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# 2023 Budget Presentation

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Employes' Retirement System

October 5, 2022

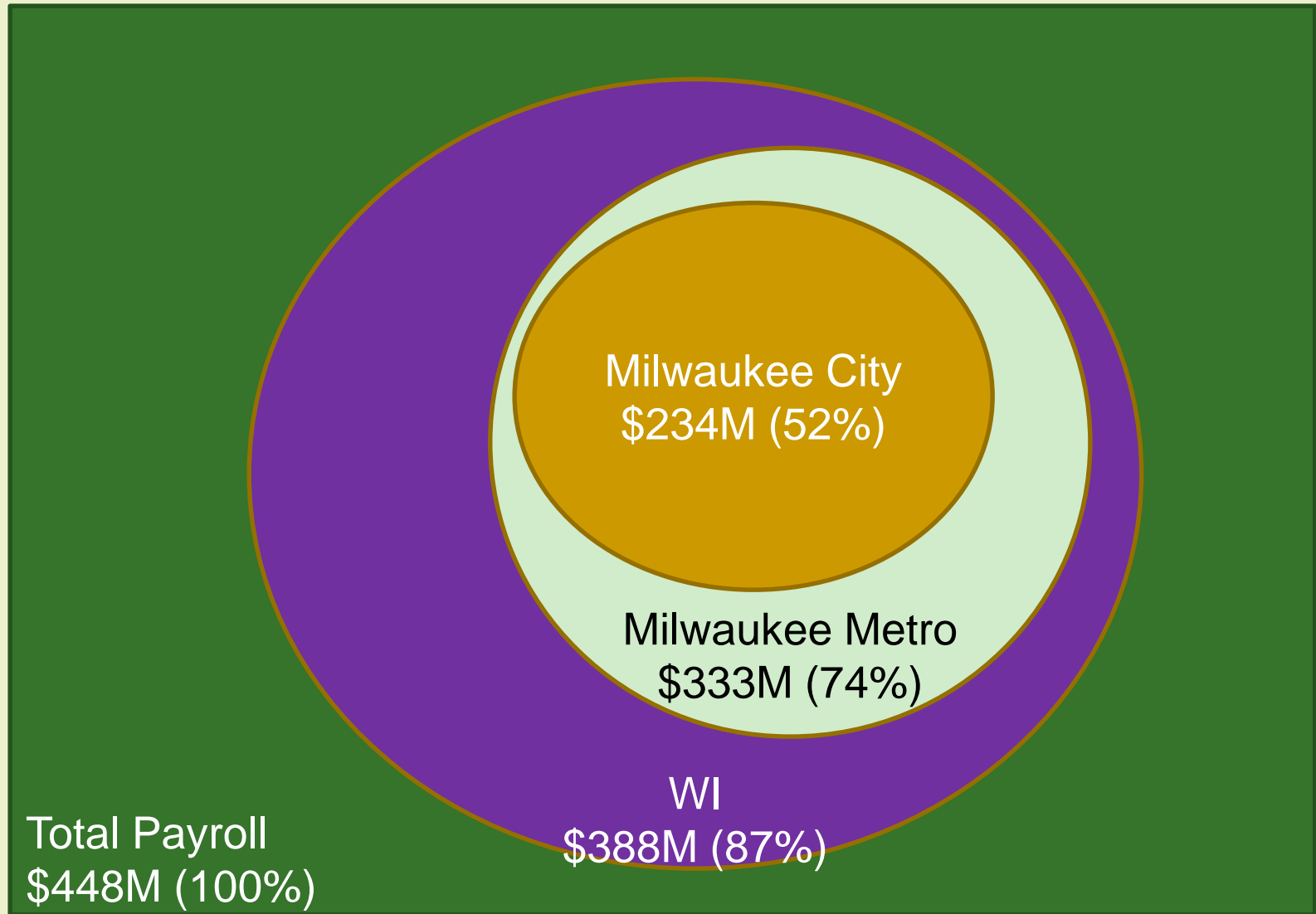
# ERS Staff Demographics

Demographic	Female	Male	Total
African American	36%	2%	38%
Asian	0%	9%	9%
Hispanic	2%	2%	4%
White	18%	31%	49%
<b>Total</b>	<b>56%</b>	<b>44%</b>	<b>100%</b>

Census.gov - Milwaukee Statistics

<b>Gender</b>		
	Male	48.3%
	Female	51.7%
<b>Race and Hispanic Origin</b>		
	White alone, percent	42.0%
	Black or African American alone, percent(a)	38.8%
	American Indian and Alaska Native alone, percent(a)	0.5%
	Asian alone, percent(a)	4.6%
	Native Hawaiian and Other Pacific Islander alone, percent(a)	0.0%
	Two or More Races, percent	5.6%
	Hispanic or Latino, percent(b)	19.4%
	White alone, not Hispanic or Latino, percent	34.0%

# Pension Payments by Annuitant Geographic Area



# ERS Summary Information

ERS Member Population	General	Police	Fire	Total
Members	7,768	1,631	695	10,094
Pensionable Payroll Size	\$ 369.31	\$ 148.84	\$ 61.20	\$ 579.35

Retirees	All Groups
Count	13,758
Total Annual Benefits	\$ 434.38

Employer Contribution Rates	General	Police	Fire
Actuarially Determined	15.86%	44.70%	47.91%
Stable Policy	7.48%	25.22%	26.83%

**Total Actuarial Accrued Liability**      **\$ 6,875.93**

## Unfunded Actuarial Accrued Liability

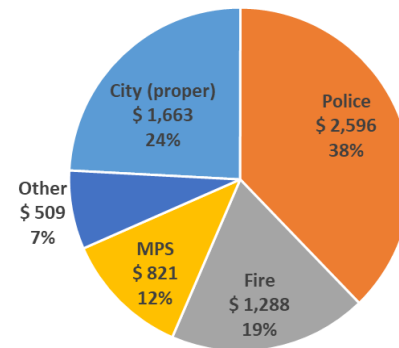
Based on Actuarial Value of Assets	\$ 1,140.94
Based on Market Value of Assets	\$ 444.57

## Funded Ratio

Actuarial Value of Assets	83.41%
Market Value of Assets	93.53%

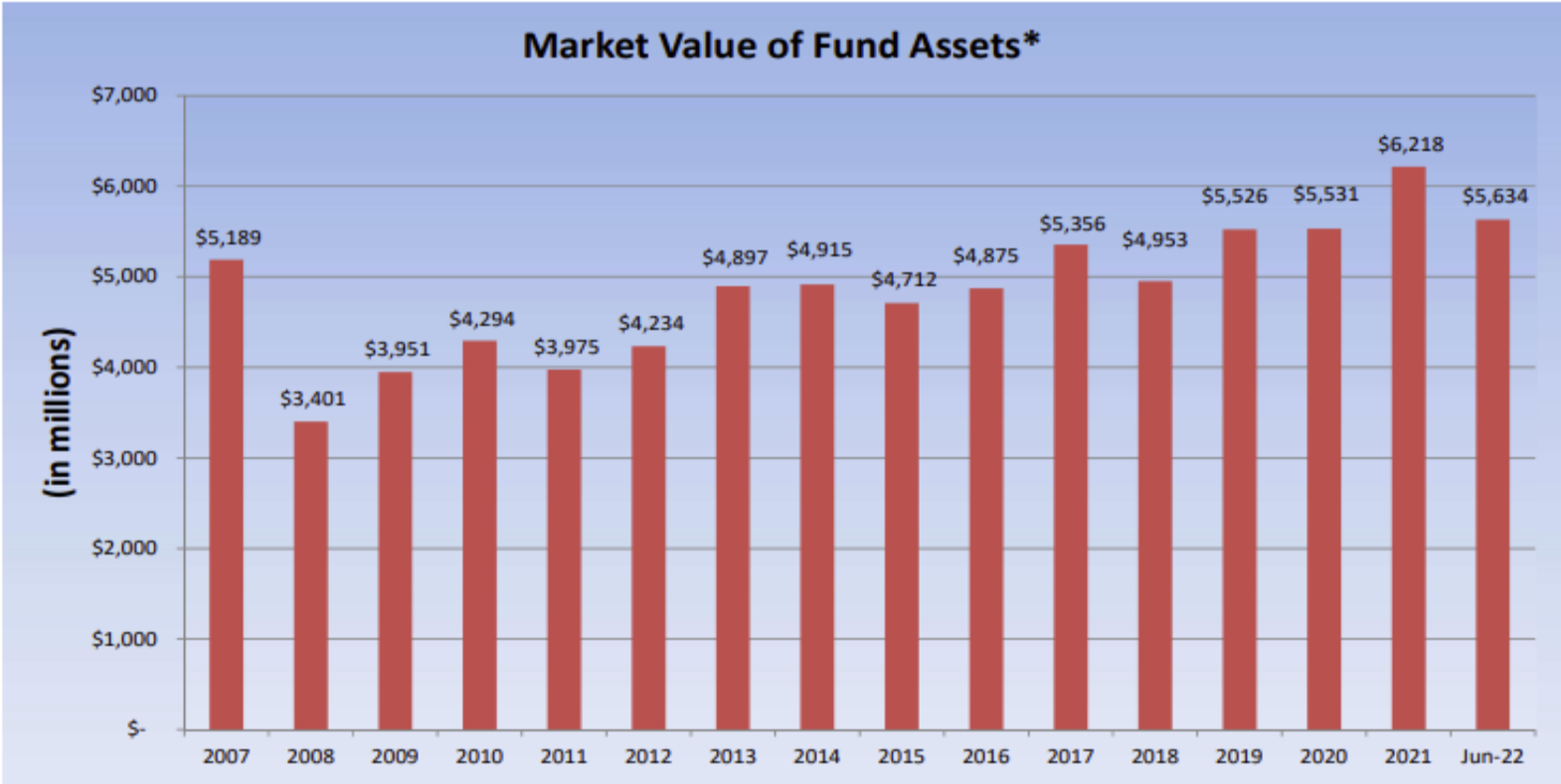
(all amounts in \$ millions)

Total Actuarial Accrued Liability



# Fund Value of Assets: 2007 – June 30, 2022

(Year Ended Dates Reflect 12/31 Fund Values)



Most recent Actuarial valuation projects benefit payments to total \$5.3 billion in next 10 years.

<b>Benefit Payments</b>	\$5.0 billion
<b>Expenses</b>	\$254 million
<b>Contributions</b>	\$1.4 billion
<b>Investment Gain</b>	\$4.3 billion

Benefit Payments, Expenses, Contributions, and Investment Gain amounts are calculated using estimates of cash flows into and out of the Fund. These amounts are not audited and may not tie to CMERS Financial Statements.

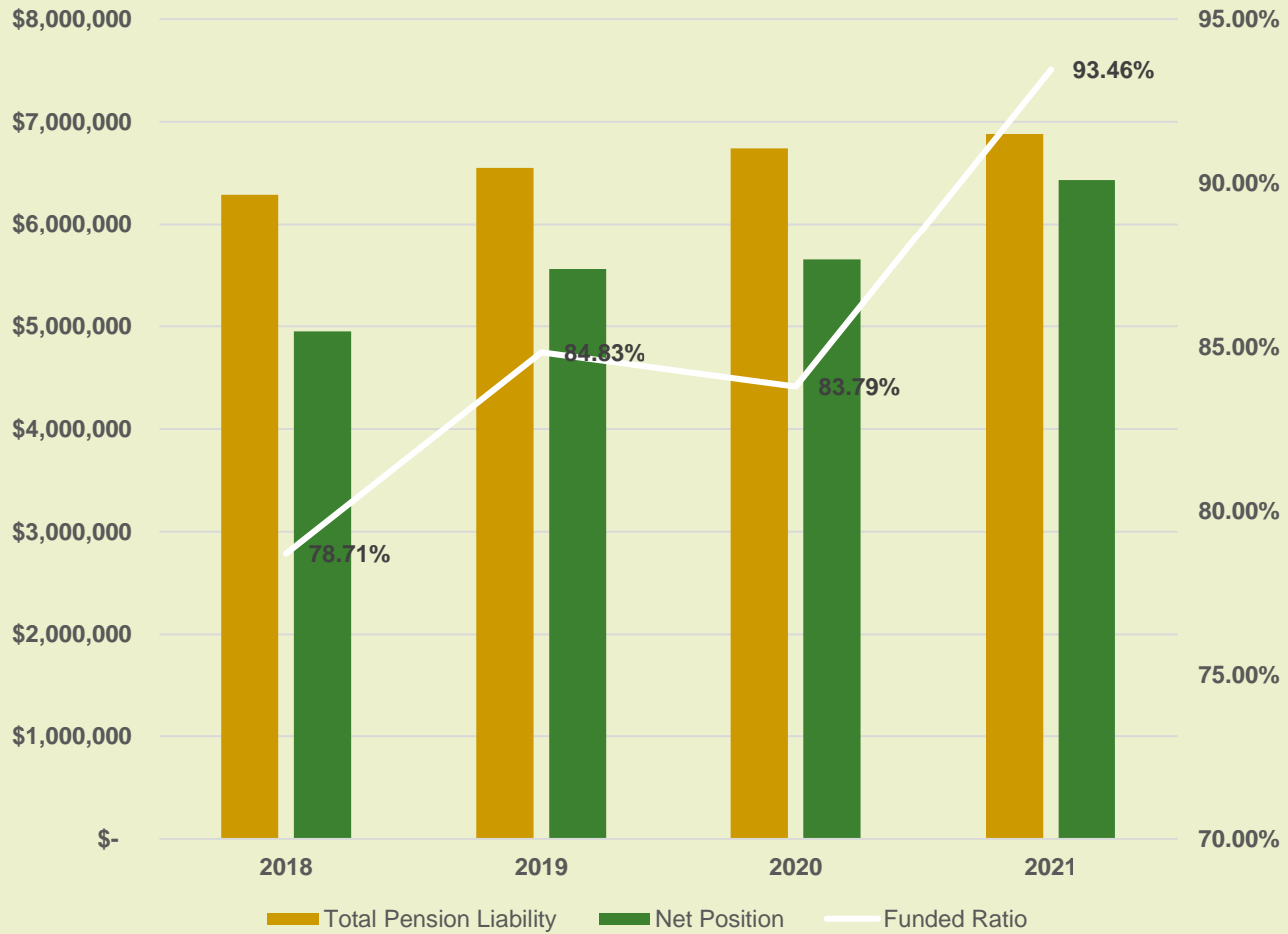
14 1/2 Year Estimates (1/1/2008 - 6/30/2022)



\*Private Equity and some Real Estate values are reported on a 1-quarter lag.

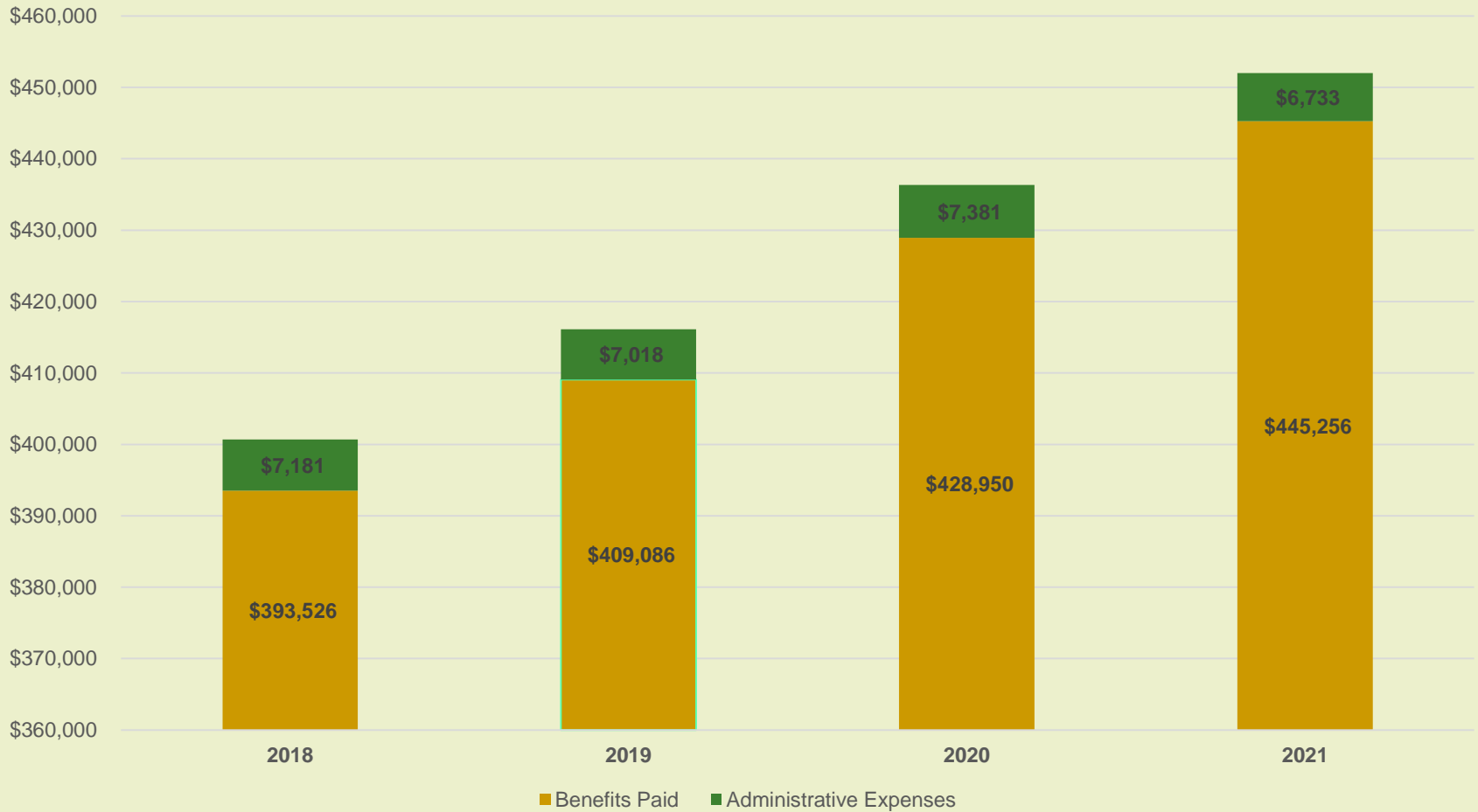


# CMERS' Funded Status from 2018 – 2021



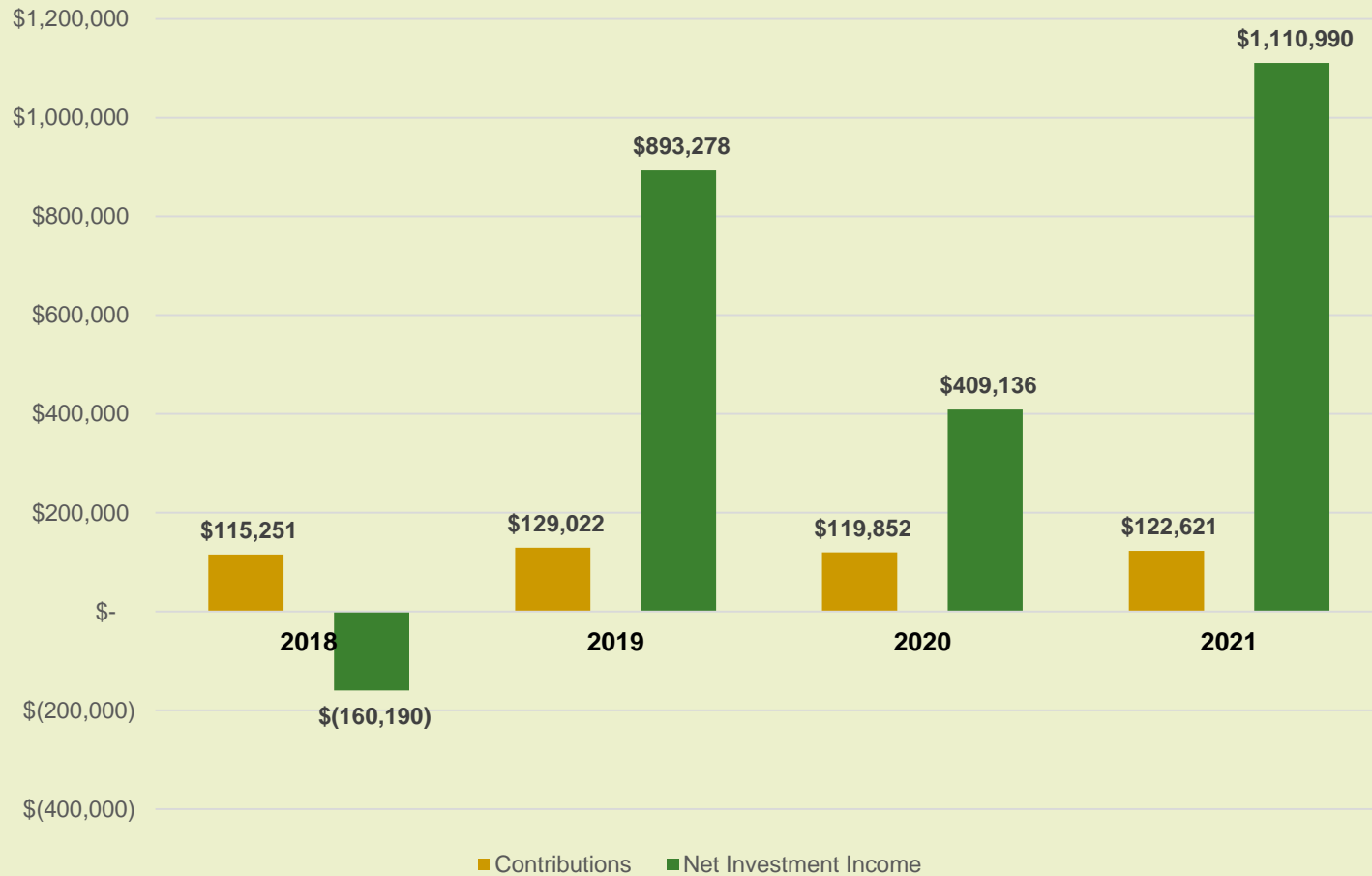
# Benefit Payments Increased by 13% From 2018 - 2021

## CMERS Expenses (in thousands)



# Investment Income is 82% of CMERS' Revenue from 2018 - 2021

CMERS Revenues (in thousands)



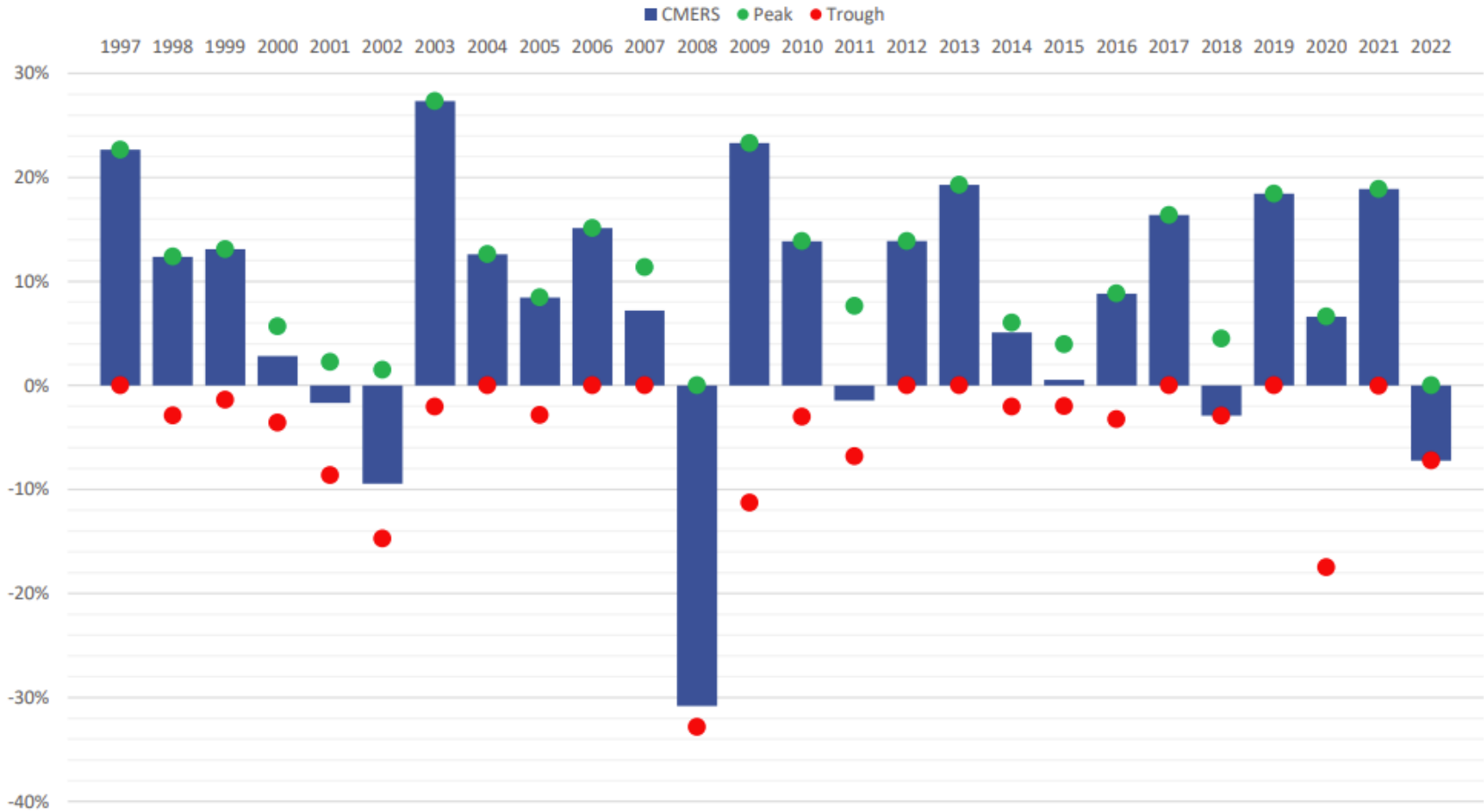


## Performance vs Callan Public Fund Sponsor Database (Gross)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	(6.78)	(4.04)	8.09	8.06	8.82
25th Percentile	(8.15)	(7.13)	7.03	7.28	8.32
Median	(9.71)	(9.35)	5.85	6.40	7.79
75th Percentile	(10.66)	(11.14)	4.81	5.65	6.81
90th Percentile	(11.34)	(12.87)	4.26	5.13	6.29
<b>Total Fund</b> ●	(6.75)	(0.68)	8.04	8.02	9.02
Total Fund Reference Index ▲	(8.29)	(5.89)	6.51	6.69	8.05

# Annual Returns, Peaks and Troughs



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD 2022
CMERS	22.7%	12.4%	13.1%	2.8%	-1.7%	-9.4%	27.3%	12.6%	8.5%	15.1%	7.2%	-30.8%	23.3%	13.9%	-1.4%	13.9%	19.3%	5.1%	0.5%	8.8%	16.4%	-2.9%	18.4%	6.6%	18.9%	-7.2%
Peak	22.7%	12.4%	13.1%	5.7%	2.3%	1.5%	27.3%	12.6%	8.5%	15.1%	11.4%	0.0%	23.3%	13.9%	7.6%	13.9%	19.3%	6.0%	4.0%	8.8%	16.4%	4.5%	18.4%	6.6%	18.9%	0.0%
Trough	0.0%	-2.9%	-1.4%	-3.6%	-8.6%	-14.7%	-2.0%	0.0%	-2.9%	0.0%	0.0%	-32.9%	-11.3%	-3.0%	-6.8%	0.0%	0.0%	-2.1%	-2.0%	-3.3%	0.0%	-2.9%	0.0%	-17.5%	0.0%	-7.2%

\*Net of Fees

## Milwaukee Employees' Retirement System - September 28, 2022

**Fund as of August 31, 2022**

\*Fund value of \$5.64b.

\*Fund return of -2.3% in August, gross of fees, underperformed by approximately 2bp.

\*Primary Relative Perf. Drivers:  
**Manager Selection**  
 Blair -12bp  
 Style Bias 6bp  
 Primarily Gov't Fixed Income & Cash  
 Overall Allocation 4bp

\*Fund has outperformed benchmark in all other time periods shown.

**Sept Update (9/21/22 estimates)**

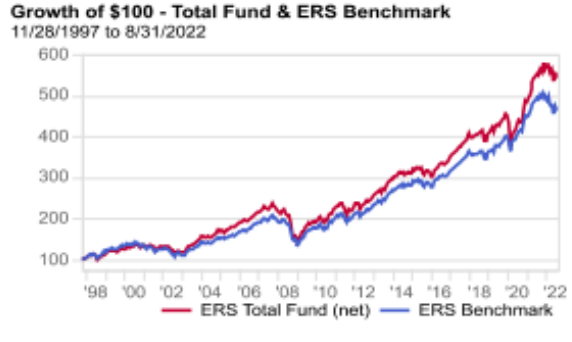
\*Fund return -2.4% MTD  
 \*Fund return -8.1% YTD  
 \*Fund value \$5.51b

\*9 out of 15 active mandates outperforming YTD.

\*Public Equity, Fixed Income, and Absolute Return asset classes, along with Total Fund, outperforming their respective benchmarks YTD.

\*Investment Change: - \$491.6m  
 \*Benefits & Expenses: 316.1m  
 \*Contributions: 100.2m

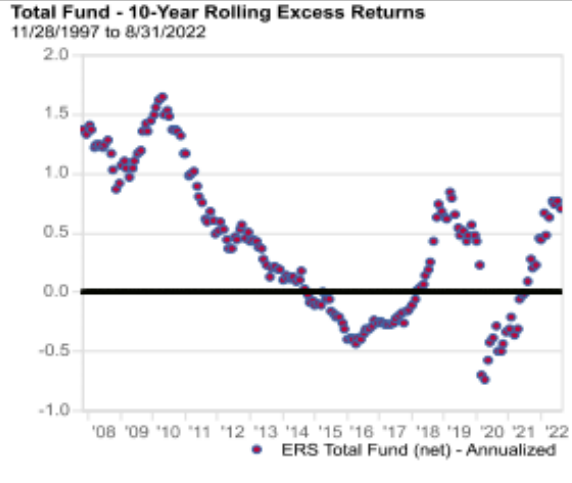
**Monthly Withdrawals:**  
 To be discussed at meeting



**Return Data**

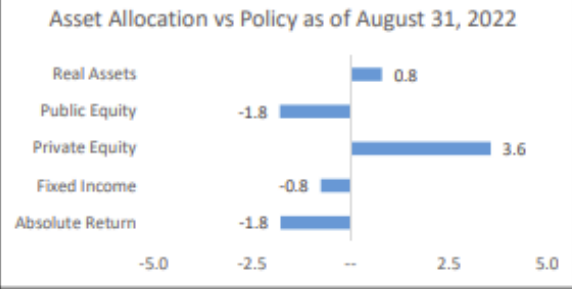
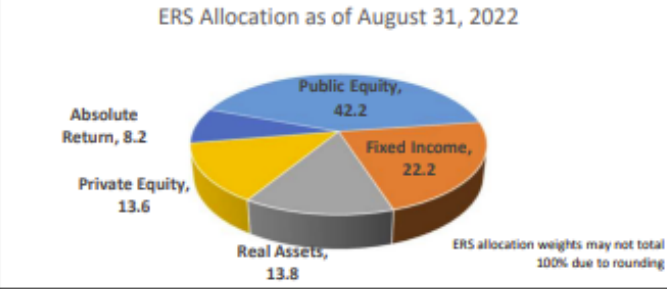
Source Data: Monthly Return

	1 Month	YTD	1 Year	5 Year	10 Year	15 Year	20 Year
Total Fund (net)	-2.3	-5.9	-1.6	7.6	8.6	6.1	7.8
ERS Benchmark	-2.3	-8.5	-6.0	6.6	7.9	5.9	7.3



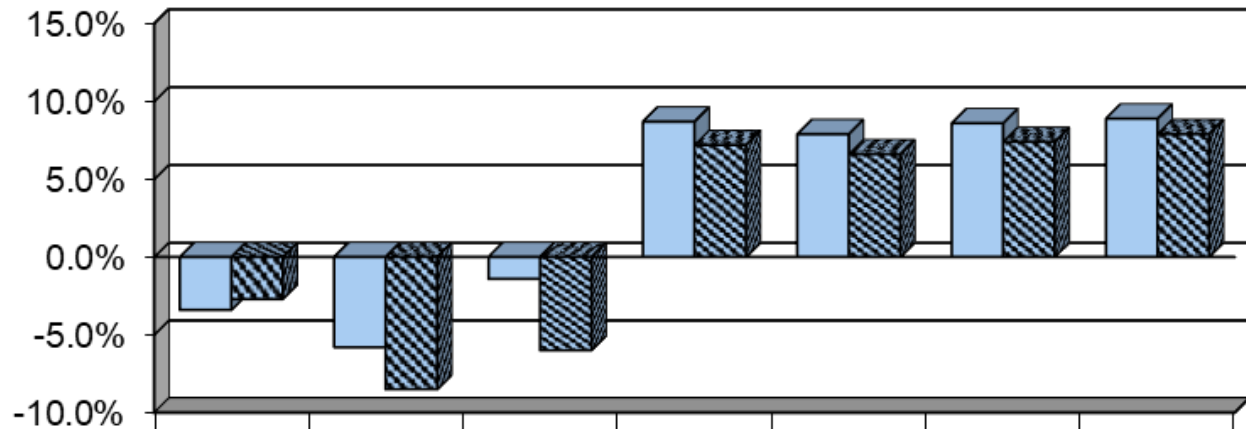
**Total Fund - 20-Year Risk & Return Data**

	Return	Std Dev	Tracking Error	Info Ratio (arith)	Sharpe Ratio	Alpha	Beta
Total Fund (net)	7.8	10.4	2.5	0.2	0.6	-0.1	1.1
ERS Benchmark	7.3	9.2	--	--	0.7	0.0	1.0



# CMERS Investment Performance History Periods Ending August 31, 2022

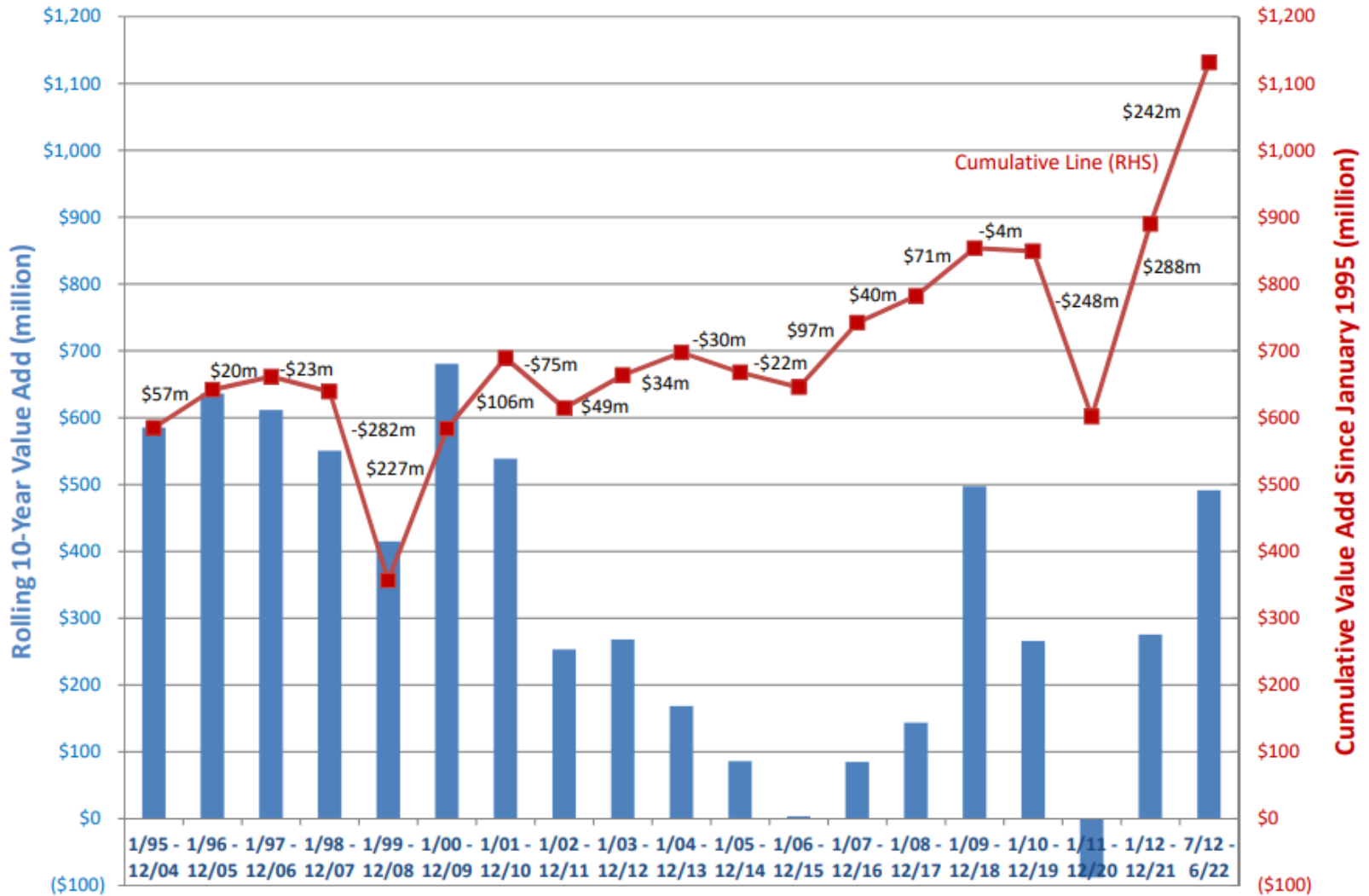
August 31, 2022



	3 Mo.	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ Total Fund Gross	-3.4%	-5.8%	-1.4%	8.7%	7.9%	8.6%	8.9%
▨ Total Fund Benchmark	-2.7%	-8.5%	-6.0%	7.2%	6.6%	7.4%	7.9%

■ Total Fund Gross      ▨ Total Fund Benchmark

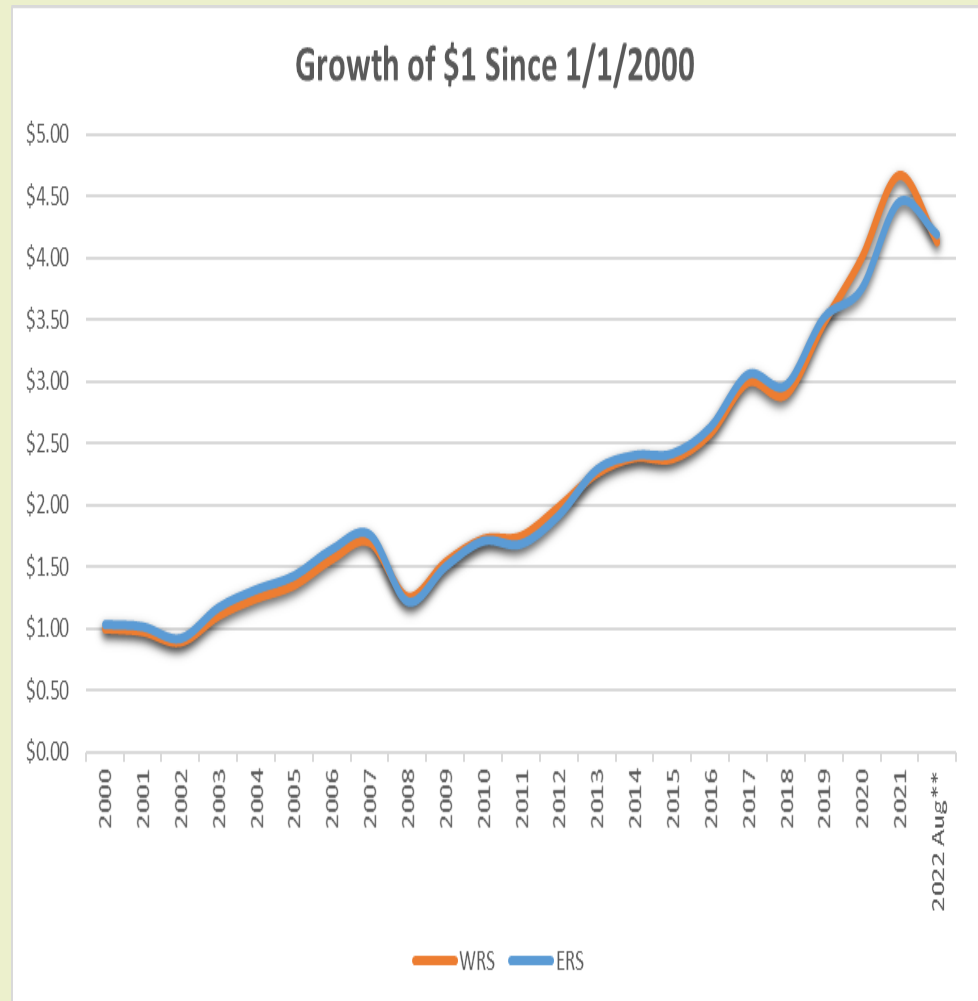
## Historical Value Add - 1995 - June 30, 2022 CMERS Total Fund (everything except Real Assets)



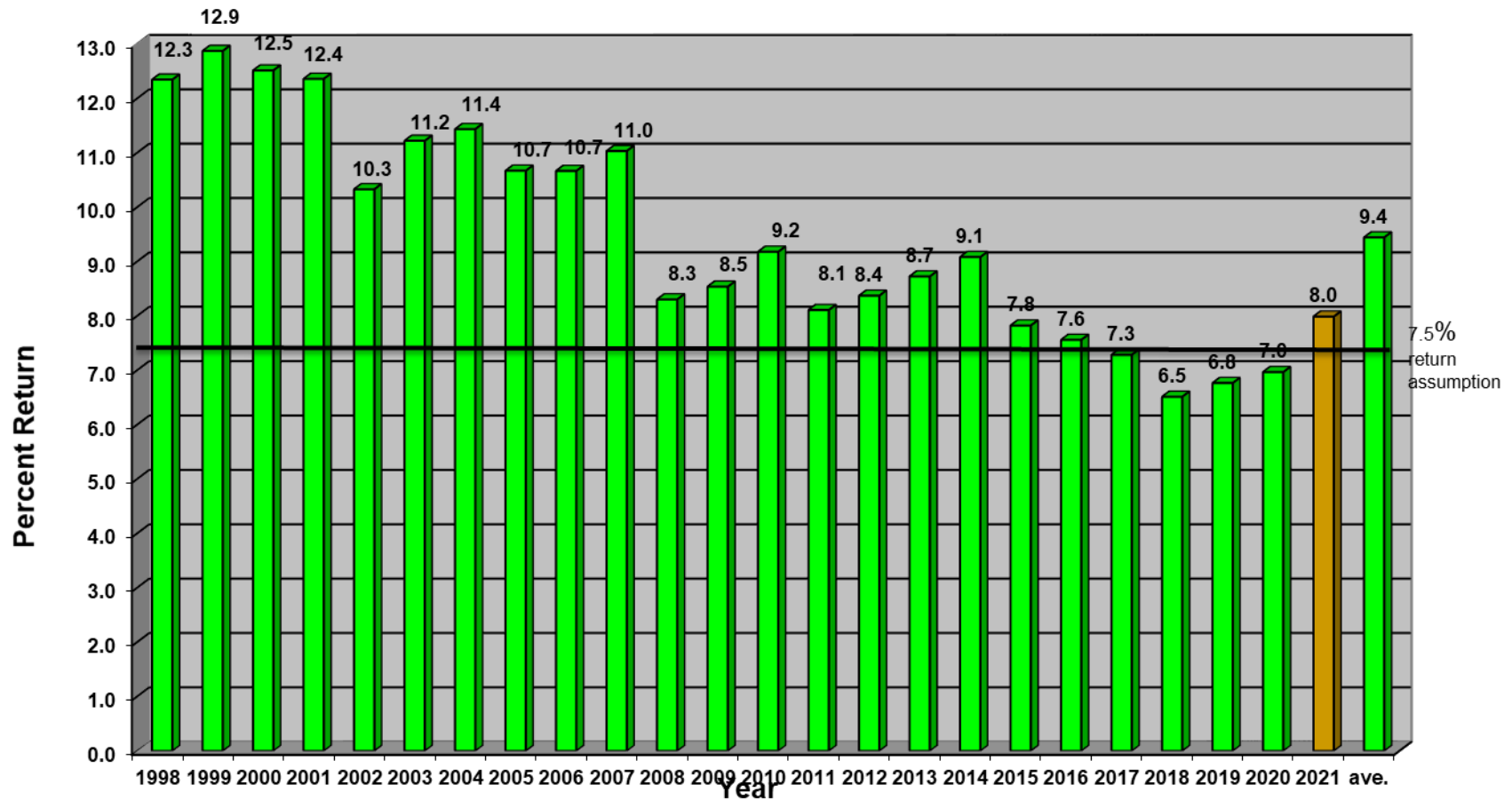
# Growth of \$1 Since 2000 (ERS and WRS\*)

Year	Rates of Return			Growth of \$1		
	ERS	WRS	Higher	ERS	WRS	Higher
2000	2.84%	-0.80%	ERS	\$ 1.03	\$ 0.99	ERS
2001	-1.68%	-2.30%	ERS	\$ 1.01	\$ 0.97	ERS
2002	-9.44%	-8.80%	WRS	\$ 0.92	\$ 0.88	ERS
2003	27.34%	24.20%	ERS	\$ 1.17	\$ 1.10	ERS
2004	12.61%	12.80%	WRS	\$ 1.31	\$ 1.24	ERS
2005	8.46%	8.60%	WRS	\$ 1.42	\$ 1.34	ERS
2006	15.13%	15.80%	WRS	\$ 1.64	\$ 1.56	ERS
2007	7.21%	8.80%	WRS	\$ 1.76	\$ 1.69	ERS
2008	-30.84%	-26.20%	WRS	\$ 1.22	\$ 1.25	WRS
2009	23.30%	22.40%	ERS	\$ 1.50	\$ 1.53	WRS
2010	13.86%	12.30%	ERS	\$ 1.71	\$ 1.72	WRS
2011	-1.43%	1.40%	WRS	\$ 1.68	\$ 1.74	WRS
2012	13.88%	13.70%	ERS	\$ 1.92	\$ 1.98	WRS
2013	19.29%	13.60%	ERS	\$ 2.29	\$ 2.25	ERS
2014	5.09%	5.70%	WRS	\$ 2.40	\$ 2.38	ERS
2015	0.54%	-0.40%	ERS	\$ 2.41	\$ 2.37	ERS
2016	8.83%	8.60%	ERS	\$ 2.63	\$ 2.57	ERS
2017	16.38%	16.20%	ERS	\$ 3.06	\$ 2.99	ERS
2018	-2.91%	-3.30%	ERS	\$ 2.97	\$ 2.89	ERS
2019	18.44%	19.90%	WRS	\$ 3.52	\$ 3.47	ERS
2020	6.62%	15.20%	WRS	\$ 3.75	\$ 3.99	WRS
2021	18.90%	16.89%	ERS	\$ 4.46	\$ 4.67	WRS
2022 Aug**	-5.92%	-11.54%	ERS	\$ 4.19	\$ 4.13	ERS

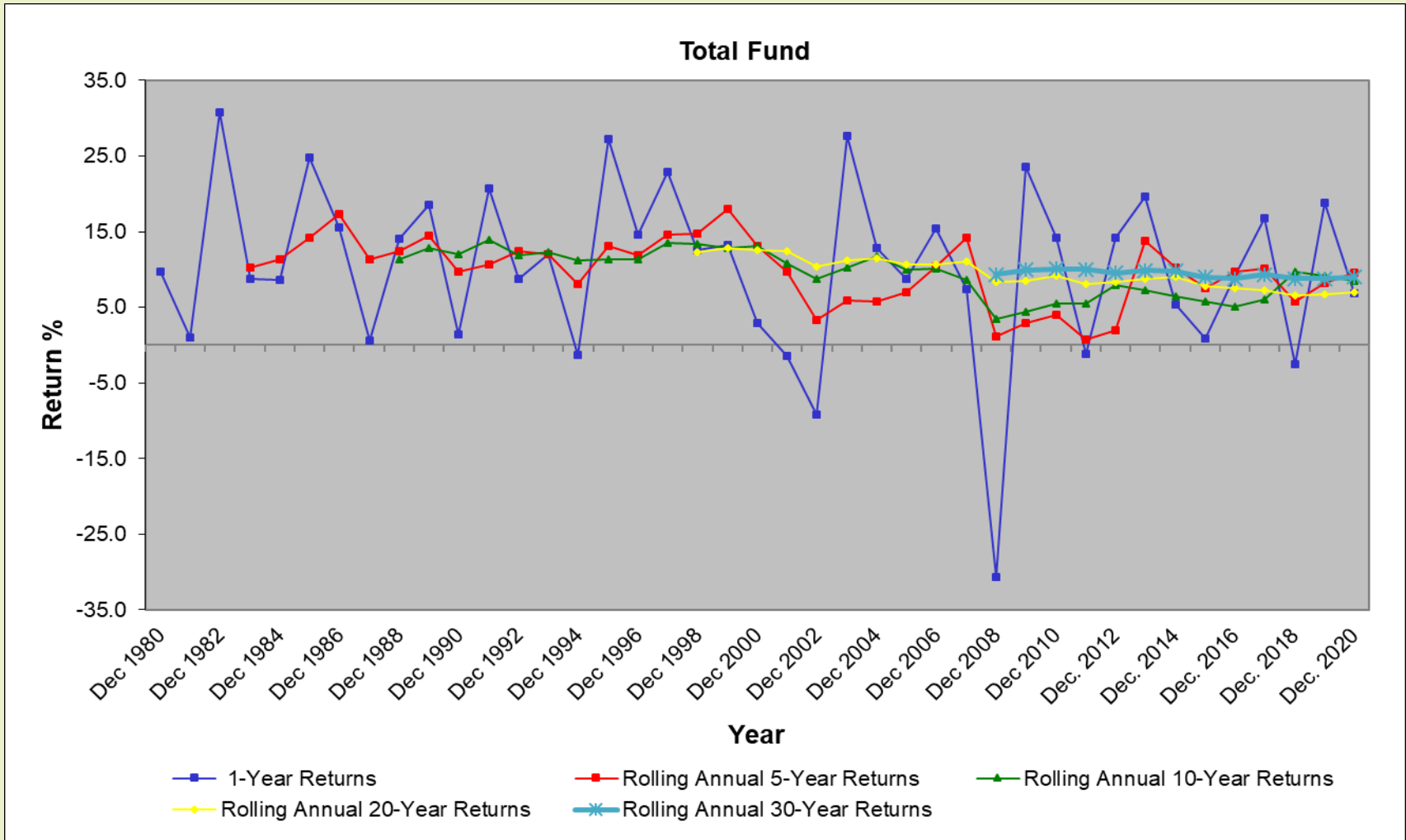
\* WRS core fund rates of return used for this comparison  
 Values are net of fees  
 \*\*2022 returns are preliminary / unaudited values



# ERS 20 Year Rolling Ave. Investment Returns 1978-2021



# Rolling Fund Returns 1979 - 2021





# Employer Contributions

(Combined Fund only as of January 1, 2022)



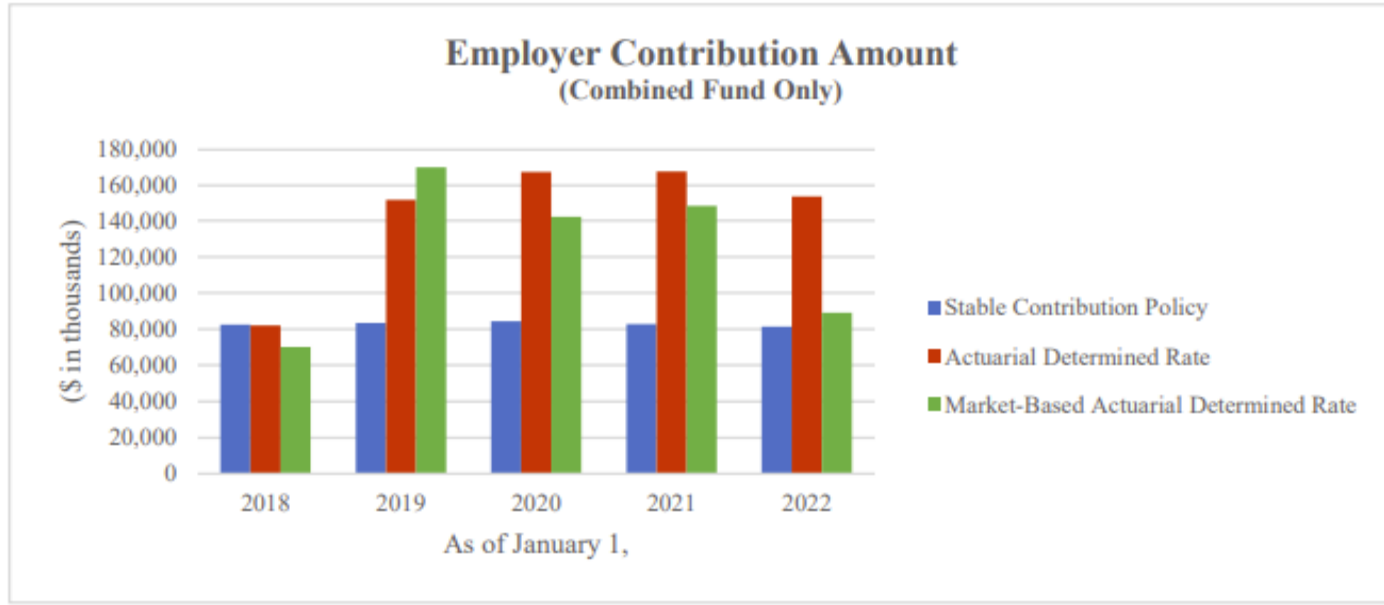
**Inputs**

- Membership Data
- Asset Data
- Benefit Provisions
- Assumptions
- Funding Methodology

↓

**Results**

- Actuarial Value of Assets
- Actuarial Accrued Liability
- UAAL/Funded Ratio
- Net Actuarial Gain or Loss
- Employer Contributions**
- Projections



Given the difference between the actuarially determined employer contributions and the stable contribution policy contributions it would be prudent for participating employers to start preparing now for higher contributions when the Stable Contribution Policy is reset for calendar year 2023.

# Employer Contributions

(Combined Fund only as of January 1, 2022)



**Inputs**

- Membership Data
- Asset Data
- Benefit Provisions
- Assumptions
- Funding Methodology

↓

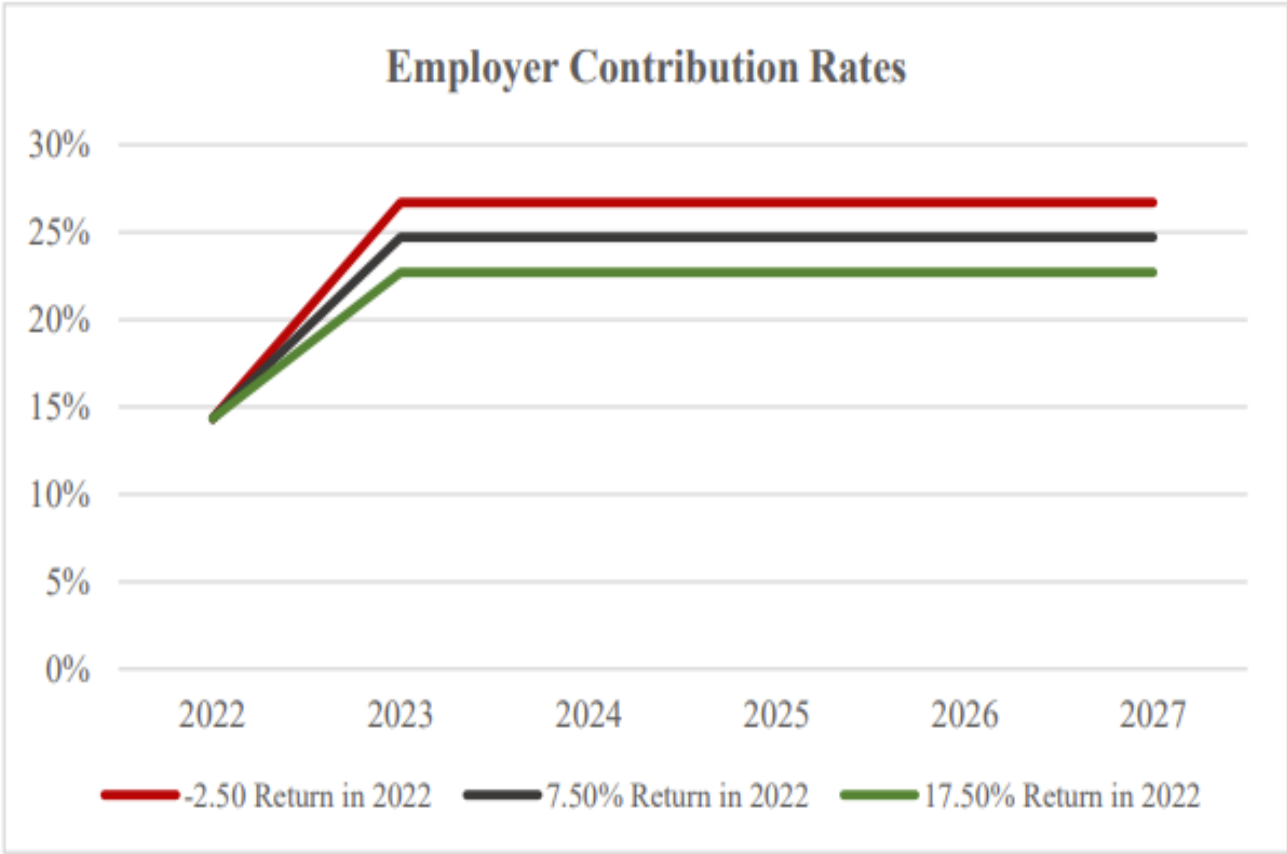
**Results**

- Actuarial Value of Assets
- Actuarial Accrued Liability
- UAAL/Funded Ratio
- Net Actuarial Gain or Loss
- Employer Contributions**
- Projections

Group	Employer Rate Based On:		
	Stable Contribution Policy	Actuarial Determined Rate	Market-Based Actuarial Determined Rate
General	7.48%	15.86%	8.28%
Policemen	25.22%	44.70%	27.07%
Firemen	26.83%	47.91%	29.82%

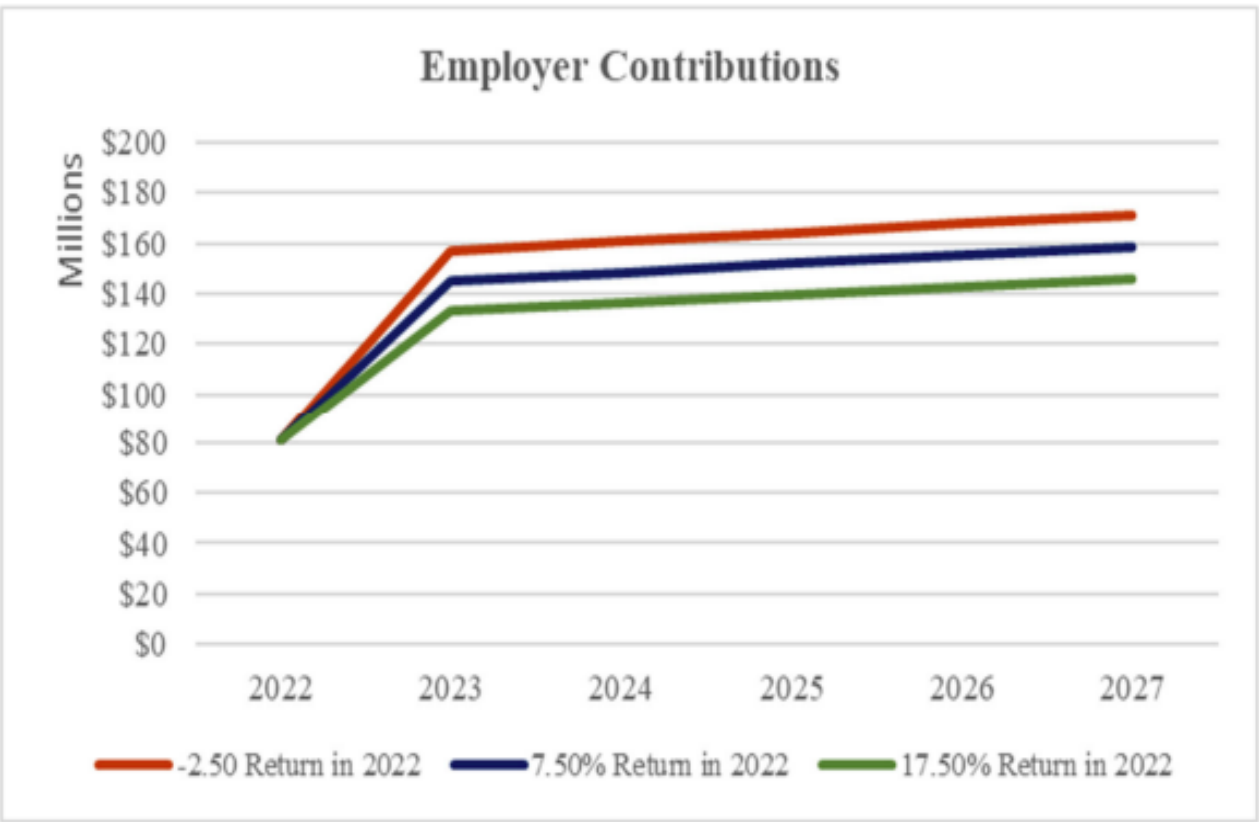
As a result of the events mentioned earlier, there is a significant difference between the actuarially determined employer contribution rate and the stable contribution policy rate as shown above.

<b>Inputs</b>
Membership Data
Asset Data
Benefit Provisions
Assumptions
Funding Methodology
↓
<b>Results</b>
Actuarial Value of Assets
Actuarial Accrued Liability
UAAL/Funded Ratio
Net Actuarial Gain or Loss
Employer Contributions
<b>Projections</b>



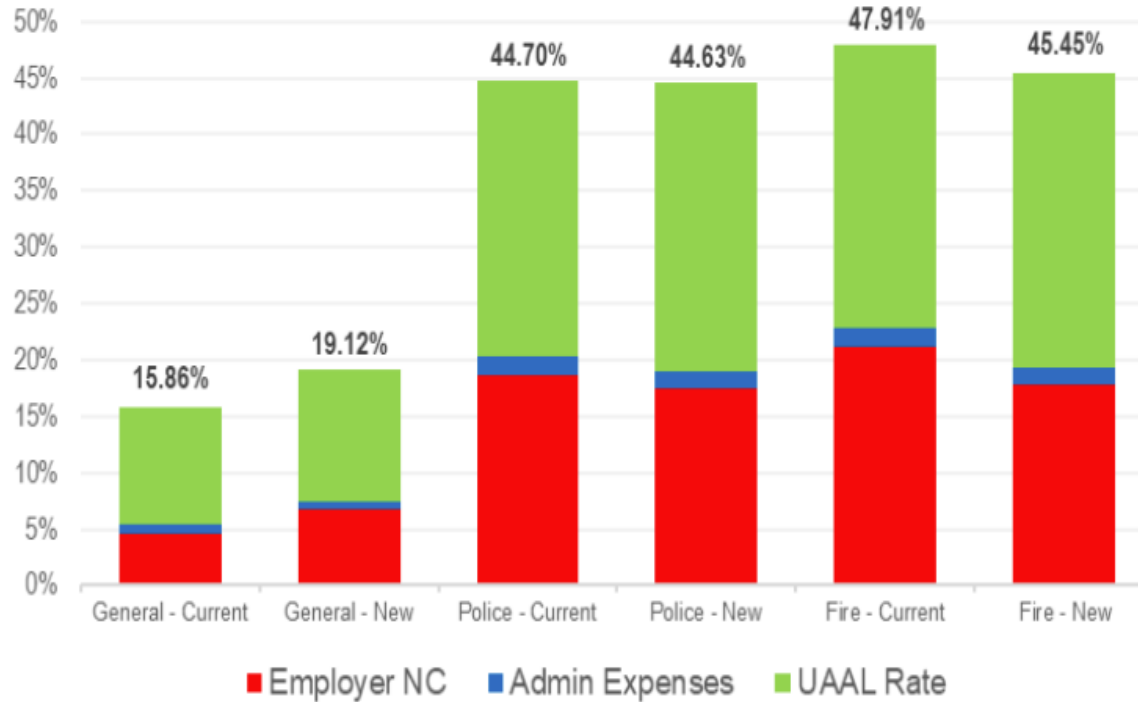
This graph shows the projected employer contribution rates under the Stable Contribution Policy, resulting from different investment returns during 2022 (returns for 2023+ are assumed to be 7.50%).

- Inputs
- Membership Data
- Asset Data
- Benefit Provisions
- Assumptions
- Funding Methodology
- ↓
- Results
- Actuarial Value of Assets
- Actuarial Accrued Liability
- UAAL/Funded Ratio
- Net Actuarial Gain or Loss
- Employer Contributions
- Projections



This graph shows the projected dollar amount of aggregate employer contributions in the future under alternate investment return scenarios for 2022. Investment returns for 2023+ are assumed to be 7.50% in all scenarios.

## Employer Contribution Rates



(\$ millions)	General			Police			Fire		
	Current	New	Increase	Current	New	Increase	Current	New	Increase
Actuarial Liability	\$2,993	\$3,049	\$56	\$2,596	\$2,633	\$37	\$1,288	\$1,306	\$18

# Projections (Assuming All Assumptions Are Met)

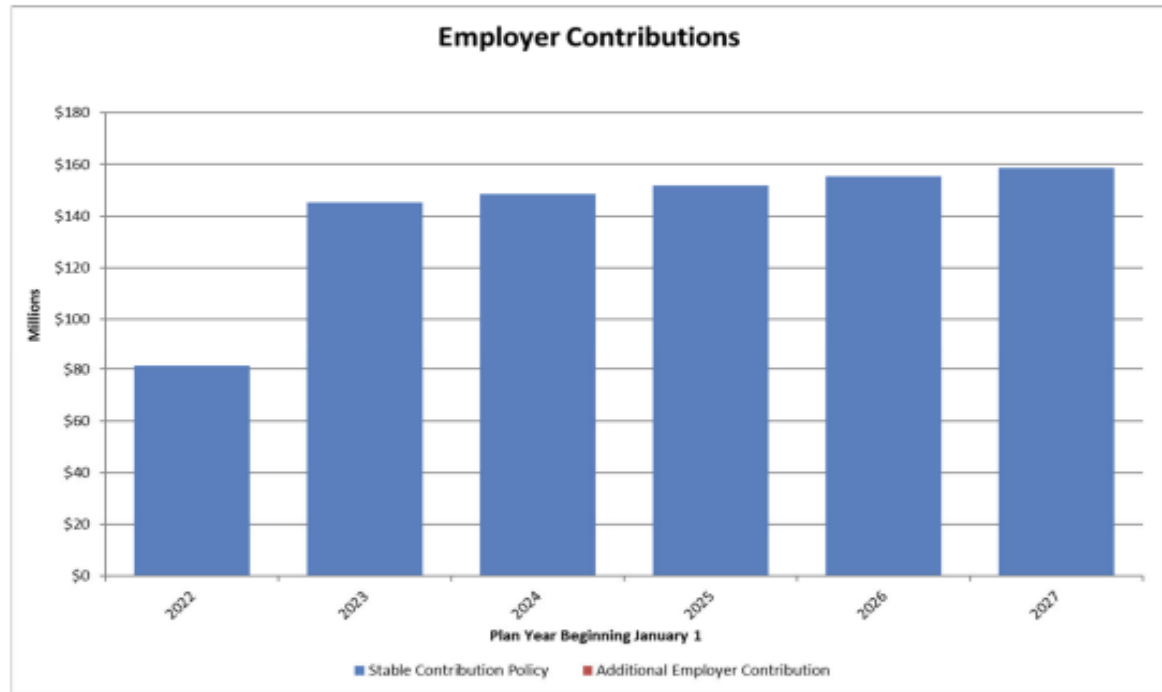
**Inputs**

- Membership Data
- Asset Data
- Benefit Provisions
- Assumptions
- Funding Methodology

↓

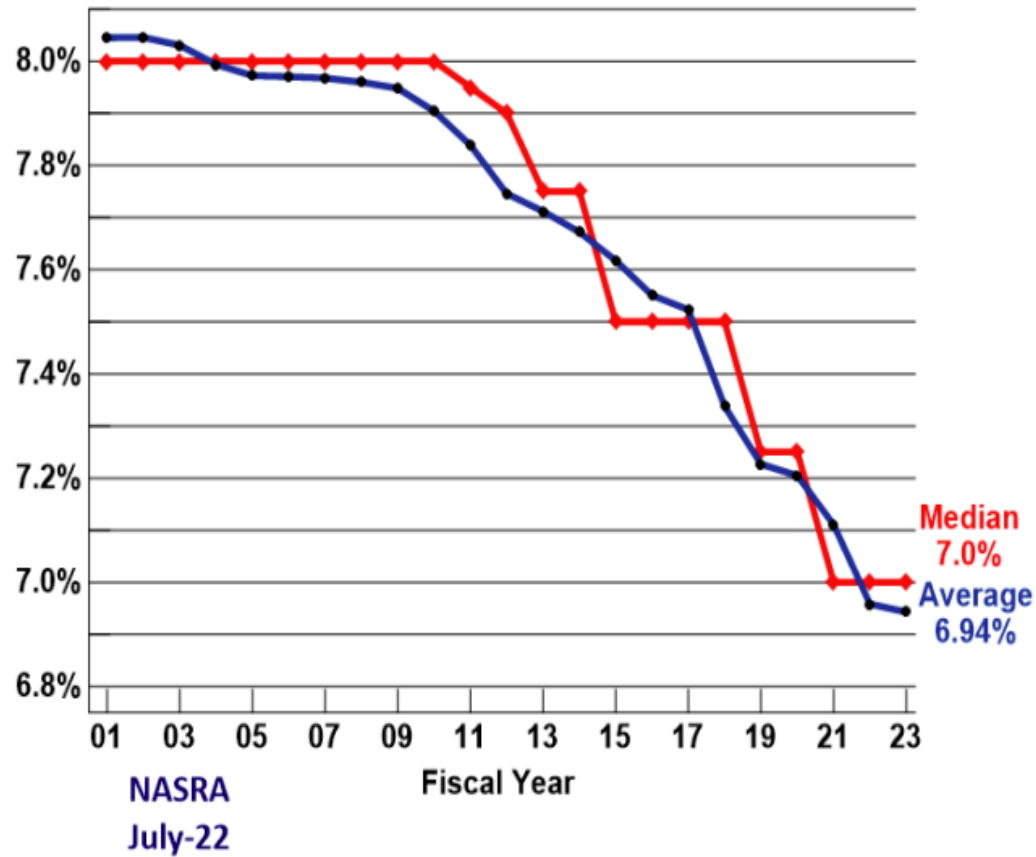
**Results**

- Actuarial Value of Assets
- Actuarial Accrued Liability
- LAAAL/Funded Ratio
- Net Actuarial Gain or Loss
- Employer Contributions
- Projections**

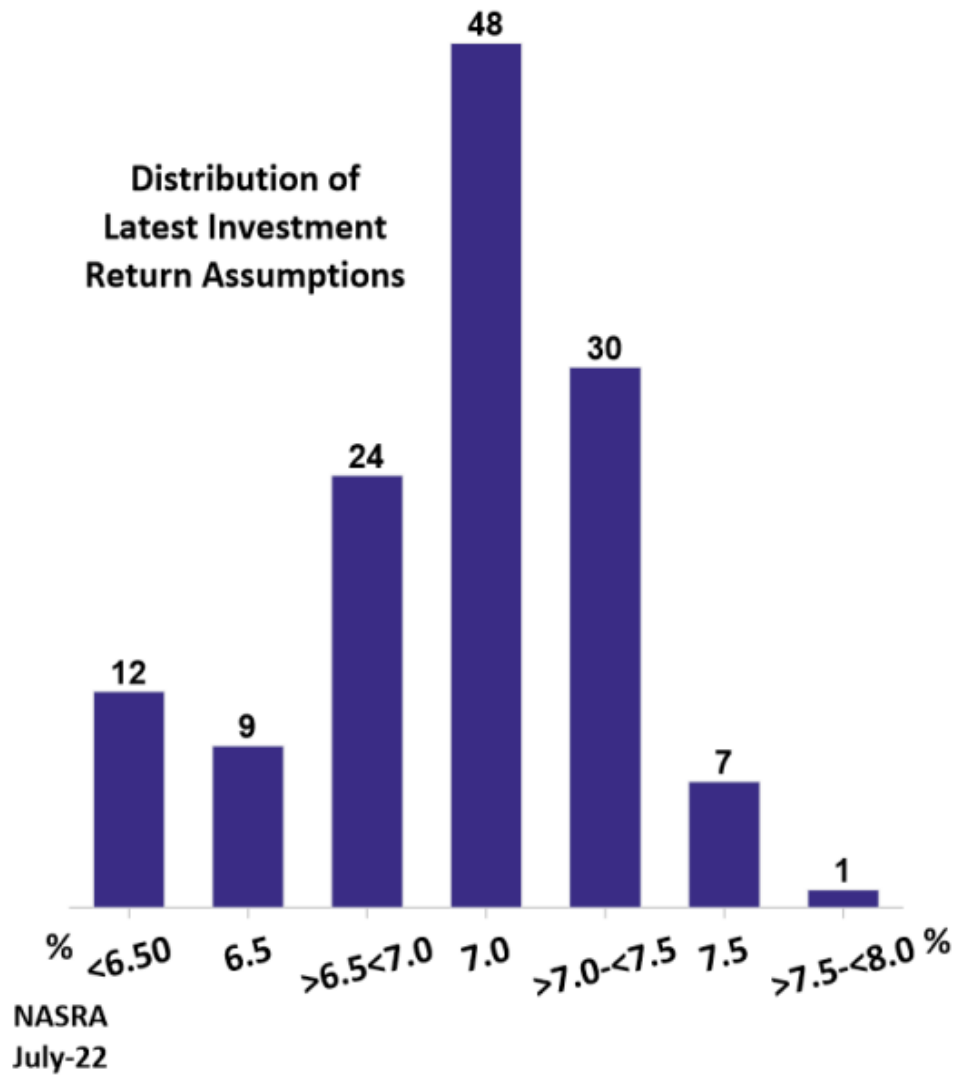


This graphs shows the projected dollar amount of aggregate employer contributions in the future, if all actuarial assumptions are met.

## Change to Average and Median Investment Return Assumption, FY 01 to present



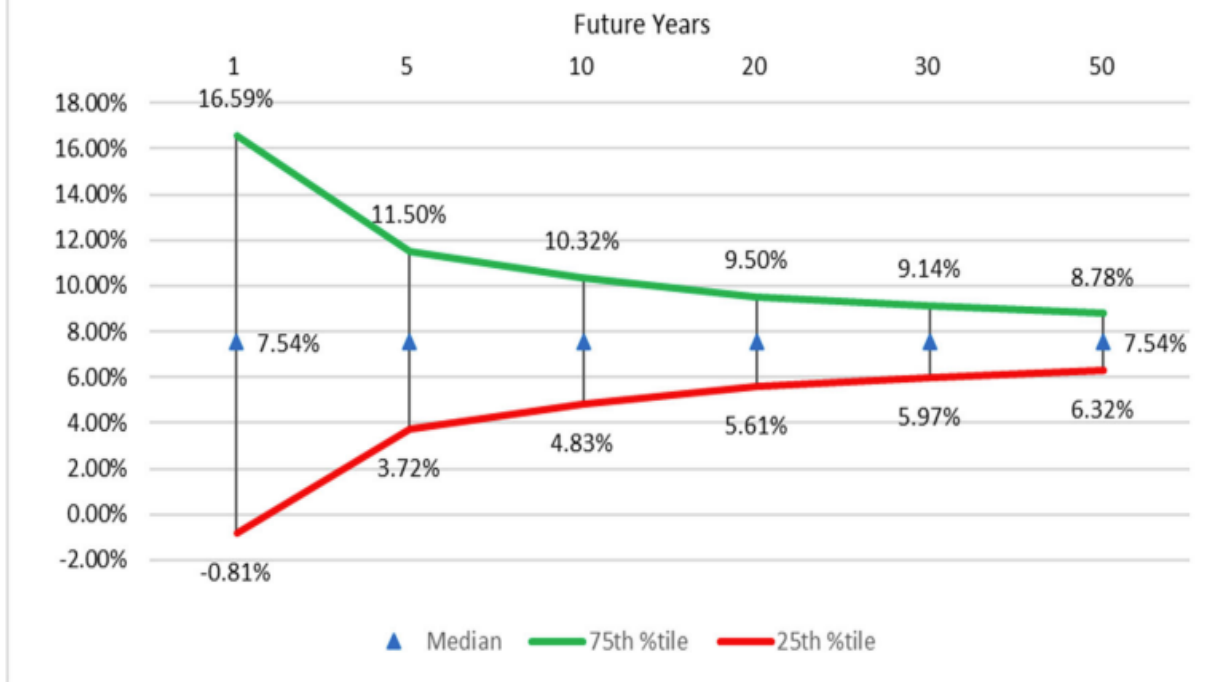
### Distribution of Latest Investment Return Assumptions



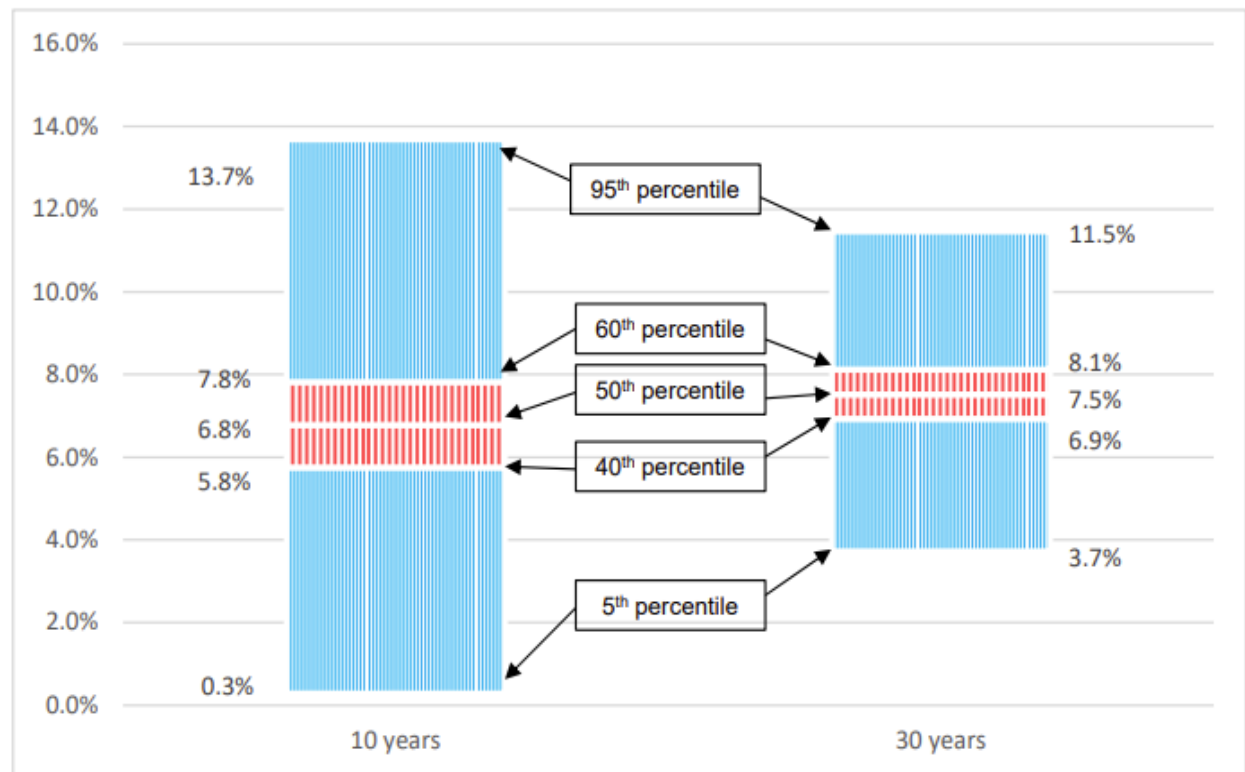


## Estimated Range of Expected Future Nominal Rates of Return

Based on Callan's 30-Year Outlook



The range of potential outcomes is very wide, particularly over shorter periods of time. After 30 years, there is a 50% chance the effective return will be less than 7.54% and a 25% chance it will be below 6.32%.



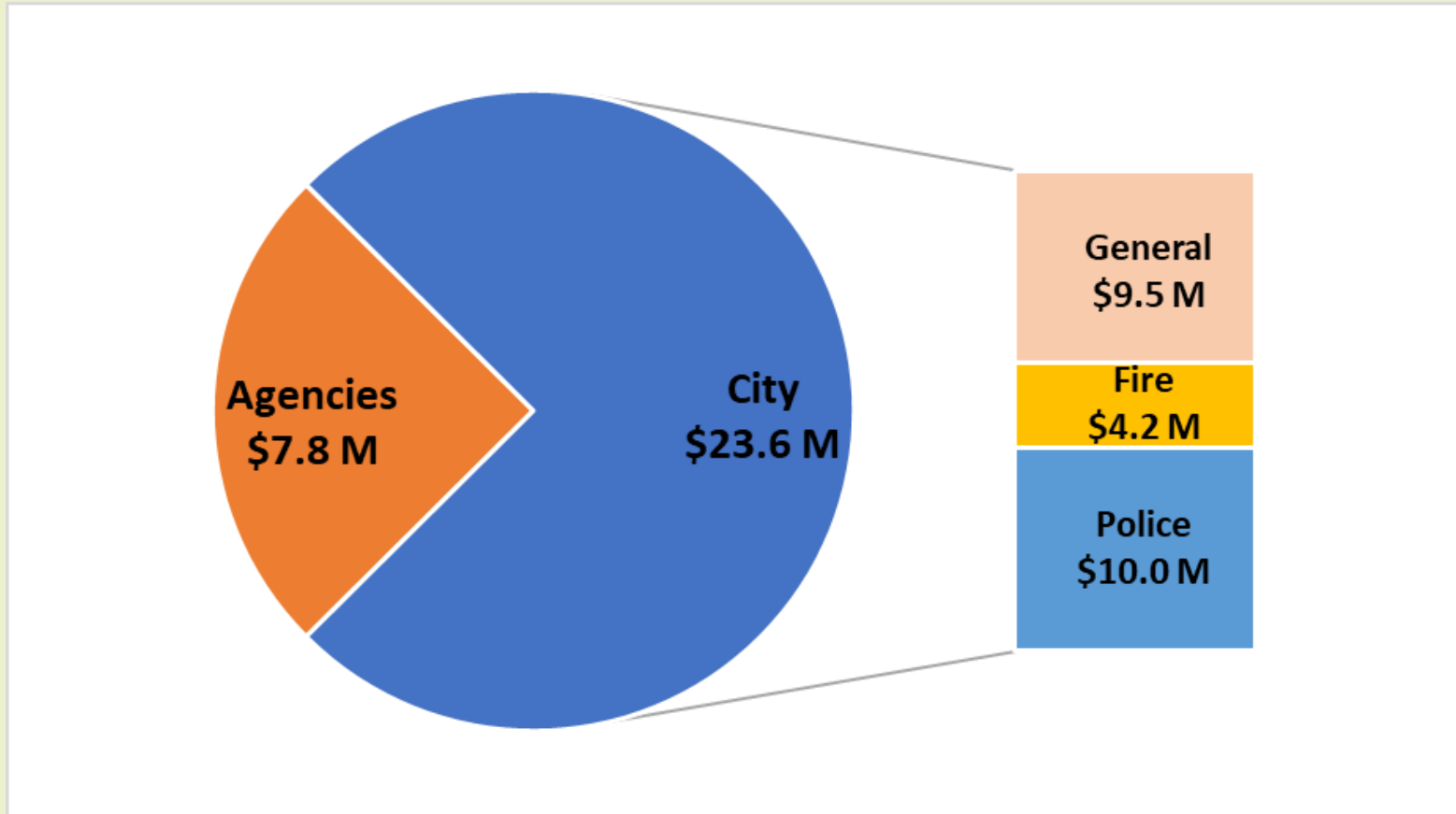
The expected outcome is the 50<sup>th</sup> percentile. There is a 50% chance that the return will be below 6.8% over 10 years and 7.5% over 30 years. Similarly, there is a 60% chance that returns will be less than 8.1% over 30 years.

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# APPENDIX

# Total Annual Member Contributions

(in millions)  
(projected for 2022)



Projected Total Member Contributions  $\approx$  \$31.5M

# CMERS Participant Headcount (Active, Deferred and Retired) as of August 31, 2022



Chart does not include survivors/beneficiaries in payment

# Annual Member Contributions

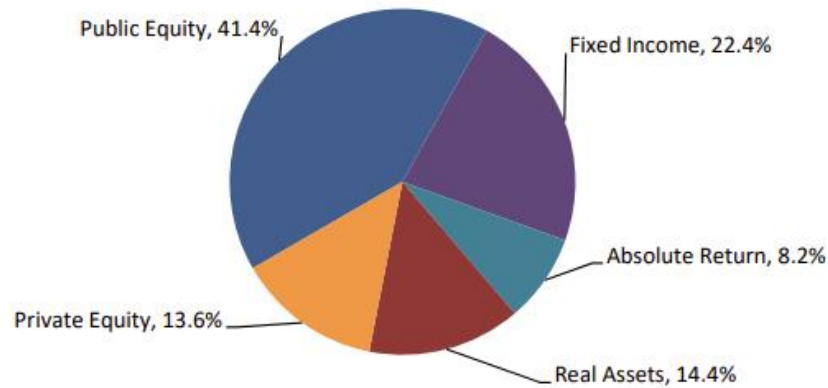
(projected for 2022)

Employer / Group	Reported through PP18-2022*				Straightline Projection for FY2022			
	Pensionable Wages	Employer-Paid Member Contributions	Employee-Paid Member Contributions	Total Member Contributions	Pensionable Wages	Employer-Paid Member Contributions	Employee-Paid Member Contributions	Total Member Contributions
City-FD	41,299,334	0	2,886,664	2,886,664	59,863,977	0	4,184,268	4,184,268
City-GC	136,344,871	0	6,537,484	6,537,484	197,880,243	0	9,469,464	9,469,464
City-PD	99,024,502	0	6,930,725	6,930,725	142,378,106	0	9,965,025	9,965,025
<b>City-Total</b>	<b>276,668,707</b>	<b>0</b>	<b>16,354,873</b>	<b>16,354,873</b>	<b>400,122,326</b>	<b>0</b>	<b>23,618,757</b>	<b>23,618,757</b>
Agencies	107,123,601	29,773	5,030,074	5,059,847	166,788,452	43,988	7,804,499	7,848,487
<b>Grand Total</b>	<b>\$ 383,792,307</b>	<b>\$ 29,773</b>	<b>\$ 21,384,947</b>	<b>\$ 21,414,720</b>	<b>\$ 566,910,779</b>	<b>\$ 43,988</b>	<b>\$ 31,423,256</b>	<b>\$ 31,467,244</b>

\*for some agencies data has been reported through PP-17-2022

# Asset Allocation as of June 30, 2022

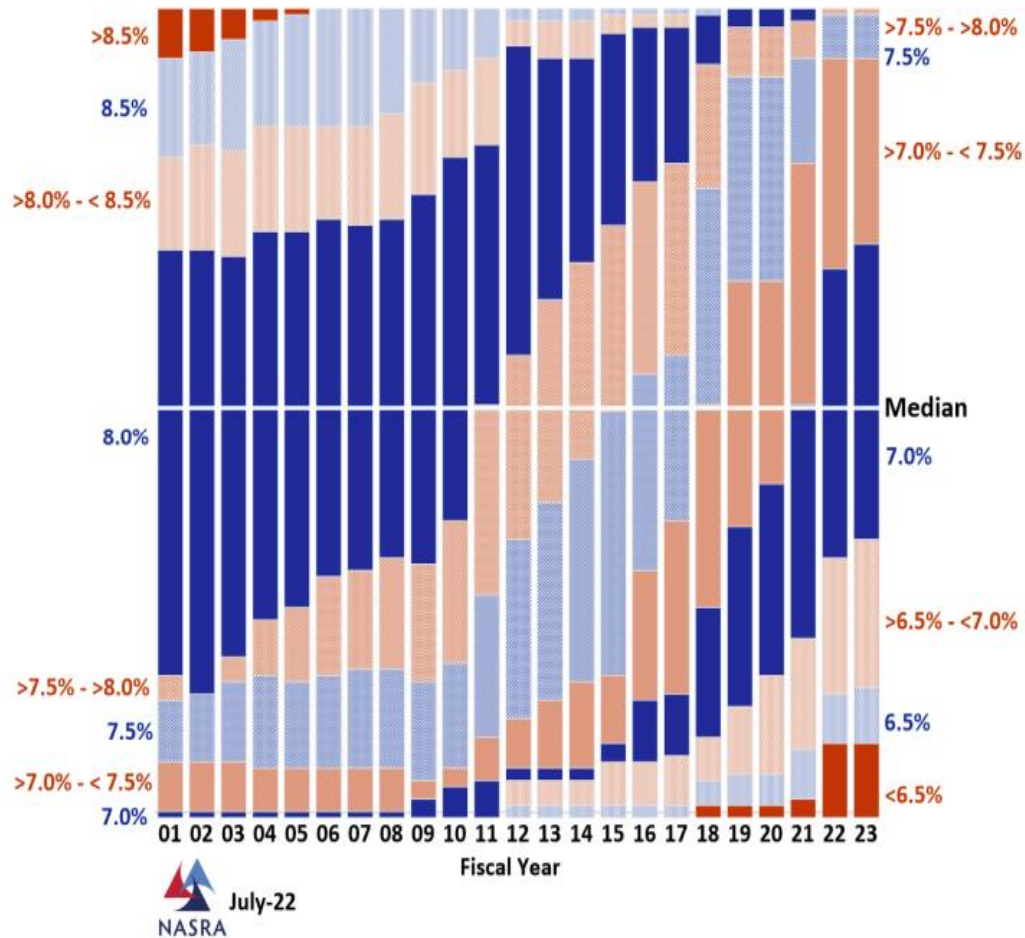
## Actual Asset Allocation\*



## Actual Asset Allocation vs. Policy Target



Distribution of Investment Return Assumptions,  
FY 01 to present



Lower market expectations have resulted in a significant change to lower investment return assumptions since 2001. The trend has continued since CMERS lowered the assumption to 7.5% in 2019.

Note: Investment mixes may differ significantly between funds.



# ERS Governance

- The Annuity & Pension Board (Board), the governing body of ERS, is a separate city agency and an independent corporate entity under state law, an IRS qualified plan fiduciary and is required by state law to fulfill its fiduciary duty of loyalty to ERS members and beneficiaries by acting solely in their interests to the exclusion of all other considerations.
- The Board can lawfully act in furtherance of social policy objectives only to the extent they do not conflict with its fiduciary duty of loyalty to members and beneficiaries and if such actions are merely incidental to its principle obligation to administer the retirement system.
- ERS is prohibited by state and federal law from using pension trust funds to deliver services, sponsor programs or provide resources to city residents.

# ERS Governance Con't.

- ERS established by Wisconsin Laws of 1936 as revised by 1947 session laws as an independent legal and financial entity to provide pension benefits and Annuity & Pension Board established as plan administrator and MCC-36 adopted pursuant to state statute
- Annuity & Pension Board governance of ERS confirmed by 2018 state supreme court decision
- Common law of Trusts (3<sup>rd</sup> Restatement of Trusts) provides for independent administration of a trust by the trustee(s) from the settlor ( plan sponsor)
- IRS tax qualified retirement plan trust must be administered pursuant to provisions of plan document (MCC-36)

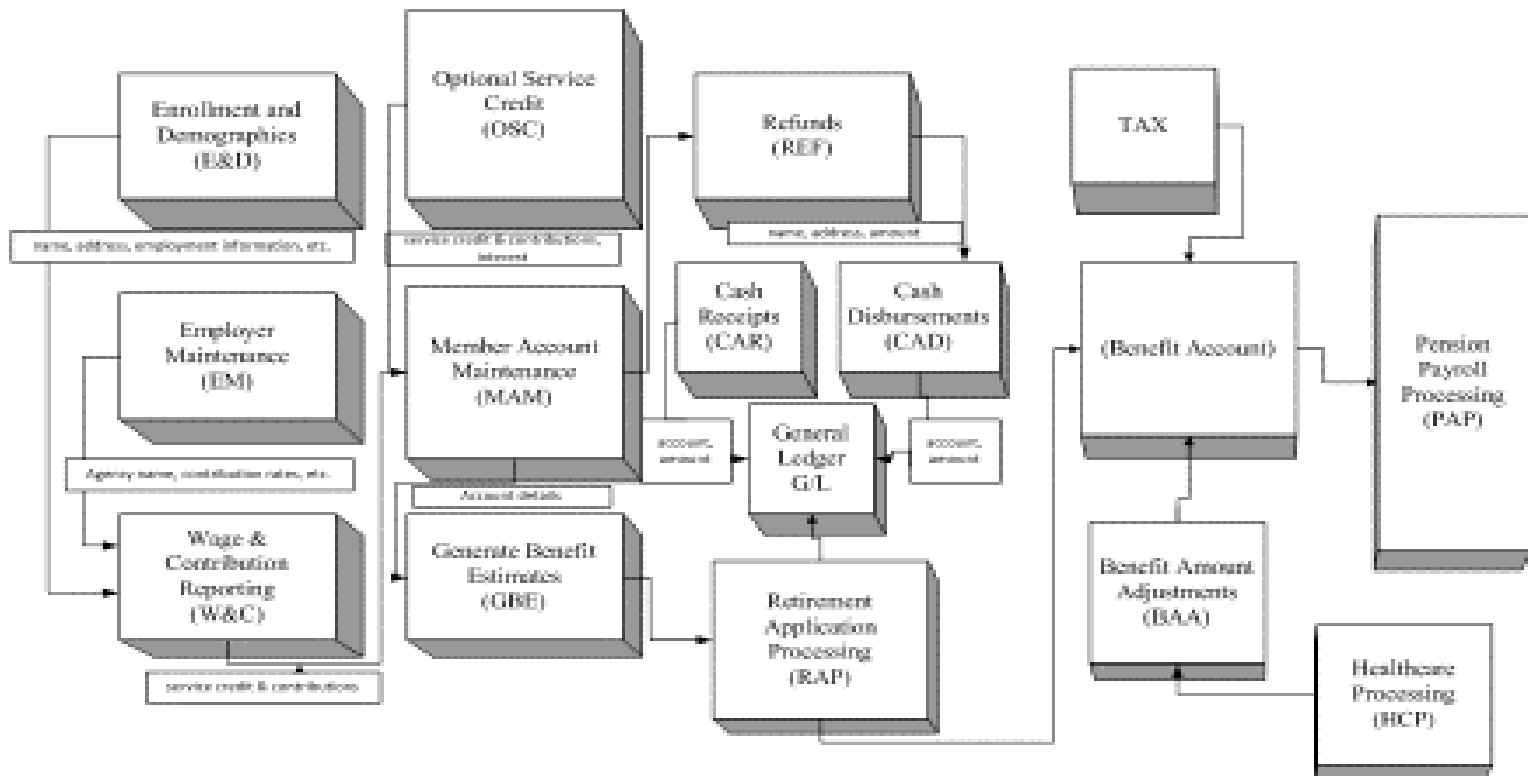
## Why Does ERS Have a separate IT Platform and Staff

- Dating to January 1, 2000 the City settled multiple pension lawsuits pursuant to a Global Pension Settlement (GPS) that enabled the City to transfer the cost of ERS administration to the pension trust which was previously bourn by the City, including investment management fees (approx. \$88 million for 2021 resulting in return of approx. \$1 billion) and general administration expense.
- The GPS expressly provides that the pension system will bear the cost of developing and maintaining an IT system which ultimately cost approx. \$25 million establish and more annually to operate and maintain per CA opinion dated June 16, 2006:

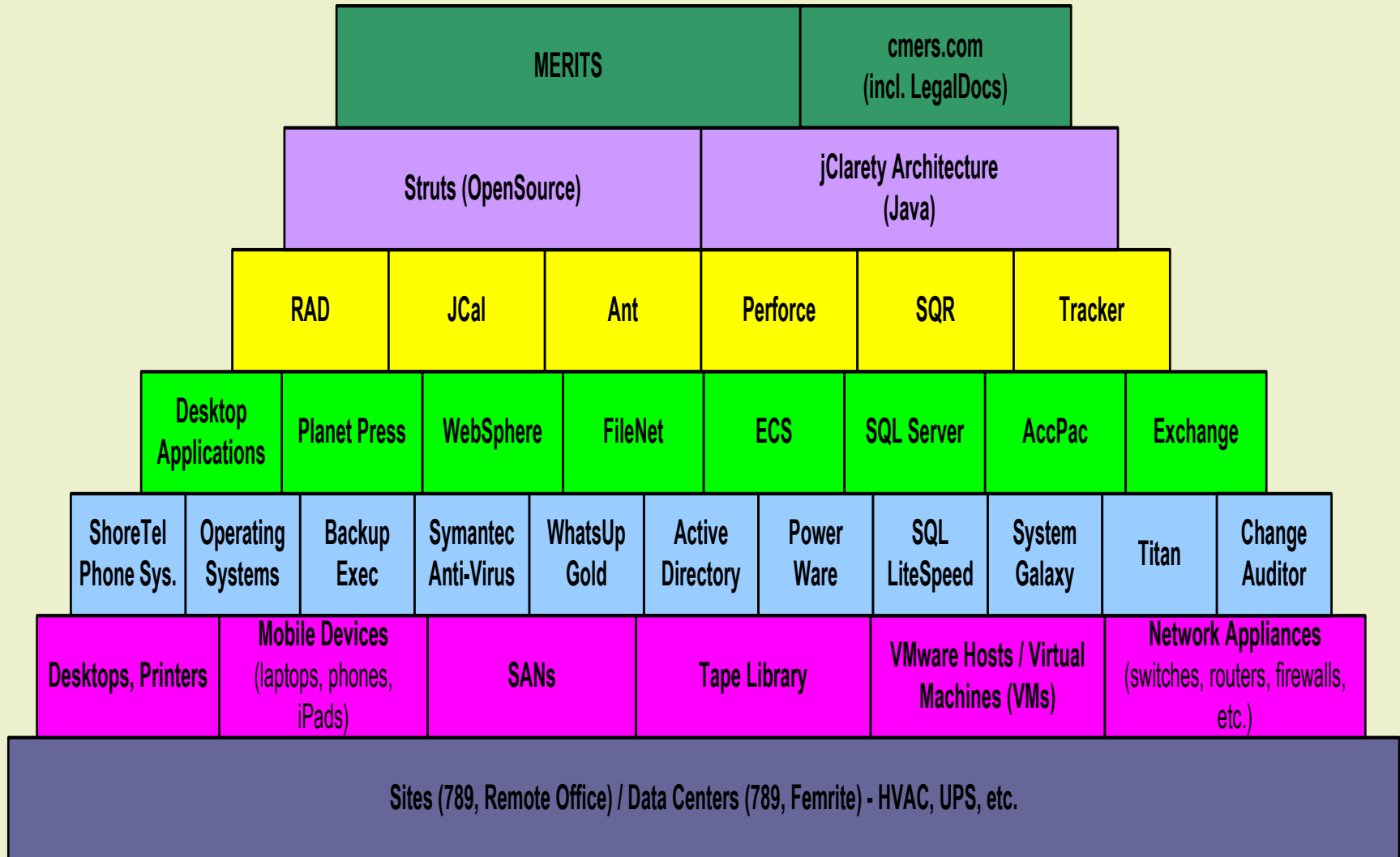
As a result of the Global Pension Settlement, effective January 1, 2000, responsibility for the payment of all expenses in connection with the administration of the ERS, *including computerization related expenses*, was transferred from the City to the combined fund of the ERS. Section 36-08-9-a. The ERS, in our opinion, is therefore responsible for any computerization related expenses associated with the determination and distribution of benefits, including any software program changes necessitated by new pension benefits.

- 36-09-8-a - “Annually, the board shall estimate the amount of money which shall be deemed necessary to provide for the expense of operation of the retirement system. On or before the second Tuesday in May of each year the board shall file with the mayor a detailed statement of all estimated expenses which are to be incurred during the ensuing calendar year. Such statement shall be reviewed and approved as are all other budgetary requests under ch. 18. (emphasis added)”

# ERS IT Functional Areas



# ERS Software Platform



# City Charter and State Law Requirements

- Employer contributions are due and payable in full by January 31 of the year following the current year as **determined** by the independent actuary (MCC 36-08).
- Employer contributions must be certified by the Annuity and Pension Board and calculations must adhere to Actuarial Standards of Practice (MCC 36-08 and 36-15).
- ERS Vested benefits are a contractual obligation of the City under state law and can not be diminished or impaired w/o consent of the Member (WI Laws Chapter 441, Laws of 1947; MCC 36-13).
- Global Pension Settlement provisions are locked in place by court order.
- Pension funding requirements can only be changed by a two-thirds vote of the Common Council, approval by the Mayor and the Annuity & Pension Board (MCC 36-15) and certification by the actuary as conforming to professional standards.
- Changes to funding policy pursuant to MCC-36-08 and 36-15 that cause “tangible harm” to members and beneficiaries may violate their contractual pension rights - Professional Police Association v. Lightbourn, 2001 WI 59, 243 Wis. 2d 512, 627.N.W.2d 807

# Securing Payment of Employer Contributions

- MCC 36-08-6-f and g provide authority to levy taxes to fund ERS on real and personal property annually in addition to all other taxes. For agencies not authorized to levy taxes, the amounts are to be included in their budgets.
- In the event that the employer(s) do not contribute the required amount, the Annuity & Pension Board is obligated by state law as a fiduciary to exhaust all avenues to collect such funds, and as authorized under MCC 36-15-1 (“proper operation of the retirement system”) Also, Board Rule VII A.

## Further Limitations to Benefits Alteration

Under MCC 36-14 (“Home Rule”), the City is authorized to “amend or alter the provisions of [MCC 36] in the manner prescribed by s. 66.0101, Wis. Stats., provided that no such amendment or alteration shall modify the annuities, benefits, or other rights of persons who are Members of the system prior to the effective date of such amendment or alteration.”



## Question Regarding Impact of Closing ERS to New Hires and Enrolling in WRS or 401(k) Style Plan

- Likely Requires Enabling State Legislation
  - 1936 state statute authorizing creation of ERS may require automatic enrollment of new hires in ERS
  - Pensions are mandatory subject of collective bargaining
  - However, Wisconsin pension law is highly unsettled
- Closing ERS to new hires triggers acceleration of pay-off of \$1.1 billion of actuarial unfunded liability as of 1/1/2022 over 10 years
- Draft sales tax and pension legislative proposal addressed both issues cited above but would have systematically underfunded and depleted ERS trust
  - Would Mandate closure of ERS and enrollment of new hires in WRS
  - Would freeze required employer contributions to ERS at 2021 levels
- Litigation may well have ensued if adopted with uncertain result
- Substituting 401(k) style plan presents competitive problems for retaining employees and recruiting new hires, especially public safety
- Other public employers have tried 401(k) solution unsuccessfully due to inadequate security benefits for hazardous jobs
- Notably, Alaska, Dade County, FLA and Memphis, TN – All considering restoring pension plan due to loss of public safety employees

## 2022 Contribution Savings From Prior Pension Reforms – Approx. 2%

Group (City Only)	Tier I		Tier II		Total		Stable Contribution Impact		
	Count <sup>1</sup>	Wages (000s) <sup>2</sup>	Count <sup>1</sup>	Wages (000s) <sup>2</sup>	Count <sup>1</sup>	Wages (000s) <sup>2</sup>	Tier I (000s) <sup>3</sup>	Tier II (000s) <sup>3</sup>	Total (000s) <sup>3</sup>
<b>General</b>	1,671	\$ 103,216	1,849	\$ 91,042	3,520	\$ 194,258	\$ 8,633	\$ 6,091	\$ 14,724
<b>Fire<sup>4</sup></b>	464	\$ 44,049	224	\$ 14,049	688	\$ 58,098	\$ 12,450	\$ 3,971	\$ 16,421
<b>Police<sup>4</sup></b>	1,148	\$ 105,897	476	\$ 34,660	1,624	\$ 140,557	\$ 28,259	\$ 9,249	\$ 37,508
<b>Total</b>	3,283	\$ 253,162	2,549	\$ 139,751	5,832	\$ 392,913	\$ 49,342	\$ 19,311	\$ 68,653

<sup>1</sup>Headcount estimates are as of August 2022

<sup>2</sup>Pensionable wages are based upon raw data through August 2022 projected for the year

<sup>3</sup>Effect of Tiers on Stable Contribution amounts is estimated based upon Actuary's estimate that Tier I has a 25% higher cost for General employees

<sup>4</sup>Tier II for Fire employees indicates the change for their retirement eligibility effective 7-30-2016

<sup>4</sup>Tier II for Police employees indicates the change for their retirement eligibility effective 12-20-2015