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
… 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**

- DID
- WOULD HAVE

**Control Group**

- WOULD HAVE
- DID

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)

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)

*If not 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)

- **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**
  
  - **NEWWS**: *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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