# Funding Methods

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*"Securing tomorrow's pensions today."*

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## Today's Presentation

- What is a funding method?
- How do you select one?
- Review of three funding methods
  - Entry Age Normal
  - Aggregate
  - LEOFF 2 Policy
- Educational — no Board action required

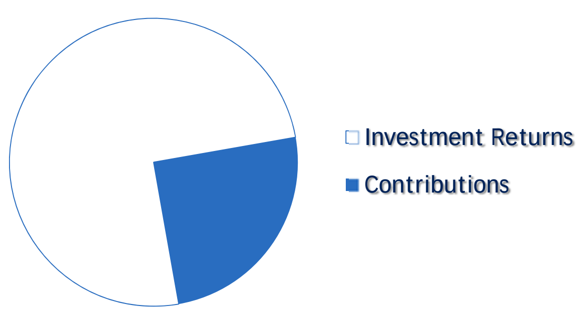
## Funding Method — Setting Aside Money For Future Payments

- "Actuarial Cost Method"
- Benefits for current employees must be paid in the future
- Funding methods are ways of setting aside the money now
- No single right way to do it – many standard and accepted methods
- Funding method is one of the key elements in determining the amount and timing of contributions



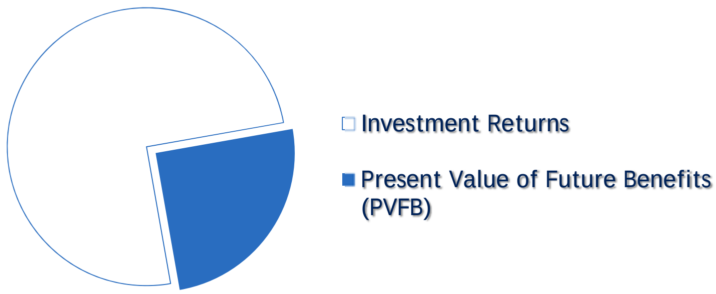
## Total Cost Of All Benefits To Be Paid For Current Employees

- Investment returns cover a large portion of defined benefit plan costs
  - Total portion varies by plan
  - Seventy-five percent is about average for Washington's plans
- Remaining costs covered by contributions from member and employer



## Present Value Of Future Benefits

- This amount invested today will pay for the full cost of all benefits in the future if all assumptions are realized
  - In other words, an up-front payment = PVFB requires no further contributions






## Considerations For Selecting A Funding Method

- Can pick which one best represents your values
- Maximize intergenerational equity
  - Spreading costs over the working lifetimes of members who receive the benefits
- Maximize opportunity for investment earnings
- Manage yearly contributions
  - Budget impacts
  - Take-home pay
- Minimize volatility
- Washington State's current funding goals include
  - Fully funded plans
  - Intergenerational equity
  - Regular payments over time (systematic actuarial funding)

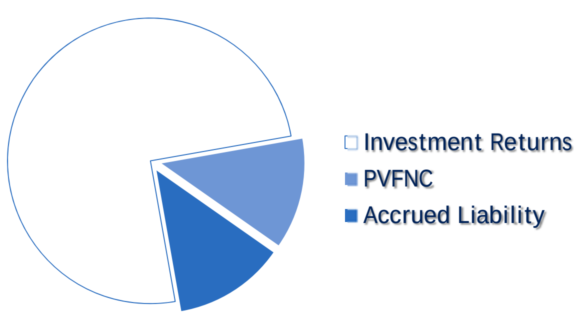
## Today's Presentation Will Focus On Three Methods

- Entry Age Normal Funding Method
- Aggregate Funding Method
- Current LEOFF 2 Board funding policy
  - Combination of both methods
- Other methods available but not covered today



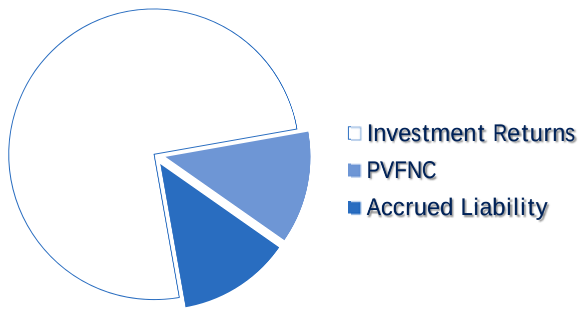
## Entry Age Normal Funding Method

- Two components
  - Future Costs (Present Value of Future Normal Costs)
  - Past Costs (Accrued Liability)
    - Cost of benefits allocated to past service
    - Ideally, already paid for by current assets (past contributions)



## Entry Age Normal: How Much Is Set Aside Each Year?

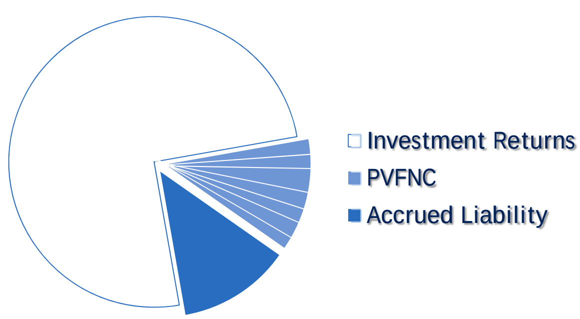
- An amount from each component of the funding method
  - Future cost = one year of normal cost (a slice of PVFNC)
  - Past cost = Annual payment for Unfunded Actuarial Accrued Liability (UAAL)
- Total annual cost = NC + UAAL





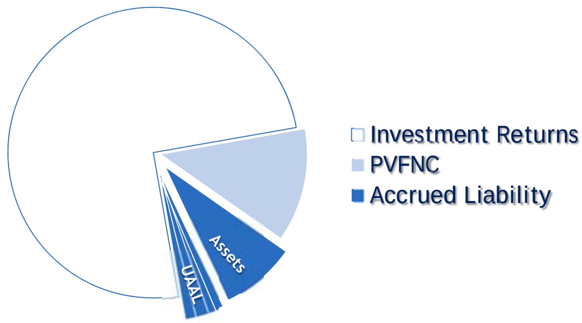

## What Is The Normal Cost Under The EAN Method?

- The PVFNC is divided into annual contribution rates based on expected future salaries
  - The annual contribution rate multiplied by that year's payroll represents one year's normal cost
  - Does not change in response to investment returns or other actuarial gains/losses
- Main benefit of EAN method: stable normal cost rate (highly predictable)



## What Is The UAAL Under The EAN Method?

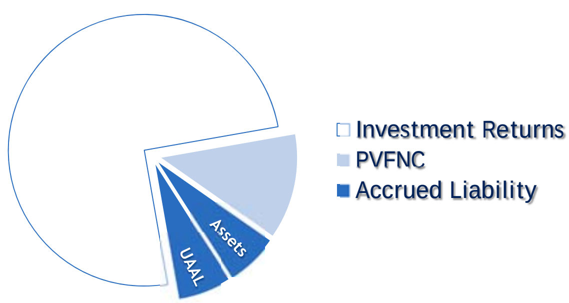
- Compare accrued liability to assets
  - In other words, how much benefits have members “earned” for past service, compared with how much has been set aside to pay for those benefits
- The difference between the two must be amortized over selected time period
- Amortization period will determine annual amount and can be
  - Long or short
  - Fixed or rolling



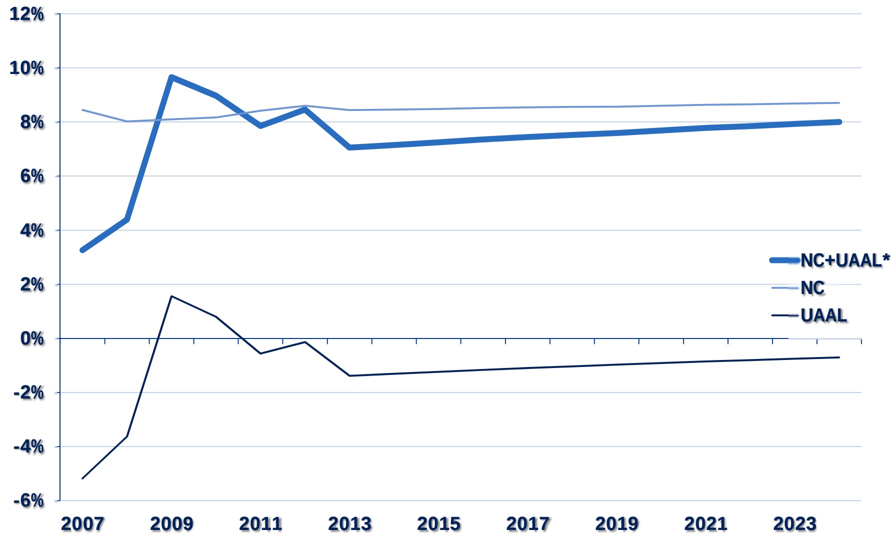



## Volatility Flows Through The UAAL

- Since NC is stable each year, volatility in investment returns and other assumptions is absorbed in the UAAL
  - Included as past costs
- In bad times, if investment returns are low, assets might be smaller than the Accrued Liability (past costs)
  - Result: Contribution rates should increase, UAAL is positive
- In good times, assets might be larger than the AL
  - Result: Contribution rates should decrease, UAAL is negative (surplus)



## Estimated LEOFF 2 Employee Contribution Rate Path — EAN




*Notes: Historical rates based upon previous valuation reports. Projected rates based upon 2011 Actuarial Valuation Report.*
**Starting in 2008 we estimated the projected Market Value of Assets based upon calculated contributions under this funding method.*

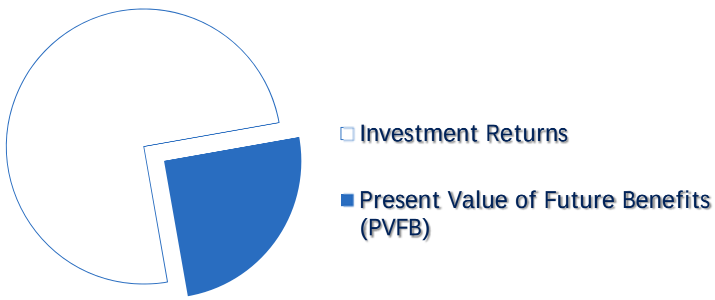


## Recap: Entry Age Normal Funding Method

- Plan costs are divided between NC (future costs) and UAAL (past costs)
- Pro: Stable NC rates
  - Normal cost rate stays the same every year
  - Exceptions
    - When benefit provisions or assumptions change
    - Reflecting demographics of new members
- Con: Includes UAAL
  - Volatility from asset returns
  - Must be spread over selected period
  - Can weaken the goal of intergenerational equity

## Aggregate Funding Method

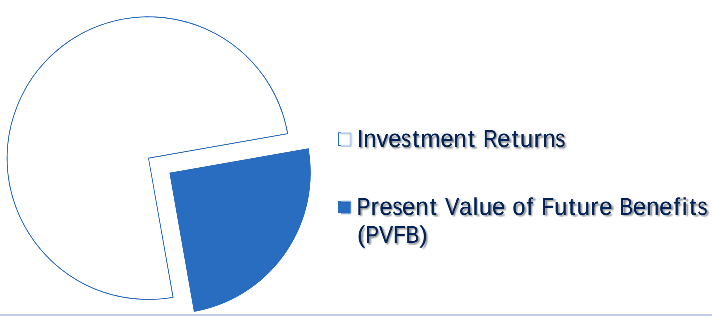
- Going back to our earlier chart — about 75 percent of plan costs covered by investment earnings
- Aggregate method funds costs using one component
  - Normal cost



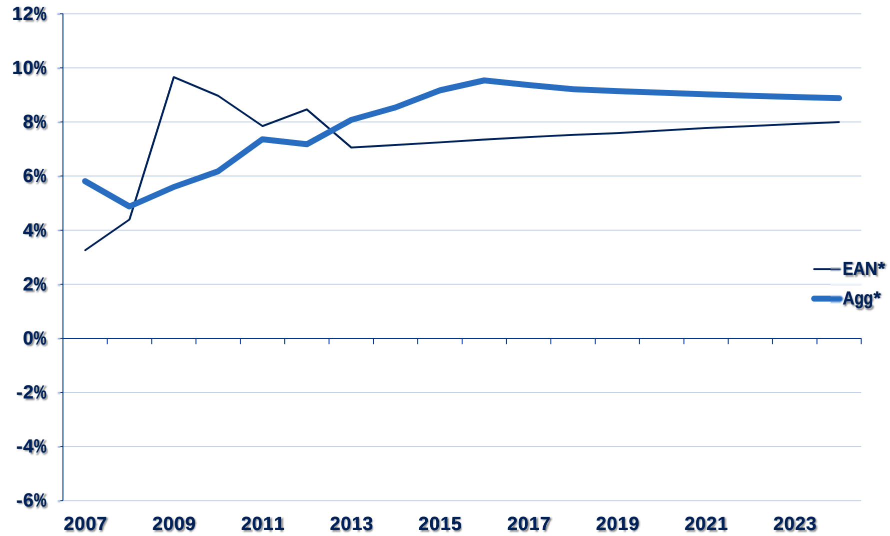



## Aggregate: How Much Is Set Aside Each Year?

- Annual normal cost
  - Subtract assets from PVFB
  - Spread what remains over expected future salaries (PVFS)
- By definition, no UAAL is created
- Volatility from investment returns or other actuarial gains/losses is absorbed in NC



## Estimated LEOFF 2 Employee Contribution Rate Path

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## Recap: Aggregate Funding Method

- One component of plan costs – normal cost
- Pro: No UAAL
- Con: Volatility in normal cost

## Current Board Funding Policy

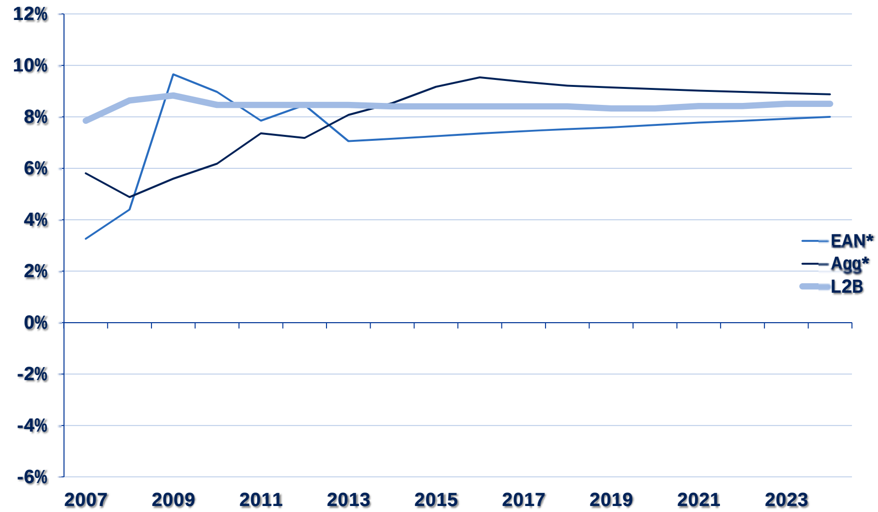
- Board has two policies in place
  - Long term: Aggregate, with rate floor of 90 percent EA normal cost
  - Short term: Aggregate, with rate floor of 100 percent EA normal cost
- Aggregate plus one component of the Entry Age Normal funding method
  - Aggregate as the underlying method, no UAAL
  - Adding stability in the normal cost by applying the EA normal cost as a rate floor
- Asset smoothing method also in place to help limit annual volatility in the Aggregate normal cost



## LEOFF 2 Contribution Rate Comparison

| | 2011-13 Adopted Rates | 2013-15 Calculated Contribution Rates | | |
|---|---|---|---|---|
| | | Aggregate Rates | w/ 90% EANC Floor | w/ 100% EANC Floor |
| **Member** | 8.46% | 6.20% | 7.57% | 8.41% |
| **Local ER** | 5.08% | 3.72% | 4.54% | 5.04% |
| **State** | 3.38% | 2.48% | 3.03% | 3.37% |

## Estimated LEOFF 2 Employee Contribution Rate Path

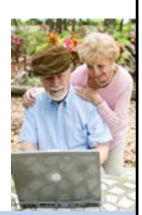



*Notes: Historical rates based upon previous valuation reports. Projected rates based upon 2011 Actuarial Valuation Report.*
**Starting in 2008 we estimated the projected Market Value of Assets based upon calculated contributions under this funding method.*



## Recap: Board-Adopted Funding Policy

- Uses parts of both Aggregate and EAN funding methods
- Pro
  - No UAAL
  - Minimizes volatility in the normal cost
- Con
  - Possible overfunding
  - Can weaken the goal of intergenerational equity



## Summary

- Many funding method options
  - Ways of determining how much to set aside each year to pay future benefits
  - Can choose method that best represents Board values
- Entry Age Normal
  - Pro: Stable normal cost
  - Con: Allows creation of UAAL
- Aggregate
  - Pro: No UAAL
  - Con: Volatility in the normal cost
- Current Board funding policy uses parts of each method
  - Pro: No UAAL, and stable normal cost
  - Con: Possible overfunding, weakening intergenerational equity



## Questions/Contact

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