



**METROPOLITAN GOVERNMENT OF
NASHVILLE AND DAVIDSON COUNTY TENNESSEE
PENSION PLAN**

Valuation and Report as of June 30, 2023

ACTUARIAL VALUATION REPORT

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A. INTRODUCTION

An actuarial valuation of the disability and pension benefits provided under Chapters 3.28, 3.29, 3.32, 3.33, 3.36, and 3.37 of the Metropolitan Code, pursuant to Article 13 of the Metro Charter, was performed as of June 30, 2023. The purpose of the valuation was to determine the funding requirements of the various components of the Metropolitan Employee Benefit System, with the intention that funding requirements indicated by the valuation be used as the basis for contributions to the System for the fiscal year commencing July 1, 2024.

The Metropolitan Employee Benefit System was established as of April 1, 1963. The disability and pension provisions for the System serve as successors to the following superseded retirement systems:

- Davidson County Employee Pension System (Divisions A and B)
- Civil Service Employee's Pension Fund of the City of Nashville
- Policemen's and Firemen's Pension Fund of the City of Nashville

As of the date of establishment, all members of the superseded systems were given the opportunity to transfer to the new System. Any member who did not so elect remained in his old system. Employees hired by the Metropolitan Government since the establishment of the new System automatically become members of the System for pension purposes upon completion of six months of service.

During 1995, a new "Division B" of the Metro pension plan was established. Active participants in the existing Metro plan (which was renamed "Division A"), as well as active participants in the superseded plans, were given the opportunity to transfer to Division B effective January 1, 1996. New participants hired on or after July 1, 1995 automatically become members of Division B when they become eligible for pension benefits.

This section of the report deals only with Divisions A and B of the Metro pension plan. Reports on the superseded plans are prepared separately. The valuation was based on information obtained from the staff of the Metropolitan Employee Benefit Board, the Metro Information Systems Division, the Metropolitan Airport Authority, and the Data Processing Division of the Board of Education.

The following table shows the number of employees and annual compensation of active members included in the June 30, 2023 valuation. ("General Government" figures include the Board of Education, since both groups are covered by the provisions of Chapters 3.32 and 3.33.)

Group	<u>Number</u>	<u>Compensation</u>
General Government	8,869	\$ 511,690,658
Firemen and Policemen	<u>3,277</u>	<u>280,659,941</u>
Total	12,146	\$ 792,350,599

Metropolitan Government of Nashville and Davidson County Tennessee Pension Plan

This table includes 24 General Government employees with compensation of \$1,509,315 and 5 Firemen and Policemen with compensation of \$432,637 who did not elect to transfer from Division A to Division B.

The following table shows the number of retired individuals as of the valuation date, together with their annualized base benefits and current benefits (including cost of living increases):

Type Retirement	Number	Annual Retirement Allowances	
		Basic	Current
Division A			
Disabled	83	\$ 993,750	\$ 993,750
General Government	440	4,095,061	5,552,962
Fire and Police	163	3,215,097	4,169,450
Total	686	\$ 8,303,908	\$ 10,716,162
Division B			
Disabled	481	\$ 8,909,969	\$ 8,909,969
General Government	6,952	108,686,138	123,014,214
Fire and Police	1,905	55,937,687	63,625,246
Total	9,338	\$ 173,533,794	\$ 195,549,429
Total			
Disabled	564	\$ 9,903,719	\$ 9,903,719
General Government	7,392	112,781,199	128,567,176
Fire and Police	2,068	59,152,784	67,794,696
Total	10,024	\$ 181,837,702	\$ 206,265,591

In addition, another 3,925 individuals have terminated employment but have vested benefits as outlined on the following page.

Metropolitan Government of Nashville and Davidson County Tennessee Pension Plan

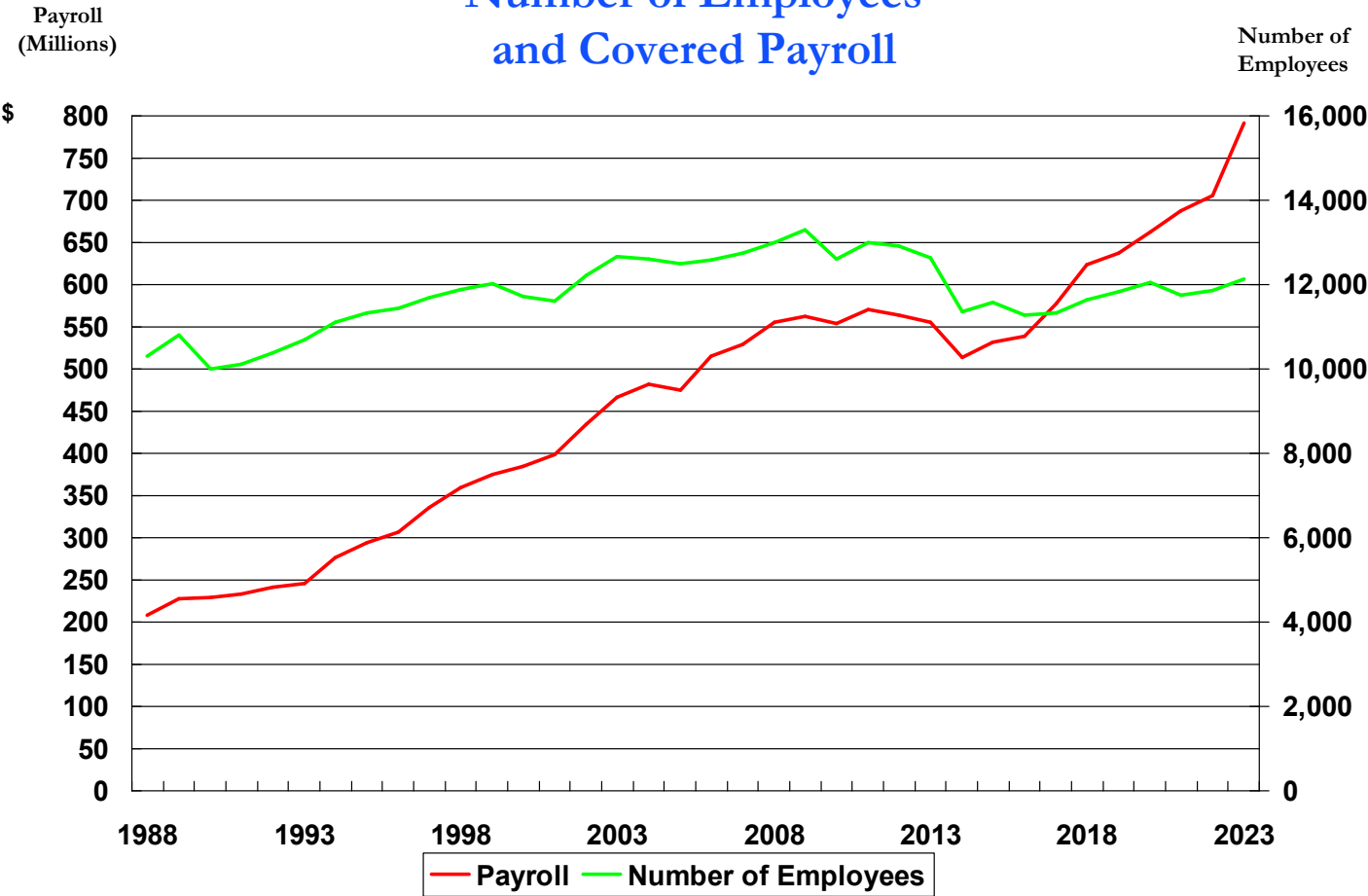
The table below shows how the figures given above compare with equivalent figures in the June 30, 2022 valuation.

	June 30, 2023	June 30, 2022	Increase	Percent Increase
Number of Active Participants	12,146	11,859	287	2.4%
Payroll	\$792,350,599	\$706,049,330	\$86,301,269	12.2%
Average Salary	\$65,235	\$59,537	\$5,698	9.6%
Number of Retired Participants	10,024	9,998	26	0.3%
Annual Benefits	\$206,265,591	\$194,009,916	\$12,255,675	6.3%

The table below shows how the estimated number of deferred vested participants compared with equivalent figures in the June 30, 2022 valuation.

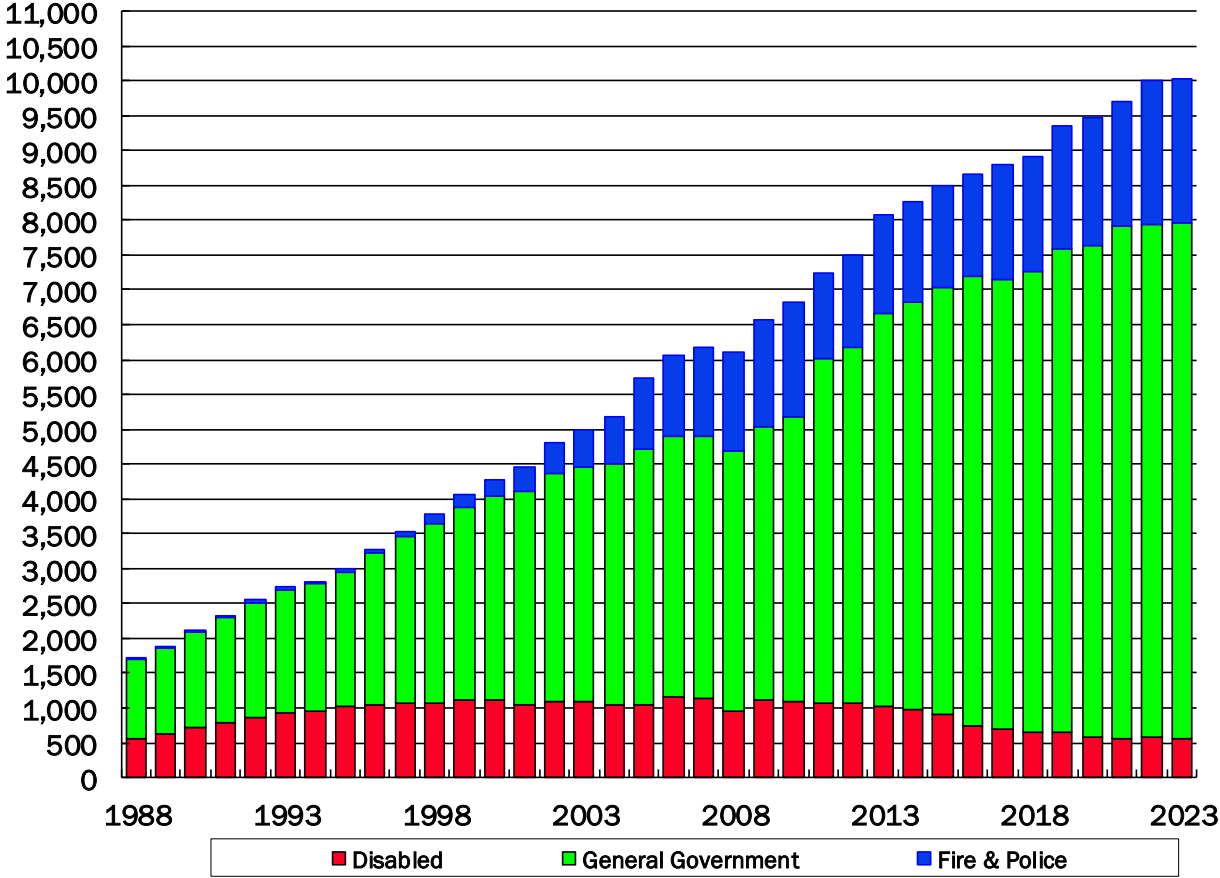
	June 30, 2023	June 30, 2022	Increase	Percent Increase
Number of Deferred Vested Participants	3,925	3,824	101	2.6%
Annual Benefits	\$32,920,788	\$31,467,037	\$1,453,751	4.6%

Metro Pension Plan Number of Employees and Covered Payroll



Metro Pension Plan

Number of Retirees



B. DETERMINATION OF FUNDING LEVELS

The governing statute for the plan specifies that there will be three trust funds. Trust Fund A is intended to finance all disability benefits provided by Chapter 3.28; Trust Fund B finances all retirement benefits provided for general government employees under Chapter 3.32; and Trust Fund C finances retirement benefits for firemen and policemen provided under Chapter 3.36. A separate rate is established for each of the three categories and the required contributions are combined to arrive at an overall "Metro" rate. Actual contributions are assigned to the separate trust funds in proportion to the ratio of each trust fund's required contribution to the aggregate required contribution.

The table on the following page sets out the results of the June 30, 2023 valuation with respect to each of the three categories. The costs shown represent the total required annual contributions for the plan if all Metro departments were contributing at the same rate. These numbers are developed in more detail in Tables X and XI of the Appendix.

In this table, the "Statutory Minimum" is taken as being the Normal Cost plus interest on the Unfunded Past Service Liability, with no amortization of the latter. Chapter 3.16.050 of the Code apparently sets this as the minimum funding level, although the Board is given the authority to specify a higher level. It should be noted that the "Statutory Minimum" would not meet the Governmental Accounting Standards Board standards for funding.

"Forty years from 1976" would be the minimum amortization period if the plan were covered by the funding provisions of the Employee Retirement Income Security Act of 1974, but as a public plan it is not so covered. Nevertheless, the Board historically has adopted a contribution rate sufficient to amortize the unfunded supplemental liability over the 40-year period commencing in 1978. Beginning with the plan year ended June 30, 2006, the Board has adopted a level amortization period of 15 years. The level amortization period is designed to reduce contribution volatility compared with a continuing decline in the amortization period. The table shows the contribution rates necessary to continue both the "no amortization" and the "15-year amortization" funding patterns.

State Mandated Minimum Funding Level

As a result of the Public Employee Defined Benefit Financial Security Act of 2014 (Tenn. Code Ann. §9-3-501) all political subdivisions within the State of Tennessee that provide defined benefit plans not administered by the Tennessee Consolidated Retirement System (TCRS) must adopt a written funding policy and contribute an actuarially determined contribution that meets minimum standards specified by Tenn. Code Ann. §9-3-501. A written funding policy has been approved by both the Board and the Metro Council. While the funding policy preserves the 15-year amortization contribution described above, the policy provides that the actuarially determined contribution may not be less than the minimum provided by Tenn. Code Ann. §9-3-501. As such, this report now summarizes the minimum required contribution as specified by Tenn. Code Ann. §9-3-501 effective for the plan year beginning July 1, 2016. (See Page 82)

ANNUAL FUNDING LEVELS

	Trust Fund A (Disability)	Trust Fund B (Gen. Gov.)	Trust Fund C (Fire & Police)	Total
<u>Statutory Minimum (No Amortization of Unfunded Past Service Liability)</u>				
Contribution	-274,290	39,125,113	56,301,341	95,152,164
% of Payroll*	-0.035%	7.646%	20.060%	12.009%

15-Year Amortization of Unfunded Past Service Liability

Contribution	-1,856,602	37,043,304	66,357,584	101,544,285
% of Payroll*	-0.234%	7.239%	23.643%	12.816%

*"Disability" and "Total" costs are expressed as a percentage of total eligible payroll of \$792,350,599. "General Government" and "Fire and Police" costs are expressed as percentages of the eligible payrolls of those groups -- \$511,690,658 and \$280,659,941 respectively.

The table on the following page comprises a valuation balance sheet showing the assets and liabilities of the Metro pension plan as of June 30, 2023. The present assets shown are the valuation assets, as described in Table IX of the Appendix, and include the present value of benefits which are expected to be received from the annuities purchased on behalf of service retirees.

**VALUATION BALANCE SHEET
METRO PENSION PLAN
June 30, 2023
DIVISIONS A AND B COMBINED**

	Trust Fund A (Disability)	Trust Fund B (Gen. Gov.)	Trust Fund C (Fire & Police)	Total
<u>ASSETS</u>				
Present assets:	\$159,309,247	\$2,600,459,132	\$1,310,373,466	\$4,070,141,845
Present value of prospective contributions payable by Metro:				
Metro:				
Normal Cost	\$24,319,942	\$357,772,146	\$397,558,572	\$779,650,660
Past Service	<u>-41,106,564</u>	<u>-54,082,896</u>	<u>261,249,074</u>	<u>166,059,614</u>
Total	-\$16,786,622	\$303,689,250	\$658,807,646	\$945,710,274
Members	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Prospective Contributions	<u>-16,786,622</u>	<u>303,689,250</u>	<u>658,807,646</u>	<u>945,710,274</u>
Total Assets	\$142,522,625	\$2,904,148,382	\$1,969,181,112	\$5,015,852,119
<u>LIABILITIES</u>				
Present value of prospective benefits payable on account of:				
Present retired members and contingent annuitants	100,990,778	1,441,878,585	823,405,124	\$2,366,274,487
Present active members	<u>41,531,847</u>	<u>1,462,269,797</u>	<u>1,145,775,988</u>	<u>2,649,577,632</u>
Total Liabilities	\$142,522,625	\$2,904,148,382	\$1,969,181,112	\$5,015,852,119

For the 2023-2024 fiscal year, Metro is contributing to the plan at the rate of 12.338% of covered payroll. This rate was recommended and adopted by the Board following the presentation of the June 30, 2022 valuation report.

Actuarial Experience

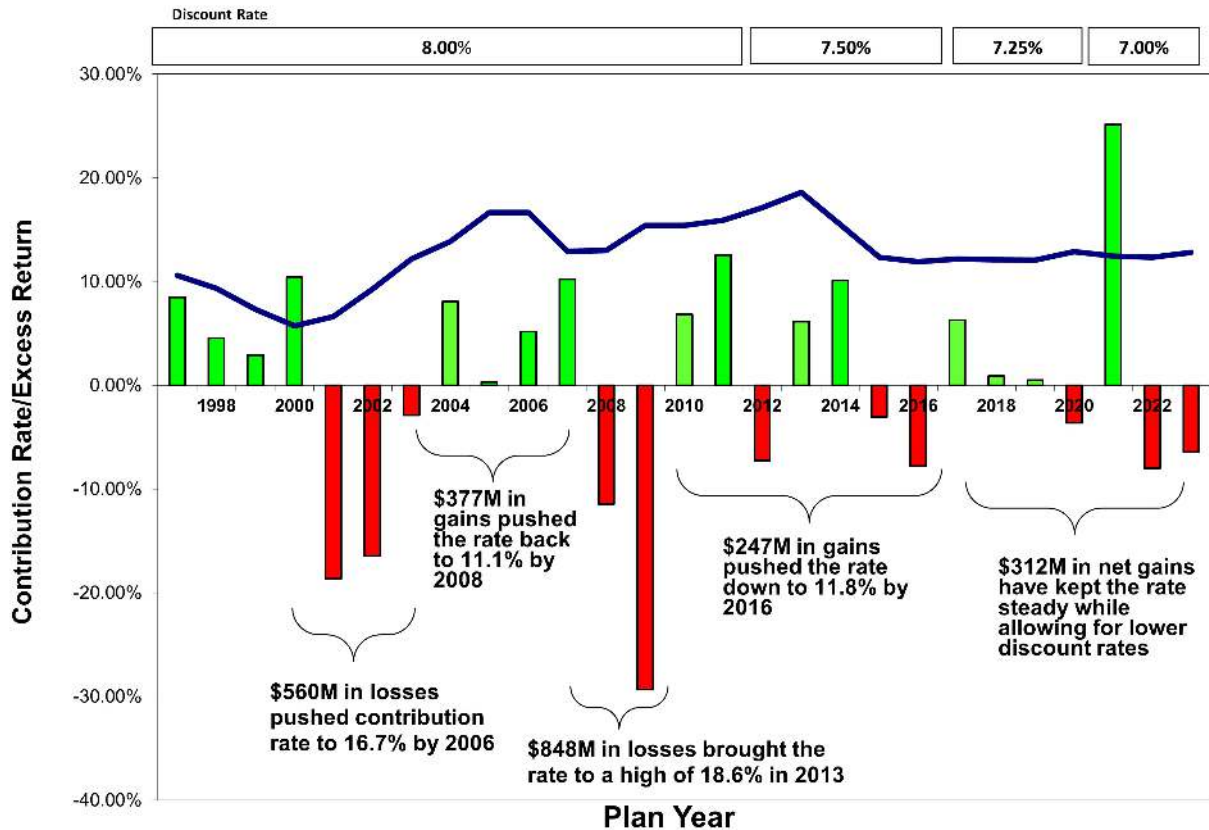
The baseline recommended rate of 12.816% developed in this valuation represents an increase of 0.478% from last year's baseline rate of 12.338%. The key factors in the rate change are outlined as follows:

1. **Investments** – The market value dollar weighted investment return for the prior year was a gain of 0.56%. The return was less than the actuarially assumed return rate of 7.00%. Due to the smoothing process used in determining valuation assets, the full measure of the current year losses (versus expected) is not recognized in the contribution calculations in the current year. Partial recognition of current year losses in combination with the portion of gains and losses from prior years produced an effective rate of return on the valuation asset basis of a gain of 7.95%. This growth in the actuarial value of assets was more than the 7.00% assumed rate and resulted in a contribution rate decrease of 0.51% of compensation.
2. **Compensation** – Compensation increase rates for continuing active participants during the year were significantly higher than expected and averaged 11.4% (versus the actuarially assumed average increase of 4.2%). The net effect of salary adjustments is that liability increases were considerably higher than expected. Compensation increases greater than expected are responsible for an increase in the recommended contribution of approximately 1.15% of compensation.
3. **COLA adjustments** implemented as of January 1, 2023 were significantly higher than the rates anticipated by our ongoing actuarial assumptions. Benefits to Division A retirees were indexed at 5.00% (versus the assumed rate of 2.50%) while benefits to Division B retirees were indexed at 4.00% (versus the assumed rate of 1.25%). However, these rates were known in advance of the completion of the June 30, 2022 valuation and the full 5.00%/4.00% increases were incorporated into the valuation assumptions for June 30, 2022. As a result, there is no gain or loss associated with these increases.
4. **New entrants** for whom implicit contribution rates are different than the prevailing contribution rate resulted in a small increase in the employer contribution rate of 0.04% of payroll. New entrant contribution rates do not have the effect of actuarial gains and losses (primarily associated with investment returns) that tend to cause the aggregate contribution rate to differ from the long-term expected rate. The aggregate new entrant rate varies from year to year but tends to stay in the range of 11-13% of new entrant payroll.
5. **Retiree Mortality** - For the plan year ended June 30, 2023, mortality among the retirees, beneficiaries and disabled members of the plan remained slightly higher than expected. The combined impact of higher than expected mortality among the inactive population created a decline in the overall recommended contribution rate of 0.09%.

The net effect of these five factors was a 0.59% increase in the required contribution rate. The net result of all other variations of actual from assumed experience produced a decrease in the overall contribution rate of 0.112%. These unreconciled amounts include the net impact of participant withdrawals and retirements different than expected.

Historical Impact of Investment Gains and Losses

A key driver in the recommended contribution rate is the pattern of historical investment gains and losses. The impact of investment returns tends to outweigh other factors such as compensation increases and the pattern of member terminations, retirements and deaths. The graph that follows provides a summary of the contribution rate as a percentage of payroll (indicated by the line) and the historical gains and losses versus expected (indicated by the bars). Periods of investment gains (in green) will tend to push the rate down over time, while periods of investment losses (in red) will drive the rate higher. Periods of gains and losses tend to offset over time, providing more stability in the rate, as seen in recent years.



Summary

Slight elements of conservatism built into the valuation process result in a long-term tendency that a given year's rate will be lower than the prior year's rate. However, as of the current valuation date under the "five-year smoothing" asset valuation method, the plan has not yet recognized \$104,240,031 of investment losses. Recognition of those amounts will be taken gradually over the next few years with predominantly investment gains recognized in 2024 and 2025 followed by losses in 2026 and 2027. The pattern of recognition of these net gains and losses will have the effect of pushing contribution rates lower in 2024 and 2025 before moving higher in 2026 and 2027. After the full effect of these investment gains is realized, contribution rates are expected to trend towards a long-term rate of approximately 12-14%. Of course, deviations from other actuarial assumptions (investment return, salary increases, turnover/retirement, disability, etc.) could alter the required contribution rate further. Furthermore, future changes to the underlying actuarial assumptions will likely change the long-term trend rate.

C. FUNDING STATUS HISTORY

The following is a schedule of funding progress based upon comparison to the unfunded past service liability on the valuation dates for the years in which the calculations are consistent with the parameters. The schedule presented herein is based upon valuation results for the current valuation period and historical periods. More information on the Funded Status pursuant to the Government Accounting Standard Board Statements No. 67 and No. 68 can be found in the Actuarial Report GASB 67 and GASB 68, dated January 17, 2024

Metropolitan Government of Nashville and Davidson County Tennessee Pension Plan

Schedule of Funding Progress

June 30, 2023

Plan Year	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Actuarial Accrued Liability as a Pct of Covered Payroll
June 30, 2006	1,706,677,125	1,959,952,204	253,275,079	87.1%	515,500,760	49.13%
June 30, 2007	1,921,193,702	2,144,144,792	222,951,090	89.6%	529,100,484	42.14%
June 30, 2008	2,119,228,659	2,323,837,472	204,608,813	91.2%	555,972,878	36.80%
June 30, 2009	1,925,305,076	2,275,399,550	350,094,474	84.6%	562,015,408	62.29%
June 30, 2010	2,143,522,150	2,360,892,310	217,370,160	90.8%	554,606,279	39.19%
June 30, 2011	2,188,868,356	2,468,971,488	280,103,132	88.7%	571,381,362	49.02%
June 30, 2012	2,185,046,912	2,580,685,072	395,638,160	84.7%	563,356,943	70.23%
June 30, 2013	2,220,622,176	2,688,495,620	467,873,444	82.6%	556,220,289	84.12%
June 30, 2014	2,450,131,517	2,730,430,660	280,299,143	91.1%	513,758,978	54.56%
June 30, 2015	2,668,035,418	2,806,587,788	138,552,370	95.1%	531,266,860	26.08%
June 30, 2016	2,788,543,840	2,904,694,246	116,150,406	96.0%	538,698,977	21.56%
June 30, 2017	2,948,928,567	3,091,309,368	142,380,801	95.4%	577,129,309	24.67%
June 30, 2018	3,097,585,778	3,264,476,848	166,891,070	94.9%	623,435,266	26.77%
June 30, 2019	3,203,494,948	3,368,175,795	164,680,847	95.1%	638,020,376	25.81%
June 30, 2020	3,312,807,377	3,548,735,221	235,927,844	93.4%	662,803,760	35.60%
June 30, 2021	3,615,841,062	3,793,100,017	177,258,955	95.3%	687,540,370	25.78%
June 30, 2022	3,875,715,466	3,987,066,872	111,351,406	97.2%	706,049,330	15.77%
June 30, 2023	4,070,141,845	4,236,201,459	166,059,614	96.1%	792,350,599	20.96%

D. SUMMARY AND RECOMMENDATIONS

Based on the assumptions and methodology previously adopted by the Board and outlined in this report, an employer contribution rate of 12.816% of covered payroll has been recommended for the next fiscal year. In recent years, a practice has been developed whereby adjustments to the baseline recommended rate may be recommended under a limited set of circumstances. These adjustments have the sole purpose of reducing contribution rate volatility. In general, the rate will only be adjusted in the direction of the projected contribution rate trend. Contributions in excess of the baseline recommended rate will create a surplus contribution. A negative adjustment to the baseline rate may only be recommended if a sufficient surplus contribution exists. **At the meeting of the Benefit Board on February 6, 2024, we recommended, and the Board approved an aggregate contribution rate of 12.816% of covered payroll be contributed for the fiscal year beginning July 1, 2024.** Below is a summary of the baseline and recommended rates for the most recent valuations.

Valuation Date	Baseline Recommended Rate	Adjusted Rate Recommended and Approved	Surplus/(Deficit) Contribution	Cumulative Surplus/(Deficit) Contribution with Adjustment
June 30, 2014	15.510%	15.510%	0.000%	0.000%
June 30, 2015	12.340%	12.340%	0.000%	0.000%
June 30, 2016	11.891%	12.340%	0.449%	0.449%
June 30, 2017	12.170%	12.340%	0.170%	0.520%
June 30, 2018	12.106%	12.340%	0.234%	0.735%
June 30, 2019	12.057%	12.340%	0.283%	1.007%
June 30, 2020	12.881%	12.881%	0.000%	0.965%
June 30, 2021	12.455%	12.455%	0.000%	
June 30, 2022	12.338%	12.338%	0.000%	
June 30, 2023	12.816%	12.816%	0.000%	

E. ASSESSMENT OF RISK

Risk Factor	Commentary on the Plan’s Risk Exposure
Investment	Due to the plan's substantial equity exposure, investment returns will likely be much more volatile than the measurements of plan liabilities. Therefore, there is a risk that the funded status of the plan, as well as recommended and required plan contributions, could be volatile. Over a period of years, investment returns below the expected level will create actuarial losses and lead to higher recommend and required contributions. Conversely, investment returns above the expected level will create actuarial gains and lead to lower recommended and required contributions.
Assumed Rate of Return	Due to the plan's estimated duration of 11 to 12, a 1% decrease in the assumed rate of investment return would increase the measurement of the liability by 11% to 12%.
Longevity	Since the majority of plan benefits are paid as annuities over the lifetime of the members and beneficiaries, the plan is sensitive to changes in overall population longevity. As a result, the liabilities will fluctuate with the actual mortality experience of the plan. Effective with the July 1, 2022 valuation, fully generational mortality improvements are incorporated.
Other demographic factors	Decisions of plan members with respect to termination and retirement can impact the cost of the plan. Generally, earlier retirements are more costly and delayed retirements less costly. Deviations from expected experience for terminations and retirements can, over time, create volatility in the contribution rate.
Lump sums	The plan does not pay lump sums for the full value of benefits. The Deferred Retirement Option Plan (DROP) pays a partial lump sum of 12, 24 or 36 months of payments with subsequent annuity payments reduced actuarially based on the most recently adopted actuarial assumptions.
Inflation	Inflation is a component of future interest rates, investment returns and salary increases. As a result, changes to inflation can affect funded percentages. Additionally, the plan provides a cost-of-living adjustment (COLA) that is based on inflation. Higher actual or expected rates of inflation will have the impact of increasing plan liabilities.
Low-Default-Risk Obligation Measurement	In accordance with Actuarial Standards of Practice (ASOP) No. 4, the actuary is required to provide a “Low-Default-Risk Obligation Measurement” (LDROM). The intended purpose of the measurement is to show how the pension obligation could hypothetically be settled on the measurement date using current interest rate conditions. This may provide additional information regarding the security of benefits that members have earned. This is not intended to be a precise calculation as assumptions such as early retirement provisions and various other assumptions may need to be revised to reflect a terminal liability. This disclosure is required and does not imply the plan sponsor has considered or is considering the termination of this plan and may not be appropriate for other uses. As of the valuation date, the Low-Default-Risk Obligation (Actuarial Accrued Liability) for the plan is \$6,039,000,000. Using LDROM interest rates the Plan is 67.4% funded compared to a funded level of 96.1% using the Plan’s ongoing interest rates

USI Consulting Group can perform more detailed assessments of these risks as desired by the plan sponsor to provide a better understanding of these risks.

F. SUMMARY OF PLAN PROVISIONS

DIVISION A

1. **Eligibility (Chapter 3.08.010)**

All persons hired by the Metropolitan Government after April 1, 1963 and before July 1, 1995 participate after six months of service as a condition of employment. All employees on April 1, 1963 who were participants in a former plan had the right to elect voluntarily to transfer participation from the former plan to this plan. Those participants who elected to transfer ceased to be participants in the former plan, and all contributions made to a former plan were transferred to the fund of the Metro Plan. Employees eligible for coverage by any pension plan for teachers or any other plan provided by the Metropolitan Government are not eligible to participate in the Metro Plan.

Any Metro employee on January 1, 1971 who was then a participant of a former plan, or was not a member of any plan, could elect to become a member of the Metro System on January 1, 1972.

(See Item 19 below for Firemen and Policemen)

2. **Credited Service (Chapter 3.08.010)** (See Item 20 below for Firemen and Policemen)

(a) Members who were Metro employees on April 1, 1963:

Service includes all continuous service with Metro after April 1, 1963 and all service, prior to April 1, 1963, continuous or not, with the government of Metro, the City of Nashville or the County of Davidson excluding (i) all service covered by a retirement plan for teachers, (ii) any fire and police service, (iii) one-half of the service which was not covered by a former plan and (iv) all service which the Charter prohibits.

(b) Members who were Metro employees on January 1, 1972 and first became members of this plan on that date:

Service includes all continuous service with Metro after January 1, 1972, all service under any former plan of which he was a member, and one-half of any service not covered by a former plan.

(c) Metro employees hired after April 1, 1963:

Service includes all continuous, uninterrupted service after date of hire, excluding fire and police service.

3. **Normal Retirement** (See Item 21 below for Firemen and Policemen)

(a) **Condition** (Chapter 3.32.020)

The normal retirement date is the day following the member's attainment of age 65, but retirement may be postponed.

(b) **Benefit** (Chapter 3.32.020)

The monthly benefit, payable for life, is computed as 1/12 of the product of (1) and (2):

- (1) 1.00% of average base earnings plus 1.75% of average excess earnings; and
- (2) Years of credited Service.

"Base earnings" means that part of earnings in any calendar year determined in accordance with the following table:

<u>Year of Birth</u>	<u>Base Earnings</u>
1903 or earlier	\$4,800
1904 - 1906	5,400
1907 - 1913	6,000
1914 - 1928	6,600
1929 - 1935	7,200
1936 or later	7,800

"Excess earnings" means earnings in any calendar year in excess of "base earnings".

"Average earnings" means the annual average of monthly earnings for the sixty consecutive months of credited service (excluding service credited during periods of disability) during the past fifteen years in which earnings were highest or for such lesser number of full calendar months as have been actually completed.

(c) **Minimum Benefit (Chapter 3.40.050)**

A minimum normal retirement benefit is provided for participants who have completed at least ten years of Credited Service. The amount of the minimum benefit is \$15.00 per month per full year of Credited Service, subject to a maximum of twenty years of Credited Service.

4. **Early Retirement** (See Item 22 below for Firemen and Policemen)

(a) **Condition** (Chapter 3.32.030)

A member may retire after attainment of age 55 and completion of 20 years of service.

(b) **Benefit** (Chapter 3.32.030)

A member who retires early may receive his pension benefit in one of two ways:

- (1) A deferred monthly benefit commencing at age 65, computed in the manner set forth in 3(b) above. If the deferred retired member is subsequently rehired, his service will not be deemed interrupted but will not include the period he was not an employee. If the death of a member who elected a deferred monthly benefit occurs prior to his attainment of age 65, his beneficiary receives a refund of the pension contribution standing to his credit.
- (2) A reduced, immediate monthly income, the amount of which is determined as the actuarial equivalent of the deferred benefit in the preceding paragraph.

5. **Vested Pension after 5 Years of Service (Chapter 3.32.040)** (See Item 23 below for Firemen and Policemen)

A member who terminates his service after completion of 5 years of service, but before he is eligible for early or normal retirement, may leave his contributions in the plan and be eligible to receive the deferred benefits provided in 4(b)(1) above.

6. **Escalation Provision (Chapter 3.08.170)**

Benefits under 3, 4 and 5 above (and the equivalent items dealing with Firemen and Policemen) are increased each January 1 by the percentage (up to 5%) which the Consumer Price Index has increased during the 12 months ending on the September 30 prior to the calendar year for which the escalation applies. The percentage is applied to the original benefit. Escalated benefits never decrease.

7. **Disability Retirement**

(a) **Condition** (Chapters 3.28.020-3.28.040)

A member who becomes disabled after 10 years of service is eligible to receive a disability retirement benefit. A member who becomes disabled in the line of duty is eligible to receive a disability benefit regardless of length of service; such disability must occur while performing regular duties as an employee of the Metropolitan Government as determined by the Benefit Board. Disability and continuation of disability are determined by the Board.

(b) **Benefit** (Chapter 3.28.050)

The monthly disability benefit payable will be equal to 60% of the member's earnings during the 12 months prior to his disability, plus an additional 10% of such earnings in the event that the member has at least one dependent child, less any primary disability benefits he receives from Social Security.

If a disabled member receives a disability pension payment until age 65, his disability pension then ceases and thereafter he is eligible to receive a normal retirement pension, computed as in item 3 above or item 21 below, with the period of disability included as service in the determination of the benefit and as though his earnings had remained the same as his earnings prior to the date his disability pension commenced. A disabled member who has satisfied the requirements to receive an early retirement benefit may voluntarily elect to receive an early retirement benefit computed as in item 4 above or item 22 below.

8. **Death of a Disabled Member**

(a) **Condition** (Chapters 3.28.070-3.28.090)

In the event of the death of a disabled member prior to age 65 and while entitled to receive a Disability Pension, his surviving dependents are eligible for a survivorship benefit.

(b) **Benefit** (Chapter 3.28.070)

The survivorship benefit is 75% of the difference between (a) the member's disability retirement benefit, and (b) 75% of the widow's Social Security benefits.

The benefit will be payable to:

- (1) The widow until her death or remarriage, and thereafter to the guardian of the surviving dependent children, if any; or
- (2) The legal guardian of the surviving dependent children if no spouse survives the deceased disabled member.

All benefits for surviving children will cease when there are no surviving dependent children.

Benefits payable after the widow's age 65 cannot exceed the benefits which would have been payable on the member's retirement at 65 under Option A (100% Joint and Survivor) based on average earnings at date of disability.

9. **Death in Line of Duty (Chapter 3.28.080)**

If the death of a member occurs as a result of an act which was required of him in the performance of his duties as an employee of the Metropolitan Government, his surviving dependents are eligible for a benefit computed and payable as though the member had died after commencing to receive a disability benefit.

10. **Death Not in Line of Duty (Chapter 3.40.040)**

(a) **Condition**

If the death of a member occurs after he becomes eligible to retire and receive a normal, early, or vested retirement benefit as specified in items 3, 4 or 5 above or 21, 22 or 23 below, his surviving Beneficiary is eligible to receive a benefit.

(b) **Benefit**

The surviving Beneficiary will receive a benefit in accordance with the applicable option in effect or, if no option had been elected, in accordance with Option A as though the member had retired on the first day of the month prior to the month of death and had elected Option A.

11. **Hazardous Duty Death Benefit (Chapter 3.20.040)**

Indemnity of \$100,000 is paid to the estate of an employee whose death is a "direct result" of "engaging in hazardous duty" as defined in the plan. The Board may fully or partly self-insure this benefit.

12. **Minimum Benefit - Refund of Member Contributions (Chapter 3.40.010)**

If a member terminates his employment before completion of 10 years of service or dies before becoming eligible for a pre-retirement death benefit, he or his beneficiary is entitled to the refund of his contributions to the fund. If the member has completed 3 years of service when he terminates, he also is entitled to receive interest, at 3% per annum, on the amount in his contribution account at the end of each calendar year following his completion of 3 years of service.

Any employee terminating after 10 years' service may elect to receive a refund of his contributions with interest in lieu of all other benefits under the system.

If the member elects a refund before age 60, he forfeits any contributions he made to a predecessor plan.

13. **Re-employment (Chapter 3.40.010)**

Any member who terminates service and is subsequently rehired will receive credit for his prior period of service upon written application to the Board within one year of rehire. A rehired member who elected to

receive a refund of his contributions and is re-employed must repay such contributions with interest at 6% per year from the date of the refund in order to receive such credit. If a member's break in service occurs after January 1, 1996, credit for prior service will be granted only if (1) the break in service does not exceed five years and (2) the period of prior service equals or exceeds the period of the break.

14. **Options (Chapters 3.40.020, 3.40.030)**

The following options are available:

- A. Joint and 100% to survivor
- B. Joint and 50% to survivor
- C. Social Security Option
- D. 120 payments certain and life
- E. Joint and 100% to survivor with "popup"
- F. Joint and 50% to survivor with "popup"

15. **Contributions (Chapter 3.16.030)**

Prior to January 1, 1987, each member contributed

- (a) 3% of annual earnings subject to Social Security tax, plus
- (b) 6% of annual earnings not subject to Social Security tax.

Effective January 1, 1987, the Metropolitan Government assumed responsibility for the total cost of the plan, except that participating employees of the Metropolitan Board of Education continue to contribute at the pre-1987 rates. Effective July 1, 2001, the Metropolitan Government assumed responsibility for the total cost of the plan for all groups.

16. **Employer Contributions (Chapter 3.16.050)**

The Metropolitan Government contributes each year an amount equal to at least (a) 0.3% plus the Contribution Rate expressed as a percentage of valuation payroll for the prior year or (b) if less, the amount determined by an actuarial valuation of the plan, equal to a normal contribution plus a percentage of the unfunded past service liability, such percentage to be at a level at least equal to the actuarial valuation interest rate.

17. **Trust Funds (Chapters 3.08.010, 3.08.130, 3.08.140)**

Employee contributions are deposited in Trust Funds B and C. Employer contributions are divided on an actuarial basis between Trust Funds A, B and C.

Trust Fund A provides for disability benefits for all employees, including fire and police.

Trust Fund B is a pension benefit fund for benefits (other than disability benefits) arising from service other than credited fire and police service.

Trust Fund C is a pension benefit fund for benefits (other than disability benefits) arising from credited fire and police service.

The Treasurer of Metropolitan Government is the Trustee and the Investment Committee of Metropolitan Government manages investment of the funds.

18. **Administration**

The system is administered by the Metropolitan Employee Benefit Board.

DIVISION A members with fire and police service

The summary of benefits in Sections 1-18 preceding is generally applicable to members with credited fire and police service, with the following exceptions:

19. **Eligibility**

Metro employees who are in the uniformed fire service of any division of the Department of Fire of Metropolitan Government or who are police officers in the Department of Police as determined in accordance with the qualifications prescribed by applicable rules and regulations of the Civil Service Commission are eligible to be members of this plan as "Firemen" and "Policemen".

20. **Credited Service (Chapter 3.08.010)**

- (a) Firemen or Policemen who were Metro employees on April 1, 1963:

Service includes all continuous service with Metro after April 1, 1963 as a uniformed Fireman or Policeman. Service also includes all continuous service prior to April 1, 1963 which was included as service under a former plan and one half of all such service which was not covered by a prior plan.

- (b) Firemen or Policemen who were Metro employees on January 1, 1972, and first became members of this plan on that date:

Service includes all continuous service with Metro after January 1, 1972 as a uniformed Fireman or Policeman. Service also includes all continuous service prior to January 1, 1972 which was included as service under a former plan and one half of all such service which was not covered by a prior plan.

- (c) Metro Firemen or Policemen hired after April 1, 1963:

Service includes all continuous service as a uniformed Policeman or Fireman after the date of hire and prior to the member's compulsory retirement date. Service as a correctional officer or park ranger is considered Credited Service as "Firemen" or "Policemen."

21. **Normal Retirement**

- (a) **Condition** (Chapter 3.36.020)

The normal retirement date is the day following attainment of age 55 and completion of 20 years of service. Retirement at age 60 is compulsory.

(b) **Benefit** (Chapter 3.36.020)

The monthly benefit, payable for life, is computed as 1/12 of the sum of (1) and (2), as follows:

- (1) 2% of average annual earnings for each year of service not in excess of 25 years, and
- (2) 1.75% of average annual earnings for each year of service in excess of 25 years.

However, after the retired member is age 65 or after he has commenced receiving Social Security Benefits, whichever occurs first, the above monthly benefit shall be reduced by the amount of his monthly Primary Social Security Benefit.

In no instance will the monthly benefit be less than 1/12 of the product of (3) and (4), as follows:

- (3) 1% of average base earnings plus 1.75% of average excess earnings; and
- (4) Years of credited service.

(c) **Minimum Benefit (Chapter 3.40.050)**

A minimum normal retirement benefit is provided for participants who have completed at least ten years of Credited Service. The amount of the minimum benefit is \$15.00 per month per full year of Credited Service, subject to a maximum of twenty years of Credited Service.

22. **Early Retirement (Chapter 3.36.030)**

(a) **Condition**

A member may retire early after attaining age 55 or after attaining age 50 and completion of 20 years of service.

(b) **Benefit**

A member who retires early may receive his pension benefit in either of two ways:

- (1) A deferred monthly benefit commencing at age 62, computed in the manner set forth in item 21(b) above. If the deferred retired member is subsequently rehired, his service will not be deemed interrupted but shall not include the period he was not an employee.
- (2) A reduced immediate monthly benefit determined as the actuarial equivalent of the deferred benefit provided in the preceding paragraph.

23. *Vested Pension After 5 Years of Service (Chapter 3.36.040)*

A member who terminates his service after completion of 5 years of service and before he is eligible for Early or Normal Retirement may leave his contributions in the plan and be eligible to receive a deferred benefit computed and payable as in item 22(b)(1) above.

DIVISION B

24. **Eligibility (Chapter 3.12.031)**

All persons hired by the Metropolitan Government on or after July 1, 1995 participate after six months of service as a condition of employment. All employees on July 1, 1995 who were participants in Division A or a superseded plan had the right to elect voluntarily to transfer participation from the former plan to Division B effective January 1, 1996.

(See Item 43 below for Firemen and Policemen)

25. **Credited Service (Chapter 3.08.010)** (See Item 44 below for Firemen and Policemen)

The language of Item 2 above also applies to Division B.

26. **Normal Retirement** (See Item 45 below for Firemen and Policemen)

(a) **Condition** (Chapter 3.08.012)

The normal retirement date is the earlier of (i) the date when the sum of the member's age last birthday and his credited employee service equals 85, but not before age 60; and (ii) the date when the member reaches age 65 and has completed five years of credited employee service.

(b) **Benefit** (Chapter 3.33.020)

The monthly benefit, payable for life, is computed as 1/12 of the product of (1) and (2):

(1) 1.75% of average earnings; and

(2) Years of Credited Service.

"Average earnings" means the annual average of monthly earnings for the sixty consecutive months of credited service (excluding service credited during periods of disability) during the past fifteen years in which earnings were highest or for such lesser number of full calendar months as have been actually completed.

(c) **Minimum Benefit (Chapter 3.40.050)**

A minimum normal retirement benefit is provided for participants who have completed at least ten years of Credited Service. The amount of the minimum benefit is \$15.00 per month per full year of Credited Service, subject to a maximum of twenty years of Credited Service.

27. **Early Retirement** (See Item 46 below for Firemen and Policemen)

(a) **Condition** (Chapter 3.33.030)

A member may retire after attainment of age 50 and completion of 10 years of service.

(b) **Benefit** (Chapter 3.33.030)

A member who retires early may receive his pension benefit in one of two ways:

- (1) A deferred monthly benefit commencing at his normal retirement date, computed in the manner set forth in 26(b) above. If the deferred retired member is subsequently rehired, his service will not be deemed interrupted but will not include the period he was not an employee. If the death of a member who elected a deferred monthly benefit occurs before his benefits commence, his beneficiary receives a refund of the pension contribution standing to his credit.
- (2) A reduced, immediate monthly income. The amount of the immediate annuity is determined as the deferred benefit in the preceding paragraph, decreased by 4% for each of the first five years by which his benefit commencement date precedes the date on which he could receive his deferred benefit, and by 8% for each additional such year. The immediate benefit shall not be less than the actuarial equivalent of the member's deferred benefit.

28. **Vested Pension after 5 Years of Service (Chapter 3.33.040)** (See Item 47 below for Firemen and Policemen)

A member who terminates his service after completion of 5 years of service, but before he is eligible for early or normal retirement, may leave his contributions in the plan and be eligible to receive the deferred benefits provided in 27(b)(1) above.

29. **Unused Sick Leave at Service Retirement (Chapter 3.33.050)**.

A member who becomes eligible for a service retirement benefit receives credit for unused sick leave time for purposes of calculating his benefit under Item 26(b) and to reduce the age at which he is eligible to receive an unreduced benefit under Item 26, 27 or 28.

30. **Escalation Provision (Chapter 3.08.171)**

Benefits under 26, 27 and 28 above (and the equivalent items dealing with Firemen and Policemen) are increased each January 1 by 80% of the percentage (up to 5%) by which the increase in the Consumer Price Index during the 12 months ending on the September 30 prior to the calendar year for which the escalation applies exceeds 1%. The percentage is applied to the original benefit. Escalated benefits never decrease.

31. **Disability Retirement**

(a) **Condition** (Chapters 3.29.020-3.29.040)

A member who becomes disabled after 10 years of service is eligible to receive a disability retirement benefit. A member who becomes disabled in the line of duty is eligible to receive a disability benefit regardless of length of service; such disability must occur while performing regular duties as an employee of the Metropolitan Government as determined by the Benefit Board. Disability and continuation of disability are determined by the Board.

(b) **Benefit** (Chapter 3.29.050)

The monthly disability benefit payable will be equal to 50% of the member's earnings during the 12 months prior to his disability, plus an additional 10% of such earnings in the event that the member has at least one dependent child. If the member becomes eligible for social Security disability benefits, the 50% figure in the preceding sentence is reduced to 30%.

If a disabled member receives a disability pension payment until his normal retirement date (calculated as if his service had continued), his disability pension then ceases and thereafter he is eligible to receive a normal retirement pension, computed as in item 26 above or item 45 below, with the period of disability included as service in the determination of the benefit and as though his earnings had remained the same as his earnings prior to the date his disability pension commenced. A disabled member who has satisfied the requirements to receive an early retirement benefit may voluntarily elect to receive an early retirement benefit computed as in item 27 above or item 46 below.

If a disabled member returns to work with Metro at a rate of pay less than he was receiving at the time he became disabled, the plan will make up the difference between his current base salary and his pre-disability base salary.

32. **Death of a Disabled Member**

(a) **Condition** (Chapters 3.29.070-3.29.080)

In the event of the death of a disabled member prior to his normal retirement date and while entitled to receive a Disability Pension, his surviving dependents are eligible for a survivorship benefit.

(b) **Benefit** (Chapter 3.29.070)

The survivorship benefit is 25% of the member's average earnings at the time of his disability, but not less than the benefit that would have commenced at the member's date of death had he retired instead of dying, based on his average earnings and service at the time of his termination of service, in accordance with Option A.

The benefit will be payable to:

- (1) The widow until her death or remarriage, and thereafter to the guardian of the surviving dependent children, if any; or
- (2) The legal guardian of the surviving dependent children if no spouse survives the deceased disabled member.

All benefits for surviving children will cease when there are no surviving dependent children.

33. **Death in Line of Duty (Chapter 3.29.080)**

If the death of a member occurs as a result of an act which was required of him in the performance of his duties as an employee of the Metropolitan Government, his surviving dependents are eligible for a benefit computed and payable as though the member had died after commencing to receive a disability benefit.

34. **Death Not in Line of Duty (Chapter 3.40.041)**

(a) **Condition**

If the death of a member occurs after he becomes eligible to retire and receive a normal or early retirement benefit as specified in items 26, 27 or 28 above or 45, 46, or 47 below, his surviving Beneficiary is eligible to receive a benefit.

(b) **Benefit**

The surviving Beneficiary will receive a benefit in accordance with the applicable option in effect or, if no option had been elected, in accordance with Option A as though the member had retired on the first day of the month prior to the month of death and had elected Option A. In no case, however, will an eligible employee's death benefit be less than 25% of his average earnings over the last twelve months preceding his death.

35. **Hazardous Duty Death Benefit (Chapter 3.20.040)**

The language of Item 11 above also applies to Division B.

36. **Minimum Benefit - Refund of Member Contributions (Chapter 3.40.010)**

The language of Item 12 above also applies to Division B.

37. **Re-employment (Chapter 3.40.010)**

The language of Item 13 above also applies to Division B.

38. **Options (Chapters 3.40.020, 3.40.030)**

The language of Item 14 above also applies to Division B.

39. **Contributions (Chapter 3.16.030)**

The language of Item 15 above also applies to Division B.

40. **Employer Contributions (Chapter 3.16.050)**

The language of Item 16 above also applies to Division B.

41. **Trust Funds (Chapters 3.08.010, 3.08.130, 3.08.140)**

Employee contributions are deposited in Trust Funds B and C. Employer contributions are divided on an actuarial basis between Trust Funds A, B and C.

Trust Fund A provides for disability benefits for all employees, including fire and police.

Trust Fund B is a pension benefit fund for benefits (other than disability benefits) arising from service other than credited fire and police service.

Trust Fund C is a pension benefit fund for benefits (other than disability benefits) arising from credited fire and police service.

The Treasurer of Metropolitan Government is the Trustee and the Investment Committee of Metropolitan Government manages investment of the funds.

42. **Administration**

The language of Item 18 above also applies to Division B.

DIVISION B members with fire and police service

The summary of benefits in Sections 24-42 preceding is generally applicable to members with credited fire and police service, with the following exceptions:

43. Eligibility (3.08.010, 3.08.012, 3.12.031)

All Firemen and Policemen hired by The Metropolitan Government on or after July 1, 1995 participate after six months of service as a condition of employment. All employees on July 1, 1995 who were participating as Firemen or Policemen in Division A or a superseded plan had the right to elect voluntarily to transfer participation from the former plan to Division B as Firemen and Policemen effective January 1, 1996.

Metro employees who are in the uniformed fire service (fire suppression, fire prevention, fire training, fire inspection, Emergency Medical Technicians, and paramedics) of any division of the Department of Fire of Metropolitan Government, or who are police officers in the Department of Police as determined in accordance with the qualifications prescribed by applicable rules and regulations of the Civil Service Commission, are eligible to be members of this plan as "Firemen" and "Policemen".

44. Credited Service (Chapter 3.08.010)

The language of Item 20 above also applies to Division B.

45. Normal Retirement

(a) Condition (Chapter 3.08.012)

The normal retirement date is the date when the sum of the member's age last birthday and his credited police and fire service equals 75, but not before age 53 nor after age 60. Retirement at age 60 is compulsory.

(b) Benefit (Chapter 3.37.020)

The monthly benefit, payable for life, is computed as 1/12 of the sum of (1) and (2), as follows:

- (1) 2% of average annual earnings for each year of service not in excess of 25 years; and
- (2) 1.75% of average annual earnings for each year of service in excess of 25 years.

(c) **Minimum Benefit (Chapter 3.40.050)**

A minimum normal retirement benefit is provided for participants who have completed at least ten years of Credited Service. The amount of the minimum benefit is \$15.00 per month per full year of Credited Service, subject to a maximum of twenty years of Credited Service.

46. **Early Retirement (Chapter 3.37.030)**

(a) **Condition**

A member may retire early after attaining age 45 and completion of 10 years of service.

(b) **Benefit**

A member who retires early may receive his pension benefit in either of two ways:

- (1) A deferred monthly benefit commencing at his normal retirement date, computed in the manner set forth in item 45(b) above. If the deferred retired member is subsequently rehired, his service will not be deemed interrupted but shall not include the period he was not an employee. If the death of a member who elected a deferred monthly benefit occurs before his benefits commence, his beneficiary receives a refund of the pension contribution standing to his credit.
- (2) A reduced, immediate monthly income. The amount of the immediate annuity is determined as the deferred benefit in the preceding paragraph, decreased by 4% for each of the first five years by which his benefit commencement date precedes the date on which he could receive his deferred benefit, and by 8% for each additional such year. The immediate benefit shall not be less than the actuarial equivalent of the member's deferred benefit.

47. **Vested Pension After 5 Years of Service (Chapter 3.37.040)**

A member who terminates his service after completion of 5 years of service and before he is eligible for Early or Normal Retirement may leave his contributions in the plan and be eligible to receive a deferred benefit computed and payable as in item 46(b)(1) above.

48. **Unused Sick Leave at Early Retirement (Chapter 3.37.050)**

A member who becomes eligible for a service retirement benefit receives credit for unused sick leave time for purposes of calculating his benefit under Item 45(b) and to reduce the age at which he is eligible to receive an unreduced benefit under Item 45, 46, or 47.

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TABLE I-1
 ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
 METRO GENERAL GOVERNMENT
 DIVISION A

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	0	0	0	0	0	0
	0	0	0	0	0	0
20-24	0	0	0	0	0	0
	0	0	0	0	0	0
25-29	0	0	0	0	0	0
	0	0	0	0	0	0
30-34	0	0	0	0	0	0
	0	0	0	0	0	0
35-39	0	0	0	0	0	0
	0	0	0	0	0	0
40-44	0	0	0	0	0	0
	0	0	0	0	0	0
45-49	0	0	0	0	0	0
	0	0	0	0	0	0
50-54	0	0	7	0	0	7
	0	0	71,591	0	0	71,591
55-59	0	0	2	2	0	4
	0	0	41,874	97,191	0	69,532
60-64	0	0	7	3	0	10
	0	0	66,123	45,285	0	59,872
65-69	0	0	0	2	0	2
	0	0	0	41,084	0	41,084
70-74	0	0	0	0	0	0
	0	0	0	0	0	0
75 and up	1	0	0	0	0	1
	49,159	0	0	0	0	49,159
TOTAL	1	0	16	7	0	24
	49,159	0	65,484	58,915	0	62,888

TABLE I-2
 ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
 METRO FIRE AND POLICE
 DIVISION A

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	0	0	0	0	0	0
	0	0	0	0	0	0
20-24	0	0	0	0	0	0
	0	0	0	0	0	0
25-29	0	0	0	0	0	0
	0	0	0	0	0	0
30-34	0	0	0	0	0	0
	0	0	0	0	0	0
35-39	0	0	0	0	0	0
	0	0	0	0	0	0
40-44	0	0	0	0	0	0
	0	0	0	0	0	0
45-49	0	0	0	0	0	0
	0	0	0	0	0	0
50-54	0	0	2	0	0	2
	0	0	62,293	0	0	62,293
55-59	0	0	1	1	0	2
	0	0	86,926	117,864	0	102,395
60-64	0	0	1	0	0	1
	0	0	103,261	0	0	103,261
65-69	0	0	0	0	0	0
	0	0	0	0	0	0
70-74	0	0	0	0	0	0
	0	0	0	0	0	0
75 and up	0	0	0	0	0	0
	0	0	0	0	0	0
TOTAL	0	0	4	1	0	5
	0	0	78,693	117,864	0	86,528

TABLE I-3
ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
TOTAL
DIVISION A

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	0	0	0	0	0	0
	0	0	0	0	0	0
20-24	0	0	0	0	0	0
	0	0	0	0	0	0
25-29	0	0	0	0	0	0
	0	0	0	0	0	0
30-34	0	0	0	0	0	0
	0	0	0	0	0	0
35-39	0	0	0	0	0	0
	0	0	0	0	0	0
40-44	0	0	0	0	0	0
	0	0	0	0	0	0
45-49	0	0	0	0	0	0
	0	0	0	0	0	0
50-54	0	0	9	0	0	9
	0	0	69,525	0	0	69,525
55-59	0	0	3	3	0	6
	0	0	56,891	104,082	0	80,487
60-64	0	0	8	3	0	11
	0	0	70,765	45,285	0	63,816
65-69	0	0	0	2	0	2
	0	0	0	41,084	0	41,084
70-74	0	0	0	0	0	0
	0	0	0	0	0	0
75 and up	1	0	0	0	0	1
	49,159	0	0	0	0	49,159
TOTAL	1	0	20	8	0	29
	49,159	0	68,126	66,284	0	66,964

TABLE I-4
ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
METRO GENERAL GOVERNMENT
DIVISION B

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	2	0	0	0	0	2
	43,152	0	0	0	0	43,152
20-24	175	0	0	0	0	175
	39,675	0	0	0	0	39,675
25-29	615	2	0	0	0	617
	43,568	53,342	0	0	0	43,600
30-34	871	39	0	0	0	910
	48,745	57,573	0	0	0	49,124
35-39	813	188	4	0	0	1005
	51,023	63,725	65,760	0	0	53,458
40-44	655	336	65	0	0	1056
	51,630	67,803	73,196	0	0	58,104
45-49	559	300	180	0	0	1039
	51,766	65,547	71,221	0	0	59,116
50-54	506	320	296	49	0	1171
	52,352	65,250	77,113	77,343	0	63,181
55-59	427	312	306	173	3	1221
	52,073	64,668	72,494	82,714	99,373	64,867
60-64	375	244	250	132	18	1019
	52,150	62,965	66,757	83,922	100,766	63,298
65-69	181	118	99	31	17	446
	54,023	59,857	67,570	77,889	88,104	61,531
70-74	52	40	25	7	8	132
	47,532	57,928	63,162	62,428	86,969	56,822
75 and up	21	15	12	2	2	52
	40,485	44,059	53,567	69,795	59,544	46,395
TOTAL	5,252	1,914	1,237	394	48	8,845
	49,867	64,388	71,503	81,645	92,178	57,680

TABLE I-5
ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
METRO FIRE AND POLICE
DIVISION B

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	2	0	0	0	0	2
	48,002	0	0	0	0	48,002
20-24	57	0	0	0	0	57
	56,415	0	0	0	0	56,415
25-29	436	0	0	0	0	436
	68,295	0	0	0	0	68,295
30-34	548	44	0	0	0	592
	70,477	88,316	0	0	0	71,803
35-39	320	228	1	0	0	549
	72,102	97,264	95,728	0	0	82,595
40-44	146	270	22	0	0	438
	69,218	97,817	99,749	0	0	88,381
45-49	89	150	205	0	0	444
	68,633	91,512	114,563	0	0	97,568
50-54	48	95	256	20	0	419
	71,711	92,278	110,945	118,734	0	102,590
55-59	23	43	82	64	0	212
	64,501	89,660	109,906	122,982	0	104,821
60-64	11	12	29	46	2	100
	56,687	79,211	108,858	103,507	103,321	96,989
65-69	3	0	5	9	6	23
	54,871	0	79,851	109,759	132,924	102,141
70-74	0	0	0	0	0	0
	0	0	0	0	0	0
75 and up	0	0	0	0	0	0
	0	0	0	0	0	0
TOTAL	1,683	842	600	139	8	3,272
	69,347	94,741	111,243	115,070	125,523	85,644

TABLE I-6
ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
TOTAL
DIVISION B

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	4	0	0	0	0	4
	45,577	0	0	0	0	45,577
20-24	232	0	0	0	0	232
	43,788	0	0	0	0	43,788
25-29	1051	2	0	0	0	1053
	53,826	53,342	0	0	0	53,825
30-34	1419	83	0	0	0	1502
	57,138	73,871	0	0	0	58,063
35-39	1133	416	5	0	0	1554
	56,977	82,107	71,753	0	0	63,751
40-44	801	606	87	0	0	1494
	54,836	81,176	79,910	0	0	66,980
45-49	648	450	385	0	0	1483
	54,083	74,202	94,299	0	0	70,628
50-54	554	415	552	69	0	1590
	54,029	71,437	92,803	89,341	0	73,566
55-59	450	355	388	237	3	1433
	52,708	67,695	80,401	93,588	99,373	70,778
60-64	386	256	279	178	20	1119
	52,279	63,726	71,133	88,983	101,022	66,308
65-69	184	118	104	40	23	469
	54,037	59,857	68,160	85,060	99,796	63,523
70-74	52	40	25	7	8	132
	47,532	57,928	63,162	62,428	86,969	56,822
75 and up	21	15	12	2	2	52
	40,485	44,059	53,567	69,795	59,544	46,395
TOTAL	6,935	2,756	1,837	533	56	12,117
	54,594	73,662	84,483	90,362	96,941	65,231

TABLE I-7
ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
METRO GENERAL GOVERNMENT
COMBINED

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	2	0	0	0	0	2
	43,152	0	0	0	0	43,152
20-24	175	0	0	0	0	175
	39,675	0	0	0	0	39,675
25-29	615	2	0	0	0	617
	43,568	53,342	0	0	0	43,600
30-34	871	39	0	0	0	910
	48,745	57,573	0	0	0	49,124
35-39	813	188	4	0	0	1005
	51,023	63,725	65,760	0	0	53,458
40-44	655	336	65	0	0	1056
	51,630	67,803	73,196	0	0	58,104
45-49	559	300	180	0	0	1039
	51,766	65,547	71,221	0	0	59,116
50-54	506	320	303	49	0	1178
	52,352	65,250	76,985	77,343	0	63,231
55-59	427	312	308	175	3	1225
	52,073	64,668	72,296	82,880	99,373	64,882
60-64	375	244	257	135	18	1029
	52,150	62,965	66,740	83,063	100,766	63,264
65-69	181	118	99	33	17	448
	54,023	59,857	67,570	75,659	88,104	61,440
70-74	52	40	25	7	8	132
	47,532	57,928	63,162	62,428	86,969	56,822
75 and up	22	15	12	2	2	53
	40,879	44,059	53,567	69,795	59,544	46,447
TOTAL	5,253	1,914	1,253	401	48	8,869
	49,866	64,388	71,427	81,248	92,178	57,694

TABLE I-8

ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
METRO FIRE AND POLICE
COMBINED

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	2	0	0	0	0	2
	48,002	0	0	0	0	FALSE
20-24	57	0	0	0	0	57
	56,415	0	0	0	0	56,415
25-29	436	0	0	0	0	436
	68,295	0	0	0	0	68,295
30-34	548	44	0	0	0	592
	70,477	88,316	0	0	0	71,803
35-39	320	228	1	0	0	549
	72,102	97,264	95,728	0	0	82,595
40-44	146	270	22	0	0	438
	69,218	97,817	99,749	0	0	88,381
45-49	89	150	205	0	0	444
	68,633	91,512	114,563	0	0	97,568
50-54	48	95	258	20	0	421
	71,711	92,278	110,568	118,734	0	102,398
55-59	23	43	83	65	0	214
	64,501	89,660	109,629	122,904	0	104,799
60-64	11	12	30	46	2	101
	56,687	79,211	108,671	103,507	103,321	97,051
65-69	3	0	5	9	6	23
	54,871	0	79,851	109,759	132,924	102,141
70-74	0	0	0	0	0	0
	0	0	0	0	0	0
75 and up	0	0	0	0	0	0
	0	0	0	0	0	0
TOTAL	1,683	842	604	140	8	3,277
	69,347	94,741	111,028	115,090	125,523	85,645

TABLE I-9
ACTIVE PARTICIPANTS' AVERAGE EARNINGS BY AGE AND SERVICE
TOTAL
COMBINED

Age Group	Years of Service					TOTAL
	0-9	10-19	20-29	30-39	40+	
Under 20	4	0	0	0	0	4
	45,577	0	0	0	0	21,576
20-24	232	0	0	0	0	232
	43,788	0	0	0	0	43,788
25-29	1051	2	0	0	0	1053
	53,826	53,342	0	0	0	53,825
30-34	1419	83	0	0	0	1502
	57,138	73,871	0	0	0	58,063
35-39	1133	416	5	0	0	1554
	56,977	82,107	71,753	0	0	63,751
40-44	801	606	87	0	0	1494
	54,836	81,176	79,910	0	0	66,980
45-49	648	450	385	0	0	1483
	54,083	74,202	94,299	0	0	70,628
50-54	554	415	561	69	0	1599
	54,029	71,437	92,430	89,341	0	73,543
55-59	450	355	391	240	3	1439
	52,708	67,695	80,221	93,719	99,373	70,818
60-64	386	256	287	181	20	1130
	52,279	63,726	71,123	88,259	101,022	66,284
65-69	184	118	104	42	23	471
	54,037	59,857	68,160	82,966	99,796	63,428
70-74	52	40	25	7	8	132
	47,532	57,928	63,162	62,428	86,969	56,822
75 and up	22	15	12	2	2	53
	40,879	44,059	53,567	69,795	59,544	46,447
TOTAL	6,936	2,756	1,857	541	56	12,146
	54,593	73,662	84,307	90,006	96,941	65,236

TABLE II-1
PROJECTED SCHEDULE OF BENEFIT PAYMENTS
ACTIVE LIVES
FIRE AND POLICE

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability (Present Value of Benefits)
2023	4,582,681	1,164,135,724
2024	9,404,919	1,240,882,150
2025	14,455,189	1,318,009,809
2026	19,875,042	1,395,309,375
2027	25,549,510	1,472,410,363
2028	31,450,072	1,549,035,345
2029	37,570,769	1,624,916,995
2030	43,917,291	1,699,775,439
2031	50,424,632	1,773,305,323
2032	57,168,662	1,845,247,201
2033	64,026,546	1,915,244,940
2034	70,995,331	1,983,044,611
2035	78,173,751	2,048,377,566
2036	85,616,367	2,110,854,163
2037	93,326,311	2,170,001,015
2038	101,371,001	2,225,308,354
2039	109,364,634	2,276,160,953
2040	117,224,600	2,322,299,824
2041	125,231,589	2,363,533,350
2042	133,554,433	2,399,365,990
2043	141,690,878	2,429,092,771
2044	149,562,106	2,452,479,206
2045	157,358,948	2,469,355,970
2046	164,980,440	2,479,344,377
2047	172,102,599	2,482,143,728

TABLE II-2
 PROJECTED SCHEDULE OF BENEFIT PAYMENTS
 ACTIVE LIVES
 GENERAL GOVERNMENT

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability (Present Value of Benefits)
2023	8,869,975	1,477,763,069
2024	16,843,185	1,572,026,059
2025	25,146,810	1,664,635,187
2026	33,881,671	1,755,132,702
2027	42,622,068	1,842,924,462
2028	51,528,100	1,927,815,334
2029	60,560,126	2,009,430,823
2030	69,501,840	2,087,411,251
2031	78,628,672	2,161,595,634
2032	87,505,558	2,231,526,653
2033	96,654,308	2,297,165,267
2034	105,764,296	2,357,929,626
2035	114,830,819	2,413,518,654
2036	123,855,158	2,463,615,062
2037	132,896,562	2,507,878,027
2038	141,747,619	2,545,881,548
2039	150,576,112	2,577,384,470
2040	159,255,166	2,601,955,107
2041	167,863,374	2,619,262,868
2042	176,349,918	2,628,872,677
2043	184,330,444	2,630,371,600
2044	191,750,054	2,623,715,602
2045	198,507,853	2,608,914,388
2046	204,554,221	2,586,082,767
2047	209,797,482	2,555,394,943

TABLE II-3
 PROJECTED SCHEDULE OF BENEFIT PAYMENTS
 ACTIVE LIVES
 METRO TOTAL

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability (Present Value of Benefits)
2023	13,486,554	2,649,577,634
2024	26,319,515	2,821,089,485
2025	39,732,856	2,991,325,051
2026	53,970,060	3,159,594,299
2027	68,442,584	3,324,906,888
2028	83,343,244	3,486,812,295
2029	98,576,473	3,644,628,898
2030	113,937,410	3,797,726,271
2031	129,665,356	3,945,641,890
2032	145,322,636	4,087,633,179
2033	161,377,497	4,223,358,574
2034	177,553,606	4,351,967,965
2035	193,875,037	4,472,837,740
2036	210,402,957	4,585,275,719
2037	227,198,399	4,688,477,960
2038	244,116,130	4,781,521,074
2039	260,967,300	4,863,567,355
2040	277,519,756	4,933,915,913
2041	294,135,502	4,992,057,080
2042	310,938,351	5,037,070,832
2043	327,037,146	5,067,844,597
2044	342,306,396	5,084,110,273
2045	356,835,891	5,085,710,871
2046	370,474,959	5,072,385,485
2047	382,807,895	5,044,010,887

TABLE III-1
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION A
 METRO DISABLED RETIRED LIVES

Age Group	Number	Total	Average
Under 20	-	-	-
20 - 29	1	14,094	14,094
30 - 39	-	-	-
40 - 49	-	-	-
50 - 59	8	117,769	14,721
60 - 69	20	327,629	16,381
70 - 79	33	319,899	9,694
80 - 89	17	185,427	10,907
90 - 99	4	28,932	7,233
100 - 109	-	-	-
110 - 120	-	-	-
Total	83	993,750	11,973

TABLE III-2
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION A
 METRO GENERAL GOVERNMENT RETIRED LIVES

Age Group	Number	Total	Average
Under 20	-	-	-
20 - 29	-	-	-
30 - 39	3	10,819	3,606
40 - 49	2	36,631	18,315
50 - 59	8	124,172	15,521
60 - 69	57	846,009	14,842
70 - 79	141	1,938,495	13,748
80 - 89	137	1,665,274	12,155
90 - 99	88	899,663	10,223
100 - 109	4	31,899	7,975
110 - 120	-	-	-
Total	440	5,552,962	12,620

TABLE III-3
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION A
 METRO FIRE AND POLICE RETIRED LIVES

Age Group	Number	Total	Average
Under 20	-	-	-
20 - 29	2	36,257	18,128
30 - 39	-	-	-
40 - 49	-	-	-
50 - 59	1	13,622	13,622
60 - 69	32	896,676	28,021
70 - 79	94	2,438,489	25,941
80 - 89	31	744,858	24,028
90 - 99	3	39,548	13,183
100 - 109	-	-	-
110 - 120	-	-	-
Total	163	4,169,450	25,579

TABLE III-4
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION A
 METRO TOTALS - RETIRED LIVES

Age Group	Number	Total	Average
Under 20	-	-	-
20 - 29	3	50,351	16,784
30 - 39	3	10,819	3,606
40 - 49	2	36,631	18,315
50 - 59	17	255,563	15,033
60 - 69	109	2,070,314	18,994
70 - 79	268	4,696,883	17,526
80 - 89	185	2,595,559	14,030
90 - 99	95	968,142	10,191
100 - 109	4	31,899	7,975
110 - 120	-	-	-
Total	686	10,716,162	15,621

TABLE III-5
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION B
 METRO DISABLED RETIRED LIVES

Age Group	Number	Total	Average
Under 20	2	26,550	13,275
20 - 29	1	31,808	31,808
30 - 39	18	546,562	30,365
40 - 49	87	2,331,865	26,803
50 - 59	199	3,725,016	18,719
60 - 69	123	1,645,669	13,379
70 - 79	33	394,149	11,944
80 - 89	17	205,272	12,075
90 - 99	1	3,079	3,079
100 - 109	-	-	-
110 - 120	-	-	-
Total	481	8,909,969	18,524

TABLE III-6
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION B
 METRO GENERAL GOVERNMENT RETIRED LIVES

Age Group	Number	Total	Average
Under 20	8	64,404	8,051
20 - 29	6	209,606	34,934
30 - 39	20	456,975	22,849
40 - 49	42	539,395	12,843
50 - 59	366	8,147,588	22,261
60 - 69	2,542	48,310,889	19,005
70 - 79	2,786	47,371,413	17,003
80 - 89	1,079	16,502,522	15,294
90 - 99	103	1,411,422	13,703
100 - 109	-	-	-
110 - 120	-	-	-
Total	6,952	123,014,214	17,695

TABLE III-7
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION B
 METRO FIRE AND POLICE RETIRED LIVES

Age Group	Number	Total	Average
Under 20	4	25,809	6,452
20 - 29	2	27,408	13,704
30 - 39	1	4,655	4,655
40 - 49	24	417,232	17,385
50 - 59	363	12,492,680	34,415
60 - 69	743	24,427,361	32,877
70 - 79	601	20,325,326	33,819
80 - 89	165	5,836,044	35,370
90 - 99	2	68,733	34,366
100 - 109	-	-	-
110 - 120	-	-	-
Total	1,905	63,625,246	33,399

TABLE III-8
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 DIVISION B
 METRO TOTALS - RETIRED LIVES

Age Group	Number	Total	Average
Under 20	14	116,763	8,340
20 - 29	9	268,821	29,869
30 - 39	39	1,008,192	25,851
40 - 49	153	3,288,493	21,493
50 - 59	928	24,365,283	26,256
60 - 69	3,408	74,383,918	21,826
70 - 79	3,420	68,090,887	19,910
80 - 89	1,261	22,543,838	17,878
90 - 99	106	1,483,234	13,993
100 - 109	-	-	-
110 - 120	-	-	-
Total	9,338	195,549,429	20,941

TABLE III-9
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 COMBINED
 METRO DISABLED RETIRED LIVES

Age Group	Number	Total	Average
Under 20	2	26,550	13,275
20 - 29	2	45,902	22,951
30 - 39	18	546,562	30,365
40 - 49	87	2,331,865	26,803
50 - 59	207	3,842,785	18,564
60 - 69	143	1,973,298	13,799
70 - 79	66	714,048	10,819
80 - 89	34	390,700	11,491
90 - 99	5	32,011	6,402
100 - 109	-	-	-
110 - 120	-	-	-
Total	564	9,903,720	17,560

TABLE III-10
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 COMBINED
 METRO GENERAL GOVERNMENT RETIRED LIVES

Age Group	Number	Total	Average
Under 20	8	64,404	8,051
20 - 29	6	209,606	34,934
30 - 39	23	467,794	20,339
40 - 49	44	576,026	13,091
50 - 59	374	8,271,759	22,117
60 - 69	2,599	49,156,897	18,914
70 - 79	2,927	49,309,908	16,847
80 - 89	1,216	18,167,796	14,941
90 - 99	191	2,311,085	12,100
100 - 109	4	31,899	7,975
110 - 120	-	-	-
Total	7,392	128,567,175	17,393

TABLE III-11
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 COMBINED
 METRO FIRE AND POLICE RETIRED LIVES

Age Group	Number	Total	Average
Under 20	4	25,809	6,452
20 - 29	4	63,664	15,916
30 - 39	1	4,655	4,655
40 - 49	24	417,232	17,385
50 - 59	364	12,506,302	34,358
60 - 69	775	25,324,037	32,676
70 - 79	695	22,763,814	32,754
80 - 89	196	6,580,902	33,576
90 - 99	5	108,281	21,656
100 - 109	-	-	-
110 - 120	-	-	-
Total	2,068	67,794,696	32,783

TABLE III-12
 DISTRIBUTION OF BASE BENEFITS BY AGE GROUPS
 COMBINED
 METRO TOTALS - RETIRED LIVES

Age Group	Number	Total	Average
Under 20	14	116,763	8,340
20 - 29	12	319,172	26,598
30 - 39	42	1,019,011	24,262
40 - 49	155	3,325,123	21,452
50 - 59	945	24,620,846	26,054
60 - 69	3,517	76,454,232	21,738
70 - 79	3,688	72,787,771	19,736
80 - 89	1,446	25,139,397	17,385
90 - 99	201	2,451,376	12,196
100 - 109	4	31,899	7,975
110 - 120	-	-	-
Total	10,024	206,265,591	20,577

TABLE IV-1
 PROJECTION OF BENEFIT PAYOUT
 DIVISION A
 METRO DISABLED RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	1,147,084	8,667,003
2024	1,037,710	8,226,841
2025	991,929	7,788,830
2026	952,770	7,357,699
2027	885,103	6,936,501
2028	843,460	6,521,015
2029	802,876	6,115,677
2030	765,070	5,721,727
2031	727,481	5,340,199
2032	690,239	4,971,650
2033	645,513	4,616,550
2034	609,644	4,274,466
2035	574,372	3,946,478
2036	539,756	3,632,885
2037	505,863	3,333,938
2038	472,758	3,049,836
2039	440,519	2,780,712
2040	409,216	2,526,632
2041	378,920	2,287,590
2042	349,691	2,063,506
2043	321,596	1,854,233
2044	294,672	1,659,553
2045	268,951	1,479,200
2046	244,446	1,312,864
2047	221,153	1,160,208

TABLE IV-2
 PROJECTION OF BENEFIT PAYOUT
 DIVISION A
 METRO GENERAL GOVERNMENT RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	6,106,650	48,522,782
2024	5,769,122	45,389,133
2025	5,443,582	42,405,018
2026	5,130,762	39,566,908
2027	4,830,992	36,870,539
2028	4,542,907	34,312,015
2029	4,267,527	31,886,509
2030	4,005,848	29,589,689
2031	3,751,627	27,417,831
2032	3,510,924	25,367,925
2033	3,290,164	23,434,066
2034	3,073,287	21,609,352
2035	2,866,658	19,884,613
2036	2,669,910	18,262,014
2037	2,482,695	16,737,772
2038	2,304,651	15,308,244
2039	2,135,421	13,969,926
2040	1,983,103	12,719,468
2041	1,830,427	11,549,662
2042	1,685,466	10,455,443
2043	1,547,905	9,439,393
2044	1,417,521	8,498,754
2045	1,294,150	7,630,801
2046	1,177,705	6,832,777
2047	1,068,111	6,101,841

TABLE IV-3
 PROJECTION OF BENEFIT PAYOUT
 DIVISION A
 METRO FIRE AND POLICE RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	4,263,937	39,323,464
2024	4,139,371	37,412,392
2025	4,010,265	35,516,888
2026	3,876,741	33,641,710
2027	3,739,001	31,792,361
2028	3,597,304	29,974,445
2029	3,451,985	28,193,618
2030	3,303,455	26,455,505
2031	3,152,255	24,765,606
2032	2,999,052	23,129,146
2033	2,844,625	21,550,945
2034	2,689,907	20,035,256
2035	2,535,884	18,585,617
2036	2,383,505	17,204,809
2037	2,233,794	15,894,764
2038	2,087,683	14,656,546
2039	1,945,995	13,490,393
2040	1,809,458	12,395,755
2041	1,678,566	11,371,445
2042	1,553,796	10,415,678
2043	1,435,421	9,526,186
2044	1,323,590	8,700,350
2045	1,218,264	7,935,338
2046	1,119,281	7,228,234
2047	1,026,389	6,576,163

TABLE IV-4
 PROJECTION OF BENEFIT PAYOUT
 DIVISION A
 DEFERRED VESTED BENEFITS

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	42,059	529,639
2024	41,439	522,696
2025	47,206	513,137
2026	46,389	497,592
2027	48,850	480,995
2028	51,269	463,499
2029	50,149	441,317
2030	48,920	416,991
2031	47,584	392,554
2032	46,140	368,107
2033	44,591	343,753
2034	42,942	319,599
2035	41,196	295,754
2036	39,357	272,331
2037	37,429	249,444
2038	35,415	227,211
2039	33,325	205,751
2040	31,170	185,179
2041	28,968	165,604
2042	26,739	147,120
2043	24,509	129,805
2044	22,306	113,714
2045	20,155	98,880
2046	18,076	85,313
2047	16,087	73,006

TABLE IV-5
 PROJECTION OF BENEFIT PAYOUT
 DIVISION A
 METRO TOTALS

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	11,559,730	97,042,888
2024	10,987,642	91,551,062
2025	10,492,982	86,223,873
2026	10,006,662	81,063,909
2027	9,503,946	76,080,396
2028	9,034,940	71,270,974
2029	8,572,537	66,637,121
2030	8,123,293	62,183,912
2031	7,678,947	57,916,190
2032	7,246,355	53,836,828
2033	6,824,893	49,945,314
2034	6,415,780	46,238,673
2035	6,018,110	42,712,462
2036	5,632,528	39,372,039
2037	5,259,781	36,215,918
2038	4,900,507	33,241,837
2039	4,555,260	30,446,782
2040	4,232,947	27,827,034
2041	3,916,881	25,374,301
2042	3,615,692	23,081,747
2043	3,329,431	20,949,617
2044	3,058,089	18,972,371
2045	2,801,520	17,144,219
2046	2,559,508	15,459,188
2047	2,331,740	13,911,218

TABLE IV-6
 PROJECTION OF BENEFIT PAYOUT
 DIVISION B
 METRO DISABLED RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	14,623,781	98,672,452
2024	13,693,347	96,590,765
2025	12,796,527	94,467,394
2026	12,191,664	92,300,747
2027	11,769,237	90,044,144
2028	11,145,105	87,714,960
2029	10,695,999	85,340,023
2030	10,332,707	82,911,448
2031	9,858,776	80,412,537
2032	9,471,050	77,831,763
2033	9,169,768	75,208,414
2034	8,651,736	72,545,800
2035	8,352,807	69,846,317
2036	8,033,873	67,114,645
2037	7,667,952	64,355,597
2038	7,373,664	61,574,386
2039	7,157,198	58,777,653
2040	6,851,212	55,972,918
2041	6,581,738	53,167,193
2042	6,291,477	50,368,379
2043	6,080,484	47,584,835
2044	5,856,332	44,825,830
2045	5,639,175	42,100,507
2046	5,407,381	39,409,872
2047	5,146,575	36,771,059

TABLE IV-7
 PROJECTION OF BENEFIT PAYOUT
 DIVISION B
 METRO GENERAL GOVERNMENT RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	123,058,678	1,216,063,191
2024	121,803,070	1,175,966,233
2025	120,294,915	1,133,544,844
2026	118,537,184	1,089,836,914
2027	116,547,737	1,044,999,434
2028	114,315,992	999,196,134
2029	111,854,245	952,604,612
2030	109,152,606	905,416,105
2031	106,188,378	857,843,712
2032	103,007,926	810,104,568
2033	99,642,167	762,390,691
2034	96,107,671	714,889,824
2035	92,387,104	667,799,986
2036	88,493,641	621,334,623
2037	84,442,547	575,707,475
2038	80,251,584	531,130,210
2039	75,941,121	487,809,669
2040	71,534,449	445,944,741
2041	67,058,122	405,722,588
2042	62,541,391	367,314,831
2043	58,015,954	330,873,786
2044	53,515,875	296,528,664
2045	49,076,366	264,382,157
2046	44,733,212	234,507,710
2047	40,521,562	206,947,505

TABLE IV-8
PROJECTION OF BENEFIT PAYOUT
DIVISION B
METRO FIRE AND POLICE RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	64,303,825	708,587,800
2024	64,171,328	691,983,588
2025	63,935,917	674,407,171
2026	63,592,601	655,898,789
2027	63,142,519	636,505,300
2028	62,573,516	616,278,146
2029	61,883,239	595,287,805
2030	61,075,287	573,596,202
2031	60,141,048	551,288,210
2032	59,090,067	528,438,283
2033	57,914,749	505,136,808
2034	56,627,907	481,473,682
2035	55,222,922	457,540,974
2036	53,702,189	433,440,140
2037	52,068,820	409,276,922
2038	50,327,183	385,160,559
2039	48,482,911	361,202,790
2040	46,543,332	337,516,503
2041	44,518,020	314,213,785
2042	42,418,558	291,403,714
2043	40,258,392	269,190,154
2044	38,052,768	247,669,538
2045	35,818,205	226,928,732
2046	33,571,949	207,043,370
2047	31,330,911	188,076,828

TABLE IV-9
 PROJECTION OF BENEFIT PAYOUT
 DIVISION B – GENERAL GOVERNMENT
 DEFERRED VESTED BENEFITS

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	5,284,936	184,164,564
2024	6,392,530	192,237,104
2025	7,632,277	199,676,752
2026	8,787,490	206,368,570
2027	9,758,228	212,308,729
2028	10,673,856	217,578,476
2029	11,643,169	222,240,766
2030	12,509,589	226,283,280
2031	13,422,762	229,700,840
2032	14,193,548	232,376,578
2033	15,023,533	234,397,484
2034	15,996,586	235,762,673
2035	16,791,866	236,320,488
2036	17,515,943	236,010,141
2037	18,140,198	234,951,547
2038	18,810,764	233,126,867
2039	19,468,178	230,490,117
2040	19,874,287	227,096,514
2041	20,152,574	222,894,090
2042	20,409,603	218,120,243
2043	20,565,981	212,725,832
2044	20,631,155	206,784,244
2045	20,572,501	200,345,812
2046	20,487,654	193,532,708
2047	20,258,134	186,303,827

TABLE IV-10
 PROJECTION OF BENEFIT PAYOUT
 DIVISION B
 METRO TOTALS

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	207,271,220	2,207,488,007
2024	206,060,275	2,156,777,690
2025	204,659,636	2,102,096,161
2026	203,108,939	2,044,405,020
2027	201,217,721	1,983,857,607
2028	198,708,469	1,920,767,716
2029	196,076,652	1,855,473,206
2030	193,070,189	1,788,207,035
2031	189,610,964	1,719,245,299
2032	185,762,591	1,648,751,192
2033	181,750,217	1,577,133,397
2034	177,383,900	1,504,671,979
2035	172,754,699	1,431,507,765
2036	167,745,646	1,357,899,549
2037	162,319,517	1,284,291,541
2038	156,763,195	1,210,992,022
2039	151,049,408	1,138,280,229
2040	144,803,280	1,066,530,676
2041	138,310,454	995,997,656
2042	131,661,029	927,207,167
2043	124,920,811	860,374,607
2044	118,056,130	795,808,276
2045	111,106,247	733,757,208
2046	104,200,196	674,493,660
2047	97,257,182	618,099,219

TABLE IV-11
 PROJECTION OF BENEFIT PAYOUT
 COMBINED
 METRO DISABLED RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	15,770,865	107,339,455
2024	14,731,057	104,817,606
2025	13,788,456	102,256,224
2026	13,144,434	99,658,446
2027	12,654,340	96,980,645
2028	11,988,565	94,235,975
2029	11,498,875	91,455,700
2030	11,097,777	88,633,175
2031	10,586,257	85,752,736
2032	10,161,289	82,803,413
2033	9,815,281	79,824,964
2034	9,261,380	76,820,266
2035	8,927,179	73,792,795
2036	8,573,629	70,747,530
2037	8,173,815	67,689,535
2038	7,846,422	64,624,222
2039	7,597,717	61,558,365
2040	7,260,428	58,499,550
2041	6,960,658	55,454,783
2042	6,641,168	52,431,885
2043	6,402,080	49,439,068
2044	6,151,004	46,485,383
2045	5,908,126	43,579,707
2046	5,651,827	40,722,736
2047	5,367,728	37,931,267

TABLE IV-12
 PROJECTION OF BENEFIT PAYOUT
 COMBINED
 METRO GENERAL GOVERNMENT RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	129,165,328	1,264,585,973
2024	127,572,192	1,221,355,366
2025	125,738,497	1,175,949,862
2026	123,667,946	1,129,403,822
2027	121,378,729	1,081,869,973
2028	118,858,899	1,033,508,149
2029	116,121,772	984,491,121
2030	113,158,454	935,005,794
2031	109,940,005	885,261,543
2032	106,518,850	835,472,493
2033	102,932,331	785,824,757
2034	99,180,958	736,499,176
2035	95,253,762	687,684,599
2036	91,163,551	639,596,637
2037	86,925,242	592,445,247
2038	82,556,235	546,438,454
2039	78,076,542	501,779,595
2040	73,517,552	458,664,209
2041	68,888,549	417,272,250
2042	64,226,857	377,770,274
2043	59,563,859	340,313,179
2044	54,933,396	305,027,418
2045	50,370,516	272,012,958
2046	45,910,917	241,340,487
2047	41,589,673	213,049,346

TABLE IV-13
 PROJECTION OF BENEFIT PAYOUT
 COMBINED
 METRO FIRE AND POLICE RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	68,567,762	747,911,264
2024	68,310,699	729,395,980
2025	67,946,182	709,924,059
2026	67,469,342	689,540,499
2027	66,881,520	668,297,661
2028	66,170,820	646,252,591
2029	65,335,224	623,481,423
2030	64,378,742	600,051,707
2031	63,293,303	576,053,816
2032	62,089,119	551,567,429
2033	60,759,374	526,687,753
2034	59,317,814	501,508,938
2035	57,758,806	476,126,591
2036	56,085,694	450,644,949
2037	54,302,614	425,171,686
2038	52,414,866	399,817,105
2039	50,428,906	374,693,183
2040	48,352,790	349,912,258
2041	46,196,586	325,585,230
2042	43,972,354	301,819,392
2043	41,693,813	278,716,340
2044	39,376,358	256,369,888
2045	37,036,469	234,864,070
2046	34,691,230	214,271,604
2047	32,357,300	194,652,991

TABLE IV-14
PROJECTION OF BENEFIT PAYOUT
COMBINED
DEFERRED VESTED BENEFITS

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	6,551,325	246,437,795
2024	8,054,652	257,655,189
2025	9,730,781	268,114,947
2026	11,280,473	277,627,228
2027	12,725,109	286,120,209
2028	14,035,447	293,661,804
2029	15,310,350	300,317,874
2030	16,614,495	306,186,382
2031	17,883,730	311,125,364
2032	19,052,254	315,066,923
2033	20,248,881	318,047,416
2034	21,580,583	320,016,994
2035	22,641,608	320,869,934
2036	23,556,421	320,575,183
2037	24,421,243	319,295,331
2038	25,463,104	317,034,178
2039	26,320,488	313,589,431
2040	26,834,840	309,028,557
2041	27,209,335	303,468,156
2042	27,560,365	297,112,495
2043	27,734,986	289,962,693
2044	27,783,588	282,076,988
2045	27,703,120	273,569,578
2046	27,573,786	264,571,442
2047	27,286,283	255,048,609

TABLE IV-15
 PROJECTION OF BENEFIT PAYOUT
 COMBINED
 METRO INACTIVE TOTALS

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	220,055,280	2,366,274,487
2024	218,668,600	2,313,224,141
2025	217,203,916	2,256,245,092
2026	215,562,195	2,196,229,995
2027	213,639,698	2,133,268,488
2028	211,053,731	2,067,658,519
2029	208,266,221	1,999,746,118
2030	205,249,468	1,929,877,058
2031	201,703,295	1,858,193,459
2032	197,821,512	1,784,910,258
2033	193,755,867	1,710,384,890
2034	189,340,735	1,634,845,374
2035	184,581,355	1,558,473,919
2036	179,379,295	1,481,564,299
2037	173,822,914	1,404,601,799
2038	168,280,627	1,327,913,959
2039	162,423,653	1,251,620,574
2040	155,965,610	1,176,104,574
2041	149,255,128	1,101,780,419
2042	142,400,744	1,029,134,046
2043	135,394,738	958,431,280
2044	128,244,346	889,959,677
2045	121,018,231	824,026,313
2046	113,827,760	760,906,269
2047	106,600,984	700,682,213

TABLE V-1
PROJECTION OF BENEFIT PAYOUT
METRO DISABLED RETIRED LIVES

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	15,770,865	107,339,455
2024	14,731,057	104,817,606
2025	13,788,456	102,256,224
2026	13,144,434	99,658,446
2027	12,654,340	96,980,645
2028	11,988,565	94,235,975
2029	11,498,875	91,455,700
2030	11,097,777	88,633,175
2031	10,586,257	85,752,736
2032	10,161,289	82,803,413
2033	9,815,281	79,824,964
2034	9,261,380	76,820,266
2035	8,927,179	73,792,795
2036	8,573,629	70,747,530
2037	8,173,815	67,689,535
2038	7,846,422	64,624,222
2039	7,597,717	61,558,365
2040	7,260,428	58,499,550
2041	6,960,658	55,454,783
2042	6,641,168	52,431,885
2043	6,402,080	49,439,068
2044	6,151,004	46,485,383
2045	5,908,126	43,579,707
2046	5,651,827	40,722,736
2047	5,367,728	37,931,267

TABLE V-2
PROJECTION OF BENEFIT PAYOUT
METRO GENERAL GOVERNMENT

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	138,069,201	2,750,027,883
2024	144,486,788	2,801,562,701
2025	151,016,164	2,849,265,104
2026	157,762,964	2,893,688,746
2027	164,271,803	2,934,366,498
2028	170,752,071	2,971,285,099
2029	177,127,477	3,004,203,024
2030	183,178,573	3,032,956,626
2031	189,180,729	3,057,598,110
2032	194,672,824	3,077,858,471
2033	200,283,282	3,093,938,391
2034	205,739,232	3,105,422,530
2035	210,955,047	3,112,144,774
2036	215,950,141	3,114,018,193
2037	220,797,330	3,110,922,192
2038	225,301,364	3,102,651,174
2039	229,679,209	3,089,185,997
2040	233,812,708	3,070,280,299
2041	237,792,461	3,045,795,980
2042	241,610,774	3,015,475,116
2043	244,910,127	2,979,065,005
2044	247,677,686	2,936,658,485
2045	249,847,459	2,888,367,859
2046	251,405,436	2,834,381,595
2047	252,294,970	2,774,916,505

TABLE V-3
PROJECTION OF BENEFIT PAYOUT
METRO FIRE AND POLICE

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	73,150,443	1,912,046,988
2024	77,715,618	1,970,278,130
2025	82,401,371	2,027,933,868
2026	87,344,384	2,084,849,874
2027	92,431,030	2,140,708,024
2028	97,620,892	2,195,287,936
2029	102,905,993	2,248,398,418
2030	108,296,033	2,299,827,146
2031	113,717,935	2,349,359,139
2032	119,257,781	2,396,814,630
2033	124,785,920	2,441,932,693
2034	130,313,145	2,484,553,549
2035	135,932,557	2,524,504,157
2036	141,702,061	2,561,499,112
2037	147,628,925	2,595,172,701
2038	153,785,867	2,625,125,459
2039	159,793,540	2,650,854,136
2040	165,577,390	2,672,212,082
2041	171,428,175	2,689,118,580
2042	177,526,787	2,701,185,382
2043	183,384,691	2,707,809,111
2044	188,938,464	2,708,849,094
2045	194,395,417	2,704,220,040
2046	199,671,670	2,693,615,981
2047	204,459,899	2,676,796,719

TABLE V-4
PROJECTION OF BENEFIT PAYOUT
METRO DEFERRED

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	6,551,325	246,437,795
2024	8,054,652	257,655,189
2025	9,730,781	268,114,947
2026	11,280,473	277,627,228
2027	12,725,109	286,120,209
2028	14,035,447	293,661,804
2029	15,310,350	300,317,874
2030	16,614,495	306,186,382
2031	17,883,730	311,125,364
2032	19,052,254	315,066,923
2033	20,248,881	318,047,416
2034	21,580,583	320,016,994
2035	22,641,608	320,869,934
2036	23,556,421	320,575,183
2037	24,421,243	319,295,331
2038	25,463,104	317,034,178
2039	26,320,488	313,589,431
2040	26,834,840	309,028,557
2041	27,209,335	303,468,156
2042	27,560,365	297,112,495
2043	27,734,986	289,962,693
2044	27,783,588	282,076,988
2045	27,703,120	273,569,578
2046	27,573,786	264,571,442
2047	27,286,283	255,048,609

TABLE V-5
 PROJECTION OF BENEFIT PAYOUT
 METRO TOTAL

Plan Year Beginning in	Annual Benefits	Beginning of Year Liability
2023	233,541,834	5,015,852,119
2024	244,988,115	5,134,313,626
2025	256,936,772	5,247,570,143
2026	269,532,255	5,355,824,294
2027	282,082,282	5,458,175,376
2028	294,396,975	5,554,470,814
2029	306,842,694	5,644,375,016
2030	319,186,878	5,727,603,329
2031	331,368,651	5,803,835,349
2032	343,144,148	5,872,543,437
2033	355,133,364	5,933,743,464
2034	366,894,341	5,986,813,339
2035	378,456,392	6,031,311,659
2036	389,782,252	6,066,840,018
2037	401,021,313	6,093,079,759
2038	412,396,757	6,109,435,033
2039	423,390,953	6,115,187,929
2040	433,485,366	6,110,020,487
2041	443,390,630	6,093,837,499
2042	453,339,095	6,066,204,878
2043	462,431,884	6,026,275,877
2044	470,550,742	5,974,069,950
2045	477,854,122	5,909,737,184
2046	484,302,719	5,833,291,754
2047	489,408,879	5,744,693,100

TABLE VI
ESTABLISHMENT OF VALUATION ASSETS
June 30, 2023

	Trust Fund A (Disability)	Trust Fund B (Gen Govt)	Trust Fund C (Fire & Police)	Total
1. Market Value of Assets on June 30, 2022	\$162,151,449	\$2,586,082,106	\$1,304,601,536	\$4,052,835,091
2. Contributions				
a. By employees	0	4,249	0	4,249
b. By employer	0	61,750,793	42,811,930	104,562,723
c. Other	0	0	0	0
3. Investment income	876,866	14,313,377	7,212,522	22,402,765
4. Disbursements to employees and beneficiaries	(7,799,122)	(128,291,514)	(77,812,377)	(213,903,013)
5. Market Value of Assets on June 30, 2023	155,229,193	2,533,859,011	1,276,813,611	3,965,901,815
6. Expected Income at 7.00%	11,077,632	178,696,971	90,097,092	279,871,695
7. Excess Income Base, Current Year, (3) - (6)	na	na	na	(257,468,930)
8. Excess Income Base, Preceding Year	na	na	na	(331,299,137)
9. Excess Income Base, Second Preceding Year	na	na	na	809,372,273
10. Excess Income Base, Third Preceding Year	na	na	na	(116,171,568)
11. Excess Income Base, Fourth Preceding Year	na	na	na	15,020,989
12. Adjustment to Market Value Assets, .8*(7) + .6*(8) + .4*(9) + .2*(10)	na	na	na	(104,240,030)
13. Preliminary Valuation Assets, June 30, 2023 (5) - (12)	\$159,309,247	\$2,600,459,132	\$1,310,373,466	\$4,070,141,845
14. Maximum Valuation Assets (Based on 20% Corridor)	\$186,275,031	\$3,040,630,813	\$1,532,176,334	\$4,759,082,178
15. Valuation Assets, June 30, 2023, Minimum of (13), (14)	\$159,309,247	\$2,600,459,132	\$1,310,373,466	\$4,070,141,845

Note: The "Valuation Assets" for each of the three trust funds was obtained by multiplying the Market Value of that fund (line 5) by the ratio of the total Valuation Asset figure (line 13, total) to the total Market Value (line 5, total).

TABLE VII
NORMAL COST CALCULATIONS

	<u>Trust Fund A (Disability)</u>	<u>Trust Fund B (Gen. Gov.)</u>	<u>Trust Fund C (Fire & Police)</u>	<u>Total</u>
1. Present Value of Benefits	\$142,522,625	\$2,904,148,382	\$1,969,181,112	\$5,015,852,119
2. Past Service Liability (or assets if larger)	118,202,683	2,546,376,236	1,571,622,540	4,236,201,459
3. Present Value of Future Employee Contributions	0	0	0	0
4. Present Value of Employer Normal Costs ((1)-(2)-(3))	24,319,942	357,772,146	397,558,572	779,650,660
5. Present Value of Future Salaries*	7,673,548,300	4,556,862,588	3,116,685,712	7,673,548,300
6. Normal Cost Percentage ((4)/(5))	0.317%	7.851%	12.756%	10.160%
7. Current Payroll*	792,350,599	511,690,658	280,659,941	792,350,599
8. Aggregate Normal Cost ((6) * (7))	2,511,214	40,174,278	35,800,455	\$78,485,947
9. Entry Age Normal Cost	2,424,200	41,340,175	37,306,370	\$81,070,745

*Cost of disability benefits is spread over the present value of future salaries of all plan participants. Cost of benefits to "general government" employees and "fire and police" employees is spread over the present value of future salaries of those specific groups.

TABLE VIII
TOTAL COST CALCULATIONS

	Trust Fund A (Disability)	Trust Fund B (Gen. Gov.)	Trust Fund C (Fire & Police)	Total
Development of Amortization Contributions				
1. Present Value of Benefits	\$142,522,625	\$2,904,148,382	\$1,969,181,112	\$5,015,852,119
2. Present Value of Future Employee Contributions	0	0	0	0
3. Present Value of Future Normal Costs	24,319,942	357,772,146	397,558,572	779,650,660
4. Existing Assets	159,309,247	2,600,459,132	1,310,373,466	4,070,141,845
5. Unfunded Past Service Liability (1)-(2)-(3)-(4)	-41,106,564	-54,082,896	261,249,074	166,059,614
6. Amortization Contributions				
a. No amortization - int. only (.0654 x (5))	-2,689,214	-3,538,133	17,091,061	10,863,713
b. 15-year amortization (.10261 x (5))	-4,218,018	-5,549,543	26,807,237	17,039,676
Development of Total Costs				
7. Entry Age Normal Cost	\$2,424,200	\$41,340,175	\$37,306,370	\$81,070,745
8. Total Cost				
a. No amortization ((7)+(6a))x1.035	-274,290	39,125,113	56,301,341	95,152,164
% of payroll	-0.035%	7.646%	20.060%	12.009%
b. 15-year amortization ((7)+(6b))x1.035	-1,856,602	37,043,304	66,357,584	101,544,285
% of payroll	-0.234%	7.239%	23.643%	12.816%

TABLE IX

MINIMUM FUNDING UNDER TCA §9-3-501

As a result of the Public Employee Defined Benefit Financial Security Act of 2014 (Tenn. Code Ann. §9-3-501) all political subdivisions within the State of Tennessee that provide defined benefit plans not administered by the Tennessee Consolidated Retirement System (TCRS) must adopt a written funding policy and contribute an actuarially determined contribution that meets minimum standards specified by Tenn. Code Ann. §9-3-501. The actuarially determined contribution is comprised of the normal cost under the Entry Age Normal Cost Method, plus a level dollar amortization of the unfunded liability as of July 1, 2015 over a closed period of 30 year. A new layer of amortization will be added each year equal to the 30-year, level dollar amortization of gains and/or losses for each subsequent year.

Year Established	Type of Base	Remaining Amortization Period (Years)	Original Amount	Original Payment	Current Payment	Remaining Balance at June 30, 2023
2015	Original Base	22	\$138,552,370	\$10,912,931	\$10,477,197	\$124,003,146
2016	(Gains)/Losses	23	(21,061,991)	(1,658,925)	(1,591,034)	(19,189,845)
2017	(Gains)/Losses	24	27,467,170	2,115,923	2,072,810	25,437,918
2018	(Gains)/Losses	25	26,173,793	2,016,288	1,974,164	24,616,505
2019	(Gains)/Losses	26	(161,225)	(12,420)	(12,154)	(153,795)
2020	(Gains)/Losses	27	73,442,916	5,657,646	5,533,918	70,976,813
2021	(Gains)/Losses	28	(55,570,552)	(4,280,856)	(4,185,263)	(54,352,785)
2022	(Gains)/Losses	29	(63,047,164)	(4,748,359)	(4,748,359)	(62,379,721)
2023	(Gains)/Losses	30	57,101,377	4,300,556	4,300,556	57,101,377
	Total				13,821,834	166,059,613
	Entry Age Normal Cost		\$81,070,745			
	Amortization of Unfunded Liability		13,821,834			
	Interest		<u>3,321,240</u>			
	Total Minimum Contribution		\$98,213,820			
	Total Payroll		\$792,350,599			
	Percent of Payroll Contribution		12.395%			

Since the recommended contribution of 12.816% of payroll exceeds the minimum required contribution of 12.395%, the minimum contribution does not currently apply.

TABLE X
SUMMARY OF ACTUARIAL ASSUMPTIONS
 (Sample Values per 1,000 Lives)

	Age			
	20	35	50	60
Mortality Rates – Active Employees				
Male: 115% RP-2014 Employee Table	.41	.52	1.69	4.69
Females: 115% RP-2014 Employee Table	.16	.29	1.10	2.44
	Age			
	60	70	80	90
Mortality Rates – Inactive Employees				
Male: 112% RP-2014 Blue Collar	9.96	22.56	58.87	172.58
Females: 112% RP-2014 Blue Collar	7.17	15.31	43.64	136.81
(Rates projected to 2023 with Scale MP-21)				
Mortality Improvement Rates – Active Employees				
Improvement Scale MP-21, Fully Generational				
Mortality Improvement Rates – Inactive Employees				
Improvement Scale MP-21, Fully Generational				

TABLE X (Continued)

SUMMARY OF ACTUARIAL ASSUMPTIONS

(Sample Values per 1,000 Lives)

	Age			
	20	35	50	60
Withdrawal Rates				
First Year				
General Government	210.00	180.00	144.00	---
Fire and Police	105.00	70.00	0.00	---
Second Year				
General Government	190.00	158.00	120.00	---
Fire and Police	80.00	35.00	25.00	---
Ultimate				
General Government	219.00	105.00	20.00	---
Fire and Police	71.00	39.00	10.00	---
 Salary Scale				
Declining Scale to age 65	1.059	1.050	1.041	1.035
 Compensation Basis				
	Gross pay for prior year			
	Age			
	20	35	50	60
Disability Rates				
Division A:				
General Government				
Males: 150% of 1965 Railroad Retirement	0.00	6.00	10.95	37.20
Females: 1965 Railroad Retirement	0.00	4.00	7.30	24.80
Fire and Police				
200% of 1965 Railroad Retirement	0.00	8.00	14.60	49.60
50% of disabled members eligible for Social Security disability benefits				

TABLE X (Continued)
SUMMARY OF ACTUARIAL ASSUMPTIONS
 (Sample Values per 1,000 Lives)

Division B:

General Government: Historical Experience

Males	0.00	2.28	5.05	3.66
Females	0.00	0.44	3.90	2.92

Fire and Police: Historical Experience

Males	0.00	1.58	5.45	1.28
Females	0.00	2.36	8.17	1.92

50% of disabled members eligible for Social Security disability benefits
 One-sixth of disabled members return to work, at 75% of pre-disability salaries

Rate of Death and Recovery Among Disabled Lives	Age			
	20	35	50	60
Pre-Age 60				
Male: 120% RP-2014 Disabled Mortality	8.53	10.99	24.47	31.92
Female: 120% RP-2014 Disabled Mortality	2.68	4.73	14.29	20.40
	Age			
	60	70	80	90
Post-Age 60				
Male: 120% RP-2014 Disabled Mortality	31.92	48.42	91.94	207.61
Female: 120% RP-2014 Disabled Mortality	20.40	33.84	73.24	159.18

Social Security Benefit Projection Rate

Wage base escalation at 4.00% per annum

Consumer price index at 2.50% per annum

TABLE X (Continued)

SUMMARY OF ACTUARIAL ASSUMPTIONS

(Sample Values per 1,000 Lives)

Rate of Normal Retirement

	Percent Rating at Age							
	55	56	57	58	59	60	61	62
Division A:								
General Government								
Male:	--	--	--	--	--	--	2	5
Female:	--	--	--	--	--	3	4	8
Fire and Police	10	10	10	10	10	50	--	--
	Percent Rating at Age							
	63	64	65	66	67	68	69	70
General Government								
Male:	5	12	23	18	6	6	6	17
Female:	6	15	26	11	9	5	3	10
Fire and Police	--	--	--	--	--	--	--	--

TABLE X (Continued)

SUMMARY OF ACTUARIAL ASSUMPTIONS

(Sample Values per 1,000 Lives)

Rate of Normal Retirement (continued)

Division B:

Percentages of participants retiring in each year before and after a participant's normal retirement age are determined as follows:

	Rates of Retirement						
	NRA-10	NRA-9	NRA-8	NRA-7	NRA-6	NRA-5	NRA-4
General Government	1	1	2	2	2	3	6

	Rates of Retirement						
	NRA-3	NRA-2	NRA-1	NRA	NRA+1	NRA+2	NRA+3
General Government	6	8	8	20	20	20	20

	Rates of Retirement						
	NRA+4	NRA+5	NRA+6	NRA+7	NRA+8	NRA+9	NRA+10
General Government	20	20	30	30	30	30	100

An additional 5% of participants in excess of the percentages above are assumed to retire upon attainment of ages 62 and 65 respectively.

Fire and Police

Age	Percent of Remaining Actives Retiring at Each Age	Age	Percent of Remaining Actives Retiring at Each Age
50	3.0%	60	14.7%
51	4.1%	61	17.2%
52	8.6%	62	25.0%
53	14.1%	63	16.7%
54	11.0%	64	20.0%
55	10.8%	65	25.0%
56	12.1%	66	22.2%
57	13.7%	67	28.6%
58	11.4%	68	100.0%
59	12.8%		

TABLE X (Continued)

SUMMARY OF ACTUARIAL ASSUMPTIONS

(Sample Values per 1,000 Lives)

Rate of Investment Return

7.00% per annum

LD-ROM Discount Rate

4.13% per annum, compounded annually

Based on the 6/30 S&P Municipal Bond 20-year high grade rate index

Spouse Frequency and Ages

Assume 85% married, with husbands four years older than wives. Surviving spouses of disabled members assumed to receive Social Security benefits after age 65, but not before.

Actuarial Valuation Method

Entry age normal

Asset Valuation Method

Five-year smoothing of difference between market value and expected valuation assets.

Annual Cost-of-Living Adjustment

Division A 2.50%

Division B 1.25%

TABLE XI

SUMMARY OF ACTUARIAL ASSUMPTIONS

ASSUMPTIONS USED DURING THE 5 YEARS PERIOD ENDING JUNE 30, 2022

(Sample Values per 1,000 Lives)

	Age			
	20	35	50	60
Mortality Rates – Active Employees				
Male: 115% RP-2014 Employee Table	.41	.52	1.69	4.69
Females: 115% RP-2014 Employee Table	.16	.29	1.10	2.44
	Age			
	60	70	80	90
Mortality Rates – Inactive Employees				
Male: 115% RP-2014 Blue Collar Proj to 2023 (MP-17)	9.83	22.87	59.48	171.37
Females: 115% RP-2014 Blue Collar Proj to 2023 (MP-17)	7.14	15.85	44.33	136.50
	Age			
	20	35	50	60
Withdrawal Rates				
First Year				
General Government	210.00	180.00	120.00	--
Fire and Police	60.00	40.00	0.00	--
Second Year				
General Government	190.00	150.00	100.00	--
Fire and Police	40.00	28.00	20.00	--
Ultimate				
General Government	219.00	89.00	4.00	--
Fire and Police	71.00	36.00	4.00	--

TABLE XI

SUMMARY OF ACTUARIAL ASSUMPTIONS

ASSUMPTIONS USED DURING THE 5 YEARS PERIOD ENDING JUNE 30, 2022

(Sample Values per 1,000 Lives)

Salary Scale

Declining Scale to age 65	1.055	1.046	1.037	1.031
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Compensation Basis

Gross pay for prior year

Disability Rates

Age			
20	35	50	60

Division A:

General Government

Males: 150% of 1965 Railroad Retirement	0.00	6.00	10.95	37.20
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Females: 1965 Railroad Retirement	0.00	4.00	7.30	24.80
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Fire and Police

200% of 1965 Railroad Retirement	0.00	8.00	14.60	49.60
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50% of disabled members eligible for Social Security disability benefits

Division B:

General Government: Historical Experience

Males	0.00	2.28	6.31	4.58
-------	------	------	------	------

Females	0.00	0.44	3.90	7.29
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Fire and Police: Historical Experience

Combined:	0.00	1.58	5.45	1.28
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50% of disabled members eligible for Social Security disability benefits

One-sixth of disabled members return to work, at 75% of pre-disability salaries

TABLE XI

SUMMARY OF ACTUARIAL ASSUMPTIONS

ASSUMPTIONS USED DURING THE 5 YEARS PERIOD ENDING JUNE 30, 2022

(Sample Values per 1,000 Lives)

	Age			
	20	35	50	60
Rate of Death and Recovery Among Disabled Lives				
Pre-Age 60				
Male: 130% RP-2014 Disabled Mortality	9.24	11.91	26.51	34.59
Female: 130% RP-2014 Disabled Mortality	2.90	5.12	15.48	22.10
	Age			
	60	70	80	90
Post-Age 60				
Male: 150% RP 2000 Disabled Mortality/Recovery	34.59	52.54	99.60	224.91
Female: 150% RP 2000 Disabled Mortality/Recovery	22.10	36.66	79.35	172.45

Social Security Benefit Projection Rate

Wage base escalation at 4.00% per annum

Consumer price index at 2.50% per annum

Rate of Normal Retirement

	Percent Rating at Age							
	55	56	57	58	59	60	61	62
Division A:								
General Government								
Male:	--	--	--	--	--	--	2	5
Female:	--	--	--	--	--	3	4	8
Fire and Police	10	10	10	10	10	50	--	--

TABLE XI

SUMMARY OF ACTUARIAL ASSUMPTIONS

ASSUMPTIONS USED DURING THE 5 YEARS PERIOD ENDING JUNE 30, 2022

(Sample Values per 1,000 Lives)

	Percent Rating at Age							
	63	64	65	66	67	68	69	70
General Government								
Male:	5	12	23	18	6	6	6	17
Female:	6	15	26	11	9	5	3	10
Fire and Police	--	--	--	--	--	--	--	--

Division B:

Percentages of participants retiring in each year before and after a participant's normal retirement age are determined as follows:

	Rates of Retirement						
	NRA-10	NRA-9	NRA-8	NRA-7	NRA-6	NRA-5	NRA-4
General Government	1	1	2	2	2	3	6

	Rates of Retirement						
	NRA-3	NRA-2	NRA-1	NRA	NRA+1	NRA+2	NRA+3
General Government	6	8	8	20	20	20	20

	Rates of Retirement						
	NRA+4	NRA+5	NRA+6	NRA+7	NRA+8	NRA+9	NRA+10
General Government	20	20	30	30	30	30	100

TABLE XI

SUMMARY OF ACTUARIAL ASSUMPTIONS

ASSUMPTIONS USED DURING THE 5 YEARS PERIOD ENDING JUNE 30, 2022

(Sample Values per 1,000 Lives)

An additional 5% of participants in excess of the percentages above are assumed to retire upon attainment of ages 62 and 65 respectively.

	Percent Rating at Age									
	50	51	52	53	54	55	56	57	58	
Fire and Police	3	3	4	8	12	8	8	8	8	
	59	60	61	62	63	64-69				
Fire and Police	5	5	5	5	6	2				

Rate of Investment Return

7.25% per annum

7.00% per annum (for the June 30, 2021 valuation)

Spouse Frequency and Ages

Assume 85% married, with husbands four years older than wives. Surviving spouses of disabled members assumed to receive Social Security benefits after age 65, but not before.

Actuarial Valuation Method

Entry age normal

Asset Valuation Method

Five-year smoothing of difference between market value and expected valuation assets.

Annual Cost-of-Living Adjustment

Division A 2.50%

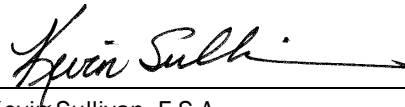
Division B 1.25%

TABLE XII
ACTUARIAL CERTIFICATION

This report has been prepared under my supervision; I am a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and a consulting actuary with USI Consulting Group of Brentwood, Tennessee, and have met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein. To the best of our knowledge this report has been prepared in accordance with generally accepted actuarial standards, including the overall appropriateness of the analysis, assumptions, and results and conforms to appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis for the actuarial report. We are not aware of any direct or material indirect financial interest or relationship, including investment management or other services that could create, or appear to create, a conflict of interest that would impair the objectivity of our work.

June 5, 2024

Date



S. Kevin Sullivan, F.S.A.

Enrollment Number 23-06235