



# Your Annual Actuarial Valuation and Defined Benefit Plan Design

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# AGENDA

- Your Annual Actuarial Valuation
- Key Areas of Your Annual Actuarial Valuation
- Plan Modifications to Control Cost
- Plan Modifications to Attract and Retain Talent
- Adjusting Defined Benefit Provisions
- Key Takeaways and Resources

# Your Annual Actuarial Valuation



# Annual Actuarial Valuation (AAV)

- Snapshot of your MERS Defined Benefit Plan as of December 31
- Provides your **contribution rates** for your following fiscal year

*Example: Your 2024 AAV was available in June 2025 and provided contribution rates for your 2026 fiscal year*



# Annual Actuarial Valuation (AAV)

- Snapshot of the MERS Defined Benefit Plan as of December 31
- Provides your contribution rates for your following fiscal year
  - Example: Your 2024 AAV was available in June 2025 and provided contribution rates for your 2026 fiscal year*
- The report also provides insight to your plan's liabilities, funding levels, employer and employee contributions, and important information for GASB and state reporting



# Actuarial Assumptions

- Required contributions in a defined benefit plan are calculated by an accredited actuary using assumptions about future events
- These assumptions fall into two broad categories: **economic** and **demographic**

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## Economic assumptions

Forward looking trends and include factors such as wage growth and the future expected investment return

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## Economic assumptions

Forward looking trends and include factors such as wage growth and the future expected investment return

## Demographic assumptions

Look back at the actual experience of the plan, such as changes in the number of working and retired participants, when those participants will retire, and how long they'll live

# Checking Our Assumptions

As part of our fiduciary responsibility, MERS performs an **Experience Study** at least every five years to compare key assumptions to real world experience and make adjustments as needed

- Industry best practice
- Part of MERS' fiduciary duty
- Required as a part of MERS Governance Policy
- Reviews actual experience to actuarial assumptions

## Municipal Employees' Retirement System of Michigan

Experience Study Report for the 5-Year Period From January 1, 2019 - December 31, 2023

For the 748 Defined Benefit Plan and Hybrid Plan Municipalities



# Understanding Asset Values

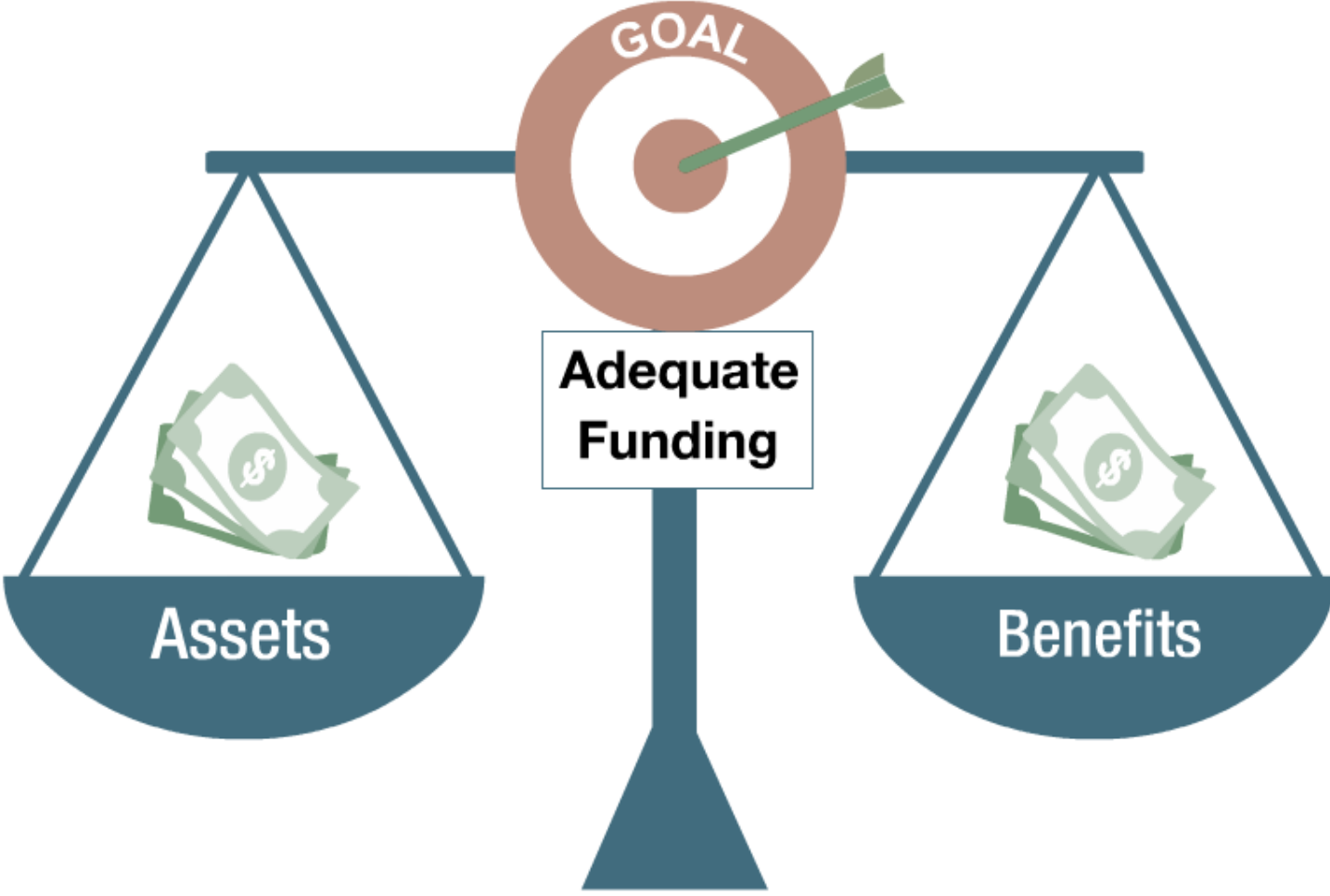
## Market Value

Actual amount of assets held in the plan (also called fiduciary net position) and is shown in your quarterly statements

## Actuarial Value

This number uses a smoothed asset value, and therefore, is different than the actual amount of assets held in the plan

# A Fully Funded Plan



# Key Areas of Your Annual Actuarial Valuation



# Funded Ratio

## Executive Summary

While funding ratio may be a useful plan measurement, understanding a plan's funding trend may be more important than a particular point in time

	12/31/2024	12/31/2023
Funded Ratio*	84%	86%

\* Reflects assets from Surplus divisions, if any

# Required Contributions

## Executive Summary

### Employer Contributions

	Percentage of Payroll		Monthly \$ Based on Projected Payroll	
	12/31/2024	12/31/2023	12/31/2024	12/31/2023
Valuation Date:				
Fiscal Year Beginning:	January 1, 2026	January 1, 2025	January 1, 2026	January 1, 2025
<b>Division</b>				
01 - General	-	-	\$ 9,552	\$ 9,177
10 - NonUnion	-	-	25,592	21,514
11 - General after 1/1/2018	7.86%	7.68%	6,531	4,580
<b>Total Municipality - Estimated Monthly Contribution</b>			\$ 41,675	\$ 35,271
<b>Total Municipality - Estimated Annual Contribution</b>			\$ 500,100	\$ 423,252

# Required Contributions


## Executive Summary

### Employee Contribution Rates

Valuation Date:	Employee Contribution Rate	
	12/31/2024	12/31/2023
<b>Division</b>		
01 - General	2.00%	2.00%
10 - NonUnion	2.00%	2.00%
11 - General after 1/1/2018	2.00%	2.00%

# Projection Scenarios

## Executive Summary



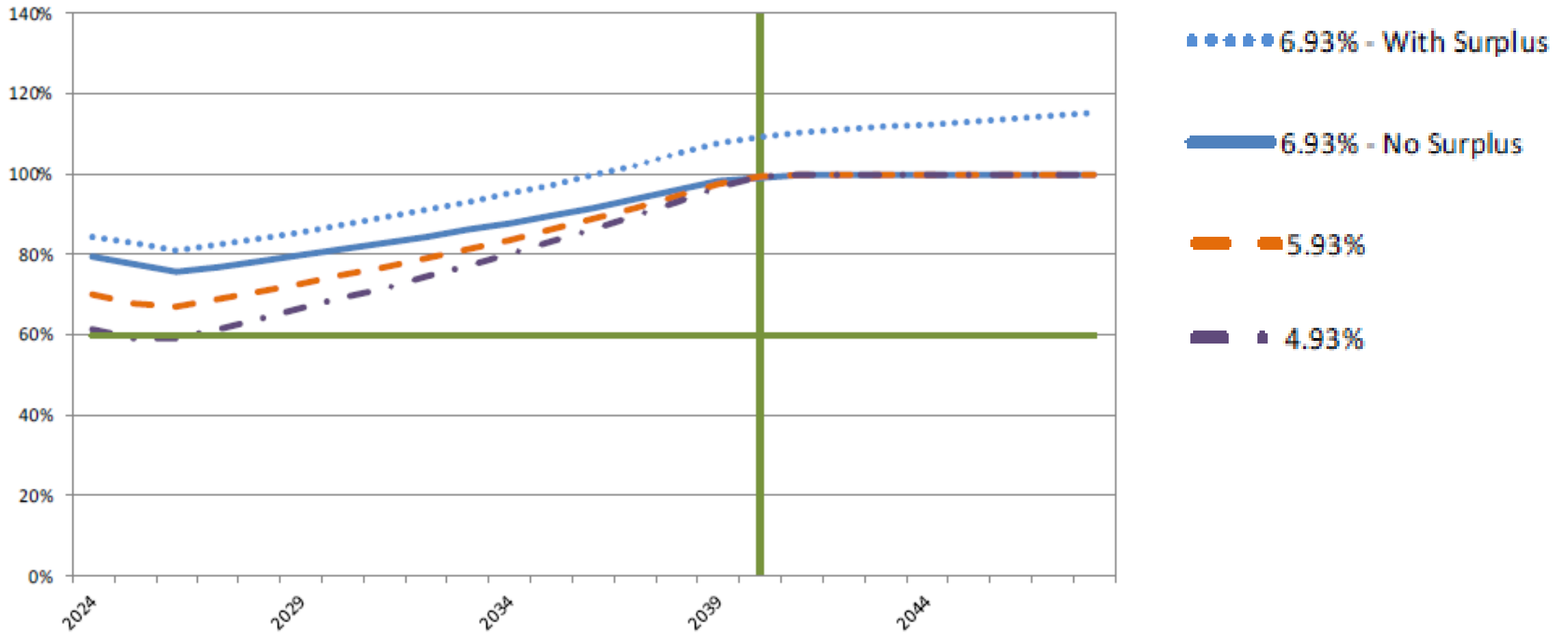
Valuation Year Ending 12/31	Fiscal Year Beginning 1/1	Actuarial Accrued Liability	Valuation Assets <sup>2</sup>	Funded Percentage	Estimated Annual Employer Contribution
<b>6.93%<sup>1</sup></b>					
2024	2026	\$ 16,495,844	\$ 13,087,242	79%	\$ 500,100
2025	2027	\$ 17,000,000	\$ 13,200,000	78%	\$ 552,000
2026	2028	\$ 17,500,000	\$ 13,300,000	76%	\$ 611,000
2027	2029	\$ 18,000,000	\$ 13,900,000	77%	\$ 627,000
2028	2030	\$ 18,500,000	\$ 14,500,000	78%	\$ 643,000
2029	2031	\$ 19,000,000	\$ 15,200,000	80%	\$ 660,000
<b>5.93%<sup>1</sup></b>					
2024	2026	\$ 18,674,426	\$ 13,087,242	70%	\$ 738,708
2025	2027	\$ 19,200,000	\$ 13,000,000	68%	\$ 802,000
2026	2028	\$ 19,700,000	\$ 13,300,000	67%	\$ 864,000
2027	2029	\$ 20,300,000	\$ 14,000,000	69%	\$ 886,000
2028	2030	\$ 20,800,000	\$ 14,800,000	71%	\$ 909,000
2029	2031	\$ 21,400,000	\$ 15,600,000	73%	\$ 934,000
<b>4.93%<sup>1</sup></b>					
2024	2026	\$ 21,324,353	\$ 13,087,242	61%	\$ 1,017,036
2025	2027	\$ 21,900,000	\$ 12,900,000	59%	\$ 1,090,000
2026	2028	\$ 22,500,000	\$ 13,300,000	59%	\$ 1,160,000
2027	2029	\$ 23,100,000	\$ 14,200,000	61%	\$ 1,190,000
2028	2030	\$ 23,700,000	\$ 15,100,000	64%	\$ 1,220,000
2029	2031	\$ 24,200,000	\$ 16,100,000	67%	\$ 1,250,000

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

<sup>2</sup> Valuation Assets do not include assets from Surplus divisions, if any.

# Projected Funded Level

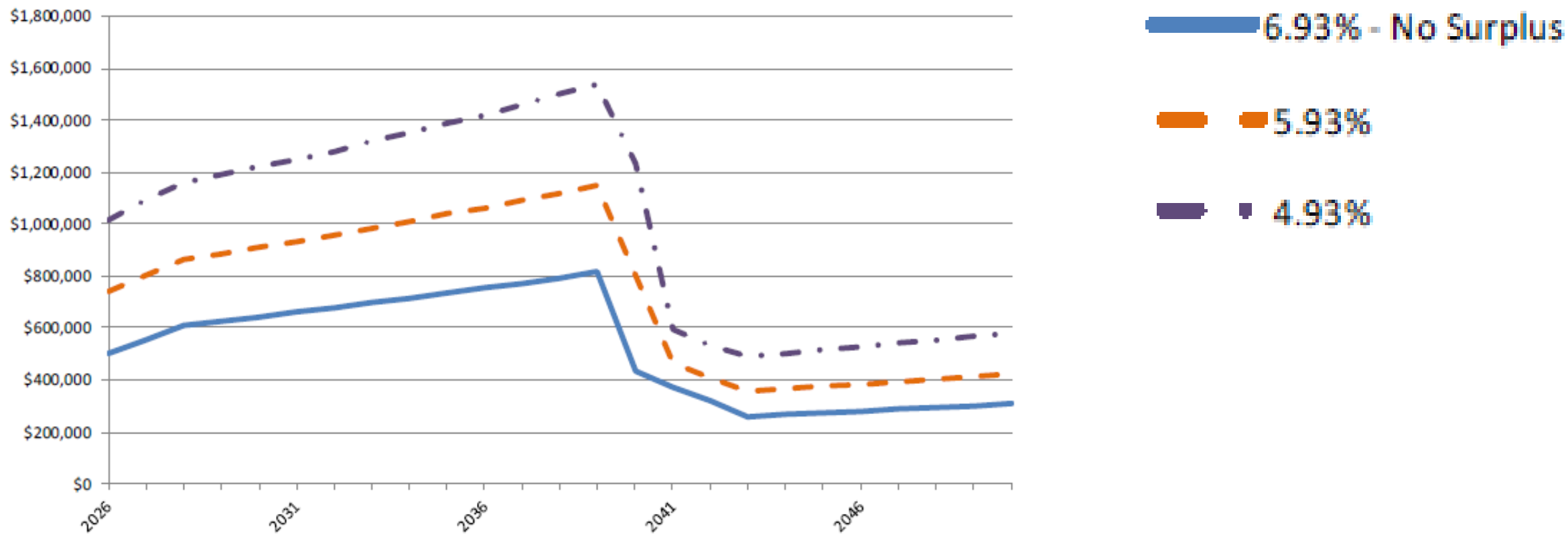
## Executive Summary



# Projected Employer Contributions

## Executive Summary

Estimated Annual Employer Contribution



# Employer Contribution Details

Table 1

Employer Contribution Details for the Fiscal Year Beginning January 1, 2026

Division	Total Normal Cost	Employee Contribution Rate	Employer Contributions <sup>1</sup>			Blended ER Rate <sup>5</sup>	Employee Contribution Conversion Factor <sup>2</sup>
			Employer Normal Cost <sup>6</sup>	Payment of the Unfunded Accrued Liability <sup>4</sup>	Computed Employer Contribution		
<b>Percentage of Payroll</b>							
01 - General	15.22%	2.00%	-	-	-	25.74%	
10 - NonUnion	12.58%	2.00%	-	-	-	25.74%	
11 - General after 1/1/2018	9.86%	2.00%	7.86%	0.00%	7.86%	25.74%	0.82%
<b>Estimated Monthly Contribution<sup>3</sup></b>							
01 - General			\$ 3,005	\$ 6,547	\$ 9,552		
10 - NonUnion			5,937	19,655	25,592		
11 - General after 1/1/2018			6,531	0	6,531		
<b>Total Municipality</b>			\$ 15,473	\$ 26,202	\$ 41,675		
<b>Estimated Annual Contribution<sup>3</sup></b>			\$ 185,676	\$ 314,424	\$ 500,100		

# Flow of Valuation Assets

Table 5

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						
2014	\$ 84,388	\$ 65,230	\$ 27,549	\$ 498,582	\$ (388,410)	\$ (740)	\$ 0	\$ 8,982,570
2015	102,400	83,734	29,563	446,297	(428,215)	(3,122)	0	9,213,227
2016	149,555	89,396	30,058	484,922	(457,225)	(297)	0	9,509,636
2017	196,626	133,577	31,965	585,601	(466,575)	0	0	9,990,830
2018	217,542	116,591	32,921	370,652	(487,299)	0	0	10,241,237
2019	248,204	59,098	30,585	495,054	(522,313)	0	0	10,551,865
2020	275,047	48,303	30,869	847,027	(597,628)	(3,457)	0	11,152,026
2021	316,608	123,054	33,119	1,896,714	(644,130)	(896)	0	12,876,495
2022	399,872	106,887	32,283	450,354	(683,943)	0	0	13,181,948
2023	383,625	84,927	32,571	675,078	(722,924)	(523)	0	13,634,702
2024	411,050	105,137	35,496	519,250	(777,585)	(1,428)	0	13,926,622

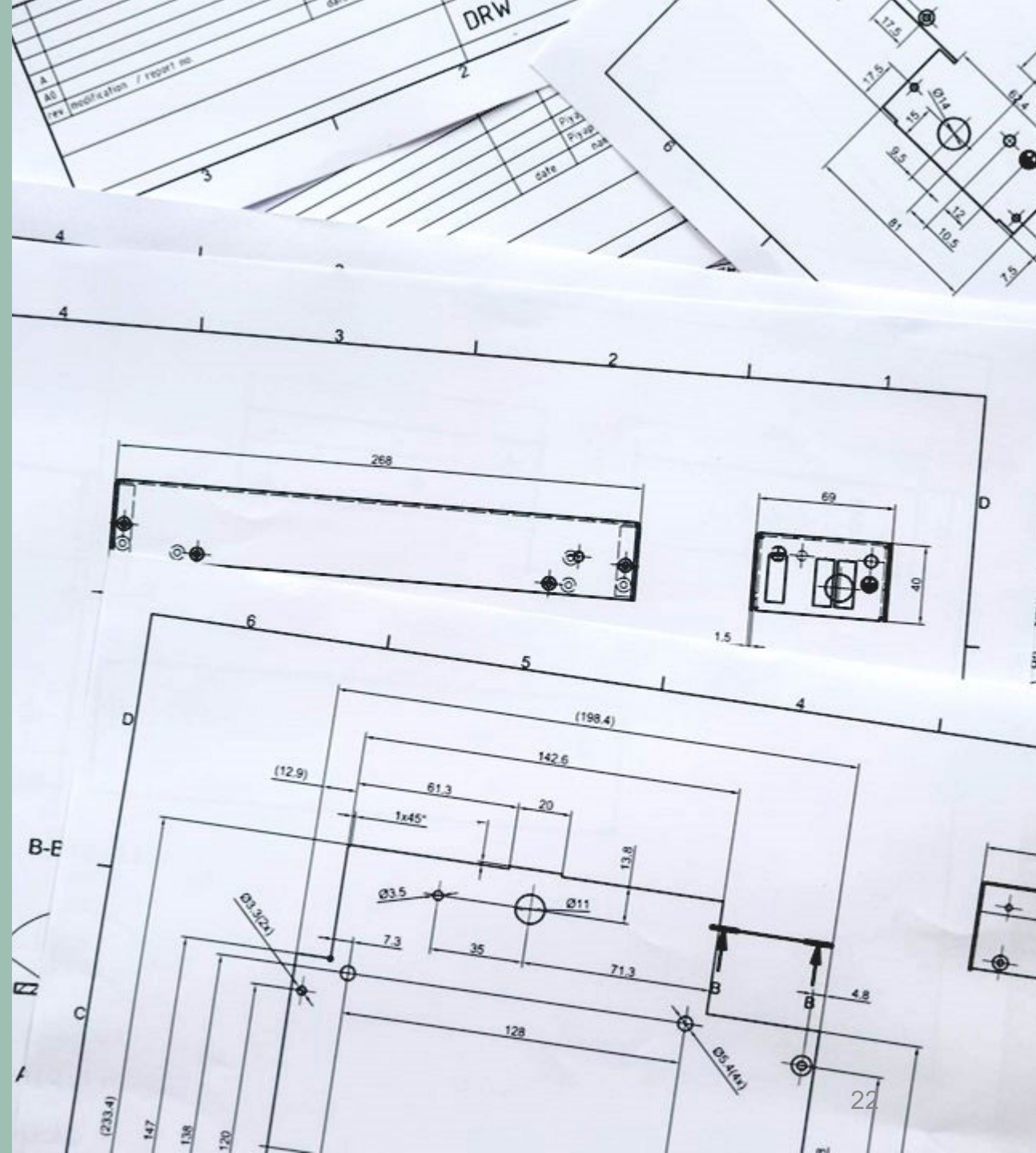
# Actuarial Accrued Liabilities & Valuation Assets

Table 6

Actuarial Accrued Liabilities and Valuation Assets as of December 31, 2024

Division	Actuarial Accrued Liability					Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
	Active Employees	Vested Former Employees	Retirees and Beneficiaries	Pending Refunds	Total			
01 - General	\$ 1,025,283	\$ 489,106	\$ 2,926,095	\$ 10,140	\$ 4,450,624	\$ 3,590,502	80.7%	\$ 860,122
10 - NonUnion	3,585,204	1,271,741	6,829,605	8,526	11,695,076	9,121,591	78.0%	2,573,485
11 - General after 1/1/2018	313,282	19,157	0	17,705	350,144	375,149	107.1%	(25,005)
S1 - Surplus Assoc. div 01,10 & 11	0	0	0	0	0	839,380		(839,380)
<b>Total</b>	<b>\$ 4,923,769</b>	<b>\$ 1,780,004</b>	<b>\$ 9,755,700</b>	<b>\$ 36,371</b>	<b>\$ 16,495,844</b>	<b>\$ 13,926,622</b>	<b>84.4%</b>	<b>\$ 2,569,222</b>

# Plan Modifications to Control Cost



# Managing Unfunded Accrued Liability

## Funding Strategies

(Increase assets)



## Plan Design Strategies

(Reduce or eliminate liability moving forward)

# Plan Design Strategies

## Reduce Future Liability for New Hires

- Defined Benefit Plan with lower provisions
- Hybrid Plan
- Defined Contribution Plan

## Reduce Future Liability for Existing Employees

- Lower multiplier going forward
- Bridged multiplier
- Eliminate COLA on future service
- Plan freeze

# Plan Modifications to Attract and Retain Talent



# Enhancement Requirements



Plans must meet funding requirements



Requires actuarial analysis to illustrate financial impacts

# MERS 457 Program

- Participant-managed investment account
- Flexible, adjustable participant contributions

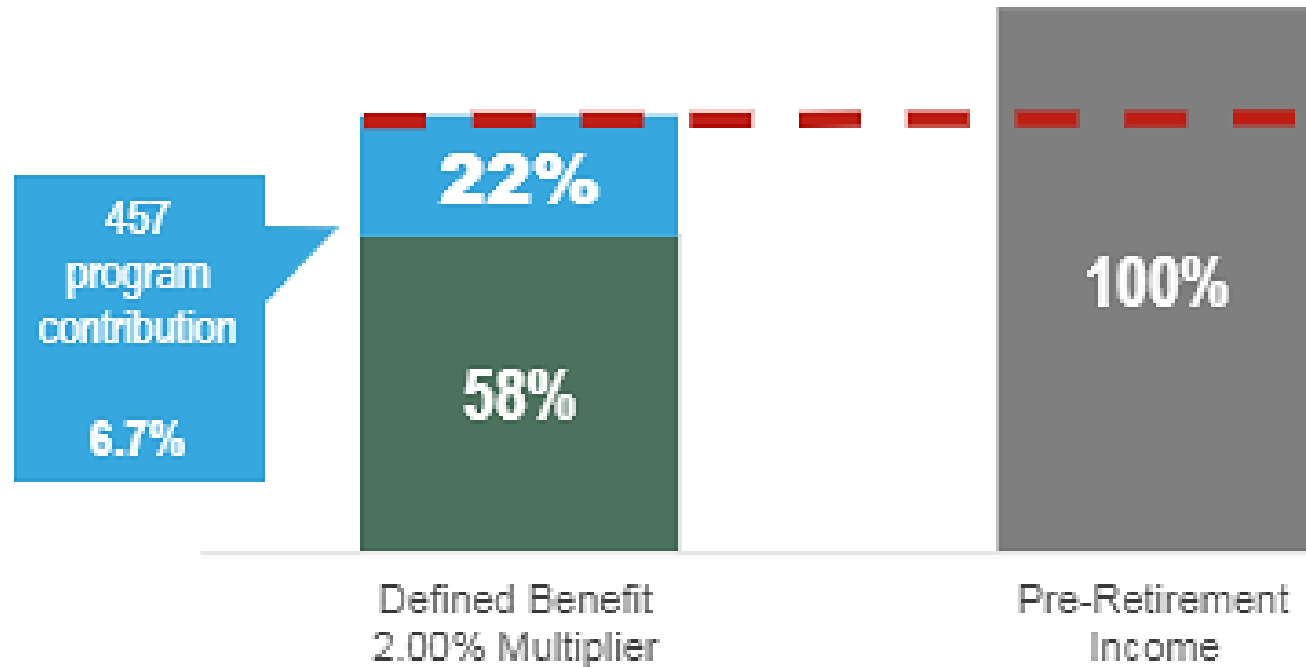
**Blend an existing DB plan with matching employer contribution to a 457**

- Boosts employee participation
- No added pension liability
- Flexible, adjustable employer contributions
- Supports income replacement goals



# Blending Programs

## Adding a 457 Program to Reach an 80% Desired Income Replacement Rate



Projection assumes a 30-year-old employee earns 30 years of service credit, retires at age 60 and lives until age 90. Assumed wage inflation is 2%.

# Health Care Savings Program

- Individual savings account for qualified medical expenses
  - Employees invest **tax-free**
  - Eligible medical expense withdrawals are **tax-free**
  - Employers save on FICA taxes
- Employees can use their account post-employment, regardless of age

## Triple Tax Advantage

- ✓ Contributions go in tax-free
- ✓ Assets are invested tax-free
- ✓ Qualified expenses are tax-free

# Reopening a Defined Benefit Plan



# Important Considerations

## Employer Goals

- Attracting and retaining employees
- Plan options that fit diverse needs
- Budgetary

## Plan Provisions

- Align provisions with your goals
  - If you are looking to retain employees longer, consider a longer vesting cycle.
  - Consider allowing long-term employees to have the opportunity to retire at an earlier age

## Conversion/Freeze

Consider that, to ensure new DB plans that are being established are set up in a fiscally responsible way, MERS requires all new liability created to be funded at a minimum of 80%

# Adjusting Defined Benefit Provisions



# Defined Benefit Formula



**Final Average  
Compensation**



**Service  
Credit**



**Benefit  
Multiplier**



**Annual  
Benefit**

# Final Average Compensation (FAC)

The average of the highest consecutive wages over a period of time as determined by the employer. Typically, a shorter period will provide for a greater benefit.

## Adopted Provisions



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## Adopted Provisions



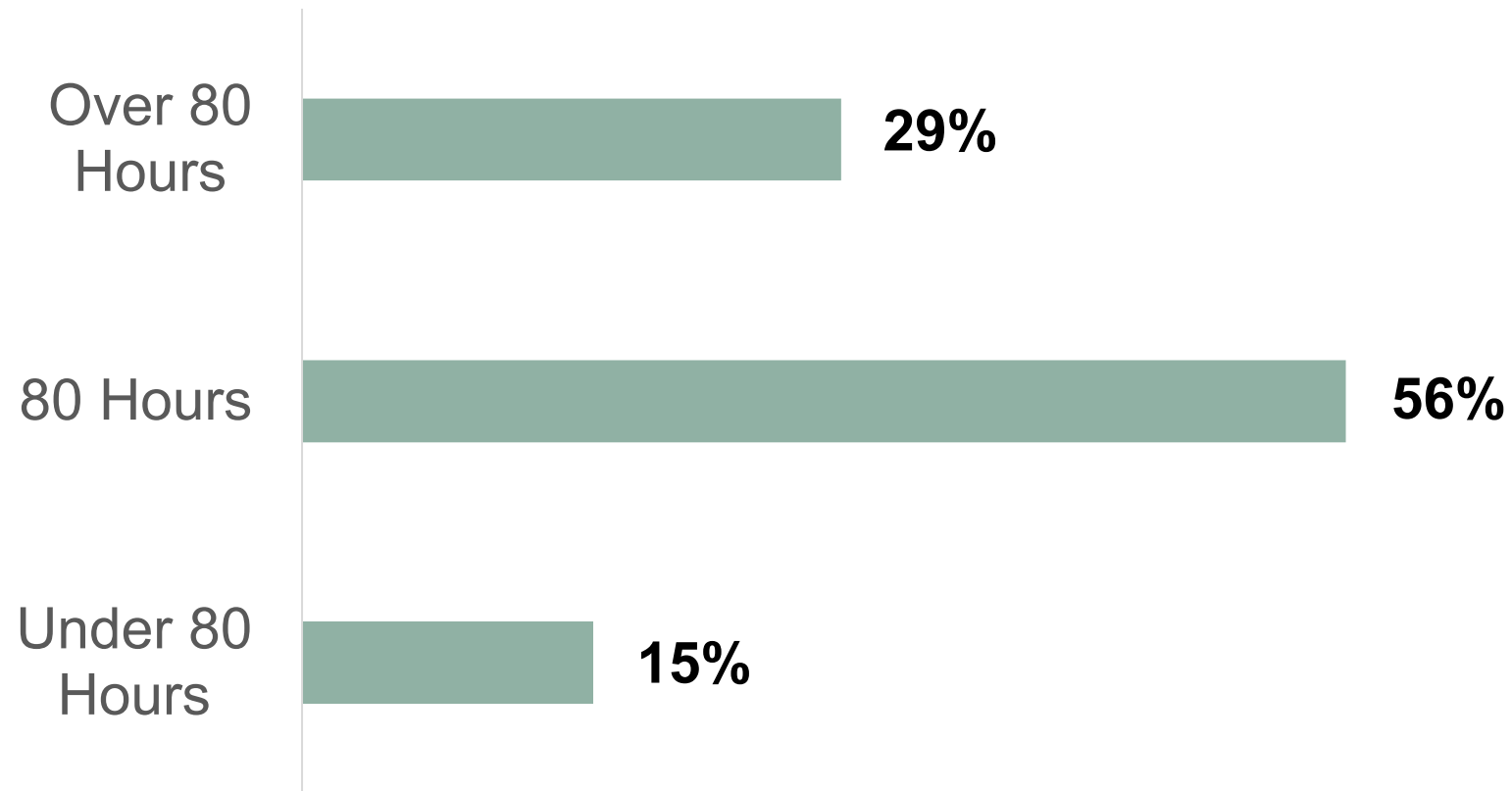
## Comparison

35-Year-Old New Hire	5-Year FAC	3-Year FAC
<b>FAC</b>	<b>\$77,329</b>	<b>\$78,855</b>
Years of Service	25	25
Multiplier	2.00%	2.00%
Monthly DB (FAC x Years of Service x Multiplier)/12	<b>\$3,222</b>	<b>\$3,286</b>

# Service Credit Qualification

Defines the number of hours an eligible employee needs to work in a month to earn service credit. Typically, the lower the number of hours, the more service is granted.

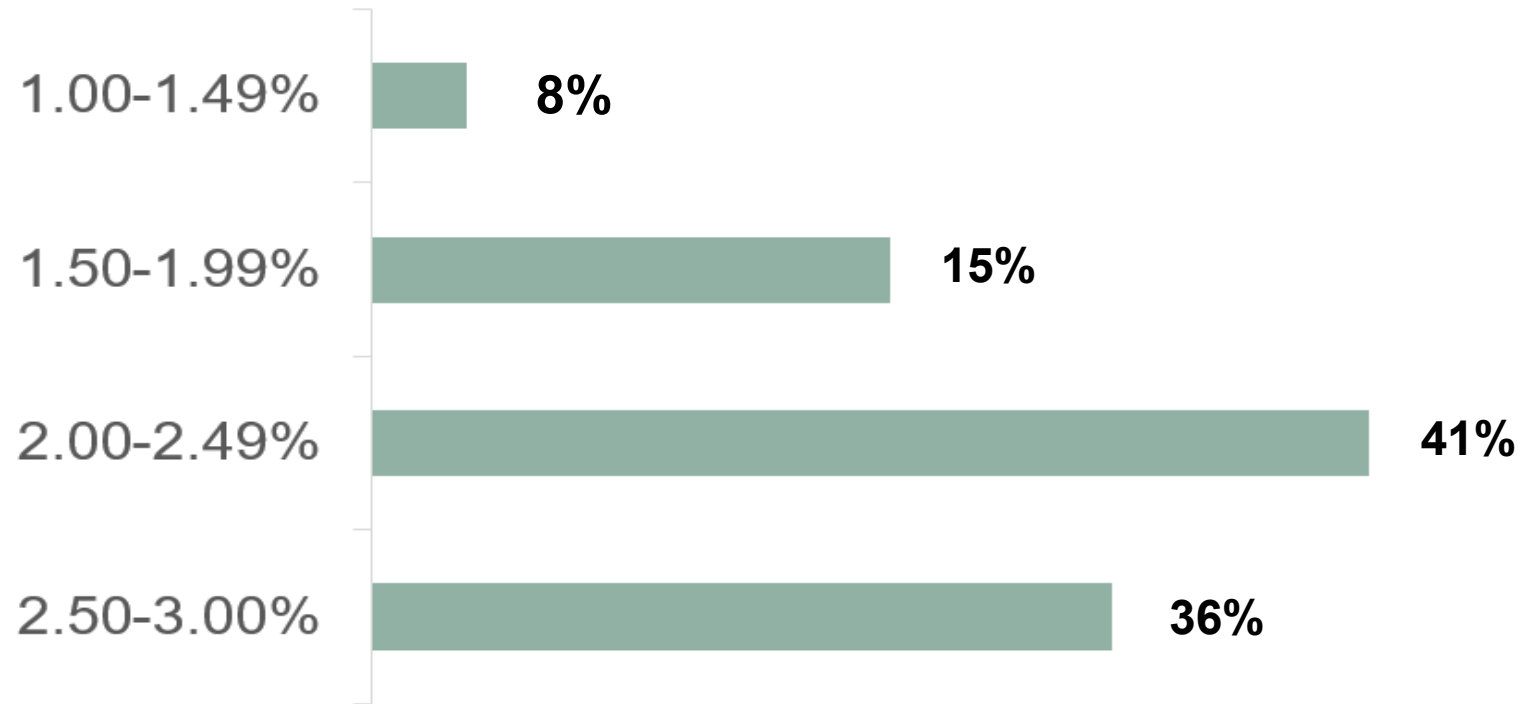
## Adopted Provisions



# Benefit Multiplier

The benefit multiplier is chosen by the employer

## Adopted Provisions



# Benefit Multiplier

## Comparison

<b>35-Year-Old New Hire</b>	<b>2.00% Multiplier</b>	<b>2.50% Multiplier</b>
Final Average Compensation (FAC-3)	\$78,855	\$78,855
Years of Service	25	25
<b>Multiplier</b>	2.00%	2.50%
<b>Monthly DB</b> (FAC x Years of Service x Multiplier)/12	<b>\$3,286</b>	<b>\$4,107</b>

# Key Takeaways and Resources



# Key Takeaways

- Use your AAV to better understand your plan's funding and financial needs
- Understand your plan's provisions
- Design a plan to meet your financial and workforce needs
- Take advantage of **MERS resources** to manage your retirement benefits package

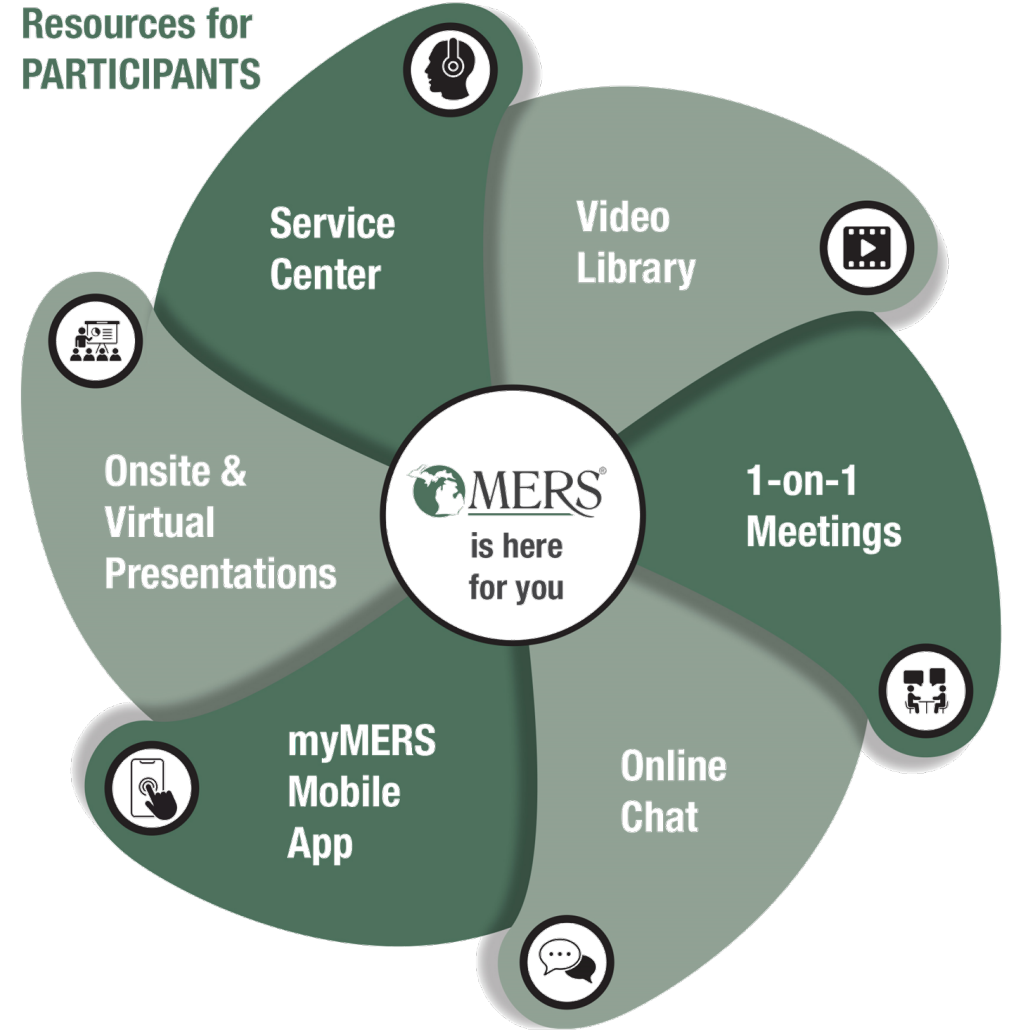


# Resources

## Resources for EMPLOYERS



## Resources for PARTICIPANTS



# MERS of Michigan

1134 Municipal Way  
Lansing, MI 48917

800.767.6377

[www.mersofmich.com](http://www.mersofmich.com)



*This publication contains a summary description of MERS' benefits, policies or procedures. MERS has endeavored to ensure that the information provided is accurate and up to date. Where the publication conflicts with the relevant Plan Document, the Plan Document controls.*

