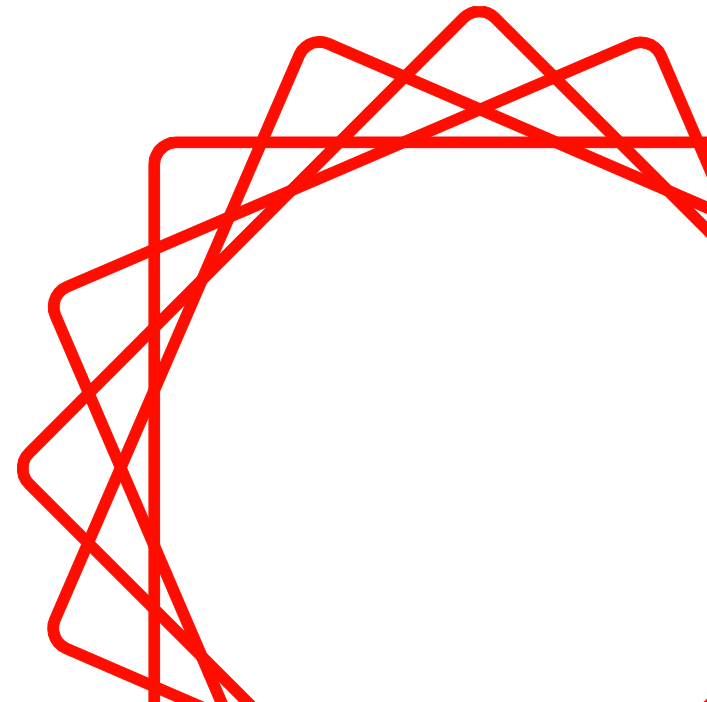




# Innovations in Estimating the Impact of Variation in Program Experience

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# Today's Agenda



- The Average Treatment Effect v. the “Story is in the Subgroups”
- Using Randomization to Identify Endogenous Subgroups (four classes, with examples)
  - Potential effects on “no shows”
  - Treatment dosage or quality
  - Multi-faceted treatment components or pathways
  - Control group conditions
- Securing internal validity & getting to external validity

# Average Treatment Effect v...

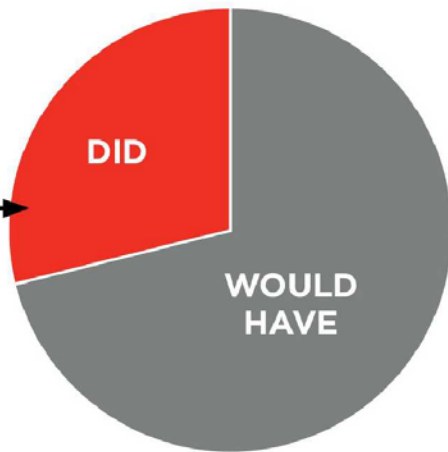


- ... the “Story is in the Subgroups”
  - Exogenous
    - Uni-dimensional (e.g., women, low-education, prior arrest)
    - Multi-dimensional (e.g., disadvantaged, “at risk”)
  - Endogenous
    - Uni-dimensional (e.g., took up offer)
    - Multi-dimensional (e.g, experienced some *dosage*, participated in *this* package of services)

# Using Randomization...



Treatment Group

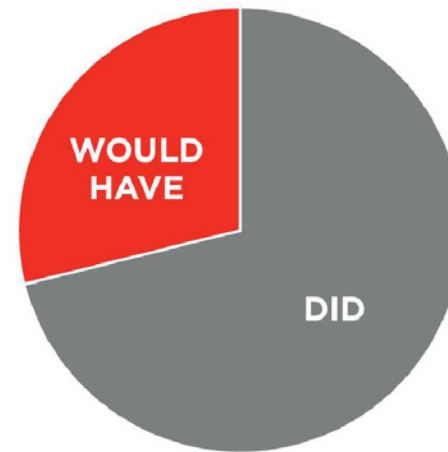


■ Subset 1 ■ Subset 2

1. *when exposed to treatment...*  
used program feature Z (or not)  
experienced high dosage of intervention (or not)  
followed treatment path W-X-Y-Z (or not)

*if not exposed to treatment, would have...*  
dropped out of school (or not)  
experienced long-term unemployment (or not)  
had more/less favorable outcomes (or not)

Control Group



■ Subset 1 ■ Subset 2

*if exposed to treatment, would have...*  
used program feature Z (or not)  
experienced high dosage of intervention (or not)  
followed treatment path W-X-Y-Z (or not)

2. *in the absence of the treatment...*  
dropped out of school (or not)  
experienced long-term unemployment (or not)  
had more/less favorable outcomes (or not)

OR

# Peck (2003) Approach



- In general
  - Use baseline (exogenous) characteristics to identify subgroups of interest
- Internal validity
  - Symmetric prediction in T and C groups (not *actual* T group sort)
  - Use external prediction sample results to avoid over-fit
- External validity
  - Convert estimated impacts for predicted subgroups to represent actual subgroups (assumptions needed)

# Classes of Endogenous Groups



- (1) Potential effects on “no-shows”
- *Examples*
  - *NYCAP: non-takers still made changes to try and take advantage of new policy structure*
  - *MTO: those who did not lease up still got counseling services and tried*

# Classes of Endogenous Groups



- (2) Treatment dosage or quality
- *Examples*
  - *BSF: what impact does full participation have?*
  - *HSIS: what generates greater impacts...*
    - *two years, rather than one?*
    - *being in a better quality center?*

# Classes of Endogenous Groups



- (3) Multi-faceted treatment components/pathways
- *Examples*
  - *NEWS: what impact does [sanction] have?*
  - *HPOG/ISIS: what is it about intervention that drives impacts?*
  - *DOSE: which components of JSA have larger/smaller impacts?*



# Classes of Endogenous Groups



- (4) Subsets of the control group conditions that make particular fall-back choices when denied access to the intervention
- *Examples*
  - *Career Academies: those at greatest risk of drop-out in the absence of the intervention*
  - *JTPA: those with better/worse labor market outcomes (in the absence of the intervention)*
  - *HSIS: those who stay at home with parent(s)*

## Questions?



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