MERS
Municipal Employees' Retirement System

2019

Annual Retirement Conference

Defined Benefit Mechanics – Part 2: Managing Unfunded Accrued Liability

Presented by:

Terra Langham & Marne Daggett

Agenda

- Recap of Pension Funding & Plan Design
  Part 1 – The Fundamentals Session
- How Unfunded Accrued Liability (UAL) Develops
- Amortizing UAL
- Strategies for Addressing UAL

Recap of Pension Funding & Plan Design Part 1 – The Fundamentals Session

Defined Benefit Fundamentals

- The benefit formula is comprised of three components:

Final Average Compensation × Service Credit × Benefit Multiplier = Annual Benefit

- Plans are pre-funded during the employee's career with contributions typically made by both the employee and employer

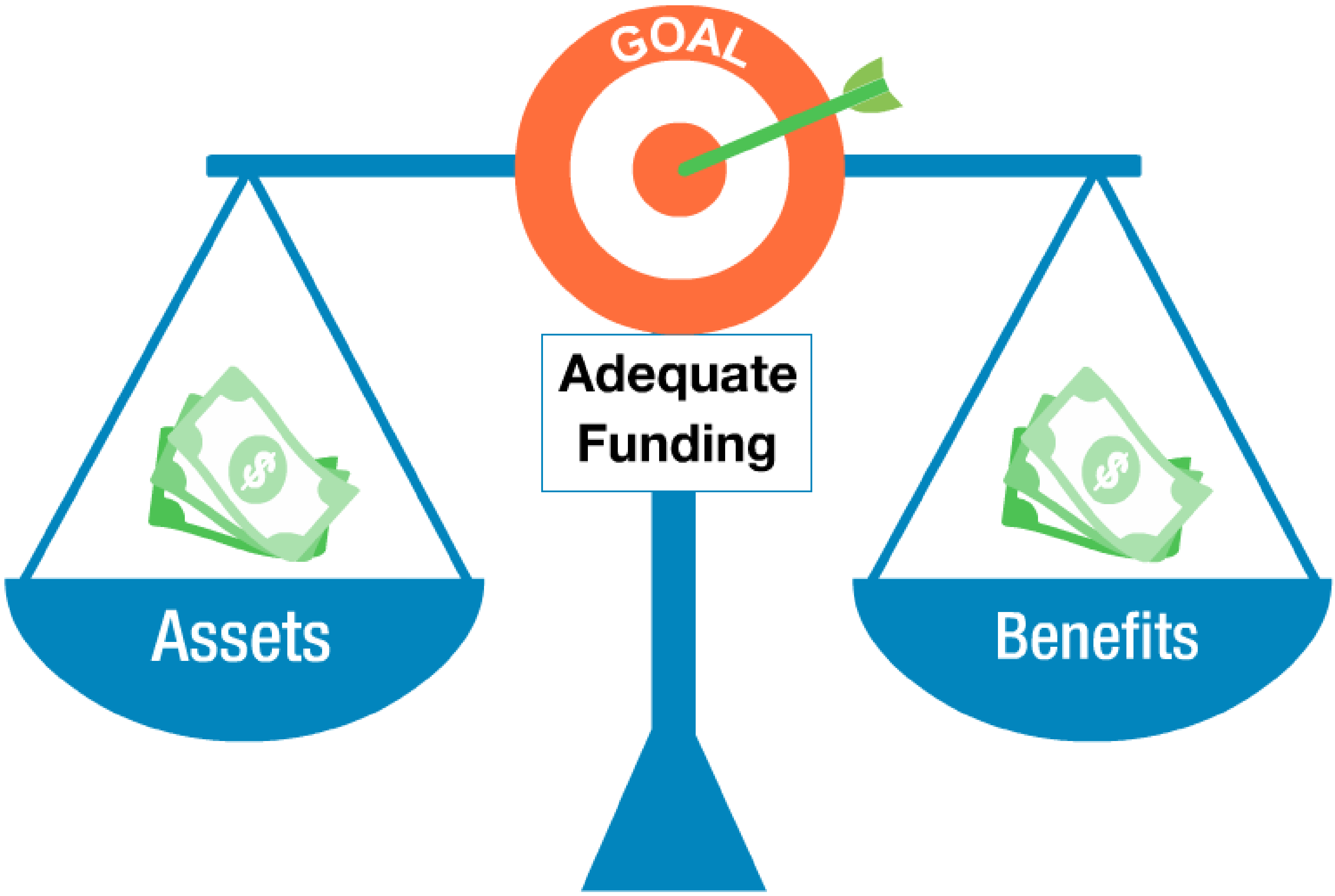
Defined Benefit Fundamentals, Cont.

- The cost of the plan is determined annually and provided in the Annual Actuarial Valuation
- The employer contribution is made of up two parts:

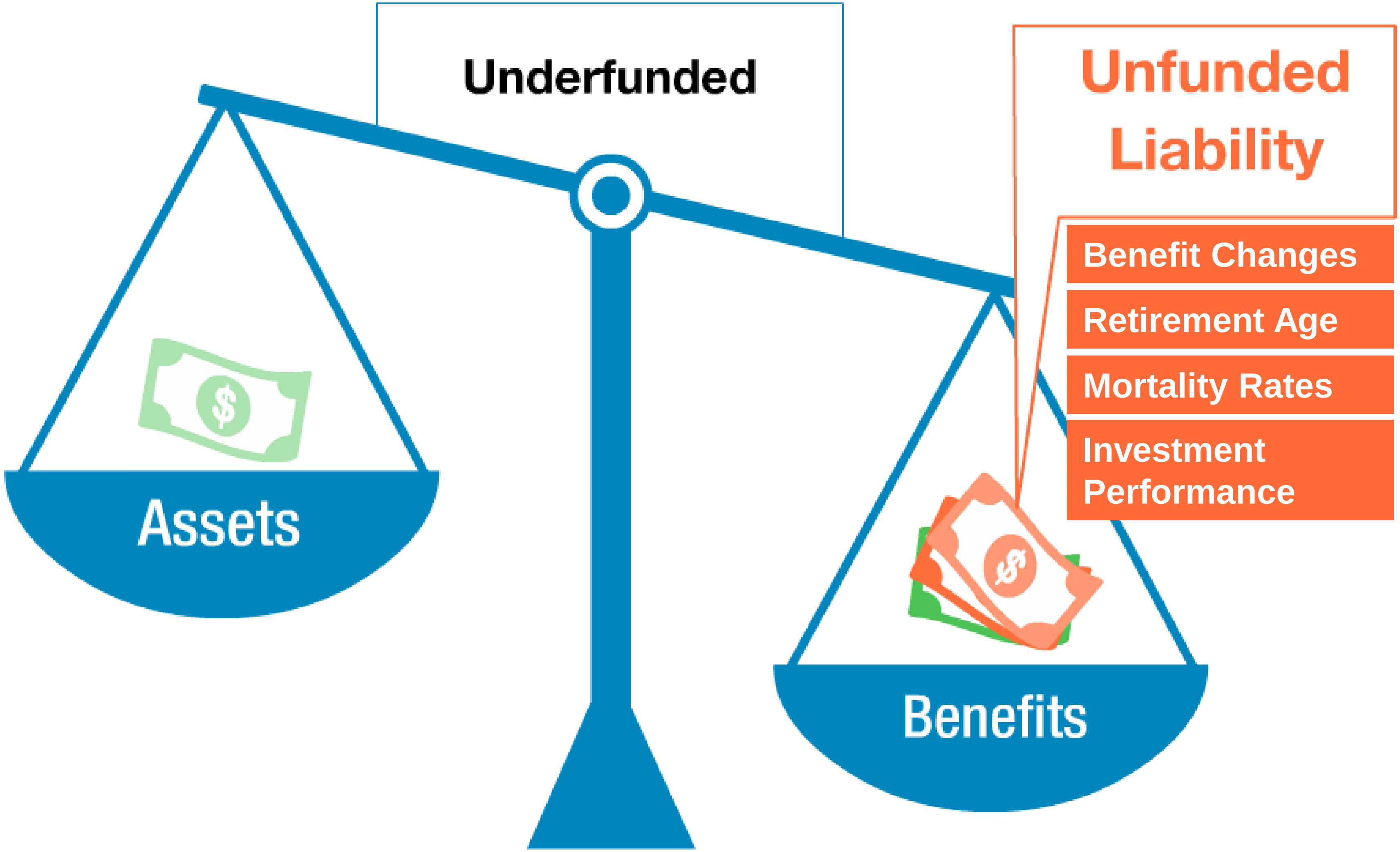
Employer Normal Cost + **Amortization Payment of the UAL** = **Employer Contribution**

How Unfunded Accrued Liability (UAL) Develops

A Fully Funded Plan



Unfunded Accrued Liability



What is Unfunded Liability?

Unfunded liability is the difference between a plan's estimated pension benefits and assets that have been set aside to pay for them

- The dollar value of the benefits is actuarially determined each year
- Unfunded liability is paid off over a period of years

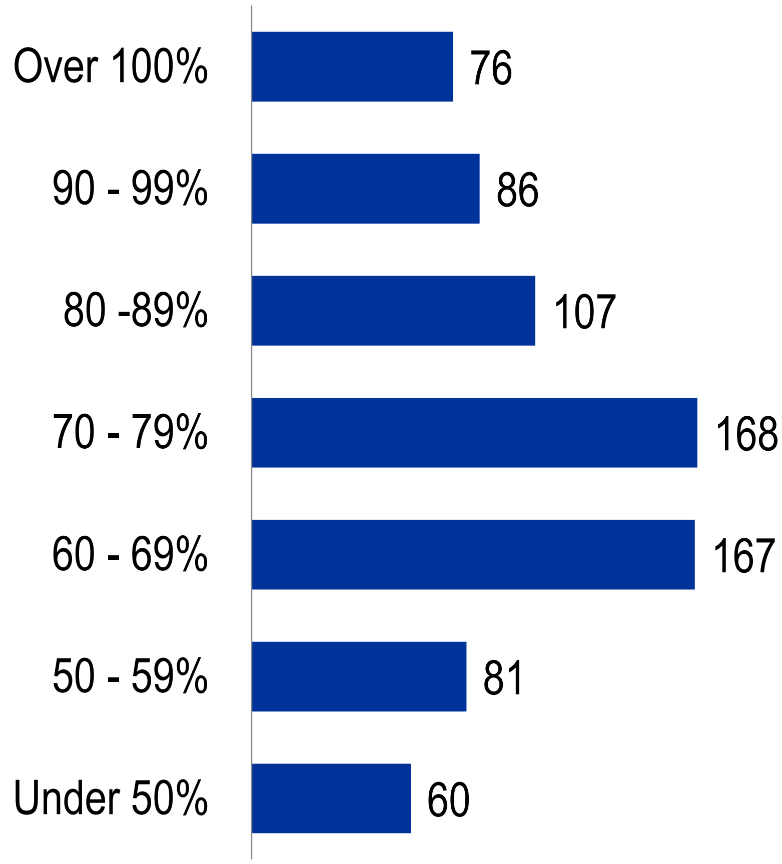
Employer Normal Cost + Amortization Payment of the UAL = Employer Contribution

Why Unfunded Liabilities Develop

- Actual experience is different than assumed (liabilities and assets)
  - Market performance
  - Demographic experience
  - Rates of retirement
- Benefit enhancements adopted and not entirely funded
  - Early retirement windows
  - Increased benefit multiplier
  - Cost of Living Adjustment (COLA)
- Higher than projected Final Average Compensation
- Granting prior service for benefits without funding

Distribution of Funded Percentage

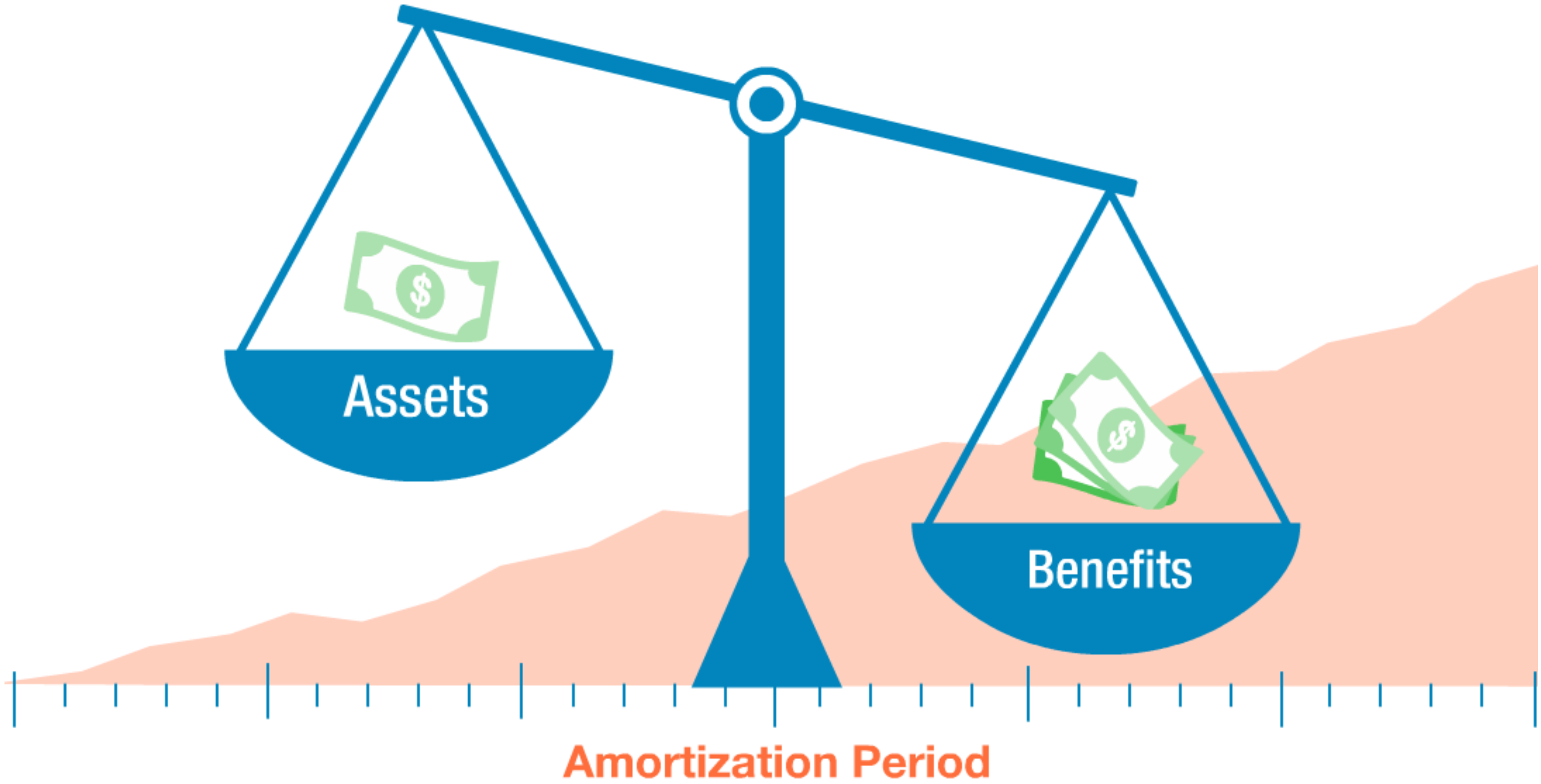
- Understanding a pension plan's funding progress should not be reduced to a single point in time
- Plans within MERS are on a schedule to eliminate legacy unfunded liabilities within 20 years
- Plans that require additional time to pay off existing unfunded liabilities can request a one-time extension of their amortization period



As of 12/31/2018

Amortizing UAL

Paying Down Unfunded Liability

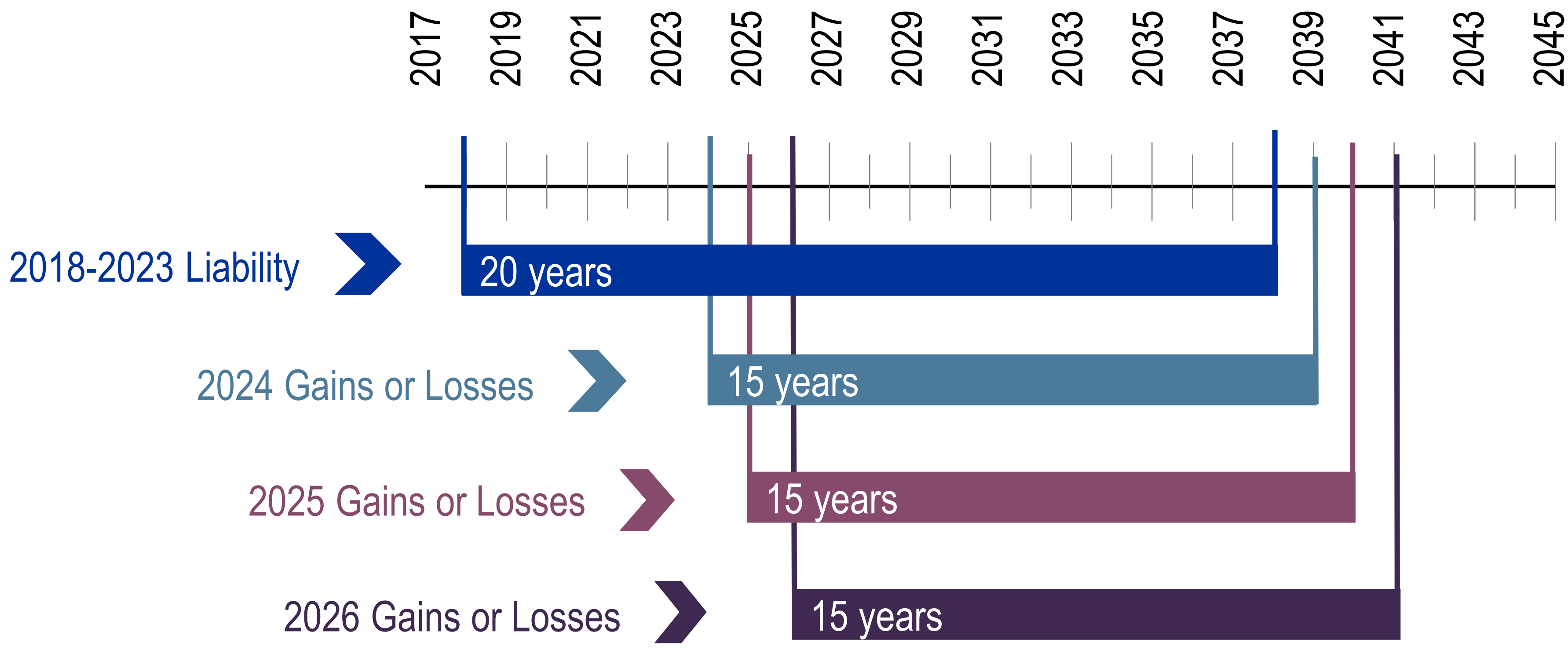


Unfunded liability is paid off over a fixed period of time known as the amortization period.

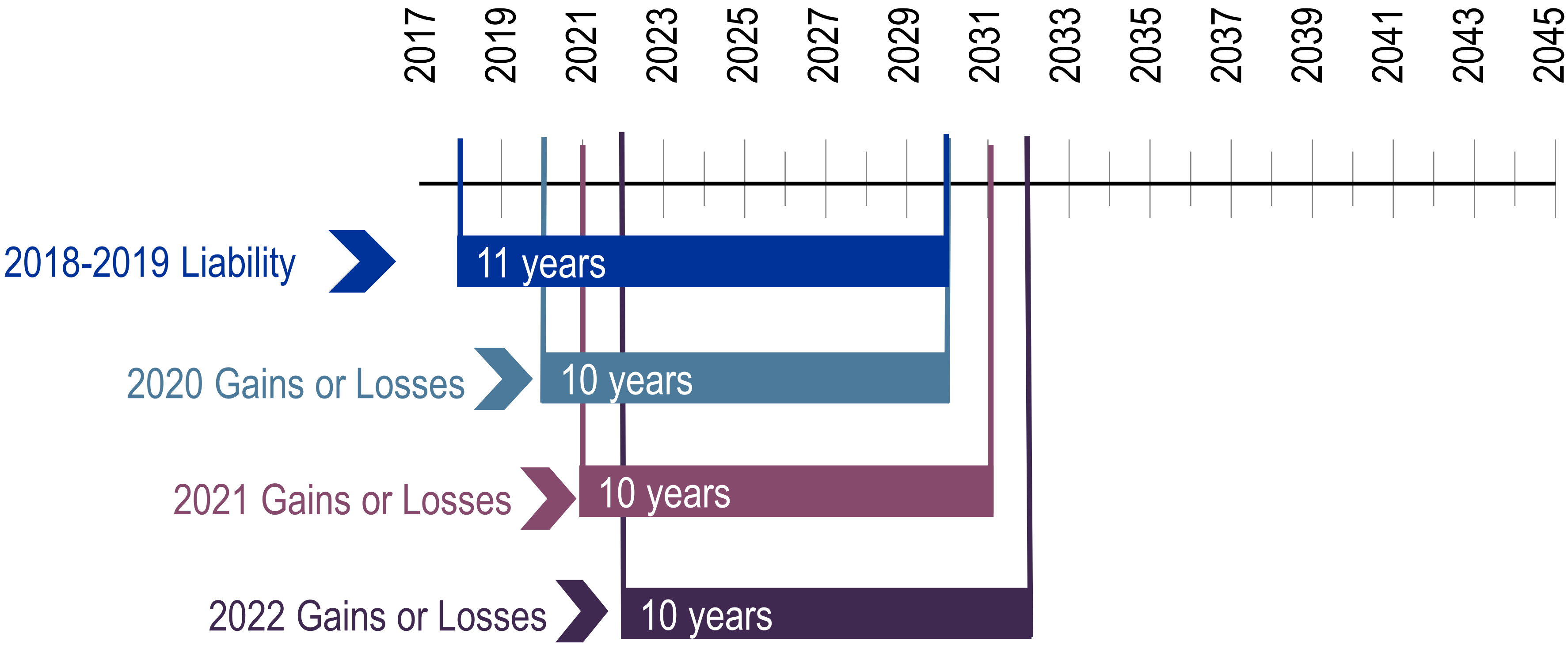
Fixed Amortization Policy

- The amortization policy sets the process for making payments on a plan’s unfunded accrued liability
- Historically, public pension plans like MERS, used a rolling amortization period of 30 years
- Since 2005, MERS has been gradually reducing the amortization period to ensure that pension costs of current employees do not shift onto future generations
- The amortization policy doesn’t make the benefits cheaper or more expensive; it simply impacts the pattern of contributions

Layered Amortization Example – Open



Layered Amortization Example – Closed



Amortization Period Extension

- Based on feedback from our customers, we recognize that some groups may need additional time
- Local units may request a sustainability analysis to determine if a one-time extension of the amortization schedule for ***existing*** UAL is possible
  - **Reminder**: Any ***new*** UAL will be layered based on the plan's original schedule
- Extending the amortization period defers costs into the future, resulting in higher long-term costs

Strategies for Reducing UAL

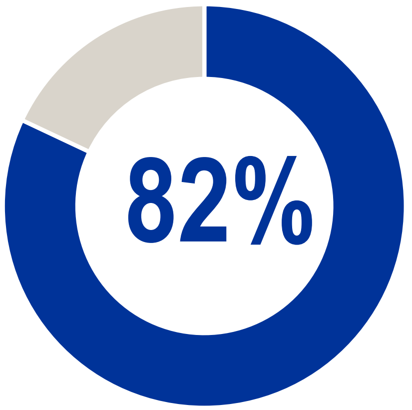
Reducing Pension UAL

There are two ways a municipality can close its unfunded liability gap

Increase assets to close the funding gap
- Funding strategies

Reduce or eliminate liability moving forward
- Plan design strategies

Members taking steps to reduce UAL in the past 5 years*



As of 12/31/2018

Considerations

Purpose	Why do you offer your employees a retirement plan?
Benefit	Do you understand the benefits you have in place today?
Cost	When comparing the costs of your current and proposed retirement plans, ensure you’re comparing apples to apples
Cash Flow Urgency	*Consider your budget goal* for both your current and proposed retirement plans

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Plan Design Strategies to Manage UAL

Strategy	Description	Trend 2015	2016	2017	2018	2019	Impact
Lower Benefit to New Hires	New hires receive a lower tier of Defined Benefit provisions	52	34	47	24	21	Existing employees not affected Reduces the liability for new hires
Bridged Benefits for Existing Employees	Benefits are offered in parts to existing employees Multiplier is lower going forward	16	45	27	40	18	Leaves earned benefits unchanged Reduces the liability for new hires and existing employees
Bridged Cost of Living Adjustment (COLA)	Eliminates the COLA on future service credit	n/a	n/a	n/a	8	8	Leaves earned benefits unchanged Reduces the liability for new hires and existing employees
Hybrid for New Hires	New hires receive a Hybrid Plan	21	15	12	13	0	Existing employees are not affected Reduces liability for new hires
Defined Contribution for New Hires	New hires receive a Defined Contribution Plan	37	39	73	56	27	Existing employees are not affected Eliminates liability for new hires
Defined Benefit Plan Freeze	Plan is frozen and all employees move to a new plan	n/a	7	3	2	4	Existing employees do not accrue additional service credit and FAC is frozen

Divisions that have adopted these strategies as of 8/31/2019.

Lower Benefit for New Hires

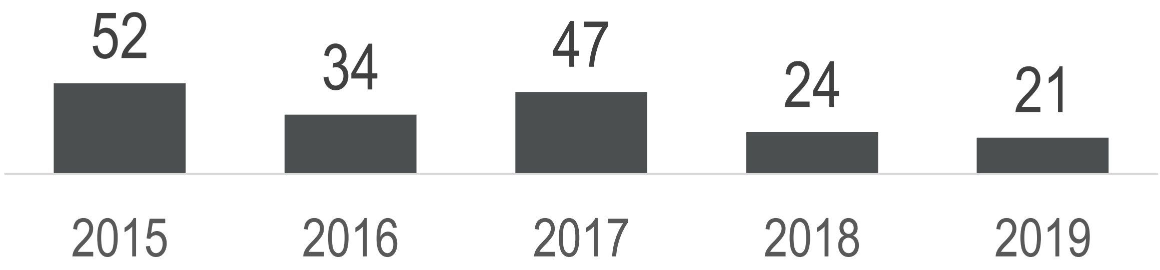
Action

- Lower Tiered Benefits for New Hires
  - Lower multiplier
  - Removed cost of living adjustments
  - Removed early retirement options
  - Increased vesting period
  - Increased retirement age

Impact

- Reduces the future liability accrual
- Future benefits will be lower, and therefore less expensive, than the previous benefits offered

Trend



* As of 8/31/2019.

Lower Benefit for New Hires, Cont.

- New hires are covered by a lower tier of either defined benefit or hybrid benefits
- Existing employees are not affected
- Reduces the liability for new hires

Anyone hired **before** 1/1/2020	Anyone hired **after** 1/1/2020
Tier I	**Tier II**
2.5% Benefit Multiplier	1.70% Benefit Multiplier
FAC 3	FAC 5
Vesting of 8 years	Vesting of 10 years
Early Retirement Age 55 with 15 years of service	Early Retirement Age 55 with 25 years of service
COLA	No COLA

Bridged Benefit for Existing Employees

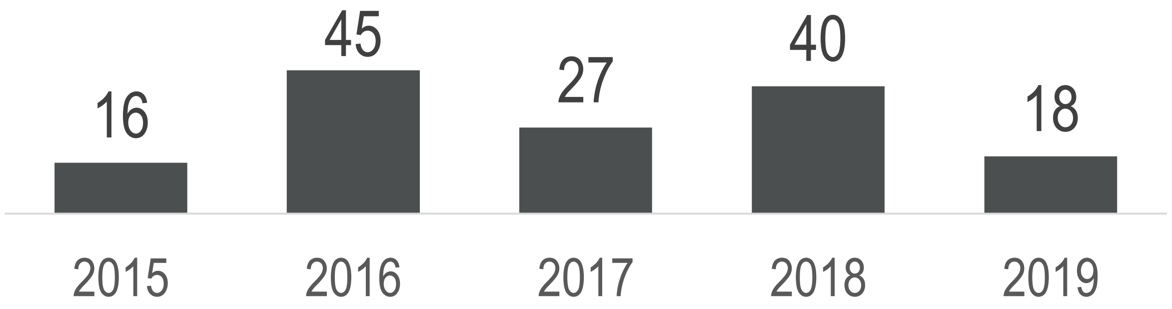
Action

- Bridged benefit for active employees

Impact

- Active employees accrue liability at a lower rate and may reduce existing liability
- New hires receive the reduced multiplier

Trend



* As of 8/31/2019.

Bridged Benefits

- Benefits are offered in parts to existing employees
- Multiplier is lowered on a going-forward basis
- Leaves earned benefits unchanged
- Reduces the liability for new hires and existing employees

Part 1

FAC (may choose frozen FAC) × Service Credit × Original Benefit Multiplier = $ Original Benefit

\+

Part 2

Final Average Compensation × Service Credit × New Benefit Multiplier = $ New Benefit

$ Total Retirement Benefit

Bridged COLA

Action

- Eliminates the COLA on future service credit
- COLA is only applied to portion of benefit earned prior to bridge

Impact

- Leaves earned benefits unchanged
- Reduces the liability for new hires and existing employees

Trend

* As of 8/31/2019.

How a Bridged COLA Works

- Eliminates the COLA on future service credit
- COLA is applied to COLA Base only, which is calculated with frozen FAC
- Leaves earned benefits unchanged
- Reduces the liability for new hires and existing employees

COLA Base is Calculated as of the Bridge Date

Frozen FAC × Service Credit × Benefit Multiplier = COLA Base

Calculating the Annual COLA

COLA Base × COLA % = Annual COLA

Hybrid Plan for New Hires

Action

- Hybrid Plan for new hires

Impact

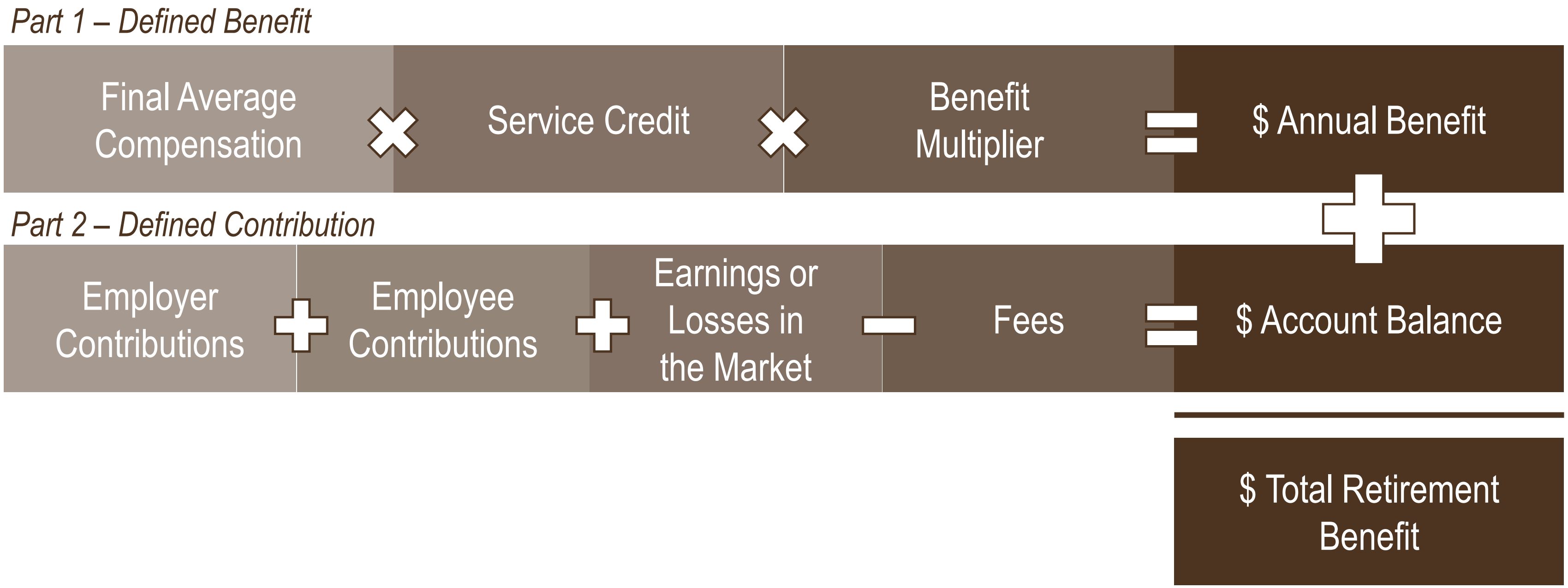
- Reduces future accrual of liabilities
- Future benefits will be lower, and potentially less expensive, than the previous benefits

Trend

* As of 8/31/2019.

Hybrid Plan for New Hires, Cont.

- New hires, rehires and transfers are covered by the Hybrid Plan
  - Active employees may be given a one-time option to convert if municipality meets funding requirements
- Actuarial report is needed to calculate the contributions for the Defined Benefit portion of the Hybrid Plan



Example

- A municipality is adopting a Hybrid Plan for new hires
- The employer's Normal Cost is **currently 9.81%**

Defined Benefit Plan

2.25% Multiplier
FAC 3
10 year vesting
9.81% Normal Cost

Hybrid Plan

Part I	1.50% Multiplier
	FAC 3
	6 year vesting
	6.27% Normal Cost
Part II	Employer contribution 1%
	Employee contribution 5%
	6 year vesting

- The new cost for the municipality is 6.27% Normal Cost for the Defined Benefit portion, plus the 1% employer contribution to the Defined Contribution portion, **totaling 7.27%**
- This reflects a **savings of 2.54%** of payroll

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Defined Contribution Plan for New Hires

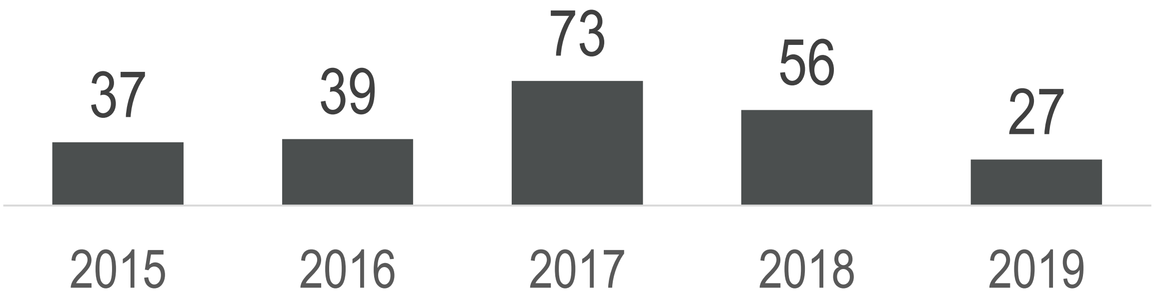
Action

- Defined Contribution Plan for new hires

Impact

- Eliminates future accrual of liabilities for new hires

Trend



* As of 8/31/2019.

Defined Contribution Plan for New Hires, Cont.

- New hires, rehires and transfers are covered by the Defined Contribution Plan
  - Active employees may be given a one-time option to convert
- A projection study is required
  - Shows the long-term cost of the current benefit plan compared to the long-term cost of the proposed benefit plan
  - Shows how employer contributions would be affected 20 years into the future
- With a fixed amortization period in place, a sustainability analysis for closing the Defined Benefit Plan will determine proper amortization period and ensure adequate funding

Comparing Plan Costs

- When closing a Defined Benefit Plan, the accrued benefits of the active participants in that plan remain and will continue to accrue
  - You will continue to contribute a Normal Cost payment, plus any payment toward UAL, until the last retiree/beneficiary stops drawing a benefit
  - The payment toward UAL will not go away by changing plans
- Implementing Defined Contribution Plan for new hires is not an immediate cost savings
- To compare long-term cost savings, you compare the *Normal Cost* of the Defined Benefit Plan (found on Table 1 of your AAV) to your *proposed employer contribution* of the Defined Contribution Plan
- Once accrued benefits of the past have been fully funded, you will only contribute the Normal Cost

Defined Benefit Plan Freeze

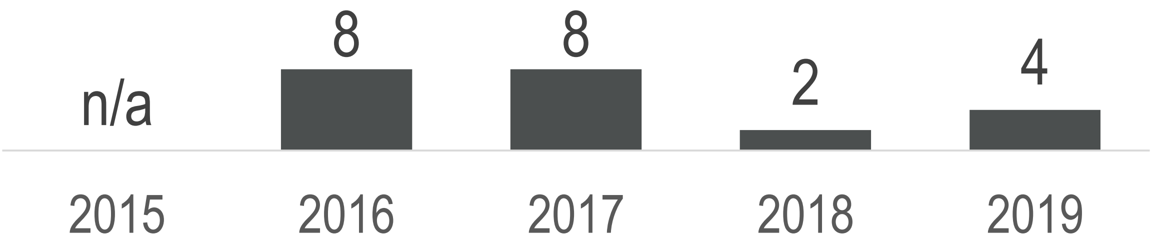
Action

- Defined Benefit Plan freeze

Impact

- ALL employees transition to a new plan type
  - Do not accrue additional service credit
  - FAC is frozen
  - Employees may opt to convert the value of existing service into Defined Contribution Plan
- Eliminates the Normal Cost of the plan
- Does not eliminate UAL – could still increase

Trend



* As of 8/31/2019.

Funding Strategies to Manage UAL

Strategy	Description	Trend 2015	2016	2017	2018	2019	Impact
Cost Sharing for Existing Employees[1]	Employees contribute to help fund the overall cost of the plan	97	136	169	130	96	Reduces the employer cost, but does not affect total cost or the plan's unfunded liability
Voluntary Contributions[2]	Additional payments made into plan toward unfunded liability	277	320	421	442	414	Reduces existing liability Extra dollars are invested and recognize market returns
Bonding[3]	Municipalities may bond for all or a portion of their unfunded accrued liabilities — pension or OPEB	1	3	2	6	0	Proceeds of the bond are deposited and potentially will fully fund the UAL No guarantee that future unfunded liabilities may not occur

[1]Divisions that have adopted this strategy as of 8/31/2019.

[2]Municipalities that have adopted this strategy as of 7/31/2019.

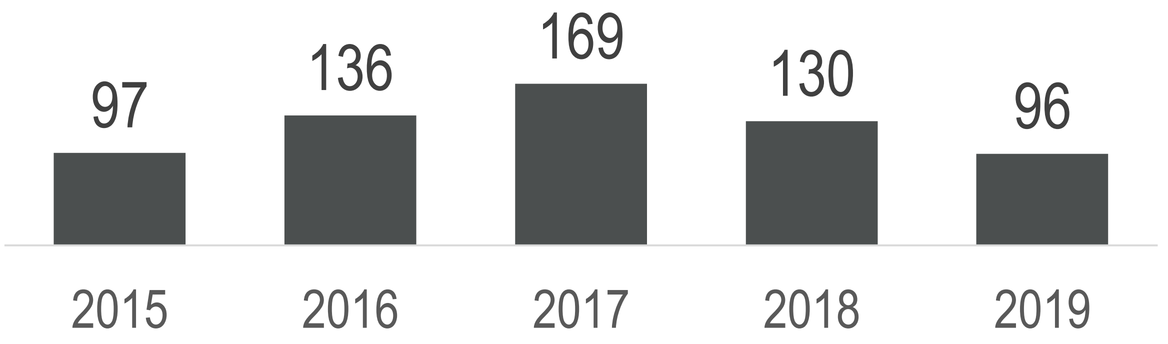
[3]Municipalities that have adopted this strategy as of 8/31/2019.

Cost Sharing with Existing Employees

Action
- Employees contribute to help fund the overall cost of the plan

Impact
- Reduces the employer cost, but does *not* affect total cost or the plan's unfunded liability

Trend



* As of 8/31/2019.

Voluntary Contributions

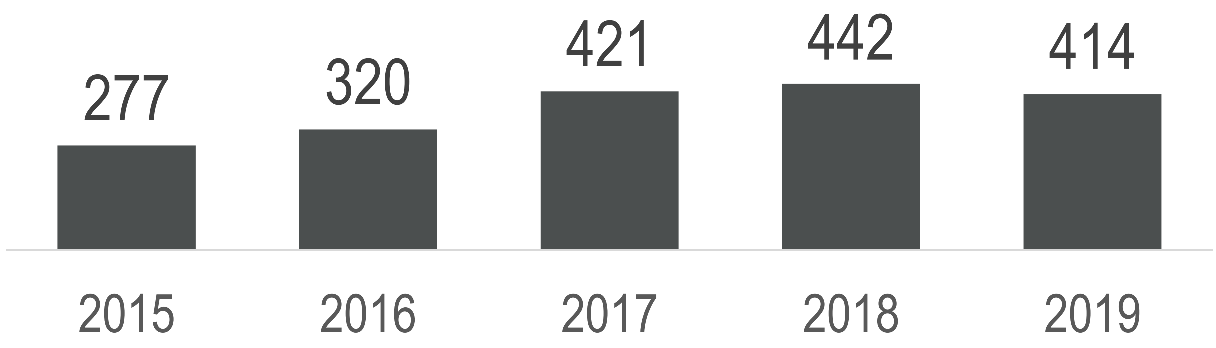
Action

- Contribute above ARC
  - Extra percentage above minimum
  - Lump sum payment

Impact

- Reduces unfunded liability
- Extra dollars are invested and have ability to recognize market returns

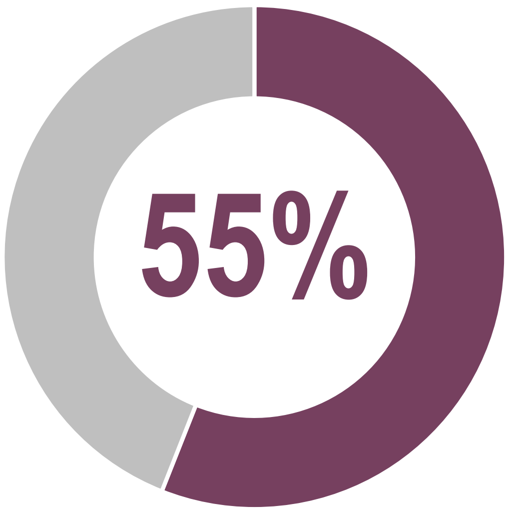
Trend



* As of 7/31/2019.

Voluntary Contributions, Cont.

- More than half of customers are making additional, voluntary contributions
- We've recently introduced additional flexibility in how voluntary contributions are applied, including:
  - Allocating additional assets to specific divisions or equally distributed
  - Applying the additional assets to pay down UAL, or to reduce future contributions



Customers Making Additional Contributions in 2019

Surplus Divisions

Apply assets directly to UAL by establishing a surplus division

Additional Voluntary Contributions to the Plan –
$25,000/year for 15 years increases the funding level while decreasing the ARC

Funded Percentage	ARC	Additional Contributions to Plan	Total Annual Employer Contribution
56%	$114,000	$25,000	$139,000
56%	$119,000	$25,000	$144,000
57%	$124,000	$25,000	$149,000
59%	$130,000	$25,000	$155,000
62%	$133,000	$25,000	$158,000
65%	$136,000	$25,000	$161,000
67%	$139,000	$25,000	$164,000
70%	$141,000	$25,000	$166,000
72%	$144,000	$25,000	$169,000
74%	$147,000	$25,000	$172,000
76%	$150,000	$25,000	$175,000
79%			
81%			
83%			
85%			
87%			
89%			
91%			
93%			

87%	$168,000	$0	$168,000
89%	$174,000	$0	$174,000
91%	$180,000	$0	$180,000
93%	$187,000	$0	$187,000
94%	$194,000	$0	$194,000
96%	$201,000	$0	$201,000
98%	$113,000	$0	$113,000
100%	$117,000	$0	$117,000
100%	$122,000	$0	$122,000
100%	$127,000	$0	$127,000

Plan is fully funded in 23 years.

Additional Voluntary Contributions to a Surplus Division –
$25,000/year applied directly to UAL for 15 years increases the funding level ***without*** decreasing the ARC

Funded Percentage	ARC	Additional Contributions to Surplus Division	Total Annual Employer Contribution
56%	$114,000	$25,000	$139,000
56%	$121,000	$25,000	$146,000
57%	$128,000	$25,000	$153,000
59%	$136,000	$25,000	$161,000
62%	$141,000	$25,000	$166,000
65%	$146,000	$25,000	$171,000
68%	$152,000	$25,000	$177,000
71%	$157,000	$25,000	$182,000
74%	$163,000	$25,000	$188,000
76%	$169,000	$25,000	$194,000
79%	$175,000	$25,000	$200,000

95%	$210,000	$0	$210,000
98%	$218,000	$0	$218,000
102%	$226,000	$0	$226,000
105%	$234,000	$0	$234,000
108%	$243,000	$0	$243,000
111%	$252,000	$0	$252,000
115%	$261,000	$0	$261,000
118%	$118,000	$0	$118,000
122%	$122,000	$0	$122,000
123%	$127,000	$0	$127,000

Plan is fully funded in 18 years.

So far this year, more than ***240 groups*** within MERS have made contributions to surplus divisions

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Bonding

Action

- Municipalities may bond for all or a portion of their unfunded accrued liabilities

Impact

- Bond proceeds are deposited and may fully fund the accrued liability
- No guarantee that future unfunded liabilities won’t occur

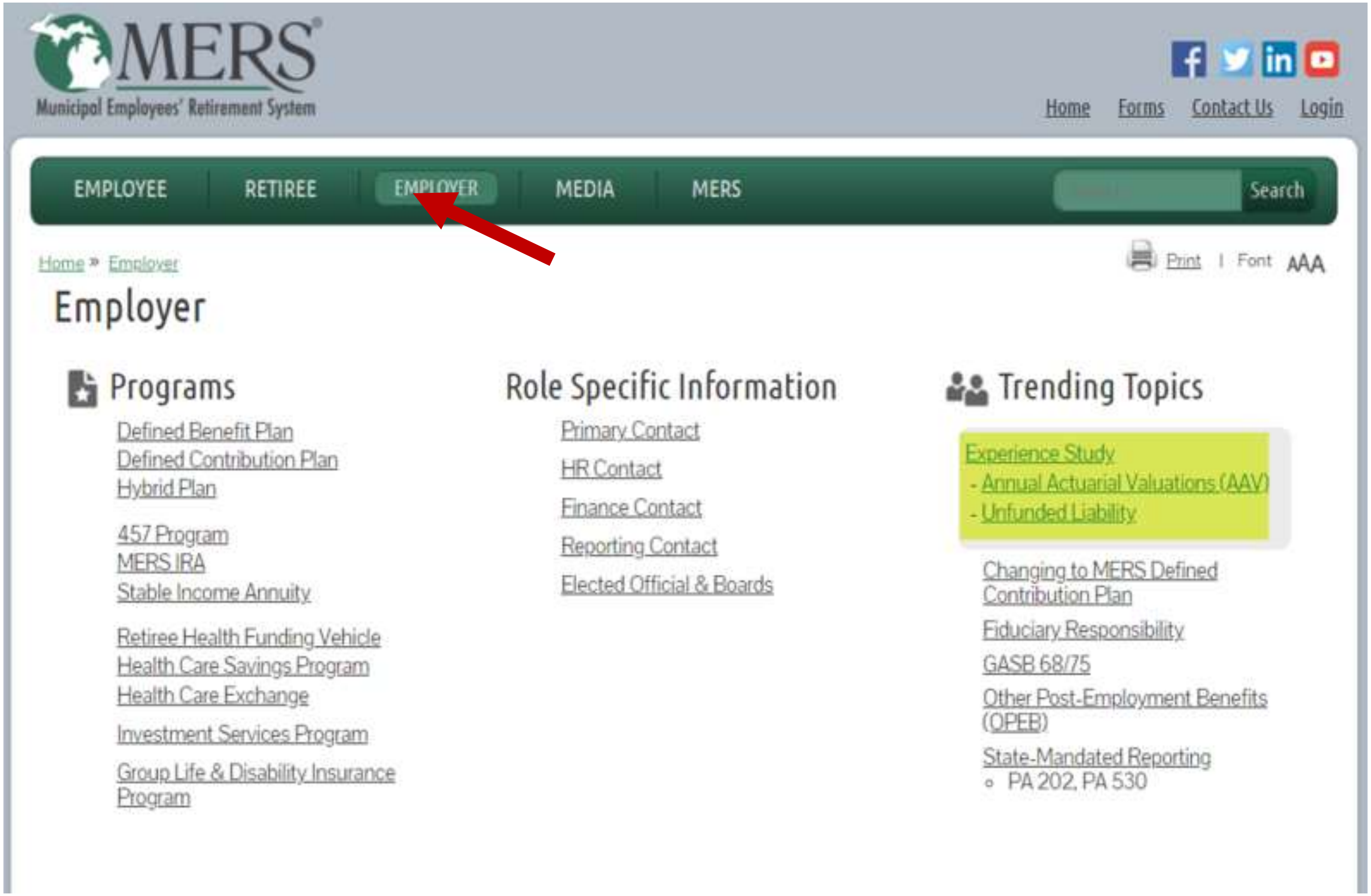
Trend

* As of 8/31/2019.

Bonding Requirements

- Revised Municipal Finance Act was amended in 2018:
  - Extend the eligibility period
  - Allow single-A rated municipalities to issue bonds
  - Additional transparency
- Must close plan to new employees
- Bond amount cannot exceed the difference between 95% of the actuarial value of liabilities and 100% of the actuarial or market value of assets
- To learn more about bonding requirements and hear from communities who have bonded, attend the *Considering Bonding?* panel discussion

Resources



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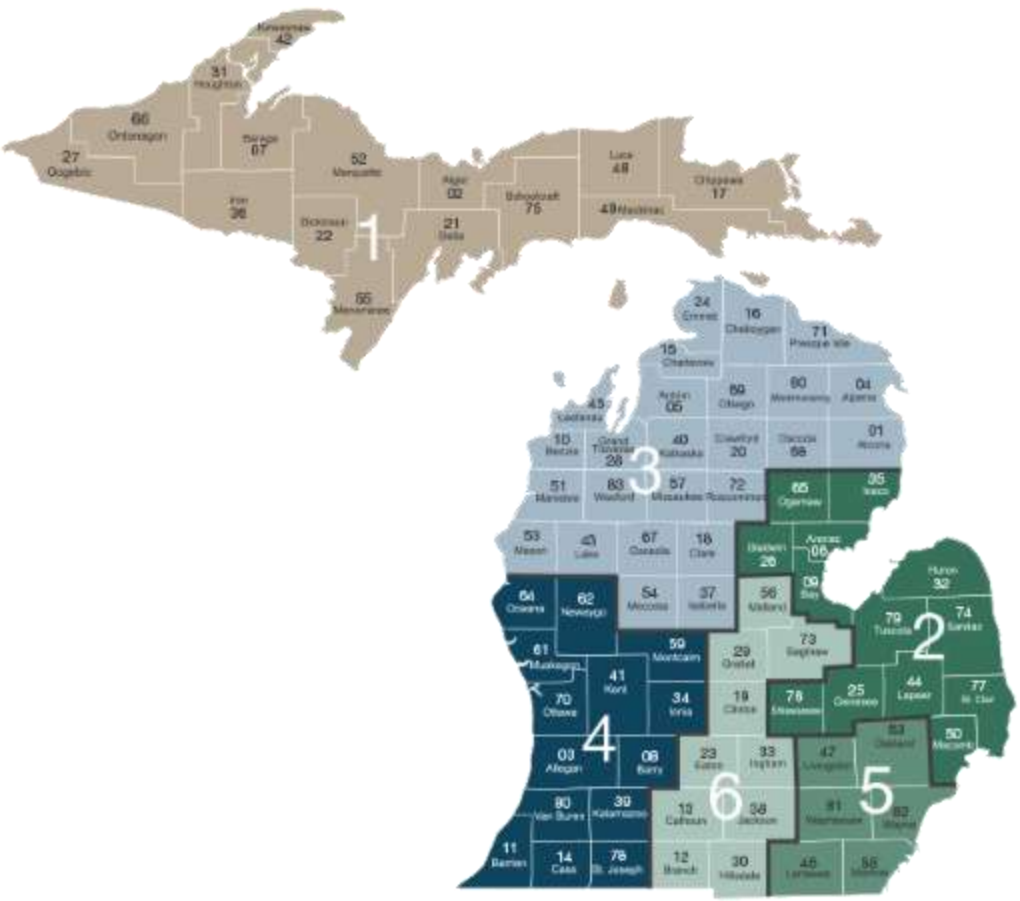
Investment Services Program
Group Life & Disability Insurance Program
Role Specific Information
Primary Contact
HR Contact
Finance Contact
Reporting Contact
Elected Official & Boards
Trending Topics
Experience Study
- Annual Actuarial Valuations (AAV)
- Unfunded Liability
Changing to MERS Defined Contribution Plan
Fiduciary Responsibility
GASB 68/75
Other Post-Employment Benefits (OPEB)
State-Mandated Reporting
PA 202, PA 530

MERS Regional Teams



- Our Regional Teams provide local service throughout the state
- Your team consists of four members:
  - Regional Manager
  - Benefit Plan Advisor
  - Benefit Plan Coordinator
  - Benefit Education Specialist

Contacting MERS of Michigan

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM

1134 Municipal Way
Lansing, MI 48917

800.767.MERS (6377)

www.mersofmich.com