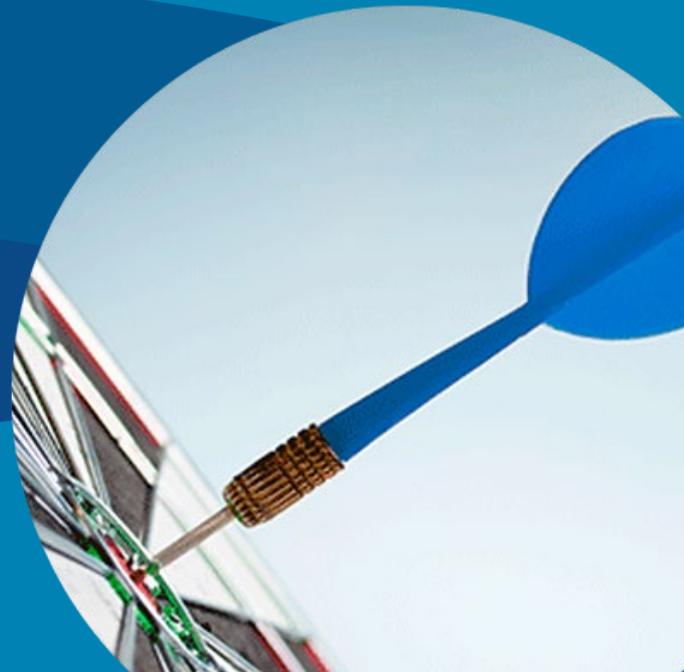




Bay County Employees' Retirement System December 31, 2021 Actuarial Valuations

**Board of Trustees Meeting
November 8, 2022**



Agenda

- Current Events
- Actuarial Valuation Process
- Highlights of 2021 Bay County Actuarial Valuations
- Questions

CURRENT EVENTS



ASOP 4 – LDROM

ASOP = Actuarial Standard of Practices

Most Controversial of Additions for ASOP 4
(Pensions)



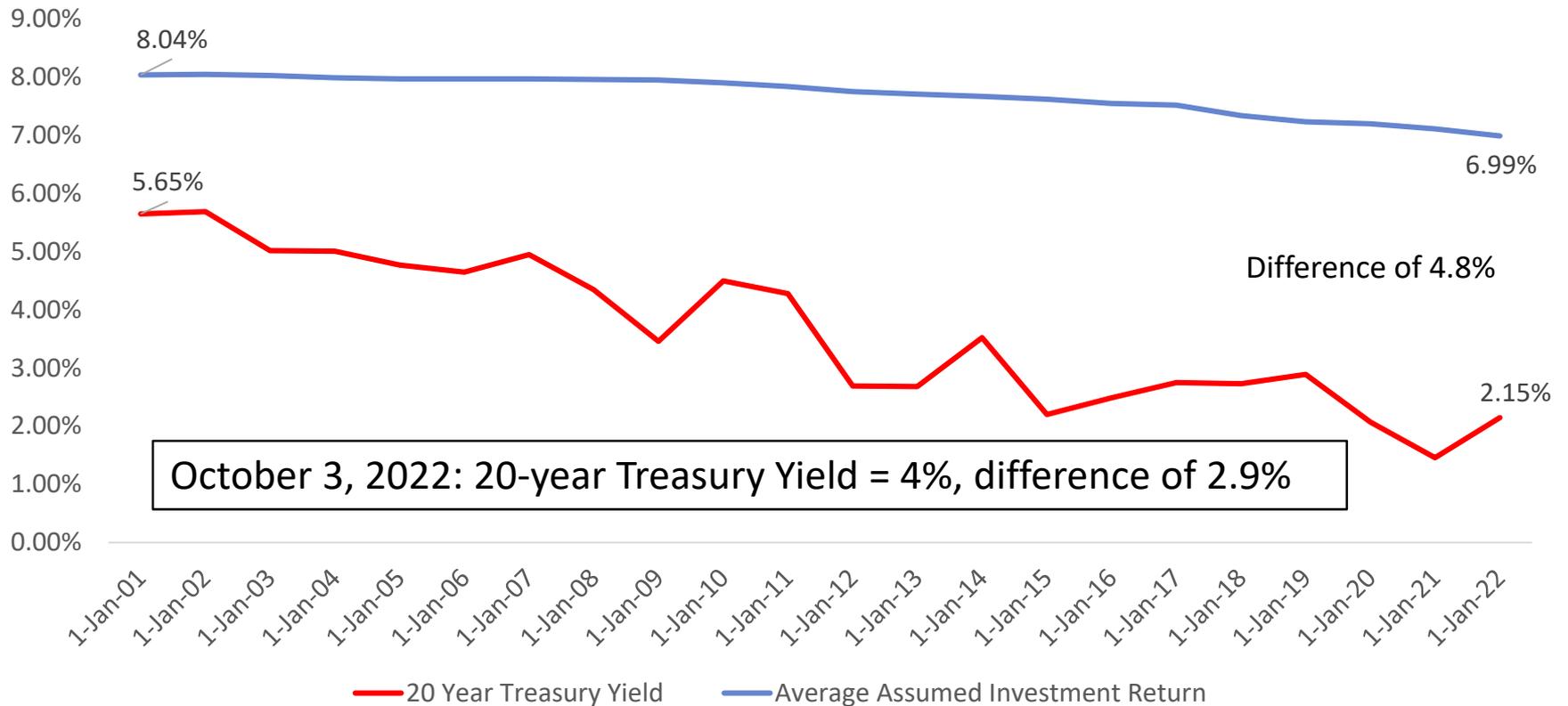
LDROM = Low-Default-Risk Obligation Measure

- Actuaries must calculate and disclose a liability using a discount rate tied to a low-default-risk index
 - Treasury yields, municipal bonds yields, or investment grade corporate bonds
- Intends to show the liabilities for a plan without being exposed to investment risk

Assumed Investment Returns vs. Risk-Free Yields

NASRA Fund Survey

Average Assumed Investment Return vs. Treasury Yields Over Time



Arguments for LDRROM

Provides a More Complete Picture of the Financial Position of the Plan



- Difference between LDRROM and the valuation AAL can be seen as the potential savings generated by taking a reasonable amount of investment risk
- Help reinforce the decision to be in higher return seeking assets
- Help revise the investment return assumption if the difference appears too large

Arguments Against LDRROM

Does not provide universally useful information regarding the funded status of the pension plan or the security of member benefits



- Serves a limited purpose; trustees will not use for decision making
- No evidence that similar, historically disclosed information was used for decision making
- Potential to be a distraction

Could be misleading

Does not add material information - already required to disclose discount rate sensitivity

LDRROM Estimated at June 30, 2022 – BCERS (Excluding BABH)

Actuarial Accrued Liability (AAL)

= \$270 million at 7.25%

Discount Rate	AAL (millions)
4.00%	\$370
7.25%	<u>\$270</u>
	\$100

LDRROM on June 30, 2022

~= \$370 million at 4.0%

- Low default discount rate

Difference of \$100 million can be viewed as:

- Projected savings generated from a reasonable investment strategy, or
- The amount of risk being put on taxpayers

LDRROM Summary



- There is a new disclosure requirement in valuation reports for retirement systems
- Will NOT impact contributions, UAAL, funded ratio, or funding period
- Will only be an additional item added to the Risk Assessment section
- This should not be a meaningful event

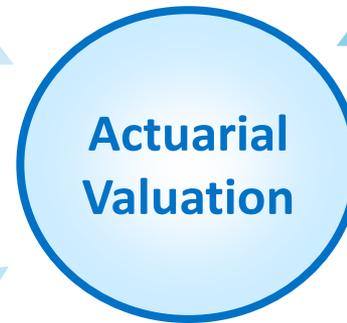
ACTUARIAL VALUATION PROCESS

Actuarial Valuation Process

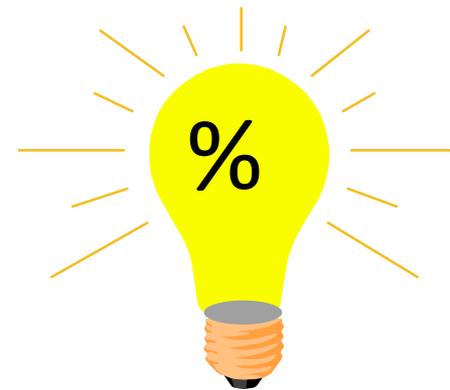
Member Data



Financial Data



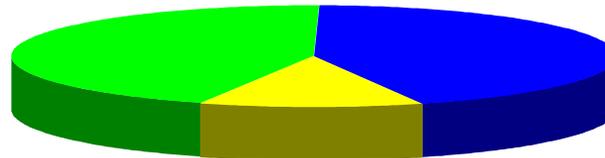
Actuarial Assumptions



Plan Provisions

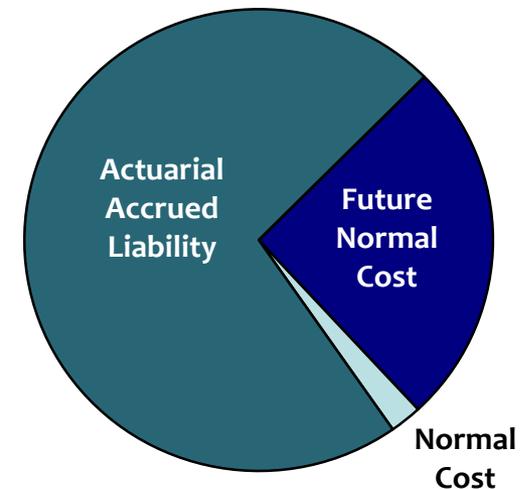


Actuarial Cost Method



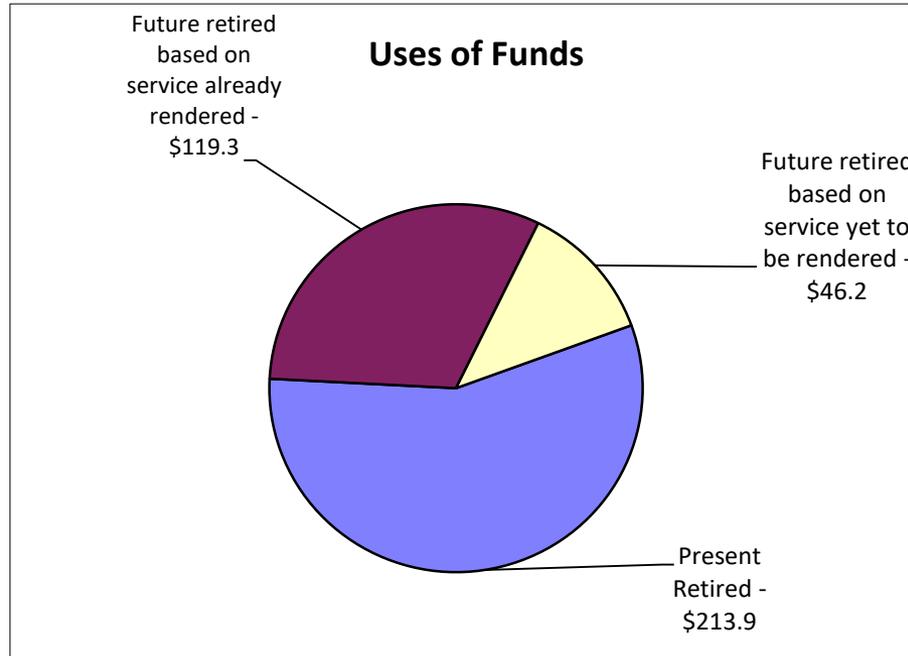
Actuarial Valuation Process

- Present Value of Future Benefits - Present Value (PV) of all Future Benefits payable to current participants (active, retired, terminated vested)
- Actuarial Liability - Portion of PV of Future Benefits allocated to prior years
- Normal Cost - Portion of PV of Future Benefits allocated to current year
- Future Normal Costs - Portion of PV of Future Benefits allocated to future years



Present Value of Future Benefits

\$379.4 Million* of Benefit Promises to Present Active and Retired Members – All Groups



* *Present value of future benefits; all divisions combined.*

Actuarial Valuation Process

$$\begin{array}{l} \text{Actuarial Accrued Liability} \\ - \text{Actuarial Value of Assets} \\ \hline \text{Unfunded Actuarial Liability} \end{array}$$

$$\text{Annual Contribution} = \text{Normal Cost} + \text{Amortization of the Unfunded Liability}$$

Requirement

HIGHLIGHTS OF 2021 BAY COUNTY ACTUARIAL VALUATIONS

Highlights of 2021 BCERS Actuarial Valuations

	General	DWS	Library	Medical Care Facility	Sheriff's Department	Road Commission	Total	BABH
Participants								
Active	422	58	20	329	84	57	970	240
Retired	398	46	49	252	85	93	923	157
Terminated Vested	27	2	3	11	6	0	49	35
Total	847	106	72	592	175	150	1,942	432
Payroll	\$ 17,819,175	\$ 3,519,337	\$ 1,076,616	\$ 11,565,877	\$ 4,834,554	\$ 3,285,058	\$ 42,100,617	\$ 13,318,905
Actuarial Accrued Liability	112,362,092	19,797,342	11,634,478	56,827,352	35,687,977	34,494,896	270,804,137	62,324,221
Actuarial Value of Assets	150,064,893	18,057,730	14,605,449	72,052,090	49,262,113	34,860,740	338,903,015	68,557,354
Unfunded Actuarial Accrued Liability	(37,702,801)	1,739,612	(2,970,971)	(15,224,738)	(13,574,136)	(365,844)	(68,098,878)	(6,233,133)
Funded Ratio	134%	91%	126%	127%	138%	101%	125%	110%
Contribution Requirement								
Employer Normal Cost	5.43 %	9.82 %	\$ 91,887	5.29 %	9.09 %	9.95 %		6.41 %
Amortization Payment for ERIP [^]								1.28
Amortization Payment	(15.04)	3.17	(286,438)	(9.22)	(19.83)	(1.04)		(3.52)
Total	-9.61 %	12.99 %	\$ 0	-3.93 %	-10.74 %	8.91 %	\$ 799,393	4.17 %

[^] Amortization payment associated with the Early Retirement Incentive Program (ERIP).



Highlights of 2021 BCERS Actuarial Valuations

Division	Valuation Year Fiscal Year	Contribution Rate	
		12/31/2020	12/31/2021
		1/1/2022	1/1/2023
General County		0.00%	0.00%
DWS		14.44	12.99
Library		\$ 0	\$ 0
Medical Care Facility		0.00%	0.00%
Sheriff's Department		0.00	0.00
Road Commission		13.04	8.91
<hr/>			
BABH		5.41%	4.17%

Highlights of 2021 BCERS

Actuarial Valuations

- No changes to valuation assumptions or methods for the 2021 valuation
- There were no changes in benefit provisions reported

Highlights of 2021 BCERS

Actuarial Valuations

- The aggregate experience during 2021 was favorable, with overall gains
- Investment return on the market value of assets for calendar year 2021 exceeded the assumed rate of return for the valuation

Looking Ahead

Asset Smoothing — \$ in Thousands

	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Actual Investment Return	\$ 63,548				
Assumed Investment Return	26,646				
Gain/(Loss) to be phased-in	36,902				
Phased-in recognition					
Current year	\$ 7,380				
First prior year	6,650	\$ 7,380			
Second prior year	9,528	6,650	\$ 7,380		
Third prior year	(8,996)	9,528	6,650	\$ 7,380	
Fourth prior year	<u>7,208</u>	<u>(8,996)</u>	<u>9,528</u>	<u>6,650</u>	<u>\$ 7,380</u>
Total recognized gain (loss)	\$ 21,770	\$ 14,562	\$23,558	\$ 14,030	\$ 7,380

Looking Ahead — Contributions

- Asset smoothing helps reduce the volatility of the employer contributions
 - The funding value of assets is 87% of market value
 - Remaining phase-in of past market gains/losses from previous valuations
- The Retirement System will continue to mature
 - More retirees than active employees
 - Normal for a prefunded retirement system

QUESTIONS

Disclaimers

- This presentation is one of many documents comprising the December 31, 2021 actuarial valuations of the Bay County Employees' Retirement System. This presentation should not be relied on for any purpose other than the purpose described in the valuation reports.
- Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

Disclaimers

- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- James D. Anderson and Shana M. Neeson are independent of the plan sponsor, are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.