Implementation Issues in Impact Evaluation

Erick Gong (Thanks to C. Null, original author)

UC Berkeley & CEGA

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Ethics

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  Randomized Evaluations
  Regression Discontinuity
  Matching
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- Primary Concern with Randomized Evaluations
  - Researcher has control on allocation of treatment

- Secondary Concern with other methods
  - RD, Matching, Diff-in-Diff rely on preexisting data
  - Still need to be concerned about protecting the identities of individuals

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- Committee for the Protection of Human Subjects (CPHS) / Internal Review Board (IRB)

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- Answer: It might bias our results.
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- What can we do?
- Think about what externalities might occur. Would it overstate or understate are results?
- Method: Variation in exposure to treatment.

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- Data Quality
  - Translation: Is respondent answering question you think you're asking?
  - Accuracy: Is respondent being truthful?

Power Calculations

- Bigger is better (large sample)
- But remember: there's a cost to sample size
- Treatment Effect: More likely to detect a large effect
  Example: Pencil Sharpeners vs. Scholarships on Test Scores
- Do Power Calulation to figure out just the right size
  Need to make assumptions

Econometrics

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  1. Compare the mean outcomes between treatment and control groups
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  $$Y = \alpha + \beta_1 Treat + \beta_2 Age$$
- Null Hypothesis: $\beta_1 = 0$. We want to see if we can reject the null. Look at confidence intervals/ standard errors.
- Example: PS 1 - Cash Incentives to Get HIV Test Results
- Compare Means
- Regression Analysis
  $$Got = \alpha + \beta_1 Any + \beta_2 Age + \beta_3 Edu$$

Connection Between Power & Econometrics

- Power Calculations determine size of sample & likelihood of success (detecting a statistically significant effect)
- Example: Small Sample vs. Large Sample
- Key: Confidence Intervals & Standard Errors
- Tools:
  STATA
  Optimal Design

Cost Benefit Analysis

- Estimate a treatment effect, now what?
- Compare costs to benefits
- Compare different programs - pick most cost effective one
- Goal: School Attendance
  Scholarships
  Free Meals
  Free School Uniforms
  Deworming Medication

Resources

- Course Website
- Randomization ToolKit (Duflo et. al. 2009)
- Center of Evaluation of Global Action (CEGA)
- Faculty & Graduate Students

What can I do now?

- Impact evaluation for NGOs, Governments
  Design & Manage Impact Evaluation (Methods & Issues)
- STATA skills
  RA for JPAL or IPA or Faculty
- Graduate School
  Public Health
  Public Policy
  Economics
- Debunk claims made by friends at dinner parties