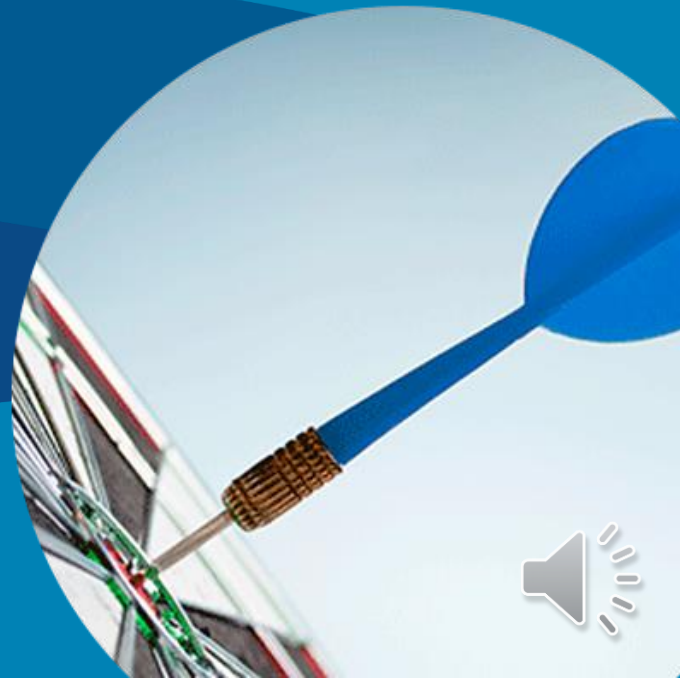




# Reading Volunteer Actuarial Reports

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# Volunteer Reports

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- Each Department has individual liabilities, assets, and funding policy
- Purpose of Valuation:
  - Compare budgeted contribution (assumed contribution) to contribution required by statute (calculated contribution)
  - If contributing more than required, what benefit levels can we afford?

# The Actuarial Terms we will define

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- Normal Cost
- Actuarial Accrued Liability (AAL)
- Actuarial value of assets (AVA)
- Unfunded Actuarial Accrued Liability (UAAL)
- Funded Ratio
- Actuarially Determined Contribution (ADC)



# Start with a simple example ...

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- A City hires an employee and agrees to pay the employee \$100,000 the day he or she retires in 20 years
- No investments are available
  - (earnings = \$0)
- The City would like to save up for this payment throughout the 20 years instead of having to come up with the whole \$100,000 at the time of retirement

# Normal Cost

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- Therefore, the City will need to save \$5,000 per year to accumulate the \$100,000
  - $\$100,000 / 20 \text{ years} \Rightarrow \$5,000 \text{ per year}$
  - The \$5,000 can be defined as the **Normal Cost**
- The Normal Cost can be defined as:
  - The cost of accruing that year's benefit
  - The cost of providing benefits to a new employee

# Actuarial Accrued Liability (AAL)

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- So, 10 years into the arrangement the City should have saved \$50,000
  - \$5,000 each year for 10 years
  - The \$50,000 can be defined as the **Actuarial Accrued Liability (AAL)**
- The Actuarial Accrued Liability represents the *target value of assets* at a specific point in time based on the funding objectives
  - AAL at Year 5 = \$25,000
  - AAL at Year 20 = \$100,000

# Unfunded Accrued Liability

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- Accrued liability is representative of desired amount in the bank, but...
- That doesn't always mean that's what's in the bank
- Example:
  - Accrued Liability: \$50,000
  - Assets: \$40,000
  - Unfunded Accrued Liability: \$10,000
- This difference is paid for over time in the amortization payment
- Flip flopped situation “surplus”
- Use “actuarial value” which smooths out investment gains and losses so not *actually* money in the bank
- Funded ratio =  $\$40,000/\$50,000 = 80\%$



# How did we end up with an unfunded liability?

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- Improving Benefit Provisions Applied to Past Service
  - Old benefit structure: \$100
  - New benefit structure: \$200
  - Past accruals under \$200 structure: \$20,000
  - Past accruals under \$100 structure: \$10,000
    - Addition to UAAL: \$10,000
- Contributed less than actuarially determined amount



# How did we end up with an unfunded liability?

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- Other reasons:
  - Asset losses
    - Assumption is 7.0%. May not get 7.0%.
  - Demographic losses
    - Less terminations than expected
    - Members retire sooner than expected
  - Assumption changes
    - Plan experience indicates that true cost is higher than previously thought
  - Can have flip side gains and end up with a surplus

# Amortization Payment

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- Difference in total past accruals and current asset levels (UAAL) must be amortized off
- Similar to a mortgage
- Unfunded liability amortized over 20-year open period
  - Reset at each valuation
  - Except that benefit improvements implemented on or after January 1, 2025 will be amortized over 10-year closed period

# Amortization of the UAAL

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- Additional contributions will be made so that the UAAL will be amortized over a desired period of time
  - In this example, let's assume 10 years
  - Amortization payment =  $\$10,000 / 10 = \$1,000$

# Amortization Payment

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- Difference from a mortgage:
  - Additional principal payments against a mortgage decrease the time to pay off the liability, not the future payments
  - In the actuarial valuation, payments above the required amortization payment decrease the required amortization payments in the future
    - “Refinance” each year
    - Seen on table 5 under Expected Changes

# Administrative and Other Ongoing Expenses

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- Administrative:
  - Administrative charges for usual FPPA services
- Other ongoing:
  - Typically insurance premiums are paid from the trust
  - Outside of administrative charges for usual FPPA services
  - Very few departments have this

# Required Contribution

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- Referred to as the Calculated Contribution in the report (CC)
- Made up of three components
  - Normal Cost: \$5,000
  - Amortization of Unfunded Accrued Actuarial Liability (UAAL): \$1,000
  - Administrative and Other Ongoing Expenses: \$250
  - Calculated Contribution = \$6,250
- Cannot be less than \$0

# Why did my calculated contribution change?

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- Expected change
  - Contributions larger or smaller than required
- Benefit modification
- Assumption changes
- Investment experience
- Demographic experience

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This concludes the  
**Reading a Volunteer Valuation Report**  
Presentation.

If you wish further information  
or have questions please call

**FPPA**  
Fire and Police  
Pension Association

(303) 770-3772 in the Denver Metro area or  
(800) 332-3772 toll free Statewide.

