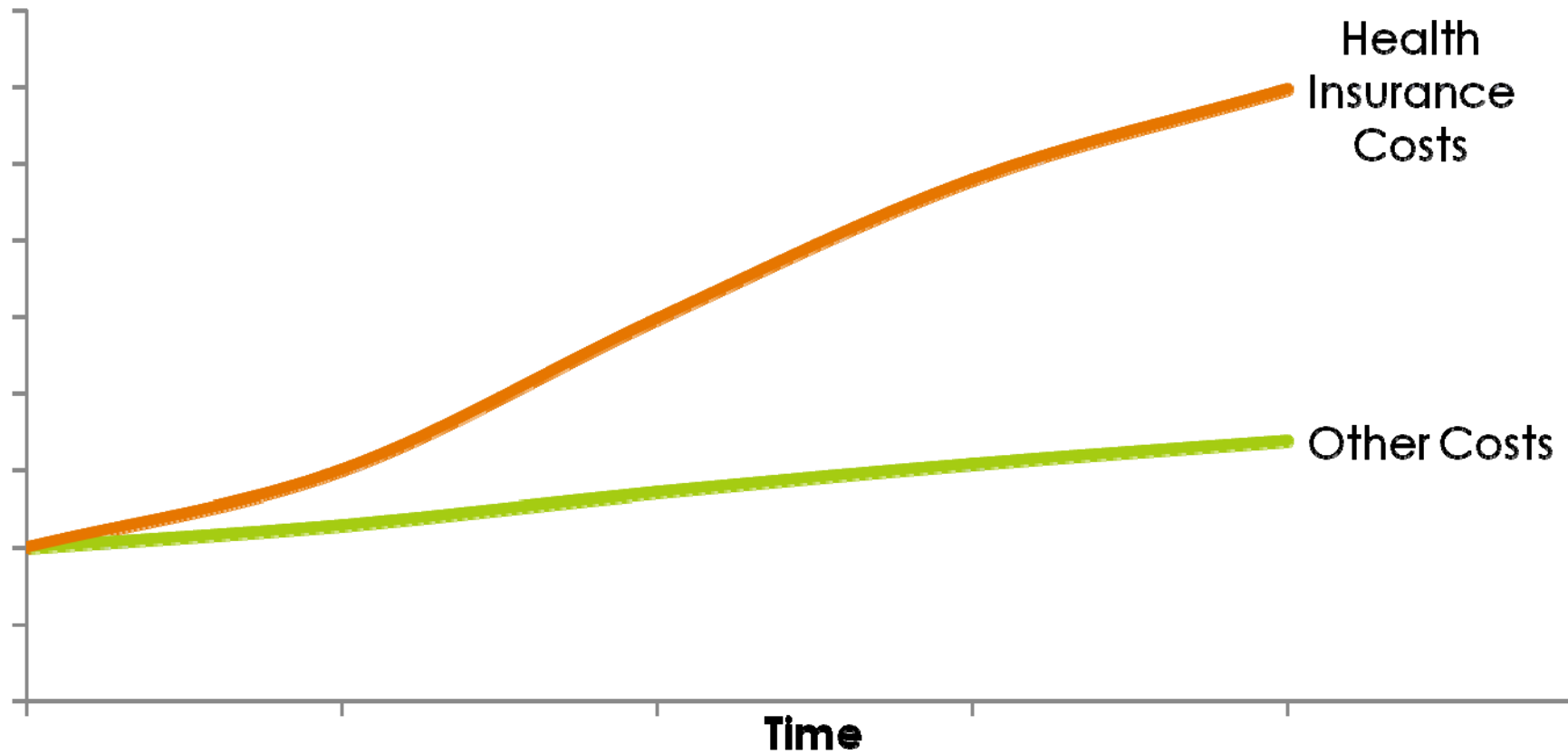

Health Care Planning Decisions

A Simulation Approach

Patrick Riechel

Nationwide Healthcare Cost Impact



Agenda

- ▣ Tradeoffs
 - ▣ Model Characterization
 - ▣ Decisions to be made
 - ▣ Decision criteria
 - ▣ Findings
-

Find Best Decision Given Tradeoffs

Lower healthcare costs



VS

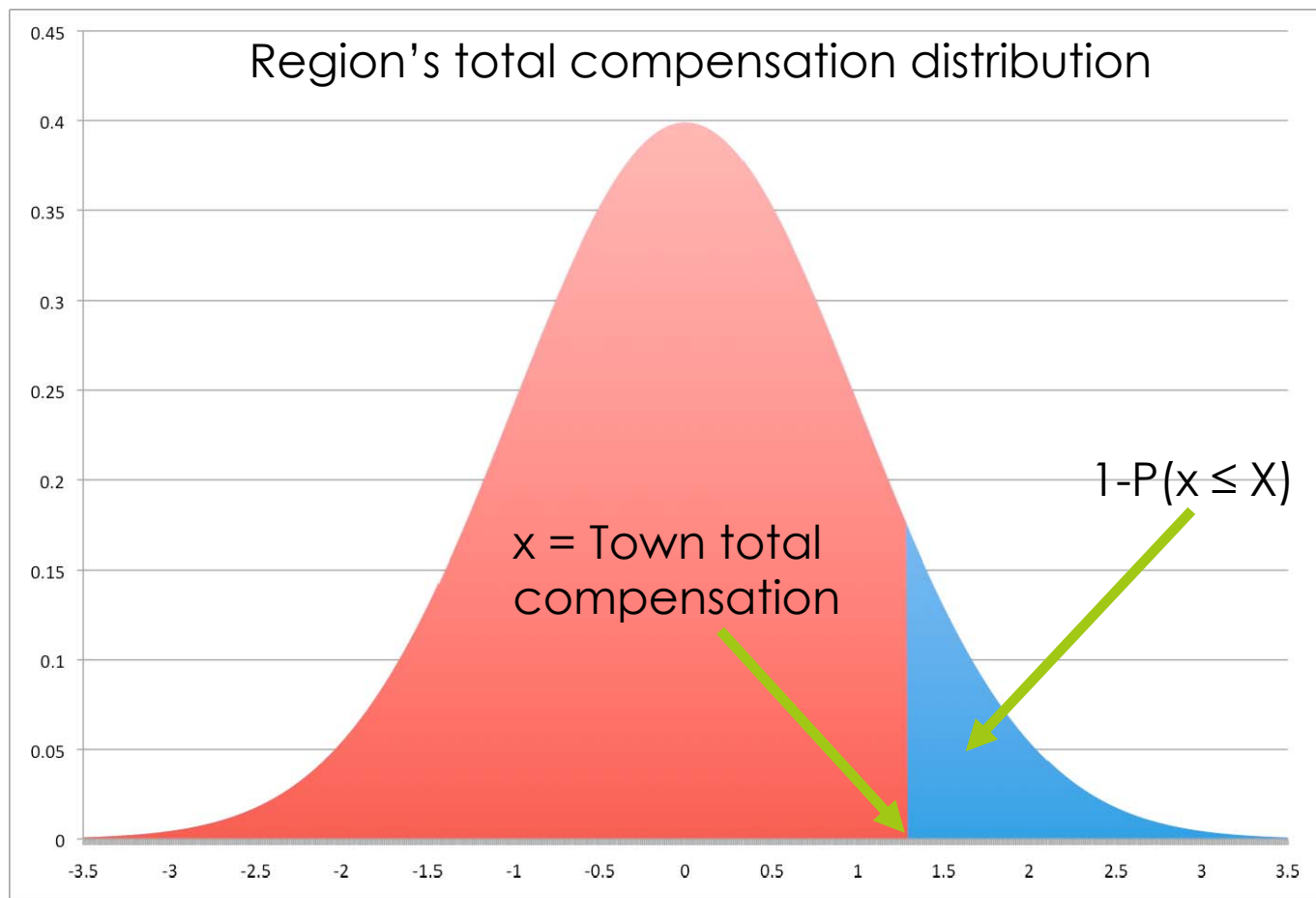
Happier, more loyal workforce



Model Characterization

- Healthcare costs data
 - Agency for Healthcare Research and Quality
 - Kaiser Family Foundation
 - Town records
 - Salary data
 - Massachusetts Department of Elementary and Secondary Education – Average Teacher Salaries
 - Employee Loss Function: inverse normal probability distribution function
-

Employee Loss Function



Decisions

- High-cost plan, low-cost plan, both, ...
- Both with **option** to drop high-cost!
 - Drop when adoption of low-cost at a threshold percentage

Decision criteria

- 6-year NPV of (total compensation + cost of rehiring)
 - Mean
 - 5%
 - 95%
- Total employees lost

Findings

- Sensitive to indefinite assumptions!
 - Cost to rehire
 - Employee loss function
 - Could get best decision to vary along entire spectrum
 - Only use low-cost option
 - Offer both plans from now until eternity
 - Offer both plans from now until 0-100% of employees have switched to low-cost plan
 - But...
 - Option never got in the way and sometimes was useful!
-

What was the point?



Questions?
