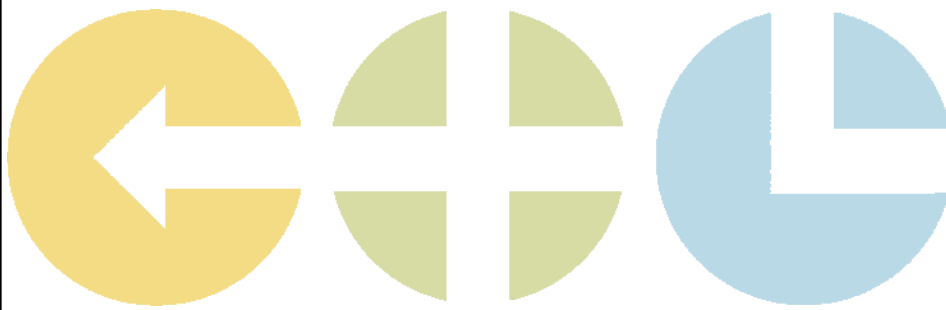




MIT Center for Transportation & Logistics

Just One More Sip....
of The Beer Game Debrief

January 18, 2017



Just one more sip.....

McNeil-Lehrer News Hour

Events → Patterns → Structure

The Role of the System



We learned that...

- The Beer Game is an overly-simplified supply chain
 - No prices, no promotions, guaranteed sales
 - No competing for market share or customers
 - No facility location decisions (closing, opening)
 - Single product in the portfolio, no components
 - No procurement problems
 - No production issues (breakdown, maintenance)
 - No transportation disruptions or negotiations

So why do smart, well-intentioned people
perform so poorly?



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Most people deal with systems at the level of

Events



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Event thinking....

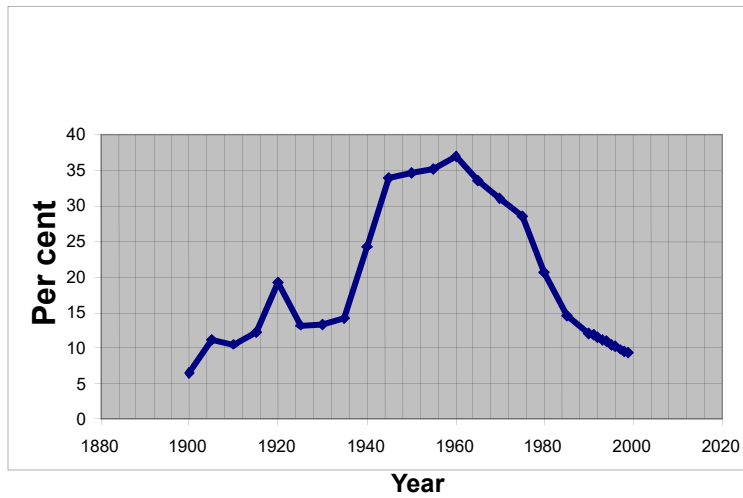
Saturday, May 14, 2005

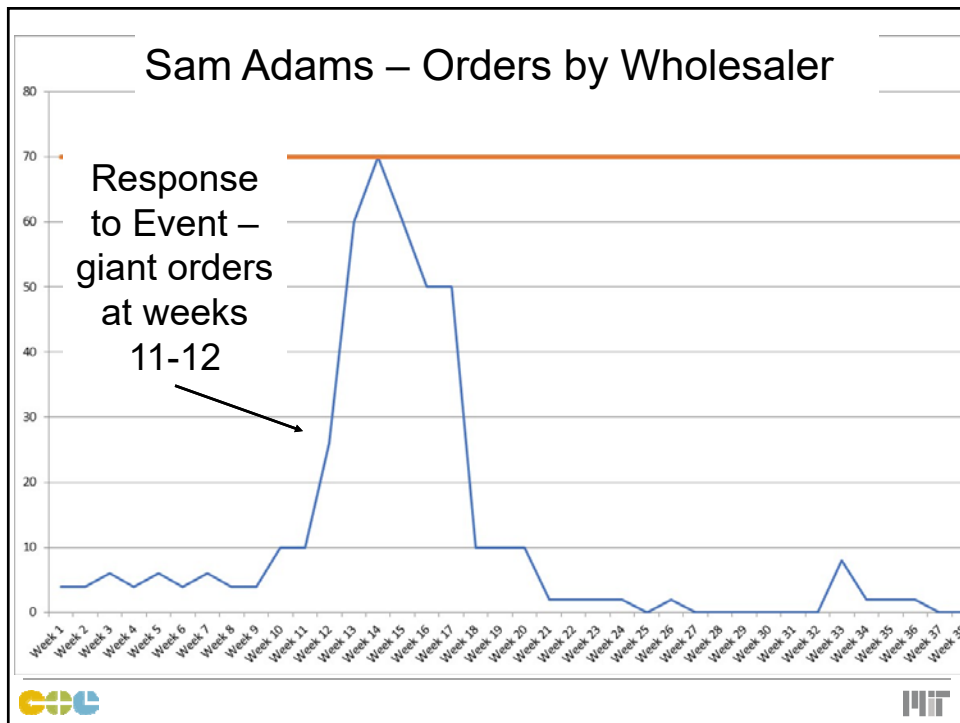
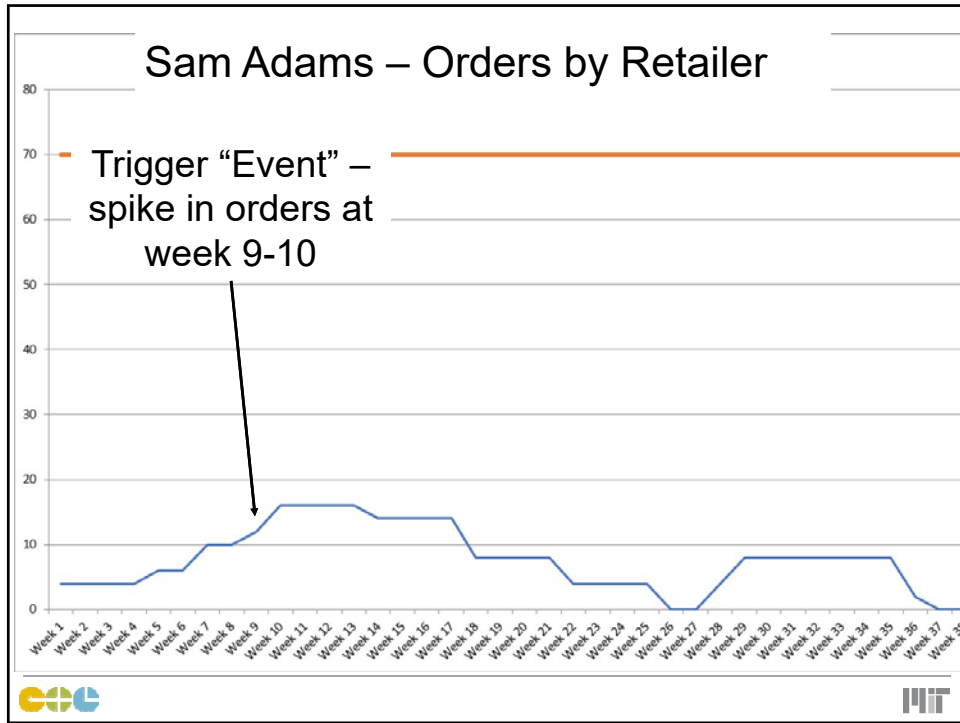
Union divided over how to reverse membership drop

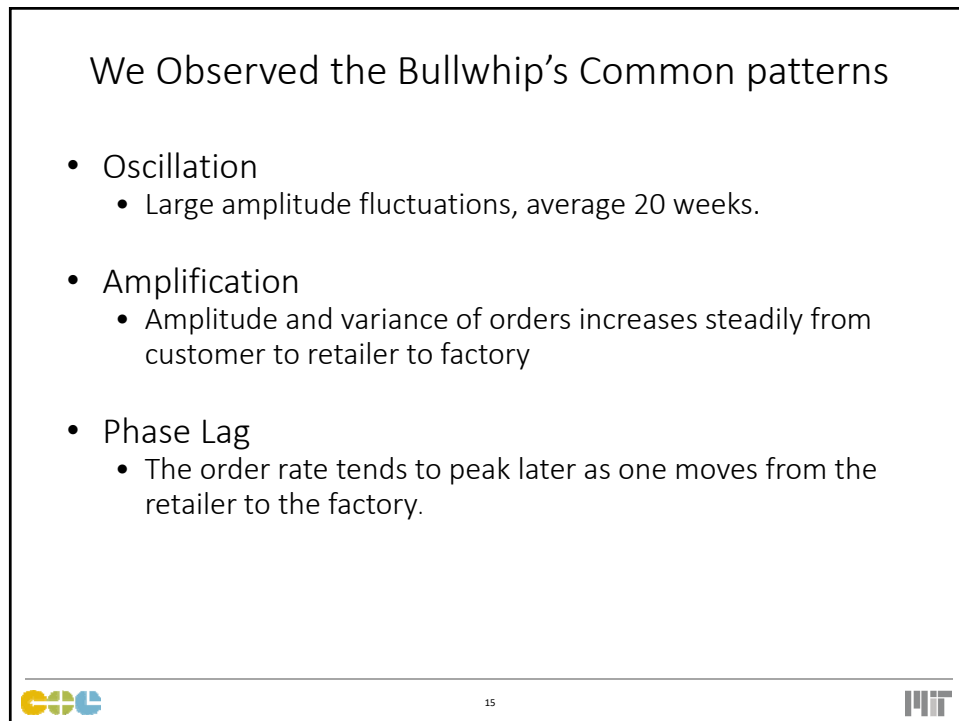
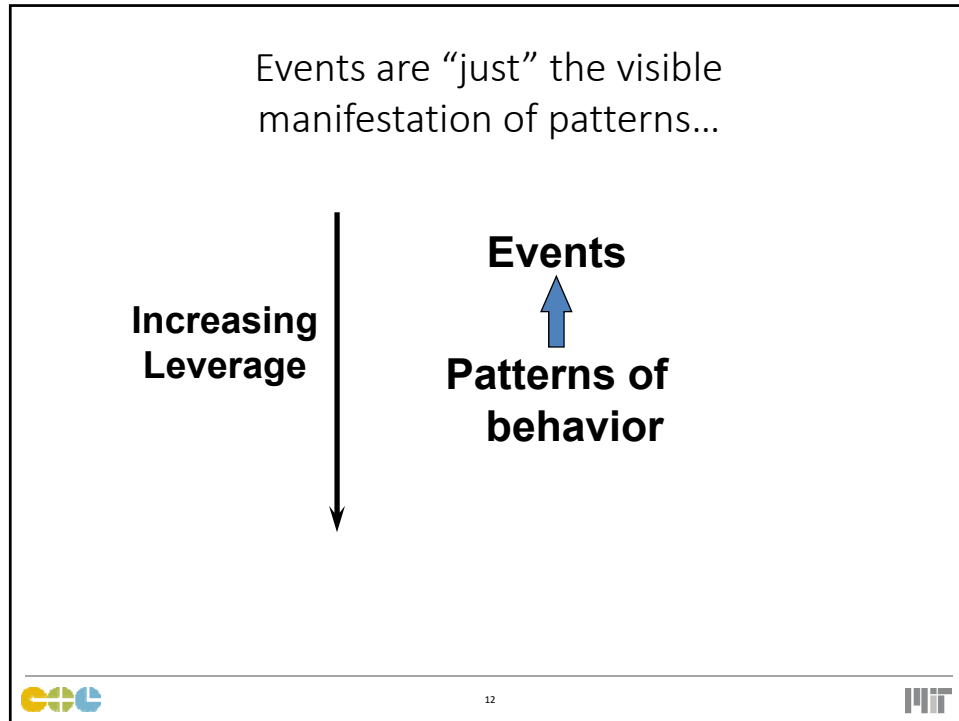
WASHINGTON – ... Labor leaders cite many reasons for the decline: The global economy, trade agreements, ... poor enforcement of labor laws, and Republican tax policies that squeeze the middle class.

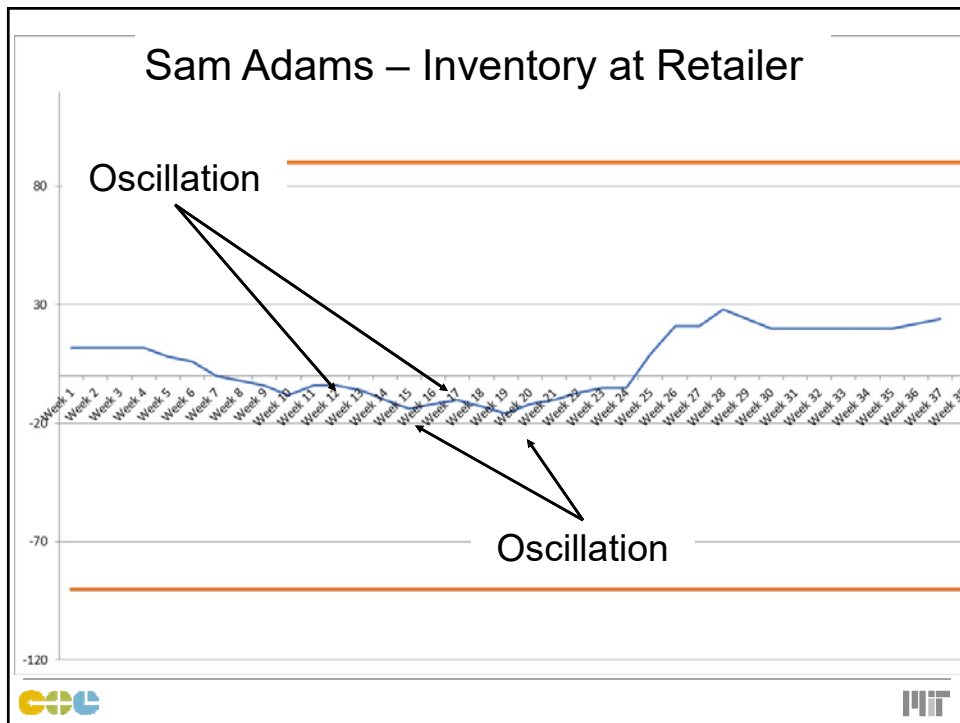
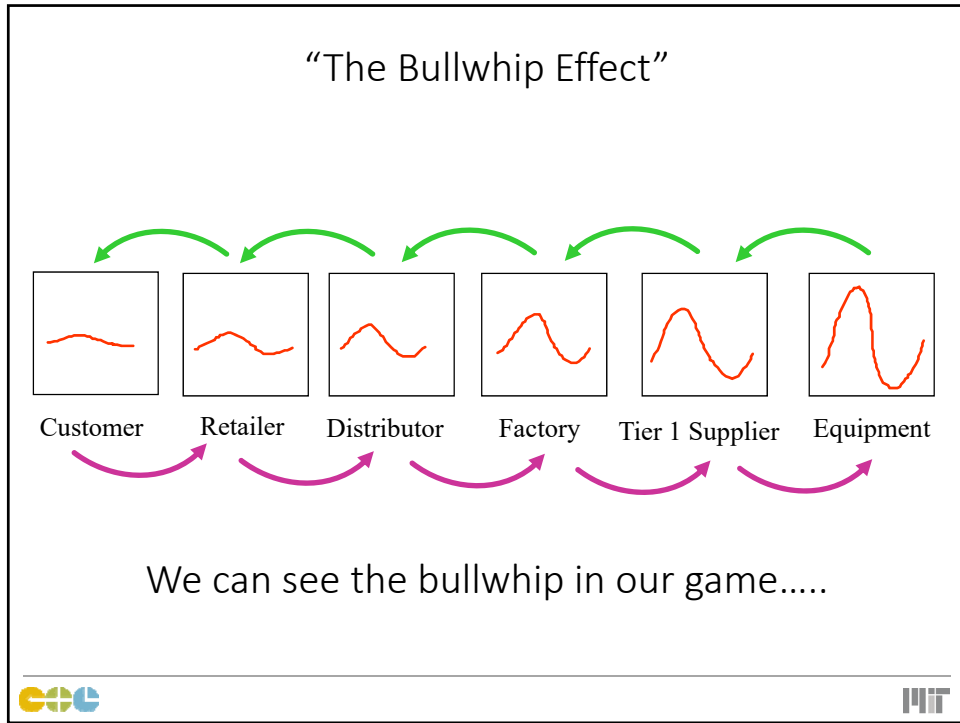


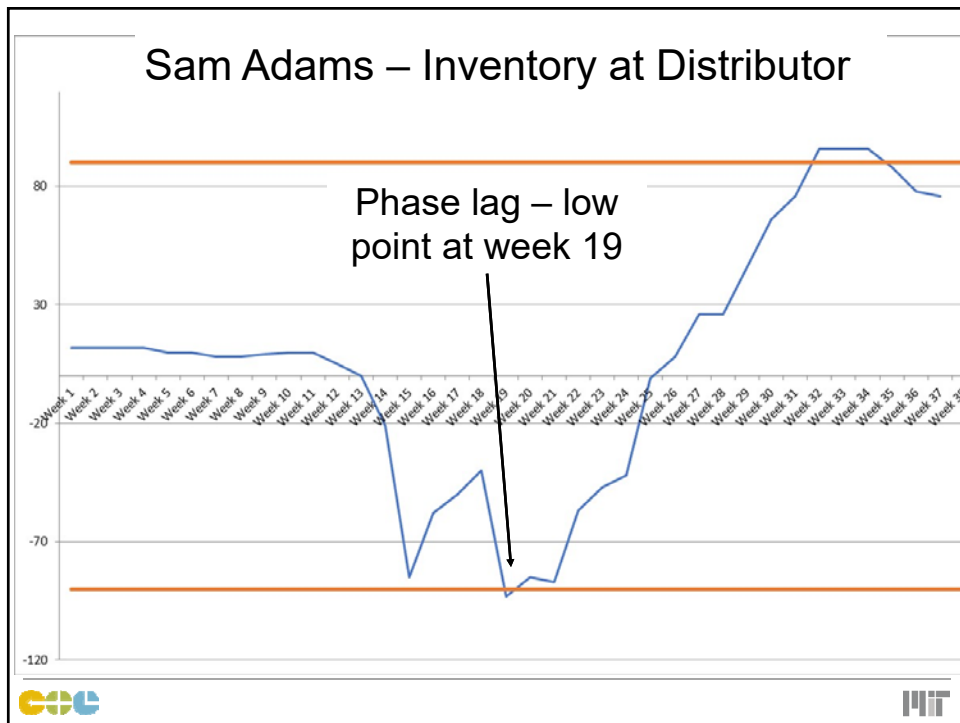
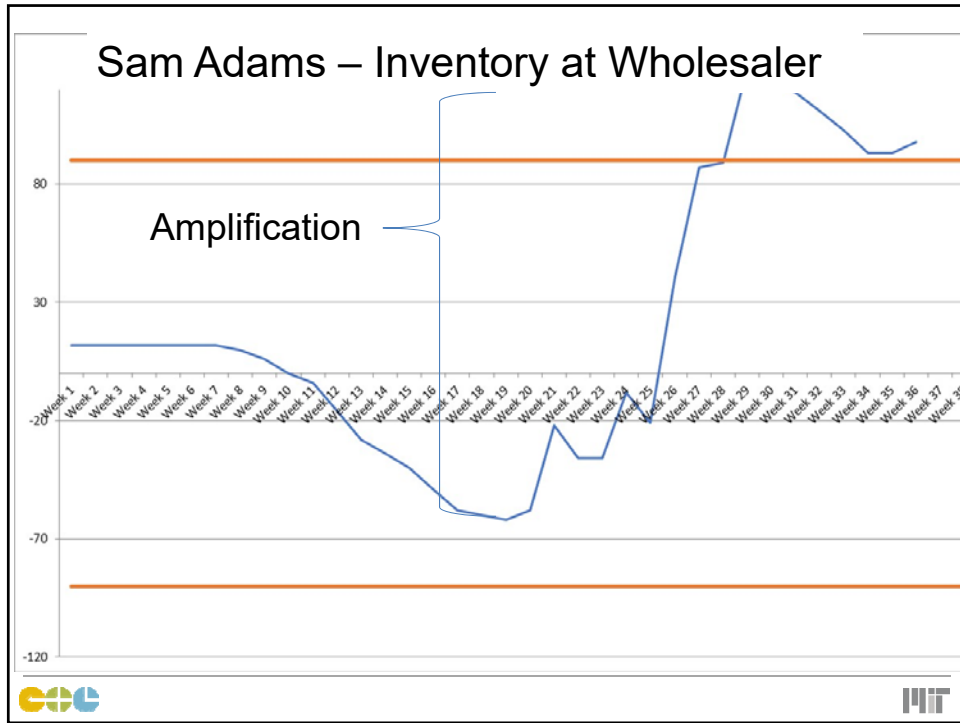
% Union Membership

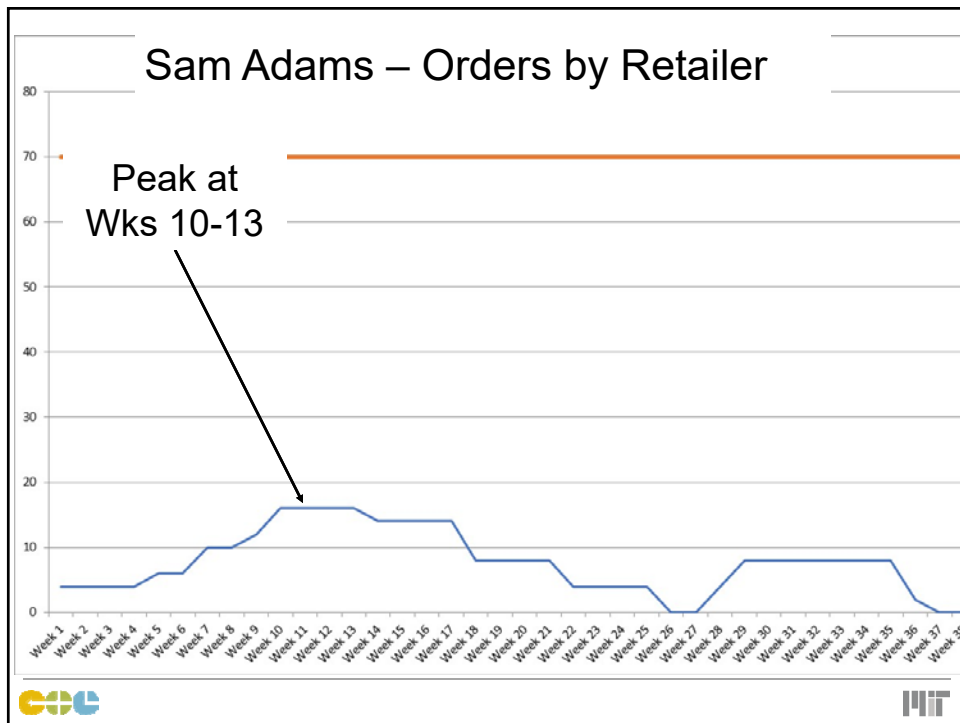
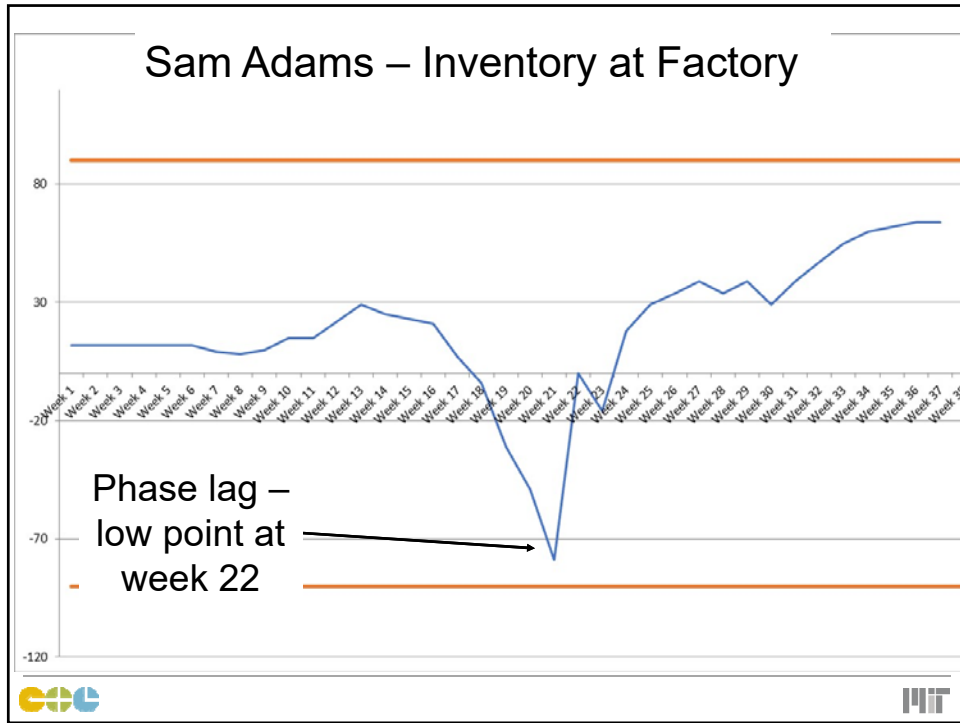


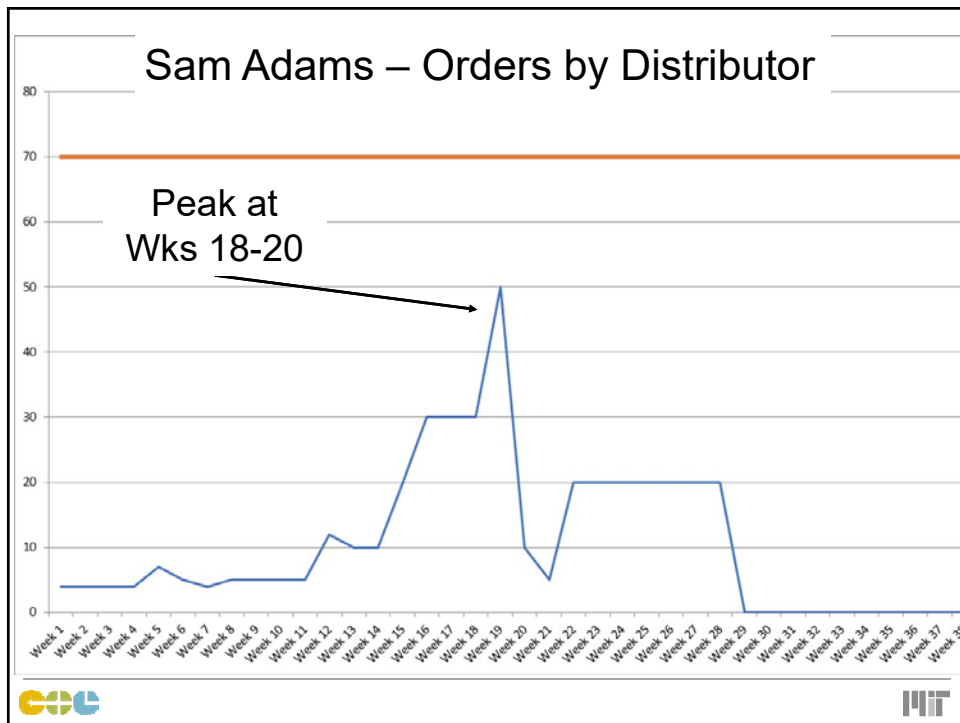
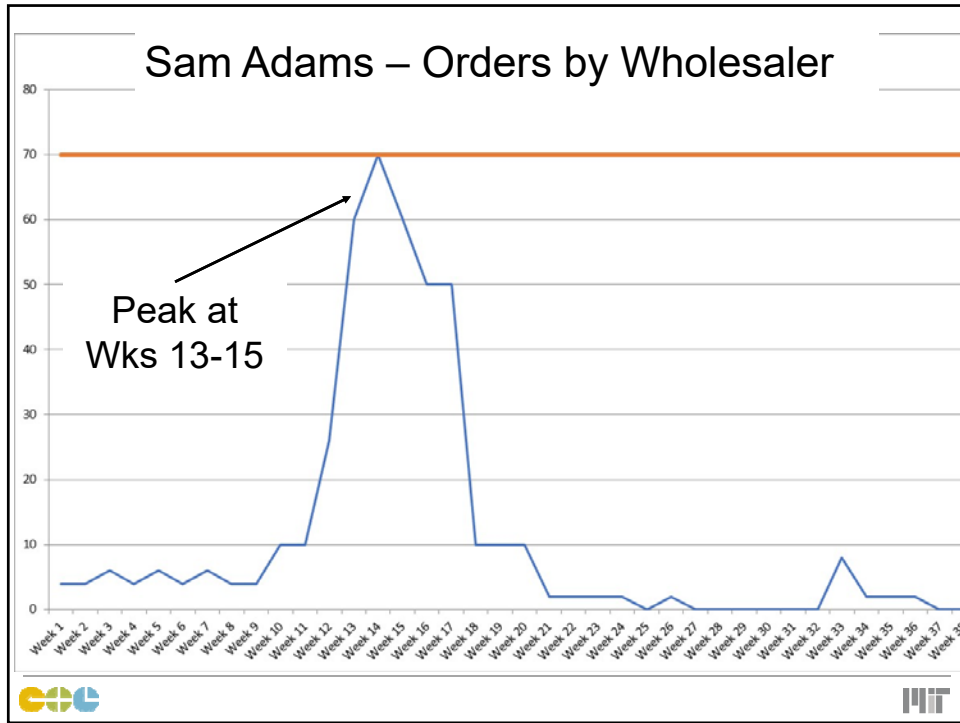


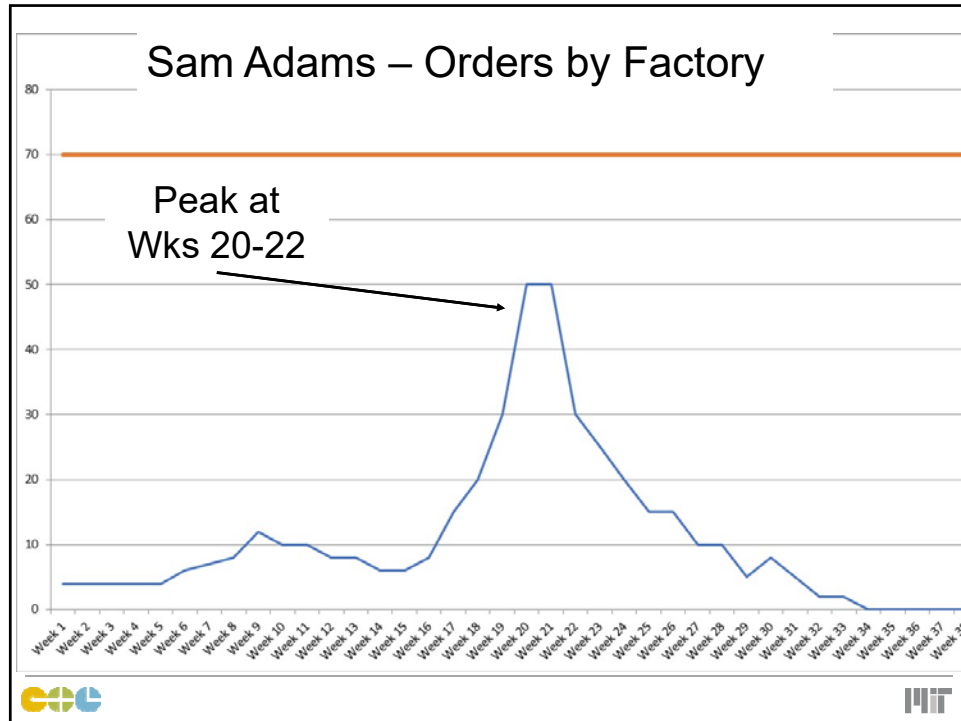








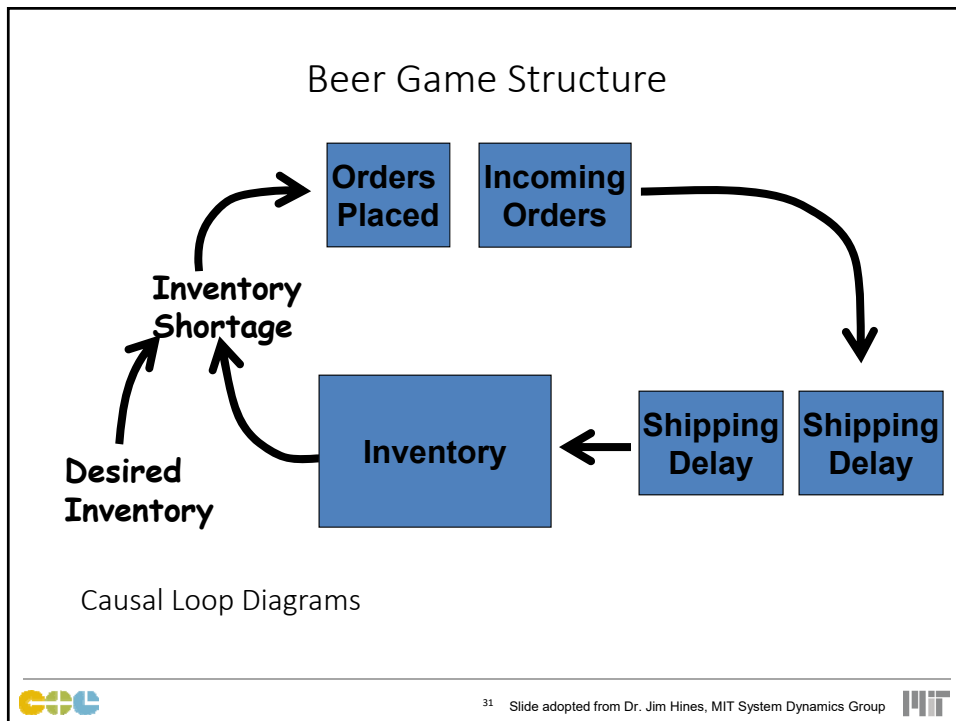
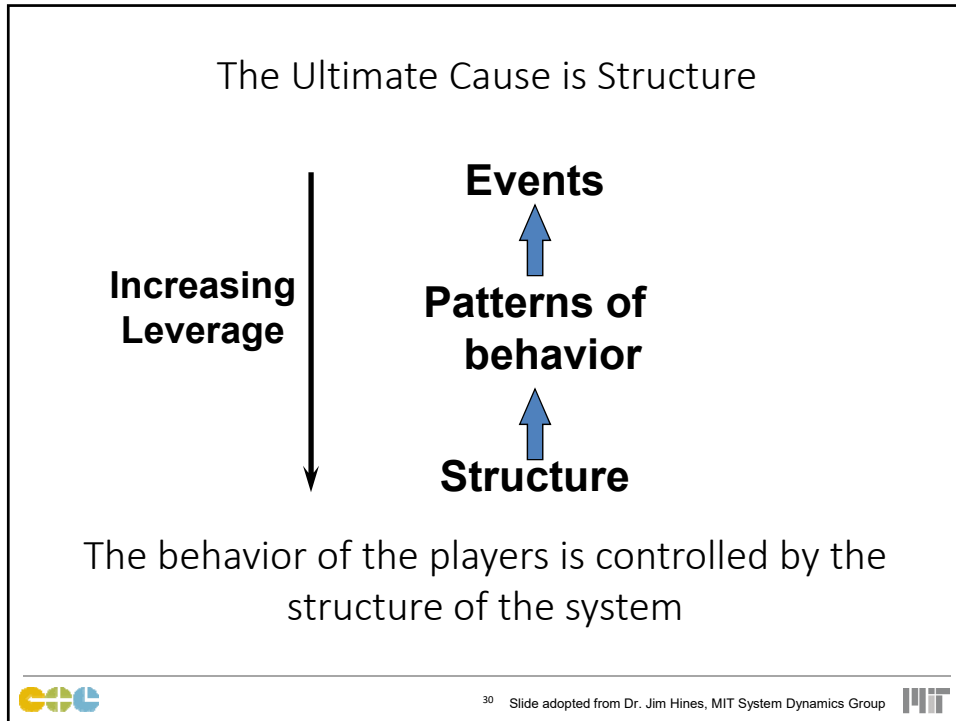




We see these patterns but also.....

- Performance got worse further upstream in every game
- The game is very simple in design, low complexity
- We now know that there was only 1 change in demand (except for the Expert table which had 2 changes)

So why do these patterns exist in every game?
And every system?



Structural Problems → Solutions

- Delivery lags
 - Inform
 - Indep
 - Order
 - Incon:
 - Ga
 - Qu
 - Un
 - Op
 - Promotions/discounting
- THESE SOLUTIONS ARE STRUCTURAL CHANGES THAT ...**

 - Reduce Uncertainty
 - Reduce Variability
 - Reduce Lead time
 - Improve Channel Management
 - Align the Supply Chain
- Streamline system, shorter delays, eliminate middleman
 - e historical
 - (forecasting)
 - policies
 - es
 - supply chain
 - Eliminate price variation that promotes order variation



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The last sip...

- What caused the problems?
 - We rushed to solutions before seeing the pattern
 - We need to see the pattern but also understand the structures that are causing the patterns
 - Addressing the structure has the highest leverage
- What will you do when you return to the workforce?
 - Rush to solution?
 - Or will you first look for patterns and the structure causing the patterns?



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Thank You

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