CITY OF SAN MARINO
MISCELLANEOUS AND SAFETY PLANS

CALPERS ACTUARIAL ISSUES – 6/30/15 VALUATION

ACTUARIAL BACKGROUND

FEBRUARY 16, 2017

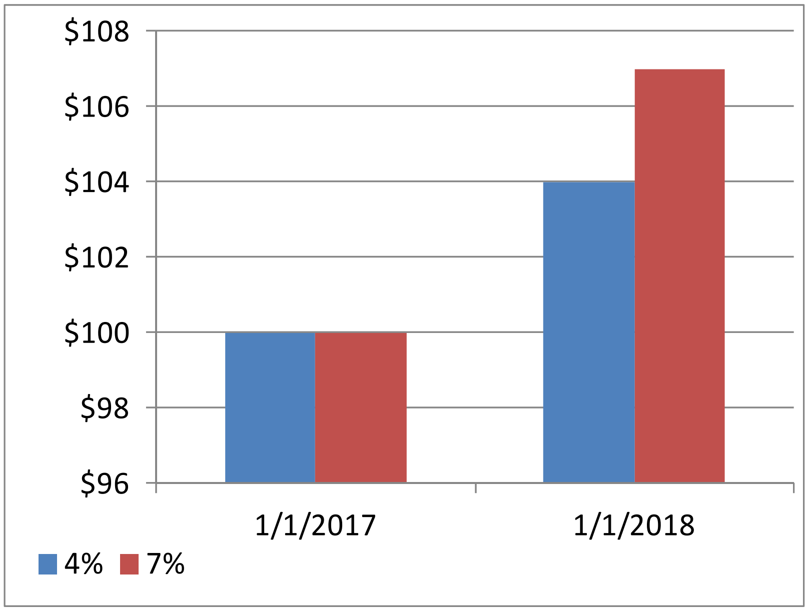
MARY BETH REDDING

BARTEL ASSOCIATES, LLC

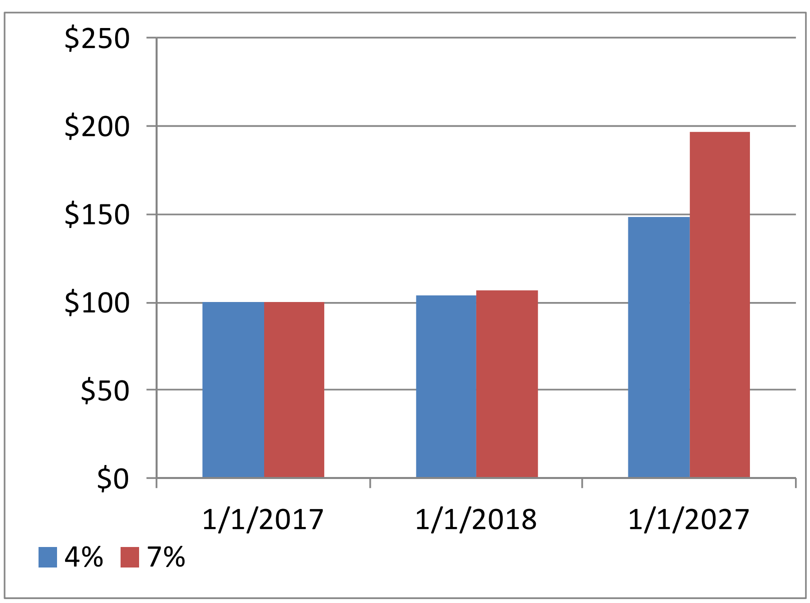
Actuarial Terminology

- **Present Value**
  - The value now of something that will be paid in the future

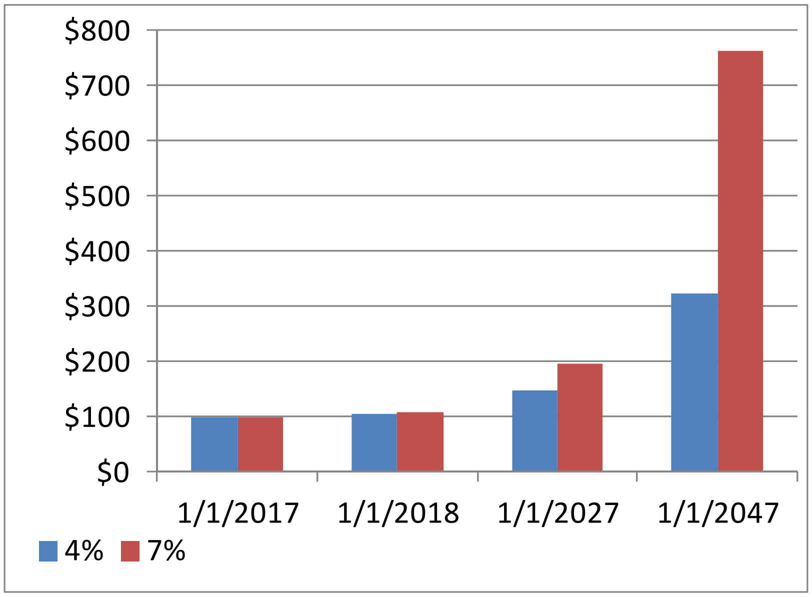
Growth with Interest



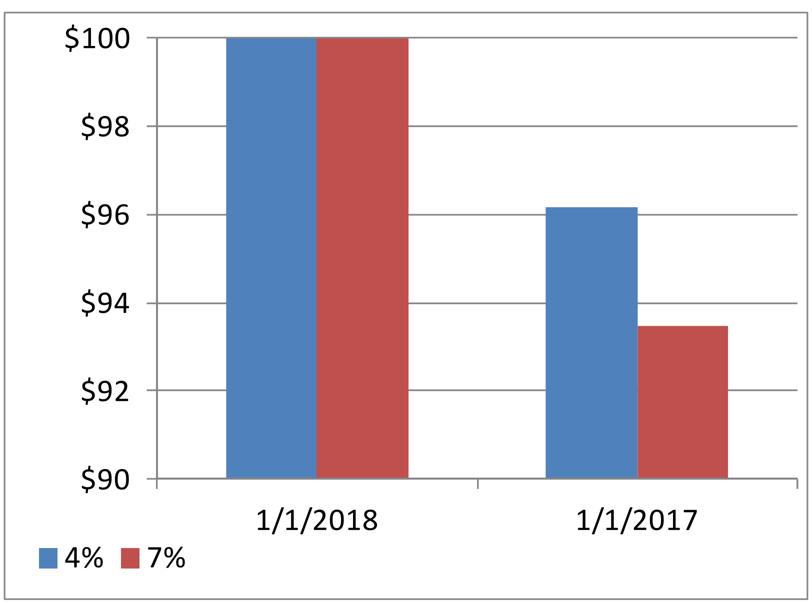
Growth with Interest



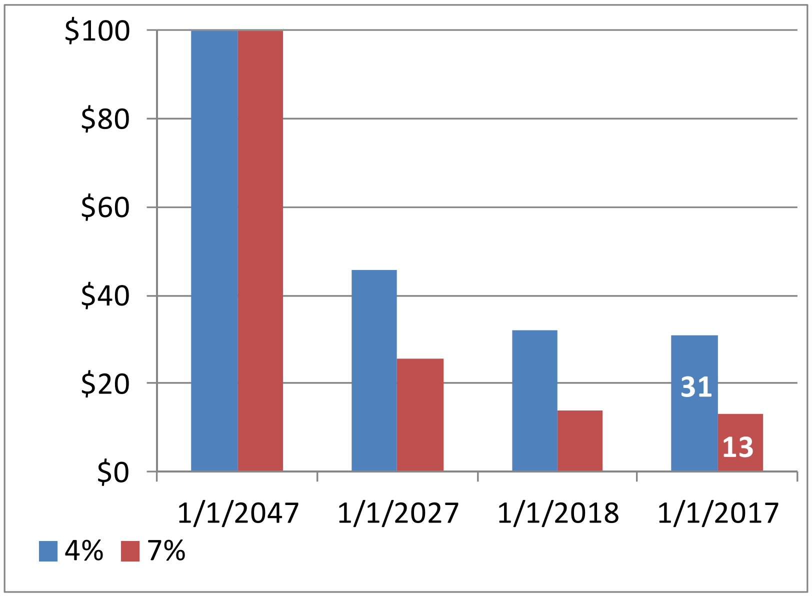
Growth with Interest



Present Value



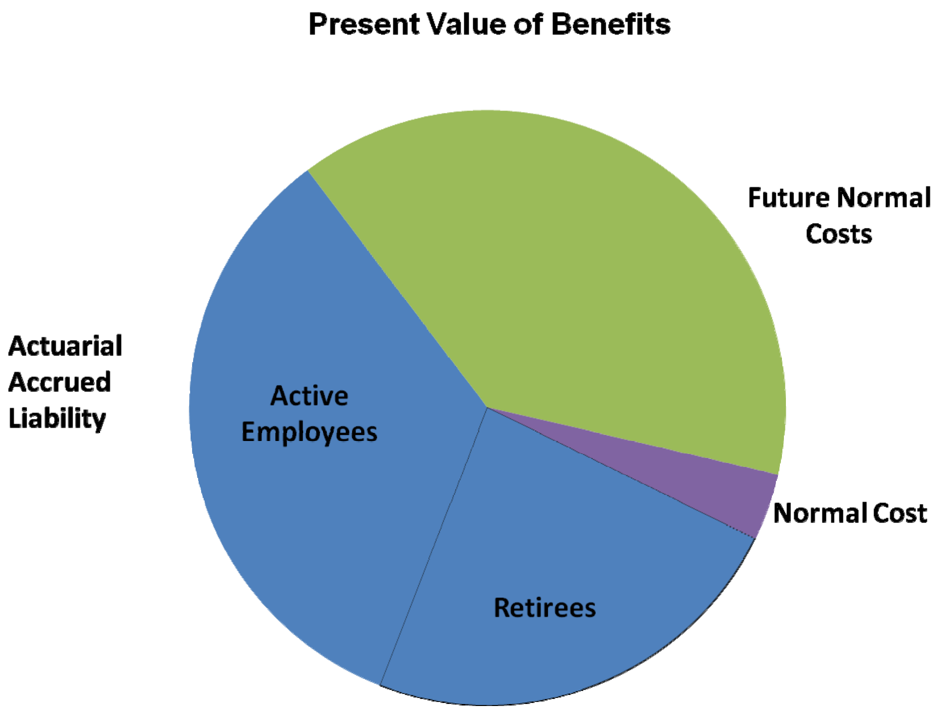
Present Value



Actuarial Terminology

- **Present Value of Benefits (PVB)**
  - Value, using actuarial assumptions, of all benefits expected to be paid to current employees & retirees
- **Actuarial Accrued Liability (AAL)**
  - Liability for benefits "earned" for past service
- **Normal Cost (NC)**
  - Value of benefits "earned" during the current year

DEFINITION OF TERMS



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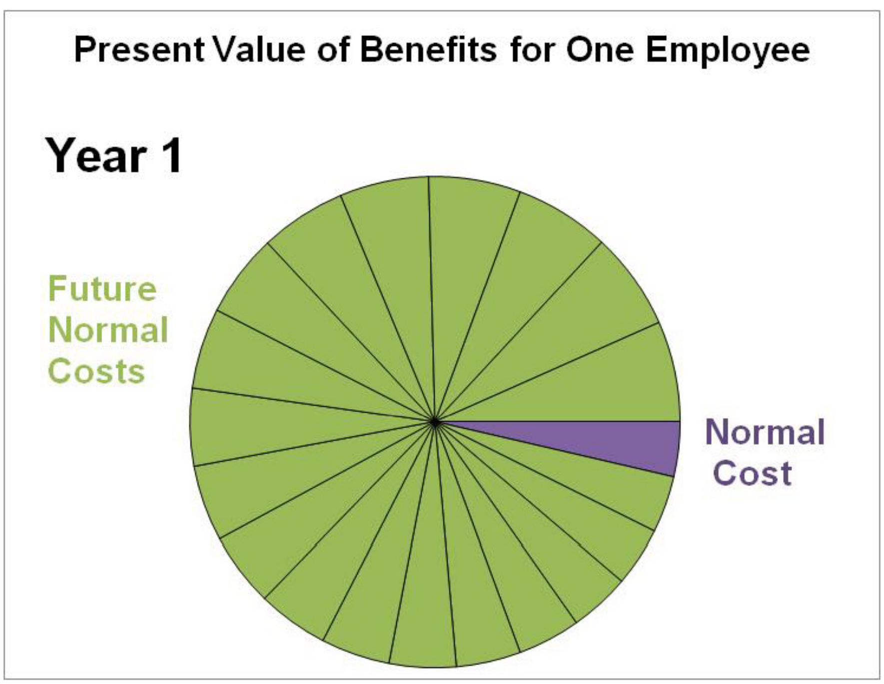

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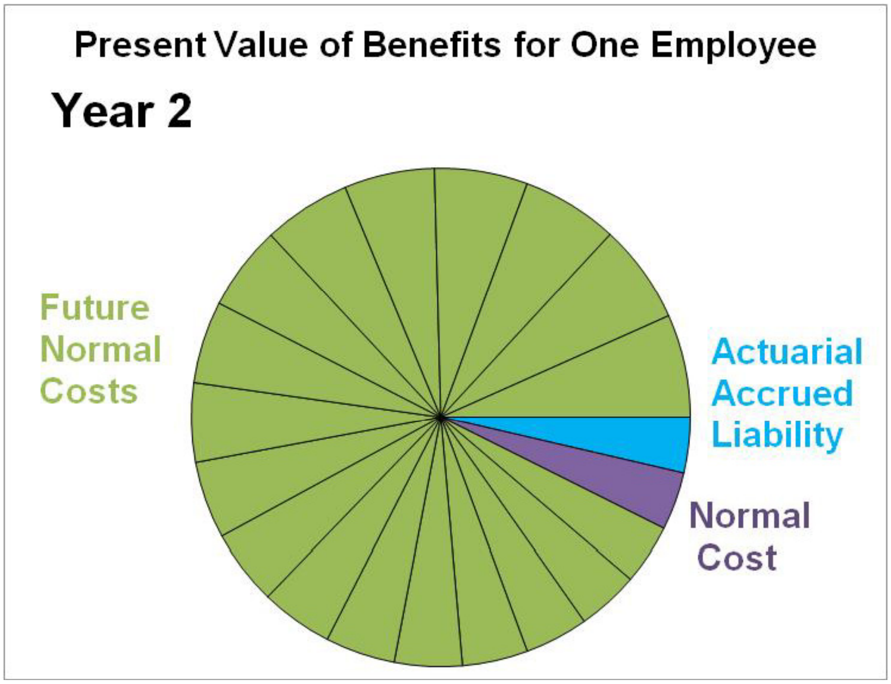

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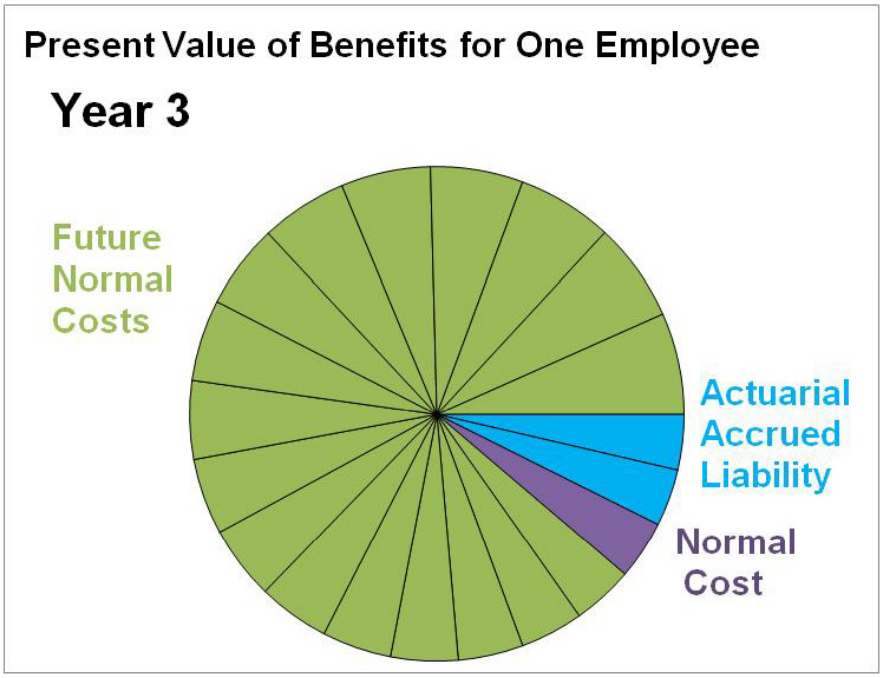

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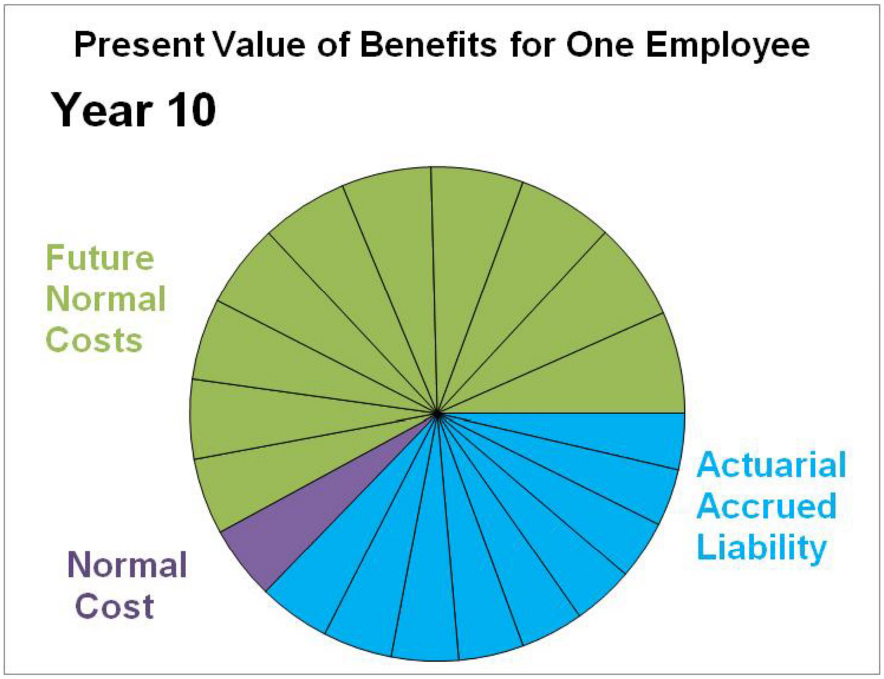

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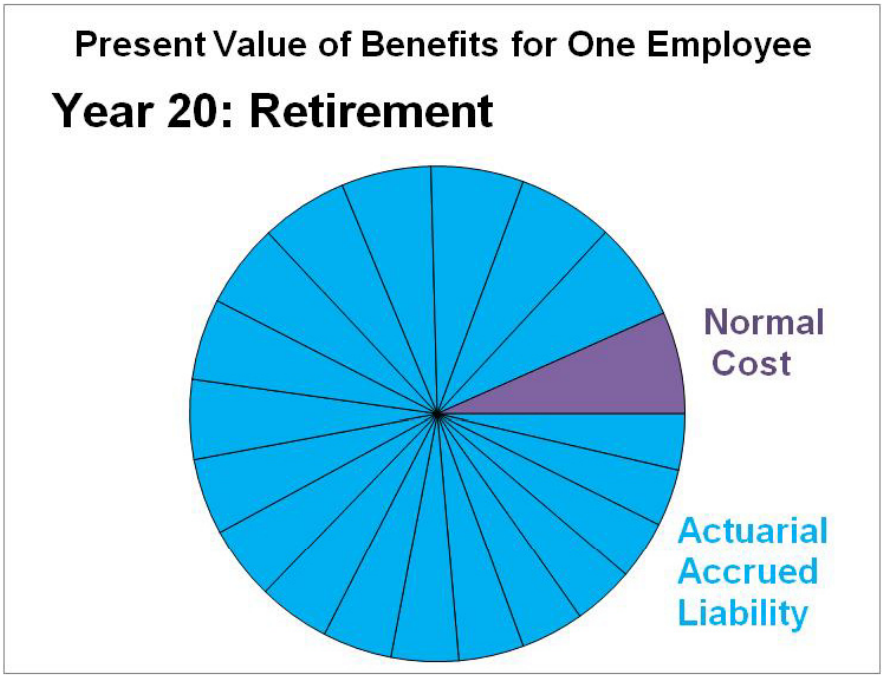
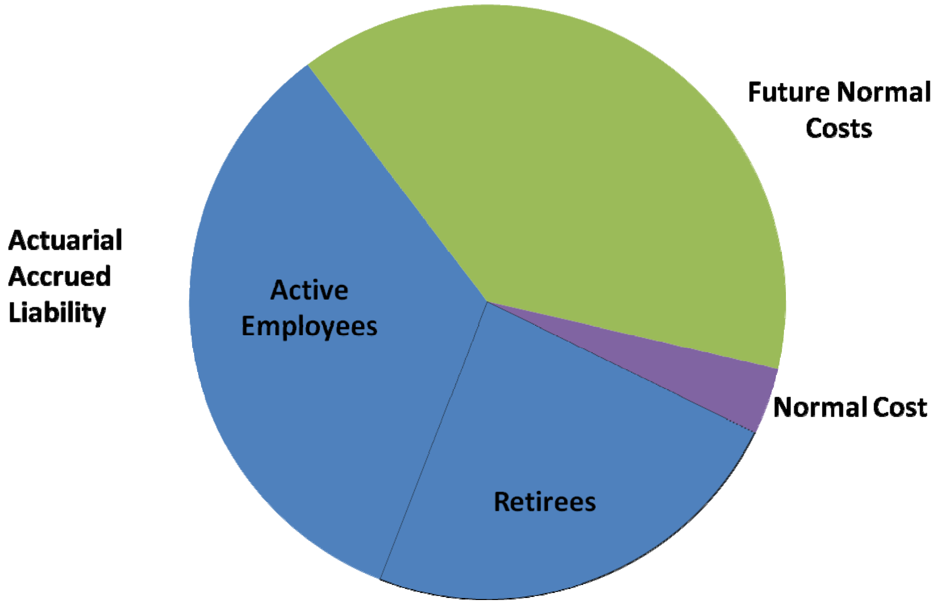


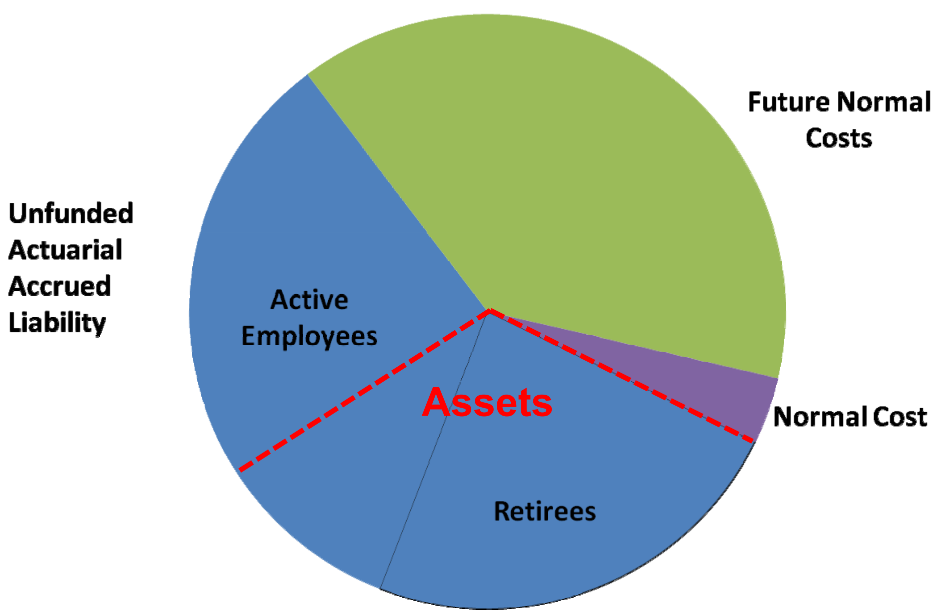
DEFINITION OF TERMS

Present Value of Benefits



DEFINITION OF TERMS

Present Value of Benefits



Actuarial Terminology - UAAL

- **Unfunded Actuarial Accrued Liability (AAL)**
  - If all actuarial assumptions were always exactly met, then the plan assets would always equal AAL
  - Any difference is the unfunded (or overfunded) AAL
  - Every year, the actuary calculates the difference between the expected UAAL and Actual UAAL. This is a new layer or amortization base
  - Each new layer gets amortized (paid off) over a period of time as part of the contribution rate.