



Monroe County Employees Retirement System

December 31, 2023 | Actuarial Valuation Report

Nyhart Actuary & Employee Benefits

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Actuarial Certification

At the request of the plan sponsor, this report summarizes Monroe County Employees Retirement System as of December 31, 2023. The purpose of this report is to communicate the following results of the valuation:

- Determine Funded Status; and
- Determine Actuarially Determined Contribution for the fiscal year January 1, 2025 through December 31, 2025;

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by the employer. Asset information has been provided to us by the trustee. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Board. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. 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;
- 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); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable.

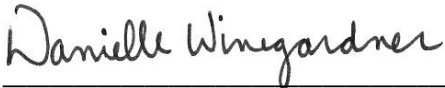
Actuarial Certification

In preparing the results, Nyhart used Proval valuation software developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing pension valuations. We coded the plan provisions, assumptions, methods, and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any material weaknesses or limitations in the software and have determined it is appropriate for performing this valuation.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart



Danielle Winegardner, FSA, EA, MAAA
Enrolled Actuary No. 23-08260

October 31, 2024
Date



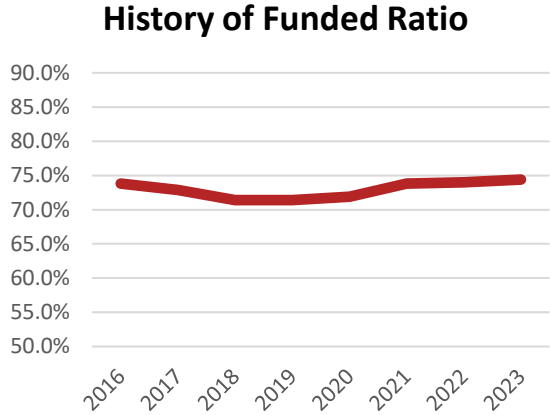
Taylor Clary, ASA, EA
Enrolled Actuary No. 23-09088

Executive Summary

Summary Results

The actuarial valuation’s primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

	December 31, 2022	December 31, 2023
Funded Status Measures		
Accrued Liability	\$322,380,673	\$331,324,321
Actuarial Value of Assets	\$238,411,511	\$246,606,311
Unfunded Accrued Liability	\$83,969,162	\$84,718,010
Funded Percentage (AVA)	74.0%	74.4%
Funded percentage (MVA)	69.2%	73.2%
Interest Rate	7.00%	7.00%
Cost Measures		
Recommended Total Contribution (FY 2024/FY 2025)	\$11,131,638	\$10,821,140
Recommended Contribution (as a percentage of expected payroll)	33.4%	36.1%
Asset Performance		
Market Value of Assets	\$223,204,700	242,547,689
Actuarial Value of Assets	\$238,411,511	246,606,311
Actuarial Value/Market Value	106.8%	101.7%
Member Information		
Active Members	553	510
Terminated Vested Members	225	222
Retirees, Beneficiaries, and Disabled Members	851	880
Total	1,629	1,612
Covered Payroll	\$33,974,870	\$32,794,549
Expected Payroll (FY 2024/FY 2025)	\$33,388,179	\$29,972,290



Changes Since Prior Valuation and Key Notes

The General County, County Agency, Sheriffs, and Central Dispatch divisions are now closed to new entrants. No new hires from these divisions are eligible to enter the Retirement System.

The Employee Contribution Rate for General County, County Agency, Sheriffs, and Central Dispatch was increased from 3.00% to 5.00%. COAM Command Officers employee contribution rate was increased from 4.53% to 6.53%.

There have been no other changes to the plan provisions since the last valuation for existing plan participants.

The expense load was updated from 0.50% of payroll to a flat-dollar expense load based on the prior year actual administrative expenses to better reflect anticipated administrative expenses for the plan. This change does not impact the liability but increases the actuarially determined contribution.

Historical Valuation Summary

	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
Funding					
Actuarial Accrued Liability	\$301,296,084	\$308,948,036	\$316,037,308	\$322,380,673	\$331,324,321
Actuarial Value of Assets	\$215,267,546	\$222,085,224	\$233,313,003	\$238,411,511	\$246,606,311
Unfunded Actuarial Accrued Liability	\$86,028,538	\$86,862,812	\$82,724,305	\$83,969,162	\$84,718,010
Funded Percentage	71.4%	71.9%	73.8%	74.0%	74.4%
Total Normal Cost	\$4,362,926	\$3,844,641	\$3,620,333	\$3,727,775	\$3,503,517
Expense Load Assumption (% of Pay)	0.50%	0.50%	0.50%	0.50%	\$200,000
Actual Contributions	\$9,853,368	\$10,409,663	\$10,989,552	\$9,373,158	\$11,326,381
Actuarially Determined Contribution	\$9,222,914	\$10,565,680	\$11,226,227	\$10,922,818	\$10,620,151
Interest Rate	7.00%	7.00%	7.00%	7.00%	7.00%
Rate of Return					
Actuarial Value of Assets	6.3%	6.8%	8.5%	6.4%	7.2%
Market Value of Assets	18.0%	13.9%	15.6%	(12.1)%	12.8%
Demographic Information					
Active Participants	715	714	613	553	510
Terminated Vested Participants	195	212	222	225	222
Retired Participants and Beneficiaries	816	820	832	851	880
Total Participants	1,726	1,746	1,667	1,629	1,612
Covered Payroll	\$36,622,993	\$37,227,720	\$34,815,618	\$33,974,870	\$32,794,549
Average Covered Pay	\$51,221	\$52,140	\$56,795	\$61,437	\$64,303

*Effective 12/31/2023, the expense load assumption was updated from 0.50% of payroll to a flat-dollar amount to better reflect the anticipated administrative expenses for the plan.

Executive Summary

Identification of Risks

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the Monroe County Employees Retirement System. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

Type of Risk	Method to Assess Risk
Investment Return	Scenario Testing; Asset Liability Study
Demographic Risk	Scenario Testing; Stress Testing; Experience Study
Participant Longevity	Stress Testing; Experience Study
Salary Growth	Scenario Testing; Experience Study; Review Future Budgets
Interest Rates	Scenario Testing; Stochastic Modeling

Plan Maturity Measures - December 31, 2023

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the Monroe County Employees Retirement System falls in its life-cycle.

Duration of Liabilities: 10.3

Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 31.6%

A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: 13.5%

Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 8.6%

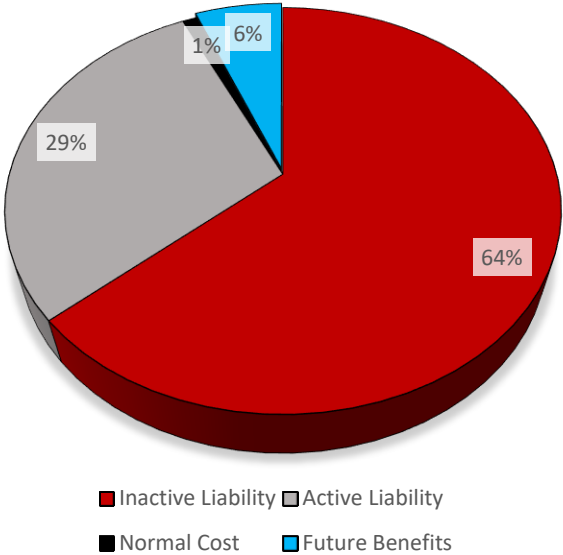
As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.

Present Value of Future Benefits

The Present Value of Future Benefits represents the discounted value of all future benefits expected to be payable to current members, considering future service and compensation not yet earned.

	December 31, 2023
Present Value of Future Benefits	
Active members	
Retirement	\$114,952,487
Disability	5,379,524
Death	1,390,558
Termination	7,950,225
Total active	\$129,672,794
Inactive members	
Retired and Disabled members	\$203,002,000
Beneficiaries	9,664,485
Terminated vested members	13,909,891
Total inactive	\$226,576,376
 Total	 \$356,249,170
 Present Value of Future Payrolls	 \$251,430,465
Present Value of Future Employee Contributions	\$9,222,759

Breakdown of Present Value of Future Benefits



Assets and Liabilities

Accrued Liability

The Accrued Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions. It is not a long-term snapshot of the liabilities.

December 31, 2023

Accrued Liabilities

Active members	
Retirement	\$96,462,820
Disability	3,718,248
Death	1,057,992
Termination	3,508,885
Total Active	\$104,747,945
Inactive members	
Retired and Disabled members	\$203,002,000
Beneficiaries	9,664,485
Terminated vested members	13,909,891
Total Inactive	\$226,576,376
 Total	 \$331,324,321
 Total Normal Cost	 \$3,503,517

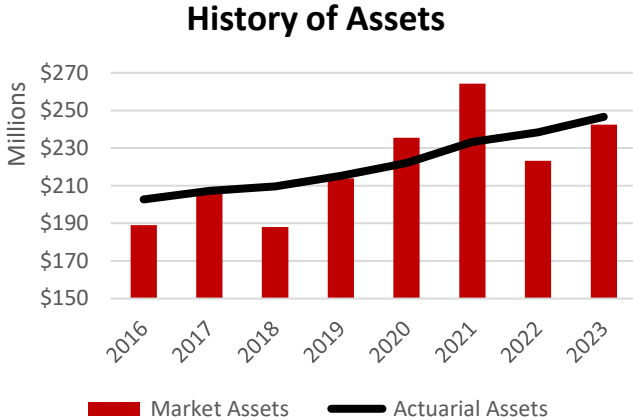
Assets and Liabilities

Asset Information

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

**Market Value
December 31, 2023**

Asset Value Reconciliation	
Value of assets, beginning of year	\$223,204,700
Contributions	
Employer	\$11,326,381
Employee	\$1,141,274
Total	\$12,467,655
Investment income, net expenses	\$28,053,081
Benefit payments and refunds	(20,969,356)
Administrative expenses	(208,391)
Value of assets, end of year	\$242,547,689
Return on Market Value ¹	12.8%
Actuarial Value of Plan Assets	\$246,606,311



¹Return based on mid-year cash flows

Assets and Liabilities

Asset Information (continued)

Plan Assets are used to develop funded percentages and contribution requirements.

	December 31, 2023
1. Actuarial value of assets, beginning of year	\$238,411,511
2. Contributions	\$12,467,655
3. Admin Expenses	(208,391)
4. Benefit Payments and Refunds	(20,969,356)
5. Expected Total Investment Income	16,383,953
6. Actual Market Value of Assets, end of year	242,547,689
7. Investment Income, net expenses	28,053,081
8. Amount of Phased-In Recognition (7 – 5)	11,669,128
9. Investment Gain/Loss changes recognized (1/7 over seven years)	
a. From current year (\$11,669,128 * (6/7))	10,002,110
b. From 1 year prior ((\$47,467,730) * (5/7))	(33,905,521)
c. From 2 years prior (\$20,932,611 * (4/7))	11,961,492
d. From 3 years prior (\$14,354,911 * (3/7))	6,152,105
e. From 4 years prior (\$18,714,268 * (2/7))	5,346,934
f. From 5 years prior ((\$25,310,196) * (1/7))	(3,615,742)
g. Total	(4,058,622)
10. Preliminary Actuarial value of assets, end of year (6 – 9(g))	\$246,606,311
11. 80% of Market value of assets	\$194,038,152
12. 120% of Market value of assets	\$291,057,226
13. Final Actuarial value of assets	\$246,606,311
14. Return on Actuarial Value	7.2%

Assets and Liabilities

Reconciliation of Gain/Loss

December 31, 2023

Liability (gain)/loss

Actuarial liability (12/31/2022)	\$322,380,673
Normal cost	3,727,775
Benefit payments	(20,969,356)
Expected Interest	22,106,077
Assumption changes	0
Plan provision changes	0
Expected actuarial liability (12/31/2023)	\$327,245,169
Actual actuarial liability (12/31/2023)	<u>\$331,324,321</u>
Liability (gain)/loss	\$4,079,152

Asset (gain)/loss

Actuarial value of assets (12/31/2022)	\$238,411,511
Contributions	12,467,655
Benefit payments and expenses	(21,177,747)
Expected Investment return	16,383,953
Expected actuarial value of assets (12/31/2023)	\$246,085,372
Actual actuarial value of assets (12/31/2023)	<u>\$246,606,311</u>
Asset (gain)/loss	(\$520,939)

Total (gain)/loss

\$3,558,213

Contribution Requirements

Development of Recommended Contribution

The minimum recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws. The recommended contribution is composed of the normal cost, administrative expenses, plus an amortization charge.

December 31, 2023

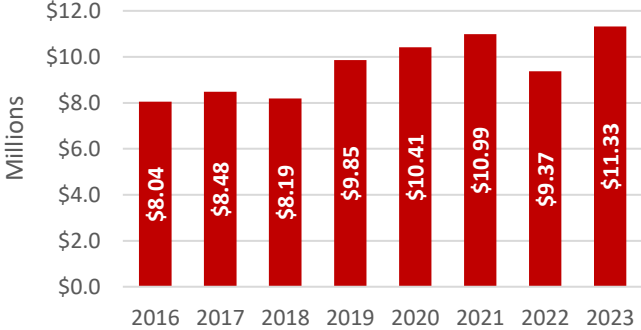
Funded Position

1. Entry age accrued liability	\$331,324,321
2. Actuarial value of assets	246,606,311
3. Unfunded actuarial accrued liability (UAAL)	\$84,718,010

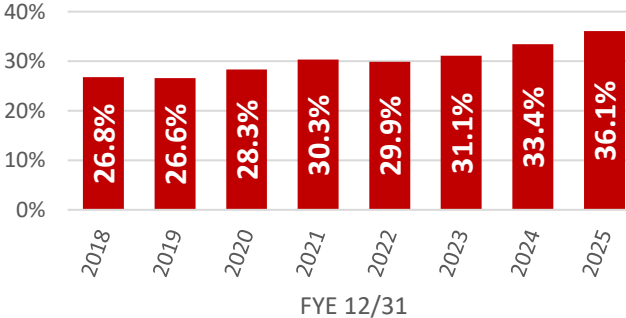
Employer Contributions¹

1. Normal Cost	
(a) Total normal cost	\$3,503,517
(b) Expected participant contributions	1,198,032
(c) Net normal cost	\$2,305,485
2. Administrative expenses	200,000
3. Amortization of UAAL	7,271,329
4. Interest	1,044,326
5. Total recommended contribution for FY 2025	\$10,821,140
6. Expected covered payroll	29,972,290
As a percentage of covered payroll	36.10%

History of Contributions



History of Recommended Contributions (% of Payroll)



In accordance with ASOP No. 4, we reviewed the plan’s funding method (liability method, amortization method and period, asset smoothing method), contribution policy & allocation procedures, and the computation of the actuarially determined contribution. We believe each to be reasonable, both individually and in combination, as expected plan costs are expected to be fully funded over a reasonable timeframe.

¹Contribution by division is shown on page 35



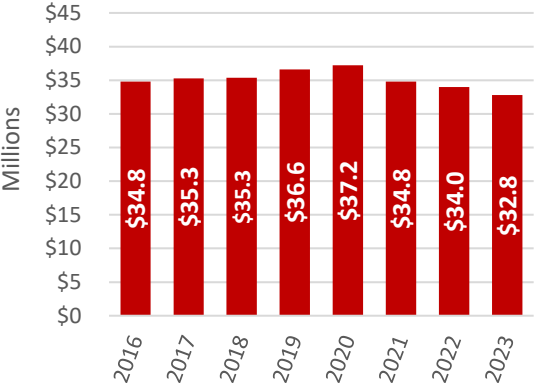
Demographic Information

Demographic Information

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

	December 31, 2022	December 31, 2023
Participant Counts		
Active Participants	553	510
Retired Participants	742	767
Disabled Participants	26	26
Beneficiaries	83	87
Terminated Vested Participants	225	222
Total Participants	1,629	1,612
Active Participant Demographics		
Average Age	47.2	47.6
Average Service	15.1	15.6
Average Compensation	\$61,437	\$64,303
Covered Payroll	\$33,974,870	\$32,794,549

History of Covered Payroll



Demographic Information

Demographic Information (continued)

	December 31, 2022	December 31, 2023
Retiree Statistics		
Count	742	767
Average Age	69.9	70.1
Average Monthly Benefit	\$1,982	\$2,042
Disabled Participant Statistics		
Count	26	26
Average Age	57.4	58.7
Average Monthly Benefit	\$1,472	\$1,506
Beneficiary Statistics		
Count	83	87
Average Age	75.0	75.5
Average Monthly Benefit	\$1,075	\$1,090
Terminated Vested Participant Statistics*		
Count	225	222
Average Age	45.4	46.0
Average Monthly Benefit	\$1,234	\$1,218

Monitoring the average age of the population is important due to the relationship of actuarial cost to age. Generally speaking, an older population generates a higher actuarial cost.

Changes in the ratio of active to retired participants can be a significant driver of costs in a volatile asset market.

* For December 31, 2022, 136 deferred vested participants and 89 participants vested only in a return of their employee contributions are included.

* For December 31, 2023, 132 deferred vested participants and 90 participants vested only in a return of their employee contributions are included.

Participant Reconciliation

Participant Reconciliation

	Active	Terminated Vested	Retired	Disabled	Beneficiaries	Totals
Prior Year	553	225	742	26	83	1,629
Active						
To Terminated Vested	(15)	15				0
To Disabled	(1)			1		0
To Retired	(31)		31			0
To Lump Sum Cash-Out	(4)					(4)
To Terminated Non-Vested	(2)					(2)
To Death						0
Terminated Vested						
To Active						0
To Retired		(8)	8			0
To Lump Sum Cash Out		(10)				(10)
To Death		(1)				(1)
Disabled						
To Death				(1)		(1)
Retired						
To Death			(14)			(14)
Survivor						
To Death					(1)	(1)
Additions	10	1			5	16
Removed						0
Current Year	510	222	767	26	87	1,612

Active Participant Schedule

Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	Years of Service										Total	Average Pay
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up		
Under 25	3	7									10	\$48,235
25 to 29	3	17	16								36	\$64,162
30 to 34	2	11	25	3							41	\$60,699
35 to 39	1	11	9	8	6						35	\$59,016
40 to 44		6	13	10	21	15	2				67	\$67,523
45 to 49	2	6	5	10	10	39	14				86	\$70,999
50 to 54	2	7	17	15	10	19	13	10	1		94	\$68,137
55 to 59	1	14	10	7	6	16	8	6	4		72	\$65,156
60 to 64		6	9	9	3	9	7	1	3	2	49	\$57,968
65 to 69		5	3	1	2	1	2	2		1	17	\$44,736
70 & up		1		1				1			3	\$40,362
Total	14	91	107	64	58	99	46	20	8	3	510	\$64,303

Plan Effective Date

The plan was effective July 1, 1965.

Plan Status

The plan provides ongoing benefit accruals and participation is open to new entrants in all divisions except the Mental Health and County divisions. Mental Health employees hired after 6/1/2012 and County employees hired after 12/31/2020 are not eligible for participation.

Accrual of Benefits

A participant shall accumulate a benefit payable at normal retirement date based upon compensation and credited service earned as of the date of determination.

Benefits

Normal Retirement

Eligibility	See the Plan Provision by Division table for details.
Benefit	Benefit Multiplier (outlined in the Plan Provision by Division table) multiplied by Final Average Compensation multiplied by Credited Service Maximum Benefit: 75% of final average earnings

Deferred Retirement

Eligibility	8 or more years of service
Benefit	Computed as a normal retirement but based upon service and final average earnings at termination date

Non-Duty Death-In-Service

Eligibility	15 years of service or age 60 with 10 years of service
Benefit	Computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election

Duty Death-In-Service

Eligibility	No age or service requirements
Benefit	Computed as a normal retirement but computed as if the member had at least 15 years of service

Non-Duty Disability

Eligibility	10 or more years of service
Benefit	Computed as a normal retirement

Duty Disability

Eligibility	No age or service requirements
Benefit	Computed as a normal retirement benefit but computed as if the member had at least 10 years of service

Compensation

Salary or wages paid to a member for personal services rendered while a member of the retirement system
Salary and wages shall include longevity pay, overtime pay, shift differentials, pay for periods of absence from work by reason of employer approved vacation, holiday, and sickness.

Final Average Compensation

Highest 3 consecutive years out of last 10

Credited Service

Exact fractional service

Employee Contributions

See the table below for details

Payment Forms

Normal Form	Single Life Annuity
Optional Forms	Life Annuity with 5 and 10 years certain, 50% and 100% Joint and Survivor Annuity

The participant may also elect a combination of a Return of Employee Contributions with a residual annuity in any of the forms listed.

Optional Form Factors and Actuarial Equivalence

100% Joint and Survivor Annuity	The retired member is paid 80% of the single life annuity pension amount if the retired member and named survivor beneficiary are the same age on the retired member's retirement date. The percent shall be increased by 0.5% for each year the named survivor beneficiary's age is more than the retired member's age, to a maximum of 90%. The percent shall be decreased by 0.5% for each year the named survivor beneficiary's age is less than the retired member's age, to a minimum of 50%.
50% Joint and Survivor Annuity	The retired member is paid 90% of the single life annuity pension amount if the retired member and named survivor beneficiary are the same age on the retired member's retirement date. The percent shall be increased by 0.5% for each year the named survivor beneficiary's age is more than the retired member's age, to a maximum of 95%. The percent shall be decreased by 0.5% for each year the named survivor beneficiary's age is less than the retired member's age, to a minimum of 60%.
Life Annuity with Years Certain	Actuarial Equivalence will be computed using 7% interest and the GAM 71 Mortality table.
Annuity Withdrawal Factor	The reduction in the single life annuity amount resulting from a participant electing to receive a return of employee contributions is computed using the interest rate and mortality table with a 50% unisex blend from the most recent annual actuarial valuation for the year in which the participant's contributions are withdrawn. For contributions earned prior to the date negotiated by each union, the return of employee contributions is computed using 1971 GAM Mortality and the PBGC rate.

Plan Provisions Not Included

We are not aware of any plan provisions not included in the valuation.

Adjustments Made for Subsequent Events

We are not aware of any event following the measurement date and prior to the date of this report that would materially impact the results of this report.

Changes since the Prior Valuation

The Employee Contribution Rate for General County, County Agency, Sheriffs, and Dispatchers was increased from 3.00% to 5.00%. COAM Command Officers employee contribution rate was increased from 4.53% to 6.53%.

Plan Provisions

Plan Provisions by Division

Valuation Group	Union Name	TIER 1					TIER 2				
		Numeric Code	Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility	Effective Date	Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility
General	Non-Union Other	99	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	TPOAM Nurses	3	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	TPOAM General	4	2.50%	3 yr.	5.00%	55/30 or 60/8	10/26/2010	1.50%	3 yr.	5.00%	60/8
General	UAW/Friend of the Court	6	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	POAM/District Court	7	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	TPOAM District Court	26	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	POAM Youth Center	8	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	TPOAM Youth Center Supervisors	28	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	POAM/Youth Center	29	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	TPOAM Family Court	11	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	POAM/Assistant Prosecutor's	14	2.50%	3 yr.	5.00%	55/30 or 60/8	4/3/2012	1.50%	3 yr.	5.00%	60/8
General	Non-Union Management	20	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	Elected Officials – Non-Union	22	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
General	County (Non-Union) Part-time	25	2.50%	3 yr.	5.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
County Agency	AFLCIO/County Agency	2	2.50%	3 yr.	5.00%	55/30 or 60/8	12/1/2014	1.50%	3 yr.	5.00%	60/8
County Agency	Non-Union/County Agency	15	2.50%	3 yr.	5.00%	55/30 or 60/8					



Plan Provisions

Plan Provisions by Division

Valuation Group	Union Name	TIER 1					TIER 2				
		Numeric Code	Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility	Effective Date	Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility
Sheriff	POAM/Sheriff Deputies	1	2.50%	3 yr.	5.00%	50/25 or 60/8	7/1/2013	1.50%	3 yr.	5.00%	50/25 or 60/8
Sheriff	POAM/Correctional Officers	10	2.50%	3 yr.	5.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	50/25 or 60/8
Sheriff	COAM/Corrections Supv	17	2.50%	3 yr.	5.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	50/25 or 60/8
Sheriff	COAM/Command Officers	9	2.75%	3 yr.	6.53%	50/25 or 60/8	4/25/2013	Retirement Benefits provided in previous position (Deputies Unit)			
Sheriff	Non-Union Command	30	2.75%	3 yr.	6.53%	50/25 or 60/8	4/25/2013				
Library	Library (Non-Union)	73	2.00%	3 yr.	0.00%	55/30 or 60/8					
Library	Library (Non-Union) Part-Time	74	2.00%	3 yr.	0.00%	55/30 or 60/8					
Road Commission	Local 543 Utility Workers Union of America	44	2.25%	3 yr.	3.25%	55/30 or 60/8	12/1/2014	2.00%	3 yr.	3.25%	55/30 or 60/8
Road Commission	AFSCME Local 839	45	2.25%	3 yr.	3.25%	55/30 or 60/8	12/1/2014	2.00%	3 yr.	3.25%	55/30 or 60/8
Road Commission	Road Commission - Management	46	2.25%	3 yr.	3.25%	55/30 or 60/8					
Mental Health	AFSCME Mental Health	5	2.25%	3 yr.	0.00%	55/30 or 60/8	6/1/2012	None			
Mental Health	Non-Union Mental Health	23	2.25%	3 yr.	0.00%	55/30 or 60/8	6/1/2012	None			
Mental Health	Mental Health Management	24	2.25%	3 yr.	0.00%	55/30 or 60/8	6/1/2012	None			
Dispatchers	COAM/Communication Supervisors	16	2.50%	3 yr.	5.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8
Dispatchers	POAM/Communication Spec	50	2.50%	3 yr.	5.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	5.00%	60/8



Plan Provisions

13th Check Provisions by Division

	General County	County Agency	Sheriff's Office	County Library	Road Commission*	Mental Health	Central Dispatch
Source of 13th Check Payments	Employer	Employer	Employer	Employer	Employer	N/A	Employer
13th Check Excess Reserve Fund	Closed	Closed	Closed	N/A	Closed	N/A	Closed
Supplemental Pension Benefit Contribution for 2023	\$34,246	\$3,425	\$10,959	\$0	\$50,000	N/A	\$1,370

*The Road Commission Excess Earnings Reserve Fund is no longer in existence and the Road Commission is now using general funds to fund the distribution of these benefits. Under Policy No. 2016-04, \$50,000 is to be taken each year from the general funds to fund the Post-Retirement Supplemental Benefits Distribution Program and is evenly distributed to all Monroe County Road Commission retirees, regardless of the year they retired, their age, or how long they have been retired.

Actuarial Assumptions

Except where otherwise indicated, the following assumptions were selected by the plan sponsor with the concurrence of the actuary.

Actuarial Assumptions, Methods and Additional Information for Funding

Valuation Date	December 31, 2023
Participant and Asset Information Collected as of	December 31, 2023
Cost Method	Entry Age Normal Cost Method
Amortization Method	Level percent of payroll, closed Effective for the 12/31/2012 valuation, the Mental Health division is closed to new hires. In this case, a level dollar amortization is being used.
Remaining amortization period	20 At the February 19, 2020 Board meeting, the Board adopted a 20-year layered amortization with 2% annual payment increases (except for the Mental Health division for which the payments are level). Future unanticipated unfunded actuarial accrued liability will be amortized over a 20-year period from the point incurred, resulting in a schedule of UAAL payments.
Asset Valuation Method	7-year adjusted market value
Interest Rates	
Investment Rate of Return	7.00%
Amortization payments increase assumption	2.00%
Inflation Assumption	2.25%
Expense Loading	A flat-dollar expense load based on the prior year actual administrative expenses.



Actuarial Assumptions

Marital Status and Ages

100% of males and 100% of females are assumed to be married. Male spouses are assumed to be 3 years older than female spouses.

Annual Pay Increases

Salary increases are based on an inflation rate of 2.25% and merit and longevity rates based on age. Representative values of the total annual rates of pay increases:

Years of Service	Merit and Longevity				Total		
	Base (Economic)	General, Library, County Agency, Sheriff's Office, Central Dispatch	Road Commission	Mental Health	General, Library, County Agency, Sheriff's Office, Central Dispatch	Road Commission	Mental Health
1	2.25%	2.50%	2.50%	2.75%	4.75%	4.75%	5.00%
2	2.25%	2.50%	2.50%	2.75%	4.75%	4.75%	5.00%
3	2.25%	2.50%	2.50%	2.75%	4.75%	4.75%	5.00%
4	2.25%	2.50%	2.50%	2.75%	4.75%	4.75%	5.00%
5	2.25%	2.50%	2.00%	2.75%	4.75%	4.25%	5.00%
6	2.25%	2.50%	2.00%	2.75%	4.75%	4.25%	5.00%
7	2.25%	2.50%	2.00%	2.25%	4.75%	4.25%	4.50%
8	2.25%	2.50%	2.00%	2.25%	4.75%	4.25%	4.50%
9+	2.25%	0.50%	0.50%	1.25%	2.75%	2.75%	3.50%

Mortality Rates

Healthy

For General County, County Agency, County Library, Road Commission, Mental Health, and Central Dispatch: The Fully Generational Pub-2010 General Employees Mortality Table, using Projection Scale MP-2021
For Sheriff's Office: The Fully Generational Pub-2010 Public Safety Mortality Table, using Projection Scale MP-2021

Disabled

For General County, County Agency, County Library, Road Commission, Mental Health, and Central Dispatch: The Fully Generational Pub-2010 Non-Public Safety Disabled Retiree Mortality Table, using Projection Scale MP-2021
For Sheriff's Office: The Fully Generational Pub-2010 Public Safety Disabled Retiree Mortality Table, using Projection Scale MP-2021

It is assumed that all deaths are non-duty related deaths.

As the plan is not large enough to have credible experience, mortality assumptions are set to reflect general population trends.



Actuarial Assumptions

Retirement Rates

Retirement rates vary by age, service, and division. The assumed retirement rates are based on a study of actual experience for the plan during 2015-2018. See the experience study report dated February 19, 2020.

Retirement Ages	General County, County Agency, Mental Health, and County Library	Road Commission	Sheriff's Office, County Dispatch Years of Service: 20-24	Sheriff's Office, County Dispatch Years of Service: 25	Sheriff's Office, County Dispatch Years of Service: 26-29	Sheriff's Office, County Dispatch Years of Service: 30+
50			20.00%	60.00%	50.00%	100.00%
51			20.00%	60.00%	50.00%	100.00%
52			20.00%	60.00%	50.00%	100.00%
53			20.00%	60.00%	50.00%	100.00%
54			20.00%	60.00%	50.00%	100.00%
55	37.50%	50.00%	20.00%	60.00%	50.00%	100.00%
56	12.50%	50.00%	20.00%	60.00%	50.00%	100.00%
57	12.50%	50.00%	20.00%	60.00%	50.00%	100.00%
58	12.50%	50.00%	20.00%	60.00%	50.00%	100.00%
59	12.50%	50.00%	20.00%	60.00%	50.00%	100.00%
60	20.00%	50.00%	20.00%	60.00%	50.00%	100.00%
61	20.00%	50.00%	20.00%	60.00%	50.00%	100.00%
62	20.00%	50.00%	20.00%	60.00%	50.00%	100.00%
63	25.00%	50.00%	20.00%	60.00%	50.00%	100.00%
64	25.00%	50.00%	20.00%	60.00%	50.00%	100.00%
65	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%
66	30.00%					
67	30.00%					
68	30.00%					
69	30.00%					
70	100.00%					

Actuarial Assumptions

Disability Rates

Disability rates vary by age and gender. The assumed disability rates are based on a study of actual experience for the plan during 2015-2018. See the experience study report dated February 19, 2020. Sample rates are shown below.

For the Sheriff's Office and Road Commission, 50% of disability incidence is assumed to be duty related. For all other divisions, 85% of disability incidence is assumed to be non-duty related.

Age	Male	Female
20	0.0702%	0.0612%
25	0.0702%	0.0612%
30	0.0702%	0.0612%
35	0.0702%	0.0612%
40	0.1809%	0.3936%
45	0.2385%	0.2430%
50	0.4428%	0.3582%
55	0.8037%	0.4596%
60	1.2726%	0.6102%

Withdrawal Rates

Withdrawal rates vary by both age and service. Service-related rates for the first five years of employment. Once participants earn five years of service, age-related rates apply. The assumed termination rates are based on a study of actual experience for the plan during 2015-2018. See the experience study report dated February 19, 2020. Sample rates of termination are shown below for each division.

Member Ages	Service	General County, County Agency, Mental Health and County Library			Sheriff's Office Central Dispatch	Road Commission
		ALL	0	15.00%	22.50%	15.00%
	1	13.00%	13.50%	12.00%		
	2	12.00%	10.50%	10.50%		
	3	10.00%	10.50%	9.00%		
	4	8.00%	10.50%	9.00%		
25	5+	6.12%	3.00%	6.00%		
30		6.12%	3.00%	3.00%		
35		5.44%	2.00%	3.00%		
40		5.10%	2.00%	3.00%		
45		3.40%	1.75%	2.00%		
50		3.40%	1.00%	2.00%		
55		0.85%	0.50%	1.00%		
60		0.85%	0.00%	1.00%		



The actuarial report also shows the necessary items required for plan reporting by division.

- ✓ Actuarial Liabilities and Normal Cost by Division
- ✓ Asset Allocation by Division
- ✓ Unfunded Actuarial Accrued Liability by Division
- ✓ Reconciliation of Gain/Loss by Division
- ✓ Schedule of Amortization Bases by Division
- ✓ Development of Recommended Contribution by Division
- ✓ Demographic Information by Division
- ✓ Active Participant Schedules by Division
- ✓ Low-Default-Risk Obligation Measure

Other Measurements

Actuarial Liabilities and Normal Cost by Division

	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
Present Value of Future Benefits	\$132,166,265	\$16,109,327	\$96,441,898	\$26,819,028	\$39,610,544	\$38,243,629	\$6,858,479	\$356,249,170
Actuarial Accrued Liability								
Active Members	\$35,472,716	\$4,076,942	\$28,792,207	\$9,801,261	\$14,471,976	\$9,320,860	\$2,811,983	\$104,747,945
Terminated Vested	6,325,811	312,172	1,340,969	944,886	591,195	3,931,720	463,138	13,909,891
Retired and Disabled	79,611,365	10,139,887	57,218,859	12,627,207	18,916,051	21,834,408	2,654,223	203,002,000
Beneficiaries	<u>2,891,201</u>	<u>650,650</u>	<u>2,903,443</u>	<u>101,842</u>	<u>1,841,984</u>	<u>999,031</u>	<u>276,334</u>	<u>9,664,485</u>
Total Actuarial Accrued Liability	\$124,301,093	\$15,179,651	\$90,255,478	\$23,475,196	\$35,821,206	\$36,086,019	\$6,205,678	\$331,324,321
Total Normal Cost	\$1,091,768	\$131,932	\$901,206	\$463,159	\$541,651	\$280,883	\$92,918	\$3,503,517

Other Measurements

Asset Allocation by Division

The table below shows how the assets changed by division since the last valuation. Employer contributions, employee contributions, and benefit payments are tracked by division. The expenses and investment income are allocated by the Actuarial Value of Assets at the beginning of the year and the Average Valuation Assets, respectively.

	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
1 Actuarial Value of Assets, 12/31/2022 (BOY)	\$87,968,946	\$8,320,365	\$59,915,740	\$19,308,307	\$29,313,640	\$29,400,409	\$4,184,104	\$238,411,511
2 Employer Contributions	3,531,157	481,291	2,818,825	664,853	1,083,063	2,566,245	180,947	11,326,381
3 Employee Contributions	519,365	58,331	366,942	0	160,098	0	36,538	1,141,274
4 Benefit Payments	6,538,868	935,528	5,270,741	1,367,992	1,978,339	2,098,585	346,051	18,536,104
5 Refund of Contributions	1,444,522	49,559	408,668	0	525,499	0	5,004	2,433,252
6 Administrative Expenses ¹	76,893	7,273	52,371	16,877	25,622	25,698	3,657	208,391
7 Average Valuation Assets ²	87,729,644	8,093,996	60,052,146	18,948,299	28,670,491	29,621,390	4,205,964	237,321,930
8 Investment Income Allocation ³	6,249,149	576,551	4,277,628	1,349,723	2,042,254	2,109,988	299,599	16,904,892
Actuarial Value of Assets, 12/31/2023 (EOY) (1)+(2)+(3)-(4)-(5)-(6)+(8)	\$90,208,334	\$8,444,178	\$61,647,355	\$19,938,014	\$30,069,595	\$31,952,359	\$4,346,476	\$246,606,311

¹Administrative expenses allocation based on BOY Asset Value

²For General County, Sheriff's Office, and Central Dispatch: $\{(1)+(2)+0.5 \times [(3)-(4)-(5)-(6)]\}$

²For County Agency, County Library, Road Commission, and Mental Health: $\{(1)+0.5 \times [(2)+(3)-(4)-(5)-(6)]\}$

³Investment income allocation based on average valuation assets



Other Measurements

Unfunded Actuarial Accrued Liability by Division

	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
Actuarial Accrued Liability	124,301,093	15,179,651	90,255,478	23,475,196	35,821,206	36,086,019	6,205,678	331,324,321
Actuarial Value of Assets	90,208,334	8,444,178	61,647,355	19,938,014	30,069,595	31,952,359	4,346,476	246,606,311
Unfunded Actuarial Accrued Liabilities	\$34,092,759	\$6,735,473	\$28,608,123	\$3,537,182	\$5,751,611	\$4,133,660	\$1,859,202	\$84,718,010
Funded Ratio	72.6%	55.6%	68.3%	84.9%	83.9%	88.5%	70.0%	74.4%

Other Measurements

Reconciliation of Gain/Loss by Division

	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
Liability (gain)/loss								
Actuarial liability, 12/31/2022	\$121,430,882	\$15,141,283	\$87,927,263	\$22,659,597	\$34,236,867	\$34,911,138	\$6,073,643	\$322,380,673
Normal cost	1,223,748	154,764	970,203	434,647	559,558	289,227	95,628	3,727,775
Benefit payments	(7,983,390)	(985,087)	(5,679,409)	(1,367,992)	(2,503,838)	(2,098,585)	(351,055)	(20,969,356)
Expected Interest	8,311,132	1,036,828	6,027,405	1,569,527	2,349,598	2,391,817	419,770	22,106,077
Assumption Changes	0	0	0	0	0	0	0	0
Plan Provision Changes	0	0	0	0	0	0	0	0
Expected actuarial liability, 12/31/2023	\$122,982,372	\$15,347,788	\$89,245,462	\$23,295,779	\$34,642,185	\$35,493,597	\$6,237,986	\$327,245,169
Actual actuarial liability, 12/31/2023	<u>\$124,301,093</u>	<u>\$15,179,651</u>	<u>\$90,255,478</u>	<u>\$23,475,196</u>	<u>\$35,821,206</u>	<u>\$36,086,019</u>	<u>\$6,205,678</u>	<u>\$331,324,321</u>
Liability (gain)/loss	\$1,318,721	(\$168,137)	\$1,010,016	\$179,417	\$1,179,021	\$592,422	(\$32,308)	\$4,079,152
Asset (gain)/loss								
Actuarial value of assets, 12/31/2022	87,968,946	8,320,365	59,915,740	19,308,307	29,313,640	29,400,409	4,184,104	238,411,511
Contributions	4,050,522	539,622	3,185,767	664,853	1,243,161	2,566,245	217,485	12,467,655
Benefit payments and expenses	(8,060,283)	(992,360)	(5,731,780)	(1,384,869)	(2,529,460)	(2,124,283)	(354,712)	(21,177,747)
Expected Investment return	<u>6,017,486</u>	<u>566,580</u>	<u>4,104,991</u>	<u>1,326,381</u>	<u>2,006,934</u>	<u>2,073,497</u>	<u>288,084</u>	<u>16,383,953</u>
Expected actuarial value of assets	89,976,671	8,434,207	61,474,718	19,914,672	30,034,275	31,915,868	4,334,961	\$246,085,372
Actual actuarial value of assets	<u>\$90,208,334</u>	<u>\$8,444,178</u>	<u>\$61,647,355</u>	<u>\$19,938,014</u>	<u>\$30,069,595</u>	<u>\$31,952,359</u>	<u>\$4,346,476</u>	<u>\$246,606,311</u>
Asset (gain)/loss	(\$231,663)	(\$9,971)	(\$172,637)	(\$23,342)	(\$35,320)	(\$36,491)	(\$11,515)	(\$520,939)
Total (gain)/loss	\$1,087,058	(\$178,108)	\$837,379	\$156,075	\$1,143,701	\$555,931	(\$43,823)	\$3,558,213

Other Measurements

Schedule of Amortization Bases by Division

		General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch
Remaining Balances:								
Date Established	Remaining Period							
12/31/2014	16	\$29,982,005	\$4,781,617	\$18,275,106	\$1,831,198	\$4,377,815	\$849,873	\$1,395,557
12/31/2015	17	\$1,962,683	\$305,135	\$2,068,892	\$826,994	\$88,926	\$825,463	\$382,821
12/31/2016	18	(\$441,620)	(\$82,501)	(\$790,455)	\$245,471	(\$1,203,784)	\$26,090	(\$246,312)
12/31/2017	19	\$1,652,138	\$349,901	\$2,026,118	\$393,743	\$44,904	\$1,250,573	\$207,606
12/31/2018	20	\$1,345,012	\$563,929	\$2,505,965	\$106,016	\$967,356	\$1,711,323	(\$165,260)
12/31/2019	16	(\$1,291,134)	(\$201,319)	\$1,825,394	\$535,326	\$747,995	\$626,003	\$377,719
12/31/2020	17	\$1,237,929	\$827,448	\$901,166	(\$273,323)	(\$608,795)	(\$189,293)	(\$186,779)
12/31/2021	18	(\$1,540,224)	\$197,676	\$51,243	(\$862,964)	(\$121,471)	(\$547,977)	(\$75,541)
12/31/2022	19	(\$80,957)	(\$42,771)	\$649,353	\$489,326	\$538,641	\$813,661	\$162,360
12/31/2023	20	\$1,266,927	\$36,358	\$1,095,341	\$245,395	\$920,024	(\$1,232,056)	\$7,031
Amortization Payments:								
Date Established								
12/31/2014		\$2,618,793	\$417,653	\$1,596,248	\$159,947	\$382,382	\$84,080	\$121,896
12/31/2015		\$164,740	\$25,612	\$173,655	\$69,415	\$7,464	\$79,017	\$32,133
12/31/2016		(\$35,738)	(\$6,676)	(\$63,968)	\$19,865	(\$97,417)	\$2,424	(\$19,933)
12/31/2017		\$129,279	\$27,380	\$158,543	\$30,810	\$3,514	\$113,081	\$16,245
12/31/2018		\$102,030	\$42,779	\$190,098	\$8,042	\$73,382	\$150,969	(\$12,536)
12/31/2019		(\$112,775)	(\$17,584)	\$159,440	\$46,758	\$65,334	\$61,932	\$32,992
12/31/2020		\$103,907	\$69,453	\$75,641	(\$22,942)	(\$51,100)	(\$18,120)	(\$15,678)
12/31/2021		(\$124,643)	\$15,997	\$4,147	(\$69,836)	(\$9,830)	(\$50,912)	(\$6,113)
12/31/2022		(\$6,335)	(\$3,347)	\$50,812	\$38,289	\$42,148	\$73,574	\$12,705
12/31/2023		\$96,107	\$2,758	\$83,091	\$18,615	\$69,792	(\$108,689)	\$533
Total Payments		\$2,935,365	\$574,025	\$2,427,707	\$298,963	\$485,669	\$387,356	\$162,244



Other Measurements

Development of Recommended Contribution by Division

Contributions are expected to be made throughout 2025 as a percentage of payroll. The interest adjustment includes 1 and ½ years of interest from January 1, 2024 to Mid-2025. However, if divisions contribute early on January 1, 2025, their contribution requirement would be reduced by ½ year of interest. The adjusted contribution rates and value are shown at the bottom of the chart below.

	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
Expected 2025 Payroll	\$10,140,970	\$1,216,110	\$6,819,382	\$4,383,163	\$4,507,357	\$2,263,094	\$642,214	\$29,972,290
Normal Cost								
(a) Total normal cost	\$1,091,768	\$131,932	\$901,206	\$463,159	\$541,651	\$280,883	\$92,918	\$3,503,517
(b) Expected member contributions	(565,731)	(63,096)	(374,064)	0	(156,877)	0	(38,264)	(1,198,032)
(c) Net normal cost	\$526,037	\$68,836	\$527,142	\$463,159	\$384,774	\$280,883	\$54,654	\$2,305,485
Administrative Expenses	75,032	9,163	54,482	14,171	21,623	21,783	3,746	200,000
Amortization of UAAL	2,935,365	574,025	2,427,707	298,963	485,669	387,356	162,244	7,271,329
Interest	<u>377,750</u>	<u>69,647</u>	<u>321,447</u>	<u>82,921</u>	<u>95,287</u>	<u>73,706</u>	<u>23,568</u>	<u>1,044,326</u>
Total Employer Recommended Contribution	\$3,914,184	\$721,671	\$3,330,778	\$859,214	\$987,353	\$763,728	\$244,212	\$10,821,140
As a percentage of Payroll	38.60%	59.34%	48.84%	19.60%	21.91%	33.75%	38.03%	36.10%

FY 2025 Contribution Rates as a Percentage of Expected Payroll

Total Contribution Rate	43.60%	64.34%	53.97%	19.60%	25.09%	33.75%	43.03%	39.75%
Employee Contribution Rate	5.00%	5.00%	5.13%	0.00%	3.18%	0.00%	5.00%	3.65%
Employer Contribution Rate	38.60%	59.34%	48.84%	19.60%	21.91%	33.75%	38.03%	36.10%
<i>Employer Normal Cost</i>	<i>6.56%</i>	<i>7.10%</i>	<i>9.44%</i>	<i>12.05%</i>	<i>9.98%</i>	<i>14.81%</i>	<i>10.07%</i>	<i>9.25%</i>
<i>Amortization of UAAL</i>	<i>32.04%</i>	<i>52.24%</i>	<i>39.40%</i>	<i>7.55%</i>	<i>11.93%</i>	<i>18.94%</i>	<i>27.96%</i>	<i>26.85%</i>

Total Employer Recommended Contribution if Made Jan 1, 2025	\$3,783,985	\$697,666	\$3,219,985	\$830,634	\$954,510	\$738,324	\$236,089	\$10,461,193
As a percentage of Payroll	37.31%	57.37%	47.22%	18.95%	21.18%	32.62%	36.76%	34.90%
Value of Contributing Early	\$130,199	\$24,005	\$110,793	\$28,580	\$32,843	\$25,404	\$8,123	\$359,947

Other Measurements

Demographic Information by Division

	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
Active Participants								
Number accruing benefits	189	19	94	95	73	30	10	510
Average age	50.3	45.4	41.6	48.8	46.2	51.8	44.8	47.6
Average years of employment	16.2	17.6	15.4	14.9	13.2	19.4	14.2	15.6
Average pay	\$59,866	\$66,417	\$77,629	\$49,260	\$67,620	\$84,657	\$76,529	\$64,303
Terminated Vested*								
Number of Terminated Vested	91	7	51	8	14	40	11	222
Average age	46.9	42.2	38.3	54.0	48.6	52.1	44.8	46.0
Total deferred annual benefits	\$858,829	\$60,571	\$235,366	\$103,353	\$70,398	\$512,939	\$87,987	\$1,929,443
Average deferred monthly benefit	\$1,256	\$1,262	\$1,634	\$1,077	\$1,173	\$1,069	\$1,222	\$1,218
Participants Receiving Benefits								
Number Receiving Benefits	381	33	169	67	93	125	12	880
Average age	71.7	68.2	66.2	73.4	71.2	69.9	67.2	70.3
Total annual benefits	\$8,135,689	\$993,073	\$5,385,920	\$1,312,294	\$2,053,057	\$2,236,885	\$286,962	\$20,403,880
Average monthly benefit	\$1,779	\$2,508	\$2,656	\$1,632	\$1,840	\$1,491	\$1,993	\$1,932

*Includes both deferred vested participants and participants vested only in a return of their employee contributions

*The total deferred annual benefits and average deferred monthly benefits shown above reflect only the benefits of the deferred vested participants

Active Participant Schedules by Division

Active participant information grouped based on age and service.

General County

Age Group	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25		1									1
25 to 29		5	2								7
30 to 34		2	9	1							12
35 to 39		4	2	2	2						10
40 to 44		1	9	2	4	5	1				22
45 to 49		1	4	6	5	13	4				33
50 to 54		3	7	8	5	5	7	4	1		40
55 to 59		4	6	3	2	4	5	3	2		29
60 to 64		1	2	5	2	3	4	1	3	1	22
65 to 69		5	2	1			2			1	11
70 & up		1		1							2
Total	0	28	43	29	20	30	23	8	6	2	189

Active Participant Schedules by Division

Active participant information grouped based on age and service.

County Agency

Age Group	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25											0
25 to 29			3								3
30 to 34			2								2
35 to 39				2	1						3
40 to 44											0
45 to 49						1	1				2
50 to 54			1	1		1	1				4
55 to 59						1			1		2
60 to 64						1	2				3
65 to 69											0
70 & up											0
Total	0	0	6	3	1	4	4	0	1	0	19

Active Participant Schedules by Division

Active participant information grouped based on age and service.

Sheriff's Office

Age Group	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25		1									1
25 to 29		9	9								18
30 to 34		2	5	2							9
35 to 39			1	2							3
40 to 44		2	3	3	7	8					23
45 to 49				2		18	8				28
50 to 54				1	1	4	2				8
55 to 59						1					1
60 to 64		1			1	1					3
65 to 69											0
70 & up											0
Total	0	15	18	10	9	32	10	0	0	0	94

Active Participant Schedules by Division

Active participant information grouped based on age and service.

County Library

Age Group	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	2	1									3
25 to 29	2	1	1								4
30 to 34	1	3	3								7
35 to 39	1	4	4	1	3						13
40 to 44			1	3	4	1					9
45 to 49	1	2		1	1	1					6
50 to 54	2	3	7	2	1	2	1				18
55 to 59	1	5	4	2		1	1	2			16
60 to 64		3	5	4		2				1	15
65 to 69			1		1			1			3
70 & up								1			1
Total	10	22	26	13	10	7	2	4	0	1	95

Active Participant Schedules by Division

Active participant information grouped based on age and service.

Road Commission

Age Group	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	1	4									5
25 to 29	1	2	1								4
30 to 34	1	4	5								10
35 to 39		3	1								4
40 to 44		2				1					3
45 to 49	1	2	1		2	3					9
50 to 54		1	2	2	1	5	1	6			18
55 to 59		5			1	4	2	1	1		14
60 to 64		1	2			1	1				5
65 to 69						1					1
70 & up											0
Total	4	24	12	2	4	15	4	7	1	0	73

Active Participant Schedules by Division

Active participant information grouped based on age and service.

Mental Health

Age Group	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25											0
25 to 29											0
30 to 34											0
35 to 39				1							1
40 to 44				2	4		1				7
45 to 49					2	2	1				5
50 to 54				1	2	2					5
55 to 59				2	3	4					9
60 to 64						1					1
65 to 69					1			1			2
70 & up											0
Total	0	0	0	6	12	9	2	1	0	0	30

Active Participant Schedules by Division

Active participant information grouped based on age and service.

Central Dispatch

Age Group	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25											0
25 to 29											0
30 to 34			1								1
35 to 39			1								1
40 to 44		1			2						3
45 to 49		1		1		1					3
50 to 54							1				1
55 to 59						1					1
60 to 64											0
65 to 69											0
70 & up											0
Total	0	2	2	1	2	2	1	0	0	0	10

Low-Default-Risk Obligation Measure

For reports issues after February 15, 2023, the Plan’s actuary is generally required to disclose liabilities under an alternative low-default-risk based discount rate. This LDROM liability measure represents the estimated asset value as of the measurement date the Plan would need in order to purchase a low-default-risk fixed income securities portfolio with durations that are reasonably consistent with the timing of benefits expected to be paid from the plan.

	December 31, 2023
LDROM liability	\$422,406,986
Market value of assets	<u>\$242,547,689</u>
LDROM funded status	\$179,859,297

The LDROM liability measure is for informational purposes only. The plan sponsor has no requirements to contribute to the Plan to meet this threshold, and the funded status on this basis is not used for any restrictions.

If Plan assets are invested to earn in excess of a fixed income portfolio, a shortfall on this basis may not necessarily mean the security of participant benefits is at risk. If the plan is fully funded, or nearly funded, on the LDROM measure, the plan sponsor may want to consider reducing investment risk in order to offer greater benefit security and lower contribution volatility. We did not perform an analysis of assumption or provision changes resulting from a potential shift in investment policy due to the limited scope of our engagement.

The above LDROM liability measure applies a single effective discount rate of 4.81% which would produce approximately the same discounted cashflows as the FTSE Pension Discount Curve for December 31, 2023. All other data, assumptions, methods and provisions are the same as those detailed in this report.