

Identifying Economically Legitimate Impacts: Lessons from Hospitals and Golf Courses

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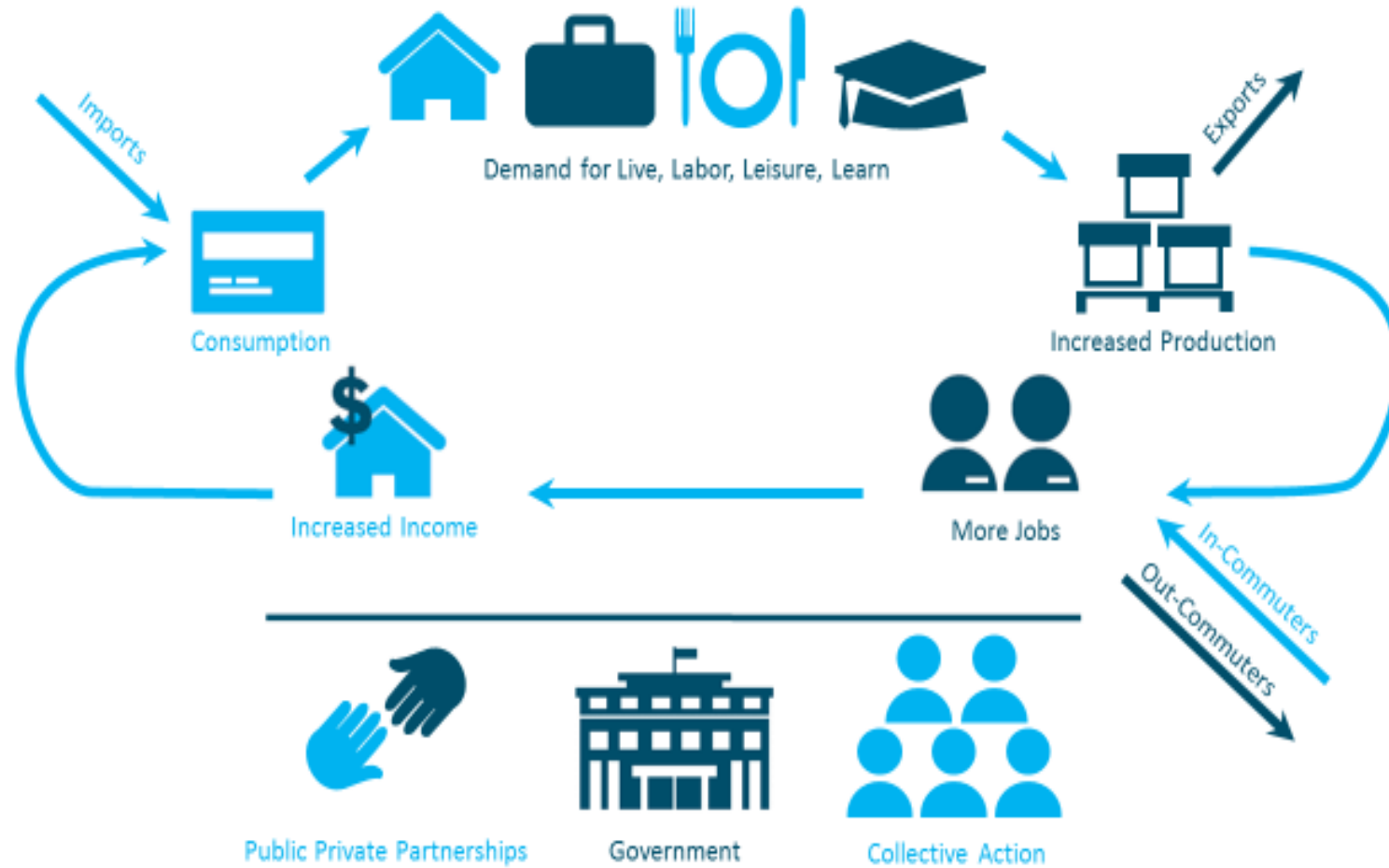
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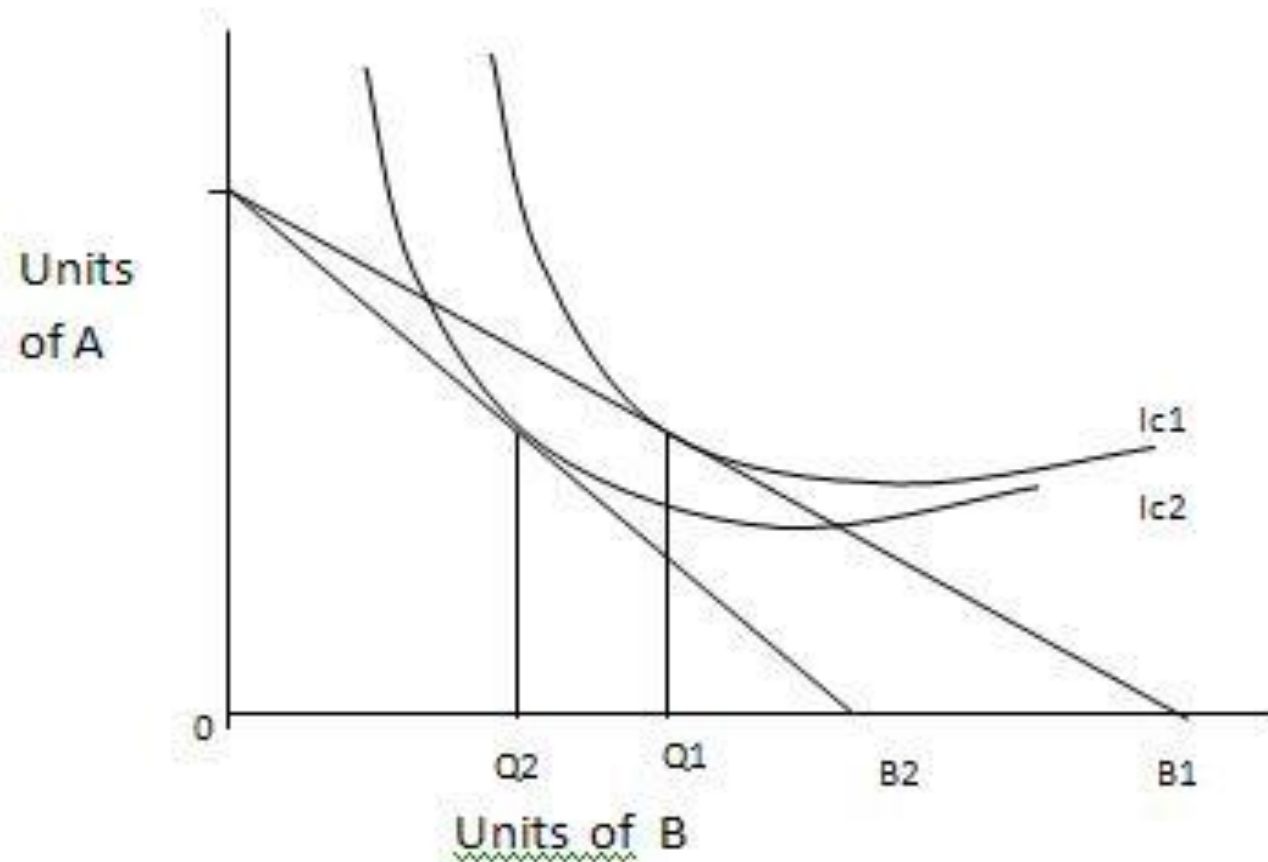
W.E. Upjohn Institute for Employment Research

- The Institute is an activity of the W.E. Upjohn Unemployment Trustee Corporation, which was established in 1932 for the purpose of finding ways to alleviate the hardship of unemployment.
- MISSION:
 - The W.E. Upjohn Institute for Employment Research is a private, nonprofit, nonpartisan, independent research organization devoted to investigating the causes and effects of unemployment, to identifying feasible methods of insuring against unemployment, and to devising ways and means of alleviating the distress and hardship caused by unemployment.
- Today, the Institute has a three-pronged mission
 - Research the causes and consequences of unemployment and evaluate public employment programs and social safety nets
 - Administer all federal and state reemployment and training programs in our four-county area (Michigan Works!)
 - Disseminate our research findings and information on best practices

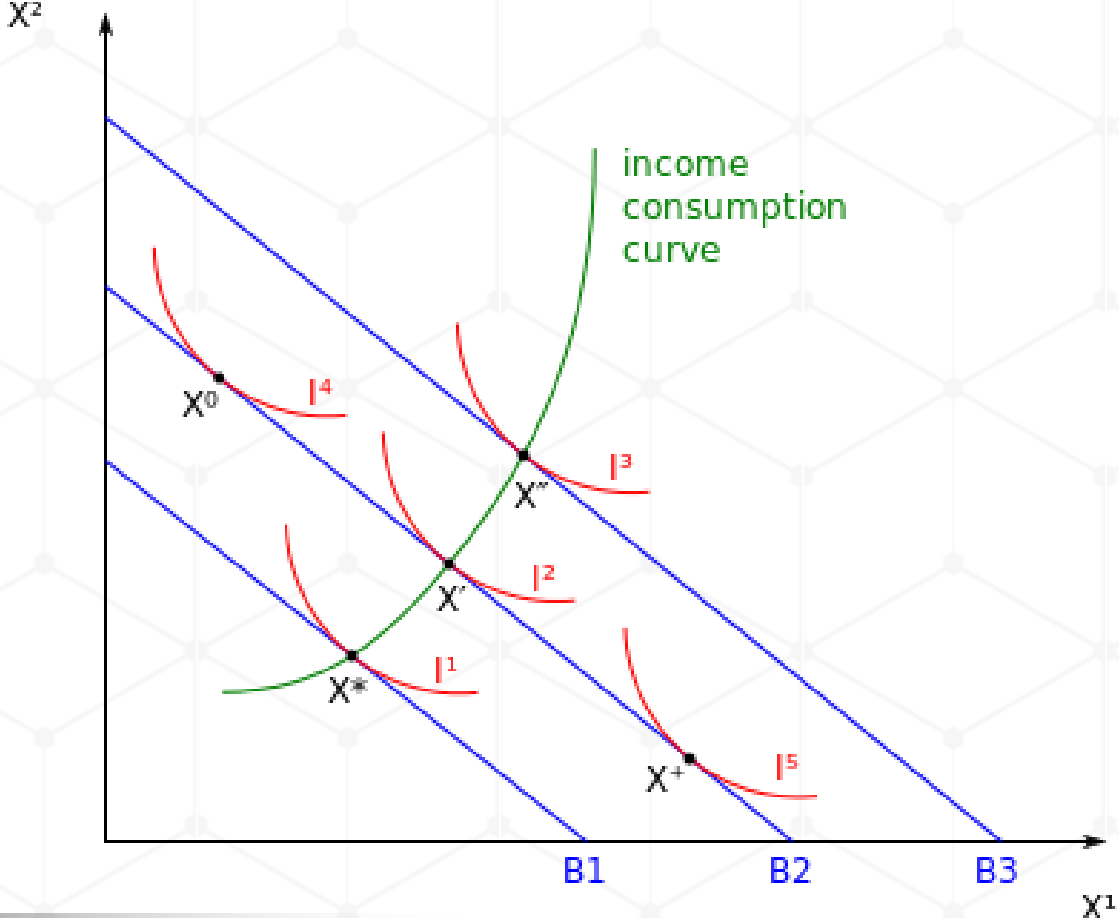
The virtuous cycle matters: Exogenous shocks



The basic assumption of the substitution effect is that preferences are at least partially driven by price.



In REMI modeling, the X^2 bundle of all other goods or services can be a substitute for the X^1 good or service that is the event being studied, holding price constant.



Economic impact analysis using REMI

- Cleveland Indians: Impacts of MLB franchise on the city of Cleveland and the region
 - Exclude residents of the city of Cleveland
 - Survey-based fan data
- Detroit Convention and Visitors Bureau: Impacts of conventions from specialized funding
 - Exclude Michigan attendees
- Pfizer: Regional investment in manufacturing from both construction and operations
 - No issues with a study like this – all exports and thus exogenous shocks

Economic impact analysis using REMI (continued)

- Project Alpha: Statewide impacts of developing and operating a food-processing facility
 - Typically not an issue due to exports and exogenous shocks
 - BUT, this was an expansion AND a consolidation
- Rose Street: Mixed-use development including hotel, office, and residential
 - Hotel: Only visitors
 - Office: A unit of analysis question – city, county, or region?
 - Residential: Similar to office
- Manufacturing Extension Partnership: Impacts of a nationally funded program on the national economy using survey data
 - Decision needed in using industry versus firm variables

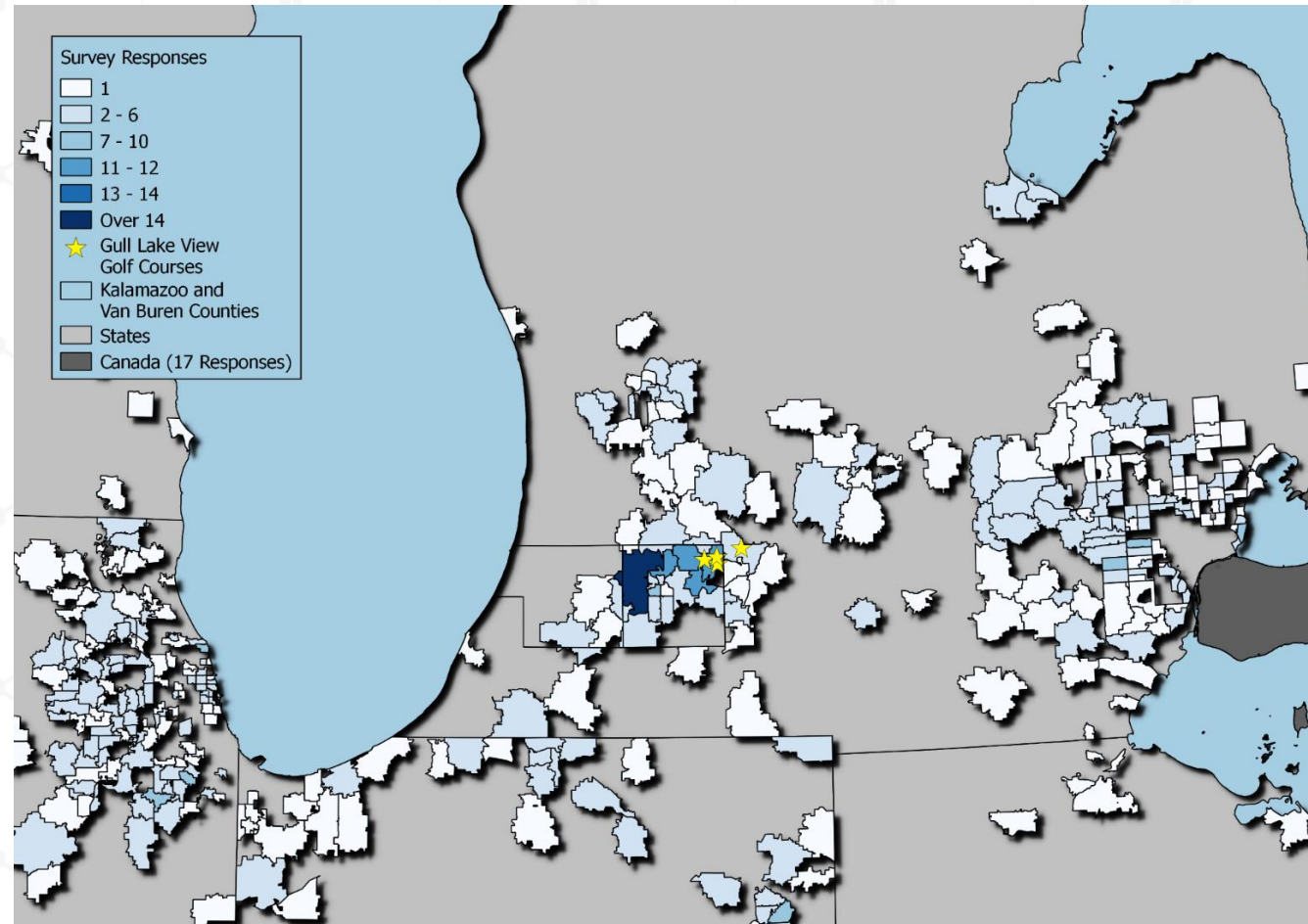
Project 1, where we were asked the question, What is the economic impact of my golf course?

- Initial answer: None, most of your customers are local and so we invoked the “substitution effect” issue
- Their response: A significant portion of our players are
 - From outside the region
 - From outside the state
- Lesson learned is to ask
 - Who is the client?
 - How will the study be used?
 - And most importantly, what is the spatial unit of analysis?

Data sources

- Client-based
 - Shares of revenues by
 - Kalamazoo and Calhoun counties
 - Rest of Michigan
 - Rest of world
 - Revenues for
 - Golf course
 - Playing
 - Buying
 - Eating and drinking
 - Staying
 - Survey of patrons (N=~1,000): This is a BIG deal
 - Combined with “Stay and Play” data from client

Sources of revenues matter: We used a survey to collect spending data.



Modeling in REMI

- Shares of revenue
 - Local: 41.83%
 - ROM: 27.92%
 - ROW: 30.35%
- Applied to revenues
 - Retail: 34%
 - Recreation: 100%
 - Eating and drinking: 100%
 - Accommodations: 100%
- Offsite spending from survey: Retail, recreation, local travel, distance travel, eating/drinking
- REMI policy switches: Detailed industry spending

Why did this work as an economic impact?

- Client had good
 - A priori knowledge
 - Timing
 - Data
 - Willingness
 - 66 condos
 - Incentives
- But most importantly, a target client that combined well with a working spatial unit of analysis that provided *exogenous economic shocks* to the unit of analysis—essentially exporting services while importing revenue

Project 2, where we were asked the question, What is the economic impact of my hospital?

- Initial answer: None, most of your customers are local and so we invoked the “substitution effect” issue
- Their response: Two things are different about us compared to other hospitals
 - Levels of acuity
 - Specializations
- Lesson learned is to ask
 - Tell us about your patients?
 - What do you do that other medical facilities in the region can't do?
 - Do you export services (specialties)?
 - What is the spatial unit of analysis?

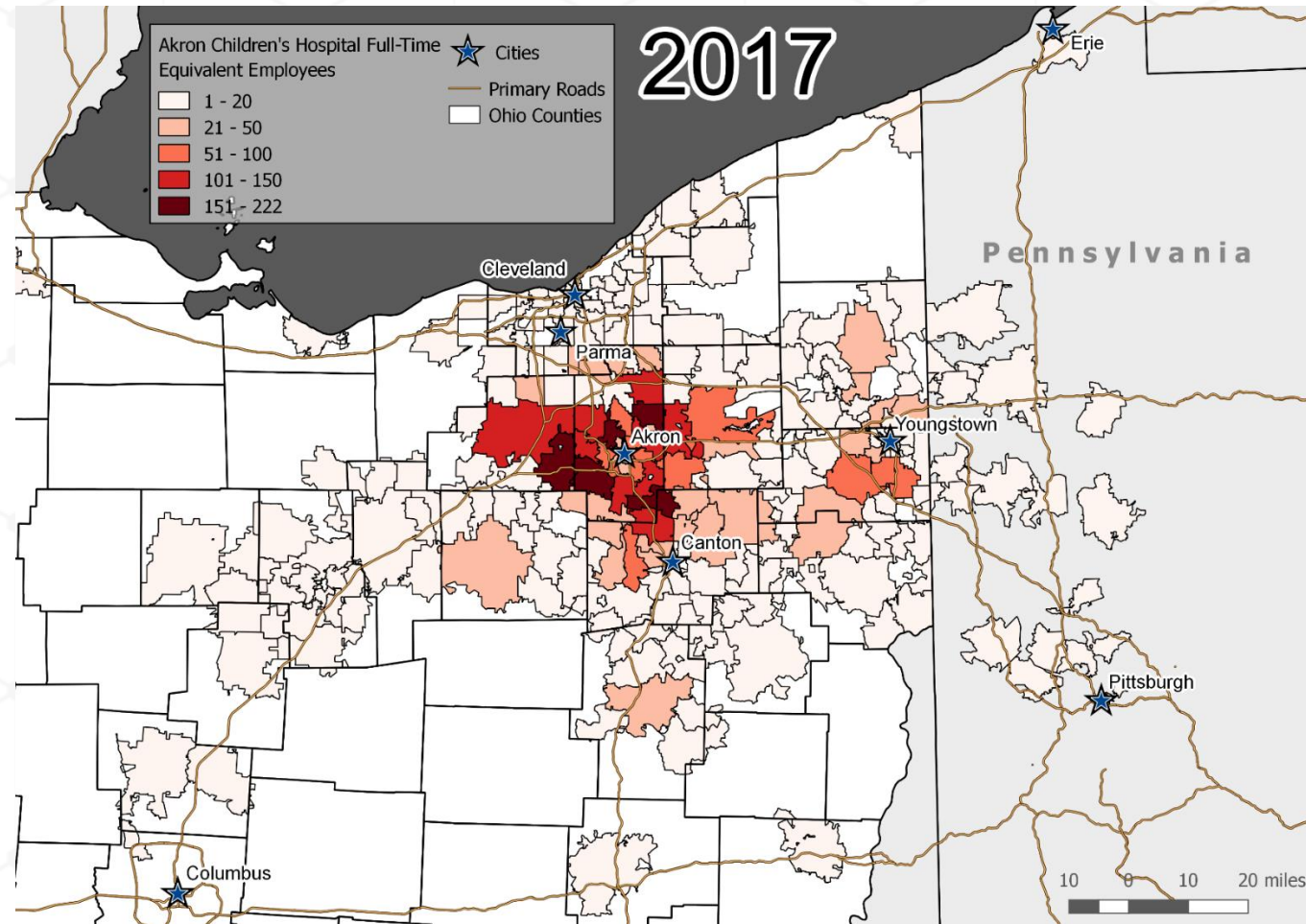
Parts of this study are a little more traditional.

- Consider both capital investment as well as operations
 - In most studies investment is followed by operations
 - In this study and for at least 1 year, both occur
- Capital investment
 - Used at 100%
 - May be generic, such as new hospital wing or 24-hour clinic
 - May be specific with detailed spending
 - Usual issue is timing for investment
 - Soft costs early
 - Hard costs later

What makes this client different?

- Client is a children's hospital
 - Specialized services due to a specialized client
 - For some things, not easily substituted (levels of acuity) within region
 - Specialized services with a national market
- The hospital has a great group of data miners
 - Identify patients by levels of acuity and services provided
 - Revenues associated with each patient and sources of revenue
 - Home zip code for patients
- Some tricks to accessing the data
 - Decision rules
 - HIPAA

Employees are dispersed across a multi-state region.



Modeling in REMI

- Use revenues by source to determine share of allowable
 - Acuity above level “X” for locals
 - Exports of regular services
 - Exports of specialized services
- But a couple of questions can arise
 - What is the level of acuity that serves as the threshold?
 - Do you treat all patient-based revenues the same?
 - Patient-paid
 - Insurance-paid
 - Government-paid
 - Write-offs
 - Do you model as a change in health care or as a change in detailed industry spend?
 - Look at natural accounts and only use share for categorical spending

Summary and conclusions

- Sometimes (term used carefully) projects that look to be pure substitution can be legitimate targets for conducting an economic impact
- The study needs to meet some criteria for that to occur
 - Is there a legitimate economic shock that can be identified?
 - Is there a legitimate unit of analysis that can be identified?
 - This can change as the spatial scope changes
 - Does the client have good data?
 - Does the client fully understand “substitution?”
 - Are there specialized services offered that are differentiators?
 - Will this prevent leakage out of the study region?

Questions or comments?

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