Best Practices-Actuarial

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Charles B. Friedlander, F.S.A.
Municipal Finance Partners, Inc.
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Agenda

- Introduction
- Actuarial Assumptions and Methods
- The Most Important "Best Practice"

Biographical Information

– Director, Actuarial Services, for Municipal Finance Partners, Inc.
– Member of the American Academy of Actuaries
– Fellow of the Society of Actuaries
– Fellow of the Conference of Consulting Actuaries
– Enrolled Actuary under ERISA
– I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Disclaimer

- This presentation does not necessarily reflect the views of PAPERS, my clients or any actuarial organizations.
- This presentation absolutely reflects the values and mission of myself and my firm, Municipal Finance Partners, Inc.

Purpose of Actuarial Assumptions

- Represent the condition of a pension plan, and its sponsor, in a fair and unbiased manner.
- Different Measurements:
  - Ongoing sufficiency of contributions
  - Current termination basis
  - Financial Reporting
  - Credit Rating
- Focus on funding

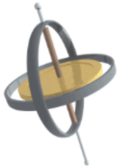
Conflicting Objectives of Funding Policy

- Reasonable allocation of funding to years of future service (Intergenerational Equity)
- Reasonable management and control of future contribution volatility
- Support public policy goals of accountability and transparency

Actuarial assumptions and methods are tools to meet these objectives.

There is No Right Answer!

- Actuaries will have an acceptable range of assumptions.
- Individual assumptions vs. set of assumptions as a whole
- Process for changing assumptions:
  - Review/monitor experience
  - Assess impact of change
  - Decision
- Gyroscope



Key Actuarial Assumptions

- Economic
  - Inflation
  - Interest Rate/Discount Rate
  - Salary Scale
- Demographic
  - Mortality
  - Disability
  - Retirement Rates
  - Turnover

Discount Rate Theories

- Traditional approach: Discount rate is the rate earned by the retirement fund.
- FASB (Corporate Financial Reporting): Based on interest rates on high-quality corporate bonds.
- GASB 67 & 68: Expected fund investment return until projected insolvency date/muni bond rate thereafter
- Financial Economics

Are Our Assumptions Correct?

- Goal of the measurement (i.e., to determine an Actuarially Determined Employer Contribution (ADEC) to fund expected future plan liabilities)
- Actuarial assumptions and methods are required to unbiased; gains should offset losses over the long term.
- Actuaries are required to review actuarial assumptions and methods periodically.

Justification of Assumptions

- GASB 67 & 68: Actuarial assumptions must be justified:
- "Significant assumptions and other inputs used to measure the total pension liability, including assumptions about inflation, salary changes, and ad hoc postemployment benefit changes (including ad hoc COLAs) should be disclosed."
- How does one justify actuarial assumptions?

Experience Studies

- Experience studies are required under GASB 67 & 68:
  - “The dates of experience studies on which significant assumptions are based also should be disclosed.”
- Act 96 (County Pension Law) also requires periodic experience studies:
  - “The actuary of the board shall periodically make an actuarial investigation into the mortality and service experience of the contributors to and beneficiaries of the fund.”

The "Best" Best Practice

- The Best Practices are a comprehensive guide covering the large scope of activities connected with funding and administering a pension plan.
- Each of these practices will help you be a better "steward" of this public asset.
- But there is one recommendation that, if not followed, will override all of the others.

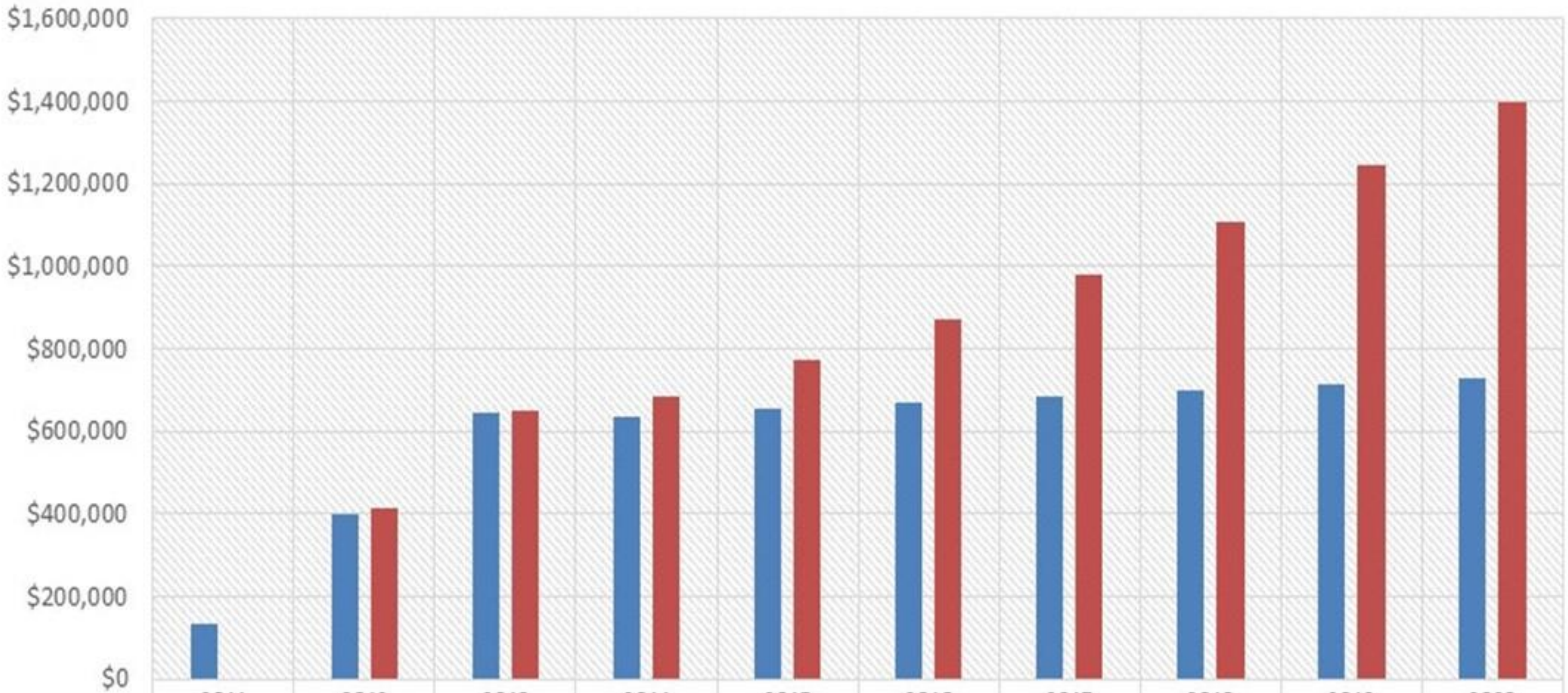
Fund Your Plan!

- Pension funding problems can stem from benefit giveaways, unrealistic actuarial assumptions, poor investment return, pension spiking and fraud.
- But most of the problems are caused by not making the recommended contributions.

Funding Requirements

- Corporate plans are required under ERISA to fund benefits on a plan termination basis.
- Local government plans in PA are required to fund projected pensions on a level cost basis.
- County Plans have no funding requirements.
- State Plans have no funding requirements, subject to the budget process.

Impact of not Funding



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Pay the ARC	$132,798	$401,124	$646,772	$637,473	$653,905	$668,027	$682,766	$698,153	$714,213	$730,977
Don't Pay the ARC		$414,751	$652,018	$682,341	$771,246	$870,543	$981,400	$1,105,115	$1,243,134	$1,397,055

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Reasons to Fund

- By not funding, you are borrowing at the actuarial rate of return (7%).
- Another way to look at it is that same money will make more in the pension fund than it will in the General Fund.
- Financial Statements
- Cost of borrowing in the future.
- Pension Obligation Bonds are a tradeoff:
  - Must earn more in pension fund than cost of borrowing.
  - Can enforce fiscal discipline, higher priority to debt.

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Questions