25	25	25
71	100	100	100	100	100	100	100	100	100	100	100	100	100



6. **Disability:** Active members are expected to become disabled as defined under the plan in accordance with annual rates as illustrated below.

Disability Retirements Per 100 Members	
Age	Rate
20	0.088
30	0.088
40	0.240
50	0.888
55	1.520
60	2.760
65	4.080

7. **Recognition of IRC Benefit and Compensation Limitations:** The limitations under IRC Sections 415(b) and 401(a)(17) have been reflected in the determination of plan costs, and these limits are assumed to increase at the assumed annual rate of inflation of 2.50%.
8. **Cost of Living Increase:** Retirement and Survivor's Benefits are assumed to receive annual Cost of Living Increases at the capped level of 2.00% per year of the first \$10,000 of the original retirement amount for all years after age 65.
9. **Withdrawal of Employee Contributions:** 75% of members terminating with a vested right are assumed to withdraw their accumulated contributions upon termination, while 25% are assumed to retain their vested deferred benefits by leaving contributions on deposit.
10. **Marital Status:** 85% of members are assumed to be married at the time of separation from service. Female spouses are assumed to be two years younger than their male counterparts.
11. **DROP Participation:** Active members are assumed to elect to participate in the DROP in accordance with the rates illustrated below.

Age at Retirement ¹	Percentage of Members Assumed to Elect the DROP upon Retirement
< 60	90%
60-64	60%
65+	30%

¹ Age at commencement of DROP participation period.

All Members assumed to elect the DROP are also assumed to elect a 5-year DROP participation period.



12. Assumed Form of Payment:

- a. Upon separation from service for causes other than death, active members are assumed to elect a form of payment as follows.

Form of Payment	Assumed Percent Elected
Straight Life Annuity	75%
ERISA Joint and Survivor*	25%
Total	100%

* The assumed Joint and Survivor continuation percentage elected is 50%.

- b. Surviving spouses of members who separate from service due to death are assumed to commence payment in the normal form of annuity at the spouse's age 62.
- c. Dependent children of members who separate from service due to death are assumed to receive a temporary annuity for a period of 7 years following the participant's death.
- d. Current deferred vested members who terminated prior to August 1, 2012 are assumed to elect the normal form at age 62.
- e. Current deferred vested members who terminated after July 31, 2012 are assumed to elect the normal form at age 65.
- 13. Interest on Employee Contributions:** Accumulated employee contributions are credited with 2% interest compounded annually in accordance with the terms of the plan.
- 14. Credited Service for Unused Leave:** At the time an active member is within one year of retirement eligibility, Credited Service is assumed to increase by 0.50 years for Unused Leave (i.e., Unused Sick Leave and Unused Annual Leave combined).
- 15. Missing Data:** Information related to amounts paid after the Joint Annuitant's death for pop-up annuities was not provided. We estimated the missing pop-up amounts based on the retiree information available (e.g., date of birth, commencement date, current benefit amount, continuation percentage, etc.)



Section VI – Outline of Principal Plan Eligibility and Benefit Provisions

A. Identifying Data	
<i>Plan Name:</i>	Employees' Retirement System of the Sewerage and Water Board of New Orleans
<i>Type of Plan:</i>	Defined Benefit Pension Plan
<i>Plan Sponsor:</i>	Sewerage and Water Board of New Orleans
<i>Plan Year:</i>	January 1 – December 31
<i>Employer:</i>	Sewerage and Water Board of New Orleans (the "Board")
B. Membership	
<i>Membership Commencement:</i>	An Employee enters the plan and becomes a Member on the first day he or she becomes an Employee.
<i>Employee:</i>	<p>An Employee:</p> <ol style="list-style-type: none">includes any officer or other individual who the Personnel Department classifies as an Employee of the Board, butexcludes any individual who the Personnel Department classifies as an individual who regularly works less than 17.5 hours per week, a contract employee, a transient employee, a temporary employee (no matter how long the individual works with the Board), an emergency appointment, an independent contractor, or an employee of a contractor or independent contractor.
<i>Membership Termination:</i>	<p>Membership ceases on:</p> <ol style="list-style-type: none">separation from service, except if a terminated Member leaves his Accumulated Contributions on deposit and becomes an Inactive Member or if an Employee leaves the service of the Board to join the uniformed services and returns to the service of the Board within the applicable timeframe, orthe Employee enters the DROP program; however, Membership can resume under certain circumstances if the DROP Participant continues employment after the end of the DROP period and is rehired by the Board.
<i>Inactive Member:</i>	An Inactive Member is a Member who terminates employment with the Board and whose Accumulated Contributions remain on deposit in the Retirement System.
C. Contributions	
<i>Member:</i>	<p>Each Member shall contribute:</p> <ol style="list-style-type: none">4% of Earnable Compensation paid before January 1, 2013,5% of Earnable Compensation after December 31, 2012 and before January 1, 2015, and6% of Earnable Compensation paid after December 31, 2014;however, any Member who has accumulated 34 years, 4 months and 15 days of Credited Service shall cease contributions to the Retirement System;Member contributions shall be accumulated with 2% Credited Interest compounded annually, where the sum of the contributions and credited interest is referred to as Accumulated Contributions.
<i>Employer:</i>	The annual Total Contribution is actuarially determined amount expressed as a percentage of Earnable Compensation based on the Normal Cost and an amortization of the Unfunded Accrued Liability of the Retirement System; the Employer's Contribution percentage is equal to the Total Contribution percentage offset by the Employee Contribution percentage, which is currently 6% of Earnable Compensation.



D. Eligibility for Retirement

Normal Retirement: age 65 (first of month coincident with or next following)

Retirement Allowance Eligibility:

- a. 30 or more years of Credited Service regardless of age, or
- b. age 60 and Vested, or
- c. age 65 and 5 or more years of Credited Service (effective January 1, 1996), or
- d. age 70 regardless of the number of years of Credited Service, or
- e. the sum of age and years of Credited Service is at least 80 years

Early Retirement Eligibility:

- a. Unreduced Early Retirement if:
 - 1) age 62, or
 - 2) 30 years of Credited Service, or
 - 3) the sum of age and years of Credited Service is at least 80 years
- b. Reduced Early Retirement if:
 - 1) age 60 with less than 30 years of Credited Service, or
 - 2) age 60 but the sum of age and years of Credited Service is less than 80 years

Disability Retirement: 10 or more years of Credited Service and Pension Committee approves disability application

E. Retirement Benefit Monthly Amounts

Normal Retirement Allowance:

- a. 2.5% of the Member's Average Compensation times years of Credited Service up to 25 years, plus
- b. 4.0% of the Member's Average Compensation times years of Credited Service in excess of 25 years, where such total is subject to the limit described in (c.) below:
- c. In no event shall the total Retirement Allowance, including the supplemental Retirement Allowance earned following a rehired employment period, exceed 100% of a Member's Average Compensation.

Late Retirement: Same formula as Normal Retirement Allowance.

Early Retirement: If the Member is eligible for a Retirement Allowance and is age 62, or has 30 years of Credited Service, or their age plus years of Credited Service is at least 80 years then there is no reduction to the Retirement Allowance for early retirement.

If the Member is eligible for a Retirement Allowance but does not meet the above conditions for unreduced early retirement, then the Early Retirement Allowance is equal to the Retirement Allowance determined at the Early Retirement Date reduced 3% for each year his age at Early Retirement rounded to the nearest day precedes age 62.

See "Vested Termination Benefits" below for a summary of early commencement benefits for vested members who terminate prior to Early Retirement Eligibility.

Disability: The Disability Retirement Allowance is equal to the greater of (a) and (b) offset by (c):

- a. A monthly annuity that is actuarially equivalent to the Member's Accumulated Contributions with interest at the time of retirement, or
- b. A monthly annuity based on 75% of the Member's Accrued Benefit determined by crediting the Disabled Member with years and days of Credited Service that would have been credited to the Member had the Member worked until age 62.
- c. The benefit provided above shall be offset by any worker's compensation benefits which the Member receives.



F. Normal Form of Monthly Payment	Life Annuity payable bi-weekly						
G. Optional Forms of Payment	<p>Other optional forms of payment are available that are actuarially equivalent to the Normal Form. Optional Retirement Allowance forms of payment include:</p> <ul style="list-style-type: none"> ➤ Joint and X% Contingent Annuity^{1,2}, where X% is any multiple of 5% from Joint and 5% up to and including Joint and 100% ➤ Joint and X% Contingent Annuity^{1,3} with Pop-up, where X% is any multiple of 5% from Joint and 5% with Pop-up up to and including Joint and 100% with Pop-up <p>¹ Only available with the Member's Spouse as the Contingent Annuitant (i.e., non-spouse beneficiaries are not permitted).</p> <p>² Reduces to the contingent survivor percentage only upon the death of the retiree (i.e., does not reduce if the contingent annuitant pre-deceases the retiree).</p> <p>³ Reduces to the contingent survivor percentage only upon the death of the retiree. However, if the contingent annuitant pre-deceases the retiree, the retiree's monthly benefit pops-up to original amount of the Life Annuity.</p>						
H. Vested Termination Benefits	<p><i>Vesting Schedule:</i></p> <table border="1"> <thead> <tr> <th>Years of Credited Service</th><th>Vesting Percentage</th></tr> </thead> <tbody> <tr> <td>Less than 5</td><td>0%</td></tr> <tr> <td>5 or more</td><td>100%</td></tr> </tbody> </table> <p><i>Non-Vested Terminations:</i> A Member who terminates not Vested may remain an Inactive Member of the Retirement System for up to 5 years after the termination by not withdrawing his Accumulated Contributions. If the Inactive Participant does not become reemployed before the end of the 5-year period, the Retirement System will pay the Accumulated Contributions with interest.</p> <p><i>Refund of Contributions for Vested Members:</i> A member who terminates employment may elect to be paid the amount of Accumulated Contributions with interest. A Member who makes this election shall not be entitled to receive a Retirement Allowance, unless such Member is reemployed and repays the Accumulated Contributions plus additional interest accruals.</p> <p><i>Separation Retirement Allowance for Vested Terminations:</i> Pre-August 1, 2012 Terminations: Any Vested Member who terminated employment before August 1, 2012, other than by Retirement, and before attaining age 60 who remained an Inactive Member by not withdrawing his Accumulated Contributions is entitled to receive a Retirement Allowance beginning on or after age 60 based on his Accrued Benefit at the time of termination subject to the pre-62 early retirement reductions.</p> <p>Post-July 31, 2012 Terminations: Any Vested Member who terminated employment on or after August 1, 2012, other than by Retirement, and before attaining age 60 who remained an Inactive Member by not withdrawing his Accumulated Contributions is entitled to receive a Retirement Allowance beginning at age 65 based on the Accrued Benefit at the time of termination.</p>	Years of Credited Service	Vesting Percentage	Less than 5	0%	5 or more	100%
Years of Credited Service	Vesting Percentage						
Less than 5	0%						
5 or more	100%						
I. Pre-retirement Death Benefits	<p><i>Death While Eligible for Retirement:</i> If a Member dies while eligible to begin receiving a Retirement Allowance (whether or not actively at work at the time of death), then:</p> <ul style="list-style-type: none"> a. if the Member has a Spouse, the Spouse shall be entitled to elect and receive retirement benefits had the Member retired on the date he died and elected the Optional Allowance with the 100% continuation percentage to the Spouse. If the Spouse elects this benefit, then the Accumulated Contributions shall not be refunded. b. If the member has Eligible Dependents but no Spouse, the Eligible Dependents shall have the option of selecting either: <ul style="list-style-type: none"> i. 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death payable until the last child ceases to be an Eligible Dependent, or ii. 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest. 						



<i>Death with 10 Years of Credited Service:</i>	<p>If the Member dies while he is still an Employee with at least 10 Years of Credited Service but before he is Eligible for a Retirement Allowance:</p> <ul style="list-style-type: none">a. Regular Spousal Benefit: the Spouse, if any, is entitled to receive 80% of the Member's Accrued Benefit determined at death commencing at the later of the Member's death or the Spouse's age 62, orb. Reduced Early Spousal Benefit: if the Member dies before the Spouse attains age 62, in lieu of the Regular Spousal Benefit, the Spouse may elect the Actuarial Equivalent of the Member's Accrued Benefit at death commencing at any time after the Member's death.c. Spouse with Eligible Dependents: If a Member dies before the Spouse reaches age 62 and there are Eligible Dependents, and the Spouse does not elect the Reduced Early Spousal Benefit, the Spouse may receive 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death payable until the earliest of (i) the Spouse attains age 62, (ii) last child ceases to be an Eligible Dependent or (iii) the Spouse applies for or commences the Reduced Early Spousal Benefit.d. Eligible Dependents but no Spouse: If there is no Spouse, the surviving Eligible Dependents shall have the option of selecting:<ul style="list-style-type: none">i. 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death payable until the last child ceases to be an Eligible Dependent, orii. 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest.e. Disabled Spouse with No Eligible Dependents: If the Member's Spouse is Disabled and there are no Eligible Dependents and if the Spouse does not elect to receive the Reduced Early Spousal Benefit, then 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death will be payable to the Disabled Spouse until the Spouse attains age 62 or the Spouse applies for or commences the Reduced Early Spousal Benefit. If the Spouse is able to return to gainful employment this benefit shall be discontinued.f. No Spouse and No Eligible Dependents: If there is no Spouse or Eligible Dependents, the Member's Beneficiary shall be entitled to receive 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest.
<i>Death with 3 to 10 Years of Credited Service:</i>	<p>If the Member dies while he is still an Employee but before he is Eligible for a Retirement Allowance and the Member has at least 3 but less than 10 years of Credited Service, the Member's Beneficiary shall receive 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest.</p>
<i>Death with less than 3 Years of Credited Service:</i>	<p>If the Member dies while he is still an Employee and with less than 3 years of Credited Service, the Member's Beneficiary shall receive a refund of the Member's Accumulated Contributions with interest.</p>
<i>Death while on Active Military Duty:</i>	<p>If the death occurs while on a granted leave of absence for the purpose of joining the armed forces, the death occurs during the performance of qualified military service, and the death occurs after January 1, 2007, the Employee's Spouse, Eligible Dependents and/or Beneficiary will be entitled to any death benefits that would be payable had the Employee resumed employment the day before his death. Furthermore, the qualified military service will be counted as additional years of Service for vesting but not for purposes of calculating his Accrued Benefit.</p>
<i>Death of Inactive Member Prior to Retirement Allowance Eligibility (whether or not Vested):</i>	<p>Accumulated Contributions with interest shall be paid to the Beneficiary of such an Inactive Member and no other benefits shall be payable.</p>



<p>J. Post-Retirement Death Benefits</p> <p><i>Regular Retiree (i.e., a retiree who did not retire under the Retirement System's Disability provisions):</i></p> <p><i>Disabled Retiree (i.e., a retiree who retired under the Retirement System's Disability provisions):</i></p>	<ul style="list-style-type: none">a. If a Retiree elected an Optional Allowance, then his spouse shall be entitled to receive continued payments based on the continuation percentage provided under the Optional Allowance elected.b. If a Retiree is receiving a Life Annuity, then their Beneficiary shall only be entitled to receive the value of the Retiree's Accumulated Contributions at the time of Retirement less the value of the payments that the Retiree received before death. However, if such Retiree dies within 30 days of retirement and has a Spouse, then the Spouse shall be entitled to the death benefit payable to a Member who is Eligible for Retirement but has not yet retired.a. Regular Spousal Benefit: the Spouse is entitled to 80% of the Member's Disability Retirement Allowance commencing at the later of the Member's date of death or the Spouse's attainment of age 62.b. Reduced Early Spousal Benefit: If the Spouse is under age 62 at the time of the Retiree's death, the Spouse can commence an amount that is actuarially equivalent the Member's Accrued Benefit.c. Spouse with Eligible Dependents: if the Disabled Retiree dies before the Spouse reaches age 62 and there are Eligible Dependents, and the Spouse does not elect to receive the Reduced Early Spousal Benefit, then 65% of the Disability Retirement Allowance will continue to the Spouse until the first of the following occurs: the last child ceases to be an Eligible Dependent, the Spouse attains age 62 or the Spouse commences or applies for the Reduced Early Spousal Benefit.d. No Spouse but Eligible Dependents: if there is no Surviving Spouse, the surviving Eligible Dependents (or their legal representatives), if any, may select either:<ul style="list-style-type: none">i. the benefit provided to the Spouse with Eligible Dependents, orii. 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with intereste. Disabled Spouse with no Eligible Dependents: if the Disabled Member dies before the Spouse is age 62, the Spouse is Disabled, and there are no Eligible Dependents, then if the Spouse does not elect to receive the Reduced Early Spousal Benefit, 65% of the Disability Retirement Allowance will continue to the Spouse until the Spouse reaches age 62 or until the Spouse commences or applies to receive the Reduced Early Spousal Benefit.f. Non-Disabled Spouse with No Eligible Dependents: in lieu of the other benefits available to the Surviving Spouse, the Spouse may elect to receive 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interestg. No Spouse and No Eligible Dependents: if there is no Spouse or Eligible Dependents, the Member's Beneficiary shall be entitled to the Member's Accumulated Contributions with interest in excess of the Disability Retirement Allowance payments made to the Member prior to death.
<p>K. Basis of Actuarial Equivalence</p>	<p>The 1971 Group Annuity Mortality Table using the Male Table for all Members and the Female Table for all Spouses/Beneficiaries, regardless of the actual sex of the Member or Spouse/Beneficiary, and an interest rate of 6.0%.</p>



L. Cost-of-Living Adjustments	<p>The Retirement Allowance for Members over age 65 shall be subject to a Cost-of-Living Adjustment (COLA) each January based on the 12-month change for CPI for Urban Wage Earners utilizing the prior August index; if the change in the CPI is negative or zero, then no COLA shall be given, otherwise if the CPI increase exceeds 2%, then the COLA shall be limited to 2%. The COLA is not compounded annually and is only applied to the first \$10,000 of a Member's original annual Retirement Allowance for periods after age 65. Adjustments for partial years of retirement after age 65 are prorated based on the actual number of days retired over age 65 during the 12-month period ending December 31.</p> <p>COLAs shall also be applied to optional dependent benefits following the same rules beginning on the first day of the year after the dependent reaches age 65. However, Spouses receiving benefits following the death of a Disabled Retiree shall receive COLAs after the Spouse reaches age 62 rather than age 65 per Section 6.3(b)(1) of the Rules and Regulations.</p>
M. Average Compensation	<p>For an Employee who became eligible for Retirement on or before December 31, 2014, regardless of whether the Employee actually retires before or after December 31, 2014, the average of Earnable Compensation over 36 consecutive months of service during which Earnable Compensation was the highest.</p> <p>For an Employee who became eligible for Retirement on or after January 1, 2015 and retires on or after January 1, 2015 and before January 1, 2017, the average of Earnable Compensation over 36 consecutive months of service during which Earnable Compensation was the highest.</p> <p>For an Employee who became eligible for Retirement on or after January 1, 2015 and retires on or after January 1, 2017 but before January 1, 2018, the average of Earnable Compensation over 48 consecutive months of service during which Earnable Compensation was the highest.</p> <p>For an Employee who became eligible for Retirement on or after January 1, 2015 and retires on or after January 1, 2018, the average of Earnable Compensation over 60 consecutive months of service during which Earnable Compensation was the highest.</p>
N. Credited Service	<p>Credited Service is granted for all service an Employee renders and on account of which all contributions have been made as required under the terms of the Retirement System. However, service while on leave without pay shall not count towards Credited Service, unless it is to perform service in the uniformed services (as further enumerated under the terms of the Retirement System) or unless it is compensable under workers compensation laws.</p> <p><i>Unused Leave:</i></p> <ul style="list-style-type: none">a. Unused Sick Leave: A Member shall receive Credited Service for Unused Sick Leave on a proportional basis where one year of Credited Service is granted for each 250 days of Unused Sick Leave. Such credit is used in computing the Retirement Allowance and can be used to satisfy eligibility requirements for Retirement benefits, except for the requirement to become Vested. In applying for a Retirement Allowance, a Member shall be required to use all of his Unused Sick Leave towards meeting the eligibility requirements of Credited Service component of Retirement Allowance condition of 80 years based on the sum of age and years of Credited Service.b. Unused Annual Leave: A Member shall receive Credited Service for Unused Annual Leave subject to a maximum of 111 days of unused leave provided the Member is Vested prior to including this service. Credit is granted on a proportional basis where one year of Credited Service is equivalent to 250 days of Unused Annual Leave. Such credit is used in computing the Retirement Allowance and can be used to satisfy eligibility requirements for Retirement benefits, except for the requirement to become Vested.



<p><i>Purchase of Credited Service:</i></p>	<ol style="list-style-type: none"> a. Military Service: A Member who has not yet Retired and has not yet elected to participate in the DROP program may purchase additional days of Credited Service up to 4 years for each day of Active Duty Military Service subject to the conditions outlined under the terms of the Retirement System, including the payment of missed contributions with interest during the time specified under the terms of the Retirement System. If the Member does not purchase the Credited Service within the required timeframe, the Member may still be eligible to purchase Credited Service provided the Member served in the Armed Forces and meets additional terms of the Retirement System. b. Transfers Between Retirement Systems: Pursuant to Louisiana Revised Statutes (La. R.S.) 11:141-43 to the extent it does not conflict with La. R.S. 11:3822, transfers of credits and funds between the Retirement System and any other retirement system authorized under these Transfer Statutes, including the Retirement System of the City of New Orleans, is permitted subject to the terms of the Retirement System. c. Repayment After Reemployment: A former Member, who previously received a distribution of his Accumulated Contributions, becomes reemployed for a period of at least 18 months may repay the Retirement System in a single lump sum the refund previously distributed plus interest at 7% compounded annually in order to have the entire period of Credited Service restored. d. Hurricane Katrina: Any Member placed on disaster leave by the Employer beginning October 1, 2005 due to Hurricane Katrina and who returned to work prior to April 1, 2006 may purchase days of Credited Service for the period from October 1, 2005 to the date the Member returned to full time employment but for a period no longer than the 6 months ending March 31, 2006. For each day of Credited Service purchased, the Member must contribute an amount equal to 4% of the Member's daily Base Pay as in effect on October 1, 2005 plus interest at 7% compounded annually from October 4, 2005 through the date of purchase. <p>All Credited Service shall be combined and rounded to the nearest full day for Retirement Allowance purposes.</p>
<p>O. Deferred Retirement Option Plan (DROP)</p> <p><i>Participation:</i></p> <p><i>Benefits:</i></p> <p><i>Termination of Employment:</i></p> <p><i>Death:</i></p>	<p>In lieu of terminating employment and receiving a Retirement Allowance, any Member who is Eligible for a Retirement Allowance may elect to participate in the DROP program by giving at least 90 days notice in advance of commencing in the DROP program. The participant must elect the duration of participation for a period not to exceed 5 years. The Member shall be required to make the same type of elections as he would be required had he Retired and such elections shall be irrevocable.</p> <p>During the period of the DROP, the Member shall remain employed but his Average Compensation and Credited Service shall remain as they existed on the date of commencement in the DROP program, and no further Employee contributions shall be made. The participant's DROP account shall receive a Retirement Allowance based on any optional elections made, and without regard to any cost-of-living adjustments during the period of the DROP. (However, payments following the termination of participation in the DROP shall be subject to the cost-of-living adjustments under the normal terms of the Retirement System.) Each DROP participant's DROP account shall be credited the actual earnings earned on the DROP account as of the last day of each calendar month, where such earnings may be zero but may never be negative.</p> <p>On termination of employment at the end of the specified DROP period (or for any reason before the end of the DROP period including Disability), the participant shall receive a lump sum equal to the balance of the DROP account. Furthermore, the participant's Retirement Allowance shall commence in lieu of being deposited into the DROP account.</p> <p>If a DROP participant dies during the period of participation in the DROP, a lump sum payment equal to his DROP account balance shall be paid to his DROP Beneficiary. In addition, normal survivor benefits payable to Beneficiaries of retirees shall be payable.</p>



	<p>Reemployment: A DROP participant may request to continue employment with the Board beyond his elected period of participation in the DROP program by reapplying with the Board. If the DROP participant is rehired by the Board, the DROP participant will receive a lump sum distribution of his DROP account balance as if he had retired. For DROP participants rehired on a full-time basis after April 20, 2005, the Retirement Allowance that had been paid into the DROP participant's DROP account shall be suspended while re-employed, and the provisions of Section 6.6 of the Rules and Regulations shall be applicable. For DROP participants rehired on a part-time basis after April 20, 2005, the Retirement Allowance that had been paid into the DROP participant's DROP account shall not be suspended while re-employed and will be paid to the participant as if he had not been rehired. For purposes of this provision, full-time employment shall be defined as working 17.5 hours or more per week. For purposes of this provision, part-time employment shall be defined as working less than 17.5 hours per week.</p>
P. Worker's Compensation Offset	<p>Any amounts paid or payable under the provisions of any worker's compensation statute or similar law to a Member or the dependents of a Member due to any accidental death or accidental disability shall be offset against and payable in lieu of any benefits payable by the Retirement System on account of any accidental disability or death provision, including any benefit paid under the unreduced early commencement provisions of the Retirement System. This offset shall not deprive a Member or his Beneficiary of a right to receive a refund of Accumulated Contributions.</p>
Q. Earnable Compensation	<p>The regular annual compensation paid to an Employee which shall not include on-call pay, stand-by pay, or over-time. For computing retirement benefits only, Earnable Compensation includes shift differential pay and longevity pay as part of an Employee's base pay.</p> <p>Earnable Compensation shall be limited as required under Code section 401(a)(17); in general, for Plan Years beginning on or after January 1, 1996, Earnable Compensation shall be limited to \$150,000 adjusted annually in accordance with Code Section 401(a)(17), as applicable to governmental plans. The determination period is the calendar year. If the determination period includes a fraction of a calendar year, the annual compensation limit is the otherwise applicable annual limit multiplied by a fraction, the numerator of which is the number of months in the short year and the denominator of which is twelve.</p> <p>Notwithstanding the above, for any Plan Year beginning after December 31, 2001, Earnable Compensation shall not exceed \$200,000 (adjusted for cost-of-living increases in accordance with Code Section 401(a)(17), as applicable to governmental plans.</p>
R. Reemployment Provisions	<p>Retirees: Any Retiree receiving a Retirement Allowance shall become a Member of the Retirement System again on re-employment.</p> <ol style="list-style-type: none">Retirement Allowance Suspended: During re-employment, no Retirement Allowance payments will be made, but the vesting, the amount and the form of the prior Retirement Allowance will resume upon subsequent retirement in the same amount and form frozen at the original calculation.Additional Benefit: Upon subsequent retirement, the Member shall be entitled to an additional separate Retirement Allowance based on additional years of Credited Service and Average Compensation during re-employment. The additional percentage of additional Retirement Allowance earned shall consider prior Credited Service earned during the original period of employment.Death While Re-Employed: If a Member dies while re-employed, the Spouse shall be entitled to the Optional Allowance, if any, previously elected by the Member at original retirement, plus any additional benefits under the death benefit terms of the Retirement System based on the Member's Accumulated Contributions and Retirement Allowance earned since re-employment.



Other Re-employments:	<p>a. If re-employed after attaining age 50 and period of non-employment is at least 2 years (5 years if employment was involuntarily terminated due to a Civil Service mandated layoff), then Retirement Allowance shall not exceed the sum of:</p> <ul style="list-style-type: none"> i. The benefit based on Credited Service and Average Compensation before re-employment (provided Accumulated Contributions previously distributed are repaid with interest, subject to the 18-month required period of re-employment applicable to other re-employments), and ii. The benefit based on Credited Service and Average Compensation accrued after re-employment. <p>b. If re-employed and do not meet the conditions outlined in (a.) immediately above, then:</p> <ul style="list-style-type: none"> i. if the Member did not previously receive a distribution of Accumulated Contributions, then the entire period of Credited Service is restored ii. if the Member previously received a distribution of his Accumulated Contributions, becomes re-employed for a period of at least 18 months, the Member may repay the Accumulated Contributions previously distributed plus interest in order to have the entire period of Credited Service restored iii. if the Member previously received a distribution of his Accumulated Contributions and does not repay the Retirement System the amount of the Accumulated Contributions with interest, then the benefits accrued will be based solely on Earnable Compensation and Credited Service accrued following the re-employment <p>c. DROP Participants: See Item O. above.</p>
S. Eligible Dependent	A dependent who is a child of a Member, either natural or adopted, and who is under age 18 (or age 25 if the child attends school full-time) or who is mentally or physically disabled, as determined by the Pension Committee in its sole discretion, provided such disability occurred before the date the child reached age 18.
T. Pension Supplement	For a closed group of former employees who were hired prior to 1996, a supplemental pension benefit (the Pension Supplement) is provided in addition to the Retirement Allowance from retirement to the earliest of death, attainment of age 65 or the member's receipt of their first Social Security check. This temporary Pension Supplement is only payable to the member and is not subject to the Optional Allowance. For retirees receiving this benefit and Vested Terminated members entitled to this benefit at a future retirement date, the Pension Supplement is based on the records of the employer.



Section VII – Summary of Participant Data

A. Participant Data Reconciliation

	Active Participants	Current Payment Status	Vested Terminated	Nonvested Terminated	Total
1. As of January 1, 2022	1,101	910	57	198	2,266
2. Change of status					
a. retirement	(10)	11	(1)	0	0
b. DROP retirement	(25)	25	0	0	0
c. disability	(1)	1	0	0	0
d. death	(2)	(39)	0	0	(41)
e. nonvested termination	(131)	0	0	131	0
f. vested termination	(54)	0	54	0	0
g. completion of payment	0	(1)	(36)	(84)	(121)
h. rehires	15	(7)	0	(8)	0
i. other	0	0	0	0	0
j. net changes	(208)	(10)	17	39	(162)
3. New participants	220	0	0	0	220
4. As of January 1, 2023	1,113	900 ¹	74	237 ²	2,324

¹ Includes 73 DROP participants whose DROP participation period had not expired as of January 1, 2023.

² Nonvested terminated members who had not received a refund of their employee contribution account balances as of January 1, 2023.



B. Age/Service Headcount and Pensionable Earnings Table for Actives as of January 1, 2023

Current Years of Credited Service												
Current Age	<1	1 <= t < 5	5 <= t < 10	10 <= t < 15	15 <= t < 20	20 <= t < 25	25 <= t < 30	30 <= t < 35	35 <= t < 40	40 <= t	Age Totals/Row Averages	Percent of Total
< 25	29	23	2	0	0	0	0	0	0	0	54	4.85%
25 ≤ x < 30	33,687	36,489	36,566	0	0	0	0	0	0	0	34,987	3.48%
	27	48	16	1	0	0	0	0	0	0	92	8.27%
30 ≤ x < 35	34,892	41,749	36,731	48,069	0	0	0	0	0	0	38,933	6.61%
	32	54	48	9	1	0	0	0	0	0	144	12.94%
35 ≤ x < 40	40,428	45,162	47,401	53,953	46,301	0	0	0	0	0	45,414	12.06%
	19	50	62	30	5	0	0	0	0	0	166	14.90%
40 ≤ x < 45	47,529	49,387	52,560	58,832	53,256	0	0	0	0	0	52,183	15.98%
	24	47	46	18	9	2	1	0	0	0	147	13.21%
45 ≤ x < 50	39,186	44,425	52,200	50,039	52,981	47,466	43,516	0	0	0	47,249	12.81%
	19	37	31	9	11	3	12	0	0	0	122	10.96%
50 ≤ x < 55	39,608	51,736	43,104	45,205	49,978	66,163	63,212	0	0	0	48,497	10.91%
	10	29	20	18	10	11	14	8	0	0	120	10.78%
55 ≤ x < 60	34,590	42,670	44,915	50,638	51,662	54,569	68,901	61,803	0	0	49,742	11.01%
	9	29	27	11	12	6	24	15	1	0	134	12.04%
60 ≤ x < 65	36,930	44,081	41,569	45,875	72,394	52,869	59,052	66,236	75,171	0	51,564	12.74%
	11	23	23	14	7	1	9	3	2	1	94	8.45%
65 ≤ x < 70	59,693	68,871	48,258	58,050	47,961	45,178	57,758	63,860	48,724	60,115	57,587	9.98%
	0	4	14	6	3	1	0	3	0	0	31	2.79%
x ≥ 70	0	83,297	46,264	65,571	51,585	57,200	0	81,573	0	0	59,064	3.38%
	1	2	1	2	2	0	1	0	0	0	9	0.81%
	42,453	34,809	115,770	57,920	73,528	0	73,328	0	0	0	62,674	1.04%
Service Totals	181	346	290	118	60	24	61	29	3	1	1,113	100.00%
Percent of Total	16.26%	31.08%	26.06%	10.60%	5.39%	2.16%	5.48%	2.61%	0.27%	0.09%	100.00%	
Compensation Average	39,702	46,983	47,677	53,764	56,034	54,720	61,919	66,354	57,540	60,115	48,717	100.00%
Percent of Total	13.25%	29.98%	25.50%	11.70%	6.20%	2.42%	6.97%	3.55%	0.32%	0.11%	100.00%	

Average Attained Age: 44.27
Average Annual Payrate: \$ 48,717
Average Service: 8.09



C. Summary of Vested Terminated Participants as of January 1, 2023

Age	Count	Sum of Monthly Benefits	Average Monthly Benefits
$x < 35$	12	\$ 9,208	\$ 767
$35 \leq x < 40$	18	12,799	\$ 711
$40 \leq x < 45$	5	6,099	\$ 1,220
$45 \leq x < 50$	7	7,999	\$ 1,143
$50 \leq x < 55$	9	8,795	\$ 977
$55 \leq x < 60$	9	9,616	\$ 1,068
$60 \leq x < 65$	12	11,832	\$ 986
$x \geq 65$	2	894	\$ 447
Total	74	\$ 67,242	\$ 909

D. Summary of Nonvested Terminated Participants as of January 1, 2023

Count ¹	Sum of Employee Contribution Account Balances	Average of Employee Contribution Account Balances
237	\$ 519,063	\$ 2,190

¹ Sewerage and Water Board of New Orleans did not provide dates of birth for all Nonvested Terminated Employees. However, date of birth is not needed for the valuation since the plan liability for these individuals is equal to their employee contribution account balances.

E. Summary of Retirees and Beneficiaries as of January 1, 2023

Age	Count	Sum of Monthly Benefits	Average Monthly Benefits
$x < 45$	2	\$ 2,984	\$ 1,492
$45 \leq x < 50$	3	5,089	\$ 1,696
$50 \leq x < 55$	10	21,894	\$ 2,189
$55 \leq x < 60$	60	191,921	\$ 3,199
$60 \leq x < 65$	155	421,924	\$ 2,722
$65 \leq x < 70$	247	537,270	\$ 2,175
$70 \leq x < 75$	181	405,918	\$ 2,243
$75 \leq x < 80$	129	247,473	\$ 1,918
$80 \leq x < 85$	58	102,264	\$ 1,763
$85 \leq x < 90$	40	51,057	\$ 1,276
$90 \leq x < 95$	11	12,424	\$ 1,129
$95 \leq x$	4	4,741	\$ 1,185
Total	900	\$ 2,004,959	\$ 2,228



Section VIII – Glossary of Actuarial Terms

Actuarial Accrued Liability	This is computed differently under different actuarial cost methods. Generally, the Actuarial Accrued Liability represents the portion of the Present Value of Future Benefits attributed to periods of service preceding the valuation date.
Actuarial Gain (Loss)	A measure of the difference between actual experience and that expected based on the actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with the particular actuarial cost method used.
Actuarial Value of Assets	The value of Plan Assets used by an actuary for an actuarial valuation. <i>(See the Actuarial Methods and Assumptions section of this report for a description of the methodology used to determine the Actuarial Value of Assets used in this report.)</i>
Entry Age Normal Actuarial Cost Method	An actuarial cost method under which the Present Value of Future Benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to the year of service during the valuation year is called the Normal Cost. The portion of this present value not provided for at a valuation date by the Present Value of Future Normal Costs is called the Actuarial Accrued Liability.
Normal Cost	Computed differently under different actuarial cost methods, the Normal Cost generally represents the portion of the Actuarial Present Value of Future Benefits attributed to the current year of service for active employees.
Present Value of Accrued Benefits	The actuarial present value of all accrued benefits (i.e., all benefits attributed by the pension benefit formula to employee service and compensation rendered prior to the valuation date).
Present Value of Future Benefits	Future benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial Present Value of Future Benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Present Value of Future Normal Costs	The difference between the Present Value of Future Benefits and the Actuarial Accrued Liability under a given actuarial cost method.
Unfunded Accrued Liability	The excess, if any, of the Accrued Liability over the Actuarial Value of Assets.



Pension Committee Meeting: January 1, 2023 Actuarial Funding Valuation Results and COLA Update



Rudd and Wisdom, Inc.

July 12, 2023



Prepared for

Mitchell L. Bilbe, FSA, EA

- 2023 Pension Plan Valuation Results
- Recent ADC and Contribution History
- 2023 COLA
- Benefit Statements and What's Next?
- Q/A



Member Category	Members as of January 1, 2022	Members as of January 1, 2023
Actives	1,101	1,113
Vested Terminated	57	74
Nonvested Terminated	198	237
Retirees and Beneficiaries ²	<u>910</u>	<u>900</u>
Total	2,266	2,324

¹ See page VII-1 of 2023 valuation report for details of changes in membership from 1/1/2022 to 1/1/2023.

² Includes DROP Retirees.



	(in \$millions)
1. Actuarial Accrued Liability at Beginning of Year on January 1, 2022	\$350.5
2. Normal Cost on January 1, 2022	5.3
3. Interest Cost	23.9
4. Actuarial (Gains)/Losses	4.1
5. Assumption Changes	0.0
6. Benefit Payments	(27.5)
7. City and other Transfers	<u>0.7</u>
8. Actuarial Accrued Liability at End of Year on January 1, 2023	\$357.0

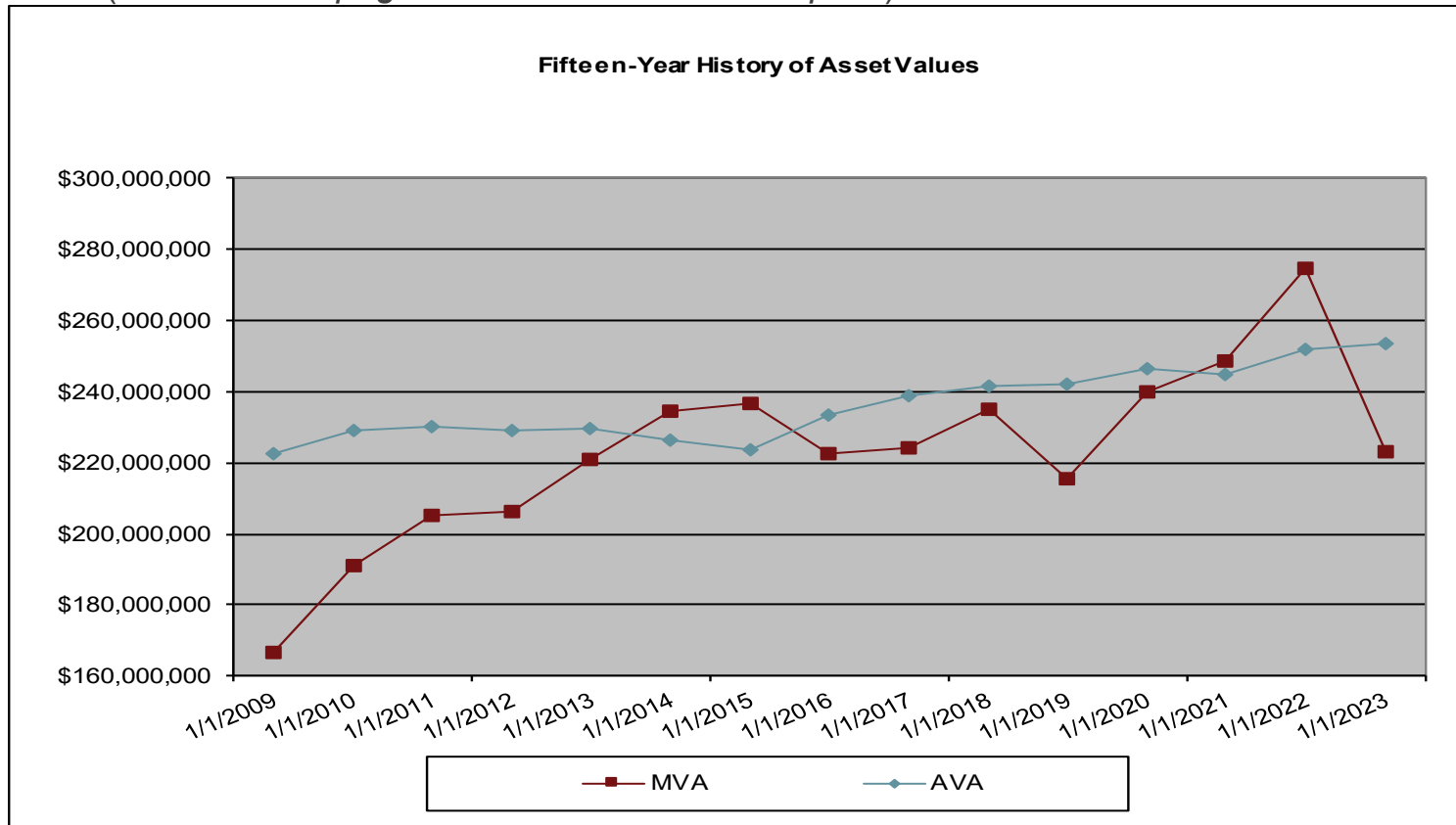
	2021 (in \$millions)	2022 (in \$millions)
1. Market Value of Assets at Beginning of Year	\$248.4	\$274.5
2. Employer Contributions	9.9	10.9
3. Employee Contributions	2.9	3.5 ¹
4. Net Investment Income	36.9	(38.7)
5. Benefit Payments	(24.1)	(27.5)
6. City and other Transfers	<u>0.5</u>	<u>0.7</u>
7. Market Value of Assets at End of Year	\$274.5	\$223.4
8. Rate of Return (Net of Expenses)	15.0%	(14.4)%

¹ Includes \$0.5M in member contributions for transfers-in / repurchase of credited service due to prior withdrawals.

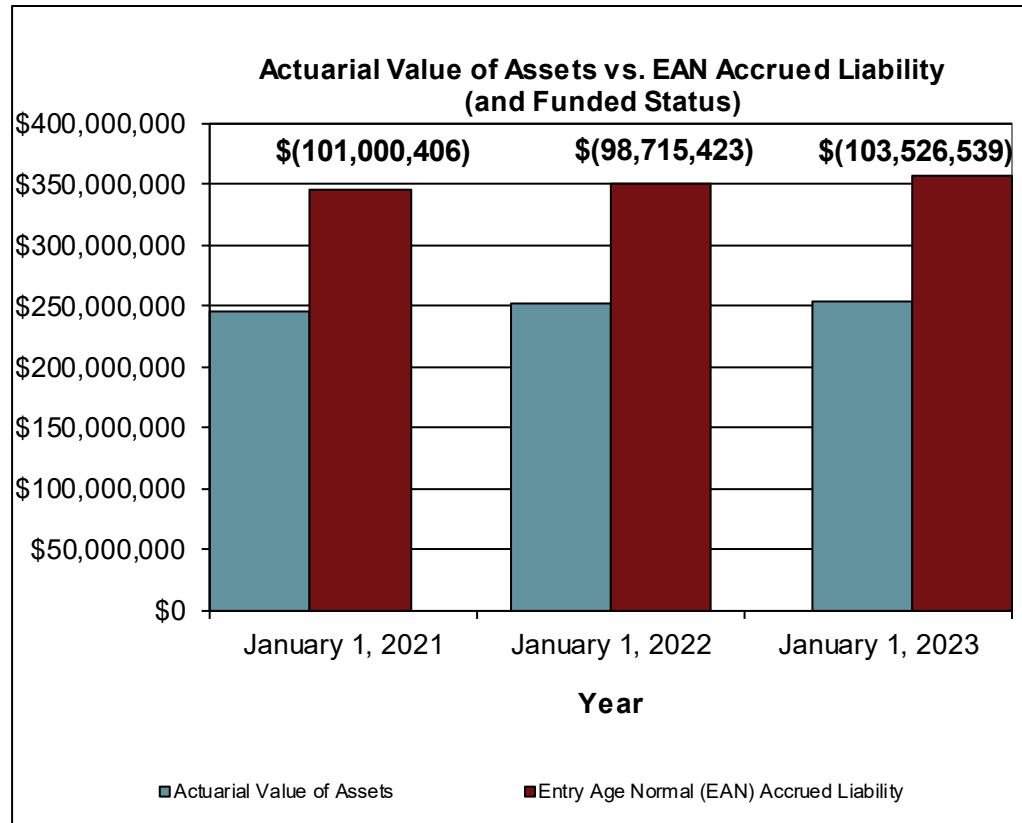
Recent Asset History

Market Value vs. Actuarial Value

- As of 1/1/2023, Cumulative Asset Losses of \$30.1M are deferred and not yet recognized in Actuarial Value of Assets (AVA) due to smoothing
 - (As shown on page II-4 of 2023 valuation report.)



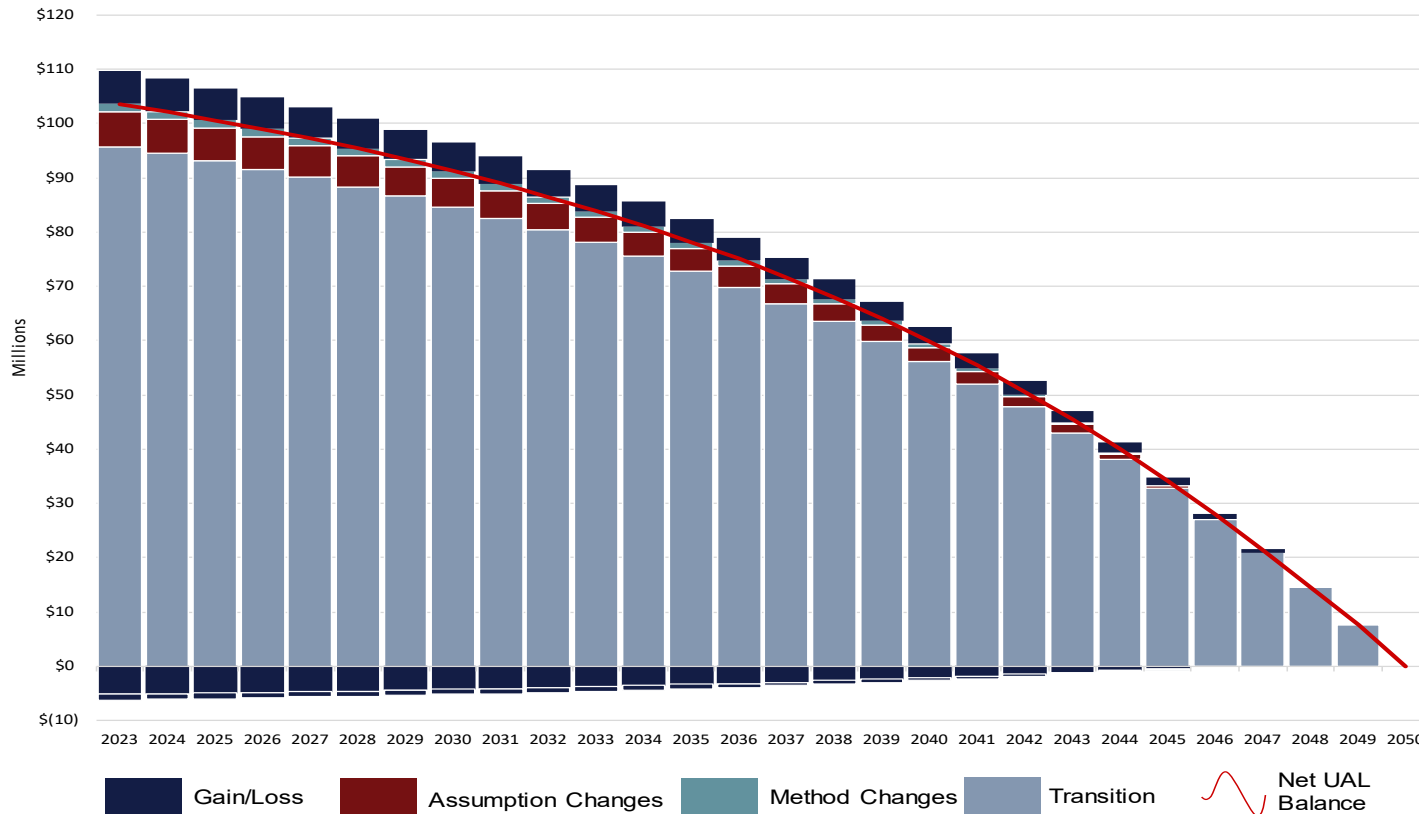
- Unfunded Accrued Liability (UAL or Funded Status)
 - Increase to UAL in last year driven by larger pay increases than expected



- New Amortization Layer in 2023
 - Liability Losses of \$4M
 - Market Value investment return of \$(39M)
 - Due to AVA smoothing, though, only \$2M in AVA asset losses affect 2023 contribution
 - \$6M Total Losses (i.e., \$4M liability loss and \$2M AVA loss) recognized as new UAL amortization layer in 2023
- Earnable Compensation expected increase in 2023
 - City Ordinance Cal. No. 33,858
 - Increased payroll with a one-time cost-of-living salary adjustment of 5% in 2022, and
 - Budgeted another 5% pay raise in 2023 for City employees
 - Increases projected plan benefits which contributes to \$4M liability losses and increased Normal Cost, but
 - Prior years' level-dollar amortizations are unaffected by such losses (i.e., they are constant as level-dollar amount)
 - Level-dollar amount is smaller percentage of larger expected payroll
 - Net effect is reduction in contribution as a percentage of payroll

• Projection of Unfunded Accrued Liability (UAL)

Projected Balance of January 1, 2023 UAL of \$104 Million until UAL is Fully Amortized



- Employer Contribution Comparison of 2022 to 2023

- (As presented on page II-1 of 2023 valuation report):*

	Annual Contribution		
	<u>2022</u>	<u>2023</u>	<u>Increase / (Decrease)</u>
1. Total Funding Policy Contribution			
a. Normal Cost	\$ 5,494,000	\$ 6,029,000	\$ 535,000
b. UAL Amortization	<u>7,872,000</u>	<u>8,374,000</u>	<u>502,000</u>
c. Total	\$13,366,000	\$14,403,000	\$ 1,037,000
2. Employee Funding Policy Contribution ¹	<u>(2,787,000)</u>	<u>(3,196,000)</u>	<u>(409,000)</u>
3. Employer Funding Policy Contribution	\$10,579,000	\$11,207,000	\$628,000
4. Projected Pension Payroll for Valuation Year ²	\$46,454,000	\$53,264,000	14.7%
5. Employer Funding Policy Contribution as a Percent of Payroll [(3.) / (4.)]	22.773%	21.041%	(1.732)%

¹ The Employer's portion of the ADC is determined by offsetting the total ADC by the actual Employee Contributions of 6% of Earnable Compensation.

² Number of covered employees increased from 1,101 as of January 1, 2022 to 1,113 as of January 1, 2023. In addition, City Ordinance Cal. No. 33,858 increased payroll with a one-time cost-of-living salary adjustment of 5% in 2022 and budgeted another 5% pay raise in 2023 for city employees.



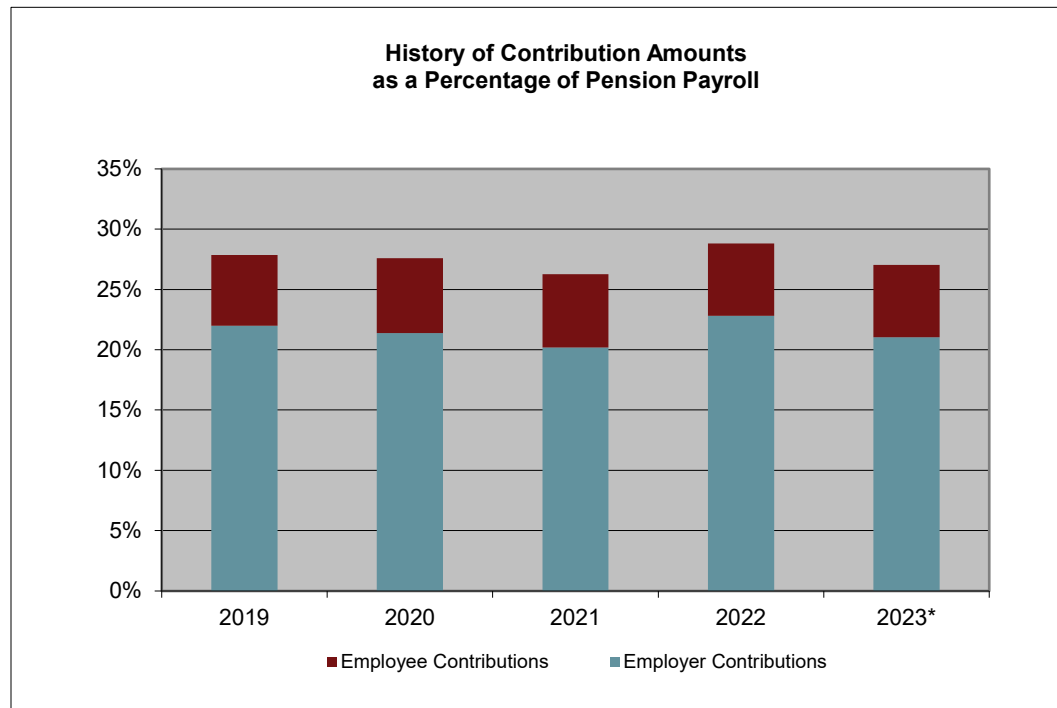
Pension Plan Funding History

(As shown on page II-2 of 2023 Valuation Report)



Rudd and Wisdom, Inc.

- From 2022 to 2023
 - Employer Contribution percent decreased by 1.73% of payroll (decrease due primarily to increase in payroll due to City-wide increases in 2022/2023)
 - Expected total contribution increased by \$628,000 (increase due primarily to asset and liability losses)



* Based on employer funding policy contribution of 21.041% of Pension Payroll for 2023 (estimated to be \$11.2M based on estimated 2023 Pension Payroll).



Year	Employer Portion of Actuarially Determined Contribution (ADC) ¹ (in \$millions)	Actual Employer Contribution ² (in \$millions)	Employee Contribution (in \$millions)
2018	\$8.4	\$8.4	\$2.5
2019	\$10.2	\$10.5	\$2.8
2020	\$10.3	\$10.4	\$3.0
2021	\$10.6	\$9.9	\$3.0
2022	\$10.6	\$10.9	\$3.0 ³
2023	\$11.2	\$11.2 ⁴	\$3.2 ⁴

¹ Prior to 2021, based on 30-year open period, level dollar amortization of Unfunded Accrued Liability. For 2021+, based on Layered Closed Period Amortization (Layers over 15, 25 and 30 years). Amount determined based on estimated payroll each year.

² Amount based on actual payroll each year.

³ Excludes \$0.5M in member contributions for transfers-in / repurchase of credited service due to prior withdrawals.

⁴ Assumed contributions based on estimated payroll for 2023.



- **Cost-of-Living Adjustment (COLA) defined in Sec. 6.1(d) of Rules and Regulations**
 - Inflation as measured by CPI for Urban Wage Earners (CPI-W)
 - Based on inflation for 12-month period ending in August preceding year of application
 - 2% maximum
 - If CPI exceeds 2% → COLA capped at 2%
 - 0% minimum
 - If CPI is negative → COLA is 0% (i.e., payments are not reduced)
 - Age 65+
 - Only available to Retirees and Surviving Optional Dependents who are over age 65*
 - Pro-rata COLA applied in year in which age 65 is reached
 - Only applied to first \$10,000 of original annual annuity amount (Retirement Allowance) at retirement
 - Result is that there is no compound interest (i.e., COLA always based on original annuity amount at retirement)
 - Not applicable during DROP period
 - Commences after end of DROP period or when Retiree reaches age 65, if later

*Surviving spouses of Disabled Retirees receive COLA beginning at spouse's age 62 rather than spouse's age 65 per Sec. 6.3(b)(1).



- For both examples assume Retiree is Age 65 at beginning of year, Year 1 CPI-W change is 2.5% and Year 2 CPI-W change is 1.0%
- Example 1 - Assume Annual Retirement Allowance is \$9,000 at date of retirement
 - Year 1:
 - COLA capped at 2.0%
 - COLA is $2.0\% \times \$9,000 = \180
 - Annuity increased to $\$9,000 + \$180 = \$9,180$
 - Year 2:
 - COLA is $1.0\% \times \$9,000 = \90 (i.e., COLA is not applied to \$9,180)
 - Annuity increased to $\$9,180 + \$90 = \$9,270$
- Example 2 - Assume Annual Retirement Allowance is \$15,000 at date of retirement
 - Year 1:
 - COLA capped at 2.0% and COLA only applied to first \$10,000 of annuity
 - COLA is $2.0\% \times \$10,000 = \200
 - Annuity increased to $\$15,000 + \$200 = \$15,200$
 - Year 2:
 - COLA is $1.0\% \times \$10,000 = \100
 - Annuity increased to $\$15,200 + \$100 = \$15,300$



CPI Period	COLA Effective Date	CPI Change	COLA Percentage
8/2003 to 8/2004	January 1, 2005	2.607%	2.000%
8/2004 to 8/2005	January 1, 2006	3.894%	2.000%
8/2005 to 8/2006	January 1, 2007	3.904%	2.000%
8/2006 to 8/2007	January 1, 2008	2.140%	2.000%
8/2007 to 8/2008	January 1, 2009	5.930%	2.000%
8/2008 to 8/2009	January 1, 2010	-1.900%	0.000%
8/2009 to 8/2010	January 1, 2011	1.444%	1.444%
8/2010 to 8/2011	January 1, 2012	4.258%	2.000%
8/2011 to 8/2012	January 1, 2013	1.670%	1.670%
8/2012 to 8/2013	January 1, 2014	1.455%	1.455%
8/2013 to 8/2014	January 1, 2015	1.594%	1.594%
8/2014 to 8/2015	January 1, 2016	-0.284%	0.000%
8/2015 to 8/2016	January 1, 2017	0.659%	0.659%
8/2016 to 8/2017	January 1, 2018	1.934%	1.934%
8/2017 to 8/2018	January 1, 2019	2.877%	2.000%
8/2018 to 8/2019	January 1, 2020	1.533%	1.533%
8/2019 to 8/2020	January 1, 2021	1.393%	1.393%
8/2020 to 8/2021	January 1, 2022	5.832%	2.000%
8/2021 to 8/2022	January 1, 2023	8.660%	2.000%



As of January 1, 2023	Number	Annual Benefits in effect before COLA	2.000% COLA	Annual Benefits in effect after COLA
1. Annuitants Under Age 65	171	\$5,492,739	\$0	\$5,492,739
2. DROP Annuitants of any age	72	\$2,673,149	\$0	\$2,673,149
3. Annuitants Over Age 65				
a. Annuity < \$10,000	138	\$867,798	\$14,302	\$882,100
b. Annuity ≥ \$10,000	<u>518</u>	<u>\$15,008,493</u>	<u>\$98,837</u>	<u>\$15,107,330</u>
4. Total	899 ¹	\$24,042,179	\$113,139 ²	\$24,155,318

¹ Count differs by one (1) from the 900 annuitants included in the January 1, 2023 valuation due to discovery of one Drop Retiree who passed away in mid-December but was not reported as deceased until after the valuation was completed.

² For comparison, 2022 COLA was also 2.00%, resulting in an annual increase of \$111,487.



- Historically,
 - Pension Committee recommends that the Board of Trustees adopts
 - Annual Employer Contribution
 - COLA increase
 - Annual Resolutions are adopted by Board of Trustees
- Annual Employer Contribution for 2023
 - Decreases Employer Contribution Percentage to 21.041% and ensures no less than such percentage is contributed for 2023 plan year
- COLA that becomes effective January 1, 2023
 - COLA increase paid retroactively to beginning of year based on number of bi-weekly payments year-to-date
 - Bi-weekly payments increased prospectively

- June 2023 – issued annual employee benefit statements with various benefit projection dates for each active member
- Next on the horizon
 - Pension Portal
 - Web-based pension benefit calculation tool for both administrators and Members
 - Still in early stages of collecting historical bi-weekly payroll and establishing procedure to collect ongoing payroll feeds
 - Next Experience Study not scheduled until 2024

**2023 CONTRIBUTION TO THE EMPLOYEES' RETIREMENT SYSTEM OF THE
SEWERAGE & WATER BOARD OF NEW ORLEANS**

WHEREAS, the Employees' Retirement System of the Sewerage & Water Board of New Orleans ("Plan") is an actuarially funded qualified governmental defined benefit pension plan under the Internal Revenue Code; and

WHEREAS, an annual 2023 Actuarial Valuation report of the Plan was presented on July 12, 2023; and

WHEREAS, the report reflects an actuarial valuation using the Entry Age Normal funding method; and

WHEREAS, the adopted "minimum contribution" for a plan year equals the Normal Cost plus the amount necessary to amortize the Unfunded Actuarial Liability over 15-year to 30-year closed period amortization layers; and

WHEREAS, the Normal Cost for the plan year beginning January 1, 2023 is \$6,029,391; and

WHEREAS, the Actuarial Valuation report includes the required "amortization" contribution for the Plan to amortize the January 1, 2023 Unfunded Actuarial Liability of \$103,526,539 over 15-year to 30-year closed period amortization layers at a 7% annual effective interest rate, with the longest amortization period as of January 1, 2023 being a 27-year amortization period; and

WHEREAS, the net annual charge required for amortization of the Unfunded Actuarial Liability in such layers beginning January 1, 2023 is \$8,373,639; and

WHEREAS, the total Plan contribution as of January 1, 2023 is \$14,403,030 (Normal Cost - \$6,029,391 plus amortization of Unfunded Actuarial Liability - \$8,373,639), which is 27.041% of the projected Earnable Compensation of \$53,264,307; and

WHEREAS, the annual estimated employee plan contribution as of January 1, 2023 is \$3,195,858, which is 6% of the projected Earnable Compensation as required under Board Resolution R-140-2020; and

WHEREAS, the annual Employer Contribution reflecting the continued utilization of the Entry Age Normal funding method less the Plan determined employee contribution is estimated to be \$11,207,172 for 2023, which is 21.041% of the projected Earnable Compensation; and

NOW, THEREFORE, BE IT RESOLVED, that the Board of Trustees of the Sewerage & Water Board of New Orleans hereby approves the employer contribution of 21.041% of Earnable Compensation for the Plan Year beginning January 1, 2023, where the projected contribution is \$11,207,172 based on projected Earnable Compensation for 2023; and

BE IT FURTHER RESOLVED, that the employer contribution will be determined through active payroll based on a percentage of 21.041% of Earnable Compensation for the remainder of Plan Year 2023; and

BE IT FURTHER RESOLVED, the Employees' Retirement System of the Sewerage and Water Board of New Orleans accepts the 2023 Actuarial Valuation Report as submitted by Rudd & Wisdom, the Retirement System's actuary, in the presentation to the Pension Committee on July 12, 2023.

I, Ghassan Korban, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a resolution adopted at the Regular
Monthly Meeting of said Board of Trustees duly called and held,
according to law, on July 19, 2023.

GHASSAN KORBAN, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

JANUARY 1, 2023 COST OF LIVING ADJUSTMENT FOR BOARD PENSIONERS

WHEREAS, Article VI, Section 6.1(d)(1) of the Rules and Regulations of the Employees' Retirement System of the Sewerage and Water Board of New Orleans provides for a Cost of Living Adjustment to pensioners over age 65 based on the change in inflation for the 12-month period ending in August of the preceding year, with a maximum increase of no more than 2%; and

WHEREAS, the change in inflation Consumer Price Index (CPI) for Urban Wage Earners for the period of August 2021 to August 2022 was 8.660%; and

WHEREAS, the total annual increase to the Pension Fund of the Sewerage and Water Board of New Orleans to implement the January 1, 2023 Cost of Living Adjustment to 899 eligible pensioners is \$113,139.12; and

WHEREAS, such funds to provide for a Cost of Living Adjustment to eligible pensioners are to be made available by the Pension Fund of the Sewerage and Water Board of New Orleans; and

NOW, THEREFORE, BE IT RESOLVED, by the Board of Trustees, that the Pension Fund of the Sewerage and Water Board of New Orleans implement a 2.000% Cost of Living Adjustment increase on the first ten-thousand dollars (\$10,000) of eligible pensioners' original Retirement Allowance (that is, the annual pension benefit paid at the time of retirement), effective January 1, 2023, for eligible pensioners who attained age 65 on or before December 31, 2022. The Cost of Living Adjustment increase for a partial year of retirement after age 65 shall be pro-rated based on the actual number of days retired and over age 65 during the twelve-month period ending December 31, 2022 (that is, the number of days elapsed between attainment of age 65 and December 31, 2022).

I, Ghassan Korban, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a resolution adopted at the Regular
Monthly Meeting of said Board of Trustees duly called and held,
according to law, on July 19, 2023.

**GHASSAN KORBAN, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS**