



# Welfare Academy Session

## Using Multi-Armed Randomized Trials to Identify Effective Policy Interventions

### An Innovative Strategy that Works

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## Overview of Multi-Armed Randomization

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[presented by Michelle Wood, Abt Associates]



# What Do we Want to Know?

- Not only:
  - *What is the impact of this program?*
  
- But also:
  - *Which—among several program designs—has the largest impact?*
  - *How much do individual program components contribute?*



# “Competing Treatments” Design \*

- Control / Treatment A / Treatment B
  - Learn impact of Treatment A
  - Learn impact of Treatment B (same control group)
  - Determine differential impact, A vs. B
  
- Treatment A / Treatment B / Treatment C
  - No control group
  - Only learn relative impact of three models, not the full impact of any one

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*\* as defined by Peck (2015)*



# “Enhanced Treatment” Design \*

- **Control / Treatment / Treatment + Enhancement**
  - Learn incremental impact of Enhancement when added to the basic Treatment
  - Also learn impact of the Treatment
- **Factorial Design: Control / Treatment A / Treatment B / Treatment A + Treatment B**
  - “Enhancement” is a full second treatment (B), added to the first treatment (A)
  - Learn if combined impact of A and B differs from sum of their impacts (synergies? redundancies?)



# Why Not Something Simpler?

- Site 1: Control / Treatment A
- Site 2: Control / Treatment B
  - different participant pools
  - different labor markets
  - different program leadership/practices
- Need many sites to sort out (Bloom-Hill-Riccio, 2003)
- Still worry about what's not controlled for—or what's mis-measured (Bell-Harvill, forthcoming)



# Implementation Challenges

- Managing multiple interventions in the same site [\$\$]
- Avoiding “distortion” ( = program A being altered by program B running in the site, or vice versa )
- Avoiding “crossover” between programs A and B
  - for staff
  - for participants
- Recruiting at a larger scale (3N or 4N, not 2N) [\$\$]
- Others . . . ?



# Session Presentations

Presenter	Organization	Arms	Intervention	Where
Asaph Glosser	MEF Associates	3	Subsidized employment for TANF recipients	Los Angeles County
Anne Fletcher	HUD	4	Homelessness	12 sites nationally
Scott Gibbons	DOL	4	Reemployment of UI recipients	4 states
Stephen Bell	Abt Associates	3	Job training interventions	20 HPOG programs nationally