Metropolitan Transit Authority Union Pension Plan

January 1, 2023 Actuarial Valuation

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Issued August 3, 2023

January 1, 2023 Actuarial Valuation of the Metropolitan Transit Authority Union Pension Plan

The actuarial valuation of the Metropolitan Transit Authority of Harris County, Texas (METRO) Union Pension Plan (the "Plan") for the plan year beginning January 1, 2023 has been completed in accordance with applicable provisions of the Internal Revenue Code (IRC) and the Employee Retirement Income Security Act of 1974 (ERISA), including all regulations and guidance issued to date. The valuation results contained in this report are based on the actuarial assumptions and methodology (Appendix A) and principal plan provisions (Appendix B) summarized in the appendices. In addition, Appendix C contains information about the Plan's risks.

Purpose of the Valuation

In general, the annual actuarial valuation determines the current level of employer contributions that, taking into account prior funding, will accumulate assets sufficient to meet benefit payments and administrative expenses when due under the terms of the Plan. More specifically, the valuation determines the contribution for the current plan year sufficient to fund the cost of benefits accruing during the year (normal cost) plus an additional amount to fund the excess of plan liabilities over plan assets (unfunded accrued liability) over a period not to exceed 20 years.

The valuation also includes:

- Operational information that is required either for inclusion in financial statements or in forms to be filed with regulatory governmental agencies;
- Assumptions based on an experience study for the four plan years ending December 31, 2018, unless otherwise noted;
- An assessment of the relative funded position of the Plan comparing assets and projected liabilities.

The valuation results were developed using models employing standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. The models, including all input, calculations, and output, may not be appropriate for other purposes.

There is substantial uncertainty regarding the impact of the COVID-19 pandemic on projected plan costs. Therefore, for purposes of this report, we have chosen not to make any adjustments to these costs. However, please be aware that the COVID-19 pandemic could have a material cost impact in future valuations.

Funding Objective

The Plan's funding objective is to receive each year the actuarially determined contribution from Metropolitan Transit Authority of Harris County, Texas (the "Plan Sponsor"). Effective October 1, 2018, each eligible employee participating in the Plan began making a $3.00 contribution to the Plan per weekly pay period. These "Pick-Up Contributions" will be treated as employee contributions. This funding will allow the Plan to accumulate sufficient assets, generally over the employees' working career, to pay retirement benefits.

Annual contributions from the Plan Sponsor will change due to actuarial assumptions, investment returns and census changes being different from expected.

Meeting the Funding Objective

The Plan is meeting its funding objective as it continues to receive the actuarially determined annual contribution from the Plan Sponsor. The Plan Sponsor has made annual contributions amounts that have matched or exceeded the actuarially determined contribution for at least each of the prior 10 plan years. Any decreases in year to year funded status were the result of experience losses and/or changes in assumptions. The funded status of the Plan for the last five years is as follows:

Plan Year	2019	2020	2021	2022	2023
Funded Status	62.5%	64.2%	67.7%	70.5%	70.7%

Responsibility for Actuarial Assumptions

Actuarial assumptions and methods are chosen and authorized by the Committee and Plan Sponsor after discussions with the actuary.

Changes in Actuarial Methods and Assumptions

While there was no change to actuarial methods, there was an assumption change effective with this valuation as listed below:

- The inflation assumption is changed from 2.30% to 2.33% per year (IRC Section 415(b) benefit limit) based on Milliman's capital market expectations as of January 1, 2023.

Limited Distribution

Milliman's work is prepared solely for the use and benefit of the Plan Sponsor. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a release, subject to the following exceptions:

- The Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Plan.
- The Plan Sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

Any third party recipient of this work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

Reliance

In preparing the funding policy report, we relied, without audit, on information (some oral and some in writing) supplied by the Plan Sponsor and the Plan's Trustees. This information includes, but is not limited to, plan documents and provisions, participant data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

Limited Use

Actuarial computations for purposes other than determining the contribution requirements for an ongoing plan (such as for assessing benefit security upon potential plan termination) may yield significantly different results from those shown in this report.

This report includes assessments of the Plan's funded status as well as any other purposes that may be described above based on asset and liability measurements using the actuarial assumptions and methods for each measurement. These measurements are summarized in the relevant sections of this report. Funded status measurements provided for the purpose of complying with accounting requirements may not be appropriate for assessing the need for, or the amount of, future plan contributions. Likewise, the funded status measurements may not be appropriate for assessing the sufficiency of the Plan's assets to cover the estimated cost of settling the Plan's obligations, and these values could also change if there is any change in the Plan's Actuarial Value of Assets.

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the Plan Sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Certification

In order to provide an assessment of the relative funded position of the Plan and required financial reporting information, we have prepared the following supporting exhibits: Change in Participation, Summary of Active Participants by Age and Service, Inactive Participants, Summary of Plan Assets, Summary of Income and Disbursements, Actuarial Value of Assets, Estimated Investment Return on Actuarial Value of Assets, Estimated Investment Return on Fair Value of Assets, Contributions for Prior Plan Year, Unfunded Actuarial Accrued Liability, Actuarial (Gain) / Loss for Prior Plan Year, Normal Cost and Actuarially Determined Contribution, Present Value of Accumulated Plan Benefits, Change in Present Value of Accumulated Plan Benefits, Schedule of Retirees and Beneficiaries, Solvency Test, Retired Members by Type of Benefit, Schedule of Benefit Payments by Type, Funding Policy Accounting Information, Covered Persons Pay Inflation Comparison, and Schedule of Participants by Status.

All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods, which we believe are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the Plan. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations, which in combination, represent our best estimate of anticipated experience under the Plan.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements. The Plan Sponsor has the final decision regarding the appropriateness of the assumptions and actuarial cost methods, and the Plan Sponsor has adopted them as indicated in Appendix A.

On the basis of the foregoing, we hereby certify that to the best of our knowledge and belief, this funding policy report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries. The assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We would like to express our appreciation to Metropolitan Transit Authority of Harris County, Texas, and to the members of the staff, who gave substantial assistance in supplying the data on which this report is based.

We respectfully submit this report, and we look forward to discussing it with you.

James Tumlinson, Jr.
Principal and Consulting Actuary
Member, American Academy of Actuaries

Jake Pringle
Principal and Consulting Actuary
Member, American Academy of Actuaries

August 3, 2023
Date

Table of Contents

Executive Summary

A. Summary of Key Valuation Results

	Actuarial Valuation for Plan Year Beginning	
	January 1, 2022	January 1, 2023
Participant Data		
Number of Participants		
Active Participants	1,238	948
Terminated Vested Participants	560	550
Retired Participants	1,506	1,726
Disabled Participants	175	168
Beneficiaries	385	400
Total Participants	3,864	3,792
Assets		
Fair Value of Assets	$350,728,554	$290,562,545
Investment yield in year	11.8%	(14.3%)
Actuarial Value of Assets	$323,630,642	$325,081,142
Investment yield in year	9.9%	3.8%
Actuarial Present Values		
Present Value of Benefits	$474,684,111	$471,830,477
Actuarial Value of Assets	323,630,642	325,081,142
Unfunded Present Value of Benefits	151,053,469	146,749,335
Actuarial Accrued Liability	458,865,579	459,795,791
Actuarial Value of Assets	323,630,642	325,081,142
Unfunded Actuarial Accrued Liability	$135,234,937	$134,714,649
Costs and Contributions		
Normal Cost	$3,225,469	$2,421,667
Past Service Contribution	11,047,956 (1)	11,279,549 (2)
Interest on Contribution	892,089	856,326
Actuarially Determined Contribution as of end of year	$15,165,514	$14,557,542

(1) 21 year amortization for 2022.

(2) 20 year amortization for 2023.

B. Purpose of this Report

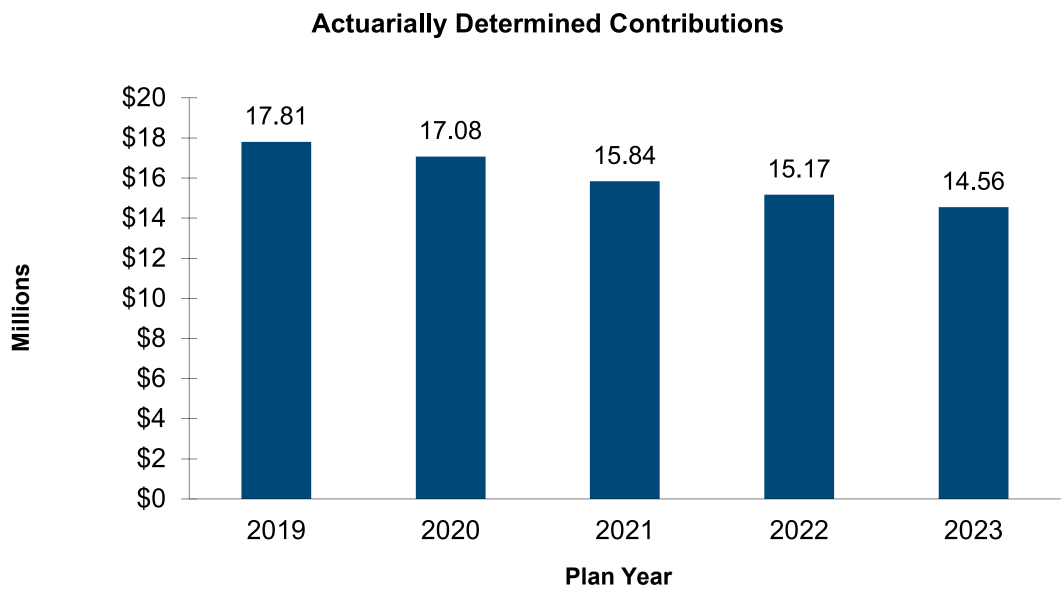
This funding policy report has been prepared for the Metropolitan Transit Authority Union Pension Plan as of January 1, 2023 to:

- Calculate the Actuarially Determined Contribution for the plan year beginning January 1, 2023.
- Review the experience for the plan year ending December 31, 2022. ("Experience" encompasses the performance of the Plan's assets during the year and changes in the Plan's participant demographics that impact liabilities.) A complete experience study was last performed on April 8, 2020.
- Review the Plan's funded status.

C. Actuarially Determined Contribution for the 2023 Plan Year

The Actuarially Determined Contribution for the plan year beginning January 1, 2023 is $14,557,542.

The graph below illustrates the Actuarially Determined Contribution for the current and preceding four plan years.

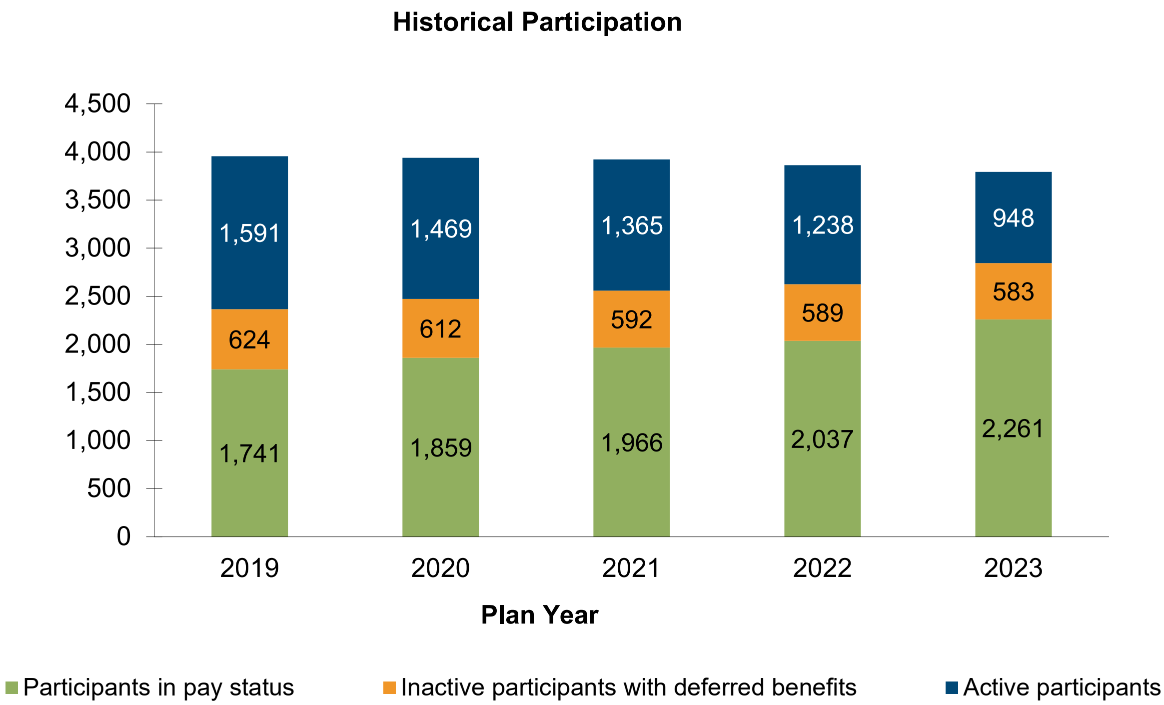


D. Plan Experience

Change in Demographics

From January 1, 2022 to January 1, 2023, the number of active participants in the Plan decreased by 23.4% from 1,238 to 948; while the total number of participants decreased by 1.9% from 3,864 to 3,792.

The following graph illustrates the count of participants, by category, as of the valuation date for the current and preceding four plan years.



Actuarial Accrued Liability

Under the Entry Age Normal actuarial cost method, and prior to reflecting any plan, method or assumption changes, liability experience for the 2022 plan year was more favorable than expected, generating a net actuarial gain as follows:

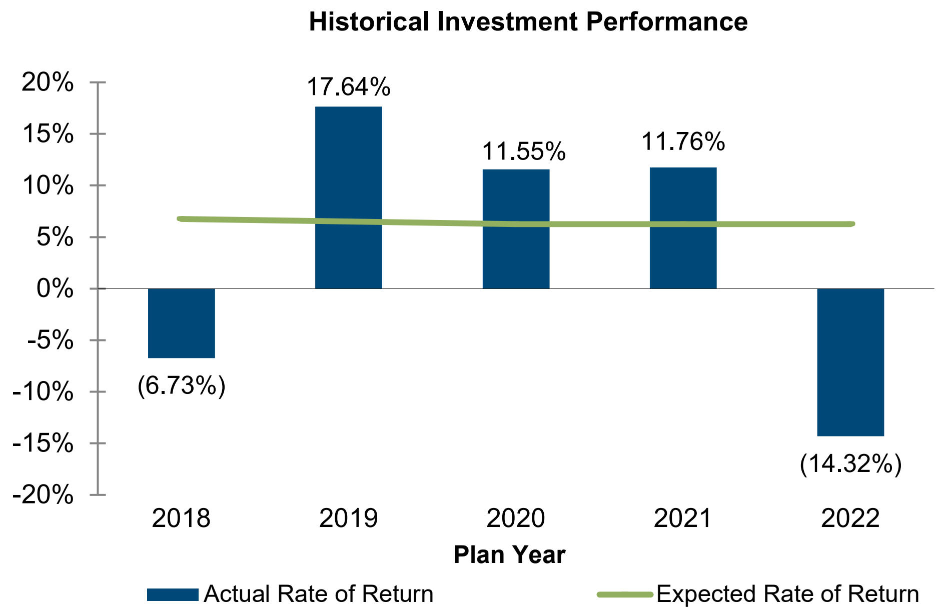
- Demographic experience different from that assumed, which resulted in an actuarial gain of approximately $4.0 million.

Change in Assets

Asset experience for the 2022 plan year was less favorable than expected. The return on the actuarial value of assets for 2022 was less than assumed, generating a net actuarial loss.

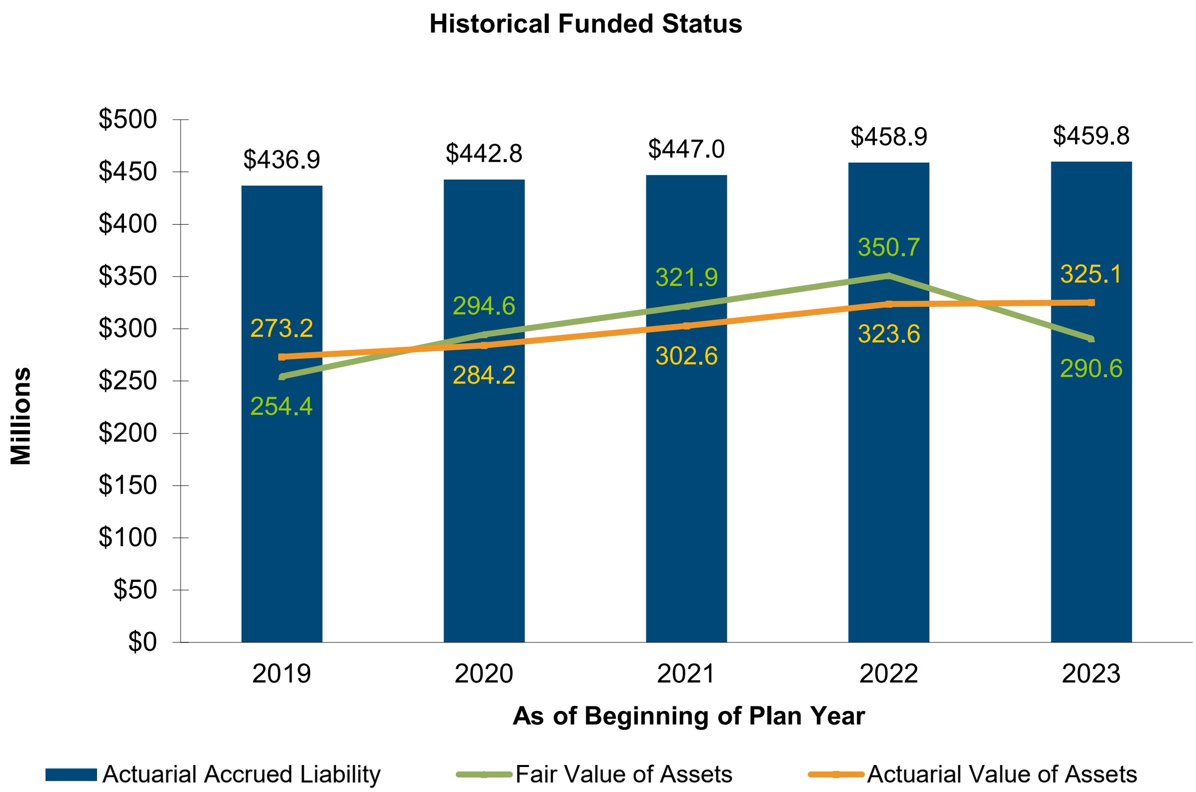
- The rate of return on the fair value of plan assets for 2022 was (14.32%), which was less than the assumed rate of 6.25%, resulting in an investment loss of approximately $71.0 million.

The following graph illustrates the investment performance on a fair value basis for the preceding five plan years.



E. Funded Status

The graph below illustrates the funded status on both a fair value and actuarial value basis for the current and preceding four years.



F. Actuarial Methods and Assumptions

The actuarial methods and assumptions used in this valuation are the same as those used in the prior valuation except as follows:

- The expense load to the Normal Cost has been changed from $417,525 for the 2022 plan year to $411,191 for the 2023 plan year and is based on the prior plan year's expenses, excluding investment management fees.
- The inflation assumption has been changed from 2.30% to 2.33% per year (IRC Section 415(b) benefit limit) based on Milliman's capital market expectations as of January 1, 2023.

These changes were made to better reflect anticipated plan experience.

Please see Appendix A for a summary of the actuarial methods and assumptions used in this valuation.

G. Plan Provisions

The plan provisions are the same as those used in the prior valuation.

Please see Appendix B for a summary of plan provisions.

Exhibits

Exhibit 1

Change in Participation

The change in participation from January 1, 2022 to January 1, 2023 is shown below.

	Active Participants	Inactive Participants with Deferred Benefits[1]	Participants in Pay Status	Total
Participants as of January 1, 2022	1,238	589	2,037	3,864
Terminated non-vested	0	0	0	0
Terminated vested	(26)	26	0	0
Died without beneficiary[2]	(2)	(8)	(68)	(78)
Died with beneficiary	(2)	(5)	(17)	(24)
Retired	(262)	(25)	287	0
Received lump sum distribution	0	0	0	0
Certain period expired	0	0	0	0
New Beneficiaries	0	6	18	24
New Alternate Payees	0	2	4	6
Pickup Participant	0	0	0	0
Pickup Beneficiary	0	0	0	0
Dropped Beneficiary	0	0	0	0
Dropped Alternate Payee	0	0	0	0
Rehired	1	(1)	0	0
Net data adjustments	1	(1)	0	0
Participants as of December 31, 2022	948	583	2,261	3,792
New participants as of January 1, 2023	0	0	0	0
Participants as of January 1, 2023	948	583	2,261	3,792

For January 1, 2022, the above participant counts include 108 alternate payees currently receiving benefits and 19 alternate payees entitled to future benefits under Qualified Domestic Relations Orders

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For January 1, 2023, the above participant counts include 113 alternate payees currently receiving benefits and 18 alternate payees entitled to future benefits under Qualified Domestic Relations Orders.

[1] Includes deferred beneficiaries, deferred alternate payees, and deferred disabled participants.

[2] Unmarried active participants and inactive participants with deferred benefits are not eligible for a death benefit.

Exhibit 2

Summary of Active Participants by Age and Service

Number of Participants by Age and Service Groups

	Years of Vesting Service										
Age	**<1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40&Up**	**Total**
0-24	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	4	9	-	-	-	-	-	-	13
35-39	-	-	10	26	16	1	-	-	-	-	53
40-44	-	-	2	38	23	18	-	-	-	-	81
45-49	-	-	11	40	39	39	9	-	-	-	138
50-54	-	-	5	55	38	57	39	7	-	-	201
55-59	-	-	7	55	55	61	48	47	7	-	280
60-64	-	1	4	24	10	23	22	17	7	4	112
65-69	-	-	2	13	8	5	5	13	9	6	61
70&Up	-	-	-	4	-	-	1	2	2	-	9
Total	-	1	45	264	189	204	124	86	25	10	948

Exhibit 3

Inactive Participants

Terminated Vested Participants

Age	Number of Participants	Average Annual Benefit
< 30	-	$-
30 - 34	7	6,959
35 - 39	41	5,719
40 - 44	68	6,252
45 - 49	94	6,351
50 - 54	112	7,666
55 - 59	140	7,494
60 - 64	51	6,551
65 & Up	37	6,890
Total	550	$6,913

Retirees, Beneficiaries, and Disabled Participants

Age	Number of Participants	Average Annual Benefit
< 55	41	$6,801
55 - 59	87	9,472
60 - 64	471	13,614
65 - 69	678	13,795
70 - 74	524	12,826
75 - 79	307	12,242
80 - 84	123	12,003
85 - 89	46	7,734
90 & Up	17	6,141
Total	2,294	$12,765

Exhibit 4

Summary of Plan Assets

The summary of plan assets on a Fair Value basis as of December 31, 2022 is shown below.

1.	Assets	
	a. Receivable income	$37,464
	b. Interest bearing cash	2,287,805
	c. Corporate debt - other	73,606,447
	d. Corporate stocks - common	166,975,102
	e. Real estate	47,852,786
	f. Total	290,759,604
2.	Liabilities	
	a. Other liabilities	197,059
	b. Total	197,059
3.	Total	
	[(1f) - (2b)]	$290,562,545

Exhibit 5

Summary of Income and Disbursements

The change in the Fair Value of Assets from December 31, 2021 to December 31, 2022 is shown below.

1.	Fair Value of Assets as of December 31, 2021	$350,728,554
2.	Income	
	a. Employer contributions for plan year	15,668,399
	b. Employee pick-up contributions for plan year	142,951
	c. Realized Gain / (Loss)	(50,437,482)
	d. Other income	1,835,654
	e. Total	(32,790,478)
3.	Disbursements	
	a. Benefit payments to participants	26,127,147
	b. Investment management fees	837,193
	c. Trustees fees/expenses	247,692
	d. Other expenses	163,499
	e. Total	27,375,531
4.	Net increase / (decrease) [(2e) - (3e)]	(60,166,009)
5.	Fair Value of Assets as of December 31, 2022 [(1) + (4)]	$290,562,545

Exhibit 6

Actuarial Value of Assets

The Actuarial Value of Assets is the Fair Value of Assets less a weighted average of asset gains / (losses) over a four-year period (five-year smoothing), but not less than 80% nor more than 120% of the Fair Value of Assets. The Actuarial Value of Assets as of January 1, 2023 is determined below.

1.	Fair Value of Assets as of December 31, 2022			$290,562,545
2.	Unrecognized asset gains / (losses) for the plan years ending			
	Plan Year Ending	Gain / (Loss) for Year	Percent Unrecognized	Amount Unrecognized
a.	December 31, 2022	(71,029,417)	80%	(56,823,534)
b.	December 31, 2021	17,509,281	60%	10,505,569
c.	December 31, 2020	15,450,473	40%	6,180,189
d.	December 31, 2019	28,095,897	20%	5,619,179
e.	Total			(34,518,597)
3.	Preliminary Actuarial Value of Assets as of January 1, 2023 [(1) - (2e)]			325,081,142
4.	Actuarial Value of Assets as of January 1, 2023 [(3), but not less than 80% × (1), nor more than 120% × (1)]			$325,081,142

Exhibit 7

Estimated Investment Return on Actuarial Value of Assets

The estimated investment return on the Actuarial Value of Assets is determined using a simplified formula. It assumes all cash flows of contributions, benefit payments, and administrative expenses are paid at mid-year. The estimated investment return on the Actuarial Value of Assets for the plan year ending December 31, 2022 is determined below.

1.	Actuarial Value of Assets as of January 1, 2022	$323,630,642
2.	Actuarial Value of Assets as of January 1, 2023	325,081,142
3.	Net non-investment cash flows for plan year ending December 31, 2022	(10,726,988)
4.	Investment income for plan year ending December 31, 2022 [(2) - (1) - (3)]	$12,177,488
5.	Estimated investment return on Actuarial Value of Assets [{2 × (4)} ÷ {(1) + (2) - (4)}]	3.83%

Exhibit 8

Estimated Investment Return on Fair Value of Assets

The estimated investment return on the Fair Value of Assets for the plan year ending December 31, 2022, assuming all cash flows of contributions, benefit payments, and administrative expenses are paid at mid-year, is determined below.

1.	Fair Value of Assets as of December 31, 2021	$350,728,554
2.	Fair Value of Assets as of December 31, 2022	290,562,545
3.	Net non-investment cash flows for plan year ending December 31, 2022	(10,726,988)
4.	Investment income for plan year ending December 31, 2022 [(2) - (1) - (3)]	(49,439,021)
5.	Estimated investment return on Fair Value of Assets [{2 × (4)} ÷ {(1) + (2) - (4)}]	(14.32%)
6.	Expected rate of return on Fair Value of Assets	6.25%
7.	Investment gain/(loss) for plan year ending December 31, 2022	($71,029,417)

Exhibit 9

Contributions for Prior Plan Year

The contributions for the plan year ending December 31, 2022 were paid or are payable on the dates and in the amounts shown below.

Date of Contribution	Pick-Up Contributions*	Employer Contributions
January 4, 2022	$11,964	$1,319,668
February 4, 2022	11,733	1,319,669
March 4, 2022	11,643	1,319,669
April 5, 2022	14,445	1,319,669
May 3, 2022	11,562	1,319,669
June 3, 2022	11,755	1,319,669
July 6, 2022	14,316	1,319,669
August 2, 2022	11,393	1,319,669
September 2, 2022	14,355	1,319,669
October 4, 2022	9,618	1,263,793
November 4, 2022	9,145	1,263,793
December 2, 2022	11,022	1,263,793
Total	$142,951	$15,668,399
Grand Total		**$15,811,350**

*Pick-up contribution amounts are the total for the month.

Exhibit 10

Unfunded Actuarial Accrued Liability

The Actuarial Accrued Liability represents that portion of the Present Value of Benefits that is allocated to service before the current plan year. The Unfunded Actuarial Accrued Liability is the excess (deficiency) of the Actuarial Accrued Liability over the Actuarial Value of Assets. The Unfunded Actuarial Accrued Liability as of January 1, 2023 is determined below.

1. Actuarial Accrued Liability	
a. Active participants	$125,057,255
b. Terminated vested participants	31,288,472
c. Beneficiaries	20,742,739
d. Retired participants	266,365,189
e. Disabled participants	16,342,136
f. Total	459,795,791
2. Actuarial Value of Assets	325,081,142
3. Reserve for expenses	0
4. Unfunded Actuarial Accrued Liability [(1f) - (2) + (3)]	134,714,649
5. Amortization period as of January 1, 2023	20 years
6. Past Service Contribution (level dollar amortization of Unfunded Actuarial Accrued Liability as of January 1, 2023)	$11,279,549

Exhibit 11

Actuarial (Gain) / Loss for Prior Plan Year

The Actuarial (Gain) / Loss for the prior plan year is the difference between the expected and actual Unfunded Actuarial Accrued Liability as of the beginning of the current plan year. The Actuarial (Gain) / Loss for the plan year ending December 31, 2022 is determined below.

1.	Unfunded Actuarial Accrued Liability as of January 1, 2022	$135,234,937
2.	Total Normal Cost as of January 1, 2022	2,997,328
3.	Interest on (1) and (2) to end of plan year	8,639,517
4.	Subtotal [(1) + (2) + (3)]	146,871,782
5.	Employer contributions for plan year	15,668,399
6.	Employee pick-up contributions (valued as employer contributions) for plan year	142,951
7.	Administrative expenses	(411,191)
8.	Interest on [(5) + (6) + (7)] to end of plan year	473,962
9.	Subtotal [(5) + (6) + (7) + (8)]	15,874,121
10.	Changes in Actuarial Accrued Liability	
	a. Plan amendments	0
	b. Changes in actuarial assumptions	0
	c. Changes in cost method	0
	d. Total	0
11.	Expected Unfunded Actuarial Accrued Liability as of January 1, 2023 [(4) - (9) + (10d)]	130,997,661
12.	Actual Unfunded Actuarial Accrued Liability as of January 1, 2023	134,714,649
13.	Actuarial (Gain) / Loss for prior plan year (excluding assumption changes) [(12) - (11)]	3,716,988
14.	Demographic experience (Gain)/Loss for prior plan year	(3,989,927)
15.	Actuarial Value of Assets (Gain)/Loss for prior plan year [(13) - (14)]	$7,706,915

Exhibit 12

Normal Cost and Actuarially Determined Contribution

The Normal Cost is the amount allocated to the current plan year under the plan's actuarial cost method. The employer Normal Cost as of January 1, 2023 is determined below. The Actuarially Determined Contribution is also shown with interest to December 31, 2023.

1.	Normal Cost for benefits	
	a. Withdrawal	$372,142
	b. Retirement	1,588,172
	c. Death	17,414
	d. Disability	178,452
	e. Total	2,156,180
2.	Loading for expenses	411,191
3.	Total Normal Cost [(1e) + (2)]	2,567,371
4.	Employee Normal Cost (for Pick-Up Contributions)	145,704
5.	Net Employer Normal Cost [(3) - (4)]	2,421,667
6.	Past Service Contribution [from Exhibit 10]	11,279,549
7.	Interest rate assumption	6.25%
8.	Interest on contribution to end of year [{(5) + (6)} * (7)]	856,326
9.	Actuarially Determined Contribution as of end of year [(5) + (6) + (8)]	$14,557,542

Exhibit 13

Present Value of Accumulated Plan Benefits

Accumulated Plan Benefits are benefits earned to date, based on and service rendered to date, expected to be paid in the future to retired, terminated vested, and active participants, and beneficiaries of active or former participants. The Present Value of Accumulated Plan Benefits (determined on a plan continuation basis) as of January 1, 2023 is shown below.

	January 1, 2022	January 1, 2023
1. Present Value of vested Accumulated Plan Benefits		
a. Retired participants	$217,869,470	$266,365,189
b. Disabled participants	17,169,301	16,342,136
c. Beneficiaries	20,031,938	20,742,739
d. Terminated vested participants	31,971,572	31,288,472
e. Active participants	150,970,821	107,737,204
f. Total	438,013,102	442,472,740
2. Present Value of non-vested Accumulated Plan Benefits	2,440,925	2,467,404
3. Present Value of all Accumulated Plan Benefits [(1f) + (2)]	440,454,027	444,943,144
4. Fair Value of Assets	$350,728,554	$290,562,545
5. Funded ratio		
a. Vested benefits [(4) ÷ (1f)]	80.07%	65.67%
b. All benefits [(4) ÷ (3)]	79.63%	65.30%
6. Interest rate assumption	6.25%	6.25%

Exhibit 14

Change in Present Value of Accumulated Plan Benefits

The change in the Present Value of Accumulated Plan Benefits (determined on a plan continuation basis) from January 1, 2022 to January 1, 2023 is shown below.

1.	Present Value of all Accumulated Plan Benefits as of January 1, 2022	$440,454,027
2.	Changes	
	a. Reduction in discount period	26,724,277
	b. Benefits accumulated	5,808,973
	c. Benefit payments	26,127,147
	d. Plan amendments	0
	e. Change in assumptions	0
	f. Actuarial (gain) / loss	(1,916,986)
	g. Total [(a) + (b) - (c) + (d) + (e) + (f)]	4,489,117
3.	Present Value of all Accumulated Plan Benefits as of January 1, 2023 [(1) + (2g)]	$444,943,144

Exhibit 15

Schedule of Retirants and Beneficiaries Added and Removed from Rolls

The following exhibit outlines the flow of retirants and beneficiaries.

	Added to Rolls		Removed from Rolls		Rolls-End of Year			
Year Ended December 31,	Count	Annual Benefits	Count	Annual Benefits	Count	Annual Benefits	% Increase in Monthly Allowance	Average Annual Allowance
2022	311	2,313,289	(86)	(891,002)	2,261	25,608,053	5.88%	11,326
2021	138	2,175,778	(68)	(865,921)	2,036	24,185,766	5.73%	11,879
2020	143	2,123,197	(36)	(366,385)	1,966	22,875,909	8.32%	11,636
2019	170	2,222,035	(52)	(529,433)	1,859	21,119,097	8.71%	11,360
2018	117	1,446,000	(49)	(475,943)	1,741	19,426,495	5.26%	11,158
2017	137	1,643,786	(42)	(307,489)	1,673	18,456,438	7.81%	11,032
2016	120	920,732	(38)	(347,721)	1,578	17,120,141	3.46%	10,849
2015	122	1,379,092	(53)	(518,858)	1,496	16,547,130	5.48%	11,061
2014	100	1,073,271	(29)	(334,136)	1,427	15,686,896	4.94%	10,993
2013	234	2,185,278	(105)	(940,941)	1,356	14,947,761	9.08%	11,023
2012	122	1,646,982	(54)	(661,938)	1,227	13,703,424	7.75%	11,168
2011	123	1,548,895	(34)	(443,119)	1,159	12,718,380	9.52%	10,974
2010	91	1,224,707	(41)	(362,651)	1,070	11,612,604	8.02%	10,853
2009	89	1,268,338	(41)	(262,306)	1,020	10,750,548	10.32%	10,540
2008					972	9,744,516		

Exhibit 16

Solvency Test

	Actuarial Accrued Liability (AAL)					Portion of AAL Covered by Assets			
	1	2	3	4	5	1	2	3	4
Valuation Date January 1	Active Member Contribution*	Retirees and Beneficiaries	Active and Inactive Members (ER Financed Portion)	Total	Actuarial Value of Assets				
2023	-	302,444,776	157,351,015	459,795,791	325,081,142	N/A	100%	14.4%	70.7%
2022	-	254,004,218	204,861,361	458,865,579	323,630,642	N/A	100%	34.0%	70.5%
2021	-	243,327,559	203,715,200	447,042,759	302,634,433	N/A	100%	29.1%	67.7%
2020	-	228,120,591	214,704,430	442,825,021	284,189,712	N/A	100%	26.1%	64.2%
2019	-	206,121,805	230,793,851	436,915,656	273,167,539	N/A	100%	29.1%	62.5%
2018	-	189,547,602	214,168,546	403,716,148	267,444,642	N/A	100%	36.4%	66.2%
2017	-	178,020,187	209,314,892	387,335,079	252,586,471	N/A	100%	35.6%	65.2%
2016	-	172,618,836	209,538,803	382,157,639	238,717,731	N/A	100%	31.5%	62.5%
2015	-	181,670,789	169,936,537	351,607,326	223,969,107	N/A	100%	24.9%	63.7%
2014	-	157,643,778	122,315,347	279,959,125	206,052,122	N/A	100%	39.6%	73.6%
2013	-	145,133,491	122,225,939	267,359,430	181,660,677	N/A	100%	29.9%	67.9%
2012	-	134,860,787	120,692,122	255,552,909	173,837,727	N/A	100%	32.3%	68.0%
2011	-	123,380,792	117,637,323	241,018,115	168,963,695	N/A	100%	38.7%	70.1%
2010		116,246,146	110,844,693	227,090,839	162,389,627	N/A	100%	41.6%	71.5%

*Pick-Up Contributions beginning in 2018 (coded for 2020 valuation) impact AAL Normal Cost only (minimum benefits not applied).

Exhibit 17

Retired Members by Type of Benefit

Monthly Benefit Payment	Number of Retired Members	Type of Retirement 1	2	3	4
$1 - $500	**506**	209	22	33	242
501 - 1,000	**614**	395	25	75	119
1,001 - 1,500	**539**	405	73	55	6
1,501 - 2,000	**408**	300	103	5	-
2,001 - 2,500	**156**	144	12	-	-
2,501 - 3,000	**37**	36	1	-	-
Over 3,000	**1**	1	-	-	-
	2,261	1,490	236	168	367

1 Normal retirement for age and service
2 Early retirement
3 Disability retirement
4 Beneficiary

Monthly Benefit Payment	Number of Retired Members	Option Selected 1	2	3	4
$1 - $500	**506**	428	69	6	3
501 - 1,000	**614**	459	154	1	-
1,001 - 1,500	**539**	342	194	2	1
1,501 - 2,000	**408**	300	107	1	-
2,001 - 2,500	**156**	118	38	-	-
2,501 - 3,000	**37**	31	6	-	-
Over 3,000	**1**	1	-	-	-
	2,261	1,679	568	10	4

Option 1 - Life only
Option 2 - Joint and 50% survivor
Option 3 - Joint and 100% survivor
Option 4 - Other

Exhibit 18

Schedule of Benefit Payments by Type

	2022	2021	2020	2019	2018	2017	2016	2015
Service	22,084,439	20,679,878	19,446,051	17,788,497	16,152,412	15,183,240	13,908,836	13,026,439
Disabled	1,700,812	1,752,372	1,785,841	1,827,124	1,894,859	1,982,358	1,979,602	1,930,384
Beneficiary	1,822,803	1,753,516	1,644,016	1,503,476	1,379,224	1,290,841	1,231,703	1,133,635
Miscellaneous	519,094	(102,051)	430,422	815,093	368,702	343,102	536,383	476,950
Total	**26,127,147**	**24,083,715**	**23,306,331**	**21,934,190**	**19,795,197**	**18,799,540**	**17,656,524**	**16,567,409**

Exhibit 19

Funding Policy Accounting Information

Please note that the Schedule of Funding Progress was required by GASB Statement No 27 through 2014. For fiscal years 2015 and beyond, the information below outlines the funding policy. The actuarial assumptions and methods employed are detailed in Appendix A.

Schedule of Funding Progress (in $1,000's)						
	(1)	(2)	(3)	(4)	(5)	(6)
Actuarial Valuation Date	Actuarial Value of Plan Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (2) - (1)	Funded Ratio (1) / (2)	Covered Payroll	UAAL as a % of Covered Payroll (3) / (5)
01/01/01	75,549	94,382	18,833	80.0%	78,251	24.1%
01/01/02	82,865	105,012	82,865	78.9%	81,573	27.1%
01/01/03	89,273	118,565	29,292	75.3%	84,370	34.7%
01/01/04	98,135	131,147	33,012	74.8%	87,119	37.9%
01/01/05	104,180	146,044	41,864	71.3%	87,157	48.0%
01/01/06	121,483	164,424	42,941	73.9%	82,900	51.8%
01/01/07	139,914	172,140	32,226	81.3%	81,287	39.6%
01/01/08	160,889	193,595	32,706	83.1%	84,414	38.7%
01/01/09	131,281	204,685	73,403	64.1%	85,317	86.0%
01/01/10	162,390	227,091	64,701	71.5%	88,184	73.4%
01/01/11	168,964	241,018	72,054	70.1%	93,675	76.9%
01/01/12	173,838	255,553	81,715	68.0%	94,043	86.9%
01/01/13	181,661	267,359	85,698	67.9%	91,830	93.3%
01/01/14	206,052	279,959	73,907	73.6%	106,317	69.5%
01/01/15	223,969	351,607	127,638	63.7%	93,228	136.9%
01/01/16	238,718	382,158	143,440	62.5%	93,228	153.9%
01/01/17	252,586	387,335	134,749	65.2%	92,486	145.7%
01/01/18	267,444	403,716	136,272	66.2%	94,148	144.7%
01/01/19	273,168	436,916	163,748	62.5%	94,602	173.1%
01/01/20	284,190	442,825	158,635	64.2%	90,602	175.1%
01/01/21	302,634	447,043	144,409	67.7%	81,505	177.2%
01/01/22	323,631	458,866	135,235	70.5%	79,313	170.5%
01/01/23	325,081	459,796	134,715	70.7%	66,459	202.7%

The calculation of the actuarially determined contribution is based on level dollar amortization.

Exhibit 19

Funding Policy Accounting Information (continued)

The following exhibit provides information for the calculation of the Funding Policy.

Fiscal Year Ending	Covered Payroll at Reporting Date	Actuarially Determined Contribution	Actual Contribution	Percentage Contributed	Investment Return	Equivalent Single Amortization Period
09/30/00		5,537,912	5,537,912	100.0%	8.0%	30 years
09/30/01		4,969,094	4,969,094	100.0%	8.0%	30 years
09/30/02		5,488,243	5,488,243	100.0%	8.0%	30 years
09/30/03		6,979,177	6,979,177	100.0%	8.0%	30 years
09/30/04		8,419,726	8,419,726	100.0%	8.0%	30 years
09/30/05		9,959,068	18,759,068	188.4%	8.0%	30 years
09/30/06		9,402,722	17,540,722	186.5%	8.0%	30 years
09/30/07		8,527,492	16,527,492	193.8%	8.0%	30 years
09/30/08		8,826,606	8,826,606	100.0%	8.0%	30 years
09/30/09		12,185,737	12,185,737	100.0%	8.0%	30 years
09/30/10		12,416,838	12,416,849	100.0%	8.0%	30 years
09/30/11		13,493,650	13,493,652	100.0%	8.0%	30 Years
09/30/12		14,444,476	14,444,476	100.0%	8.0%	30 Years
09/30/13		14,335,058	14,335,058	100.0%	8.0%	30 Years
09/30/14		13,477,182	13,477,182	100.0%	8.0%	29 Years
09/30/15		15,410,109	19,062,423	123.7%	6.75%	28 Years
09/30/16		16,565,280	16,565,280	100.0%	6.75%	27 Years
09/30/17		15,413,823	15,413,823	100.0%	6.75%	26 Years
09/30/18*		15,631,361	15,680,817	100.3%	6.75%	25 Years
09/30/19**		17,805,961	17,805,961	100.0%	6.50%	24 Years
09/30/20**		17,078,683	17,078,683	100.0%	6.25%	23 Years
09/30/21**		15,836,027	15,836,027	100.0%	6.25%	22 Years
09/30/22**	83,722,438	15,165,514	15,668,399	103.3%	6.25%	21 Years

* Actual contribution includes pick-up contributions.

** Actual contribution does not include pick-up contributions.

The calculation of the actuarially determined contribution is based on level dollar amortization.

Exhibit 20

Covered Persons Pay Inflation Comparison

Actuarial Valuation Date	(1) Count	(2) Adjust Count*	(3) Annual Payroll	(4) Average Payroll (3) / (2)	(5) Average Payroll % Increase	(6) Inflation Increase % (CPI-U)
01/01/09	2,540	2,323	85,316,896	36,727	0	0.1%
01/01/10	2,502	2,362	89,325,908	37,818	3.0%	2.7%
01/01/11	2,552	2,377	93,675,182	39,409	4.2%	1.5%
01/01/12	2,504	2,321	94,043,360	40,518	2.8%	3.0%
01/01/13	2,274	2,074	91,829,981	44,277	9.3%	1.7%
01/01/14	2,241	1,873**	87,161,786	46,536	5.1%	1.5%
01/01/15	2,108	1,871	79,164,934	42,312	(9.1%)	0.8%
01/01/16	1,994	1,742	92,109,840	52,876	25.0%	0.7%
01/01/17	1,865	1,607	85,537,353	53,228	0.7%	2.1%
01/01/18	1,754	1,504	83,357,239	55,424	4.1%	2.1%
01/01/19	1,591	1,344	79,915,545	59,461	7.3%	1.9%
01/01/20	1,469	1,226	75,614,590	61,676	3.7%	2.3%
01/01/21	1,365	1,126	67,176,017	59,659	(3.3%)	1.4%
01/01/22	1,238	1,233	78,992,282	64,065	7.4%	7.0%
01/01/23	948	945	66,248,643	70,104	9.4%	6.5%

*Adjusted for active participants missing compensation amounts.

**Excludes 142 recent hires with no provided pay.

Exhibit 21

Schedule of Participants by Status

Below is the schedule of participants by status as of December 31 for the last ten years.

December 31	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Active	948	1,238	1,365	1,469	1,591	1,754	1,865	1,994	2,108	2,241
Terminated and vested	550	560	565	582	574	514	546	530	560	555
Retired	1,726	1,506	1,445	1,354	1,248	1,189	1,109	1,050	986	1,018
Disabled	168	175	178	185	192	201	205	198	209	175
Beneficiaries	400	385	370	350	351	335	313	295	247	177
Total Participants	**3,792**	**3,864**	**3,923**	**3,940**	**3,956**	**3,993**	**4,038**	**4,067**	**4,110**	**4,166**

Appendix A

Summary of Actuarial Assumptions and Methods

Plan Sponsor

Metropolitan Transit Authority of Harris County, Texas

The true cost of a pension plan will ultimately be determined by the excess of benefits actually paid and the expenses incurred in its administration over investment income earned on monies set aside for its funding. Thus, the ultimate cost of a plan cannot be known until the last payment has been made to its last participant. The actuarial cost method is the technique adopted by the actuary for establishing the amount and incidence of annual actuarial costs. The actuarial cost method determines the portion of the ultimate cost of a pension plan which should be allocated to each plan year (known as the normal cost). The cost method is thus a budgeting tool which helps to ensure that the pension plan will be adequately and systematically funded.

The annual costs for a pension plan can be determined using any one of several actuarial cost methods. The methods differ in how much of the ultimate cost of the plan is assigned to each prior year, the current year and to each future year. Although the ultimate cost for a pension plan will be determined not by the cost method, but by the benefits and expenses which become payable and the earnings which are obtained on the investments of the plan, the pattern of annual contributions from year to year and the rate of funding for the benefits will vary with the choice of actuarial cost method. In addition, the choice of actuarial assumptions for a given actuarial cost method will affect the current level of contributions and pattern of future contributions.

Annual contributions are also affected by the “asset valuation method” (as well as the plan provisions, actuarial assumptions, and actual plan demographic and investment experience each year).

Actuarial Cost Method

The actuarial cost method used in the valuation of this Plan is known as the entry age normal cost method. Under this method a projected retirement benefit at assumed retirement age is computed for each participant. The normal cost for each participant is computed as the level dollar amount which, if paid from each participant's date of employment by the employer or any predecessor employer (thus, entry age) to the participant’s assumed retirement date, would accumulate with interest at the rate assumed in the valuation to an amount sufficient to fund the participant’s projected retirement benefit. The normal cost for the plan is the total of the individually computed normal costs for all participants including the costs for any death or disability benefits under the plan.

The accrued liability at any point in time for an active participant is the theoretical fund that would have been accumulated on the participant’s behalf from the participant’s normal cost payments thereon for all prior years if the plan had always been in effect. For persons receiving benefits or entitled to a deferred vested retirement income, the accrued liability cost is equal to the present value of their future benefit payments. The accrued liability for the plan is the total of the individually computed accrued liability for all participants. The unfunded accrued liability for the plan is the excess of the accrued liability over the assets which have been accumulated for the plan. The Plan utilizes a 30-year closed amortization with the initial year of 2013. The 2023 unfunded accrued liability is amortized on a level dollar basis over a 20-year period as a component of the 2023 annual contribution.

It should be noted that the accrued liability as of any date is not the actuarially computed present value of accrued or accumulated plan benefits as of that date. The accrued liability is the portion of the ultimate cost assigned to prior years by the cost method being used. The actuarially computed present value of accrued or accumulated plan benefits is the present value of retirement benefits which have been accrued or earned to date based only upon service and earnings to date.

The funding cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc., which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

Asset Valuation Method

For purposes of applying the actuarial cost method, the assets valuation method is a ***five year smoothed fair value*** method. The actuarial value of assets as of the end of a plan year is equal to the fair value of assets minus a gain/loss adjustment factor. This factor is calculated as follows:

1. $^4/_5$ of the gain/(loss) during the year just ended; plus
2. $^3/_5$ of the gain/(loss) during the prior year; plus
3. $^2/_5$ of the gain/(loss) two years prior; plus
4. $^1/_5$ of the gain/(loss) three years prior.

The actuarial value of assets is in no case greater than 120% of fair value and in no case less than 80% of fair value.

Interest Rate

6.25% per annum (Plan Sponsor prescribed assumption adopted December 31, 2019). We believe that the assumption is reasonable based on our review of the distribution of long-term expected returns generated by the Milliman Expected Return Model with a 30-year horizon.

Earnings Progression

N/A for determination of Actuarially Determined Contribution.

Inflation / Cost of Living Increases

2.33% per year (IRC Section 415(b) benefit limit). It is based on Milliman's capital market expectations as of January 1, 2023.

Explicit Provision for Expenses

Normal Cost (as of the beginning of the plan year) is loaded by the prior plan year's expenses, excluding investment management fees. The normal cost load for the 2023 plan year is $411,191.

Demographic Assumptions

Except where noted, all demographic assumptions are based on Milliman's Demographic Assumptions Study dated April 8, 2020 and on the actuary's judgement and continual review of experience.

Mortality

The mortality assumption is updated to Pub-2010 General Employee/Healthy Retiree Mortality Tables for M/F projected forward (fully generational) with MP-2021 with separate tables for contingent survivors and disabled participants. This reflects the most current mortality experience published by the Society of Actuaries for public plans. This assumption includes a margin for future improvements in longevity.

Disability Rates

Sample rates are as follows:

Age	Disability Rates
25	0.06%
30	0.06%
35	0.14%
40	0.21%
45	0.57%
50	0.53%
55	0.52%
60+	0.00%

Withdrawal Rates

Sample rates are as follows:

Service	Withdrawal Rates Male	Female
4-5	2.00%	2.00%
6	4.00%	4.00%
7-9	4.00%	5.00%
10	3.50%	6.00%
11	3.50%	7.00%
12	2.00%	2.50%
13-14	1.50%	2.00%
15	1.50%	2.50%
16	1.50%	2.00%
17	2.50%	2.00%
18	2.00%	2.00%
19-20	1.50%	2.00%
21-22	2.50%	2.00%
23	2.50%	2.50%
24+	1.50%	1.50%

Retirement Rates

Deferred vested and suspended active participants are assumed to retire according to the following rates:

Age	Retirement Rates Male Years of Service			Female Years of Service		
	<25	25-27	28+	<25	25-27	28+
<55	0.00%	0.00%	5.00%	0.00%	0.00%	10.00%
55	0.00%	5.00%	5.00%	0.00%	5.00%	5.00%
56	0.00%	5.00%	7.50%	0.00%	5.00%	5.00%
57	0.00%	5.00%	7.50%	0.00%	5.00%	7.50%
58	0.00%	10.00%	7.50%	0.00%	5.00%	7.50%
59	0.00%	10.00%	7.50%	0.00%	25.00%	7.50%
60	10.00%	20.00%	7.50%	10.00%	25.00%	7.50%
61	10.00%	15.00%	10.00%	10.00%	15.00%	20.00%
62	15.00%	20.00%	20.00%	30.00%	50.00%	20.00%
63	10.00%	20.00%	20.00%	13.00%	25.00%	20.00%
64	15.00%	30.00%	20.00%	13.00%	25.00%	20.00%
65	15.00%	40.00%	30.00%	25.00%	40.00%	30.00%
66	15.00%	20.00%	30.00%	25.00%	25.00%	40.00%
67	30.00%	30.00%	20.00%	25.00%	25.00%	40.00%
68	30.00%	30.00%	30.00%	25.00%	50.00%	40.00%
69	40.00%	40.00%	40.00%	25.00%	50.00%	40.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Non-suspended active participants are assumed to retire according to the following rates:

Age	Retirement Rates Male Years of Service			Female Years of Service		
	<25	25-27	28+	<25	25-27	28+
<55	0.00%	0.00%	5.00%	0.00%	0.00%	10.00%
55	0.00%	5.00%	5.00%	0.00%	5.00%	5.00%
56	0.00%	5.00%	7.50%	0.00%	5.00%	5.00%
57	0.00%	5.00%	7.50%	0.00%	5.00%	7.50%
58	0.00%	10.00%	7.50%	0.00%	5.00%	7.50%
59	0.00%	10.00%	7.50%	0.00%	25.00%	7.50%
60	15.00%	30.00%	11.25%	15.00%	37.50%	11.25%
61	15.00%	22.50%	15.00%	15.00%	22.50%	30.00%
62	22.50%	30.00%	30.00%	45.00%	75.00%	30.00%
63	15.00%	30.00%	30.00%	18.75%	37.50%	30.00%
64	22.50%	45.00%	30.00%	18.75%	37.50%	30.00%
65	22.50%	60.00%	45.00%	37.50%	60.00%	45.00%
66	22.50%	30.00%	45.00%	37.50%	37.50%	60.00%
67	45.00%	45.00%	30.00%	37.50%	37.50%	60.00%
68	45.00%	45.00%	45.00%	37.50%	75.00%	60.00%
69	60.00%	60.00%	60.00%	37.50%	75.00%	60.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Marriage Rates

a. Percentage married: Males - 85%; Females – 60%

b. Age difference: Males are assumed to be 3 years older than their spouse.

Optional Form Election

The optional Payment form assumption was updated as per 2019 METRO Experience Study to the following rates:

Active Participants	Single Life Annuity	50% Joint and Survivor Annuity
Retirement Decrements*	70%	30%
Termination Decrements**	70%	30%

* Annuity options are immediate.

** Annuity options are deferred to normal retirement (age 60).

Benefits Not Valued

The pick-up contributions have not been applied as minimum required benefits for retirement, termination, disability, and death benefits since these contribution amounts are minimal and will have a de minimis impact.

Changes in Actuarial Assumptions

Inflation: The inflation assumption is changed from 2.20% to 2.33% per year (IRC Section 415(b) benefit limit) based on Milliman's capital market expectations as of January 1, 2023.

Changes in Actuarial Methods

None.

Appendix B

Summary of Plan Provisions

This summary of plan provisions is intended to only describe the essential features of the plan. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself.

Definitions

Accrued Benefit
The Accrued Benefit for each Member is determined using the same formula which is used to compute such Member's Normal Retirement Benefit multiplied by a fraction for which the numerator is the total number of Years of Benefit Service as of any given date and the denominator is the potential number of Years of Benefit Service to the Normal Retirement Date.

Actuarial Equivalent
Actuarial Equivalent means a form of benefit differing in time, period and/or manner of payment from another form of benefit but having the same value when computed based upon the following interest and mortality assumptions:

Interest:	7.0% per annum, compounded annually
Mortality:	1971 Group Annuity Mortality Table for Females

Effective Date
The Plan was last amended effective October 1, 2022. The Plan was last restated effective January 1, 2014.

Eligible Employee Classification

Any full-time member of the Metropolitan Transit Authority who is represented by Transport Workers Union of America, Local 260, AFL-CIO and was hired before October 1, 2012, shall be immediately eligible to participate.

Limitation Year
The Limitation Year is the 12 month period beginning January 1 and ending December 31.

Normal Retirement Age
A Member's Normal Retirement Age is the later of age 60 or attained age upon completion of five years of participation in the Plan, or upon completion of 28 years of participation in the Plan.

Normal Retirement Date
A Member's Normal Retirement Date is the first day of the month which coincides with or next follows the date on which the Member attains Normal Retirement Age.

One Year Break-in-Service
One Year Break-in-Service occurs in any 365-day period following a Member's Date of Termination in which an Employee does not complete at least 500 Hours of Service.

Pick-Up Contributions
Effective October 1, 2018, each eligible employee participating in the Plan shall make a $3.00 contribution to the Plan per weekly pay period during such employee's employment.

Plan Sponsor
Metropolitan Transit Authority is the Plan Sponsor.

Plan Year
The Plan Year is the 12 month period beginning January 1 and ending December 31.

Vested Accrued Benefit
A Member's Vested Accrued Benefit as of a given date is equal to the product of the participant's Accrued Benefit multiplied by the participant's Vested Percentage as of that same date.

Vesting Schedule
A member will receive one year of vesting service for each 12 month period, starting with date of employment, with at least 1,000 hours of service with METRO or a predecessor company employment. No credit is given for any 12-month period with fewer than 1,000 hours. A Member's Vested Percentage will be 100% upon the completion of 5 Years of Vesting Service. Prior to the completion of 5 Years of Vesting Service, a Member's Vested Percentage is zero.

Year of Service

For Eligibility Purposes
Years of Service for purposes of eligibility to participate in the Plan are referred to as Years of Eligibility Service and are determined using the Hours of Service Method.

All of an Employee's Years of Eligibility Service are taken into account in determining the participant's eligibility to participate.

For Benefit Purposes

After 1975, a member will receive credit for one year of service for each Plan year with at least 1,000 hours of employed service in METRO or a predecessor company. No credit will be given for any year with fewer than 1,000 hours, except in the first year of employment, or in a year of re-employment, during which the member will receive a partial year's credit based on months of employment. Prior to 1976, a member will receive one year of service credit for each completed calendar year of service with METRO or a predecessor company. All of a Member's Years of Benefit Service are taken into account in determining the participant's monthly benefit except:

- Service for which the Employee was not entitled to receive Compensation; and
- Service while the Employee was not in an Eligible Employee Classification.

For Vesting Purposes
Years of Service for purposes of computing a Member's Vested Percentage are referred to as Years of Vesting Service and are determined using the Hours of Service Method.

All of a Member's Years of Vesting Service are taken into account in determining the participant's Vested Percentage.

Participation

An Employee will become a member in the Plan immediately upon hire. Employees hired on or after October 1, 2012 are not eligible to participate in the Plan.

Normal Retirement

Each Member who becomes eligible for a Normal Retirement Benefit under the plan will be entitled to receive a monthly retirement pension benefit beginning at the Member's Normal Retirement Date and payable in the Normal Benefit Form.

(a) Normal Retirement Benefit
A Member's Normal Retirement Benefit is a monthly pension benefit commencing on the participant's Normal Retirement Date payable in the Normal Benefit Form in an amount equal to:

- $68.00 multiplied by the participant's Years of Benefit Service for retirements on or after October 1, 2023,
- $65.00 multiplied by the participant's Years of Benefit Service for retirements on or after October 1, 2018, but before October 1, 2023,
- but not less than $500.00.

(b) Normal Benefit Form
Lifetime Pension - Monthly pension benefit payable for the lifetime of the Member with payments terminating upon the death of the Member.

In-Service Retirement

Effective October 1, 2022, the Plan has been amended to allow eligible Union members (at least age 60 with a minimum 5 years of service and not currently accruing a Non-Union Pension Plan benefit) the option to begin receiving their monthly Union pension benefit while continuing to work for METRO as a Union employee. Union members electing an in-service retirement will not accrue any additional pension benefits.

Early Retirement

(a) Early Retirement Date
A Member's Early Retirement Date is the first day of the month so elected by the Member which coincides with or next follows the date upon which the Member satisfies the following requirements:

(1) Attainment of age 55; and

(2) Completion of 25 Years of Service.

(b) Early Retirement Benefit
A Member's Early Retirement Benefit is a monthly pension benefit, payable in the Normal Benefit Form in an amount equal to the Accrued Benefit determined as of the participant's Early Retirement Date, reduced by 4% for each year that benefits commence before Normal Retirement Date.

Late Retirement

An active Member who continues the participant's employment with the Employer beyond the participant's Normal Retirement Date may begin to receive the participant's Late Retirement Benefit to which the participant is entitled as of the participant's Late Retirement Date.

(a) Late Retirement Date
A Member's Late Retirement Date is the first day of the month coincident with or next following the date the participant retires and requests the commencement of the participant's Late Retirement Benefit after the participant has continued in the employ of the participant's Employer beyond the participant's Normal Retirement Date.

(b) Late Retirement Benefit
A Member's Late Retirement Benefit is equal to the monthly benefit which is based on the Normal Retirement Benefit formula using the Member's Years of Benefit Service and Compensation through the participant's Late Retirement Date.

Disability Retirement

(a) Disability Retirement Date
A Member's Disability Retirement Date is the first day of the month coincident with or next following the date of termination of the participant's employment due to disability provided such Member has been found to be eligible for a Disability Retirement Benefit.

An Active Member will be eligible for a Disability Retirement Benefit under the Plan upon the occurrence of permanent disability coincident with or following the date upon which the Member satisfies the following requirements:

(1) Completion of 5 Years of Service

(b) Disability Retirement Benefit

- $68.00 multiplied by the participant's Years of Benefit Service for retirements on or after October 1, 2023,
- $65.00 multiplied by the participant's Years of Benefit Service for retirements on or after October, 1, 2018,
- but not less than $500.00.

Optional Benefit Forms

Optional Benefit Forms are available and equal to the Actuarial Equivalent of the Normal Benefit Form and may be in an amount more than or less than that provided by the Normal Benefit Form depending on the option selected. Such distribution may be in one or more of the following forms:

Joint & 50% Contingent Survivor Pension - monthly pension benefit payable during the joint lifetime of the Member and the Joint Annuitant; reduces to 50% of the original amount upon the death of the Member.

Pre-Retirement Death Benefit

In the event of the death of a vested Member prior to the date that the participant begins to receive a monthly pension benefit under the Plan, the Member's Surviving Spouse, if any, will be entitled to receive a monthly pension benefit equal to 50% of the monthly pension benefit which would have been payable had the Member retired on the day before the participant's death and elected a Joint and 50% Contingent Survivor Pension. This benefit is payable to the spouse commencing on what would have been the Member's earliest retirement date.

Termination Benefit

In the event of the termination of a Member's employment for any reason other than death, disability or retirement, the Member will become entitled to receive a monthly pension benefit commencing on the participant's Normal Retirement Date equal to the participant's Vested Accrued Benefit.

Changes in Plan Provisions since Prior Valuation

None.

Appendix C

Risk Disclosures

The purpose of this appendix is to identify, assess, and provide illustrations of risks that are significant to the Plan, and in some cases to the Plan's participants. Historical data is included.

The results of the actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match the assumptions. As an example, investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the Plan, or of the Plan's participants.

In addition, as plans mature they accumulate larger pools of assets and liabilities. This increases the potential risk to plan funding and the finances of those who are responsible for plan funding. As an example, it is more difficult for a plan sponsor to deal with the effects of a 10% investment loss on a plan with $1 billion in assets and liabilities than if the same plan sponsor is responsible for a 10% investment loss on a plan with $1 million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the Plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the Plan.
- Assess the risks identified as significant to the Plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the Plan's risks.

ASOP 51 states that if in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the Plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

This appendix uses the framework of ASOP 51 to communicate important information about: significant risks to the Plan, the Plan's maturity, and relevant historical plan data.

DEFINITION AND IDENTIFICATION LANGUAGE FOR EACH POTENTIAL RISK

Liquidity Risk

Definition: This is the potential that assets must be liquidated at a loss earlier than planned in order to pay for the Plan's benefits and operating costs. This risk is heightened for plans with negative cash flow, in which contributions do not exceed annual benefit payments plus expenses.

Identification: This Plan has high cash flow requirements because the sum of benefit payments plus expenses is larger than contributions. The Plan also has a high allocation to illiquid assets such as real estate and private equity. As a result, there is a significant risk that assets may need to be liquidated at a loss before planned in order to pay benefits and expenses.

Inflation Risk

Definition: This is the potential of a pension to lose purchasing power over time due to inflation.

Identification: The participants of pension plans without fully inflation-indexed benefits are subject to the risk that their purchasing power will be reduced over time due to inflation.

Assessment: Participants in this Plan bear all of the inflation risk occurring after retirement since the benefits are calculated to replace a percent of pay at retirement and include no postretirement cost-of-living adjustments.

Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time.

Identification: The Plan is subject to maturity risk because as plan assets and liabilities continue to grow, the impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: Currently assets are equal to 18.5 times last year's contributions indicating a one-year asset loss of 10% would be equal to 1.85 times last year's contributions.

Retirement Risk

Definition: This is the potential for participants to retire and receive subsidized benefits more valuable than expected.

Identification: This Plan has valuable early retirement benefits. If participants retire at earlier ages than anticipated by the actuarial assumptions, it is expected that additional funding will be required. Effective with the October 1, 2022 plan amendment allowing eligible Union members the option to begin receiving their monthly Union pension benefit while continuing to work for METRO as a Union employee, the assumed retirement rates have been increased. A complete review of retirement rates will be included in the next experience study.

Contribution Risk

Definition: This is the possibility that actual future contributions deviate from expected future contributions.

Identification: The Plan is subject to the contribution risk that the actuarially determined contributions will not be made. If contributions are deferred to the future, investment income is lost in the intervening period and the Plan becomes more expensive. The Plan Sponsor has paid the Actuarially Determined Contribution for the last ten years.

Investment Risk

Definition: The potential that investment returns will be different than expected.

Identification: To the extent that actual investment returns differ from the assumed investment return, the Plan's future assets, funding contributions, and funded status may differ significantly from those presented in this valuation.

Interest Rate Risk

Definition: The potential that interest rates will be different than expected.

Identification: The pension liabilities reported herein have been calculated by computing the present value of expected future benefit payments using the interest rate described in Appendix A. If interest rates in future valuations differ from this valuation, future pension liabilities, funding contributions, and funded status may differ significantly from those presented in this valuation. As a general rule, using a higher interest rate to compute the present value of future benefit payments will result in a lower pension liability, and vice versa. One aspect that can be used to estimate the impact of different interest rates is a plan's duration.

Assessment: If the interest rate changes by 1%, the estimated percentage change in pension liability is a plan's duration in years. The approximate duration of this Plan is 10.2 years. As such, if the interest rate changes by 1%, the estimated change in pension liability is 10.2%.

Demographic Risks

Definition: The potential that mortality or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that participants will follow patterns of demographic experience (e.g., mortality, withdrawal, disability, retirement, form of payment election, etc.) as described in Appendix A. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, funding contributions, and funded status may differ significantly from those presented in this valuation.

Appendix D

Glossary

Glossary

Actuarial Assumptions - assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and national pension benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the actuarial value of assets; and other relevant items.

Actuarial Cost Method - a particular technique used to establish the amount and incidence of the annual actuarial cost of plan benefits.

Accrued Liability - that portion, as determined by a particular actuarial cost method, of the actuarial present value of plan benefits and expenses which is not provided by future normal costs. The accrued liability at any point in time for an active participant is the theoretical fund that would have been accumulated on the participant's behalf from the participant's normal cost payments and the earnings thereon for all prior years if the plan had always been in effect. For persons receiving benefits or entitled to a deferred vested retirement income, the accrued liability cost is equal to the present value of their future benefit payments. The accrued liability for the plan is the total of the individually computed accrued liability for all participants. Also referred to as Actuarial Accrued Liability.

Accumulated Plan Benefit - the amount of an individual's pension benefit (whether or not vested) which has been earned as of a specified date based upon service and compensation to that date. Also referred to as Accrued Benefit.

Actuarial Equivalent - of equal actuarial present value, determined as of a given date with each value based upon the same set of actuarial assumptions.

Actuarial Gain or Loss - a measure of the difference between actual experience and that which is expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Actuarial Value of Assets - the value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an actuarial valuation.

Amortization Payments - that portion of the pension plan contribution which is designated to pay interest on and to amortize the unfunded accrued liability or the unfunded frozen actuarial liability.

Funded Ratio - the ratio, as of a given date, of the fair value of plan assets to the present value of accumulated plan benefits. When the fair value of plan assets is equal to the present value of accumulated plan benefits, the funded ratio is equal to 100%.When the funded ratio is less than 100%, there may be sufficient assets to cover the vested accumulated plan benefits but not sufficient assets to cover all of the additional non-vested accumulated plan benefits. At the time that a retirement plan is adopted, the funded ratio is usually substantially less than 100% but usually exceeds 100% after the plan has been funded on an ongoing basis for a period of years (such as ten).The funded ratio may decline from one year to the next, however, as a result of benefit improvements or a relative decline in the amount of assets when measured against the usual increase in the value of accumulated plan benefits from year to year.

ERISA - the Employee Retirement Income Security Act of 1974.

Future Benefits - those pension plan benefit amounts which are expected to be paid at various future times under a particular set of actuarial assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. Also referred to as Projected Benefits.

GASB - Governmental Accounting Standards Board.

Normal Cost - that portion of the present value of future pension plan benefits and expenses which is allocated to a valuation year by the actuarial cost method.

Present Value - the value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions. Also referred to as Actuarial Present Value.

Unfunded Accrued Liability - the excess of the accrued liability over the actuarial value of assets.

Vested Accumulated Plan Benefit - the portion of an individual's accumulated plan benefit which is vested. Also referred to as Vested Accrued Benefit.

Vested Funded Ratio - the ratio, as of a given date, of the fair value of the plan assets to the present value of vested accumulated plan benefits.