Pensions 101

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Office of the State Actuary
"Securing tomorrow's pensions today."

What Are Pensions?

- Lifetime retirement payments
- Promises made today to pay benefits in the future

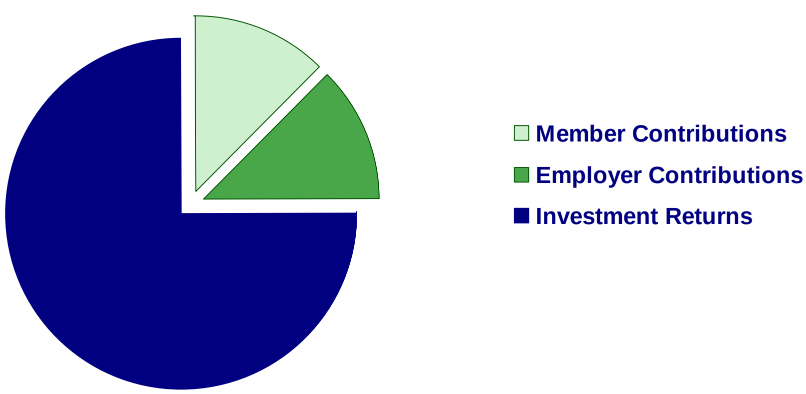
Securing The Promise

- How do you secure a promise for something that happens in the future?
- What are some challenges in securing that promise?

Who Pays For Pensions?

- In Washington, members and employers pay
  - Cost-sharing between them
- Contributions are pooled and held in a trust fund
- Fund grows through investing

Pension Trust Fund



Member Contributions

- Payroll deduction
- Impacts take-home pay
- Pre-tax

Employer Contributions

- Made at time of member contributions
- Taken out of government budgets
- Impacts taxpayers

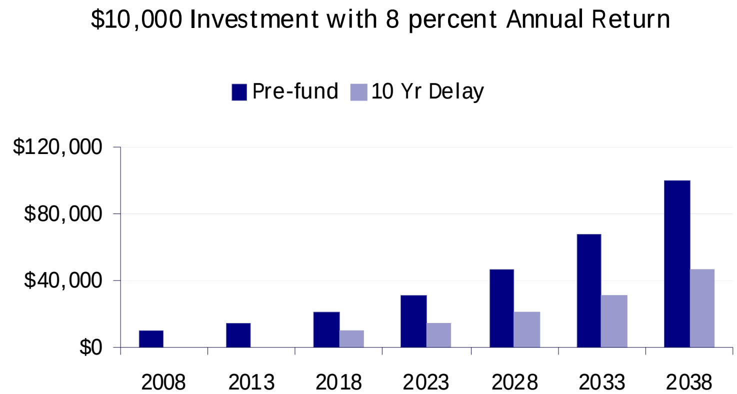
Investment Returns

- Contributions invested in trust
- Trust assets grow over time
- Investment returns provide about 75 percent of plan costs

Time Value Of Money

- A dollar is worth more today than a dollar in the future
  - Money has potential earning capacity
- Maximize growth by timing of contributions
- Pay now, or pay <u>more</u> later

Example Of Time-value Of Money



Possible Funding Approaches For Pensions

- Pay-as-you-go
- Up-front payment
- “Systematic actuarial funding”
  - Regular payments over time

Pay-As-You-Go

- Contributions made as benefits are paid
- Most expensive financing plan
  - Little to no investment earnings
  - Minimal use of time-value of money
- No investment risk

Up-Front Payment

- Single payment today for all future benefits
- Least expensive approach
  - Single lump sum grows with investment earnings
  - Original payment and investment returns offset future pensions
  - Maximum use of time-value of money
- Investment risk

Systematic Actuarial Funding

- Regular payments over time
- Investment returns earned systematically over time
  - Cost is in between pay-as-you-go and up-front payment plans
  - Still using time-value of money
- Investment risk is spread over time
- Washington uses this approach

How Does It Work?

- Estimate future pension benefits
  - What will future benefits be?
  - When will they be paid?
- Estimate time value of money
  - What will future investment returns look like?
- Consider risk: will there be enough money in the future?

What Do Actuaries Do?

- Make assumptions about the future
  - Future pension benefits
  - Future investment returns
- Monitor risk
  - Annual valuations
  - Experience studies
- Apply professional judgment
  - Guided by standards of practice
  - Reasonable conservatism

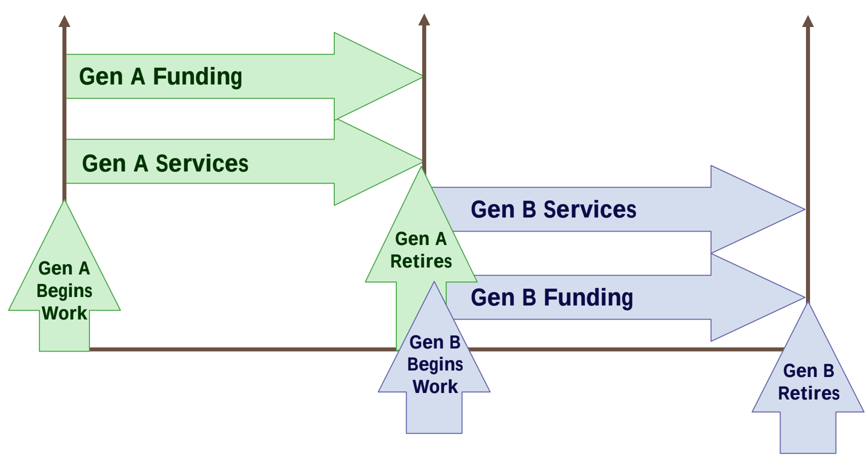
Actuaries Calculate The Regular Payments

- Regular payments are the contributions under systematic actuarial funding
  - Expressed as a percent of pay
- Actuaries consider
  - Future pension benefits
  - Value of assets in trust fund
  - Future service payroll

Fairness Across Generations

- Systematic actuarial funding looks to the future
  - Benefits are funded over members' working lifetimes
  - Flexibility comes with challenges around long-term fairness
- How do you assure fairness across generations?
  - Fund the plan so costs of members' benefits are paid by the taxpayers who received services from those members
  - This is called "intergenerational equity" (IE)

Example Of IE



IE And Funding Approaches

- Pay-as-you-go
  - Current generation pays for retired (past) generation
  - Like Social Security
- Up-front payment
  - Current generation pays for future generations
- Systematic actuarial funding
  - Current generation pays for pensions earned by current generation

A Long-Term View of Funding

- Actuarial funding occurs over a long period of time
  - Multiple generations
- Actuaries smooth trends out over time
  - Example: ups and downs of stock market
- The funding approach assures there is enough money to pay future benefits
  - Assumptions about the future are reasonably conservative

Will There Be Unfunded Liabilities?

- Regular payments fund future benefits over a long period of time
- The unpaid cost of benefits we expect members to earn in the future is called “unfunded liability”
  - Plans 2/3
  - This kind of unfunded liability is natural
- Fairness across generations is present

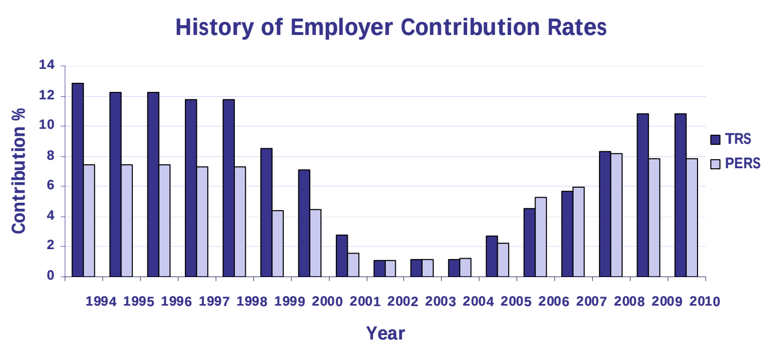
Is That The UAAL We Hear About?

- No, “unfunded actuarial accrued liability” (UAAL) is different
- PERS 1 and TRS 1 have UAAL
- What is UAAL?
  - Unpaid cost of benefits members have already earned (“accrued”)
  - Money in plan not enough to pay them
- Fairness across generations is compromised
  - Current generation paying for past generation

Recap of Systematic Actuarial Funding

- Regular payments over time
- Fairness across generations
- Long-term view

Is Recent History Consistent?



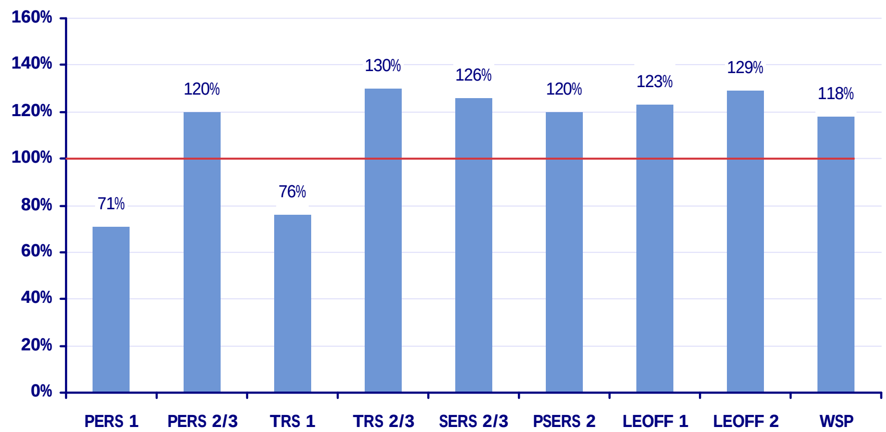
Impacts Of Rate Swings

- Painful as rates go back up
  - Affects member take-home pay (Plan 2)
  - Affects government budgets (taxpayers)
- Fairness across generations?
- Lost opportunity to invest contributions
  - Time value of money

How Are WA Plans Doing Today?

- Washington compares favorably to other public and private sector plans
- Combined funded status is 99 percent
  - Ratio of assets to earned benefits (accrued liabilities)
  - Includes all plans

Combined Funded Status Is 99%*



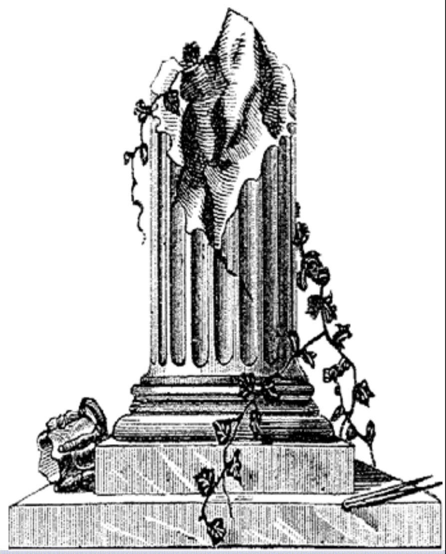
**As reported in the 2007 Actuarial Valuation Report (AVR).*

Two Plans Have UAAL

- PERS 1 and TRS 1 - Unfunded Actuarial Accrued Liabilities
  - Unpaid costs of past ("accrued") benefits
- Causes
  - Benefit increases for past service ("retroactive")
  - Underfunding
- Action plan in place to pay the UAAL
  - Fully fund Plans 1 by 2024
  - Requirement in statute

Lessons Learned From Plans 1

- Benefits were not sustainable
- Funding was not enough
- Plans closed to new members



Other Methods Help Secure Benefits

- Funding method for Plans 2/3
  - “Aggregate” funding method
  - Does not allow UAAL
- Minimum contribution rates
  - Regular payments cannot fall below set amounts
  - Provided in statute
- Asset smoothing
  - Helps reduce short-term swings in contribution rates

Recap

- What are pensions?
  - Lifetime retirement payments
  - Promises made today to pay benefits in the future
- In Washington, the promises are secured by systematic actuarial funding
  - Regular payments over time
  - Fairness across generations
  - Long-term view

Examples Of Future Challenges

- What happens to systematic funding when benefits increase?
  - Middle of generation
  - Past generation
- What happens when investment results change?
- What happens when contributions are delayed?
- What happens when payments for current costs are postponed?

How Can We Meet Future Challenges?

- Discipline
- Balance
- Fairness
- Eye toward sustainability

Are The Benefits Secure?

- Yes, but the future is still unknown
- When a change is proposed, what is the impact on the long-term security of the promise?

Evaluating Changes To System

- Are we systematically contributing the dollars needed to make investments work for us?
- Will the change allow us to keep fairness across the generations?
- Will the pension plan be sustainable over the long-term?

Questions?

Opportunities To Learn More

Select Committee on Pension Policy (SCPP)

- www.leg.wa.gov/scpp
- See the 2008 Orientation Manual found under "Publications"

Office of the State Actuary (OSA)

- http://osa.leg.wa.gov/

Department of Retirement Systems (DRS)

- www.drs.wa.gov