



Municipal Employees' Retirement System of Michigan

Annual Actuarial Valuation Report
December 31, 2021 - Garden City, City of (8255)





Spring, 2022

Garden City, City of

In care of:
Municipal Employees' Retirement System of Michigan
1134 Municipal Way
Lansing, Michigan 48917

This report presents the results of the Annual Actuarial Valuation, prepared for Garden City, City of (8255) as of December 31, 2021. The report includes the determination of liabilities and contribution rates resulting from the participation in the Municipal Employees' Retirement System of Michigan ("MERS"). This report contains the minimum actuarially determined contribution requirement, in alignment with the MERS Plan Document, Actuarial Policy, the Michigan Constitution, and governing statutes. Garden City, City of is responsible for the employer contributions needed to provide MERS benefits for its employees and former employees.

The purposes of this valuation are to:

- Measure funding progress as of December 31, 2021,
- Establish contribution requirements for the fiscal year beginning July 1, 2023,
- Provide information regarding the identification and assessment of risk,
- Provide actuarial information in connection with applicable Governmental Accounting Standards Board (GASB) statements, and
- Provide information to assist the local unit of government with state reporting requirements.

This 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 our scope of expertise and was not performed.

The findings in this report are based on data and other information through December 31, 2021. The valuation was based upon information furnished by MERS concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability 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 MERS.

The Municipal Employees' Retirement Act, PA 427 of 1984 and the MERS' Plan Document Article VI Sec. 71 (1)(d), provides the MERS Board with the authority to set actuarial assumptions and methods after consultation with the actuary. As the fiduciary of the plan, the MERS Retirement Board sets certain assumptions for funding and GASB purposes. These assumptions are reviewed regularly through a comprehensive study, most recently in the Fall of 2021. The MERS Retirement Board adopted a Dedicated Gains Policy at the February 17, 2022 Board meeting. The Dedicated Gains Policy will automatically reduce the assumed rate of investment return in conjunction with recognizing excess investment gains to mitigate the impact on employer contributions the first year. The new policy is effective with this December 31, 2021 annual actuarial valuation, and is reflected in the funded status and fiscal year 2023 contributions as shown in the Executive Summary.

The Michigan Department of Treasury provides required assumptions to be used for purposes of Public Act 202 reporting. These assumptions are for reporting purposes only and do not impact required contributions. Please refer to the State Reporting page found at the end of this report for information for this filing.

For a full list of all the assumptions used, please refer to the division-specific assumptions described in table(s) in this report, and to the Appendix on the MERS website at:

<https://www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2021AnnualActuarialValuation-Appendix.pdf>

The actuarial assumptions used for this valuation, including the assumed rate of investment return, are reasonable for purposes of the measurement.

This report reflects the impact of COVID-19 experience through December 31, 2021. It does not reflect the ongoing impact of COVID-19, which is likely to influence demographic and economic experience, at least in the short term. We will continue to monitor these developments and their impact on the MERS Defined Benefit and Hybrid plans. Actual future experience will be reflected in each subsequent annual valuation, as experience emerges.

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 Garden City, City of as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

David T. Kausch, Rebecca L. Stouffer, and Mark Buis are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor. GRS maintains independent consulting agreements with certain local units of government for services unrelated to the actuarial consulting services provided in this report.



The Retirement Board of the Municipal Employees' Retirement System of Michigan confirms that the System provides for payment of the required employer contribution as described in Section 20m of Act No. 314 of 1965 (MCL 38.1140m).

This information is purely actuarial in nature. It is not intended to serve as a substitute for legal, accounting, or investment advice.

This report was prepared at the request of the MERS Retirement Board and may be provided only in its entirety by the municipality to other interested parties (MERS customarily provides the full report on request to associated third parties such as the auditor for the municipality). GRS is not responsible for the consequences of any unauthorized use. 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.

If you have reason to believe that the plan provisions are incorrectly described, that important plan provisions relevant to this valuation are not described, that conditions have changed since the calculations were made, that the information provided in this report is inaccurate or is in anyway incomplete, or if you need further information in order to make an informed decision on the subject matter in this report, please contact your Regional Manager at 1.800.767.MERS (6377).

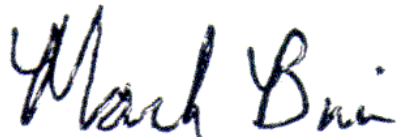
Sincerely,
Gabriel, Roeder, Smith & Company



David T. Kausch, FSA, FCA, EA, MAAA



Rebecca L. Stouffer, ASA, FCA, MAAA



Mark Buis, FSA, FCA, EA, MAAA



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Executive Summary

Funded Ratio

The funded ratio of a plan is the percentage of the dollar value of the actuarial accrued liability that is covered by the actuarial value of assets. While the funded ratio may be a useful plan measurement, understanding a plan's funding trend may be more important than a particular point in time. Refer to Table 7 to find a history of this information.

	12/31/2021	12/31/2020
Funded Ratio*	58%	55%

* Reflects assets from Surplus divisions, if any.

Throughout this report are references to valuation results generated prior to the 2018 valuation date. Results prior to 2018 were received directly from the prior actuary or extracted from the previous valuation system by MERS's technology service provider.

Required Employer Contributions

Your required employer contributions are shown in the following table. Employee contributions, if any, are in addition to the employer contributions.

Effective for the December 31, 2021 valuation, the MERS Retirement Board has adopted a Dedicated Gains Policy which allows for recognition of asset gains in excess of a set threshold in combination with lowering the assumed rate of investment return (discussed below). Changes to these assumptions and methods are effective for contributions beginning in 2023. Effective with the 2020 and 2019 valuations respectively, the MERS Retirement Board adopted updated demographic and economic assumptions. The combined impact of the prior demographic and economic assumption changes may be phased in. The remaining combined phase-in period is three years for all assumption changes.

By default, MERS will invoice you based on the amount in the “No Phase-in” columns. This amount will be considered the minimum required contribution unless you request to be billed the “Phase-in” rates. If you wish to be billed using the phased-in rates, please contact MERS, at which point the alternate minimum required contribution will be the amount in the “Phase-in” columns.

	Percentage of Payroll				Monthly \$ Based on Projected Payroll			
	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in
	Valuation Date: July 1, 2023	12/31/2021 July 1, 2023	12/31/2020 July 1, 2022	12/31/2020 July 1, 2022	12/31/2021 July 1, 2023	12/31/2021 July 1, 2023	12/31/2020 July 1, 2022	12/31/2020 July 1, 2022
Division								
01 - GCSPPA	75.41%	78.21%	74.25%	81.88%	\$ 94,865	\$ 98,387	\$ 88,746	\$ 97,866
02 - POAM Dispatchers	-	-	-	-	3,570	4,774	3,829	5,635
05 - IAFF Fire	-	-	-	-	47,034	49,282	45,586	52,444
10 - Retirees 1968 - October 1993	-	-	-	-	16,968	17,688	20,857	21,937
20 - POAM Police Offrs & Detective	50.01%	52.49%	45.15%	50.65%	46,843	49,163	44,162	49,538
21 - TPOAM	46.16%	47.93%	37.90%	45.70%	67,643	70,237	57,445	69,271
22 - COAM Command	62.56%	65.24%	52.86%	61.67%	70,393	73,405	60,161	70,187
50 - IAFF after 7/1/2011	4.59%	5.34%	2.95%	4.08%	3,225	3,751	2,059	2,848
Total Municipality - Estimated Monthly Contribution					\$ 350,541	\$ 366,687	\$ 322,845	\$ 369,726
Total Municipality - Estimated Annual Contribution					\$ 4,206,492	\$ 4,400,244	\$ 3,874,140	\$ 4,436,712

Employee contribution rates:

Valuation Date:	Employee Contribution Rate	
	12/31/2021	12/31/2020
Division		
01 - GCSPPA	12.00%	12.00%
02 - POAM Dispatchers	12.00%	12.00%
05 - IAFF Fire	12.00%	12.00%
10 - Retirees 1968 - October 1993	0.00%	0.00%
20 - POAM Police Offrs & Detective	12.00%	12.00%
21 - TPOAM	12.00%	12.00%
22 - COAM Command	12.00%	12.00%
50 - IAFF after 7/1/2011	12.00%	12.00%

The employer may contribute more than the minimum required contributions, as these additional contributions will earn investment income and may result in lower future contribution requirements. Employers making contributions in excess of the minimum requirements may elect to apply the excess contribution immediately to a particular division, or segregate the excess into one or more of what MERS calls “Surplus” divisions. An election in the first case would immediately reduce any unfunded accrued liability and lower the amortization payments throughout the remaining amortization period. An election to set up Surplus divisions would not immediately lower future contributions, however the assets from the Surplus division could be transferred to an unfunded division in the future to reduce the unfunded liability in future years, or to



be used to pay all or a portion of the minimum required contribution in a future year. For purposes of this report, the assets in any Surplus division have been included in the municipality's total assets, unfunded accrued liability, and funded status; however, these assets are not used in calculating the minimum required contribution.

MERS strongly encourages employers to contribute more than the minimum contribution shown above. With the implemented Dedicated Gains policy, market gains and losses will continue to be smoothed over five years; however, since excess return are being used to lower the investment assumption, there will be less gains to smooth in down markets. Having additional funds in Surplus divisions will assist plans with navigating any market volatility.

Assuming that experience of the plan meets actuarial assumptions:

- To accelerate to a 100% funding ratio in 10 years, estimated monthly employer contributions for the fiscal year beginning in 2023 for the entire employer would be \$556,133, instead of \$366,687.

How and Why Do These Numbers Change?

In a defined benefit plan, contributions vary from one annual actuarial valuation to the next as a result of the following:

- Changes in benefit provisions (see Table 2),
- Changes in actuarial assumptions and methods (see the Appendix), and
- Experience of the plan (investment experience and demographic experience); this is the difference between actual experience of the plan and the actuarial assumptions.

These impacts are reflected in various tables in the report. For more information, please contact your Regional Manager.

Comments on Investment Rate of Return Assumption

A defined benefit plan is funded by employer contributions, participant contributions, and investment earnings. Investment earnings have historically provided a significant portion of the funding. The larger the share of benefits being provided from investment returns, the smaller the required contributions, and vice versa. Determining the contributions required to prefund the promised retirement benefits requires an assumption of what investment earnings are expected to add to the fund over a long period of time. This is called the **Investment Return Assumption**.

The MERS Investment Return Assumption is **7.00%** per year. This, along with all of our other actuarial assumptions, is reviewed at least every five years in an Experience Study that compares the assumptions used against actual experience and recommends adjustments if necessary. If your municipality would like to explore contributions at lower assumed investment return assumptions, please review the "What If" projection scenarios later in this report.

Assumption and Method Change in 2021

Effective February 17, 2022, the MERS Retirement Board adopted a dedicated gains policy that automatically adjusts the assumed rate of investment return by using excess asset gains to mitigate large increases in required contributions to the Plan. Full details of this dedicated gains policy are available in the Actuarial Policy found on the MERS [website](#). Some goals of the dedicated gains policy are to:



- Provide a systematic approach to lower the assumed rate of investment return between experience studies, and
- Use excess gains to cover both the increase in normal cost and any increase in UAL payment the first year after implementation (i.e., minimize the first-year impact (i.e., increase) in employer contributions).

The dedicated gains policy has been implemented with the December 31, 2021 annual actuarial valuation. After initial application of the smoothing method, remaining market gains were used to lower the assumed rate of investment return from 7.35% to 7.00%. The December 31, 2021 valuation liabilities were developed using this new, lower assumption. Additionally, as a result of recognizing excess market gains, the valuation assets used to fund these liabilities are 7.2% higher than if there were no dedicated gain policy. The combined impact of these changes will minimize the first-year impact on employer contributions and may result in an increase or a decrease in employer contributions.

Comments on Asset Smoothing

To avoid dramatic spikes and dips in annual contribution requirements due to short-term fluctuations in asset markets, MERS applies a technique called **asset smoothing**. This spreads out each year's investment gains or losses over the prior year and the following four years. After initial application of asset smoothing, remaining excess market gains are used to buy down the assumed rate of investment return and increase the level of valuation assets, to the extent allowed by the dedicated gains policy. This smoothing method is used to determine your actuarial value of assets (valuation assets), which is then used to determine both your funded ratio and your required contributions. **The (smoothed) actuarial rate of return for 2021 was 17.04%, while the actual market rate of return was 13.97%.** To see historical details of the market rate of return compared to the smoothed actuarial rate of return, refer to this report's Appendix or view the ["How Smoothing Works" video](#) on the [Defined Benefit resource page](#) of the MERS website.

As of December 31, 2021, the actuarial value of assets is just below 100% of market value due to asset smoothing and dedicated gains. This means that rate of return on the actuarial value of assets should exceed the actuarial assumption in the next few years provided that the annual market returns meet or exceed the 7.00% investment return assumption. When all assumptions are met, contribution rates are expected to stay approximately level as a percent of payroll (dollar amounts are expected to increase with wage inflation of 3.0% each year).

As of December 31, 2021, the market value of assets and actuarial value of assets are very similar, resulting in a funded percentage that is not materially different.

Alternate Scenarios to Estimate the Potential Volatility of Results ("What If Scenarios")

The calculations in this report are based on assumptions about long-term economic and demographic behavior. These assumptions will never materialize in a given year, except by coincidence. Therefore, the results will vary from one year to the next. The volatility of the results depends upon the characteristics of the plan. For example:

- Open divisions that have substantial assets compared to their active employee payroll will have more volatile employer contribution rates due to investment return fluctuations.
- Open divisions that have substantial accrued liability compared to their active employee payroll will have more volatile employer contribution rates due to demographic experience fluctuations.
- Small divisions will have more volatile contribution patterns than larger divisions because statistical



fluctuations are relatively larger among small populations.

- Shorter amortization periods result in more volatile contribution patterns.

Many assumptions are important in determining the required employer contributions. In the following table, we show the impact of varying the Investment Return assumption. Lower investment returns would generally result in higher required employer contributions, and vice versa. The three economic scenarios below provide a quantitative risk assessment for the impact of investment returns on the plan's future financial condition for funding purposes.

The relative impact of the economic scenarios below will vary from year to year, as the participant demographics change. The impact of each scenario should be analyzed for a given year, not from year to year. The results in the table are based on the December 31, 2021 valuation and are for the municipality in total, not by division. These results do not reflect a phase-in of the impact of the actuarial assumptions updated in the 2020 and 2019 valuations. There is no phase-in with dedicated gains.

It is important to note that calculations in this report are mathematical estimates based upon assumptions regarding future events, which may or may not materialize. Actuarial calculations can and do vary from one valuation to the next, sometimes significantly depending on the group's size. Projections are not predictions. Future valuations will be based on actual future experience.

12/31/2021 Valuation Results	Lower Future Annual Returns	Lower Future Annual Returns	Valuation Assumptions
Investment Return Assumption	5.00%	6.00%	7.00%
Accrued Liability	\$ 150,411,050	\$ 131,802,709	\$ 116,720,499
Valuation Assets ¹	\$ 67,597,090	\$ 67,597,090	\$ 67,597,090
Unfunded Accrued Liability	\$ 82,813,960	\$ 64,205,619	\$ 49,123,409
Funded Ratio	45%	51%	58%
Monthly Normal Cost	\$ 144,484	\$ 96,337	\$ 61,010
Monthly Amortization Payment	\$ 465,842	\$ 382,628	\$ 305,677
Total Employer Contribution²	\$ 610,326	\$ 478,965	\$ 366,687

¹ The Valuation Assets include assets from Surplus divisions, if any.

² If assets exceed accrued liabilities for a division, the division may have an overfunding credit to reduce the division's employer contribution requirement. If the overfunding credit is larger than the normal cost, the division's full credit is included in the municipality's amortization payment above but the division's total contribution requirement is zero. This can cause the displayed normal cost and amortization payment to not add up to the displayed total employer contribution.

Projection Scenarios

The next two pages show projections of the plan's funded ratio and computed employer contributions under the actuarial assumptions used in the valuation and alternate economic assumption scenarios. All three projections take into account the past investment experience that will continue to affect the actuarial rate of return in the short term.

The 7.00% scenario provides an estimate of computed employer contributions based on current actuarial assumptions, and a projected 7.00% market return. The other two scenarios may be useful if the municipality chooses to budget more conservatively and make contributions in addition to the minimum requirements. The 6.00% and 5.00% projection scenarios provide an indication of the potential required employer contribution if

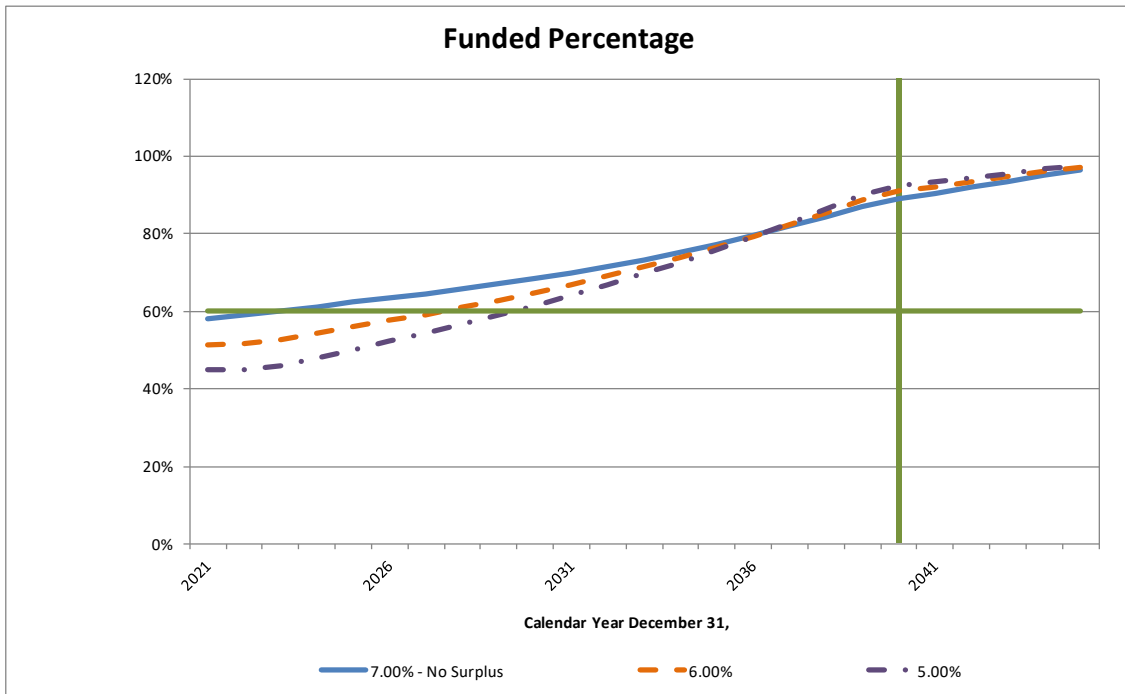


these assumptions were met over the long term.

Valuation Year Ending 12/31	Fiscal Year Beginning 7/1	Actuarial Accrued Liability	Valuation Assets ²	Funded Percentage	Estimated Annual Employer Contribution
7.00%¹ - NO PHASE-IN					
2021	2023	\$ 116,720,499	\$ 67,597,090	58%	\$ 4,400,244
2022	2024	\$ 119,200,000	\$ 70,200,000	59%	\$ 4,530,000
2023	2025	\$ 121,700,000	\$ 73,200,000	60%	\$ 4,440,000
2024	2026	\$ 124,200,000	\$ 76,000,000	61%	\$ 4,570,000
2025	2027	\$ 126,500,000	\$ 78,800,000	62%	\$ 4,700,000
2026	2028	\$ 128,700,000	\$ 81,600,000	63%	\$ 4,830,000
6.00%¹ - NO PHASE-IN					
2021	2023	\$ 131,802,709	\$ 67,597,090	51%	\$ 5,747,580
2022	2024	\$ 134,500,000	\$ 69,600,000	52%	\$ 5,950,000
2023	2025	\$ 137,200,000	\$ 72,500,000	53%	\$ 6,150,000
2024	2026	\$ 139,800,000	\$ 76,000,000	54%	\$ 6,070,000
2025	2027	\$ 142,300,000	\$ 79,700,000	56%	\$ 6,250,000
2026	2028	\$ 144,800,000	\$ 83,400,000	58%	\$ 6,420,000
5.00%¹ - NO PHASE-IN					
2021	2023	\$ 150,411,050	\$ 67,597,090	45%	\$ 7,323,912
2022	2024	\$ 153,300,000	\$ 68,900,000	45%	\$ 7,620,000
2023	2025	\$ 156,200,000	\$ 71,900,000	46%	\$ 7,880,000
2024	2026	\$ 159,100,000	\$ 76,400,000	48%	\$ 7,870,000
2025	2027	\$ 161,800,000	\$ 81,100,000	50%	\$ 8,100,000
2026	2028	\$ 164,500,000	\$ 85,900,000	52%	\$ 8,330,000

¹ Represents both the interest rate for discounting liabilities and the future investment return assumption on the Market Value of assets.

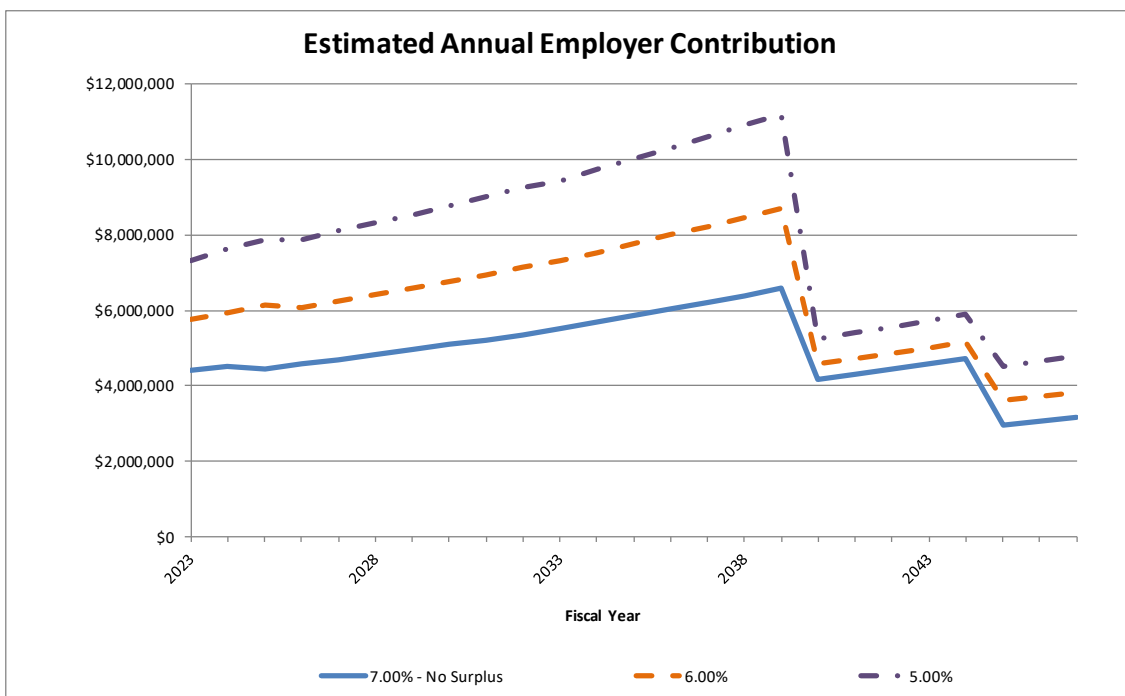
² Valuation Assets do not include assets from Surplus divisions, if any.



Notes:

All projected funded percentages are shown with no phase-in.

The green indicator lines have been added at 60% funded and 19 years following the valuation date for PA 202 purposes.



Notes:

All projected contributions are shown with no phase-in.

Table 1: Employer Contribution Details for the Fiscal Year Beginning July 1, 2023

Division	Total Normal Cost	Employee Contribut. Rate	Employer Contributions ¹			Computed Employer Contribut. With Phase-In	Blended ER Rate No Phase-In ⁵	Blended ER Rate With Phase-In ⁵	Employee Contribut. Conversion Factor ²
			Employer Normal Cost ⁶	Payment of the Unfunded Accrued Liability ⁴	Computed Employer Contribut. No Phase-In				
Percentage of Payroll									
01 - GCSPPA	21.28%	12.00%	9.28%	68.93%	78.21%	75.41%			0.76%
02 - POAM Dispatchers	0.00%	12.00%	-	-	-	-			
05 - IAFF Fire	22.44%	12.00%	-	-	-	-	39.36%	37.31%	
10 - Retirees 1968 - October 1993	0.00%	0.00%	-	-	-	-			
20 - POAM Police Offrs & Detective	22.94%	12.00%	10.94%	41.55%	52.49%	50.01%			0.89%
21 - TPOAM	22.20%	12.00%	10.20%	37.73%	47.93%	46.16%			0.72%
22 - COAM Command	23.82%	12.00%	11.82%	53.42%	65.24%	62.56%			0.80%
50 - IAFF after 7/1/2011	17.86%	12.00%	5.86%	-0.52%	5.34%	4.59%	39.36%	37.31%	0.86%
Estimated Monthly Contribution³									
01 - GCSPPA			\$ 11,674	\$ 86,713	\$ 98,387	\$ 94,865			
02 - POAM Dispatchers			0	4,774	4,774	3,570			
05 - IAFF Fire			6,726	42,556	49,282	47,034			
10 - Retirees 1968 - October 1993			0	17,688	17,688	16,968			
20 - POAM Police Offrs & Detective			10,246	38,917	49,163	46,843			
21 - TPOAM			14,946	55,291	70,237	67,643			
22 - COAM Command			13,299	60,106	73,405	70,393			
50 - IAFF after 7/1/2011			4,119	(368)	3,751	3,225			
Total Municipality			\$ 61,010	\$ 305,677	\$ 366,687	\$ 350,541			
Estimated Annual Contribution³			\$ 732,120	\$ 3,668,124	\$ 4,400,244	\$ 4,206,492			

- ¹ The above employer contribution requirements are in addition to the employee contributions, if any.
- ² If employee contributions are increased/decreased by 1.00% of pay, the employer contribution requirement will decrease/increase by the Employee Contribution Conversion Factor. The conversion factor is usually under 1% because employee contributions may be refunded at termination of employment and not used to fund retirement pensions. Employer contributions will all be used to fund pensions.
- ³ For divisions that are open to new hires, estimated contributions are based on projected fiscal year payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts. For divisions that will have no new hires (i.e., closed divisions), invoices will be based on the above dollar amounts which are based on projected fiscal year payroll. See description of Open Divisions and Closed Divisions in the Appendix.
- ⁴ Note that if the overfunding credit is larger than the normal cost, the full credit is shown above but the total contribution requirement is zero. This will cause the displayed normal cost and unfunded accrued liability contributions not to add across.
- ⁵ For linked divisions, the employer will be invoiced the Computed Employer Contribution No Phase-in rate shown above for each linked division (a contribution rate for the open division; a contribution dollar for the closed-but-linked division), unless the employer elects to contribute the Blended Employer Contribution rate shown



above, by contacting MERS at 800-767-MERS (6377).

⁶ For divisions with a negative employer normal cost, employee contributions cover the normal cost and a portion of the payment of any unfunded accrued liability.

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

Table 2: Benefit Provisions

01 - GCSPPA: Open Division

	2021 Valuation	2020 Valuation
Benefit Multiplier:	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 & Out	25 & Out
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.00% (Compound)	2.00% (Compound)
COLA for Current Retirees:	2.00% (Compound)	2.00% (Compound)
Employee Contributions:	12.00%	12.00%
D-2:	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)

02 - POAM Dispatchers: Closed to new hires

	2021 Valuation	2020 Valuation
Benefit Multiplier:	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 & Out	25 & Out
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	4 years	4 years
COLA for Future Retirees:	2.00% (Compound)	2.00% (Compound)
COLA for Current Retirees:	2.00% (Compound)	2.00% (Compound)
Employee Contributions:	12.00%	12.00%
D-2:	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)



05 - IAFF Fire: Closed to new hires, linked to Division 50

	2021 Valuation	2020 Valuation
Benefit Multiplier:	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)
Normal Retirement Age:	55	55
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 & Out	25 & Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.00% (Compound)	2.00% (Compound)
COLA for Current Retirees:	2.00% (Compound)	2.00% (Compound)
Employee Contributions:	12.00%	12.00%
D-2:	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)

10 - Retirees 1968 - October 1993: Closed to new hires

	2021 Valuation	2020 Valuation
Benefit Multiplier:	Old Plan Benefits	Old Plan Benefits
Normal Retirement Age:	-	-
Vesting:	-	-
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	-	-
Final Average Compensation:	-	-
COLA for Current Retirees:	2.00% (Non-Compound)	2.00% (Non-Compound)
Employee Contributions:	-	-
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)

20 - POAM Police Offrs & Detective: Open Division

	2021 Valuation	2020 Valuation
Benefit Multiplier:	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)
Normal Retirement Age:	55	55
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 & Out	25 & Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.00% (Compound)	2.00% (Compound)
COLA for Current Retirees:	2.00% (Compound)	2.00% (Compound)
Employee Contributions:	12.00%	12.00%
D-2:	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)

21 - TPOAM: Open Division

	2021 Valuation	2020 Valuation
Benefit Multiplier:	2.57% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)	2.57% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 & Out	25 & Out
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.00% (Compound)	2.00% (Compound)
COLA for Current Retirees:	2.00% (Compound)	2.00% (Compound)
Employee Contributions:	12.00%	12.00%
D-2:	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)



22 - COAM Command: Open Division

	2021 Valuation	2020 Valuation
Benefit Multiplier:	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)	2.50% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (no max)
Normal Retirement Age:	55	55
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 & Out	25 & Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.00% (Compound)	2.00% (Compound)
COLA for Current Retirees:	2.00% (Compound)	2.00% (Compound)
Employee Contributions:	12.00%	12.00%
D-2:	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum	D2 (67%) Annuity Withdrawal (Treasury Bill Rate) SLIF (30 Days) Non-Duty Death/Disability Eligibility: 1 year Non-Duty Death 25% of FAC Minimum Non-Duty Disability 25% of FAC Minimum
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)

50 - IAFF after 7/1/2011: Open Division, linked to Division 05

	2021 Valuation	2020 Valuation
Benefit Multiplier:	2.00% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (55% max)	2.00% Multiplier for Svc < 25 yrs, 1.00% Multiplier for Svc > 25 yrs (55% max)
Normal Retirement Age:	55	55
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 & Out	25 & Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.00% (Non-Compound)	2.00% (Non-Compound)
Employee Contributions:	12.00%	12.00%
D-2:	D2 (67%) Annuity Withdrawal (Treasury Bill Rate)	D2 (67%) Annuity Withdrawal (Treasury Bill Rate)
Act 88:	Yes (Adopted 5/24/2010)	Yes (Adopted 5/24/2010)



Table 3: Participant Summary

Division	2021 Valuation		2020 Valuation		2021 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
01 - GCSPPA							
Active Employees	20	\$ 1,401,899	19	\$ 1,331,961	44.6	9.7	12.0
Vested Former Employees	2	32,403	3	33,867	50.6	8.3	15.7
Retirees and Beneficiaries	38	1,616,767	38	1,584,743	66.8		
Pending Refunds	7		7				
02 - POAM Dispatchers							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	1	11,200	1	11,200	54.9	9.5	19.5
Retirees and Beneficiaries	7	178,529	7	175,028	67.7		
Pending Refunds	1		1				
05 - IAFF Fire							
Active Employees	12	\$ 1,003,339	13	\$ 1,082,529	47.4	18.9	19.0
Vested Former Employees	1	21,909	0	0	39.0	12.7	12.7
Retirees and Beneficiaries	18	861,199	18	838,104	68.4		
Pending Refunds	0		0				
10 - Retirees 1968 - October 1993							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	24	460,508	26	519,494	81.0		
Pending Refunds	0		0				
20 - POAM Police Offrs & Detective							
Active Employees	19	\$ 1,043,698	20	\$ 1,089,866	28.9	3.9	4.3
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	28	1,048,226	28	1,027,673	61.3		
Pending Refunds	7		7				
21 - TPOAM							
Active Employees	32	\$ 1,632,876	32	\$ 1,689,227	43.2	11.8	12.0
Vested Former Employees	1	6,752	2	19,766	43.7	6.3	16.4
Retirees and Beneficiaries	45	1,224,726	42	1,110,938	66.0		
Pending Refunds	1		0				
22 - COAM Command							
Active Employees	14	\$ 1,253,813	14	\$ 1,268,287	45.2	15.4	17.1
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	24	1,170,239	21	988,431	61.9		
Pending Refunds	1		1				

Table 3 (continued)

Division	2021 Valuation		2020 Valuation		2021 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
50 - IAFF after 7/1/2011							
Active Employees	8	\$ 498,013	8	\$ 518,727	34.6	3.3	3.3
Vested Former Employees	0	0	1	6,726	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
Pending Refunds	4		3				
Total Municipality							
Active Employees	105	\$ 6,833,638	106	\$ 6,980,597	41.0	10.6	11.4
Vested Former Employees	5	72,264	7	71,559	47.8	9.0	16.0
Retirees and Beneficiaries	184	6,560,194	180	6,244,411	67.2		
Pending Refunds	<u>21</u>		<u>19</u>				
Total Participants	315		312				

¹ Annual payroll for active employees; annual deferred benefits payable for vested former employees; annual benefits being paid for retirees and beneficiaries.

² Descriptions can be found under Miscellaneous and Technical Assumptions in the Appendix.

Table 4: Reported Assets (Market Value)

Division	2021 Valuation		2020 Valuation	
	Employer and Retiree ¹	Employee ²	Employer and Retiree ¹	Employee ²
01 - GCSPPA	\$ 11,043,856	\$ 1,379,560	\$ 10,031,914	\$ 1,190,468
02 - POAM Dispatchers	2,022,635	39,914	1,905,986	39,759
05 - IAFF Fire	9,797,526	1,168,746	8,862,991	1,042,498
10 - Retirees 1968 - October 1993	2,456,679	0	2,388,171	0
20 - POAM Police Offrs & Detective	9,349,627	642,779	8,589,488	648,749
21 - TPOAM	12,918,545	1,634,059	11,605,965	1,834,231
22 - COAM Command	13,398,994	1,407,438	11,922,280	1,701,999
50 - IAFF after 7/1/2011	219,088	217,632	141,990	178,918
Municipality Total³	\$ 61,206,951	\$ 6,490,128	\$ 55,448,784	\$ 6,636,622
Combined Assets³	\$67,697,079		\$62,085,405	

¹ Reserve for Employer Contributions and Benefit Payments.

² Reserve for Employee Contributions.

³ Totals may not add due to rounding.

The December 31, 2021 valuation assets (actuarial value of assets) are equal to 0.998523 times the reported market value of assets (compared to 0.972357 as of December 31, 2020). Refer to the Appendix for a description of the valuation asset derivation and a detailed calculation of valuation assets.

Table 5: Flow of Valuation Assets

Year Ended 12/31	Employer Contributions		Employee Contributions	Investment Income (Valuation Assets)	Benefit Payments	Employee Contribution Refunds	Net Transfers	Valuation Asset Balance
	Required	Additional						
2011	\$ 3,665,897	\$ 72	\$ 538,625	\$ 3,090,628	\$ (4,396,546)	\$ (230,474)	\$ 117,730	\$ 58,834,248
2012	1,127,654	6,765	325,381	2,333,361	(4,551,498)	(72,950)	0	58,002,961
2013	1,419,961	0	328,243	3,266,712	(4,671,094)	(91,000)	353,305	58,609,088
2014	1,564,554	10,679	466,204	3,243,591	(4,711,929)	(345,830)	358,513	59,194,870
2015	1,664,546	7,132	637,410	2,809,683	(4,796,619)	(128,617)	67,475	59,455,880
2016	1,783,049	180	645,441	2,892,278	(4,968,667)	(540,158)	182,702	59,450,705
2017	1,935,510	327	649,562	3,425,949	(5,326,117)	(598,790)	141,377	59,678,523
2018	2,193,823	0	730,484	2,112,546	(5,597,930)	(498,160)	204,153	58,823,439
2019	2,575,802	8,416	785,288	2,619,403	(5,927,181)	(841,537)	159,182	58,202,812
2020	2,996,705	570	838,524	4,496,984	(6,093,346)	(301,361)	228,289	60,369,177
2021	3,370,567	26,222	835,926	10,077,212	(6,386,304)	(737,626)	41,916	67,597,090

Notes:

Transfers in and out are usually related to the transfer of participants between municipalities, and to employer and employee payments for service credit purchases (if any) that the governing body has approved.

The investment income column reflects the recognized investment income based on Valuation Assets. It does not reflect the market value investment return in any given year.

The Valuation Asset balance includes assets from Surplus divisions, if any.

Years where historical information is not available will be displayed with zero values.



**Table 6: Actuarial Accrued Liabilities and Valuation Assets
as of December 31, 2021**

Division	Actuarial Accrued Liability					Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
	Active Employees	Vested Former Employees	Retirees and Beneficiaries	Pending Refunds	Total			
01 - GCSPPA	\$ 4,618,397	\$ 208,852	\$ 21,794,980	\$ 136,681	\$ 26,758,910	\$ 12,405,067	46.4%	\$ 14,353,843
02 - POAM Dispatchers	0	118,104	2,336,150	15,808	2,470,062	2,059,502	83.4%	410,560
05 - IAFF Fire	6,497,305	113,262	11,527,933	0	18,138,500	10,950,074	60.4%	7,188,426
10 - Retirees 1968 - October 1993	0	0	3,200,577	0	3,200,577	2,453,051	76.6%	747,526
20 - POAM Police Offrs & Detective	1,149,097	0	15,859,925	31,078	17,040,100	9,977,647	58.6%	7,062,453
21 - TPOAM	7,175,429	31,597	16,859,816	2,095	24,068,937	14,531,110	60.4%	9,537,827
22 - COAM Command	6,849,513	0	17,744,287	45,779	24,639,579	14,784,564	60.0%	9,855,015
50 - IAFF after 7/1/2011	368,713	0	0	35,121	403,834	436,075	108.0%	(32,241)
Total	\$ 26,658,454	\$ 471,815	\$ 89,323,668	\$ 266,562	\$ 116,720,499	\$ 67,597,090	57.9%	\$ 49,123,409

The following results show the combined accrued liabilities and assets for each set of linked divisions. These results are already shown in the table on the prior page(s).

Table 6 (continued)

Division	Actuarial Accrued Liability					Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
	Active Employees	Vested Former Employees	Retirees and Beneficiaries	Pending Refunds	Total			
Linked Divisions 50, 05	\$ 6,866,018	\$ 113,262	\$ 11,527,933	\$ 35,121	\$ 18,542,334	\$ 11,386,149	61.4%	\$ 7,156,185

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

The December 31, 2021 valuation assets (actuarial value of assets) are equal to 0.998523 times the reported market value of assets. Refer to the Appendix for a description of the valuation asset derivation and a detailed calculation of valuation assets.

Table 7: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 0	\$ 0	0%	\$ 0
2008	0	0	0%	0
2009	0	0	0%	0
2010	71,516,007	56,048,316	78%	15,467,691
2011	73,458,694	58,834,248	80%	14,624,446
2012	75,208,679	58,002,961	77%	17,205,718
2013	78,147,714	58,609,088	75%	19,538,626
2014	80,102,261	59,194,870	74%	20,907,391
2015	86,688,222	59,455,880	69%	27,232,342
2016	90,160,892	59,450,705	66%	30,710,187
2017	92,566,698	59,678,523	65%	32,888,175
2018	95,427,991	58,823,439	62%	36,604,552
2019	101,324,279	58,202,812	57%	43,121,467
2020	109,986,184	60,369,177	55%	49,617,007
2021	116,720,499	67,597,090	58%	49,123,409

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The Valuation Assets include assets from Surplus divisions, if any.

Years where historical information is not available will be displayed with zero values.

Throughout this report are references to valuation results generated prior to the 2018 valuation date. Results prior to 2018 were received directly from the prior actuary or extracted from the previous valuation system by MERS's technology service provider.

Tables 8 and 9: Division-Based Comparative Schedules

Division 01 - GCSPPA

Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 16,728,916	\$ 11,070,673	66%	\$ 5,658,243
2012	17,172,612	10,928,522	64%	6,244,090
2013	17,775,095	10,716,583	60%	7,058,512
2014	17,811,435	10,705,038	60%	7,106,397
2015	19,185,787	10,644,681	56%	8,541,106
2016	19,939,028	10,584,291	53%	9,354,737
2017	21,376,767	11,180,620	52%	10,196,147
2018	22,379,947	10,751,981	48%	11,627,966
2019	23,306,781	10,622,846	46%	12,683,935
2020	25,255,521	10,912,162	43%	14,343,359
2021	26,758,910	12,405,067	46%	14,353,843

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-01: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	17	\$ 1,087,889	40.14%	6.00%
2012	16	1,048,745	47.57%	6.00%
2013	16	1,067,810	51.06%	6.00%
2014	17	1,119,037	43.64%	12.00%
2015	17	1,121,753	54.86%	12.00%
2016	18	1,202,743	56.83%	12.00%
2017	18	1,189,107	63.23%	12.00%
2018	16	1,018,017	84.65%	12.00%
2019	18	1,164,787	87.54%	12.00%
2020	19	1,331,961	81.88%	12.00%
2021	20	1,401,899	78.21%	12.00%

¹ For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

² For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Division 02 - POAM Dispatchers

Table 8-02: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 2,279,416	\$ 2,570,290	113%	\$ (290,874)
2012	2,296,320	2,471,927	108%	(175,607)
2013	2,339,298	2,458,341	105%	(119,043)
2014	2,246,183	2,454,753	109%	(208,570)
2015	2,412,634	2,427,807	101%	(15,173)
2016	2,124,302	2,105,750	99%	18,552
2017	2,144,050	2,074,906	97%	69,144
2018	2,147,527	1,985,001	92%	162,526
2019	2,232,145	1,909,184	86%	322,961
2020	2,383,386	1,891,958	79%	491,428
2021	2,470,062	2,059,502	83%	410,560

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-02: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	1	\$ 46,945	0.00%	6.00%
2012	1	45,285	0.00%	6.00%
2013	1	45,320	0.00%	6.00%
2014	1	45,355	0.00%	12.00%
2015	1	45,390	4.49%	12.00%
2016	0	0	\$ 227	12.00%
2017	0	0	\$ 788	12.00%
2018	0	0	\$ 1,827	12.00%
2019	0	0	\$ 3,676	12.00%
2020	0	0	\$ 5,635	12.00%
2021	0	0	\$ 4,774	12.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Division 05 - IAFF Fire

Table 8-05: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 10,619,352	\$ 8,064,611	76%	\$ 2,554,741
2012	11,050,371	8,140,579	74%	2,909,792
2013	11,483,822	8,351,357	73%	3,132,465
2014	12,109,610	8,450,023	70%	3,659,587
2015	13,390,734	8,579,606	64%	4,811,128
2016	13,780,290	8,748,599	64%	5,031,691
2017	14,163,317	9,030,604	64%	5,132,713
2018	14,586,537	9,011,907	62%	5,574,630
2019	15,761,477	9,277,744	59%	6,483,733
2020	17,128,616	9,631,671	56%	7,496,945
2021	18,138,500	10,950,074	60%	7,188,426

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-05: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	14	\$ 1,027,187	26.35%	5.00%
2012	14	1,043,475	29.63%	5.00%
2013	14	1,040,746	\$ 27,115	5.00%
2014	13	967,890	\$ 30,221	5.00%
2015	13	975,268	\$ 39,041	5.00%
2016	13	977,958	\$ 39,713	5.00%
2017	13	971,843	\$ 39,781	5.00%
2018	12	894,149	\$ 38,864	12.00%
2019	14	1,083,041	\$ 48,316	12.00%
2020	13	1,082,529	\$ 52,444	12.00%
2021	12	1,003,339	\$ 49,282	12.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Division 10 - Retirees 1968 - October 1993

Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 6,506,590	\$ 6,098,682	94%	\$ 407,908
2012	6,262,204	5,454,326	87%	807,878
2013	5,825,408	4,933,836	85%	891,572
2014	5,282,310	4,528,316	86%	753,994
2015	5,070,647	4,095,488	81%	975,159
2016	4,831,307	3,677,981	76%	1,153,326
2017	4,569,014	3,294,370	72%	1,274,644
2018	4,318,994	2,880,504	67%	1,438,490
2019	4,089,716	2,531,818	62%	1,557,898
2020	3,645,561	2,322,154	64%	1,323,407
2021	3,200,577	2,453,051	77%	747,526

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-10: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	0	\$ 0	\$ 2,430	0.00%
2012	0	0	\$ 5,236	0.00%
2013	0	0	\$ 6,020	0.00%
2014	0	0	\$ 5,305	0.00%
2015	0	0	\$ 8,146	0.00%
2016	0	0	\$ 10,887	0.00%
2017	0	0	\$ 13,645	0.00%
2018	0	0	\$ 17,804	0.00%
2019	0	0	\$ 23,015	0.00%
2020	0	0	\$ 21,937	0.00%
2021	0	0	\$ 17,688	0.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Division 20 - POAM Police Offrs & Detective

Table 8-20: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 11,202,219	\$ 8,664,262	77%	\$ 2,537,957
2012	11,534,729	8,841,234	77%	2,693,495
2013	12,527,338	9,504,801	76%	3,022,537
2014	13,500,783	10,198,758	76%	3,302,025
2015	15,081,600	10,511,068	70%	4,570,532
2016	15,628,122	10,420,526	67%	5,207,596
2017	16,569,384	10,431,393	63%	6,137,991
2018	15,325,326	9,472,698	62%	5,852,628
2019	15,527,795	8,736,349	56%	6,791,446
2020	16,117,994	8,982,864	56%	7,135,130
2021	17,040,100	9,977,647	59%	7,062,453

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-20: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	19	\$ 1,277,559	23.78%	6.00%
2012	19	1,281,640	25.44%	6.00%
2013	20	1,359,059	26.56%	6.00%
2014	21	1,397,792	22.54%	12.00%
2015	20	1,363,141	30.21%	12.00%
2016	18	1,206,007	36.43%	12.00%
2017	22	1,292,529	39.92%	12.00%
2018	19	936,484	50.36%	12.00%
2019	21	1,018,823	56.49%	12.00%
2020	20	1,089,866	50.65%	12.00%
2021	19	1,043,698	52.49%	12.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Division 21 - TPOAM

Table 8-21: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 13,610,256	\$ 11,844,379	87%	\$ 1,765,877
2012	14,089,764	11,803,992	84%	2,285,772
2013	15,107,187	12,164,723	81%	2,942,464
2014	15,586,787	12,266,375	79%	3,320,412
2015	17,337,313	12,459,094	72%	4,878,219
2016	18,520,246	12,833,678	69%	5,686,568
2017	18,248,827	12,362,759	68%	5,886,068
2018	19,057,895	12,493,123	66%	6,564,772
2019	20,099,836	12,521,436	62%	7,578,400
2020	22,480,216	13,068,668	58%	9,411,548
2021	24,068,937	14,531,110	60%	9,537,827

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-21: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	30	\$ 1,447,982	17.72%	6.00%
2012	30	1,430,692	20.81%	6.00%
2013	29	1,418,324	23.71%	6.00%
2014	30	1,454,121	19.27%	12.00%
2015	31	1,514,671	27.15%	12.00%
2016	33	1,592,627	29.83%	12.00%
2017	32	1,507,265	32.18%	12.00%
2018	32	1,562,201	35.16%	12.00%
2019	33	1,639,766	40.57%	12.00%
2020	32	1,689,227	45.70%	12.00%
2021	32	1,632,876	47.93%	12.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Division 22 - COAM Command

Table 8-22: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 12,511,945	\$ 10,521,351	84%	\$ 1,990,594
2012	12,802,679	10,362,381	81%	2,440,298
2013	13,088,867	10,477,417	80%	2,611,450
2014	13,530,889	10,556,719	78%	2,974,170
2015	14,121,278	10,657,231	76%	3,464,047
2016	15,194,570	10,947,339	72%	4,247,231
2017	15,296,025	11,100,771	73%	4,195,254
2018	17,339,284	11,944,476	69%	5,394,808
2019	20,130,655	12,418,876	62%	7,711,779
2020	22,670,897	13,247,663	58%	9,423,234
2021	24,639,579	14,784,564	60%	9,855,015

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-22: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	8	\$ 635,567	29.52%	6.00%
2012	8	645,191	35.49%	6.00%
2013	8	647,215	36.65%	6.00%
2014	8	654,319	34.19%	12.00%
2015	8	654,266	40.71%	12.00%
2016	8	645,186	50.04%	12.00%
2017	8	657,110	49.39%	12.00%
2018	12	987,428	45.39%	12.00%
2019	12	1,022,363	65.16%	12.00%
2020	14	1,268,287	61.67%	12.00%
2021	14	1,253,813	65.24%	12.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Division 50 - IAFF after 7/1/2011

Table 8-50: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	\$ 0	\$ 0	0%	\$ 0
2012	0	0	0%	0
2013	699	2,030	290%	(1,331)
2014	34,264	34,888	102%	(624)
2015	88,229	80,905	92%	7,324
2016	143,027	132,541	93%	10,486
2017	199,314	203,100	102%	(3,786)
2018	272,481	283,749	104%	(11,268)
2019	175,874	184,559	105%	(8,685)
2020	303,993	312,037	103%	(8,044)
2021	403,834	436,075	108%	(32,241)

Notes: Actuarial assumptions were revised for the 2011, 2012, 2015, 2019, 2020 and 2021 actuarial valuations.

The percent funded does not reflect valuation assets from Surplus divisions, if any.

Table 9-50: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2011	0	\$ 0	\$ 0	0.00%
2012	0	0	\$ 0	0.00%
2013	3	103,822	8.06%	6.00%
2014	5	241,905	7.41%	6.00%
2015	5	288,231	8.02%	6.00%
2016	5	303,379	8.03%	6.00%
2017	7	397,863	8.00%	6.00%
2018	10	529,820	2.87%	12.00%
2019	8	442,765	2.86%	12.00%
2020	8	518,727	4.08%	12.00%
2021	8	498,013	5.34%	12.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 reflect the employer contribution requirement without phase-in. If applicable, the current phase-in contribution is shown in Table 1.

See the Benefit Provision History, later in this report, for past benefit provision changes.

Years where historical information is not available will be displayed with zero values.

Table 10: Division-Based Layered Amortization Schedule

Division 01 - GCSPPA

Table 10-01: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 8,541,106	23	\$ 9,181,731	22	\$ 625,512
(Gain)/Loss	12/31/2016	629,178	22	701,953	17	56,928
(Gain)/Loss	12/31/2017	655,969	21	726,987	17	58,956
(Gain)/Loss	12/31/2018	1,277,864	20	1,409,801	17	114,324
(Gain)/Loss	12/31/2019	18,540	19	20,297	17	1,644
Assumption	12/31/2019	855,743	19	867,890	17	70,380
Experience	12/31/2020	1,507,922	18	1,661,517	17	134,736
Experience	12/31/2021	(244,260)	17	(270,351)	17	(21,924)
Total				\$ 14,299,825		\$ 1,040,556

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

Note:

Based on the results of a study as required by the Actuarial Policy this division adopted to extend the amortization period, as allowed by the MERS Board.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.



Division 02 - POAM Dispatchers

Table 10-02: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
(Gain)/Loss	12/31/2016	\$ 19,869	10	\$ 14,440	5	\$ 3,216
(Gain)/Loss	12/31/2017	48,473	10	40,034	6	7,572
(Gain)/Loss	12/31/2018	88,618	10	80,843	7	13,356
(Gain)/Loss	12/31/2019	75,369	10	73,951	8	10,884
Assumption	12/31/2019	79,150	10	76,392	8	11,244
Experience	12/31/2020	160,878	10	169,108	9	22,524
Experience	12/31/2021	(85,202)	10	(94,303)	10	(11,508)
Total				\$ 360,465		\$ 57,288

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.

Division 05 - IAFF Fire

Table 10-05: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 4,811,128	23	\$ 5,244,894	22	\$ 357,312
(Gain)/Loss	12/31/2016	62,826	22	70,101	17	5,688
(Gain)/Loss	12/31/2017	2,067	21	2,289	17	192
(Gain)/Loss	12/31/2018	323,628	20	357,041	17	28,956
Amendment	12/31/2018	72,939	20	80,470	17	6,528
(Gain)/Loss	12/31/2019	259,930	19	284,563	17	23,076
Assumption	12/31/2019	590,671	19	612,270	17	49,656
Experience	12/31/2020	913,223	18	1,006,237	17	81,600
Experience	12/31/2021	(471,617)	17	(521,993)	17	(42,336)
Total				\$ 7,135,872		\$ 510,672

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

Note:

Based on the results of a study as required by the Actuarial Policy this division adopted to extend the amortization period, as allowed by the MERS Board.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.

Division 10 - Retirees 1968 - October 1993

Table 10-10: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 975,159	13	\$ 519,542	3	\$ 185,976
(Gain)/Loss	12/31/2016	173,288	11	104,828	3	37,524
(Gain)/Loss	12/31/2017	115,459	10	95,374	6	18,048
(Gain)/Loss	12/31/2018	182,419	10	166,398	7	27,480
(Gain)/Loss	12/31/2019	73,891	10	72,508	8	10,668
Assumption	12/31/2019	86,959	10	77,991	8	11,472
Experience	12/31/2020	(153,899)	10	(161,781)	9	(21,552)
Experience	12/31/2021	(424,700)	10	(470,065)	10	(57,360)
Total				\$ 404,795		\$ 212,256

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.

Division 20 - POAM Police Offrs & Detective

Table 10-20: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 4,570,532	23	\$ 5,069,362	27	\$ 305,028
(Gain)/Loss	12/31/2016	523,250	22	583,772	17	47,340
(Gain)/Loss	12/31/2017	781,095	21	865,644	17	70,200
(Gain)/Loss	12/31/2018	(410,238)	20	(452,588)	17	(36,708)
(Gain)/Loss	12/31/2019	257,784	19	282,211	17	22,884
Assumption	12/31/2019	649,808	19	675,703	17	54,792
Experience	12/31/2020	256,470	18	282,598	17	22,920
Experience	12/31/2021	(216,752)	17	(239,905)	17	(19,452)
Total				\$ 7,066,797		\$ 467,004

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

Note:

Based on the results of a study as required by the Actuarial Policy this division adopted to extend the amortization period, as allowed by the MERS Board.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.

Division 21 - TPOAM

Table 10-21: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 4,878,219	23	\$ 5,418,380	27	\$ 326,040
(Gain)/Loss	12/31/2016	670,286	22	747,821	17	60,648
(Gain)/Loss	12/31/2017	40,256	21	44,607	17	3,612
(Gain)/Loss	12/31/2018	602,288	20	664,476	17	53,892
(Gain)/Loss	12/31/2019	206,668	19	226,255	17	18,348
Assumption	12/31/2019	726,390	19	755,248	17	61,248
Experience	12/31/2020	1,702,830	18	1,876,267	17	152,160
Experience	12/31/2021	(138,742)	17	(153,562)	17	(12,456)
Total				\$ 9,579,492		\$ 663,492

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

Note:

Based on the results of a study as required by the Actuarial Policy this division adopted to extend the amortization period, as allowed by the MERS Board.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.

Division 22 - COAM Command

Table 10-22: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 3,464,047	23	\$ 3,797,243	27	\$ 228,492
(Gain)/Loss	12/31/2016	715,298	22	798,033	17	64,716
(Gain)/Loss	12/31/2017	(166,093)	21	(184,067)	17	(14,928)
(Gain)/Loss	12/31/2018	1,150,065	20	1,268,813	17	102,900
(Gain)/Loss	12/31/2019	1,423,401	19	1,558,324	17	126,372
Assumption	12/31/2019	794,700	19	829,172	17	67,248
Experience	12/31/2020	1,478,174	18	1,628,734	17	132,084
Experience	12/31/2021	160,344	17	177,471	17	14,388
Total				\$ 9,873,723		\$ 721,272

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

Note:

Based on the results of a study as required by the Actuarial Policy this division adopted to extend the amortization period, as allowed by the MERS Board.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.

Division 50 - IAFF after 7/1/2011

Table 10-50: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 7/1/2023		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
(Gain)/Loss	12/31/2017	\$ (4,853)	15	\$ (4,893)	11	\$ (552)
(Gain)/Loss	12/31/2018	18,468	15	19,213	12	2,028
Amendment	12/31/2018	(24,907)	10	(22,718)	7	(3,756)
(Gain)/Loss	12/31/2019	2,755	15	2,925	13	288
Assumption	12/31/2019	903	15	1,015	13	96
Experience	12/31/2020	(31)	15	(38)	14	0
Experience	12/31/2021	(25,584)	15	(28,317)	15	(2,520)
Total				\$ (32,813)		\$ (4,416)

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2021 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2021 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Note: The original balance and original amortization periods prior to 12/31/2018 were received from the prior actuary.

GASB Statement No. 68 Information

The following information has been prepared to provide some of the information necessary to complete GASB Statement No. 68 disclosures. GASB Statement No. 68 is effective for fiscal years beginning after June 15, 2014. Additional resources, including an Implementation Guide, are available at <http://www.mersofmich.com/>.

Actuarial Valuation Date:	12/31/2021
Measurement Date of the Total Pension Liability (TPL):	12/31/2021
At 12/31/2021, the following employees were covered by the benefit terms:	
Inactive employees or beneficiaries currently receiving benefits:	184
Inactive employees entitled to but not yet receiving benefits (including refunds):	26
Active employees:	<u>105</u>
	315
Total Pension Liability as of 12/31/2020 measurement date:	\$ 106,919,715
Total Pension Liability as of 12/31/2021 measurement date:	\$ 113,400,762
Service Cost for the year ending on the 12/31/2021 measurement date:	\$ 1,324,817
Change in the Total Pension Liability due to:	
- Benefit changes ¹ :	\$ 0
- Differences between expected and actual experience ² :	\$ (12,020)
- Changes in assumptions ² :	\$ 4,386,646
Average expected remaining service lives of all employees (active and inactive):	3

¹ A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

² Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees.

Covered employee payroll (Needed for Required Supplementary Information):	\$ 6,833,638
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Note: Covered employee payroll may differ from the GASB Statement No. 68 definition.

Sensitivity of the Net Pension Liability to changes in the discount rate:

	1% Decrease <u>(6.25%)</u>	Current Discount Rate <u>(7.25%)</u>	1% Increase <u>(8.25%)</u>
Change in Net Pension Liability as of 12/31/2021:	\$ 14,337,565	\$ 0	\$ (11,790,572)

Note: The current discount rate shown for GASB Statement No. 68 purposes is higher than the MERS assumed rate of return. This is because for GASB Statement No. 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

Benefit Provision History

The following benefit provision history is provided by MERS. Any corrections to this history or discrepancies between this information and information displayed elsewhere in the valuation report should be reported to MERS. All provisions are listed by date of adoption.

01 - GCSPPA

1/1/2021	Short Term Disability - Service Granted
1/1/2021	Public Safety Employees - Yes
1/1/2021	Long Term Disability - Service Granted
1/1/2021	Other Leave - Service Granted
1/1/2021	Workers Compensation - Service Granted
1/1/2021	Service Credit Qualification - 80 hours
1/1/2021	Custom Wages
6/2/2020	Extended Amortization to 25 yrs (based off 2018 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
8/1/2014	Member Contribution Rate 12.00%
1/1/2012	E2 2% Comp COLA for future retirees (01/01/2012)
1/1/2012	E1 2% Comp COLA for past retirees (12/31/2011)
1/1/2011	Flexible E 2% COLA Adopted (01/01/2011)
7/1/2010	Annuity Withdrawal - T-Bill Rate
7/1/2010	Day of work defined as 80 Hours a Month for All employees.
7/1/2010	Benefit D2 - 66.67% FAC
7/1/2010	25 Years & Out
7/1/2010	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2010	Non Standard Compensation Definition
7/1/2010	Non Standard Death Benefit
7/1/2010	Non Standard Disability
7/1/2010	Exclude Temporary Employees requiring less than 12 months
7/1/2010	Sick Eligibility - up to 60 days paid at 50% of pay
7/1/2010	10 Year Vesting
7/1/2010	Fiscal Month - July
7/1/2010	2.50% Mult. for Svc < 25 yrs , 1% for Svc>25 yrs (no max)
7/1/2010	Member Contribution Rate 6.00%
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

02 - POAM Dispatchers

12/1/2016	Service Credit Purchase Estimates - Yes
8/1/2014	Member Contribution Rate 12.00%
1/1/2012	E1 2% Comp COLA for past retirees (12/31/2011)
1/1/2011	Flexible E 2% COLA Adopted (01/01/2011)
7/1/2010	Annuity Withdrawal - T-Bill Rate
7/1/2010	Day of work defined as 80 Hours a Month for All employees.
7/1/2010	Benefit D2 - 66.67% FAC
7/1/2010	25 Years & Out
7/1/2010	Benefit FAC-4 (4 Year Final Average Compensation)
7/1/2010	Non Standard Compensation Definition



02 - POAM Dispatchers

7/1/2010	Non Standard Death Benefit
7/1/2010	Non Standard Disability
7/1/2010	Exclude Temporary Employees requiring less than 12 months
7/1/2010	Sick Eligibility - up to 60 days paid at 50% of pay
7/1/2010	10 Year Vesting
7/1/2010	2.50% Mult. for Svc < 25 yrs , 1% for Svc>25 yrs (no max)
7/1/2010	Member Contribution Rate 6.00%
7/1/2010	E2 2% Comp COLA for future retirees (01/01/2010)
7/1/2010	Fiscal Month - July
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

05 - IAFF Fire

1/1/2021	Short Term Disability - Service Granted
1/1/2021	Public Safety Employees - Yes
1/1/2021	Long Term Disability - Service Granted
1/1/2021	Other Leave - Service Granted
1/1/2021	Workers Compensation - Service Granted
1/1/2021	Service Credit Qualification - 80 hours
1/1/2021	Custom Wages
6/2/2020	Extended Amortization to 25 yrs (based off 2018 AAV)
3/1/2018	Participant Contribution Rate 12%
12/1/2016	Service Credit Purchase Estimates - Yes
1/1/2012	E2 2% Comp COLA for future retirees (01/01/2012)
1/1/2012	E1 2% Comp COLA for past retirees (12/31/2011)
1/1/2011	Flexible E 2% COLA Adopted (01/01/2011)
7/1/2010	Annuity Withdrawal - T-Bill Rate
7/1/2010	Day of work defined as 80 Hours a Month for All employees.
7/1/2010	Benefit D2 - 66.67% FAC
7/1/2010	25 Years & Out
7/1/2010	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2010	Non Standard Compensation Definition
7/1/2010	Non Standard Death Benefit
7/1/2010	Non Standard Disability
7/1/2010	Exclude Temporary Employees requiring less than 12 months
7/1/2010	10 Year Vesting
7/1/2010	2.50% Mult. for Svc < 25 yrs , 1% for Svc>25 yrs (no max)
7/1/2010	Benefit F55 (With 10 Years of Service)
7/1/2010	Member Contribution Rate 5.00%
7/1/2010	Fiscal Month - July
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

10 - Retirees 1968 - October 1993

12/1/2020	Non-Accelerated Amortization
12/31/2018	Accelerated to 5-year Amortization
12/1/2016	Service Credit Purchase Estimates - Yes



10 - Retirees 1968 - October 1993

1/1/2011	E1 2% COLA for past retirees (07/01/2010)
7/1/2010	Annuity Withdrawal - MERS Rate
7/1/2010	Day of work defined as 80 Hours a Month for Group employees.
7/1/2010	Benefit D2 - 66.67% FAC
7/1/2010	25 Years & Out
7/1/2010	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2010	10 Year Vesting
7/1/2010	2.5% Multiplier (no max)
7/1/2010	Member Contribution Rate 0.00%
7/1/2010	Fiscal Month - July
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

20 - POAM Police Offrs & Detective

1/1/2021	Short Term Disability - Service Granted
1/1/2021	Public Safety Employees - Yes
1/1/2021	Long Term Disability - Service Granted
1/1/2021	Other Leave - Service Granted
1/1/2021	Workers Compensation - Service Granted
1/1/2021	Service Credit Qualification - 80 hours
1/1/2021	Custom Wages
6/2/2020	Extended Amortization to 30 yrs (based off 2018 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
8/1/2014	Member Contribution Rate 12.00%
1/1/2012	E1 2% Comp COLA for past retirees (12/31/2011)
1/1/2011	Flexible E 2% COLA Adopted (01/01/2011)
7/1/2010	Annuity Withdrawal - T-Bill Rate
7/1/2010	Day of work defined as 80 Hours a Month for All employees.
7/1/2010	Benefit D2 - 66.67% FAC
7/1/2010	25 Years & Out
7/1/2010	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2010	Non Standard Compensation Definition
7/1/2010	Non Standard Death Benefit
7/1/2010	Non Standard Disability
7/1/2010	Exclude Temporary Employees requiring less than 12 months
7/1/2010	Sick Eligibility - up to 60 days paid at 50% of pay
7/1/2010	10 Year Vesting
7/1/2010	2.50% Mult. for Svc < 25 yrs , 1% for Svc > 25 yrs (no max)
7/1/2010	Benefit F55 (With 10 Years of Service)
7/1/2010	Member Contribution Rate 6.00%
7/1/2010	E2 2% Comp COLA for future retirees (01/01/2010)
7/1/2010	Fiscal Month - July
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

21 - TPOAM

1/1/2021	Short Term Disability - Service Granted
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21 - TPOAM

1/1/2021	Public Safety Employees - Yes
1/1/2021	Long Term Disability - Service Granted
1/1/2021	Other Leave - Service Granted
1/1/2021	Workers Compensation - Service Granted
1/1/2021	Service Credit Qualification - 80 hours
1/1/2021	Custom Wages
6/2/2020	Extended Amortization to 30 yrs (based off 2018 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
8/1/2014	Member Contribution Rate 12.00%
1/1/2012	E1 2% Comp COLA for past retirees (12/31/2011)
1/1/2011	Flexible E 2% COLA Adopted (01/01/2011)
7/1/2010	Annuity Withdrawal - T-Bill Rate
7/1/2010	Day of work defined as 80 Hours a Month for All employees.
7/1/2010	Benefit D2 - 66.67% FAC
7/1/2010	25 Years & Out
7/1/2010	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2010	Non Standard Compensation Definition
7/1/2010	Non Standard Death Benefit
7/1/2010	Non Standard Disability
7/1/2010	Exclude Temporary Employees requiring less than 12 months
7/1/2010	10 Year Vesting
7/1/2010	2.57% Mult. for Svc < 25 yrs , 1% for Svc>25 yrs (no max)
7/1/2010	Member Contribution Rate 6.00%
7/1/2010	E2 2% Comp COLA for future retirees (01/01/2010)
7/1/2010	Fiscal Month - July
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

22 - COAM Command

1/1/2021	Short Term Disability - Service Granted
1/1/2021	Public Safety Employees - Yes
1/1/2021	Long Term Disability - Service Granted
1/1/2021	Other Leave - Service Granted
1/1/2021	Workers Compensation - Service Granted
1/1/2021	Service Credit Qualification - 80 hours
1/1/2021	Custom Wages
6/2/2020	Extended Amortization to 30 yrs (based off 2018 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
8/1/2014	Member Contribution Rate 12.00%
1/1/2012	E1 2% Comp COLA for past retirees (12/31/2011)
1/1/2011	Flexible E 2% COLA Adopted (01/01/2011)
7/1/2010	Annuity Withdrawal - T-Bill Rate
7/1/2010	Day of work defined as 80 Hours a Month for All employees.
7/1/2010	Benefit D2 - 66.67% FAC
7/1/2010	25 Years & Out
7/1/2010	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2010	Non Standard Compensation Definition
7/1/2010	Non Standard Death Benefit

22 - COAM Command

7/1/2010	Non Standard Disability
7/1/2010	Exclude Temporary Employees requiring less than 12 months
7/1/2010	Sick Eligibility - up to 60 days paid at 50% of pay
7/1/2010	10 Year Vesting
7/1/2010	2.50% Mult. for Svc < 25 yrs , 1% for Svc>25 yrs (no max)
7/1/2010	Benefit F55 (With 10 Years of Service)
7/1/2010	Member Contribution Rate 6.00%
7/1/2010	E2 2% Comp COLA for future retirees (01/01/2010)
7/1/2010	Fiscal Month - July
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

50 - IAFF after 7/1/2011

1/1/2021	Short Term Disability - Service Granted
1/1/2021	Public Safety Employees - Yes
1/1/2021	Long Term Disability - Service Granted
1/1/2021	Other Leave - Service Granted
1/1/2021	Workers Compensation - Service Granted
1/1/2021	Service Credit Qualification - 80 hours
1/1/2021	Custom Wages
3/1/2018	Participant Contribution Rate 12%
12/1/2016	Service Credit Purchase Estimates - Yes
1/1/2012	E2 2% COLA for future retirees (07/01/2011)
7/1/2011	Annuity Withdrawal - T-Bill Rate
7/1/2011	Day of work defined as 80 Hours a Month for All employees.
7/1/2011	Benefit D2 - 66.67% FAC
7/1/2011	25 Years & Out
7/1/2011	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2011	Non Standard Compensation Definition
7/1/2011	Non Standard Death Benefit
7/1/2011	Non Standard Disability
7/1/2011	10 Year Vesting
7/1/2011	2% < 25 yrs 1% > 25 yrs (55% max)
7/1/2011	Benefit F55 (With 10 Years of Service)
7/1/2011	Member Contribution Rate 6.00%
7/1/2010	Fiscal Month - July
5/24/2010	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

Details on MERS plan provisions, actuarial assumptions, and actuarial methodology can be found in the Appendix. Some actuarial assumptions are specific to this municipality and its divisions. These are listed below.

Increase in Final Average Compensation

Division	FAC Increase Assumption	SLIF Increase Assumption
01 - GCSPPA	0.00%	3.85%
02 - POAM Dispatchers	0.00%	2.88%
05 - IAFF Fire	3.00%	0.00%
10 - Retirees 1968 - October 1993	3.00%	0.00%
20 - POAM Police Offrs & Detective	0.00%	3.85%
21 - TPOAM	3.00%	0.00%
22 - COAM Command	0.00%	3.85%
50 - IAFF after 7/1/2011	3.00%	0.00%

Miscellaneous and Technical Assumptions

Loads - For divisions with the Annuity Withdrawal provision, if the Treasury Bill rate of interest is used, the normal retirement and early retirement liabilities and normal costs are increased by 6%.

Amortization Policy for Closed Not Linked Divisions: The default funding policy for closed not linked divisions, including open divisions with zero active members, is to follow a non-accelerated amortization, where each closed period decreases by one year each year until the period is exhausted. In select instances, closed not linked division(s) may follow an accelerated amortization policy.

Risk Commentary

Determination of the accrued liability, the employer contribution, and the funded ratio 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, the actuarially determined contribution and the funded ratio 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:

- **Investment Risk** – actual investment returns may differ from the expected returns;
- **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;
- **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
- **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
- **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.

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:

	<u>12/31/2021</u>	<u>12/31/2020</u>	<u>12/31/2019</u>	<u>12/31/2018</u>
1. Ratio of the market value of assets to total payroll	9.9	8.9	9.0	9.1
2. Ratio of actuarial accrued liability to payroll	17.1	15.8	15.9	16.1
3. Ratio of actives to retirees and beneficiaries	0.6	0.6	0.6	0.6
4. Ratio of market value of assets to benefit payments	9.5	9.7	8.5	8.8
5. Ratio of net cash flow to market value of assets (boy)	-4.6%	-4.1%	-6.0%	-5.0%

RATIO OF MARKET VALUE OF ASSETS TO TOTAL 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.

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 MARKET VALUE OF ASSETS TO BENEFIT PAYMENTS

The MERS' Actuarial Policy requires a total minimum contribution equal to the excess (if any) of three times the expected annual benefit payments over the projected market value of assets as of the participating municipality or court's Fiscal Year for which the contribution applies. The ratio of market value of assets to benefit payments as of the valuation date provides an indication of whether the division is at risk for triggering the minimum contribution rule in the near term. If the division triggers this minimum contribution rule, the required employer contributions could increase dramatically relative to previous valuations.

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.



State Reporting

The following information has been prepared to provide some of the information necessary to complete the Public Act 202 pension reporting requirements for the State of Michigan’s Local Government Retirement System Annual Report (Form No. 5572). Additional resources are available at www.mersofmich.com and on the State [website](#).

Form 5572		
Line Reference	Description	Result
10	Membership as of December 31, 2021	
11	Indicate number of active members	105
12	Indicate number of inactive members (excluding pending refunds)	5
13	Indicate number of retirees and beneficiaries	184
14	Investment Performance for Calendar Year Ending December 31, 2021¹	
15	Enter actual rate of return - prior 1-year period	14.13%
16	Enter actual rate of return - prior 5-year period	9.96%
17	Enter actual rate of return - prior 10-year period	9.11%
18	Actuarial Assumptions	
19	Actuarial assumed rate of investment return ²	7.00%
20	Amortization method utilized for funding the system's unfunded actuarial accrued liability, if any	Level Percent
21	Amortization period utilized for funding the system's unfunded actuarial accrued liability, if any ³	27
22	Is each division within the system closed to new employees? ⁴	No
23	Uniform Assumptions	
24	Enter retirement pension system's actuarial value of assets using uniform assumptions	\$62,576,270
25	Enter retirement pension system's actuarial accrued liabilities using uniform assumptions ⁵	\$118,792,403
27	Actuarially Determined Contribution (ADC) using uniform assumptions, Fiscal Year Ending June 30, 2022	\$5,129,028

1. The Municipal Employees’ Retirement System’s investment performance has been provided to GRS from MERS Investment Staff and is included here for reporting purposes. The investment performance figures reported are net of investment expenses on a rolling calendar year basis for the previous 1-, 5-, and 10-year periods as required under PA 530.
2. Net of administrative and investment expenses.
3. Populated with the longest amortization period remaining in the amortization schedule, across all divisions in the plan. This is when each division and the plan in total is expected to reach 100% funded if all assumptions are met.
4. If all divisions within the employer are closed, “yes.” If at least one division is open (including shadow divisions), “no.”
5. Line 25 actuarial accrued liability is determined under PA 202 uniform assumptions which differ from the valuation assumptions. In particular, the assumed rate of return for PA 202 purposes is 6.85%.