

Montgomery County Employees' Retirement System

Actuarial Valuation as of July 1, 2023



Table of Contents

<u>Section</u>	<u>Page</u>	
		<i>Introduction</i>
A		<i>Actuarial Valuation Results</i>
	1-4	Comments on the Actuarial Valuation
	5-6	Risk Measures
	7-8	Low-Default-Risk Obligation Measure
	9-17	Summary of Actuarial Valuation Results
	18-20	Gain/Loss Analysis
	21	Historical Trends of Funded Ratio and Employer Contributions
	22	Funded Ratio History
	23	Solvency Test
	24	Statement of Fiduciary Net Position
	25	Statement of Changes in Fiduciary Net Position
	26	Development of Actuarial Value of Assets
	27	Allocation of Actuarial Assets by Group
	28	Historical Comparison of Actuarial Value of Assets to Market Value of Assets
B		<i>Actuarial Valuation Data</i>
	1	Summary of Participant Data
	2	Summary of Active Participant Data by Plan
	3	Summary of Active Participant Data by Outside Agencies
	4-7	Age/Service by Group
	8	Schedule of Active Member Data
	9	Schedule of Members in Pay Status
C		<i>Actuarial Valuation Methods and Assumptions</i>
	1-2	Actuarial Cost Method
	3	Actuarial Assumptions in the Valuation Process
	4-13	Actuarial Valuation Assumptions
D		<i>Benefit Provisions</i>
	1-23	Brief Summary of Plan Provisions
E	1	<i>Glossary of Terms</i>



September 29, 2023

Mr. Eli Martinez
Executive Director
Montgomery County Employees' Retirement System
101 Monroe Street, 6th Floor
Rockville, Maryland 20850

Dear Mr. Martinez:

We are pleased to provide our formal annual Actuarial Valuation Report as of July 1, 2023 for the Montgomery County Employees' Retirement System ("System"). The actuarial valuation was performed at the request of Montgomery County ("County") and is intended for use by the County and the System and those designated by the County and the System. This report may be provided to parties other than the County and System only in its entirety and only with the permission of the County and System. GRS is not responsible for unauthorized use of this report.

The purposes of the actuarial valuation are to measure the funding progress of the System and to determine the recommended annual contribution to the System for the Plan Year commencing July 1, 2024, and ending on June 30, 2025. Information required by GASB Statement Nos. 67 and 68 is provided in a separate report. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The recommended annual contribution in this report is determined using the actuarial assumptions and methods disclosed in Section C of this report. This report includes risk metrics on page A-5 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside the scope of this assignment and was not performed.

The actuarial valuation was based upon information furnished by the County Staff, concerning benefits provided by the Montgomery County Employees' Retirement System, financial transactions, plan provisions and census data for active members, terminated members, retirees and beneficiaries as of July 1, 2023. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the County Staff.

This report was prepared using actuarial assumptions adopted by the Board as authorized under Montgomery County Code. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation and meet the parameters set forth in the Actuarial Standards of Practice issued by the Actuarial Standards Board. Additional information about the actuarial assumptions is included in the Section C of this report. The actuarial assumptions used in this actuarial valuation are based on the experience study report covering the period July 1, 2014 through July 1, 2018 and the phase 1 experience study report covering the period July 1, 2018 through July 1, 2022.

The following assumption changes were first reflected in this actuarial valuation:

- The COLA assumption for retirees who receive a COLA increase that is equal to 100% of the change in CPI, up to 3%, and 60% of the change in CPI in excess of 3%, up to a maximum increase of 7.50%, was decreased from 2.50% to 2.45%.
- The mortality improvement projection scale was updated from the MP-2018 to the MP-2021 scale.

The amortization policy has been changed for Groups A, H and GRIP to amortize the combined unfunded liability as of July 1, 2023 over a 20-year closed amortization period as a level percentage of payroll and to amortize subsequent unfunded liability over separate 20-year closed amortization periods as a level percentage of payroll.

The following plan changes have been reflected in this actuarial valuation. All other plan provisions have remained unchanged since the last valuation, performed as of July 1, 2022.

- Group J
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.50% for the first 25 years and 2.00% for the next five years for the benefit payable until the Social Security integration age.
- Group E
 - Up to 24 months of military time is granted to Group E members upon attainment of five years of County service, at no cost to the members.
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 2.25% for the next five years for the benefit payable until the Social Security integration age.
- Group F
 - Eligibility for the Discontinued Retirement Service Program (DRSP) was updated to allow entry upon satisfying normal retirement eligibility conditions (age 55 with 15 years of service or any age with 25 years of service).
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 2.40% for the next nine years for the benefit payable until the Social Security integration age and increased to 1.80% for the first 25 years and 1.65% for the next nine years for the benefit payable after the Social Security integration age.
- Group G
 - Up to 12 months of military time is granted to Group G members upon attainment of seven years of County service and up to an additional 12 months of military time is granted to



- Group G members upon attainment of 15 years of County service, up to a total of 24 months, at no cost to the members.
- The benefit accrual rate for sick leave years of credited service was increased for Group G members to 5.0% for the benefit payable until the Social Security integration age and 3.4375% for the benefit payable upon attainment of the Social Security integration age.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 1.25% for the next six years for the benefit payable until the Social Security integration age and increased to 1.7875% for the first 25 years and 0.859375% for the next six years for the benefit payable after the Social Security integration age.
 - COLA for members hired after July 1, 1978, is 100% of CPI up to 3%, plus 60% of the change in excess of 3%, up to a maximum increase of 5% on the total benefit (both the benefit attributable to service before and after July 1, 2011).

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation, and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled. We are relying on the GRS actuaries and Internal Software, Training and Processes Team who developed and maintain the model.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate, and fairly presents the actuarial position of the Montgomery County Employees' Retirement System as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Amy Williams and Michael D. Kosciuk are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

We will be pleased to review this report with you at your convenience.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Amy Williams, ASA, FCA, MAAA
Senior Consultant



Michael D. Kosciuk, FSA, EA, FCA, MAAA
Consultant

AW/MDK:sc



SECTION A

ACTUARIAL VALUATION RESULTS

Comments on the Actuarial Valuation

At your request, we have performed an actuarial valuation of the Montgomery County Employees' Retirement System as of July 1, 2023.

The purposes of this actuarial valuation are as follows:

- To determine the funding status of the System as of the actuarial valuation date;
- To determine the recommended contribution for the fiscal year beginning July 1, 2024; and
- To provide other data required by the System.

Accounting information required under Governmental Accounting Standards Board ("GASB") Statement Nos. 67 and 68 is presented in a separate report.

We received the data from the Montgomery County Employees' Retirement System Staff. We performed certain checks for reasonableness and found the data to be complete and reliable for actuarial valuation purposes. However, we did not audit the data.

A total of 6,229 active members (excluding DRSP and DROP) were included in the actuarial valuation as of July 1, 2023. Between the 2022 and 2023 actuarial valuations, the number of active employees increased by 273 members. The average annual actuarial valuation pay (excluding DRSP and DROP) increased by 5.8%, from \$85,744 to \$90,695 between the 2022 and 2023 actuarial valuation. The number of benefit recipients (including DRSP and DROP) increased from 6,966 to 6,986, or 0.3%, since the last actuarial valuation. The average monthly benefit increased by 3.1%, from \$3,737 to \$3,852. Section B summarizes the membership data.

There is a group of retirees who have benefits that are insured by Aetna. The total benefit amount reported for each of these members in the actuarial valuation report includes the insured benefit amount. However, the actuarial liabilities exclude the value of the insured benefits. The actuarial liabilities included in the actuarial valuation for these members are for benefits in excess of the insured benefit and represent cost of living adjustments provided by the Montgomery County Employees' Retirement System.

Actuarial Assumptions and Methods

Section C outlines the actuarial assumptions and methods used in the actuarial valuation. The actuarial assumptions used in this actuarial valuation are based on the experience study report covering the period July 1, 2014 through July 1, 2018 and the phase 1 experience study report covering the period July 1, 2018 through July 1, 2022.

The following assumption changes were first reflected in this actuarial valuation:

- The COLA assumption for retirees who receive a COLA increase that is equal to 100% of the change in CPI, up to 3%, and 60% of the change in CPI in excess of 3%, up to a maximum increase of 7.50%, was decreased from 2.50% to 2.45%.
- The mortality improvement projection scale was updated from the MP-2018 to the MP-2021 scale.

The amortization policy has been changed for Groups A, H and GRIP to amortize the combined unfunded liability as of July 1, 2023 over a 20-year closed amortization period as a level percentage of payroll and to



Comments on the Actuarial Valuation (Continued)

amortize subsequent unfunded liability over separate 20-year closed amortization periods as a level percentage of payroll.

The assumption for administrative expenses is equal to 105% of the average of the prior three years' administrative expenses. This amount has increased from \$3,216,600 to \$3,281,200.

All other assumptions used in this actuarial valuation are the same as those used in the actuarial valuation at July 1, 2022.

Plan Changes

Section D outlines the principal benefit provisions of the System. The following plan changes have been reflected in this actuarial valuation. All other plan provisions have remained unchanged since the last valuation, performed as of July 1, 2022.

- Group J
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.50% for the first 25 years and 2.00% for the next five years for the benefit payable until the Social Security integration age.
- Group E
 - Up to 24 months of military time is granted to Group E members upon attainment of five years of County service, at no cost to the members.
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 2.25% for the next five years for the benefit payable until the Social Security integration age.
- Group F
 - Eligibility for the Discontinued Retirement Service Program (DRSP) was updated to allow entry upon satisfying normal retirement eligibility conditions (age 55 with 15 years of service or any age with 25 years of service).
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 2.40% for the next nine years for the benefit payable until the Social Security integration age and increased to 1.80% for the first 25 years and 1.65% for the next nine years for the benefit payable after the Social Security integration age.
- Group G
 - Up to 12 months of military time is granted to Group G members upon attainment of seven years of County service and up to an additional 12 months of military time is granted to Group G members upon attainment of 15 years of County service, up to a total of 24 months, at no cost to the members.
 - The benefit accrual rate for sick leave years of credited service was increased for Group G members to 5.0% for the benefit payable until the Social Security integration age and 3.4375% for the benefit payable upon attainment of the Social Security integration age.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 1.25% for the next six years for the benefit payable until the Social Security integration age and increased to 1.7875% for the first 25 years and 0.859375% for the next six years for the benefit payable after the Social Security integration age.

Comments on the Actuarial Valuation (Continued)

- COLA for members hired after July 1, 1978, is 100% of CPI up to 3%, plus 60% of the change in excess of 3%, up to a maximum increase of 5% on the total benefit (both the benefit attributable to service before and after July 1, 2011).

Plan Experience

During the plan year ending June 30, 2023, the surplus (the actuarial value of assets minus the actuarial accrued liability) of \$90,827,268 as of July 1, 2022, changed to a deficit of \$71,184,308 as of July 1, 2023, which is an increase in the unfunded actuarial accrued liability of \$162,011,576. The key factors contributing to the increase in the unfunded actuarial accrued liability were (1) plan changes for Groups J, E, F and G, (2) higher than expected salary increases, (3) unfavorable asset experience and (4) higher than expected COLA increases for retired members. (The COLA increase was 3.053% or 3.032% compared to an assumed COLA increase of 2.50% for benefits attributable to service prior to July 1, 2011, and 2.50% compared to an assumed COLA increase of 2.20% for benefits attributable to service on or after July 1, 2011. For members who receive an increase based on 60% of CPI, the actual increase was 1.832% compared to an assumed COLA increase of 1.50%.) These increases were partially offset by decreases due to changes in assumptions and higher contributions than those calculated in the 2022 actuarial valuation.

On a market value basis, the Plan assets had an investment return of approximately 3.28%¹ (net of investment expenses). Recognition of the fiscal year end 2020, 2022 and 2023 investment losses were partially offset by recognition of the fiscal year end 2019 and 2021 investment gains. The net investment losses resulted in an estimated net asset rate of return of 6.84% on an actuarial value of assets basis, which compares to the assumed rate of return of 7.50%.

The funded ratio (ratio of assets to liabilities) decreased from 101.9% to 98.6% on an actuarial value of assets basis, and decreased from 100.2% to 94.2% on a market value of assets basis between the 2022 and 2023 actuarial valuations.

The funded ratio and unfunded actuarial accrued liability are useful for assessing the need for and the amount of future unfunded liability contributions (excludes normal cost contributions). They are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the System's benefit obligations.

¹ As provided by Montgomery County ERS.

Recommended County Contributions

The total contribution rate is equal to the normal cost rate plus amortization of the unfunded liability as a level percentage of payroll. The amortization policy was updated beginning with the actuarial valuation as of July 1, 2023 for Groups A, H and GRIP. The combined unfunded liability as of July 1, 2023 (and in each future year) for Groups A, H and GRIP (Groups A and H are closed to new members) is amortized over a 20-year closed amortization period as a level percentage of payroll and subsequent unfunded liability over separate 20-year closed amortization periods as a level percentage of payroll. Under the previous amortization policy for Groups A and H, the unfunded liability (or surplus) for each group was to be amortized over a remaining one-year period as of July 1, 2023.

The unfunded liability as of July 1, 2015, for the Public Safety groups (Groups E, F and G) and Group J was amortized over a closed period of 20 years (12 years remaining at the actuarial valuation as of July 1, 2023) and the unfunded liability bases established in each subsequent year are amortized over separate 20-year closed periods as a level percentage of payroll.



Comments on the Actuarial Valuation (Concluded)

The single equivalent amortization period for the System in total as of July 1, 2023 is 12.8 years. The single equivalent amortization period is 20.0 years for Groups A, H, and GRIP and 14.3 years for the non-GRIP open groups (Public Safety groups and Group J) as of July 1, 2023. There is currently a surplus for all groups except Groups F and G and therefore, the amortization periods relate to amortizing the surplus.

The total contribution rate minus the average employee contribution rate equals the County contribution rate. The actuarial valuation as of July 1, 2022 established the County contribution rate for fiscal year beginning July 1, 2023 and ending June 30, 2024. County contributions of \$6,085,267 in addition to the amount calculated in the July 1, 2022 actuarial valuation will be made in fiscal year 2024 related to the changes in plan provisions. This actuarial valuation as of July 1, 2023 establishes the County contribution rate for fiscal year beginning July 1, 2024, and ending June 30, 2025.

Outside agencies are separately amortizing their portion of the non-GRIP unfunded liability as a level dollar amount over a 20-year closed period as of July 1, 2015 (10-year closed period for Strathmore Hall and Washington Suburban Transit Commission). In determining the unfunded actuarial accrued liability base and amortization of unfunded liability contribution rate for Groups A, H, and GRIP, the non-GRIP outside agencies' unfunded liability was deducted along with excluding the non-GRIP outside agencies' contribution basis payroll for amortization of the unfunded actuarial accrued liability.

The County contribution rates for Groups A, H and GRIP are equal to the separate County normal cost rates for each group plus the pooled unfunded liability contribution rate of -0.72% that was calculated on a combined basis for all three groups. The County contribution rates for fiscal year 2025 increased for Public Safety and for non-Public Safety from the fiscal year 2024 County contribution rate. The increase in the County contribution rate for Public Safety was mainly attributable to the Group E, F and G plan provision changes and higher than expected salary increases. The increase in the County contribution rate for non-Public Safety was mainly attributable to unfavorable plan experience, partially offset by the change in the amortization method for Groups A, H and GRIP. The County contribution rate for GRIP rates for fiscal year 2025 decreased from the fiscal year 2024 County contribution rate due to combining the unfunded liability for Groups A, H and GRIP and calculating a pooled unfunded liability contribution rate.

The actuarial value of assets is currently approximately 105% of the market value of assets. There is \$225,603,438 in asset losses currently being deferred that will be phased into the actuarial value of assets over the next four years. Assuming all future assumptions are realized, there is projected to be an increase in the recommended County contribution as the remaining deferred asset losses are recognized. Without an offsetting asset gain, a significant deferred asset loss of about \$164 million is projected to be recognized in the July 1, 2026 actuarial valuation, which will result in an increase in the fiscal year 2028 County contribution requirement.

A separate contribution rate is calculated for the Public Safety agency (CP) than for the Non-Public Safety agencies (CC, CM, CN, CZ). The same unfunded liability contribution rate and rate for expenses of administration plus the separate Public Safety/Non-Public Safety County normal cost rate (for benefits) was used to calculate the separate GRIP contribution rates.



Risk Measures

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

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

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The County contribution rates shown on page A-9 may be considered as a minimum contribution rate that complies with the County's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



Risk Measures

PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2020	2021	2022	2023
Ratio of the market value of assets to total payroll	8.60	10.46	9.47	8.46
Ratio of actuarial accrued liability to payroll	8.79	9.01	9.45	8.98
Ratio of actives to retirees and beneficiaries ¹	0.91	0.91	0.86	0.89
Ratio of net cash flow to market value of assets	-0.04	-0.03	-0.04	-0.05

¹ DRSP/DROP participants included in the count of retirees and beneficiaries.

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES

A young plan with many active members and few retirees will have a high ratio of actives to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

ADDITIONAL RISK ASSESSMENT

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.



Low-Default-Risk Obligation Measure

INTRODUCTION

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDROM).

What is the LDROM?

The LDROM is a particular measure of the benefits earned (or costs accrued if appropriate under the actuarial cost method used for this purpose) as of the measurement date.

How is the LDROM Calculated?

The LDROM is calculated using an immediate gain actuarial cost method, one in which gains and losses become part of the unfunded actuarial accrued liabilities. Examples would be Entry Age Normal Cost, Projected Unit Credit, and Traditional Unit Credit. It is based upon a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.

What Does the LDROM Tell Me?

The LDROM gives an approximate measure of the cost as of the measurement date of securing benefits by constructing a Low Default Risk Bond portfolio whose cash flows match the pattern of benefits expected to be paid in the future. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa.

Is the LDROM the “Right” Liability that Should Be Reported?

No single number, including the LDROM can provide all of the information necessary to understand the financial condition of a pension plan. The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

“The ASB believes that the calculation and disclosure of this measure provides **appropriate, useful information for the intended user regarding the funded status of a pension plan**. The calculation and disclosure of this additional measure is **not intended to suggest that this is the “right” liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.**”

COMPARING THE ACCRUED LIABILITIES AND THE LDROM

The LDROM results presented in this report are based on the Entry Age Normal (EAN) actuarial cost method and discount rates based upon the June 2023 (end of month) FTSE Pension Discount Curve (PDC). The PDC is calculated based on a universe of AA rated corporate bonds from the FTSE US Broad Investment-Grade Bond Index (USBIG®) of varying maturities and the yields of the Treasury model curve.

The 1-, 5-, 10-, 20- and 30-year rates follow: 5.76%, 4.64%, 4.68%, 5.22% and 4.85%.



Low-Default-Risk Obligation Measure

The funding actuarial accrued liability is based on the EAN actuarial cost method and discount rate (the expected long-term rate of return on assets) of 7.50%.

Presented below is a comparison of the funding actuarial accrued liability and the LDROM as of July 1, 2023 for the Montgomery County Employees' Retirement System:

Funding Valuation Actuarial Accrued Liability	\$ 5,075,056,637
LDROM	<u>6,647,773,498</u>
Difference	\$ (1,572,716,861)

The difference between the funding actuarial accrued liability and the LDROM (\$1,572,716,861) is one illustration of the potential savings in contributions (on a present value basis) due to the additional investment earnings that the System anticipates from taking on the risk in its well-diversified portfolio (which would not be earned by investing in low-default-risk fixed income securities).

Since plan assets are not invested in a portfolio of low-default-risk fixed income securities, LDROM does not provide relevant information on the funded status or statutory contribution requirements. (The funded status and statutory contributions are based on the funding valuation actuarial accrued liability using a discount rate of 7.50%.) Benefit security for members of the plan relies on a combination of the current assets in the plan, the future investment returns generated on those assets, and the promise of future contributions from the plan sponsor.

The LDROM liability contained in this report was provided solely to comply with the requirements of ASOP 4 section 3.11 and should not be used for any other purpose. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation if the portfolio market interest rates used to settle the benefit obligations are significantly different than those used in the LDROM liability measurement.

Summary of Actuarial Valuation Results

		July 1, 2022 Results	July 1, 2023 Results
Membership Data			
Active Members		5,956	6,229
DRSP/DROP		217	177
Deferred Vested		726	768
Retirees and Beneficiaries		6,749	6,809
TOTAL		13,648	13,983
Plan Liabilities			
Actuarial Accrued Liability:			
Active Members		\$ 1,381,262,961	\$ 1,569,656,299
DRSP/DROP		242,815,299	204,625,557
Deferred Vested		56,545,918	64,416,985
Retirees and Beneficiaries		3,144,184,766	3,236,357,796
TOTAL		\$ 4,824,808,944	\$ 5,075,056,637
Actuarial Value of Assets at Valuation Date		\$ 4,915,636,212	\$ 5,003,872,329
Unfunded (Overfunded) Actuarial Accrued Liability		\$ (90,827,268)	\$ 71,184,308
Funded Position of Plan's Actuarial Accrued Liability ¹		101.9 %	98.6 %
Recommended Annual Contribution Requirements ²			
		Fiscal Year 2024	Fiscal Year 2025
Annual Normal Cost		\$ 82,487,400	\$ 94,964,753
Normal Cost Expense Load		3,216,600	3,281,201
Amortization Payment		(6,224,199)	6,185,910
Total Annual Required Contribution		79,479,801	104,431,864
Expected Employee Contributions		27,889,228	30,463,444
County Contribution Requirement		\$ 51,590,573	\$ 73,968,420
Contribution Basis Payroll:			
For Normal Cost		\$ 488,088,753	\$ 539,568,523
For Amortization of Unfunded Liability		\$ 497,332,366	\$ 552,289,993
County Contribution % of Payroll			
Public Safety		16.54%	22.57%
Non-Public Safety		0.71%	4.72%
GRIP		6.10%	5.94%

¹ Equals the ratio of the actuarial value of assets to the total actuarial accrued liability.

² Includes the Retirement Incentive cost. Excludes the non-GRIP outside agency unfunded liability contribution of \$1,245,769. Includes the GRIP outside agency estimated normal cost and unfunded liability contribution and the non-GRIP estimated normal cost contribution of \$592,466 for fiscal year 2024 and \$615,896 for fiscal year 2025. County estimated contribution is \$50,998,107 for fiscal year 2024 and \$73,352,524 for fiscal year 2025.



Contribution Rate Summary

All Plans

	Valuation as of July 1, 2023											July 1, 2022	
	Non-Public Safety				Public Safety				GRIP	Total	Total Agency	Total	
	Group A	Group H	Group J	Total Non PS	Group E	Group F	Group G	Total PS					
County Contribution Requirement (\$)													
Non-GRIP	\$ 2,231,883	\$ 1,120,435	\$ 486,894	\$ 3,839,212	\$ 5,023,817	\$ 18,927,127	\$ 33,548,257	\$ 57,499,201	\$ -	\$ 61,338,413	\$ 1,362,117	\$ 40,642,685	
GRIP	-	-	-	-	-	-	-	-	13,875,776	13,875,776	499,548	12,193,657	
Total All Plans	\$ 2,231,883	\$ 1,120,435	\$ 486,894	\$ 3,839,212	\$ 5,023,817	\$ 18,927,127	\$ 33,548,257	\$ 57,499,201	\$ 13,875,776	\$ 75,214,189	\$ 1,861,665	\$ 52,836,342	
County Normal Cost Contribution Requirement (% of Payroll)													
Non-GRIP	5.64%	5.52%	13.73%	7.02%	14.88%	18.25%	21.51%	19.17%	-	17.12%	5.64%	15.45%	
GRIP	-	-	-	-	-	-	-	-	6.66%	6.66%	6.66%	6.68%	
Total All Plans	5.64%	5.52%	13.73%	7.02%	14.88%	18.25%	21.51%	19.17%	6.66%	12.56%	6.66%	11.85%	
County UAL Contribution Requirement (% of Payroll)													
Non-GRIP	-0.72%	-0.72%	-7.82%	-2.30%	-1.21%	-0.52%	8.81%	3.40%	-	2.59%	NA	-1.74%	
GRIP	-	-	-	-	-	-	-	-	-0.72%	-0.72%	-0.72%	-0.58%	
Total All Plans	-0.72%	-0.72%	-7.82%	-2.30%	-1.21%	-0.52%	8.81%	3.40%	-0.72%	1.12%	NA	-3.27%	
Total County Contribution Requirement (% of Payroll)													
Non-GRIP	4.92%	4.80%	5.91%	4.72%	13.67%	17.73%	30.32%	22.57%	-	19.71%	NA	13.71%	
GRIP	-	-	-	-	-	-	-	-	5.94%	5.94%	5.94%	6.10%	
Total All Plans	4.92%	4.80%	5.91%	4.72%	13.67%	17.73%	30.32%	22.57%	5.94%	13.68%	NA	10.60%	

	Valuation as of July 1, 2022											July 1, 2021	
	Non-Public Safety				Public Safety				GRIP	Total	Total Agency	Total	
	Group A	Group H	Group J	Total Non PS	Group E	Group F	Group G	Total PS					
County Contribution Requirement (\$)													
Non-GRIP	\$ 1,943,009	-	\$ 183,742	\$ 2,126,751	\$ 3,269,384	\$ 10,512,916	\$ 24,733,634	\$ 38,515,934	\$ -	\$ 40,642,685	\$ 1,369,107	\$ 36,938,238	
GRIP	-	-	-	-	-	-	-	-	12,193,657	12,193,657	469,128	11,735,609	
Total All Plans	\$ 1,943,009	\$ -	\$ 183,742	\$ 2,126,751	\$ 3,269,384	\$ 10,512,916	\$ 24,733,634	\$ 38,515,934	\$ 12,193,657	\$ 52,836,342	\$ 1,838,235	\$ 48,673,847	
County Normal Cost Contribution Requirement (% of Payroll)													
Non-GRIP	5.73%	5.61%	13.04%	6.87%	13.41%	16.83%	19.41%	17.44%	-	15.45%	5.73%	15.09%	
GRIP	-	-	-	-	-	-	-	-	6.68%	6.68%	6.68%	6.69%	
Total All Plans	5.73%	5.61%	13.04%	6.87%	13.41%	16.83%	19.41%	17.44%	6.68%	11.85%	6.68%	11.74%	
County UAL Contribution Requirement (% of Payroll)													
Non-GRIP	-3.15%	-5.61%	-10.18%	-6.16%	-3.85%	-5.84%	4.91%	-0.90%	-	-1.74%	NA	-2.82%	
GRIP	-	-	-	-	-	-	-	-	-0.58%	-0.58%	-0.58%	-0.57%	
Total All Plans	-3.15%	-5.61%	-10.18%	-6.16%	-3.85%	-5.84%	4.91%	-0.90%	-0.58%	-3.27%	NA	-4.78%	
Total County Contribution Requirement (% of Payroll)													
Non-GRIP	2.58%	0.00%	2.86%	0.71%	9.56%	10.99%	24.32%	16.54%	-	13.71%	NA	12.27%	
GRIP	-	-	-	-	-	-	-	-	6.10%	6.10%	6.10%	6.12%	
Total All Plans	2.58%	0.00%	2.86%	0.71%	9.56%	10.99%	24.32%	16.54%	6.10%	10.60%	NA	9.83%	

Beginning in fiscal year 2017 for non-GRIP members, outside agencies will make normal cost contributions for their active employees (based on payroll) plus a level dollar amortization payment. The level dollar amortization payment will be made for 20 years (10 years for Strathmore Hall and Washington Suburban Transit Commission) and is not based on payroll. There are 12 years remaining in the 20-year closed amortization period, and 2 years remaining in the 10-year closed amortization period, as of July 1, 2023.

The unfunded liability for the non-Public Safety groups A, H, and GRIP was amortized over a 20-year closed period beginning July 1, 2023. The unfunded liability for the Public Safety groups (Groups E, F and G) and Group J was amortized over separate 20-year closed periods beginning July 1, 2015.



Actuarial Valuation Results

All Plans

	Valuation as of July 1, 2023										July 1, 2022		
	Combined Groups A, H, GRIP	Non-Public Safety			Public Safety					Total	% of Payroll	Total	% of Payroll
		Group A	Group H	Group J	Group E	Group F	Group G	GRIP					
Total All Plans													
Active Members													
Number	3,390	175	274	98	460	1,076	1,205	2,941	6,229		5,956		
Average Age	49.9	59.7	60.6	49.3	42.5	39.9	39.0	48.3	45.5		45.5		
Average Credited Service	10.8	30.2	29.6	14.7	10.8	14.2	12.5	7.9	11.8		12.2		
Total Base Payroll	\$ 291,985,179	\$ 21,433,655	\$ 25,225,984	\$ 9,739,649	\$ 38,663,619	\$ 111,054,938	\$ 113,495,892	\$ 245,325,540	\$ 564,939,277		\$ 510,692,954		
Contribution Basis Payroll:													
For Normal Cost	\$ 277,189,764	\$ 19,417,042	\$ 22,769,114	\$ 9,094,889	\$ 36,916,035	\$ 106,898,116	\$ 109,469,719	\$ 235,003,608	\$ 539,568,523		\$ 488,088,753		
For Amortization of Unfunded Liability*	279,335,895	15,050,570	18,959,785	9,739,649	38,663,619	111,054,938	113,495,892	245,325,540	552,289,993		497,332,366		
DRSP/DROP Members													
Number					29	84	64		177		217		
Total Base Payroll					\$ 3,212,462	\$ 10,603,079	\$ 8,808,364		\$ 22,623,905		\$ 25,288,915		
Total Benefits					1,684,460	6,976,663	5,067,896		13,729,018		16,232,594		
Terminated Vested Members													
Number	673	18	24	4	25	48	18	631	768		726		
Total Benefits (non-GRIP)	\$ 493,841	\$ 275,407	\$ 218,434	\$ 31,964	\$ 205,227	\$ 608,152	\$ 186,612		\$ 1,525,797		\$ 1,763,039		
Retired Members and Beneficiaries													
Number								12	6,809		6,749		
Total Benefits								\$ 183,184	\$ 309,153,544		\$ 296,187,312		
Total Membership								3,584	13,983		13,648		
Actuarial Accrued Liability													
Active Members	\$ 438,271,232	\$ 101,223,486	\$ 104,796,781	\$ 38,064,054	\$ 131,645,070	\$ 499,957,442	\$ 461,718,501	\$ 232,250,965	\$ 1,569,656,299		\$ 1,381,262,961		
DRSP/DROP Members					23,969,144	103,371,976	77,284,437		204,625,557		242,815,299		
Terminated Vested Members	60,454,289	2,508,266	2,099,435	127,280	889,059	2,351,717	594,640	55,846,588	64,416,985		56,545,918		
Retired Members and Beneficiaries	1,398,239,835	815,968,257	580,725,380	27,650,356	308,045,508	812,182,028	690,240,069	1,546,198	3,236,357,796		3,144,184,766		
Total	1,896,965,356	919,700,009	687,621,596	65,841,690	464,548,781	1,417,863,163	1,229,837,647	289,643,751	5,075,056,637		4,824,808,944		
Actuarial Value of Assets	\$ 1,914,664,544			\$ 75,572,282	\$ 469,463,869	\$ 1,416,210,420	\$ 1,127,961,214		\$ 5,003,872,329		\$ 4,915,636,212		
Unfunded Actuarial Accrued Liability	\$ (17,699,188)			\$ (9,730,592)	\$ (4,915,088)	\$ 1,652,743	\$ 101,876,433		\$ 71,184,308		\$ (90,827,268)		
Outside Agency Non-GRIP Unfunded Liability	9,885,730			-	-	-	-		9,885,730		10,441,798		
Employee Contributions Due (COVID Pay)	-			-	-	-	-		-		986,909		
Net Unfunded Actuarial Accrued Liability	(27,584,918)			(9,730,592)	(4,915,088)	1,652,743	101,876,433		61,298,578		(102,255,975)		
Funded Ratio (Actuarial Value of Assets)	100.9%			114.8%	101.1%	99.9%	91.7%		98.6%		101.9%		
Annual Gross Normal Cost													
Benefits	\$ 29,078,140	\$ 2,062,777	\$ 2,406,785	\$ 1,782,982	\$ 7,709,302	\$ 25,697,416	\$ 30,696,913	\$ 24,608,578	\$ 94,964,753	(17.60%)	\$ 82,487,400	(16.90%)	
Expenses of Administration	916,160	211,597	219,067	79,569	275,190	1,045,108	965,174	485,496	3,281,201	(0.61%)	3,216,600	(0.66%)	
Total	29,994,300	2,274,374	2,625,852	1,862,551	7,984,492	26,742,524	31,662,087	25,094,074	98,245,954	(18.21%)	85,704,000	(17.56%)	
Amortization of Unfunded Liability ¹	\$ (2,008,842)	\$ (108,236)	\$ (136,349)	\$ (761,752)	\$ (467,573)	\$ (581,996)	\$ 10,006,073	\$ (1,764,257)	\$ 6,185,910	(1.12%)	\$ (16,277,731)	(-3.27%)	
Final Amortization of Unfunded Liability ²	\$ (2,008,842)	\$ (108,236)	\$ (136,349)	\$ (761,752)	\$ (467,573)	\$ (581,996)	\$ 10,006,073	\$ (1,764,257)	\$ 6,185,910	(1.12%)	\$ (6,224,199)	(-1.25%)	
Annual Contribution Requirement:													
County Portion	\$ 15,982,325	\$ 986,114	\$ 1,120,435	\$ 486,894	\$ 5,023,817	\$ 18,927,127	\$ 33,548,257	\$ 13,875,776	\$ 73,968,420	(13.68%)	\$ 51,590,573	(10.60%)	
Employee Portion	12,003,133	1,180,024	1,369,068	613,905	2,493,102	7,233,401	8,119,903	9,454,041	30,463,444	(5.65%)	27,889,228	(5.71%)	
Total	27,985,458	2,166,138	2,489,503	1,100,799	7,516,919	26,160,528	41,668,160	23,329,817	104,431,864	(19.33%)	79,479,801	(16.31%)	
Non-Public Safety/Public Safety/GRIP County Portion				\$ 2,593,443			\$ 57,499,201	\$ 13,875,776					
*Excludes Non-GRIP Payroll from Outside Agencies													
Outside Agency UAL Payroll		\$ 1,238,692											

¹ Amortization bases established prior to the July 1, 2015 actuarial valuation were recombined into a single amortization base equal to the total unfunded liability as of July 1, 2015. Beginning July 1, 2023, the amortization of the current and future unfunded liability for the non-Public Safety groups A, H, and GRIP was amortized over a 20-year closed period. Beginning July 1, 2015, amortization of the current and future unfunded liability will occur over separate closed 20-year amortization periods for each of the Public Safety groups and Group J.

² The final amortization payment was adjusted such that the County contribution is not lower than \$0.



Actuarial Valuation Results Outside Agencies

Valuation as of July 1, 2023

Non-GRIP	Assessment and		CRU 92 Credit		Housing	Revenue	Strathmore	Town of	Washington	Total Agency (Excluding GRIP)	Total Non-Agency (Excluding GRIP)	Total ERS (Excluding GRIP)
	Taxation	Circuit Court	Union	District Court	Opportunities Commission	Authority	Hall	Chevy Chase	Suburban Transit Commission			
Actuarial Accrued Liability												
Active Members (Non-GRIP)	\$ -	\$ 866,379	\$ -	\$ -	\$ 6,100,668	\$ 593,194	\$ 1,663,350	\$ -	\$ -	\$ 9,223,591	\$ 1,328,181,743	\$ 1,337,405,334
DRSP/DROP Members	-	-	-	-	-	-	-	-	-	-	204,625,557	204,625,557
Terminated Vested Members	-	-	-	-	26,516	-	-	42,138	-	68,653	8,501,744	8,570,397
Retired Members and Beneficiaries	10,721,451	942,928	4,722,404	1,280,482	40,295,961	2,725,865	2,883,788	976,356	237,408	64,786,643	3,170,024,955	3,234,811,598
Total	\$ 10,721,451	\$ 1,809,307	\$ 4,722,404	\$ 1,280,482	\$ 46,423,145	\$ 3,319,059	\$ 4,547,138	\$ 1,018,494	\$ 237,408	\$ 74,078,887	\$ 4,711,333,999	\$ 4,785,412,886
Actuarial Accrued Liability by Group												
Group A	\$ 10,721,451	\$ 1,809,307	\$ 4,722,404	\$ 1,280,482	\$ 46,423,145	\$ 3,319,059	\$ 4,547,138	\$ 1,018,494	\$ 237,408	\$ 74,078,887		
Remaining Unfunded Actuarial Accrued Liability												
Non-GRIP	\$ 1,753,615	\$ 64,153	\$ 581,015	\$ 307,804	\$ 6,271,850	\$ 764,196	\$ 143,097	\$ -	\$ -	\$ 9,885,730		
Closed Level Dollar Amortization of Unfunded Actuarial Accrued Liability ¹												
Non-GRIP	\$ 210,887	\$ 7,715	\$ 69,872	\$ 37,016	\$ 754,243	\$ 91,901	\$ 74,135	\$ -	\$ -	\$ 1,245,769		
Contribution Basis Payroll:												
For Normal Cost (Non-GRIP)	\$ -	\$ -	\$ 124,953	\$ -	\$ 1,587,722	\$ 95,986	\$ 254,255	\$ -	\$ -	\$ 2,062,916	\$ 302,501,999	304,564,915
Normal Cost Contribution Requirement (% of Payroll)												
	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%		
Estimated Normal Cost \$ Contribution Requirement	\$ -	\$ -	\$ 7,047	\$ -	\$ 89,548	\$ 5,414	\$ 14,340	\$ -	\$ -	\$ 116,348	\$ 52,026,129	\$ 52,142,477
Actual \$ UAL Contribution Requirement	210,887	7,715	69,872	37,016	754,243	91,901	74,135	-	-	1,245,769	7,950,167	9,195,936
Estimated Total \$ Contribution Requirement	\$ 210,887	\$ 7,715	\$ 76,919	\$ 37,016	\$ 843,791	\$ 97,315	\$ 88,475	\$ -	\$ -	\$ 1,362,117	\$ 59,976,296	\$ 61,338,413

¹ Chevy Chase and Washington Suburban Transit Commission paid off their remaining unfunded liability and therefore have no remaining balance as of July 1, 2018 and July 1, 2021, respectively. For Strathmore Hall, the remaining amortization period is 2 years as of July 1, 2023. For all other agencies, the remaining amortization period is 12 years as of July 1, 2023.

Beginning in fiscal year 2017 for non-GRIP members, outside agencies will make normal cost contributions for their active employees (based on payroll) plus the level dollar amortization payment shown above. The level dollar amortization payment will be made for 20 years (10 years for Strathmore Hall and Washington Suburban Transit Commission) and is not based on payroll. Contributions for GRIP members will continue to be made based on the contribution rates determined in the actuarial valuations and actual payroll. Contribution basis payroll for normal cost that is shown is the fiscal year 2024 amount. Actual projected payroll for non-GRIP for fiscal year 2025 may be lower than the amount shown (or \$0 if there are no remaining active members).



Actuarial Valuation Results Outside Agencies

Valuation as of July 1, 2023

	Assessment and		CRU 92 Credit		Housing		Revenue		Town of Chevy		Washington	Total Agency	Total Non-Agency	Total ERS (GRIP)
	Taxation	Circuit Court	Union	District Court	Opportunities Commission	Authority	Strathmore Hall	Chase	Transit Commission	(GRIP)	(GRIP)			
GRIP														
Actuarial Accrued Liability														
Active Members (GRIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,992,636	\$ 193,774	\$ 411,784	\$ 347,651	\$ -	\$ -	\$ 8,945,845	\$ 223,305,120	\$ 232,250,965
Terminated Vested Members	-	-	-	-	-	4,516,960	87,779	477,747	-	-	-	5,082,487	50,764,101	55,846,588
Retired Members and Beneficiaries	-	-	-	-	-	-	-	-	-	-	-	-	1,546,198	1,546,198
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,509,596	\$ 281,553	\$ 889,531	\$ 347,651	\$ -	\$ -	\$ 14,028,332	\$ 275,615,419	\$ 289,643,751
Contribution Basis Payroll:														
For Normal Cost (GRIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,152,356	\$ 388,279	\$ 881,280	\$ 36,113	\$ -	\$ -	\$ 8,458,028	\$ 226,545,580	\$ 235,003,608
For Amortization of Unfunded Liability (GRIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,501,976	\$ 399,480	\$ 917,025	\$ 36,674	\$ -	\$ -	\$ 8,855,155	\$ 236,470,385	\$ 245,325,540
Normal Cost Contribution Requirement (% of Payroll)	6.66%	6.66%	6.66%	6.66%	6.66%	6.66%	6.66%	6.66%	6.66%	6.66%	6.66%			
UAL Contribution Requirement (% of Payroll)	-0.72%	-0.72%	-0.72%	-0.72%	-0.72%	-0.72%	-0.72%	-0.72%	-0.72%	-0.72%	-0.72%			
Estimated Normal Cost \$ Contribution Requirement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 476,347	\$ 25,859	\$ 58,693	\$ 2,405	\$ -	\$ -	\$ 563,305	\$ 15,076,728	\$ 15,640,033
Estimated \$ UAL Contribution Requirement	-	-	-	-	-	(54,014)	(2,876)	(6,603)	(264)	-	-	(63,757)	(1,700,500)	(1,764,257)
Estimated Total \$ Contribution Requirement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 422,333	\$ 22,983	\$ 52,091	\$ 2,141	\$ -	\$ -	\$ 499,548	\$ 13,376,228	\$ 13,875,776
Total Non-GRIP and GRIP														
Fixed Closed Level Dollar Amortization Payment	\$ 210,887	\$ 7,715	\$ 69,872	\$ 37,016	\$ 754,243	\$ 91,901	\$ 74,135	\$ -	\$ -	\$ -	\$ -	\$ 1,245,769		
Estimated \$ Contribution for Payroll Based Contribution	-	-	7,047	-	511,880	28,397	66,431	2,141	-	-	-	615,896		
Total Estimated Contribution	\$ 210,887	\$ 7,715	\$ 76,919	\$ 37,016	\$ 1,266,123	\$ 120,298	\$ 140,565	\$ 2,141	\$ -	\$ -	\$ -	\$ 1,861,665	\$ 73,352,524	\$ 75,214,189

Beginning in fiscal year 2017 for non-GRIP members, outside agencies will make normal cost contributions for their active employees (based on payroll) plus the level dollar amortization payment shown above. The level dollar amortization payment will be made for 20 years (10 years for Strathmore Hall and Washington Suburban Transit Commission) and is not based on payroll. Contributions for GRIP members will continue to be made based on the contribution rates determined in the actuarial valuations and actual payroll. Contribution basis payroll for normal cost that is shown is the fiscal year 2024 amount. Actual projected payroll for non-GRIP for fiscal year 2025 may be lower than the amount shown (or \$0 if there are no remaining active members).



Actuarial Valuation Results

Guaranteed Retirement Income Plan (GRIP)

	Valuation as of July 1, 2023						July 1, 2022		
	Agency					Total GRIP	Total		
	CC	CM	CN	CP	CZ				
Total All Plans									
Active Members									
Number	1	2,233	703	1	3	2,941		2,626	
Average Age	65.3	47.7	50.1	44.3	66.8	48.3		48.5	
Average Credited Service	7.5	7.4	9.7	5.9	8.6	7.9		8.2	
Total Base Payroll	\$ 46,698	\$ 166,260,737	\$ 78,371,709	\$ 110,035	\$ 536,360	\$ 245,325,540		\$ 209,462,326	
Contribution Basis Payroll:									
For Normal Cost	\$ 43,604	\$ 159,204,019	\$ 75,201,472	\$ 107,035	\$ 447,478	\$ 235,003,608		\$ 200,743,962	
For Amortization of Unfunded Liability	46,698	166,260,737	78,371,709	110,035	536,360	245,325,539		209,462,325	
Terminated Members									
Number	2	413	208	4	4	631		576	
Retired Members and Beneficiaries									
Number		8	4			12		10	
Total Benefits		\$ 117,030	\$ 66,154			\$ 183,184		\$ 165,456	
Total Membership	3	2,654	915	5	7	3,584		3,212	
Actuarial Accrued Liability									
Active Members	\$ 39,470	\$ 133,309,551	\$ 98,249,005	\$ 75,299	\$ 577,640	\$ 232,250,965		\$ 208,890,780	
Terminated Vested Members	147,885	24,161,788	28,090,150	2,288,945	1,157,821	55,846,588		44,943,068	
Retired Members and Beneficiaries	-	1,033,624	512,574	-	-	1,546,198		1,418,943	
Total	187,355	158,504,963	126,851,729	2,364,244	1,735,461	289,643,751		255,252,791	
Annual Gross Normal Cost									
Benefits	\$ 4,610	\$ 16,653,094	\$ 7,891,243	\$ 12,031	\$ 47,600	\$ 24,608,578	(10.47%)	\$ 21,031,255	(10.48%)
Expenses of Administration ¹	90	328,902	155,359	221	924	485,496	(0.21%)	486,452	(0.24%)
Total	4,700	16,981,996	8,046,602	12,252	48,524	25,094,074	(10.68%)	21,517,707	(10.72%)
Amortization of Unfunded Liability ²	\$ (336)	\$ (1,195,663)	\$ (563,610)	\$ (791)	\$ (3,857)	\$ (1,764,257)	-(0.72%)	\$ (1,220,093)	-(0.58%)
Annual Contribution Requirement:									
County Portion	\$ 2,620	\$ 9,418,091	\$ 4,421,296	\$ 8,250	\$ 25,519	\$ 13,875,776	(5.94%)	\$ 12,193,656	(6.10%)
Employee Portion	1,744	6,368,242	3,061,696	3,211	19,148	9,454,041	(4.02%)	8,103,958	(4.04%)
Total	4,364	15,786,333	7,482,992	11,461	44,667	23,329,817	(9.96%)	20,297,614	(10.14%)
Non-Public Safety County Portion						\$ 13,867,526	(5.94%)	\$ 12,191,798	(6.10%)
Public Safety County Portion (Agency CP)						\$ 8,250	(7.73%)	\$ 1,858	(2.22%)

¹ The normal cost rate for expenses of administration is set to 0.21% of payroll for each agency.

² The contribution for the amortization of the unfunded liability for each agency is equal to -0.72% based on the updated funding policy to combine Groups A, H and GRIP for funding purposes.



Actuarial Valuation Results

Amortization of Unfunded Actuarial Accrued Liability and Amortization Payments By Group

Combined Groups A, H and GRIP

Base Year	Description	Unfunded Liability Base ¹		Financing Period	Amortization Factor	Amortization Payment			
		Combined Groups A, H and GRIP				Group A	Group H	GRIP	Combined Groups A, H and GRIP
2023	Unfunded Liability (Surplus) Before FY 2023 Changes	\$	(9,835,627)	20	13.731755				\$ (716,269)
2023	FY 2023 Assumption and Method Changes		(17,749,291)	20	13.731755				(1,292,573)
2023	FY 2023 Plan Changes		-	20	13.731755				-
Unfunded Liability		\$	(27,584,918)	20.0 yrs.	13.731755	\$ (108,236)	\$ (136,349)	\$ (1,764,257)	\$ (2,008,842)
Payroll for Unfunded Liability						\$ 15,050,570	\$ 18,959,785	\$ 245,325,540	\$ 279,335,895
Unfunded Liability Contribution Rate						-0.72%	-0.72%	-0.72%	-0.72%

¹ Unfunded liability excludes Outside Agency Non-GRIP unfunded liability of \$9,885,730. The unfunded liability contribution rate for Groups A, H and GRIP is equal to the combined unfunded liability for all three groups as of July 1, 2023 amortized over a 20-year closed period as a percent of the combined payroll.



Actuarial Valuation Results

Amortization of Unfunded Actuarial Accrued Liability and Amortization Payments By Group

Open Groups

Base Year	Description	Unfunded Liability Base					Remaining Financing Period	Amortization Factor	Amortization Payment				
		Group J	Group E	Group F	Group G	Total			Group J	Group E	Group F	Group G	Total
2015	Pre FY 2015 Retirement Incentive	\$ -	\$ 939,940	\$ -	\$ -	\$ 939,940	12 yrs.	9.588723	\$ -	\$ 98,026	\$ -	\$ -	\$ 98,026
2015	Pre FY 2015 Plan Experience	-	34,203,748	100,487,670	101,912,868	236,604,286	12	9.588723	-	3,567,081	10,479,776	10,628,409	24,675,266
2015	Pre FY 2015 Plan Changes	-	3,055,410	(1,475,801)	63,250,387	64,829,996	12	9.588723	-	318,646	(153,910)	6,596,331	6,761,067
2015	Pre FY 2015 Cost Method Changes	-	187,777	316,986	1,198,642	1,703,405	12	9.588723	-	19,583	33,058	125,005	177,646
2015	FY 2015 Plan Experience	-	(20,556,722)	(53,575,758)	(36,356,805)	(110,489,285)	12	9.588723	-	(2,143,844)	(5,587,372)	(3,791,621)	(11,522,837)
2015	FY 2015 Assumption and Method Changes	-	(7,231,834)	(16,535,209)	(7,329,503)	(31,096,546)	12	9.588723	-	(754,202)	(1,724,443)	(764,388)	(3,243,033)
2015	FY 2015 Plan Changes	-	4,087,929	-	-	4,087,929	12	9.588723	-	426,327	-	-	426,327
2016	FY 2016 Plan Experience	-	(6,853,074)	(22,976,353)	(19,189,194)	(49,018,621)	13	10.187335	-	(672,705)	(2,255,384)	(1,883,632)	(4,811,721)
2017	FY 2017 Plan Experience	(197,103)	(10,207,682)	(21,694,115)	(20,090,661)	(52,189,561)	14	10.760888	(18,317)	(948,591)	(2,016,015)	(1,867,008)	(4,849,931)
2018	FY 2018 Plan Experience	(387,969)	(5,239,560)	(13,575,314)	1,079,663	(18,123,180)	15	11.310432	(34,302)	(463,250)	(1,200,247)	95,457	(1,602,342)
2019	FY 2019 Plan Experience	(262,177)	54,984	(6,092,560)	(9,507,320)	(15,807,073)	16	11.836972	(22,149)	4,645	(514,706)	(803,188)	(1,335,398)
2019	FY 2019 Assumption and Method Changes	(598,239)	(3,972,972)	(12,477,571)	(10,756,083)	(27,804,865)	16	11.836972	(50,540)	(335,641)	(1,054,118)	(908,685)	(2,348,984)
2020	FY 2020 Plan Experience	646,209	(1,274,041)	993,848	3,078,972	3,444,988	17	12.341471	52,361	(103,233)	80,529	249,482	279,139
2021	FY 2021 Plan Experience	(3,332,049)	(15,321,516)	(43,053,612)	(42,367,473)	(104,074,650)	18	12.824851	(259,812)	(1,194,674)	(3,357,046)	(3,303,545)	(8,115,077)
2022	FY 2022 Plan Experience	(8,730,778)	9,800,076	9,727,742	12,106,651	22,903,691	19	13.287997	(657,042)	737,513	732,070	911,097	1,723,638
2022	FY 2022 Plan Change	-	-	6,017,746	-	6,017,746	19	13.287997	-	-	452,871	-	452,871
2023	FY 2023 Plan Experience	1,530,153	5,277,189	42,405,217	25,635,683	74,848,242	20	13.731755	111,432	384,305	3,088,113	1,866,890	5,450,740
2023	FY 2023 Assumption and Method Changes	(352,997)	(3,522,354)	(9,157,856)	(7,178,023)	(20,211,230)	20	13.731755	(25,707)	(256,512)	(666,911)	(522,732)	(1,471,862)
2023	FY 2023 Plan Changes	1,954,358	11,657,614	42,317,683	46,388,629	102,318,284	20	13.731755	142,324	848,953	3,081,739	3,378,201	7,451,217
Unfunded Liability		\$ (9,730,592)	\$ (4,915,088)	\$ 1,652,743	\$ 101,876,433	\$ 88,883,496	14.3 yrs.	10.846392	\$ (761,752)	\$ (467,573)	\$ (581,996)	\$ 10,006,073	\$ 8,194,752

For illustrative purposes, we have illustrated the amortization payment based on combining the outstanding amortization bases and amortizing the (surplus)/unfunded liability over 20 years.

Unfunded Liability Base					Financing Period	Amortization Factor	Amortization Payment				
Group J	Group E	Group F	Group G	Total			Group J	Group E	Group F	Group G	Total
\$ (9,730,592)	\$ (4,915,088)	\$ 1,652,743	\$ 101,876,433	\$ 88,883,496	20 yrs.	13.731755	\$ (708,620)	\$ (357,936)	\$ 120,359	\$ 7,419,039	\$ 6,472,843



Actuarial Valuation Results

Amortization of Unfunded Actuarial Accrued Liability and Amortization Payments By Group

Total

Base Year	Description	Unfunded Liability Base ¹						
		Combined Groups	Open Groups					
		Combined Groups A, H, and GRIP	Group J	Group E	Group F	Group G	Total	
2015	Pre FY 2015 Retirement Incentive		\$ -	\$ 939,940	\$ -	\$ -	\$ 939,940	
2015	Pre FY 2015 Plan Experience		-	34,203,748	100,487,670	101,912,868	236,604,286	
2015	Pre FY 2015 Plan Changes		-	3,055,410	(1,475,801)	63,250,387	64,829,996	
2015	Pre FY 2015 Cost Method Changes		-	187,777	316,986	1,198,642	1,703,405	
2015	FY 2015 Plan Experience		-	(20,556,722)	(53,575,758)	(36,356,805)	(110,489,285)	
2015	FY 2015 Assumption and Method Changes		-	(7,231,834)	(16,535,209)	(7,329,503)	(31,096,546)	
2015	FY 2015 Plan Changes		-	4,087,929	-	-	4,087,929	
2016	FY 2016 Plan Experience		-	(6,853,074)	(22,976,353)	(19,189,194)	(49,018,621)	
2017	FY 2017 Plan Experience		(197,103)	(10,207,682)	(21,694,115)	(20,090,661)	(52,189,561)	
2018	FY 2018 Plan Experience		(387,969)	(5,239,560)	(13,575,314)	1,079,663	(18,123,180)	
2019	FY 2019 Plan Experience		(262,177)	54,984	(6,092,560)	(9,507,320)	(15,807,073)	
2019	FY 2019 Assumption and Method Changes		(598,239)	(3,972,972)	(12,477,571)	(10,756,083)	(27,804,865)	
2020	FY 2020 Plan Experience		646,209	(1,274,041)	993,848	3,078,972	3,444,988	
2021	FY 2021 Plan Experience		(3,332,049)	(15,321,516)	(43,053,612)	(42,367,473)	(104,074,650)	
2022	FY 2022 Plan Experience		(8,730,778)	9,800,076	9,727,742	12,106,651	22,903,691	
2022	FY 2022 Plan Change		-	-	6,017,746	-	6,017,746	
2023	FY 2023 Plan Experience	\$	(9,835,627)	1,530,153	5,277,189	42,405,217	25,635,683	
2023	FY 2023 Assumption and Method Changes		(17,749,291)	(352,997)	(3,522,354)	(9,157,856)	(7,178,023)	
2023	FY 2023 Plan Changes			1,954,358	11,657,614	42,317,683	46,388,629	
	Unfunded Liability	\$	(27,584,918)	(9,730,592)	(4,915,088)	1,652,743	\$ 101,876,433	\$ 61,298,578

Base Year	Description	Remaining Financing Period	Amortization Factor	Amortization of Unfunded Liability Base						
				Combined Groups	Open Groups					
				Combined Groups A, H, and GRIP	Group J	Group E	Group F	Group G	Total	
2015	Pre FY 2015 Retirement Incentive	12.0 yrs.	9.588681		\$ -	\$ 98,026	\$ -	\$ -	\$ 98,026	
2015	Pre FY 2015 Plan Experience	12.0	9.588723		-	3,567,081	10,479,776	10,628,409	24,675,266	
2015	Pre FY 2015 Plan Changes	12.0	9.588723		-	318,646	(153,910)	6,596,331	6,761,067	
2015	Pre FY 2015 Cost Method Changes	12.0	9.588761		-	19,583	33,058	125,005	177,646	
2015	FY 2015 Plan Experience	12.0	9.588722		-	(2,143,844)	(5,587,372)	(3,791,621)	(11,522,837)	
2015	FY 2015 Assumption and Method Changes	12.0	9.588723		-	(754,202)	(1,724,443)	(764,388)	(3,243,033)	
2015	FY 2015 Plan Changes	12.0	9.588717		-	426,327	-	-	426,327	
2016	FY 2016 Plan Experience	13.0	10.187337		-	(672,705)	(2,255,384)	(1,883,632)	(4,811,721)	
2017	FY 2017 Plan Experience	14.0	10.760887		(18,317)	(948,591)	(2,016,015)	(1,867,008)	(4,849,931)	
2018	FY 2018 Plan Experience	15.0	11.310432		(34,302)	(463,250)	(1,200,247)	95,457	(1,602,342)	
2019	FY 2019 Plan Experience	16.0	11.836975		(22,149)	4,645	(514,706)	(803,188)	(1,335,398)	
2019	FY 2019 Assumption and Method Changes	16.0	11.836975		(50,540)	(335,641)	(1,054,118)	(908,685)	(2,348,984)	
2020	FY 2020 Plan Experience	17.0	12.341479		52,361	(103,233)	80,529	249,482	279,139	
2021	FY 2021 Plan Experience	18.0	12.824851		(259,812)	(1,194,674)	(3,357,046)	(3,303,545)	(8,115,077)	
2022	FY 2022 Plan Experience	19.0	13.287994		(657,042)	737,513	732,070	911,097	1,723,638	
2022	FY 2022 Plan Change	19.0	13.287992		-	-	452,871	-	452,871	
2023	FY 2023 Plan Experience	20.0	13.731759	\$	(716,269)	111,432	384,305	3,088,113	1,866,890	
2023	FY 2023 Assumption and Method Changes	20.0	13.731747		(1,292,573)	(25,707)	(256,512)	(666,911)	(522,732)	
2023	FY 2023 Plan Changes	20.0	13.731755			142,324	848,953	3,081,739	3,378,201	
	Amortization Payments	12.8 yrs.	9.909387	\$	(2,008,842)	(761,752)	(467,573)	(581,996)	\$ 10,006,073	\$ 6,185,910

¹ Unfunded liability for Group A excludes Outside Agency Non-GRIP unfunded liability of \$9,885,730.



Actuarial Valuation Results

Gain/Loss Analysis

	Group J	Groups A, H, GRIP	Public Safety	Total
Unfunded liability at previous valuation	\$ (12,925,721)	\$ (25,350,459)	\$ (52,551,088)	\$ (90,827,268)
Expected unfunded liability at current valuation				
Normal cost for plan year	1,739,686	26,809,446	57,154,868	85,704,000
Interest on unfunded liability and normal cost	(905,370)	(914,105)	(1,836,771)	(3,656,246)
Contributions with interest to current valuation date ¹	<u>770,700</u>	<u>24,482,309</u>	<u>56,915,776</u>	<u>82,168,785</u>
Total expected change in unfunded liability at current valuation	63,616	1,413,032	(1,597,679)	(121,031)
Total expected unfunded liability at current valuation	(12,862,105)	(23,937,427)	(54,148,767)	(90,948,299)
Change due to:				
Recognition of asset (gains)/losses	468,384	12,230,610	18,977,838	31,676,832
Salary increases	827,689	3,160,528	52,146,520	56,134,737
COLA increases	96,455	7,063,349	9,724,682	16,884,486
Amount and timing of contributions ²	(916,040)	(4,982,133)	(1,169,811)	(7,067,984)
Demographic experience and other	1,053,664	6,515,176	(7,422,067)	146,773
Change in actuarial assumptions	(352,997)	(17,749,291)	(19,858,233)	(37,960,521)
Plan improvements	1,954,358	-	100,363,926	102,318,284
Measurement improvements	-	-	-	-
Total change	<u>3,131,513</u>	<u>6,238,239</u>	<u>152,762,855</u>	<u>162,132,607</u>
Unfunded liability at current valuation	\$ (9,730,592)	\$ (17,699,188)	\$ 98,614,088	\$ 71,184,308

	County Contribution			Funded Status
	Group J	Groups A, H, GRIP	Public Safety	Total
FY 2024 County Contribution/July 1, 2022 Funded Ratio	2.86%	5.25%	16.54%	101.9%
FY 2025 County Contribution/Expected July 1, 2023 Funded Ratio	2.57%	5.39%	16.53%	102.1%
Change due to:				
Recognition of asset (gains)/losses	0.35%	2.15%	0.53%	-0.6%
Salary increases	0.92%	0.66%	1.49%	-1.2%
COLA increases	0.07%	1.44%	0.27%	-0.3%
Amount and timing of contributions	-0.68%	-0.38%	-0.03%	0.1%
Demographic experience and other	0.76%	0.57%	-0.24%	-0.1%
Measurement improvements	0.00%	0.00%	0.00%	0.0%
Plan improvements	2.24%	0.00%	4.63%	-2.1%
Change in assumptions and amortization period	-0.32%	-4.06%	-0.61%	0.8%
Total change	<u>3.34%</u>	<u>0.38%</u>	<u>6.04%</u>	<u>-3.4%</u>
FY 2025 County Contribution/July 1, 2023 Funded Ratio	5.91%	5.77%	22.57%	98.6%

Demographic Experience and Other includes changes due to retirement, mortality, disability and termination experience that varied from the actuarial assumptions, and data changes.

¹ Based on the normal cost and amortization payments from the actuarial valuation as of July 1, 2022.

² Reflects differences in unfunded liability contributions between when the contribution rate was calculated (actuarial valuation date) and when the contributions were made (fiscal year).



Actuarial Valuation Results

Gain/Loss Analysis

Reconciliation of County Contribution Requirement

FY 2024 County contribution	\$ 51,590,573
Change in normal cost (plan experience)	7,962,454
Expected Increase in amortization payment	<u>(186,726)</u>
Expected FY 2025 County contribution	\$ 59,366,301
Change in normal cost due to:	
Change in normal cost (assumptions)	\$ (184,281)
Change in normal cost (plan changes)	<u>4,763,780</u>
Sum of changes	4,579,499
Change in amortization payment due to:	
Recognition of asset (gains)/losses	\$ 7,419,001
Salary increases	5,657,857
COLA increases	4,738,121
Demographic experience	(1,038,465)
Amount and timing of contributions	(1,416,502)
Change in assumptions and amortization method	(12,788,609)
Change in provisions	<u>7,451,217</u>
Sum of changes	10,022,620
FY 2025 County contribution	\$ 73,968,420

Includes the Retirement Incentive cost. Excludes the non-GRIP outside agency unfunded liability contribution of \$1,245,769. Includes the GRIP outside agency estimated normal cost and unfunded liability contribution and the non-GRIP estimated normal cost contribution of \$592,466 for fiscal year 2024 and \$615,896 for fiscal year 2025. County estimated contribution is \$50,998,107 for fiscal year 2024 and \$73,352,524 for fiscal year 2025.

County contributions of \$6,085,267 in addition to the amount calculated in the July 1, 2022 actuarial valuation will be made in fiscal year 2024 related to the changes in plan provisions.



Actuarial Valuation Results

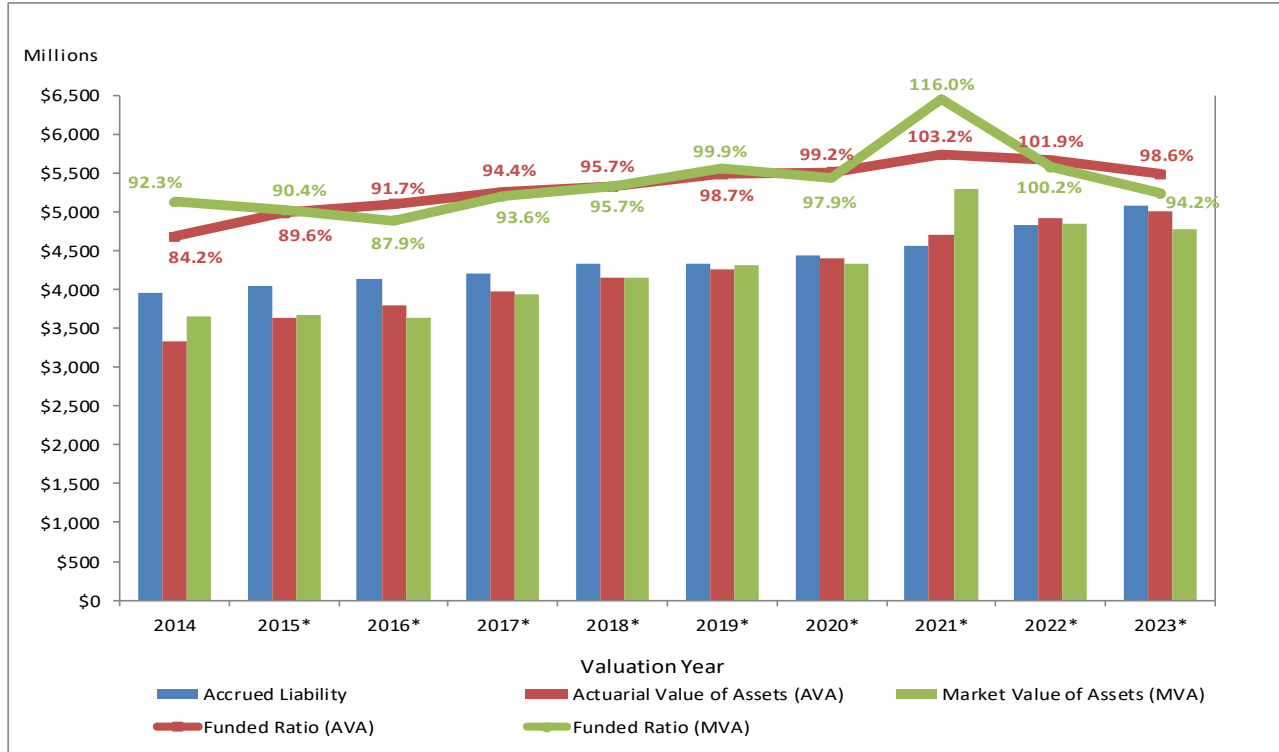
Gain/Loss Analysis

	Valuation as of July 1, 2023							
	Non-Public Safety			Public Safety				Total
	Group A	Group H	Group J	Group E	Group F	Group G	GRIP	
Actuarial Accrued Liability								
Baseline	\$ 930,123,919	\$ 694,936,848	\$ 64,240,329	\$ 456,413,521	\$ 1,384,703,336	\$ 1,190,627,041	\$ 289,653,880	\$ 5,010,698,874
Change due to:								
Assumptions and Methods	(10,423,910)	(7,315,252)	(352,997)	(3,522,354)	(9,157,856)	(7,178,023)	(10,129)	(37,960,521)
Group J - Integration Age Change			1,193,586					1,193,586
Group J - Benefit Multiplier Change			760,772					760,772
Group E - Integration Age Change				3,524,458				3,524,458
Group E - Free Military Service				1,097,159				1,097,159
Group E - Benefit Multiplier Change				7,035,997				7,035,997
Group F - DRSP Eligibility Change					1,130,337			1,130,337
Group F - Integration Age Change					12,244,775			12,244,775
Group F - Benefit Multiplier Change					28,942,571			28,942,571
Group G - Free Military Service						2,037,701		2,037,701
Group G - Sick Leave Multiplier Change						14,385,633		14,385,633
Group G - COLA Change						13,041,941		13,041,941
Group G - Benefit Multiplier Change						16,923,354		16,923,354
Total due to plan changes	-	-	1,954,358	11,657,614	42,317,683	46,388,629	-	102,318,284
Final Actuarial Accrued Liability	\$ 919,700,009	\$ 687,621,596	\$ 65,841,690	\$ 464,548,781	\$ 1,417,863,163	\$ 1,229,837,647	\$ 289,643,751	\$ 5,075,056,637
Annual Contribution Requirement								
Baseline	\$ 12,685,838	\$ -	\$ 304,677	\$ 3,863,845	\$ 14,867,758	\$ 28,364,211	\$ 14,639,984	\$ 74,726,313
Change due to:								
Assumptions and Methods	(11,699,724)	1,120,435	(30,859)	(275,313)	(725,668)	(597,553)	(764,208)	(12,972,889)
Group J - Integration Age Change			122,387					122,387
Group J - Benefit Multiplier Change			90,689					90,689
Group E - Integration Age Change				417,225				417,225
Group E - Free Military Service				143,958				143,958
Group E - Benefit Multiplier Change				874,102				874,102
Group F - DRSP Eligibility Change					125,650			125,650
Group F - Integration Age Change					1,345,794			1,345,794
Group F - Benefit Multiplier Change					3,313,593			3,313,593
Group G - Free Military Service						240,508		240,508
Group G - Sick Leave Multiplier Change						1,738,788		1,738,788
Group G - COLA Change						1,600,501		1,600,501
Group G - Benefit Multiplier Change						2,201,802		2,201,802
Total due to plan changes	-	-	213,076	1,435,285	4,785,037	5,781,599	-	12,214,997
Final Annual Contribution Requirement	\$ 986,114	\$ 1,120,435	\$ 486,894	\$ 5,023,817	\$ 18,927,127	\$ 33,548,257	\$ 13,875,776	\$ 73,968,420

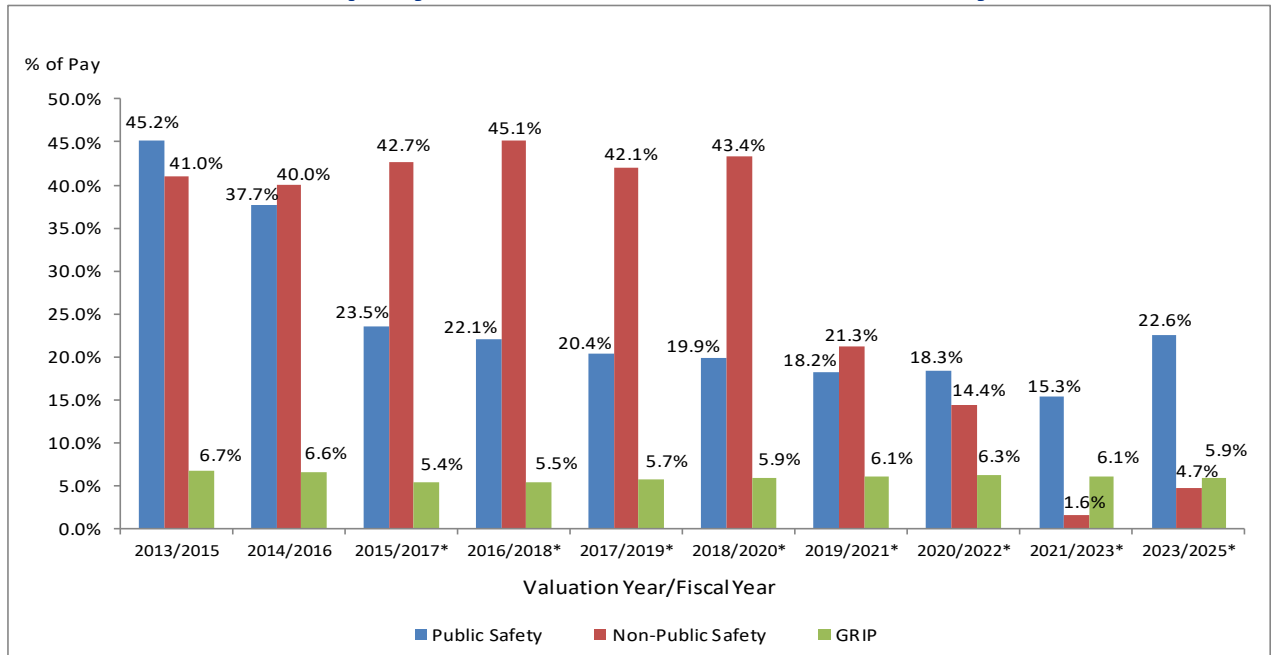


Historical Trends of Funded Ratio and Employer Contributions

Funded Ratio History



Employer Contribution Rate History

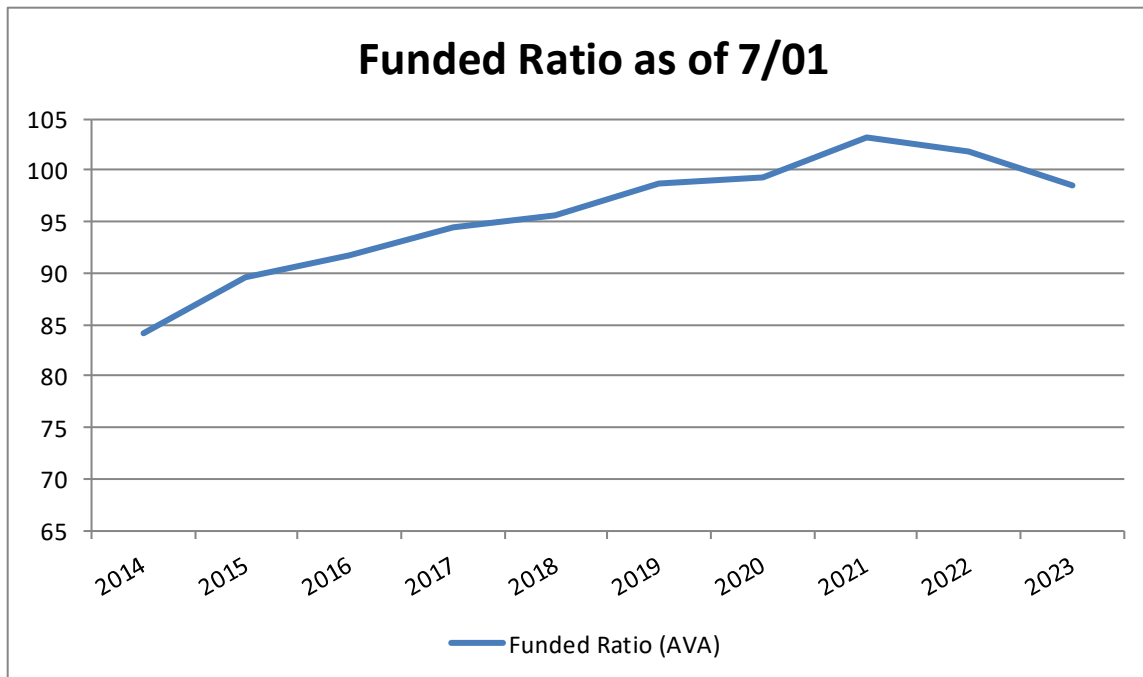


* Results beginning with the 2015 valuation (FY 2017) include changes to amortization periods used to finance the unfunded liability and changes to the actuarial assumptions used in the valuation, based on the key findings from an experience review of the System for the period from July 1, 2009 to July 1, 2014. Results beginning with the 2019 valuation (FY 2021) include changes to the actuarial assumptions used in the valuation, based on the key findings from an experience review of the System for the period from July 1, 2014 to July 1, 2018.



Funded Ratio History

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (AVA) (a / b)
7/1/2014	\$3,333,484,724	\$3,958,929,718	\$625,444,994	84.2 %
7/1/2015	3,630,075,610	4,050,736,852	420,661,242	89.6
7/1/2016	3,798,555,275	4,141,060,968	342,505,693	91.7
7/1/2017	3,968,497,692	4,202,633,142	234,135,450	94.4
7/1/2018	4,149,354,330	4,334,296,798	184,942,468	95.7
7/1/2019	4,261,996,413	4,320,161,072	58,164,659	98.7
7/1/2020	4,393,054,415	4,428,048,342	34,993,927	99.2
7/1/2021	4,709,827,390	4,564,967,315	(144,860,075)	103.2
7/1/2022	4,915,636,212	4,824,808,944	(90,827,268)	101.9
7/1/2023	5,003,872,329	5,075,056,637	71,184,308	98.6



Actuarial Valuation Results Solvency Test

Valuation Date	(1) Active Member Contributions	(2) Retirees, Term Vested and Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion (%) of Present Value Covered By Assets			
					(1)	(2)	(3)	
6/30	Total Actuarial Accrued Liability							
2014	\$3,958,929,718	\$265,055,643	\$ 2,585,446,584	\$ 1,108,427,491	\$3,333,484,724	100%	100%	44%
2015	4,050,736,852	280,135,577	2,698,040,722	1,072,560,553	3,630,075,610	100%	100%	61%
2016	4,141,060,968	297,715,372	2,747,575,831	1,095,769,765	3,798,555,275	100%	100%	69%
2017	4,202,633,142	314,707,102	2,789,167,599	1,098,758,441	3,968,497,692	100%	100%	79%
2018	4,334,296,798	327,611,097	2,900,824,622	1,105,861,079	4,149,354,330	100%	100%	83%
2019	4,320,161,072	333,645,308	2,927,345,196	1,059,170,568	4,261,996,413	100%	100%	95%
2020	4,428,048,342	350,094,770	3,003,483,784	1,074,469,788	4,393,054,415	100%	100%	97%
2021	4,564,967,315	357,460,046	3,175,042,247	1,032,465,022	4,709,827,390	100%	100%	100%
2022	4,824,808,944	357,178,578	3,443,545,983	1,024,084,383	4,915,636,212	100%	100%	100%
2023	5,075,056,637	376,109,982	3,505,400,338	1,193,546,318	5,003,872,329	100%	100%	94%

DRSP and DROP member liability included in item (2) with retirees.



Statement of Fiduciary Net Position

Assets	Fiscal Year Ending	
	June 30, 2022	June 30, 2023
Equity in County's pooled cash and investments	\$ 2,027,017	\$ 533,121
Investments:		
Government and agency obligations	90,898,497	93,931,515
Municipal/Provincial obligations	6,901,970	6,212,249
Asset-backed securities	-	-
Corporate bonds	403,474,888	370,885,557
Collateralized mortgage obligations	-	-
Commercial mortgage-backed securities	2,681,279	1,911,798
Common and preferred stock	1,099,036,741	1,001,153,671
Mutual and commingled funds	1,653,739,980	1,507,342,585
Short-term investments	173,905,699	213,371,201
Cash collateral received under securities lending agreements	191,146,313	153,525,364
Private real assets	433,852,253	497,879,182
Private equity/debt	971,247,096	1,077,712,424
Total Investments	<u>5,026,884,716</u>	<u>4,923,925,546</u>
Dividend, interest and other receivables	11,508,575	11,441,323
Contributions receivable	6,918,120	3,524,000
Net capital assets	-	-
Total assets	<u>5,047,338,428</u>	<u>4,939,423,990</u>
Liabilities		
Payable for collateral received under securities lending agreements	191,146,313	153,525,364
Benefit payable and other liabilities	19,876,179	7,629,735
Total liabilities	<u>211,022,492</u>	<u>161,155,099</u>
Net position restricted for pensions	<u>\$ 4,836,315,936</u>	<u>\$ 4,778,268,891</u>

Statement of Changes in Fiduciary Net Position Total Employees' Retirement System (ERS)

	Fiscal Year Ending	
	June 30, 2022	June 30, 2023
Additions:		
Contributions:		
Employer	\$ 68,120,087	\$ 52,523,686
Members	31,202,587	33,543,896
Total contributions	99,322,674	86,067,582
Total income from investment activities	(217,530,202)	199,703,743
Less investment expenses	40,397,410	18,760,157
Net income (loss) from investment activities	(257,927,612)	180,943,586
Income from securities lending	1,181,873	7,423,162
Less securities lending expenses	375,532	6,488,569
Net income from securities lending	806,341	934,593
Total additions (deductions)	(157,798,597)	267,945,761
Deductions:		
Retiree benefits	220,330,653	238,982,643
Disability benefits	55,902,141	59,673,567
Survivor benefits	10,770,287	11,782,336
Refunds and distributions	11,722,715	12,310,678
Administrative expenses	3,132,193	3,243,582
Total deductions	301,857,989	325,992,806
Net increase in net position	(459,656,586)	(58,047,045)
Net position restricted for pensions		
Beginning of year	5,295,972,522	4,836,315,936
End of year	\$4,836,315,936	\$4,778,268,891



Development of Actuarial Value of Assets (Total ERS)

Fiscal Year Ending	2022	2023	2024	2025	2026	2027
Beginning of Year:						
(1) Market Value of Assets	\$ 5,295,972,522	\$ 4,836,315,936				
(2) Actuarial Value of Assets	4,709,827,390	4,915,636,212				
End of Year:						
(3) Market Value of Assets	4,836,315,936	4,778,268,891				
(4a) Contributions	99,322,674	86,067,582				
(4b) Net Disbursements	301,857,989	325,992,806				
(5) Total Investment Income						
=(3)-(1)-(4a)+(4b)	(257,121,271)	181,878,179				
(6) Projected Rate of Return	7.50%	7.50%				
(7) Projected Investment Income						
=(1)x(6)+([1+(6)]^5-1)x(4a-4b)	389,740,170	353,889,152				
(8) Asset Adjustment	-	-				
(9) Investment Income in Excess of Projected Income	(646,861,441)	(172,010,973)				
(10) Excess Investment Income Recognized						
This Year (5-year recognition)						
(10a) From This Year	\$ (129,372,288)	\$ (34,402,195)				
(10b) From One Year Ago	164,522,789	(129,372,288)	\$ (34,402,195)			
(10c) From Two Years Ago	(28,923,375)	164,522,789	(129,372,288)	\$ (34,402,195)		
(10d) From Three Years Ago	2,447,256	(28,923,375)	164,522,789	(129,372,288)	\$ (34,402,195)	
(10e) From Four Years Ago	9,929,585	2,447,258	(28,923,373)	164,522,789	(129,372,289)	\$ (34,402,193)
(10f) Total Recognized Investment Gain/(Loss)	18,603,967	(25,727,811)	(28,175,067)	748,306	(163,774,484)	(34,402,193)
(11) Change in Actuarial Value of Assets						
=(4a)-(4b)+(7)+(8)+(10f)	205,808,822	88,236,117				
End of Year:						
(3) Market Value of Assets	\$ 4,836,315,936	\$ 4,778,268,891				
(12) Final Actuarial Value of Assets as of 6/30 = (2)+(11)	\$ 4,915,636,212	\$ 5,003,872,329				
(13) Difference between Market & Actuarial Values	(79,320,276)	(225,603,438)				
(14) Estimated Market Value Rate of Return on Total Plan Assets	(4.95)%	3.86%				
(15) Estimated Market Value Return on Invested Plan Assets ¹	(3.17)%	3.28%				
(16) Actuarial Value Rate of Return	8.86%	6.84%				
(17) Ratio of Actuarial Value to Market Value	102%	105%				

¹ Rate calculated and provided by the County.



Allocation of Actuarial Value of Assets by Group

	Valuation as of July 1, 2023						July 1, 2022
	Non-Public Safety		Public Safety				Total
	Groups A, H, GRIP	Group J	Group E	Group F	Group G	Total	
Beginning of Year:							
(1) Actuarial Value of Assets ¹	\$ 1,914,154,397	\$ 71,206,700	\$ 464,272,269	\$ 1,382,574,114	\$ 1,083,428,732	\$ 4,915,636,212	\$ 4,709,827,390
End of Year:							
(2a) County Contributions	\$ 15,674,850	\$ 902,408	\$ 2,569,751	\$ 9,708,628	\$ 23,668,049	\$ 52,523,686	\$ 68,120,087
(2b) Employee Contributions	<u>12,743,181</u>	<u>724,428</u>	<u>2,866,878</u>	<u>8,044,383</u>	<u>9,165,026</u>	<u>33,543,896</u>	<u>31,202,587</u>
(2c) Total Contributions ²	\$ 28,418,031	\$ 1,626,836	\$ 5,436,629	\$ 17,753,011	\$ 32,833,075	\$ 86,067,582	\$ 99,322,674
(3a) Benefit Payments and Refunds	\$ 153,573,382	\$ 2,031,333	\$ 30,864,716	\$ 75,745,416	\$ 60,534,377	\$ 322,749,224	\$ 298,725,796
(3b) Administrative Expenses	<u>1,019,455</u>	<u>84,050</u>	<u>272,268</u>	<u>957,069</u>	<u>910,740</u>	<u>3,243,582</u>	<u>3,132,193</u>
(3c) Total Deductions ³	\$ 154,592,837	\$ 2,115,383	\$ 31,136,984	\$ 76,702,485	\$ 61,445,117	\$ 325,992,806	\$ 301,857,989
(4) Investment Return (AVA Basis)	\$ 126,684,952	\$ 4,854,129	\$ 30,891,955	\$ 92,585,780	\$ 73,144,524	\$ 328,161,341	\$ 408,344,137
(5) Actuarial Value of Assets	\$ 1,914,664,543	\$ 75,572,282	\$ 469,463,869	\$ 1,416,210,420	\$ 1,127,961,214	\$ 5,003,872,329	\$ 4,915,636,212
(6) AVA Rate of Return	6.84%	6.84%	6.84%	6.84%	6.84%	6.84%	8.86%

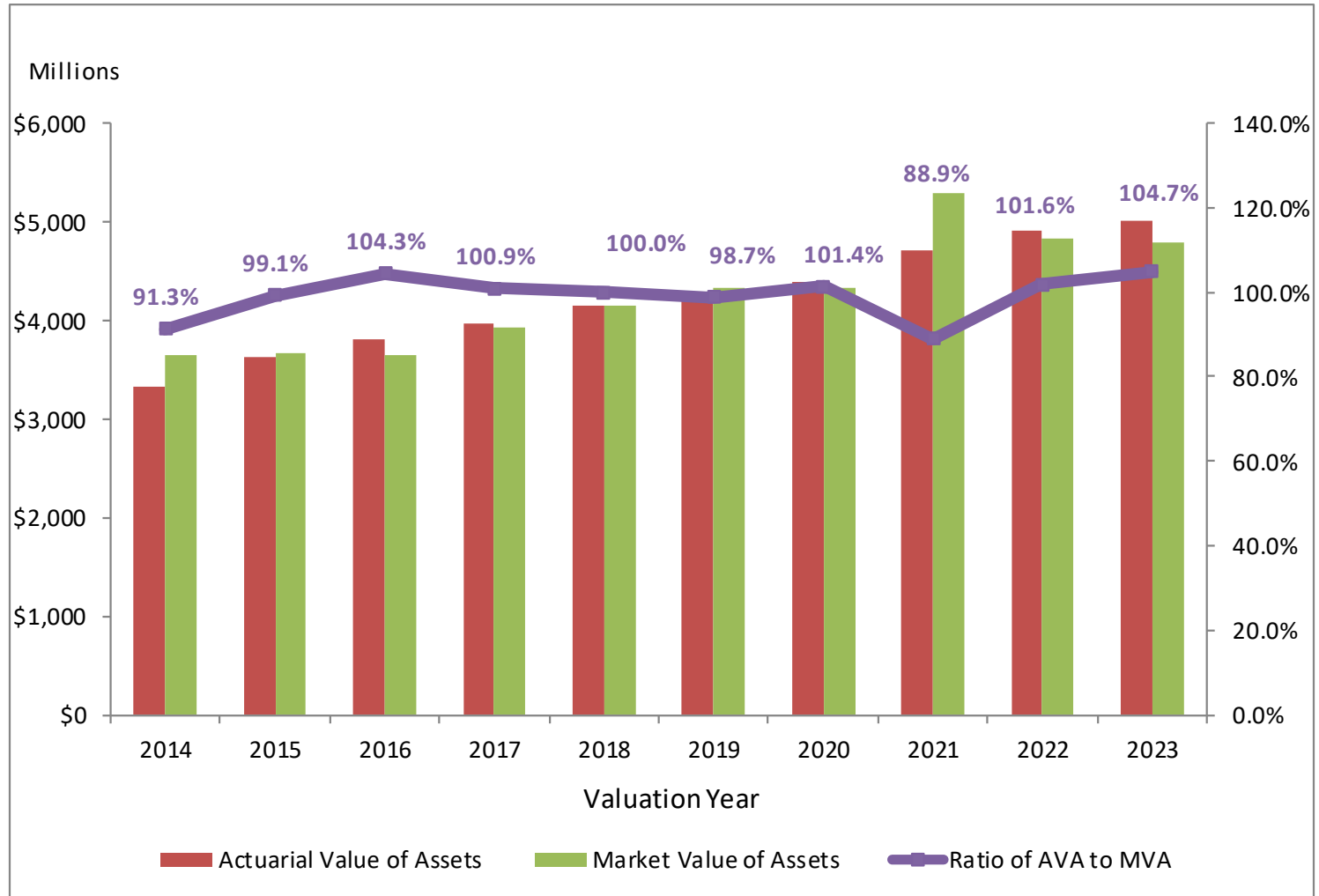
¹ Actuarial value of assets by group is from the actuarial valuation as of July 1, 2022.

² Contributions by group allocated based on fiscal year 2023 contribution rates and expected fiscal year 2023 payroll from the prior actuarial valuation as of July 1, 2022.

³ Deductions by group allocated based on amounts projected by group from the prior actuarial valuation as of July 1, 2022.



Historical Comparison of Actuarial Value of Assets to Market Value of Assets (Total ERS)



SECTION B

ACTUARIAL VALUATION DATA

Summary of Participant Data (July 1, 2023 and July 1, 2022)

	Valuation as of July 1, 2023							Total
	Non-Public Safety			Public Safety				
	Group A	Group H	Group J	Group E	Group F	Group G	GRIP	
Total All Plans								
Active Members								
Number	175	274	98	460	1,076	1,205	2,941	6,229
Average Age	59.7	60.6	49.3	42.5	39.9	39.0	48.3	45.5
Average Service	30.2	29.6	14.7	10.8	14.2	12.5	7.9	11.8
Total Base Payroll	\$ 21,433,655	\$ 25,225,984	\$ 9,739,649	\$ 38,663,619	\$ 111,054,938	\$ 113,495,892	\$ 245,325,540	\$ 564,939,277
Contribution Basis Payroll:								
For Normal Cost	\$ 19,417,042	\$ 22,769,114	\$ 9,094,889	\$ 36,916,035	\$ 106,898,116	\$ 109,469,719	\$ 235,003,608	\$ 539,568,523
For Amortization of Unfunded Liability*	15,050,570	18,959,785	9,739,649	38,663,619	111,054,938	113,495,892	245,325,540	552,289,993
DRSP/DROP Members								
Number				29	84	64		177
Total Base Payroll				\$ 3,212,462	\$ 10,603,079	\$ 8,808,364		\$ 22,623,905
Total Benefits				1,684,460	6,976,663	5,067,896		13,729,019
Terminated Vested Members								
Number	18	24	4	25	48	18	631	768
Total Benefits	\$ 275,407	\$ 218,434	\$ 31,964	\$ 205,227	\$ 608,152	\$ 186,612		\$ 1,525,796
Retired Members and Beneficiaries								
Number							12	6,809
Total Benefits							\$ 183,184	\$ 309,153,544
Total Membership							3,584	13,983

	Valuation as of July 1, 2022							Total
	Non-Public Safety			Public Safety				
	Group A	Group H	Group J	Group E	Group F	Group G	GRIP	
Total All Plans								
Active Members								
Number	196	307	98	462	1,088	1,179	2,626	5,956
Average Age	59.9	60.2	49.4	42.0	39.7	39.0	48.5	45.5
Average Service	30.8	29.2	15.1	10.8	13.9	12.4	8.2	12.2
Total Base Payroll	\$ 22,997,228	\$ 26,734,796	\$ 9,437,676	\$ 36,443,733	\$ 101,124,671	\$ 104,492,525	\$ 209,462,325	\$ 510,692,954
Contribution Basis Payroll:								
For Normal Cost	\$ 20,913,131	\$ 24,272,587	\$ 8,777,375	\$ 34,837,396	\$ 97,557,764	\$ 100,986,538	\$ 200,743,962	\$ 488,088,753
For Amortization of Unfunded Liability*	15,895,169	20,476,267	9,437,676	36,443,733	101,124,671	104,492,525	209,462,325	497,332,366
DRSP/DROP Members								
Number				39	111	67		217
Total Base Payroll				\$ 4,350,921	\$ 12,619,289	\$ 8,318,705		\$ 25,288,915
Total Benefits				2,465,016	8,606,995	5,160,583		16,232,594
Terminated Vested Members								
Number	22	29	5	27	46	21	576	726
Total Benefits	\$ 307,147	\$ 235,599	\$ 49,340	\$ 427,390	\$ 525,176	\$ 204,581		\$ 1,749,233
Retired Members and Beneficiaries								
Number							10	6,749
Total Benefits							\$ 165,456	\$ 296,187,312
Total Membership							3,212	13,648

*Excludes Non-GRIP UAL Payroll from Outside Agencies. As of July 1, 2023, this amount is \$1,238,692, and as of July 1, 2022, this amount is \$1,725,277.



Summary of Active Participant Data by Plan

	Valuation as of July 1, 2023 Including DROP/DRSP Actives							Total
	Non-Public Safety			Public Safety			GRIP	
	Group A	Group H	Group J	Group E	Group F	Group G		
<u>Optional Non-Integrated</u>								
Number	1	2	-	-	-	1		4
Total Base Payroll	\$ 118,548	\$ 214,530	\$ -	\$ -	\$ -	\$ 128,235		\$ 461,313
<u>Optional Integrated</u>								
Number	2	-	-	-	-	-		2
Total Base Payroll	\$ 209,707	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 209,707
<u>Mandatory Integrated</u>								
Number	172	272	98	489	1,160	1,268		3,459
Total Base Payroll	\$ 21,105,400	\$ 25,011,454	\$ 9,739,649	\$ 41,876,081	\$ 121,658,018	\$ 122,176,021		\$ 341,566,623
<u>GRIP</u>								
Number							2,941	2,941
Total Base Payroll							\$ 245,325,540	\$ 245,325,540
<u>Total All Plans</u>								
Number	175	274	98	489	1,160	1,269	2,941	6,406
Total Base Payroll	\$ 21,433,655	\$ 25,225,984	\$ 9,739,649	\$ 41,876,081	\$ 121,658,018	\$ 122,304,256	\$ 245,325,540	\$ 587,563,183
	Valuation as of July 1, 2023 Excluding DROP/DRSP Actives							
	Non-Public Safety			Public Safety			GRIP	Total
	Group A	Group H	Group J	Group E	Group F	Group G		
	<u>Optional Non-Integrated</u>							
Number	1	2	-	-	-	1		4
Total Base Payroll	\$ 118,548	\$ 214,530	\$ -	\$ -	\$ -	\$ 128,235		\$ 461,313
<u>Optional Integrated</u>								
Number	2	-	-	-	-	-		2
Total Base Payroll	\$ 209,707	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 209,707
<u>Mandatory Integrated</u>								
Number	172	272	98	460	1,076	1,204		3,282
Total Base Payroll	\$ 21,105,400	\$ 25,011,454	\$ 9,739,649	\$ 38,663,619	\$ 111,054,938	\$ 113,367,657		\$ 318,942,717
<u>GRIP</u>								
Number							2,941	2,941
Total Base Payroll							\$ 245,325,540	\$ 245,325,540
<u>Total All Plans</u>								
Number	175	274	98	460	1,076	1,205	2,941	6,229
Total Base Payroll	\$ 21,433,655	\$ 25,225,984	\$ 9,739,649	\$ 38,663,619	\$ 111,054,938	\$ 113,495,892	\$ 245,325,540	\$ 564,939,277



Summary of Active Participant Data by Outside Agencies

Valuation as of July 1, 2023

	Assessment and Taxation	Circuit Court	CRU 92 Credit Union	District Court	Housing Opportunities Commission	Revenue Authority	Strathmore Hall	Town of Chevy Chase	Washington Suburban Transit Commission	Total Agency	Total Non- Agency	Total ERS
Non-GRIP Membership												
Active Members												
Number	-	1	-	-	14	2	1	-	-	18	3,270	3,288
Average Age	-	72.6	-	-	66.0	54.5	55.9	-	-	64.5	42.9	43.0
Average Service	-	52.0	-	-	32.9	33.2	28.8	-	-	33.7	15.2	15.3
Total Base Payroll	\$ -	\$ 118,548	\$ -	\$ -	\$ 1,428,633	\$ 106,602	\$ 278,668	\$ -	\$ -	\$ 1,932,451	\$ 317,681,286	\$ 319,613,737
DRSP/DROP Members												
Number											177	177
Total Base Payroll											\$ 22,623,905	\$ 22,623,905
Total Benefits											\$ 13,729,018	\$ 13,729,018
Terminated Vested Members												
Number	-	-	-	-	1	-	-	1	-	2	135	137
Total Benefits	\$ -	\$ -	\$ -	\$ -	\$ 2,783	\$ -	\$ -	\$ 4,366	\$ -	\$ 7,149	\$ 1,518,648	\$ 1,525,797
Retired Members and Beneficiaries												
Number	16	4	8	5	147	17	6	4	1	208	6,589	6,797
Total Benefits	\$1,200,270	\$104,617	\$434,847	\$169,178	\$4,209,325	\$322,334	\$262,165	\$109,021	\$17,616	\$6,829,374	\$ 302,140,985	\$ 308,970,360
Total Non-GRIP Membership	16	5	8	5	162	19	7	5	1	228	10,171	10,399
GRIP Membership												
Active Members												
Number	-	-	-	-	92	6	16	1	-	115	2,826	2,941
Average Age	-	-	-	-	51.8	44.3	42.5	45.1	-	50.1	48.2	48.3
Average Service	-	-	-	-	8.9	4.6	3.5	12.5	-	7.9	7.9	7.9
Total Base Payroll	\$ -	\$ -	\$ -	\$ -	\$ 7,501,976	\$ 399,480	\$ 917,025	\$ 36,674	\$ -	\$ 8,855,155	\$ 236,470,385	\$ 245,325,540
Terminated GRIP Members	-	-	-	-	57	2	8	-	-	67	564	631
Retired GRIP Members	-	-	-	-	-	-	-	-	-	-	12	12
Total GRIP Membership	-	-	-	-	149	8	24	1	-	182	3,402	3,584
Total GRIP and Non-GRIP Membership	16	5	8	5	311	27	31	6	1	410	13,573	13,983



Age/Service by Group as of July 1, 2023

Group A

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	-	-	-	-	-	-	-	-	-	0	\$ -
25-29	1	-	-	-	-	-	-	-	-	1	64,929
30-34	-	-	-	-	-	-	-	-	-	0	-
35-39	-	1	1	-	-	-	-	-	-	2	188,803
40-44	1	1	-	4	-	-	-	-	-	6	535,195
45-49	1	2	-	2	2	2	-	-	-	9	930,033
50-54	-	-	-	3	-	10	14	-	-	27	3,029,878
55-59	-	-	-	3	3	9	24	4	-	43	5,384,670
60-64	-	-	-	-	-	8	24	13	1	46	6,156,645
65-69	-	-	1	1	1	6	7	6	4	26	3,296,355
70-74	-	-	-	-	-	3	4	2	3	12	1,496,187
75 and Over	-	-	-	-	-	1	-	-	2	3	350,960
Total	3	4	2	13	6	39	73	25	10	175	\$ 21,433,655

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	59.7	Average Age:	59.9
Average Service:	30.2	Average Service:	30.8
Average Annual Pay:	\$ 122,478	Average Annual Pay:	\$ 117,333
Vested Participants	172	Vested Participants	196
Nonvested Participants	3	Nonvested Participants	-
Total Participants	175	Total Participants	196

Group H

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	-	-	-	-	-	-	-	-	-	0	\$ -
25-29	1	-	-	-	-	-	-	-	-	1	58,263
30-34	-	2	-	-	-	-	-	-	-	2	155,615
35-39	-	-	1	3	-	-	-	-	-	4	363,508
40-44	1	3	-	3	1	-	-	-	-	8	663,909
45-49	1	1	-	2	3	1	-	-	-	8	832,052
50-54	2	-	1	2	3	12	15	2	-	37	3,464,206
55-59	2	-	1	5	9	21	19	6	-	63	5,730,070
60-64	-	1	1	-	4	11	33	11	3	64	5,957,793
65-69	-	-	-	-	4	11	18	15	5	53	4,786,377
70-74	-	-	-	-	2	4	8	10	6	30	2,821,671
75 and Over	-	-	-	-	-	1	1	-	2	4	392,520
Total	7	7	4	15	26	61	94	44	16	274	\$ 25,225,984

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	60.6	Average Age:	60.2
Average Service:	29.6	Average Service:	29.2
Average Annual Pay:	\$ 92,066	Average Annual Pay:	\$ 87,084
Vested Participants	267	Vested Participants	299
Nonvested Participants	7	Nonvested Participants	8
Total Participants	274	Total Participants	307



Age/Service by Group as of July 1, 2023

Group J

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	-	-	-	-	-	-	-	-	-	0	\$ -
25-29	-	-	-	-	-	-	-	-	-	0	-
30-34	3	5	-	-	-	-	-	-	-	8	673,791
35-39	5	2	2	1	-	-	-	-	-	10	837,495
40-44	2	3	3	8	1	-	-	-	-	17	1,682,980
45-49	1	1	2	2	7	2	-	-	-	15	1,594,312
50-54	5	2	1	1	5	3	-	-	-	17	1,828,073
55-59	-	-	2	3	7	1	-	1	-	14	1,460,417
60-64	2	1	1	4	5	-	1	-	-	14	1,374,854
65-69	-	-	-	1	-	-	-	-	-	1	74,637
70-74	-	-	1	-	1	-	-	-	-	2	213,090
75 and Over	-	-	-	-	-	-	-	-	-	0	-
Total	18	14	12	20	26	6	1	1	-	98	\$ 9,739,649

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	49.3	Average Age:	49.4
Average Service:	14.7	Average Service:	15.1
Average Annual Pay:	\$ 99,384	Average Annual Pay:	\$ 96,303
Vested Participants	80	Vested Participants	86
Nonvested Participants	18	Nonvested Participants	12
Total Participants	98	Total Participants	98

Group E

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	15	-	-	-	-	-	-	-	-	15	\$ 877,597
25-29	25	12	-	-	-	-	-	-	-	37	2,460,426
30-34	31	32	7	-	-	-	-	-	-	70	5,049,108
35-39	16	29	15	4	-	-	-	-	-	64	4,949,668
40-44	23	12	10	27	6	-	-	-	-	78	6,819,182
45-49	15	8	4	23	32	2	-	-	-	84	7,991,867
50-54	10	12	5	18	14	4	-	-	-	63	5,736,420
55-59	4	4	1	7	8	7	-	-	-	31	3,028,236
60-64	1	1	1	4	5	1	-	-	-	13	1,237,010
65-69	-	-	1	-	-	4	-	-	-	5	514,105
70-74	-	-	-	-	-	-	-	-	-	0	-
75 and Over	-	-	-	-	-	-	-	-	-	0	-
Total	140	110	44	83	65	18	-	-	-	460	\$ 38,663,619

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	42.5	Average Age:	42.0
Average Service:	10.8	Average Service:	10.8
Average Annual Pay:	\$ 84,051	Average Annual Pay:	\$ 78,883
Vested Participants	320	Vested Participants	313
Nonvested Participants	140	Nonvested Participants	149
Total Participants	460	Total Participants	462



Age/Service by Group as of July 1, 2023

Group F

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	41	-	-	-	-	-	-	-	-	41	\$ 2,568,207
25-29	85	36	-	-	-	-	-	-	-	121	8,652,735
30-34	28	127	33	-	-	-	-	-	-	188	16,119,067
35-39	10	50	87	58	-	-	-	-	-	205	20,667,979
40-44	2	11	20	116	52	-	-	-	-	201	23,445,502
45-49	-	7	4	38	86	19	-	-	-	154	18,880,417
50-54	-	1	5	17	36	58	1	1	-	119	14,884,006
55-59	-	-	-	8	8	15	7	-	-	38	4,800,347
60-64	-	-	-	1	1	2	-	1	1	6	709,210
65-69	-	-	1	-	1	-	-	1	-	3	327,467
70-74	-	-	-	-	-	-	-	-	-	0	-
75 and Over	-	-	-	-	-	-	-	-	-	0	-
Total	166	232	150	238	184	94	8	3	1	1,076	\$ 111,054,938

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	39.9	Average Age:	39.7
Average Service:	14.2	Average Service:	13.9
Average Annual Pay:	\$ 103,211	Average Annual Pay:	\$ 92,945
Vested Participants	910	Vested Participants	904
Nonvested Participants	166	Nonvested Participants	184
Total Participants	1,076	Total Participants	1,088

Group G

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	72	-	-	-	-	-	-	-	-	72	\$ 4,012,431
25-29	94	40	4	-	-	-	-	-	-	138	9,061,458
30-34	64	85	64	4	-	-	-	-	-	217	17,134,683
35-39	28	68	81	76	1	-	-	-	-	254	23,416,974
40-44	9	27	26	108	32	1	-	-	-	203	21,490,319
45-49	1	8	14	50	58	20	-	-	-	151	17,750,529
50-54	3	3	5	27	51	21	11	1	-	122	14,653,862
55-59	-	1	3	6	7	13	9	1	-	40	5,106,043
60-64	-	-	1	1	-	1	-	-	1	4	415,600
65-69	-	-	-	2	-	-	-	1	1	4	453,992
70-74	-	-	-	-	-	-	-	-	-	0	-
75 and Over	-	-	-	-	-	-	-	-	-	0	-
Total	271	232	198	274	149	56	20	3	2	1,205	\$ 113,495,892

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	39.0	Average Age:	39.0
Average Service:	12.5	Average Service:	12.4
Average Annual Pay:	\$ 94,187	Average Annual Pay:	\$ 88,628
Vested Participants	934	Vested Participants	902
Nonvested Participants	271	Nonvested Participants	277
Total Participants	1,205	Total Participants	1,179



Age/Service by Group as of July 1, 2023

GRIP

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	13	1	-	-	-	-	-	-	-	14	\$ 1,063,166
25-29	97	25	4	-	-	-	-	-	-	126	8,815,907
30-34	186	116	9	5	-	-	-	-	-	316	23,174,527
35-39	175	143	32	5	-	-	-	-	-	355	28,517,813
40-44	172	133	43	19	2	-	-	-	-	369	31,108,928
45-49	168	144	51	32	19	2	-	-	-	416	36,209,112
50-54	158	113	36	34	30	9	-	-	-	380	32,697,072
55-59	118	112	51	52	32	14	-	-	-	379	32,949,883
60-64	75	99	46	54	55	13	1	-	-	343	30,187,600
65-69	38	46	31	28	28	15	-	-	-	186	15,659,947
70-74	5	9	12	7	5	4	-	-	-	42	3,664,344
75 and Over	2	1	2	4	3	3	-	-	-	15	1,277,240
Total	1,207	942	317	240	174	60	1	-	-	2,941	\$ 245,325,540

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	48.3	Average Age:	48.5
Average Service:	7.9	Average Service:	8.2
Average Annual Pay:	\$ 83,416	Average Annual Pay:	\$ 79,765
Vested Participants	2,309	Vested Participants	2,073
Nonvested Participants	632	Nonvested Participants	553
Total Participants	2,941	Total Participants	2,626

Total All Groups

Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	Totals	Valuation Payroll
Under 25	141	1	-	-	-	-	-	-	-	142	\$ 8,521,401
25-29	303	113	8	-	-	-	-	-	-	424	29,113,718
30-34	312	367	113	9	-	-	-	-	-	801	62,306,792
35-39	234	293	219	147	1	-	-	-	-	894	78,942,239
40-44	210	190	102	285	94	1	-	-	-	882	85,746,015
45-49	187	171	75	149	207	48	-	-	-	837	84,188,323
50-54	178	131	53	102	139	117	41	4	-	765	76,293,518
55-59	124	117	58	84	74	80	59	12	-	608	58,459,665
60-64	78	102	50	64	70	36	59	25	6	490	46,038,713
65-69	38	46	34	32	34	36	25	23	10	278	25,112,881
70-74	5	9	13	7	8	11	12	12	9	86	8,195,292
75 and Over	2	1	2	4	3	5	1	-	4	22	2,020,720
Total	1,812	1,541	727	883	630	334	197	76	29	6,229	\$ 564,939,277

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	45.5	Average Age:	45.5
Average Service:	11.8	Average Service:	12.2
Average Annual Pay:	\$ 90,695	Average Annual Pay:	\$ 85,744
Vested Participants	4,992	Vested Participants	4,773
Nonvested Participants	1,237	Nonvested Participants	1,183
Total Participants	6,229	Total Participants	5,956



Schedule of Active Member Data as of July 1, 2023

Valuation Date 7/1	Number	Annual Payroll	Average Annual Pay	% Increase in Avg Pay
2014	5,535	\$402,899,096	\$72,791	3.05%
2015	5,541	418,728,584	75,569	3.82%
2016	5,513	427,622,475	77,566	2.64%
2017	5,738	444,274,516	77,427	-0.18%
2018	6,004	467,974,450	77,944	0.67%
2019	6,003	476,619,112	79,397	1.86%
2020	6,204	503,656,510	81,183	2.25%
2021	6,214	506,377,759	81,490	0.38%
2022	5,956	510,692,954	85,744	5.22%
2023	6,229	564,939,277	90,695	5.77%

Schedule of Members in Pay Status as of July 1, 2023

Valuation Date 7/1	Annuitants	Survivors	Disableds	Total Number	Total Annual Benefits	Total Average Annual Benefit
2014	4,669	452	1,121	6,242	\$229,568,856	\$36,778
2015	4,807	448	1,125	6,380	235,612,875	36,930
2016	4,882	445	1,126	6,453	240,863,796	37,326
2017	4,947	453	1,116	6,516	245,139,028	37,621
2018	5,031	465	1,119	6,615	255,539,421	38,630
2019	5,128	471	1,132	6,731	266,179,533	39,545
2020	5,190	466	1,127	6,783	269,846,761	39,783
2021	5,273	461	1,109	6,843	286,012,038	41,796
2022	5,383	466	1,117	6,966	312,419,906	44,849
2023	5,410 ¹	465 ²	1,111	6,986	322,882,562	46,219

Beginning with the July 1, 2014 valuation, counts for annuitants and annual benefit amounts include DRSP and DROP members. Annual benefit amounts include total benefit amount for insured retirees (including the benefit amount that is paid by Aetna).

¹ Count includes 84 insured retirees with Total Annual Benefits of \$3,130,192.

² Count includes 73 insured survivors with Total Annual Benefits of \$1,785,889.



SECTION C

ACTUARIAL VALUATION METHODS AND ASSUMPTIONS

Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the **Individual Entry-Age Normal actuarial cost method** having the following characteristics:

- The normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Financing of Unfunded Actuarial Accrued Liabilities. The unfunded actuarial accrued liability is amortized using a level-percentage of pay amortization of a closed period amortization base. The amortization method was changed from an 18-year closed period amortization of the base established on July 1, 2010, and 20-year closed period amortization of the bases established thereafter, to recombining all amortization bases established prior to July 1, 2015, into a single amortization base equal to the unfunded actuarial liability as of July 1, 2015. The single amortization base as of July 1, 2015, and subsequent unfunded liability arising in future valuations are amortized over separate 20-year closed periods for the Public Safety groups and Group J beginning July 1, 2015. The amortization method for Groups A, H, and GRIP was changed to amortize the combined unfunded liability as of July 1, 2023 over a 20-year closed amortization period as a level percentage of payroll and to amortize subsequent unfunded liability over separate 20-year closed amortization periods as a level percentage of payroll.

Allocation of Unfunded Liability and Amortization Payments by Group. The amortization payments for non-GRIP members are allocated between Groups A, E, F, G, H and J. The amortization payment schedule by group for the bases established prior to the 2012 valuation is based on the allocation established by the prior actuary. The amortization payment schedule by group for the bases established beginning in the 2012 valuation is based on allocations calculated by GRS using a consistent method with the prior actuary.

The unfunded liability as of July 1, 2014 was calculated for each group based on the amortization payment amounts in that valuation and the remaining amortization period for each payment. Beginning with the July 1, 2015 actuarial valuation, changes in the unfunded liability are separately calculated and reported for each group.

The actuarial value of assets by group as of July 1, 2014 was calculated as the difference between the actuarial accrued liability and the unfunded liability as of July 1, 2014. Beginning with the actuarial valuation as of July 1, 2015, the non-GRIP actuarial value of assets by group is calculated using the following methodology:

- 1) Beginning of year actuarial value of assets for each benefit group (calculated in the prior year's valuation); plus
- 2) Non-investment cash flows (allocated based on each group's projected non-investment cash flows from the prior valuation); plus
- 3) Assumed investment return on the actuarial value of assets (rate of return equal to the rate of return on an actuarial value of assets basis for non-GRIP assets).



Actuarial Cost Method (Concluded)

Beginning with the actuarial valuation as of July 1, 2023, a combined asset value is calculated for Groups A, H and GRIP in conjunction with the change to amortize the combined unfunded liability of the three groups on a combined basis.

Actuarial Value of Pension Plan Assets. The calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at the rate of 20 percent per year.

Contribution Basis Payroll. The payroll for each member who is active at the actuarial valuation date is called the Base Payroll. For purposes of calculating the contribution rates based on the dollar contributions determined, different payroll amounts are used.

Contribution Basis Payroll for Normal Cost is the expected payroll for current active members payable in the upcoming year and reflects that a percentage of members will exit the active population due to retirement, termination, death or disability. This payroll is on a consistent basis with the normal cost dollars shown in the report.

Contribution Basis Payroll for Amortization of Unfunded Liability is equal to the total base payroll for the open groups (groups who are enrolling new members) and projected payroll for the period July 1, 2024 through June 30, 2025 for the closed groups (groups that are closed to new members). The projected payroll for the closed groups reflects that a percentage of members will exit the active population due to retirement, termination, death or disability and no additional employees will be hired into those groups. The objective of using this payroll basis is to have the actual County contribution made in fiscal year 2025 for the amortization of the unfunded liability (which is based on a contribution rate and actual payroll during the year) be as close as possible to the dollar amount calculated in the 2023 actuarial valuation report.

Groups A and H are closed and the remaining groups are open.

Actuarial Assumptions in the Valuation Process

The contribution and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described on the previous page.

The principal areas of financial risk which require assumptions about future experiences are:

- Long-term rates of investment return to be generated by the assets of the Plan;
- Patterns of pay increases to members;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In an actuarial valuation, the monetary effect of each actuarial assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the Plan will not coincide exactly with assumed experience. Each actuarial valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

The actuarial assumptions used in this actuarial valuation are based on the experience study report covering the period July 1, 2014 through July 1, 2018 and the phase 1 experience study report covering the period July 1, 2018 through July 1, 2022. The actuarial assumptions described in this section were adopted by the Directors for use beginning with the July 1, 2023 actuarial valuation. Additional information regarding the rationale for the actuarial assumptions may be found in the 2023 phase 1 experience review report. All actuarial assumptions are expectations of future experience, not current market measures.

Actuarial Valuation Assumptions

The assumed rate of price inflation is 2.50 percent.

The assumed COLA is as follows:

	Assumed COLA
100% of CPI, benefit attributable to pre-7/1/2011 service	2.50%
60% of CPI, benefit attributable to pre-7/1/2011 service	1.50%
100% of CPI up to 3%, 60% of change in excess of 3%*, benefit attributable to pre-7/1/2011 service	2.45%
100% of CPI**, benefit attributable to service on or after 7/1/2011	2.20%

Assumed COLA for Group G members (for total benefit) is assumed to be 2.45%.

*Capped at 7.5 percent.

**Capped at 2.5 percent.

The following groups have a COLA equal to 60 percent of the increase in CPI:

- Unrepresented Non-Public Safety Enrolled 7/1/78 & after-retired before 11/1/01
- Certain Sheriffs and Inspectors Enrolled 7/1/78 & after-retired prior to 11/1/01
- Represented Non-Public Safety Enrolled 7/1/78 & after-retired prior to 11/1/01
- Sheriffs/Corrections Enrolled 7/1/78 & after-retired prior to 11/1/01
- Fire Enrolled 7/1/78 & after-retired prior to 3/1/00
- Police Enrolled 7/1/78 & after-retired prior to 3/1/00

The assumed rate of investment return used was 7.50%, net of expenses, annually.

Actuarial Valuation Assumptions (Continued)

The rates of annual salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

Service At Assumed Pay Increase	Group A, H and GRIP	Group E and J	Group F	Group G
1	6.75%	9.50%	7.75%	10.75%
2	5.75%	9.25%	7.50%	9.25%
3	5.25%	8.00%	7.25%	7.75%
4	5.25%	6.75%	7.00%	7.25%
5	5.25%	6.25%	6.75%	6.75%
6	5.00%	5.75%	5.75%	6.75%
7	5.00%	5.75%	5.50%	6.75%
8	5.00%	5.25%	5.50%	6.75%
9	4.75%	4.75%	5.00%	6.75%
10	4.75%	4.75%	5.00%	6.75%
11	4.25%	4.75%	4.75%	5.25%
12	4.25%	4.75%	4.75%	5.25%
13	4.25%	4.75%	4.75%	5.25%
14	4.25%	4.75%	4.75%	5.25%
15	4.25%	4.75%	4.75%	5.25%
16	4.00%	4.50%	4.50%	4.25%
17	4.00%	4.50%	4.25%	4.25%
18	4.00%	4.50%	4.00%	4.25%
19	4.00%	4.25%	4.00%	4.25%
20	4.00%	4.25%	4.00%	4.25%
21	4.00%	4.00%	3.25%	3.25%
22	3.75%	3.75%	3.25%	3.25%
23	3.75%	3.75%	3.25%	3.25%
24	3.75%	3.75%	3.25%	3.25%
25	3.50%	3.75%	3.25%	3.25%
26	3.50%	3.75%	3.00%	3.25%
27	3.50%	3.75%	3.00%	3.25%
28	3.50%	3.50%	3.00%	3.25%
29	3.50%	3.50%	3.00%	3.25%
30+	3.00%	3.00%	3.00%	3.00%

The assumed rate of total payroll growth used in amortizing the unfunded liability as a level percentage of pay is 3.00 percent.

The assumed increase in the Social Security Taxable Wage Base is 3.00 percent.



Actuarial Valuation Assumptions (Continued)

The mortality assumptions are as follows:

To provide a margin for future mortality improvements, generational mortality improvements from 2010 using projection scale MP-2021 was used.

Type	Assumption
Post-retirement non-disabled	<i>Groups A, H, J and GRIP</i> Pub-2010 Healthy Retiree Mortality Table (for General Employees), sex distinct <i>Groups E, F and G</i> Pub-2010 Healthy Retiree Mortality Table (for Safety Employees), sex distinct
Post-retirement disabled	<i>Groups A, H, J and GRIP</i> Pub-2010 Disabled Retiree Mortality Table (for General Employees), sex distinct <i>Groups E, F and G</i> Pub-2010 Disabled Retiree Mortality Table (for Safety Employees), sex distinct
Pre-retirement non-service connected	<i>Groups A, H, J and GRIP</i> Pub-2010 Employee Mortality Table (for General Employees) , sex distinct <i>Groups E, F and G</i> Pub-2010 Employee Mortality Table (for Safety Employees), sex distinct
Pre-retirement service connected	<i>Groups F and G</i> 15% of the rates from the Pub-2010 Employee Mortality Table (for Safety Employees), sex distinct

Actuarial Valuation Assumptions (Continued)

Age	Groups E, F and G					
	Healthy Mortality				Disabled Mortality	
	Pre-Retirement		Post-Retirement		Future Life	
	Future Life		Future Life			
	Expectancy (years) in 2023		Expectancy (years) in 2023		Expectancy (years) in 2023	
Male	Female	Male	Female	Male	Female	
20	69.50	71.99	67.08	69.36	64.42	67.10
25	64.29	66.77	61.77	64.02	59.25	61.79
30	59.10	61.56	56.47	58.69	54.11	56.56
35	53.94	56.40	51.19	53.39	49.07	51.44
40	48.80	51.26	45.94	48.11	44.10	46.42
45	43.68	46.13	40.74	42.86	39.15	41.40
50	38.56	41.00	35.61	37.65	34.21	36.39
55	33.48	35.90	30.56	32.54	29.35	31.50
60	28.48	30.86	25.67	27.63	24.66	26.86
65	23.61	25.87	21.06	22.97	20.30	22.52
70	18.90	20.95	16.78	18.58	16.26	18.38
75	14.42	16.22	12.86	14.51	12.54	14.47
80	10.24	11.76	9.44	10.89	9.31	10.89
85	6.71	7.95	6.65	7.89	6.65	7.89
90	4.62	5.56	4.62	5.56	4.62	5.56
95	3.36	3.93	3.36	3.93	3.36	3.93
100	2.47	2.77	2.47	2.77	2.47	2.77
105	1.88	2.04	1.88	2.04	1.88	2.04

Life expectancy based on non-service connected mortality rates only.

Actuarial Valuation Assumptions (Continued)

Age	Groups A, H, J and GRIP					
	Healthy Mortality				Disabled Mortality	
	Pre-Retirement		Post-Retirement		Future Life	
	Future Life		Future Life		Future Life	
	Expectancy (years) in 2023		Expectancy (years) in 2023		Expectancy (years) in 2023	
	Male	Female	Male	Female	Male	Female
20	70.07	72.50	67.17	70.26	53.24	57.19
25	64.85	67.27	61.82	64.92	48.24	51.91
30	59.63	62.03	56.47	59.57	43.22	46.67
35	54.46	56.83	51.16	54.25	38.56	41.84
40	49.34	51.65	45.90	48.95	34.25	37.40
45	44.25	46.49	40.67	43.67	30.16	33.21
50	39.18	41.34	35.56	38.49	26.33	29.27
55	34.18	36.24	30.68	33.52	22.84	25.68
60	29.27	31.21	25.96	28.65	19.66	22.36
65	24.51	26.28	21.46	23.92	16.73	19.08
70	19.86	21.45	17.20	19.39	13.92	15.71
75	15.32	16.73	13.27	15.13	11.16	12.41
80	10.90	12.18	9.79	11.31	8.58	9.47
85	7.03	8.15	6.94	8.08	6.37	7.08
90	4.84	5.61	4.84	5.61	4.61	5.31
95	3.42	3.93	3.42	3.93	3.38	3.90
100	2.47	2.77	2.47	2.77	2.47	2.77
105	1.88	2.04	1.88	2.04	1.88	2.04

Life expectancy based on non-service connected mortality rates only.

Actuarial Valuation Assumptions (Continued)

Rates of separation from active membership are represented by the following table (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members terminating employment.

Service Beginning of Year	Group A, H and GRIP		Group E and J		Group F and G	
	Male	Female	Male	Female	Male	Female
0	11.50%	12.00%	16.00%	16.00%	7.00%	10.50%
1	9.00%	11.00%	10.00%	14.00%	4.00%	5.00%
2	8.50%	9.00%	6.00%	12.00%	3.50%	4.50%
3	6.50%	8.00%	5.00%	10.00%	3.00%	4.00%
4	6.00%	7.50%	5.00%	8.00%	2.50%	3.50%
5	5.50%	6.50%	5.00%	6.00%	2.25%	3.00%
6	5.00%	5.50%	5.00%	4.00%	2.00%	2.75%
7	4.50%	4.50%	5.00%	4.00%	1.75%	2.50%
8	4.00%	3.50%	4.00%	4.00%	1.50%	2.00%
9	4.00%	3.00%	3.00%	3.00%	1.25%	1.75%
10	3.00%	2.75%	2.00%	2.00%	1.00%	1.00%
11	3.00%	2.75%	1.50%	1.00%	0.75%	0.75%
12	3.00%	2.75%	1.00%	1.00%	0.50%	0.50%
13	3.00%	2.75%	1.00%	1.00%	0.25%	0.25%
14	3.00%	2.75%	1.00%	1.00%	0.25%	0.25%
15	2.50%	2.50%	1.00%	1.00%	0.25%	0.25%
16	2.50%	2.50%	1.00%	1.00%	0.25%	0.25%
17	2.50%	2.50%	1.00%	1.00%	0.25%	0.25%
18	2.50%	2.50%	1.00%	1.00%	0.25%	0.25%
19	2.50%	2.50%	1.00%	1.00%	0.25%	0.25%
20+	2.00%	2.00%	1.00%	1.00%	0.25%	0.25%

Vested participants who terminate are assumed to elect the option with the greater present value:

- 1) A refund of their accumulated contributions with interest or
- 2) A deferred benefit.



Actuarial Valuation Assumptions (Continued)

Rates of disability were as follows:

Age	Non-Public Safety				Public Safety					
	Groups A and H		Group J		Group E		Group F		Group G	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	0.0144%	0.0063%	0.0288%	0.0197%	0.0288%	0.0197%	0.0504%	0.0709%	0.0720%	0.0788%
25	0.0295%	0.0168%	0.0590%	0.0525%	0.0590%	0.0525%	0.1033%	0.1890%	0.1475%	0.2100%
30	0.0604%	0.0448%	0.1207%	0.1400%	0.1207%	0.1400%	0.2113%	0.5040%	0.3018%	0.5600%
35	0.1058%	0.0705%	0.2117%	0.2203%	0.2117%	0.2203%	0.3704%	0.7931%	0.5292%	0.8812%
40	0.1626%	0.1310%	0.3251%	0.4094%	0.3251%	0.4094%	0.5690%	1.4738%	0.8128%	1.6375%
45	0.3092%	0.2456%	0.6184%	0.7674%	0.6184%	0.7674%	1.0822%	2.7626%	1.5460%	3.0695%
50	0.5316%	0.3301%	1.0631%	1.0316%	1.0631%	1.0316%	1.8605%	3.7139%	2.6578%	4.1265%
55	0.7573%	0.3469%	1.5147%	1.0841%	1.5147%	1.0841%	2.6507%	3.9029%	3.7867%	4.3365%
60	0.7573%	0.3469%	1.5147%	1.0841%	1.5147%	1.0841%	2.6507%	3.9029%	3.7867%	4.3365%

The assumed split of service-connected and non-service connected disabilities is as follows:

Group	Total Non-Service Connected	Total Service Connected	Service Connected Disability	
			Total Incapacity	Partial Incapacity
			70% Benefit	52.5% Benefit
A and H	65%	35%	17.5%	17.5%
E and J	60%	40%	10.0%	30.0%
F	33%	67%	20.0%	46.7%
G	5%	95%	30.0%	65.0%



Actuarial Valuation Assumptions (Continued)

Rates of retirement for members eligible to retire during the next year were as follows:

Age	Groups A and H		Groups E and J			Group F			Group G			GRIP	
	Under 30 Years of Service	30 Years of Service and Over	Under 25 Years of Service	25 Years of Service and Over	First DROP Eligibility (Group E Only)	Under 25 Years of Service	25 Years of Service	26 Years of Service and Over	Under 20 or 21 - 24 Years of Service	20 Years of Service	25 Years of Service and Over	Under 15 Years of Service	15 Years of Service and Over
	Under 42			3.50%	3.50%		2.50%	10.00%	10.00%	2.50%	2.50%	2.50%	
42			3.50%	3.50%		2.50%	10.00%	10.00%	5.00%	5.00%	5.00%		
43			3.50%	3.50%		2.50%	10.00%	10.00%	5.00%	5.00%	5.00%		
44			3.50%	3.50%		2.50%	10.00%	10.00%	5.00%	5.00%	5.00%		
45	2.00%	2.00%	3.50%	8.00%		2.50%	10.00%	10.00%	5.00%	15.00%	7.50%		
46	2.00%	2.00%	3.50%	8.00%	18.00%	3.00%	10.00%	10.00%	5.00%	15.00%	7.50%		
47	2.00%	2.00%	3.50%	8.00%	18.00%	4.00%	10.00%	10.00%	5.00%	15.00%	7.50%		
48	2.00%	2.00%	3.50%	8.00%	18.00%	4.00%	10.00%	10.00%	5.00%	15.00%	10.00%		
49	2.00%	2.00%	5.00%	20.00%	30.00%	4.00%	10.00%	10.00%	10.00%	20.00%	10.00%		
50	3.00%	12.50%	7.50%	20.00%	30.00%	8.00%	18.00%	18.00%	10.00%	20.00%	10.00%		
51	3.00%	12.50%	7.50%	20.00%	30.00%	8.00%	18.00%	18.00%	10.00%	20.00%	17.50%		
52	3.00%	12.50%	7.50%	20.00%	30.00%	8.00%	18.00%	18.00%	12.50%	22.50%	20.00%		
53	3.00%	12.50%	7.50%	20.00%	30.00%	8.00%	20.00%	20.00%	12.50%	22.50%	20.00%		
54	3.00%	12.50%	7.50%	20.00%	30.00%	12.00%	20.00%	20.00%	12.50%	22.50%	20.00%		
55	6.00%	15.00%	15.00%	30.00%	25.00%	12.00%	50.00%	35.00%	15.00%	25.00%	30.00%	3.00%	3.00%
56	6.00%	15.00%	15.00%	30.00%	25.00%	12.00%	50.00%	35.00%	15.00%	25.00%	30.00%	3.00%	3.00%
57	6.00%	15.00%	15.00%	30.00%	25.00%	15.00%	50.00%	35.00%	15.00%	25.00%	30.00%	4.50%	5.00%
58	6.00%	15.00%	15.00%	30.00%	25.00%	15.00%	50.00%	35.00%	15.00%	25.00%	40.00%	4.50%	6.00%
59	6.00%	15.00%	15.00%	30.00%	25.00%	15.00%	50.00%	35.00%	15.00%	25.00%	40.00%	4.50%	6.50%
60	11.00%	18.00%	15.00%	30.00%	50.00%	20.00%	65.00%	50.00%	30.00%	40.00%	40.00%	4.50%	7.00%
61	13.00%	18.00%	15.00%	30.00%	50.00%	20.00%	65.00%	50.00%	30.00%	40.00%	40.00%	4.50%	7.50%
62	14.00%	18.00%	15.00%	30.00%	50.00%	20.00%	65.00%	50.00%	30.00%	40.00%	40.00%	7.00%	15.00%
63	11.00%	18.00%	15.00%	30.00%	50.00%	25.00%	65.00%	50.00%	30.00%	40.00%	40.00%	7.00%	15.00%
64	11.00%	18.00%	15.00%	30.00%	50.00%	25.00%	65.00%	50.00%	30.00%	40.00%	40.00%	10.00%	15.00%
65	15.00%	18.00%	50.00%	50.00%	85.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	13.00%	20.00%
66	22.00%	25.00%	50.00%	50.00%	85.00%							13.00%	20.00%
67	20.00%	20.00%	50.00%	50.00%	85.00%							13.00%	25.00%
68	20.00%	20.00%	50.00%	50.00%	85.00%							13.00%	25.00%
69	20.00%	20.00%	50.00%	50.00%	85.00%							13.00%	30.00%
70	30.00%	35.00%	100.00%	100.00%	100.00%							25.00%	50.00%
71	30.00%	35.00%										25.00%	50.00%
72	30.00%	35.00%										30.00%	50.00%
73	30.00%	35.00%										30.00%	50.00%
74	30.00%	35.00%										30.00%	50.00%
75	100.00%	100.00%										100.00%	100.00%

For Group F members who first reach eligibility for DRSP with fewer than 25 years of service (age 55 with 15 years of service), the retirement rate assumed at first eligibility is three times the rate shown in the table above.

Assumption for DRSP and DROP eligible members are as follows:

	Group E (DROP)	Group F (DRSP)	Group G (DROP)
Percent Assumed to Participate	75%	75%	85%
Average Years of Participation	3 years	3 years	3 years



Actuarial Valuation Assumptions (Continued)

Assumed Additional Sick Leave Credit:

Members are assumed to accumulate additional service credit at termination or retirement for unused sick leave credit up to a maximum of 2 years.

<u>Group</u>	<u>Years of Sick Leave Per Year of Credited Service</u>
A	0.026
E, J	0.022
F	0.044
G	0.029
H	0.016

Marital Status:

It is assumed that 80 percent of active participants have an eligible spouse. The male spouse is assumed to be three years older than the female spouse.

Form of Payment:

Plan	Normal Form	Assumed in Valuation
Mandatory Integrated	Life Annuity, guaranteed returned employee contributions with interest	3-Year Certain and Continuous Annuity
Optional Integrated	Life Annuity with 120 monthly payments guaranteed	10-Year Certain and Continuous Annuity
Optional Non-Integrated	Life Annuity with 120 monthly payments guaranteed	10-Year Certain and Continuous Annuity
GRIP	Lump Sum	Lump Sum at Termination or Retirement

Benefit Service:

Exact fractional years of service are used to determine the amount of benefit payable.

Decrement Timing:

All decrements are assumed to occur at the middle of the year.

Decrement Operation:

Turnover decrements do not operate after the member reaches retirement eligibility.

Eligibility Testing:

Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.

Pay Increase Timing:

End of (fiscal) year.



Actuarial Valuation Assumptions (Concluded)

Expenses: Assumed administrative expenses were added to the Normal Cost and are based on 105 percent of the average of the administrative expenses over the past 3 years. The assumed amount added to the Normal Cost is:

Valuation Year	Actual Administrative Expenses				Assumed Expenses Added to Normal Cost
	3 Years Prior	2 Years Prior	1 Year Prior	3 Year Average	
2021	\$ 3,064,250	\$ 3,059,212	\$ 2,999,015	\$ 3,040,826	\$ 3,192,900
2022	3,059,212	2,999,015	3,132,193	3,063,473	3,216,600
2023	2,999,015	3,132,193	3,243,582	3,124,930	3,281,200

**Assumptions for
Missing or Incomplete
Data:**

Active members:

If payroll was not provided, the current year payroll was set equal to the prior year payroll. For new hires, the current year payroll was set equal to the average payroll for new hires in the same group (A, E, J, F, G, H and GRIP).

Vesting service and credited service were calculated for GRIP members based on date of hire and the valuation date.

Retired members:

If a beneficiary date of birth was not provided for members with a joint and survivor option, it was assumed that there was a beneficiary and males are three years older than their female spouses.

SECTION D

BENEFIT PROVISIONS

Brief Summary of Plan Provisions as of July 1, 2023

Following is a summary of the major plan provisions used in the valuation summarized in this report. Montgomery County is solely responsible for the validity, accuracy and comprehensiveness of this information. If any of the plan provisions shown below are not accurate and complete, the valuation results may differ significantly from those shown in this report and may require a revision of this report. Moreover, these plan provisions may be susceptible to different interpretations, each of which could be reasonable, and the different interpretations could lead to different valuation results.

1. Effective Date of the Plan

August 15, 1965. Latest changes to the plan were made for group A, group E, group F, group G, group H, group J and GRIP members in FY11 and were reflected in the 2011 actuarial valuation. Some of the changes were effective July 1, 2011, while others were effective July 1, 2012.

2. Employee Eligibility Requirements

- A. Optional non-integrated retirement plan: Employees enrolled prior to July 1, 1978, who do not elect to join the integrated retirement plan.
- B. Optional integrated plan: Employees enrolled prior to July 1, 1978, who elect to join the integrated retirement plan.
- C. Mandatory integrated retirement plan: Employees enrolled on or after July 1, 1978. The Plan is closed to Non-Public Safety employees hired or rehired after September 30, 1994.

3. Membership Groups and Eligibility

- Group A: Any employee who is not eligible for coverage under another membership group.
- Group B: Any correctional officer, fire prevention officer or deputy sheriff appointed or promoted to the position on or before June 30, 1978, who has not elected to transfer to another membership group.
- Group D: Any full-time police officer appointed on or before August 15, 1965, who has been continuously employed as a police officer and has not elected to transfer to any other membership group.
- Group E: The chief administrative officer, the director of the council staff, the hearing examiners, the county attorney and each head of a principal department, office or agency of the county government, if appointed before July 30, 1978, or a member having held such position on or before October 1, 1972. Any sworn deputy sheriff and such correctional staff as designated by the chief administrative officer. Non-correctional officers were moved to Group J.
- Group F: Any sworn police officer who is not eligible for coverage under another membership group.



Brief Summary of Plan Provisions as of July 1, 2023 (Concluded)

- Group G: Any paid firefighter, paid fire officer or paid rescue service personnel not eligible for coverage under another membership group.
- Group H: Any member, including any probationary employee, who holds a bargaining unit position, unless the member is eligible for membership in Groups B, D, E, F or G.
- Group J: Group J was established as of December 21, 2016. Non-correctional officer employees hired prior to December 21, 2016, who participated in Group E were transferred to Group J on May 28, 2017. Group J members are not eligible for Deferred Retirement Option Plan (DROP) coverage.

4. Member Contributions as a Percent of Regular Base Earnings

Effective July 1, 1989, member contributions are pre-tax and interest shall be credited annually on each member's accumulated contributions at a 4.0 percent annual rate.

A. Optional non-integrated plan:

	Prior to 7/1/2001	Effective 7/1/2001	Effective 7/1/2011	Effective 7/1/2012 and After
Group A	6%	6%	7%	8%
Group B ¹	7%	n/a	n/a	n/a
Group D ²	n/a	n/a	n/a	n/a
Group E, J	7½%	8½%	9½%	10½%
Group F	7½%	8½%	9½%	10½%
Group G	7½%	8½%	9½%	10½%
Group H	6%	6%	7%	8%

¹ The last Group B member retired August 1, 1998

² The last Group D member retired November 1, 1992

B. Optional integrated plan:

	Prior to 7/1/2001 ¹		Effective 7/1/2001 ¹		Effective 7/1/2011		Effective 7/1/2012 and After	
	Up to SSTWB	In excess of SSTWB	Up to SSTWB	In excess of SSTWB	Up to SSTWB	In excess of SSTWB	Up to SSTWB	In excess of SSTWB
Group A	3%	6%	4%	6%	5%	7%	6%	8%
Group B ²	3½%	7%	4½%	7%	n/a	n/a	n/a	n/a
Group D	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Group E, J	3¾%	7½%	4¾%	8½%	5¾%	9½%	6¾%	10½%
Group F	4%	8%	4¾%	8½%	5¾%	9½%	6¾%	10½%
Group G with less than 25 years of service								
	4¾%	8½%	5½%	9¼%	6½%	10¼%	7½%	11¼%
Group G with at least 25 years of service								
	4¾%	8½%	4¾%	8½%	5¾%	9½%	6¾%	10½%
Group H	3%	6%	4%	6%	5%	7%	6%	8%

¹ 7/1/2007 for Group G

² The last Group B member retired February 1, 2008

SSTWB means Social Security Taxable Wage Base.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

C. Mandatory integrated plan:

	Prior to 7/1/2001 ¹		Effective 7/1/2001 ¹		Effective 7/1/2011		Effective 7/1/2012 and After	
	Up to SSTWB	In excess of SSTWB	Up to SSTWB	In excess of SSTWB	Up to SSTWB	In excess of SSTWB	Up to SSTWB	In excess of SSTWB
Group A	3%	6%	4%	6%	5%	7%	6%	8%
Group B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Group D	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Group E, J	3¾%	7½%	4¾%	8½%	5¾%	9½%	6¾%	10½%
Group F	4%	8%	4¾%	8½%	5¾%	9½%	6¾%	10½%
Group G with less than 25 years of service								
	4¾%	8½%	5½%	9¼%	6½%	10¼%	7½%	11¼%
Group G with at least 25 years of service								
	4¾%	8½%	4¾%	8½%	5¾%	9½%	6¾%	10½%
Group H	3%	6%	4%	6%	5%	7%	6%	8%

¹ 7/1/2007 for Group G

5. Credited Service

A member's credited service is the total service rendered under the Employees' Retirement System of Montgomery County, plus credited service earned under State of Maryland and/or Montgomery County Police Relief and Retirement Fund Law or any other Maryland Public Plan, plus any purchased prior service or granted.

- A. Full-time: Full-time members receive one year of credited service for rendering the full normal working time in a 12-month period.
- B. Part-time: Part-time members working less than the normal scheduled workweek for full-time employees on a continuing basis shall receive one year of credited service for each 12-month period.
- C. Combined part-time and full-time: Combined part-time and full-time employees will receive one month of credited service for 176 hours worked each fiscal year. Accumulated hours of 88 to 176 or 15 days or more in any calendar month will equal one month of credited service.
- D. Sick Leave: Any employee whose retirement is effective on or after May 1, 1970, will have 176 hours of accumulated sick leave equivalent to one month of credited service up to a maximum of 4,224 hours. Accumulated sick leave of less than 11 days shall not be credited; 11 to 22 days shall be credited as one month for retirement purposes. Any member who vests on or after October 1, 1971, may have sick leave credited for vesting purposes on the same basis.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

6. Average Final Earnings

For members enrolled on or before June 30, 1978, average final earnings are equal to the regular earnings for the 12-month period immediately preceding retirement, or any consecutive 12-month period, if greater.

For members enrolled on or after July 1, 1978, average final earnings are equal to the average of regular annual earnings for the 36-month period immediately preceding retirement, or any consecutive 36-month period, if greater.

7. Social Security Wage Base

For any particular year, the maximum amount of earnings creditable for benefit computation purposes under the Old Age, Survivors and Disabilities Insurance Program established by the Federal Social Security Act.

Year	Social Security Taxable Wage Base
2011	\$106,800
2012	\$110,100
2013	\$113,700
2014	\$117,000
2015	\$118,500
2016	\$118,500
2017	\$127,200
2018	\$128,400
2019	\$132,900
2020	\$137,700
2021	\$142,800
2022	\$147,000
2023	\$160,200

8. Social Security Maximum Compensation Level

The maximum dollar amount of earnings upon which Social Security benefits are based, assuming: (1) an employee's annual compensation is at least as great as the taxable wage base each year, for a 35-year period through the year in which the employee attains Social Security Retirement Age, (2) the employee remained in covered employment during each calendar year, (3) the taxable wage base stays level from date of retirement to Social Security Retirement Age.

9. Social Security Retirement Age

- Age 65 for employees born prior to January 1, 1938.
- Age 66 for employees born on or after January 1, 1938, and prior to January 1, 1955.
- Age 67 for employees born on or after January 1, 1955.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

10. Regular Earnings

Gross pay for actual hours worked, excluding overtime.

Imputed Compensation for FY2010 only (effective July 1, 2009):

- Regular earnings for a Group A, E, J or H member who is employed on July 1, 2009, includes amounts as if the member had received an increase of 4.5% in the member's gross pay as of July 1, 2009, except for the purpose of calculating a member's contribution.
- Regular earnings for a Group F member who is employed on July 1, 2009, includes amounts as if the member had received an increase of 4.25 percent in the member's gross pay as of July 1, 2009, except for the purpose of calculating a member's contribution.
- Regular earnings for a Group G member who is employed on July 1, 2009, includes amounts as if the member had received an increase of 4.00 percent in the member's gross pay as of July 1, 2009, except for the purpose of calculating a member's contribution.
- From March 2020 through February 2021, the County paid certain employees a pay differential for COVID-19. For members of Group F who were active at that time, the pay differential is included in the Average Final Earnings for retirement benefit calculations.

11. Benefits

A. Normal Retirement Date:

Age and Service Requirement:

- Group A: Age 60 and five years of credited service, or age 55 and 30 years of credited service (after June 30, 2002, age 60 and five years of credited service, or age 50 and 30 years of credited service for members who are Police Telecommunicators).
- Group B: Age 55 and 15 years of credited service, or age 51 and 30 years of credited service.
- Group D: The requirements contained in the police relief and retirement fund law of the county.
- Group E, J: Age 55 and 15 years of credited service, or age 46 and 25 years of credited service.
- Group F: Age 55 and 15 years of credited service, or 25 years of credited service (effective July 1, 2008; previously, age 55 and 15 years of credited service, or age 46 and 25 years of credited service).
- Group G: Age 55 and 15 years of credited service, or any age with 20 years of credited service (effective July 1, 2007; previously age 55 and 15 years of credited service, or any age with 25 years of credited service).

Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

- Group H: Age 60 and five years of credited service, or age 55 and 30 years of credited service (after June 30, 2002, age 60 and five years of credited service, or age 50 and 30 years of credited service for members who are Police Telecommunicators or members of the Service, Labor and Trades (SLT) bargaining unit).

B. Benefit Amount:

1. Optional non-integrated plan: All groups other than Group E, J, F or G – 2 percent of average final earnings multiplied by years of credited service, up to a maximum of 36 years, plus sick leave credits.

- Group E, J: 2.4 percent of average final earnings for each of the first 25 years of credited service, plus 2 percent of average final earnings for each year of credited service after 25 years up to a maximum of 31 years, plus sick leave credits. Sick leave credit in excess of 25 years is credited at 2 percent of average final earnings.
- Group F: 2.4 percent of average final earnings for each year of credited service, up to a maximum of 36 years, plus sick leave credits.
- Group G: 2.5 percent of average final earnings for each of the first 20 years of credited service, plus 2 percent of average final earnings for each year of credited service after 20 years up to a maximum of 31 years, plus sick leave credits (effective July 1, 2007; previously 2 percent of average final earnings for each of the first 20 years of credited service, plus 3 percent of average final earnings for each year of credited service from 21st year through 24th year, plus 8 percent of average final earnings for the 25th year of credited service, plus 2 percent of average final earnings for each year of credited service after 25 years up to a maximum of 31 years, plus sick leave credits).

2. Integrated plans:

a. From date of retirement to Social Security Retirement Age (age 70 for Group E and J members beginning with retirements on or after July 1, 2024 and age 70 for Group F members beginning with retirements on or after August 7, 2023):

- For groups other than Groups E, J, F or G: 2 percent of average final earnings multiplied by years of credited service, up to a maximum of 36 years, plus sick leave credits.
- Group E: 2.6 percent of average final earnings for each of the first 25 years of credited service, plus 2.25 percent of average final earnings for each year of credited service more than 25 years up to a maximum of 30 years, plus sick leave credits. (Prior to August 8, 2023, 2.4 percent of average final earnings for each of the first 25 years of credited service, plus 2 percent of average final earnings for each year of credited service more than 25 years up to a maximum of 31 years, plus sick leave credits).

Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

- Group J: 2.5 percent of average final earnings for each of the first 25 years of credited service, plus 2 percent of average final earnings for each year of credited service more than 25 years up to a maximum of 30 years, plus sick leave credits. (Prior to August 7, 2023: 2.4 percent of average final earnings for each of the first 25 years of credited service, plus 2 percent of average final earnings for each year of credited service more than 25 years up to a maximum of 31 years, plus sick leave credits.)
 - Group F: 2.6 percent of average final earnings for each of the first 25 years of credited service, plus 2.4 percent of average final earnings for each year of credited service more than 25 years up to a maximum of 34 years, including sick leave credits. (Prior to January 1, 2025 and after June 30, 2008: 2.4 percent of average final earnings multiplied by years of credited service, up to a maximum of 36 years of service including sick leave credits.)
 - Group G: 2.6 percent of average final earnings for each of the first 25 years of credited service, plus 1.25 percent of average final earnings for each year of credited service more than 25 years up to a maximum of 31 years, plus sick leave credits. Effective February 6, 2023, the benefit multiplier for sick leave credits is 5.0 percent. (Prior to August 7, 2023 and after June 30, 2007: 2.5 percent of average final earnings for each of the first 20 years of credited service, plus 2 percent of average final earnings for each year of credited service after 20 years up to a maximum of 31 years, plus sick leave credits.)
- b. From attainment of Social Security Retirement Age (age 70 for Group E and J members beginning with retirements on or after July 1, 2024 and age 70 for Group F members beginning with retirements on or after August 7, 2023):
- For Groups A, B or H: 1.25 percent of average final earnings up to Social Security maximum covered compensation plus 2 percent of average final earnings above Social Security maximum covered compensation, multiplied by years of credited service up to 36 years, plus sick leave credits.
 - Group D: 1 percent of average final earnings up to Social Security maximum covered compensation plus 2 percent of average final earnings above Social Security maximum covered compensation, multiplied by years of credited service up to 36 years, plus sick leave credits.
 - Group E: 1.65 percent of average final earnings up to Social Security maximum covered compensation for each year of credited service up to a maximum of 30 years plus sick leave credits, plus 2.6 percent of average final earnings above Social Security maximum covered compensation for each of the first 25 years, and 2.25 percent of average final earnings above Social Security maximum covered compensation for each year of credited service after 25 years up to a maximum of 30 years, plus sick leave credits. Sick leave credits used for years in excess of 25 years is credited at 2.25 percent of average final earnings above Social Security maximum covered

Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

compensation. (Prior to August 8, 2023, 1.65 percent of average final earnings up to Social Security maximum covered compensation for each year of credited service up to a maximum of 31 years plus sick leave credits, plus 2.4 percent of average final earnings above Social Security maximum covered compensation for each of the first 25 years, and 2 percent of average final earnings above Social Security maximum covered compensation for each year of credited service after 25 years up to a maximum of 31 years, plus sick leave credits. Sick leave credits used for years in excess of 25 years is credited at 2 percent of average final earnings above Social Security maximum covered compensation.

- Group J: 1.65 percent of average final earnings up to Social Security maximum covered compensation for each year of credited service up to a maximum of 30 years plus sick leave credits, plus 2.5 percent of average final earnings above Social Security maximum covered compensation for each of the first 25 years, and 2 percent of average final earnings above Social Security maximum covered compensation for each year of credited service after 25 years up to a maximum of 30 years, plus sick leave credits. Sick leave credits used for years in excess of 25 years is credited at 2 percent of average final earnings above Social Security maximum covered compensation. (Prior to August 7, 2023: 1.65 percent of average final earnings up to Social Security maximum covered compensation for each year of credited service up to a maximum of 31 years plus sick leave credits, plus 2.4 percent of average final earnings above Social Security maximum covered compensation for each of the first 25 years, and 2 percent of average final earnings above Social Security maximum covered compensation for each year of credited service after 25 years up to a maximum of 31 years, plus sick leave credits. Sick leave credits used for years in excess of 25 years is credited at 2 percent of average final earnings above Social Security maximum covered compensation.)
- Group F: 1.80 percent of average final earnings up to Social Security maximum covered compensation and 2.6 percent of average final earnings above Social Security maximum covered compensation for each of the first 25 years of credited service, plus 1.65 percent of average final earnings up to Social Security maximum covered compensation and 2.4 percent of average final earnings above Social Security maximum covered compensation for each year of credited service more than 25 years up to a maximum of 34 years, including sick leave credits. (Prior to January 1, 2025 and after June 30, 2008: 1.65 percent of average final earnings up to Social Security maximum covered compensation for each year of credited service up to a maximum of 36 years including sick leave credits and 2.4 percent of average final earnings above Social Security maximum covered compensation for each year of credited service up to a maximum of 36 years including sick leave credits.)
- Group G: 1.7875 percent of average final earnings up to Social Security maximum covered compensation and 2.6 percent of average final earnings above Social Security maximum covered compensation for each of the first 25 years of credited service, plus 0.859375 percent of average final earnings up to Social Security maximum covered compensation and 1.25 percent of average final earnings above

Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

Social Security maximum covered compensation more than 25 years up to a maximum of 31 years. Effective February 6, 2023, the benefit multiplier for sick leave credits is 3.4375 percent. (Prior to August 7, 2023: 1.71875 percent of average final earnings up to Social Security maximum covered compensation and 2.5 percent of average final earnings above Social Security maximum covered compensation for each of the first 20 years of credited service, plus 1.375 percent of average final earnings up to Social Security maximum covered compensation and 2 percent of average final earnings above Social Security maximum covered compensation for each year of credited service after 20 years up to a maximum of 31 years, plus sick leave credits.)

12. Early Pension

A. Age and service requirements:

- Group A: Age 50 and 15 years of credited service, or age 45 and 20 years of credited service.
- Group B: Age 45 and 15 years of credited service.
- Group D: Not applicable.
- Group E, J: Age 45 and 15 years of credited service, or age 41 and 20 years of credited service.
- Group F: Age 45 and 15 years of credited service, or age 41 and 20 years of credited service.
- Group G: Only normal retirement is allowed (effective 7/1/2007, previously age 45 and 15 years of credited service, or age 41 and 20 years of credited service).
- Group H: Age 50 with 15 years of credited service, or age 45 and 20 years of credited service.

B. Benefit amount: Regular pension accrued, reduced by the following schedule:

		YEARS EARLY										
		0	1	2	3	4	5	6	7	8	9	10
MONTHS EARLY	0	100.00%	98.00%	95.00%	91.00%	86.00%	80.00%	72.00%	64.00%	56.00%	48.00%	40.00%
	1	99.83%	97.75%	94.67%	90.58%	85.50%	79.33%	71.33%	63.33%	55.33%	47.33%	
	2	99.67%	97.50%	94.33%	90.17%	85.00%	78.67%	70.67%	62.67%	54.67%	46.67%	
	3	99.50%	97.25%	94.00%	89.75%	84.50%	78.00%	70.00%	62.00%	54.00%	46.00%	
	4	99.33%	97.00%	93.67%	89.33%	84.00%	77.33%	69.33%	61.33%	53.33%	45.33%	
	5	99.17%	96.75%	93.33%	88.92%	83.50%	76.67%	68.67%	60.67%	52.67%	44.67%	
	6	99.00%	96.50%	93.00%	88.50%	83.00%	76.00%	68.00%	60.00%	52.00%	44.00%	
	7	98.83%	96.25%	92.67%	88.08%	82.50%	75.33%	67.33%	59.33%	51.33%	43.33%	
	8	98.67%	96.00%	92.33%	87.67%	82.00%	74.67%	66.67%	58.67%	50.67%	42.67%	
	9	98.50%	95.75%	92.00%	87.25%	81.50%	74.00%	66.00%	58.00%	50.00%	42.00%	
	10	98.33%	95.50%	91.67%	86.83%	81.00%	73.33%	65.33%	57.33%	49.33%	41.33%	
	11	98.17%	95.25%	91.33%	86.42%	80.50%	72.67%	64.67%	56.67%	48.67%	40.67%	

Unreduced early retirement benefits are available if the member's age and service equals 85 with at least 35 years of credited service.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

13. Disability Pension

A. Non-service-connected disability retirement:

Age and service requirement: Five years of credited service.

Amount: The greater of the accrued benefit under 11(B) or 33⅓ percent of final earnings.

B. Service-connected disability retirement:

Age and service requirement: None

Benefit amount:

1. For total incapacity: The greater of the accrued benefit under 11(B) or 66⅔ percent of final earnings.
2. For Group G members: Benefits described in (1.) above are modified as follows:
 - The minimum benefit is 70 percent of final earnings if the member meets the definition of Social Security disability.
 - The minimum benefit is 52½ percent of final earnings if the member is disabled but does not qualify for the 70 percent minimum benefit above. The Chief Administrative Officer of the County may offer a disabled member an alternative position with the County with a 5 percent pay increase in lieu of this disability benefit.
 - Certain causes of disability are automatically deemed to be service-connected.

Effective July 1, 2012, the service-connected benefit amount is modified as follows:

- Total incapacity: The minimum benefit is 70 percent of final earnings if the Disability Review Panel approves. If the member has been granted Social Security disability benefits, the Disability Review Panel must recommend total incapacity status if the Social Security award is based primarily on the impairment for which plan benefits are paid.
- Partial incapacity: The minimum benefit is 52½ percent of final earnings if the member is disabled but does not qualify for the 70 percent minimum benefit above.
- Group G: The Chief Administrative Officer of the County may offer a disabled member an alternative position with the County with a 5 percent pay increase in lieu of this disability benefit. This does not apply to Group F.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

14. Termination of Employment

A. Vesting provision:

Service requirement: Effective July 1, 1989, all employees who render five or more years of credited service become fully vested. Previously, vesting was based on a five to 10-year graded vesting schedule. Elected officials become vested after five years of service with a minimum monthly benefit of \$150.

Benefit amount: The monthly vested pension payable at normal retirement date is the benefit determined according to the normal retirement pension provisions based on credited service to the date of termination.

Effective July 1, 2010, unreduced benefit commencement date provision clarification for future terminated vested members: The unreduced benefit commencement date for groups A and H is age 60. The comparable date for groups E, J, F and G members is age 70 ½ for members who are not 55 years old with 15 years of service at their termination date.

B. Return of employee contributions:

A member's contributions plus interest will be refunded if:

- A member's service with the county terminates before the member becomes eligible to vest.
- A member eligible to vest terminates service and voluntarily elects to withdraw.

15. Discontinued Service Pension

Applies if employment ends because of an administrative action and participant has 10 or more years of continuous service. Discontinued service pension begins at early retirement date but no reductions are made for early retirement. A participant may not receive a discontinued service pension if the participant was terminated for cause or resigned.

A. Groups A, E, J, F, G and H

1. Optional Non-Integrated plan members and Optional Non-Integrated plan members who elected to transfer to the Optional Integrated plan on or before September 26, 1983.

Eligibility: 10 or more years of continuous or credited service, and not an elected or appointed member.

Benefit amount: The amount of pension that the participant would receive for a regular retirement modified as follows:

- Substitute final earnings for average final earnings
- Add 5 percent of final earnings



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

- No reduction at Social Security Normal Retirement Age
2. Optional Non-Integrated plan members who transferred to the Optional Integrated plan after September 26, 1983.

Eligibility: 10 or more years of credited or continuous service, and not an elected or appointed member.

Benefit amount: The amount of pension that the participant would receive for a regular retirement modified as follows:

- Substitute final earnings for average final earnings
- Add 5 percent of final earnings

3. Mandatory Integrated plan:

Eligibility: 10 or more years of continuous service and not an elected or appointed member.

Benefit amount: The amount of pension that the participant would receive for a regular retirement without any reduction for early retirement.

- B. Elected and appointed members:

On or before September 26, 1983

Eligibility: 10 or more years of credited service and enrolled or re-enrolled *on or before* September 26, 1983, or submits an application to transfer from the optional plan to the integrated plan *before* September 26, 1983.

Benefit amount: Regular pension accrued under 11(B) except that “final earnings” replaces “average final earnings” in the calculation, minimum \$300.00 monthly.

After September 26, 1983

Eligibility: 10 or more years of credited service and enrolled or re-enrolled after September 26, 1983, or submits an application to transfer from the optional plan to the integrated plan after September 26, 1983.

Benefit amount: Regular pension accrued under 11(B) except that “final earnings” replaces “average final earnings” in the calculation, minimum \$300.00 monthly.

- C. Notwithstanding the above provisions, any member covered by this plan on April 1, 1970, who has reached early retirement date with 20 years of continuous or credited service, is eligible to receive a pension commencing immediately in an amount not less than 50 percent of final earnings.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

16. Death Benefits

A. Non service-connected:

Eligibility: None.

Benefit amount:

1. Return of member contributions with interest;
plus
2. 50 percent of average final earnings if the member was a member of the Employees' Retirement System on or before December 31, 1966, and was a Maryland State plan member on August 15, 1965.
or
3. Alternate death benefits listed under (C.) below.

B. Service-connected:

Eligibility requirement: None

Benefit amount:

1. The spouse* will receive a benefit equal to 25 percent of the member's final earnings, with a minimum of \$250.00 per month. The child will receive a benefit equal to 5 percent of the member's final earnings with a minimum of \$50.00 per month to age 21 or life if disabled;
plus
2. 50 percent of average final earnings if the member was a member of the Employees' Retirement System on or before December 31, 1966, and was a Maryland State plan member on August 15, 1965;
or
3. Alternate death benefits listed under (C.) below.
4. For Group F and Group G members: If the member dies while performing duties for the County, the plan will pay death benefits to the spouse or domestic partner and child as if they were receiving a service-connected disability at the 70 percent minimum benefit level at the time of death and had elected the 100 percent joint and survivor option.

C. Alternative death benefits:

Eligibility: Member was eligible for vesting or retirement.

Benefit amount:

1. Spouse* or child may elect to receive the amount that would have been paid had the member elected to receive a 100 percent joint and survivor pension; plus



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

2. 50 percent of average final earnings if the member was a member of the Employees' Retirement System on or before December 31, 1966, and was a Maryland State plan member at August 15, 1965.

** Domestic partners who meet the requirements for domestic partnership are also eligible.*

17. Forms of Payment

A. Normal form:

1. Optional non-integrated plan: Lifetime benefit, with first 120 monthly payments guaranteed.
2. Optional integrated plan: Lifetime benefit, with first 120 monthly payments guaranteed.
3. Mandatory integrated plan: Lifetime benefit with refund of remaining contributions and interest.

- B. Optional forms: A member may elect an optional form of pension actuarially equivalent to the normal form of retirement, otherwise payable, excluding members who qualified for a non-service-connected disability retirement before reaching early retirement date. Available forms of payment are:

<i>Modified Cash Refund Annuity</i>	Lifetime benefit with return of employee contributions with interest guaranteed
<i>10-Year Certain and Continuous Annuity</i>	Lifetime benefit with 120 monthly payments guaranteed
<i>Social Security Adjustment Option Combined with either Modified Cash Refund Annuity or a 10-Year Certain and Continuous Annuity</i>	Provides a nearly level total income, from the Plan and Social Security, from date of retirement to date of death. At death, payment will continue to the beneficiary if the guarantee provided under the normal form of payment has not been exhausted.
<i>Joint and Survivor Annuity</i>	Provides a lifetime benefit and a continuation of a percentage of the retiree benefit upon death to the beneficiary. The minimum percentage is 10 percent. A guaranteed payment of employee contributions with interest is provided for the mandatory plan and 120 monthly payments from date of retirement for the optional plans.
<i>Joint and Survivor Annuity with Pop-Up</i>	Provides a lifetime benefit and a continuation of a percentage of the retiree benefit upon death to the beneficiary. The minimum percentage is 10 percent. If the beneficiary predeceases or divorces from the retiree, the monthly benefit pops up to the amount it would have been under the Modified Cash Refund option. A guaranteed payment of employee contributions with interest is provided.
<i>Social Security Adjustment Option Combined with Joint and Survivor Annuity Option</i>	Provides a nearly level total income, from the Plan and Social Security, from date of retirement to date of death and a continuation of a percentage of the retiree benefit upon death to the beneficiary. The minimum percentage is 10 percent.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

<p><i>Social Security Adjustment Option Combined with Joint and Survivor Annuity Pop-Up Option</i></p>	<p>Provides a nearly level total income, from the Plan and Social Security, from date of retirement to date of death and a continuation of a percentage of the retiree benefit upon death to the beneficiary. The minimum percentage is 10 percent. If the beneficiary predeceases or divorces from the retiree, the monthly benefit pops up to the amount it would have been under the Modified Cash Refund option. A guaranteed payment of employee contributions with interest is provided.</p>
--	--

18. Post-Retirement Increases

Optional non-integrated plan: Annual adjustment to the benefit equal to 100 percent of the change in Consumer Price Index for the Washington Metro Area for years and months of credited service before July 1, 2011. For years and months of credited service after June 30, 2011, any adjustment will not exceed 2.5 percent.

Optional integrated plan: Annual adjustment to the benefit equal to 100 percent of the change in Consumer Price Index for the Washington Metro Area for years and months of credited service before July 1, 2011. For years and months of credited service after June 30, 2011, any adjustment will not exceed 2.5 percent.

Mandatory integrated plan:

- Participants who enrolled on or after July 1, 1978, and retired before November 1, 2001 – Annual adjustment to the benefit equal to 60 percent of CPI increase, limited to 5 percent. However, if over age 65 or disabled, then the maximum limit of 5 percent does not apply.
- Participants who enrolled on or after July 1, 1978, and retired on or after November 1, 2001 – Annual adjustment to the benefit equal to 100 percent of the change in Consumer Price Index for the Washington Metro Area up to 3 percent, plus 60 percent of any change in Consumer Price Index greater than 3 percent, not to exceed a total of 7.5 percent for years and months of credited service before July 1, 2011. The maximum 7.5 percent does not apply to disability retirees or retirees over age 65 for years of service before July 1, 2011. For years and months of credited service after June 30, 2011, any adjustment will not exceed 2.5 percent.

Effective for the COLA increases granted to Group G members after December 31, 2023: Annual adjustment to the benefit equal to 100 percent of the change in Consumer Price Index for the Washington Metro Area up to 3 percent, plus 60 percent of any change in Consumer Price Index greater than 3 percent, not to exceed a total of 5 percent for all years and months of credited service.

On the following page are the recent COLA increases granted July 1.

Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

COLA Granted July 1	100% of CPI, Pre 7/1/2011 Service	100% of CPI up to 3%, 60% of Change in Excess of 3%, Pre 7/1/2011 Service	100% of CPI, Capped at 2.5%, Post 7/1/2011 Service	60% of CPI
2020	-0.088%	-0.088%	-0.088%	-0.053%
2021	3.797%	3.478%	2.500%	2.278%
2022	7.518%	5.711%	2.500%	4.511%
2023	3.053%	3.032%	2.500%	1.832%

Disability Benefits:

For a disability occurring after June 30, 2011, as determined by the Disability Review Panel, any post-retirement adjustment of the disability retirement benefit will not exceed 2.5 percent.

Sick Leave:

For purposes of applying any post-retirement adjustment, any sick leave will be credited as years and months of service as of the date of retirement. For participants who retire after July 1, 2011, any post-retirement adjustment will not exceed 2.5 percent on any sick leave credited as years and months of service.

DRSP Participants:

Effective July 1, 2011, any additional sick leave credited as years and months of service at DRSP exit is subject to the 2.5 percent post-retirement adjustment limit.

DROP Participants:

Effective July 1, 2011, any additional sick leave credited as years and months of service at DROP exit is subject to the 2.5 percent post-retirement adjustment limit.

Transferred Service:

For purposes of applying any post-retirement adjustment, any transferred service will be credited as years and months of service as of the date a properly completed application is filed with the Benefits Team. For applications to transfer service credit filed after June 30, 2011, any post-retirement adjustment will not exceed 2.5 percent on the transferred service.

Purchased Service:

For purposes of applying any post-retirement adjustment, any purchased service will be credited as years and months of service as of the date a properly completed application is filed with the Benefits Team. For applications to purchase service credit filed after June 30, 2011, any post-retirement adjustment will not exceed 2.5 percent on the purchased service.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

19. Deferred Retirement Option Plan (DROP) for Group E (effective 7/1/2015)

A. Eligibility for DROP entry:

Any group E and J uniformed correctional officers or sworn deputy sheriffs who are at least 55 years old and have at least 15 years of credited service or have attained age 46 and 25 years of credited service may participate in the DROP plan.

B. Exit from DROP:

The first day of any month not to exceed 36 months.

C. The DROP account is:

- A member-directed account outside the System's usual investment.
- Credited with the investment gains and losses of the chosen investments.
- Credited with the monthly benefits that the member would have received if the member had retired at DROP entry.

Upon exit from DROP, the member can receive the DROP account as a lump sum payment or as actuarially equivalent monthly benefits.

D. Post-DROP monthly benefit:

The amount the participant would have received at DROP entry with post-retirement increases for the period in DROP.

E. Disability while in DROP:

Non-Service Connected: The member will receive a pension benefit calculated as if they retired with a non-service connected disability on the date they exited DROP and their DROP account.

Service Connected Disability: The member can elect (i) their DROP account and the post-DROP monthly benefit or (ii) a disability benefit calculated as if the member had never entered DROP.

F. Death while in DROP:

The beneficiary will receive the greater of (i) the death benefit that the beneficiary would have received if the member had died at DROP entry with post-retirement increases plus the DROP account or (ii) the death benefit calculated as if the member had never entered DROP.

G. Member Contributions:

Members do not contribute while in DROP.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

20. Discontinued Retirement Service Program (DRSP) for Group F (effective 7/1/2008)

A. Eligibility for DRSP entry:

Effective August 7, 2023: Any group F member who has attained normal retirement age (Age 55 and 15 years of credited service, or 25 years of credited service) may participate in the DRSP plan. (Previously, any group F member who has attained age 46 and 25 years of credited service may participate in the DRSP plan.)

B. Exit from DRSP:

The first day of any month not to exceed 36 months.

C. The DRSP account is:

- A member-directed account outside the System's usual investment.
- Credited with the investment gains and losses of the chosen investments.
- Credited with the monthly benefits that the member would have received if the member had retired at DRSP entry.

Upon exit from DRSP, the member can receive the DRSP account as a lump sum payment or as actuarially equivalent monthly benefits.

D. Post-DRSP monthly benefit:

The amount the participant would have received at DRSP entry with post-retirement increases for the period in DRSP.

E. Disability while in DRSP:

Non-Service Connected: The member will receive a pension benefit calculated as if they retired with a non-service connected disability on the date they exited DRSP and their DRSP account.

Service Connected Disability: The member can elect (i) their DRSP account and the post-DRSP monthly benefit or (ii) a disability benefit calculated as if the member had never entered DRSP.

F. Death while in DRSP:

The beneficiary will receive the greater of (i) the death benefit that the beneficiary would have received if the member had died at DRSP entry with post-retirement increases plus the DRSP account or (ii) the death benefit calculated as if the member had never entered DRSP.

G. Member Contributions:

Members do not contribute while in DRSP.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

21. Deferred Retirement Option Plan (DROP) for Group G

A. Eligibility for DROP entry:

Any Group G member who has met the age and service requirements for a normal retirement may participate in the DROP plan (*effective 7/1/2007; previously only Group G members with at least 25 years of credited service*).

B. Exit from DROP:

The first day of any month not to exceed 36 months.

C. The DROP account collects:

- The member's contributions while in DROP.
- The monthly benefits that the member would have received if the member had retired at DROP entry.
- 7.5 percent interest on the amount in the account at the beginning of each calendar quarter (8.25 percent interest for members enrolled in DROP before July 1, 2013).

Upon exit from DROP, the member can receive the DROP account as a lump sum payment or as actuarially equivalent monthly benefits.

D. Post-DROP monthly benefit:

The amount the participant would have received at DROP entry with post-retirement increases for the period in DROP.

E. Disability while in DROP:

Non-Service Connected: The member will receive a pension benefit calculated as if they retired with a non-service connected disability on the date they entered DROP and their DROP account.

Service Connected Disability: The member can elect (i) their DROP account and the post-DROP monthly benefit or (ii) a disability benefit calculated as if the member had never entered DROP.

F. Death while in DROP:

The beneficiary will receive the greater of (i) the death benefit that the beneficiary would have received if the member had died at DROP entry with post-retirement increases plus the DROP account or (ii) the death benefit calculated as if the member had never entered DROP.

Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

22. Guaranteed Retirement Income Plan (effective 7/1/2009)

A. Eligibility for GRIP entry:

- Full-time Non-Public Safety employees hired on or after July 1, 2009, who do not participate in the retirement savings plan may make a one-time irrevocable election to participate in the GRIP within the first 150 days of full time employment. Participation in the plan begins 180 days after employment.
- Part-time or temporary Non-Public Safety employees hired on or after October 1, 1994, who do not participate in the retirement savings plan may make a one-time irrevocable election to participate in the GRIP after at least 150 days of employment. Participation in the plan begins 180 days after employment.

B. The GRIP account collects:

- Member contributions (pre-tax unless noted otherwise)
 - a. Non-public safety employees: 4 percent of regular base earnings up to the maximum Social Security wage base plus 8 percent of the excess.
 - b. Public safety employees: 3 percent of regular base earnings up to the maximum Social Security wage base plus 6 percent of the excess.
 - c. Effective July 1, 2011, members had the option to contribute an additional 2 percent of regular earnings for service between June 30, 2011 and July 1, 2012, on an after-tax basis by making an election in writing on or before September 1, 2011.
- Employer contributions
 - a. Non-public safety employees: 8 percent of regular base earnings. Effective July 1, 2011, the employer contribution was 6 percent of regular base earnings for service between June 30, 2011, and July 1, 2012.
 - b. Public safety employees: 10 percent of regular base earnings. Effective July 1, 2011, the employer contribution was 8 percent of regular base earnings for service between June 30, 2011, and July 1, 2012.
- 7.25 percent interest credited from the date of contribution.

C. Vesting Schedule:

- Employees are 100 percent vested in employee contributions at all times.
- County contributions are 0 percent vested from 0-3 years of credited service and 100 percent vested at 3 or more years of credited service.
- Participants become 100 percent vested at death or disability.



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

D. Normal Form of Payment – Lump sum

E. Optional Forms of Payment:

- Direct rollover
- Life annuity purchased from MCERP

F. Eligible Agencies:

- CC – credit union employees (outside agency)
- CM – union employees (represented)
- CN – non-bargaining employees (non-represented)
- CP – public safety employees
- CZ – elected officials who transferred from the EOP

23. Retirement Incentive Program (effective 6/1/2010 for one time election)

The Retirement Incentive Program offered a one-time election in June 2010 and provided enhanced benefits to 64 group A, group H and group E participants. Each retiree received up to a \$35,000 lump sum payment. The early retirement reductions that would normally apply were reduced for some participants and eliminated for others.

24. Elected Officials' Plan (EOP)

The Elected Officials' Plan is a defined contribution plan within the Employees' Retirement System.

A. Participant and Eligibility:

- Elected officials are eligible to participate in the EOP. An elected official is the sheriff, the state's attorney, a County Council member, the County Executive and any County official elected for a fixed term as specifically provided in the Charter.

Unless an elected official was an active member of a County retirement plan before becoming an elected official, which includes being on leave without pay, an elected official must participate in the EOP upon becoming an elected official. An elected official who chooses to continue to participate in another County retirement plan may become a member of the EOP at any time while an elected official after terminating participation in the other plan.

B. Transfer to the Guaranteed Retirement Income Plan (GRIP):

- An individual who is an elected official after December 6, 2010, may make a one-time irrevocable decision to terminate participation in the EOP and participate in the GRIP. An elected official must elect to participate in the GRIP during the first 150 days after becoming an elected official. Participation will begin on the first pay period after the elected official has been in office for 180 days. The elected official will have his or her EOP account



Brief Summary of Plan Provisions as of July 1, 2023 (Continued)

transferred to the GRIP and the amount transferred into the GRIP will become the elected official's beginning GRIP account balance.

- An elected official who does not elect to participate in the GRIP must continue to participate in the EOP.

C. EOP Contributions:

- Employee contributions: 4 percent of pay (regular earnings) on a before-tax basis. Members may make an additional voluntary after tax contributions into the account of up to 7 percent of bi-weekly gross pay.
- Employer contributions: 8 percent of pay (regular earnings before taxes).

25. Changes in plan provisions

The following plan changes have been reflected in this actuarial valuation. All other plan provisions have remained unchanged since the last valuation, performed as of July 1, 2022.

- Group J
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.50% for the first 25 years and 2.00% for the next five years for the benefit payable until the Social Security integration age.
- Group E
 - Up to 24 months of military time is granted to Group E members upon attainment of five years of County service, at no cost to the members.
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 2.25% for the next five years for the benefit payable until the Social Security integration age.
- Group F
 - Eligibility for the Discontinued Retirement Service Program (DRSP) was updated to allow entry upon satisfying normal retirement eligibility conditions (age 55 with 15 years of service or any age with 25 years of service).
 - The Social Security integration age was increased to age 70.
 - The benefit accrual rate was increased to 2.60% for the first 25 years and 2.40% for the next nine years for the benefit payable until the Social Security integration age and increased to 1.80% for the first 25 years and 1.65% for the next nine years for the benefit payable after the Social Security integration age.
- Group G
 - Up to 12 months of military time is granted to Group G members upon attainment of seven years of County service and up to an additional 12 months of military time is granted to Group G members upon attainment of 15 years of County service, up to a total of 24 months, at no cost to the members.



Brief Summary of Plan Provisions as of July 1, 2023 (Concluded)

- The benefit accrual rate for sick leave years of credited service was increased for Group G members to 5.0% for the benefit payable until the Social Security integration age and 3.4375% for the benefit payable upon attainment of the Social Security integration age.
- The benefit accrual rate was increased to 2.60% for the first 25 years and 1.25% for the next six years for the benefit payable until the Social Security integration age and increased to 1.7875% for the first 25 years and 0.859375% for the next six years for the benefit payable after the Social Security integration age.
- COLA for members hired after July 1, 1978, is 100% of CPI up to 3%, plus 60% of the change in excess of 3%, up to a maximum increase of 5% on the total benefit (both the benefit attributable to service before and after July 1, 2011).

SECTION E

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL). The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

Actuarial Assumptions. Estimates of future plan experience such as investment return, expected lifetimes and the likelihood of receiving a pension from the Pension Plan. Demographic, or “people” assumptions, include rates of mortality, retirement and separation. Economic, or “money” assumptions, include expected investment return, inflation and salary increases.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Present Value of Future Plan Benefits. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Value of Assets (AVA). Smoothed value of assets that recognizes the difference between the expected investment return using the valuation assumption of 7.50 percent and the actual investment return over a five-year period. Dampens volatility of asset value over time.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution. The sum of the normal cost and amortization of the unfunded actuarial accrued liability.

Asset Return. The net investment return for the asset divided by the mean asset value. Example: if \$1.00 is invested and yields \$1.075 after a year, the asset return is 7.50 percent.

Funded Ratio. The actuarial value of assets divided by the actuarial accrued liability. Measures the portion of the actuarial accrued liability that is currently funded.

Market Value of Assets (MVA). The value of assets currently held in the trust available to pay for benefits of the Pension Plan. Each of the investments in the trust is valued at market price which is the price at which buyers and sellers trade similar items in the open market

Normal Cost (NC). The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Unfunded Actuarial Accrued Liability (UAAL). The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

