

ARE YOU EXPERIENCED?

# Actuarial Experience Studies

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# AGENDA

- Introduction
- What's an Experience Study?
- Why would we want an Experience Study?
- What are we studying?
- Panelists

# CHARLES B. FRIEDLANDER, F.S.A.

- Consulting Actuary
- President & Chief Actuary
- Municipal Finance Partners, Inc.
- Education
- Credentials
  - Fellow of the Society of Actuaries
  - Member of American Academy of Actuaries
  - Enrolled Actuary (ERISA)
  - Fellow of the Conference of Consulting Actuaries
- Experience
- Areas of Expertise
  - Municipal Pensions
  - OPEB Benefits

# FUNDING PHILOSOPHY

- Act 205 imposes funding requirements on all municipal pension plans; Counties are not subject to these requirements.
- Despite these rules, plans can become underfunded (losses, benefit increases)
- Without these rules, it can get even worse (see State pension plans, Illinois)
- Concept of Intergenerational Equity: Each generation of taxpayers funds the services they receive, including pensions.

# PENSION PLAN FUNDING OBJECTIVES

- Pension Benefits are a promise to employees
- The Plan Sponsor must raise revenue to fund these promises
- The principle of Intergenerational Equity requires funding of employees' pensions during their working career
- Amortizations, deferrals and smoothing challenge Generational Equity
- Actuarial assumptions that diverge from experience also challenge Intergenerational Equity

# WHAT IS AN EXPERIENCE STUDY?

- An experience study is an investigation into a pension plan's actuarial experience.
- We review how well actual experience matched the plan's actuarial assumptions, typically over a five-year period.
- Deviations from experience are expected; however, a pattern of gains or losses over a period of time suggests potential revisions to actuarial assumptions.

# WHY HAVE AN EXPERIENCE STUDY?

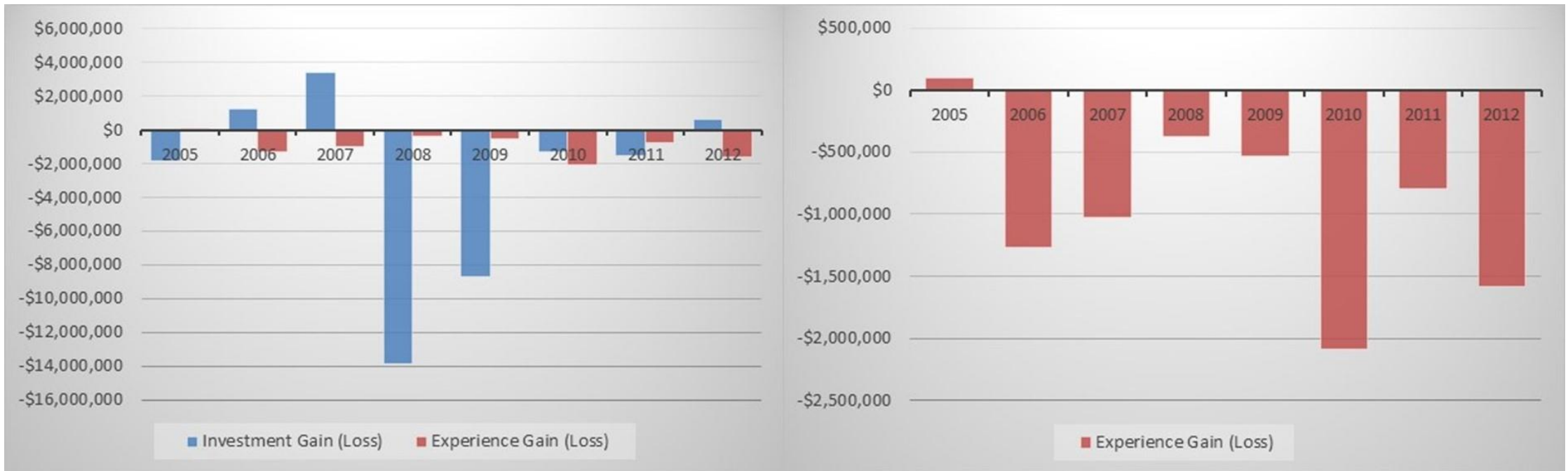
- The goal of your actuarial valuation is to determine an Actuarially Determined Employer Contribution (ADEC) to fund expected future plan liabilities.
- Actuarial assumptions and methods are required to unbiased; gains should offset losses over the long term.
- Actuaries are required to review actuarial assumptions and methods periodically.
- Best practice, even if not required.

# WHY HAVE AN EXPERIENCE STUDY?

- For County Plans, Section 6 of Act 96 reads as follows:
  - The actuary of the board shall (i) periodically make an actuarial investigation into the mortality and service experience of the contributors to and beneficiaries of the fund, (ii) adopt for the retirement system one or more mortality tables,...
- We don't know what periodically means, but I'm pretty sure it doesn't mean never.
- GASB No. 67 and 68 require justification of actuarial assumptions and reference to most recent experience study.



# HISTORY OF GAINS AND LOSSES



# ECONOMIC ASSUMPTIONS

- Valuation Interest, or Discount Rate
  - Used to discount future distributions to current value
  - Used to spread liabilities over working career
  - Used to determine amortization of unfunded liabilities
- Salary Increases
- Inflation, underlies other economic assumptions

# DEMOGRAPHIC ASSUMPTIONS

- Mortality
- Retirement Rates
- Turnover, or Withdrawal
- Disability
- Benefit Elections

# LIMITATIONS OF EXPERIENCE STUDIES

- Guide to future expected experience, but not an absolute set of instructions
  - No guarantee the next 5 or 50 years will be similar to the past 5
  - Unforeseen events (see 2008 market downturn)
  - Credibility of data