

GUY CARPENTER



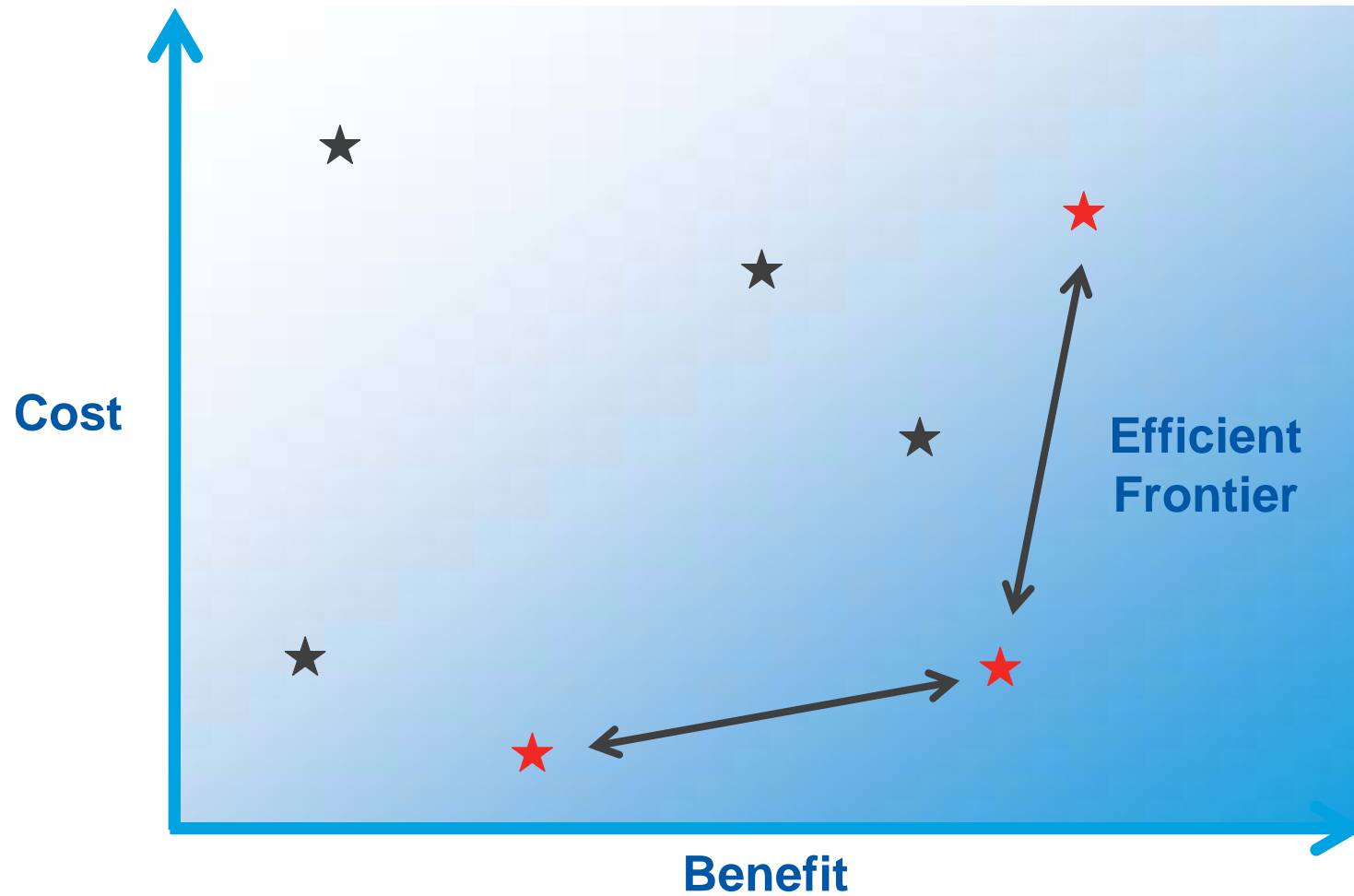
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May 18, 2009

Data Quality Weighing the Costs and Benefits

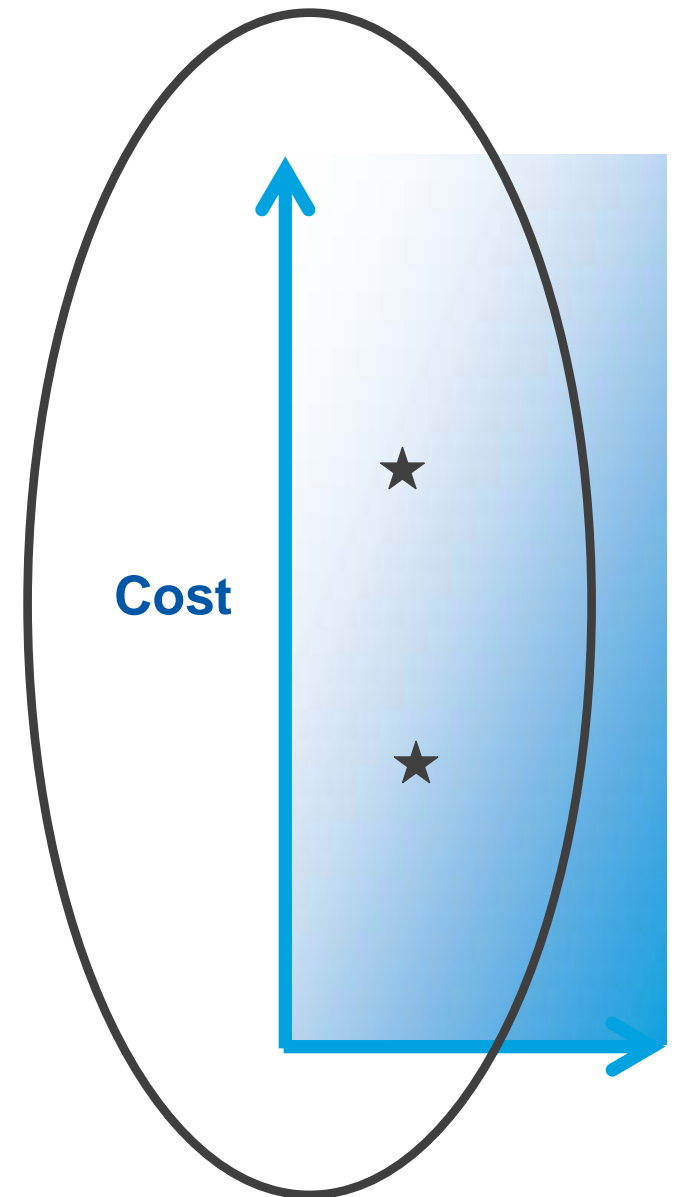
Krista Lienau

Creating a Plan for Improving Your Data Quality



Potential Costs

- Data currently captured
 - Captured on another system?
 - Used in underwriting, etc.
 - Difficulty in merging with cat data
 - Any modifications?
- Data not currently captured
 - Process
 - Backfill
 - Going forward
 - Agent and management buy in
 - Resources taken from other projects
- Risk associated with increased PMLs
- **More, More, More!**





Potential Benefits

- Instill Rating Agency Confidence
- Instill Reinsurer Confidence
 - Reduction in reinsurance costs
 - Relationship building
- Reduction in PML Uncertainty
 - Actual vs. modeled losses
 - Overestimation/Underestimation
- Management of Cat Risk
 - Rate adequacy
 - Portfolio management



Rating Agency

- Taking a closer look at data quality
- 2008 SRQ contained several data quality questions
 - Geocoding
 - % of data with risk characteristics known
 - Treatment of multiple locations
 - Data verification process
 - Bulk coding
- No hard “scoring” yet
- Reserving right to adjust model output



Reinsurance Costs

- Surcharge for poor data quality
- Charged for “unknown” assumption on risk characteristics
- Worst case scenario may be assumed
- Actual versus modeled
- Relationship building
- The Future . . . third party scoring tools?



PML Uncertainty

- Impact of unknown data elements varies by
 - Data element
 - Other known data elements
 - Line of business
 - Peril
 - Region
 - Model
- How good of an assumption can you make?
- Perform sensitivity analysis on YOUR portfolio
- Look at the big picture and overall drivers of PMLs



Case Study – Company ABC

- National US business
- Property and Workers' Compensation
- CA residential property EQ risk drives cat risk, followed by Gulf HU
- Identified the following potential fields:
 - # Employees
 - Occupancy Class
 - Frame Bolted
 - Storm Shutters
 - Square Footage

Examining the Costs – Company ABC

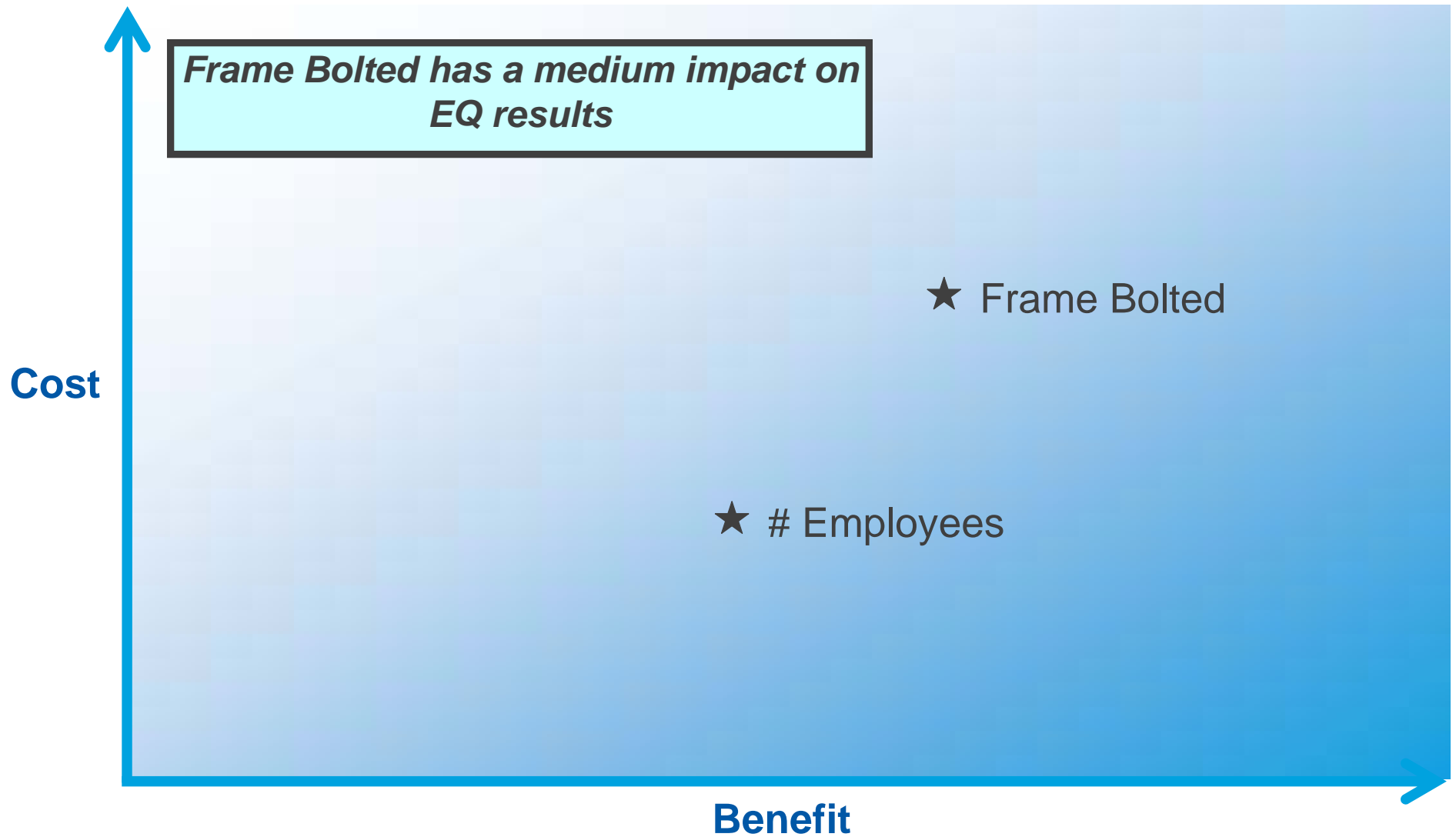
- Occupancy Class
 - Available on separate system
 - Data can be migrated
 - Small IT project to query systems
- Frame Bolted and Storm Shutters
 - Not captured
 - Used in underwriting
- # Employees
 - Not currently available
- Square Footage
 - Available on separate system



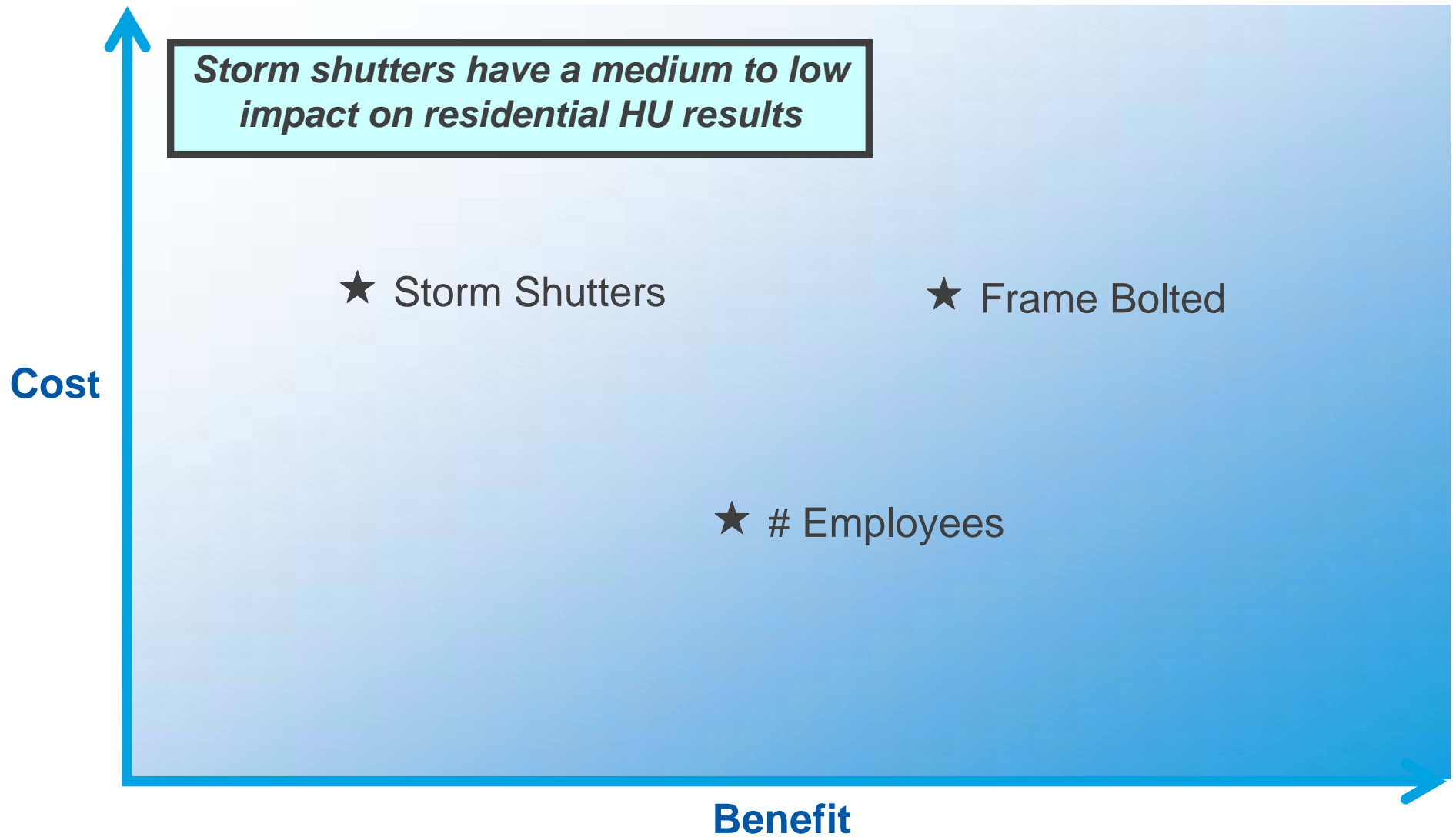
Examining the Benefits – Company ABC



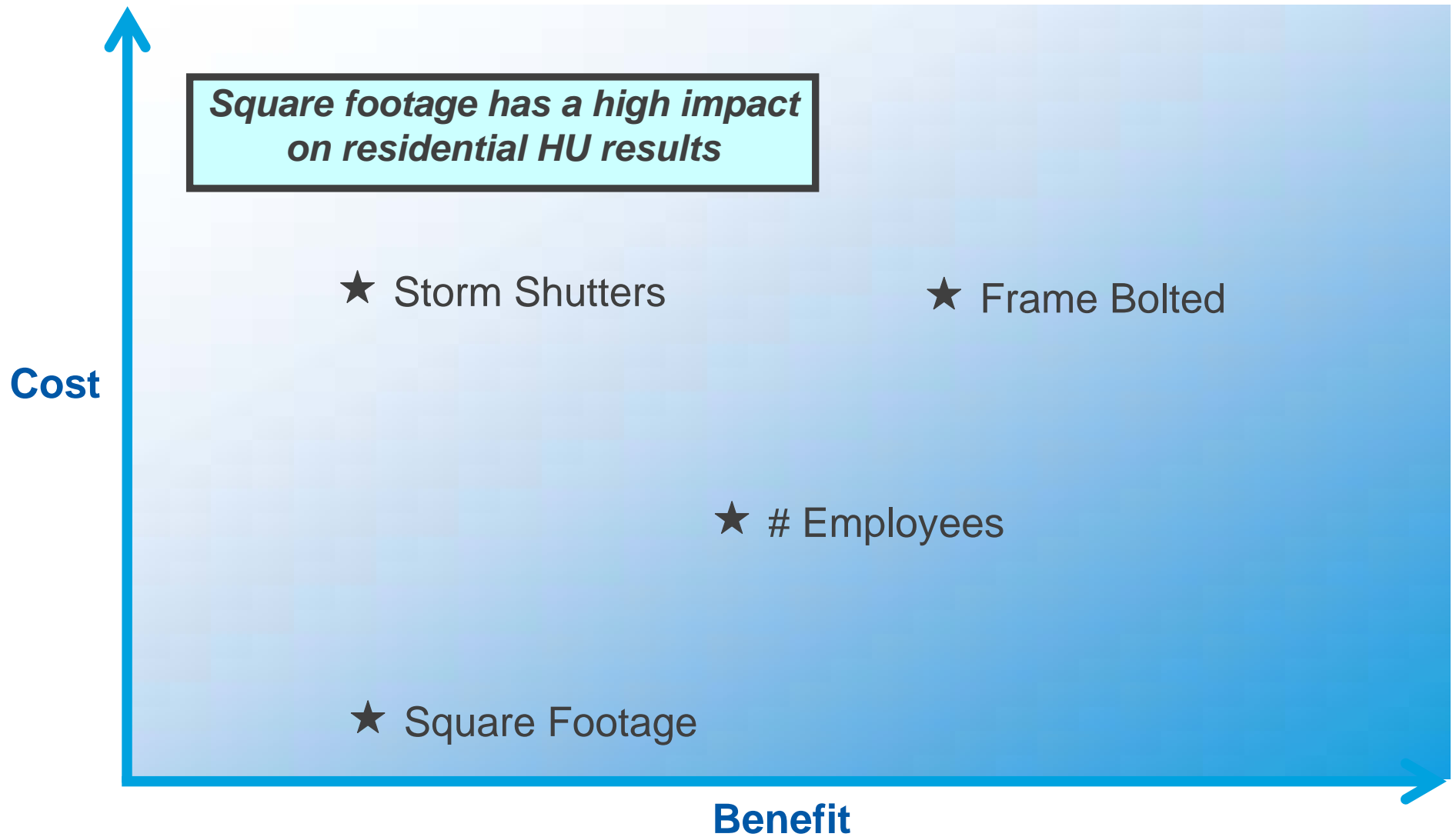
Examining the Benefits – Company ABC



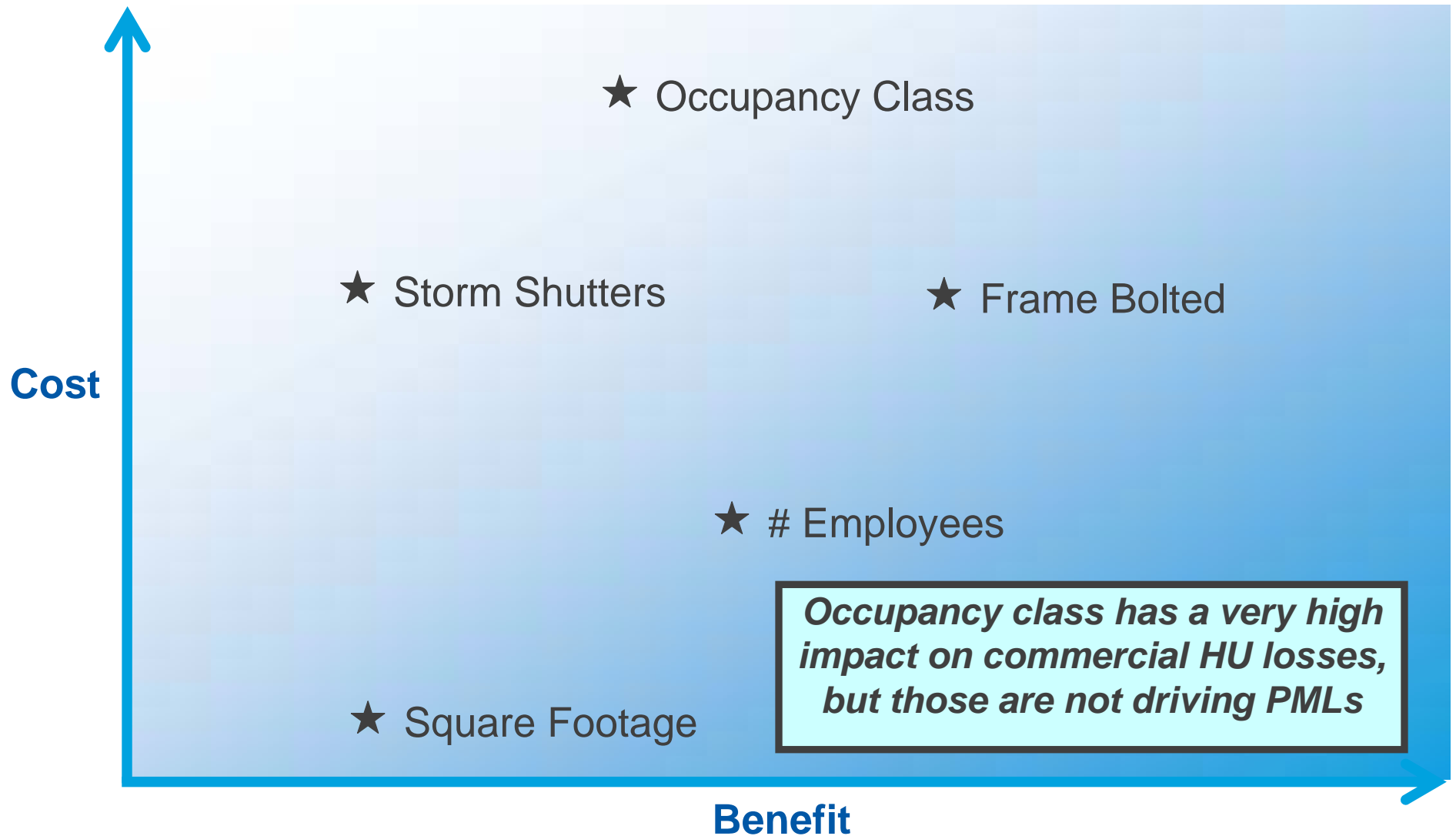
Examining the Benefits – Company ABC



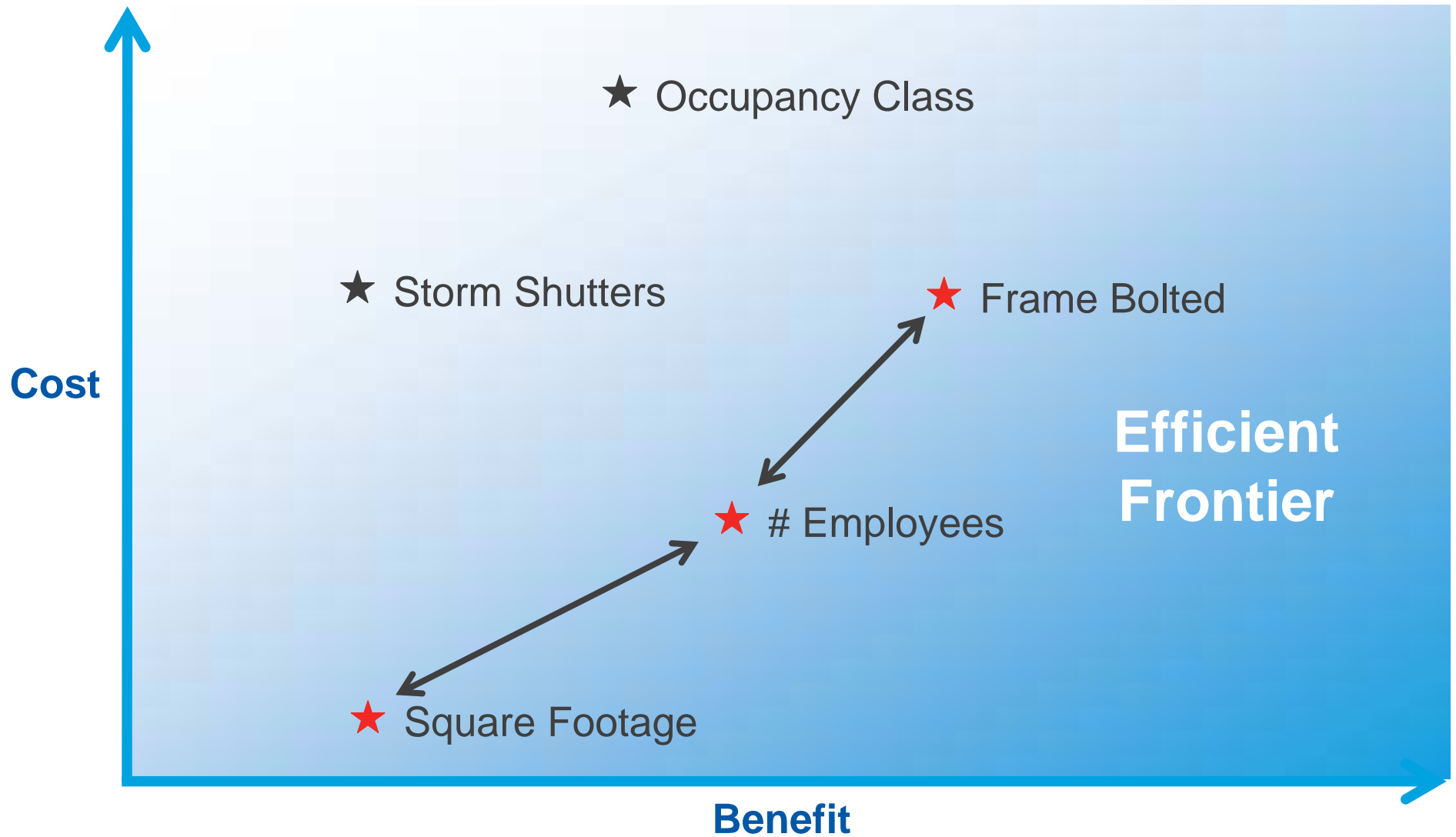
Examining the Benefits – Company ABC



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