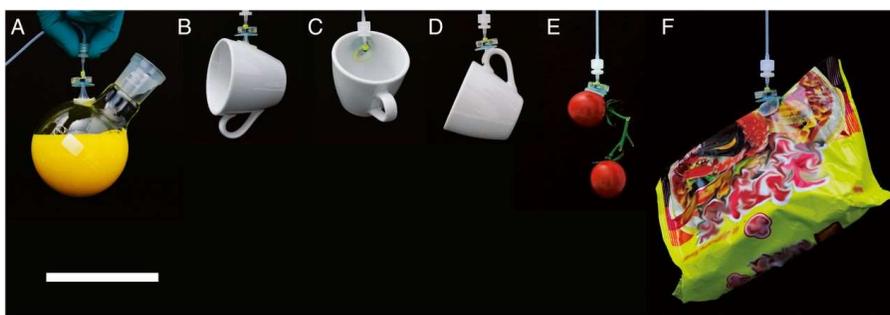


Improved Evidence Presentation in Research

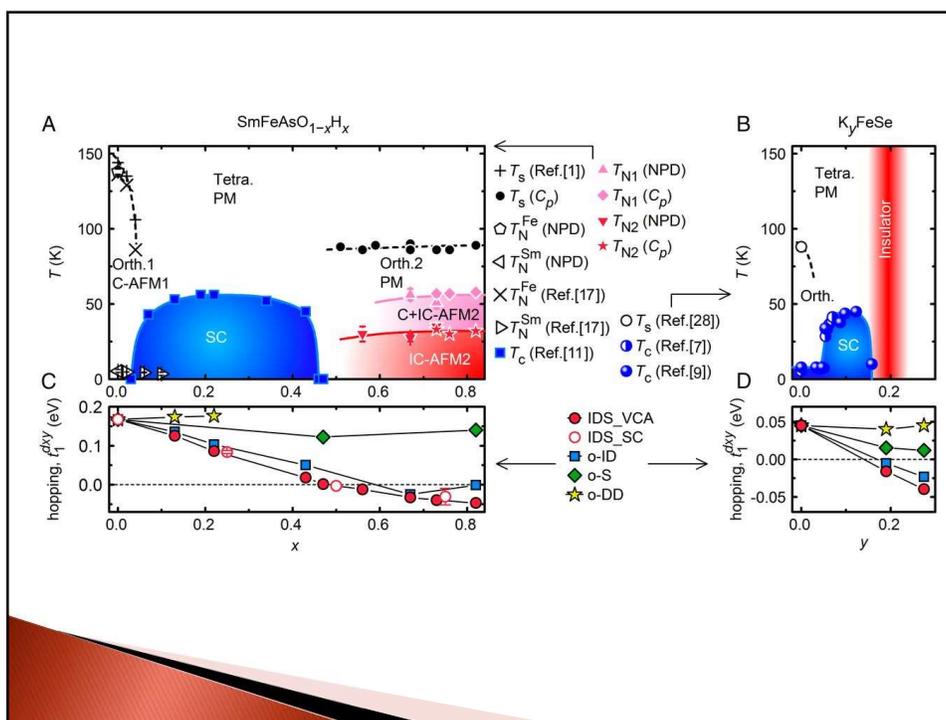
August 2017

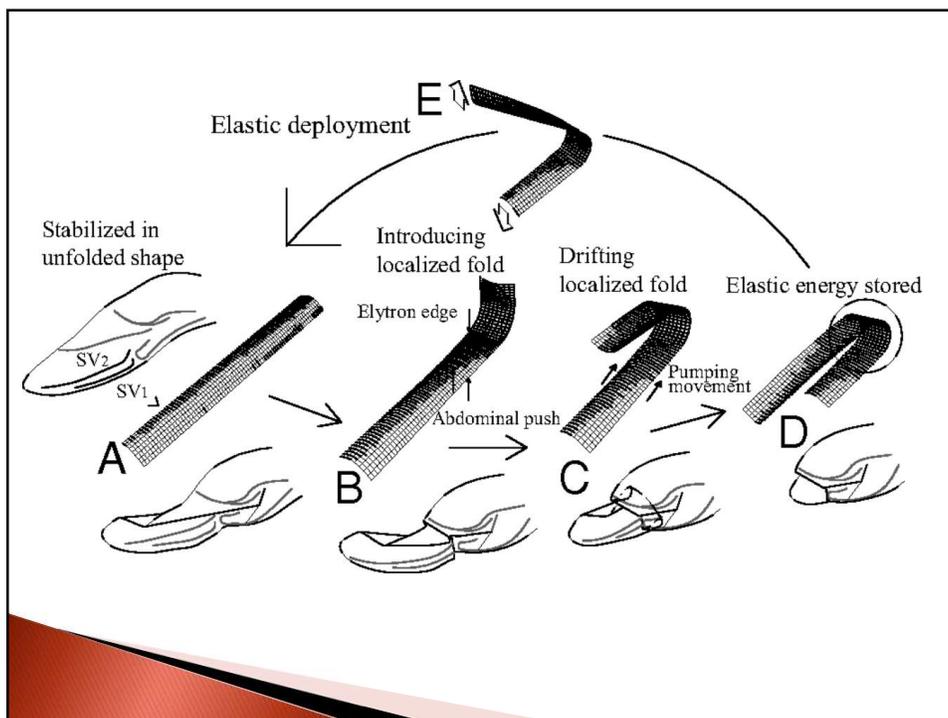
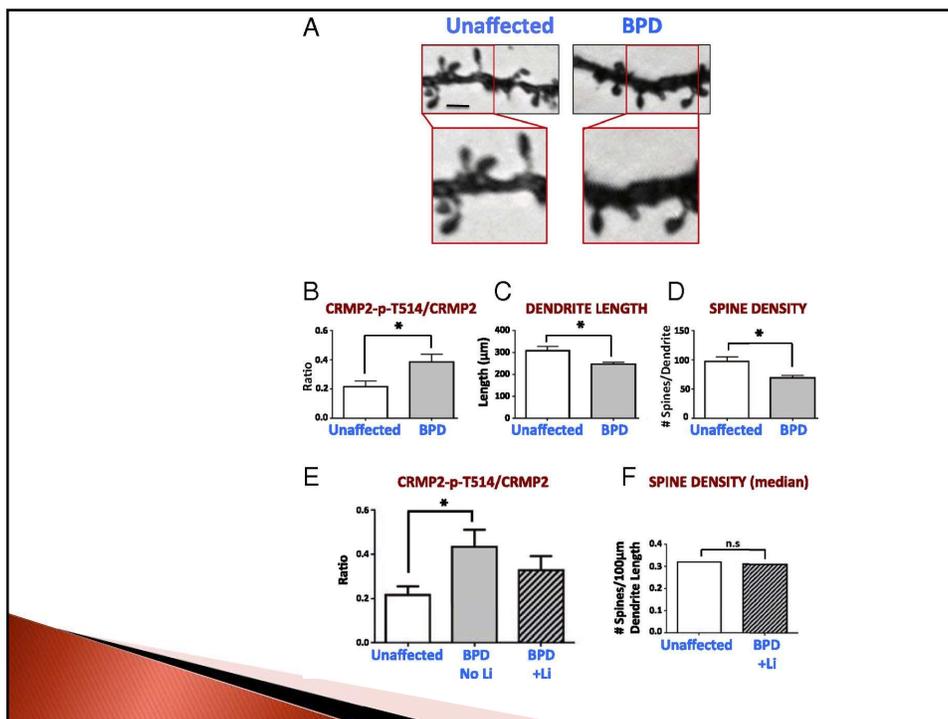
Most Management Papers

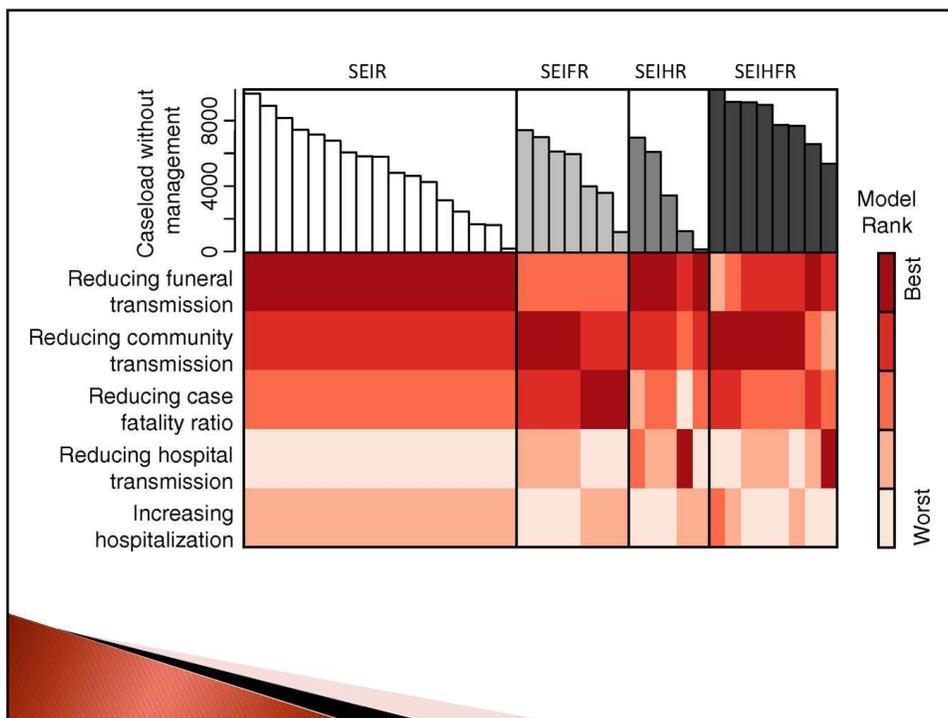
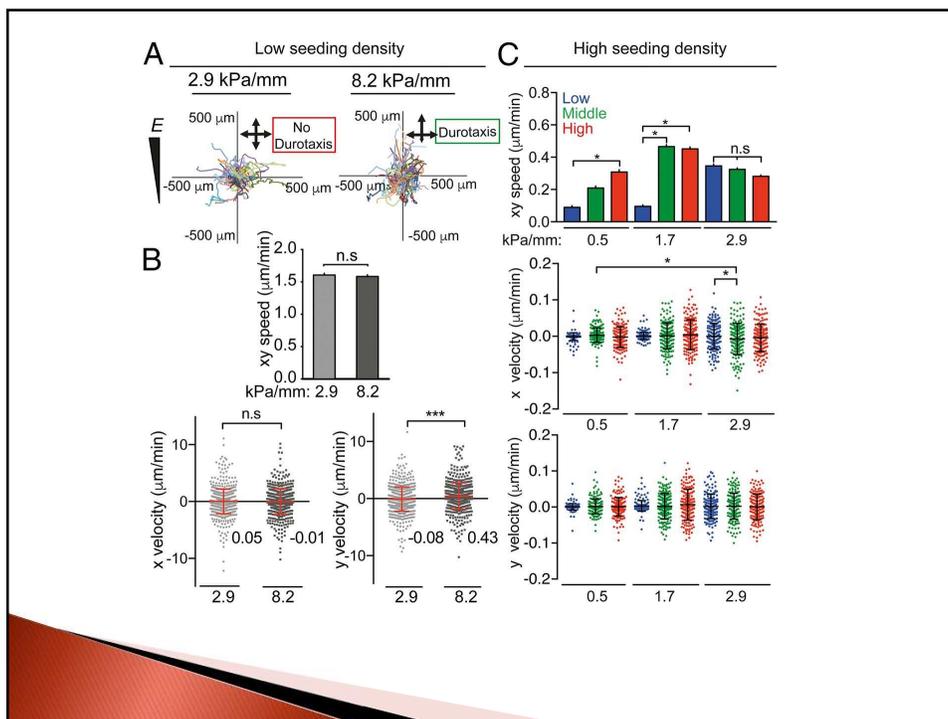
- ▶ Table 1: Mean, std.dev., correlations
- ▶ Table 2: Analysis
- ▶ Table 3: Analysis that didn't fit in Table 2
- ▶ Figure 1: Predicted effect graph
- ▶ Maybe Figure 2: A really similar predicted effect graph

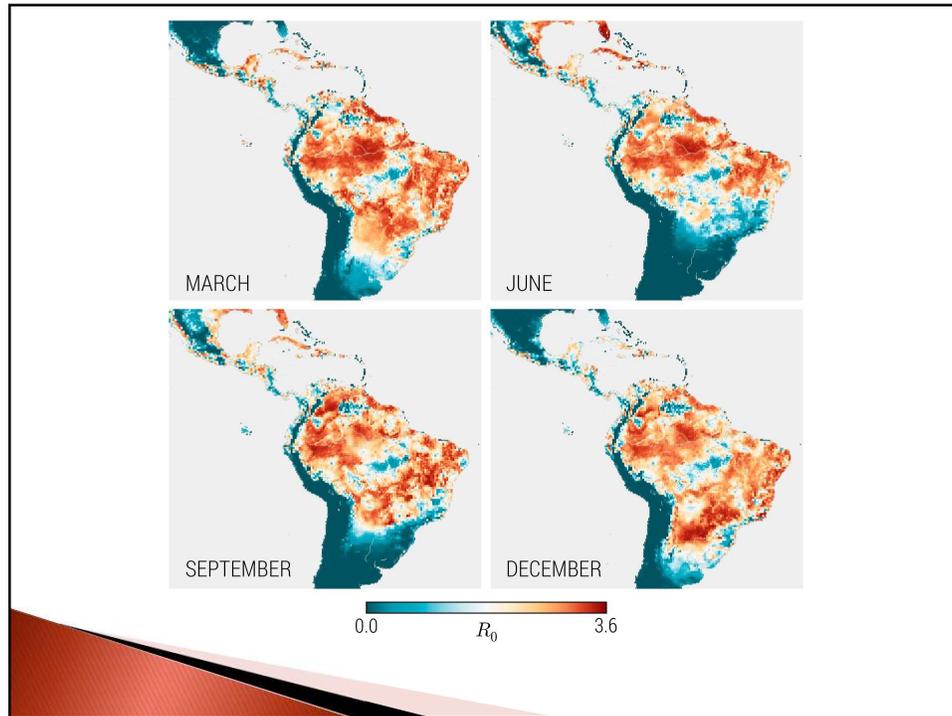


So let's take a look at what others do. Here are graphs from one issue of *Proceedings of the National Academy of Science*









Is it a Problem that Papers Look the Same?

- ▶ Ignores difference in theoretical test requirements and context
- ▶ Clear blinders in ensuring validity
 - Stars rule, control variable machismo
 - Data invisible
 - Data cooking to solve problems like ESS
- ▶ Research impact beyond management lessened
 - Frankly we don't look very sophisticated

What to Do?

- ▶ Describe phenomenon and importance of explanatory variable
 - Graphs, graphs, graphs
 - What do the data look like?
 - Can you visually show the effect of the explanatory variable or does it only pop up after 30 control variables and some data cooking?
- ▶ Analyses showing variations in explanation
 - More predictions, or exploratory comparisons
 - Subgroup effects, conditional predictions
- ▶ Display findings better
 - Effect sizes, prediction versus scattergram
 - Quantify improvement in understanding

One more thing

- ▶ This is NOT a new recipe that should lead to papers all being the same, but in a different way than before
- ▶ Theory & Context -> empirical research methods
 - Thinking not optional

- ▶ The social sciences are already starting!
Here are some examples

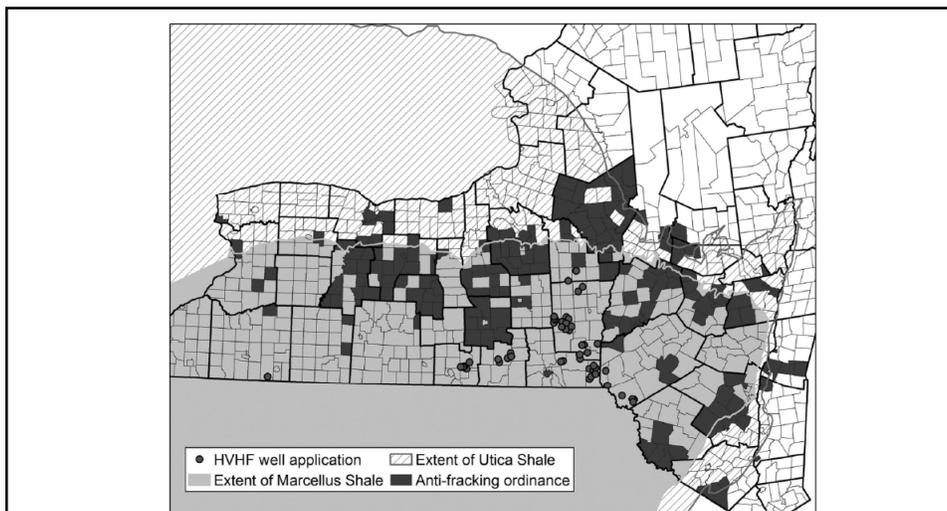
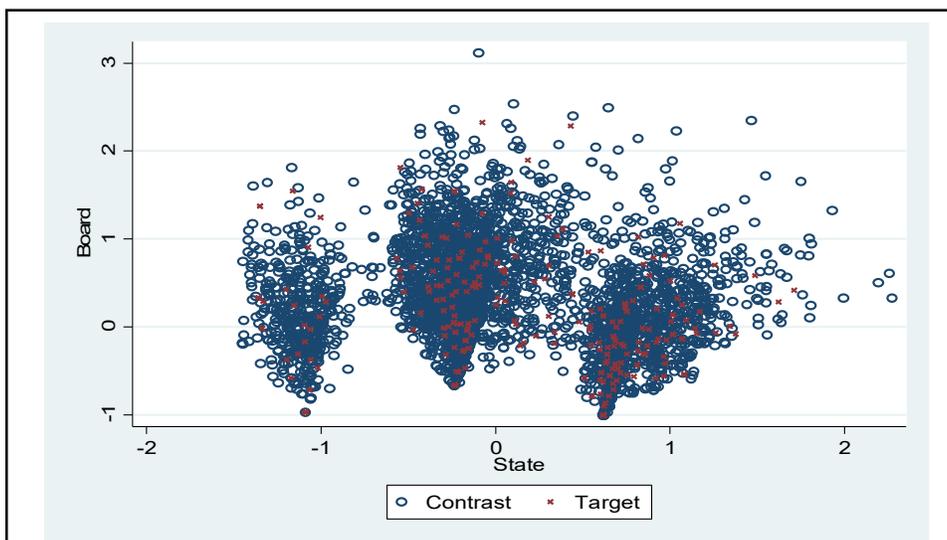
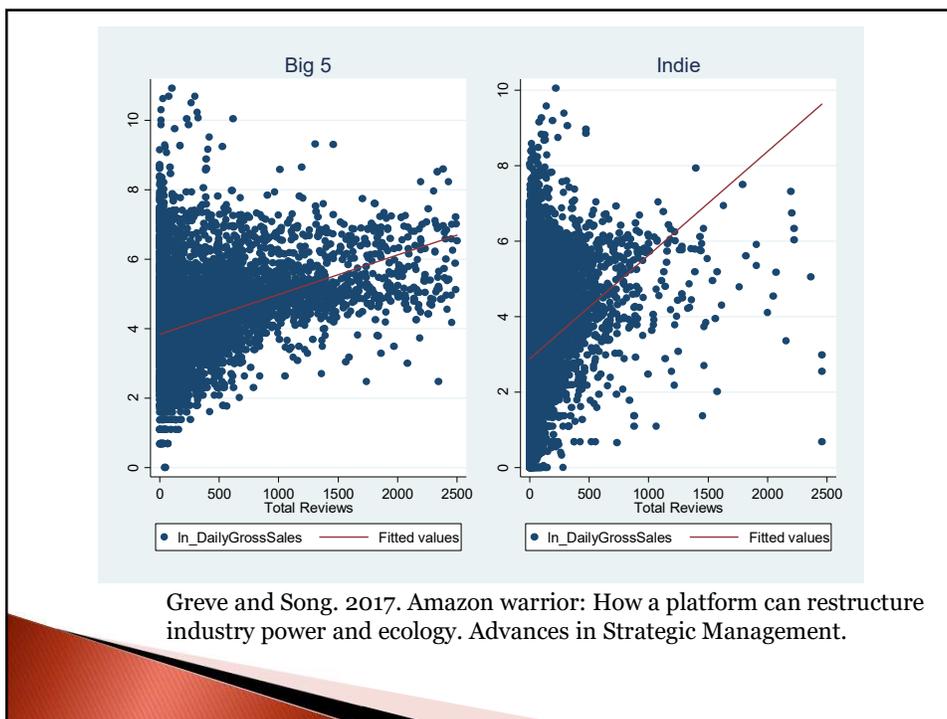


Figure 2. Geographic Diffusion of Anti-fracking Ordinances and the Geology of Shale Gas Development in New York State

Dokshin, Fedor A. 2016. "Whose Backyard and What's at Issue? Spatial and Ideological Dynamics of Local Opposition to Fracking in New York State, 2010 to 2013." *American Sociological Review* 81(5):921-48.



Zhang and Greve. 2017. The dominant logic of matching: Finding acquisition targets.



INFORMED SHOPPERS AND THE BRAND PREMIUM 1691

TABLE I
SUMMARY STATISTICS

	Total expenditure (\$bn/year)	Store-brand share (volume)	Store-brand share (\$)	Price ratio (store brand/national brand)
Headache remedies				
Acetaminophen gelscaps	0.39	0.51	0.38	0.58
Ibuprofen gelscaps	0.50	0.29	0.22	0.69
Acetaminophen tablets	0.44	0.81	0.60	0.36
Aspirin tablets	0.24	0.75	0.40	0.22
Ibuprofen tablets	0.94	0.81	0.61	0.36
Naproxen sodium tablets	0.37	0.57	0.44	0.61
Total (6)	2.88	0.74	0.53	0.40
Other health products, all (82)	10.87			
Other health products, regression sample (44)	8.94			
Pantry staples				
Baking soda	0.14			
Salt (iodized)	0.07			
Salt (plain)	0.04			
Sugar (brown)	0.17			
Sugar (granulated)	1.27			
Sugar (powdered)	0.13			
Total (6)	1.81			

INFORMED SHOPPERS AND THE BRAND PREMIUM 1693

A: Schooling

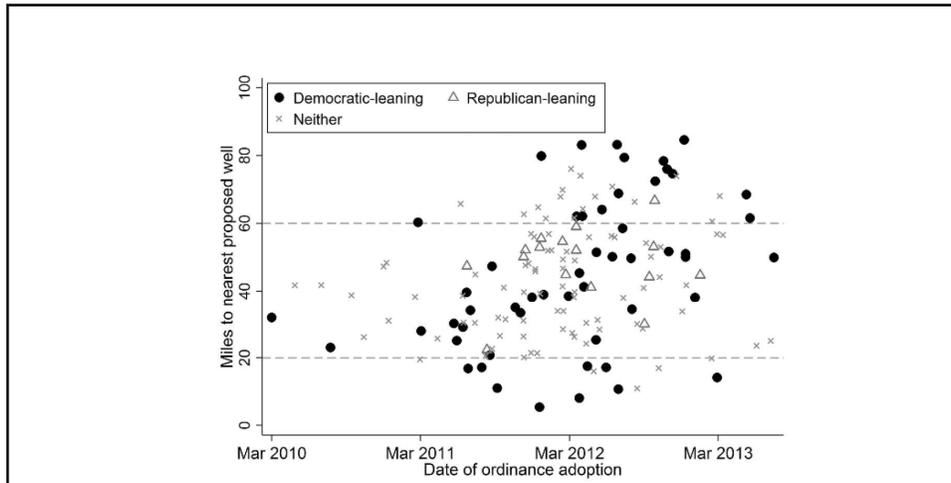
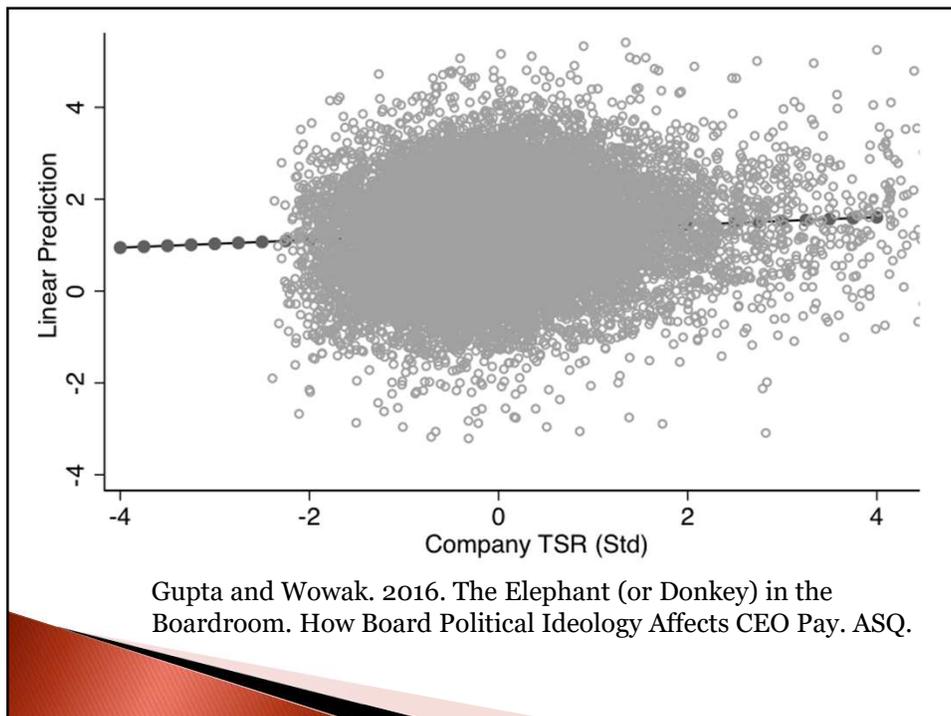


Figure 6. Geographic Distribution of Towns That Passed an Anti-fracking Ordinance over Time

Dokshin, Fedor A. 2016. "Whose Backyard and What's at Issue? Spatial and Ideological Dynamics of Local Opposition to Fracking in New York State, 2010 to 2013." *American Sociological Review* 81(5):921-48.



Gupta and Wowak. 2016. The Elephant (or Donkey) in the Boardroom. How Board Political Ideology Affects CEO Pay. ASQ.

What about Other Worries?

- ▶ P-hacking, HARKing, selective cooking of data
 - Harder to do when showing the data, showing explanation, showing findings more richly
- ▶ Substantive versus statistical significance
 - Seeing the data tells us whether there is a phenomenon
 - Showing findings more richly tells us whether research explained it

Why is this important to ASQ?

- ▶ As the leading journal in management, we have two obligations
 - Each paper should move the field forward as much as possible, and that includes communicating well with the readers
 - Our journal should move the field forward as much as possible, and that includes showing the best presentation of evidence
- ▶ Administrative Science Quarterly wants papers with improved evidence presentation