

Challenges of Using Random Assignment for Social Program Evaluation

**A presentation by
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**Canadian Evaluation Society
(Ontario Chapter)**

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About Our Firm

- Long standing history of completing program evaluation since 1985.
- Firm has 4 offices (Ottawa, Toronto, Edmonton, Victoria) and specializes in the evaluation of public sector programs/services at the federal, provincial, local and/or Pan Canadian level.
- The firm has full time staff in excess of 60, plus another 100 – 150 staff working in three call centres.
- We routinely conduct 12 to 15 evaluations / program reviews per year (value ranging from \$50,000 to \$2 million).

Presentation Overview

- Why is random assignment a “better” evaluation approach?
- Our experience in random assignment.
- Barriers & challenges to utilizing random assignment for social program evaluation.
- Examples of findings – *Foundations For Success* Evaluation.
- Summary.

Why Random Assignment?

- Evaluators constantly strive to answer the question *“What is the net impact of the program?”*
- To do this, we typically construct a comparison group.
- While we can often adjust/correct for a number of factors (demographics, experience, etc.), we are never confident that the comparison group is a good match for program participants – particularly with respect to program participant “motivation”.



The Comparison Group Quandary

- Comparison groups are usually selected on the basis of:
 - prioritization- those with highest needs assigned to intervention, those with less need assigned to the comparison group.
 - “First in” Basis intervention clients are selected on the basis of “first come”, later applicants are assigned to the comparison group.
 - those in a program are compared to those not in a program (first and second stage matching to develop an appropriate comparison group).

Evaluators are constantly asked whether the comparison group is in fact a good population for the counterfactual position.

Random Assignment Benefits

- Evaluations that utilize random assignment offer a better way of ensuring comparability of the intervention group with a very similar group.
- A key similarity is both the treatment and control group were eligible participants in the study- the only difference is the random assignment to the intervention. This method then controls for “motivational” issues that cannot be easily accounted for in most other comparison group constructs.



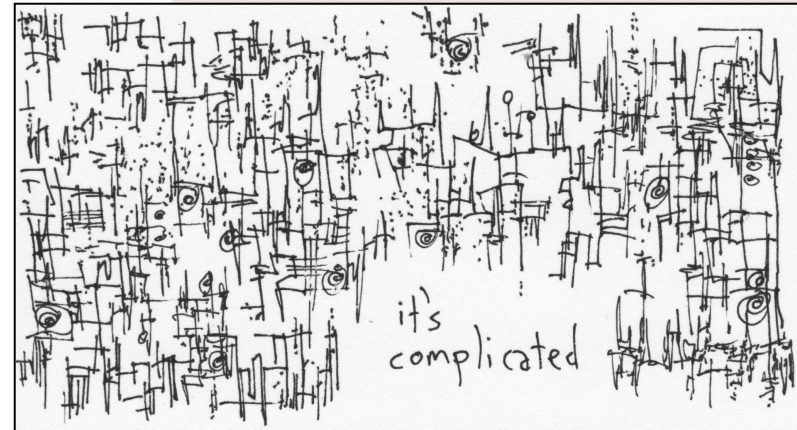
Random Assignment Projects - Case Study Examples

- Evaluation of a program to measure the effectiveness of case management for “at risk” students in three Ontario colleges (Foundations for Success).
- Evaluation of an Aboriginal training program (BC).



Challenges of Using Random Assignment

- Administrative and logistical challenges.
- Program design issues.
- Challenges on implementing random assignment in a social policy context:
 - ethical considerations.
 - Other.



Administrative and Logistical Challenges

- Random assignment typically involves more time and effort at the research design stage:



- need informed consent (intervention and control).
- need more resources (control for cross-contamination, complexity of design, other).
- recruitment - some individuals may not want to participate if there is a possibility that they will not receive services/benefits.

Program Design Issues

- Need to examine the extent to which random assignment can truly isolate participants from control (i.e., random assignment of different family members, students within a classroom, etc.).
- Difficulty in measuring impacts should the program design or evaluation be changed due to implementation issues (not unique to random assignment).
- In order to accurately measure participation impacts, it is often required that additional data be collected from delivery agencies.

Ethical Considerations



- This presents the greatest challenge to implementing random assignment.
- Service providers/contract authorities may initially agree to random assignment, but may withdraw support when they realize that some “at risk” clients will not receive services.

Other Considerations

- Limited understanding and support for random assignment – often viewed as a “black box” due to limited exposure to RA by contract authorities & service providers.
- Level of experience and capacity in Canada is limited.
- RA studies may require more “processes” when compared to other evaluations (i.e., ethics review, informed consent, participation agreements, other).
- RA studies are not “perfect” – they have their own biases (see Stafford, 2002, Cambridge University).

Conditions for Successful Implementation

- Requires sufficient support from service providers and funders for the notion that the program design will not include the provision of services to all clients.
- Particularly well suited for social program evaluations:
 - I. that are in the pilot stage or is a demonstration project.
 - II. where it is anticipated that the number of clients will exceed the ability to serve all clients (rationing would have to occur in any extent).
 - III. that have minimal risks of contamination between intervention and control group.



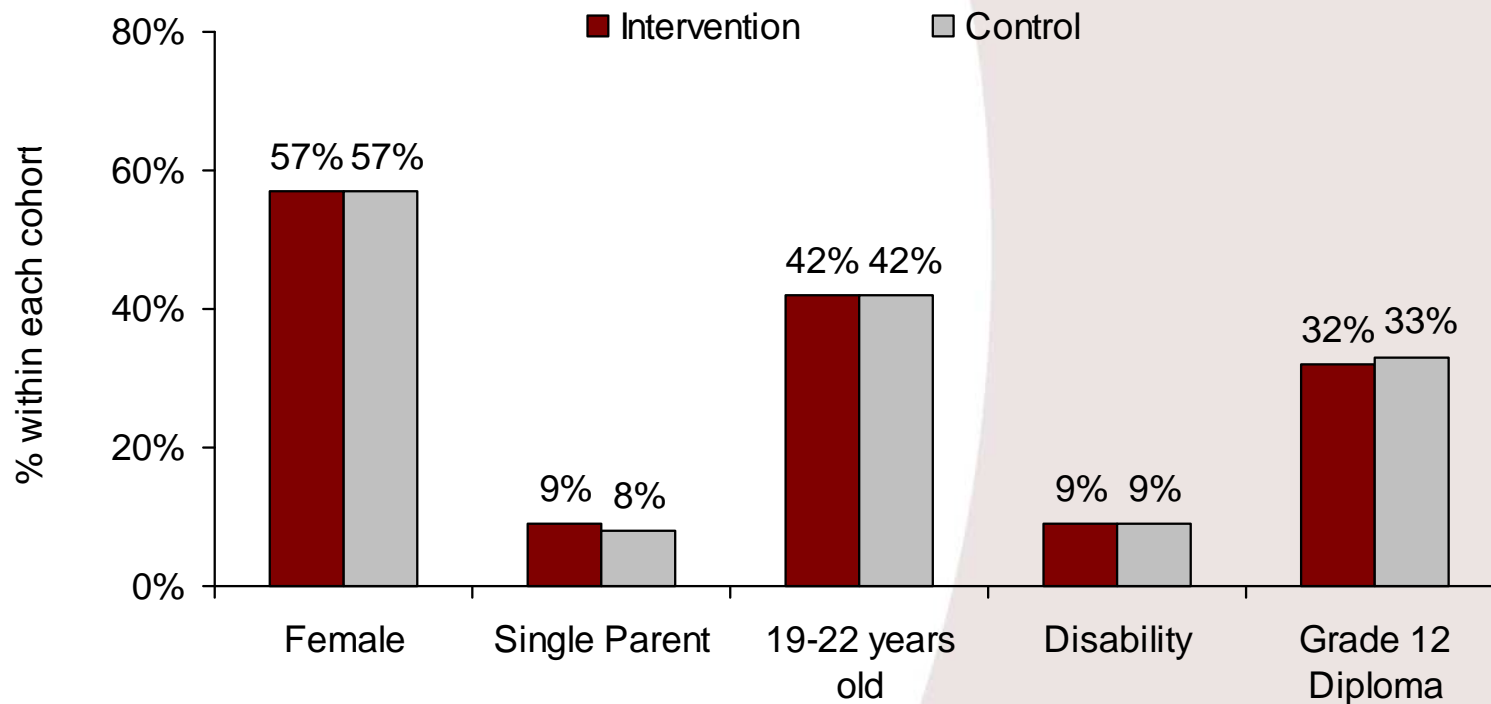
Other Implementation Issues

- Pilot projects rarely result in optimal delivery in the first year of operations. From an evaluation standpoint, evaluations that utilize random assignment should provide funding for two year/two phase evaluation (Year 1/Phase 1 data may not reflect the true operations of the pilot).
- Year 1/Phase 1 should sometimes be viewed as a “pilot” of the random assignment methodology/ program delivery. Corrections after Year 1 can contribute to improved evaluation in Year 2.

Example of RA Evaluation to Demonstrate Social Program Impact

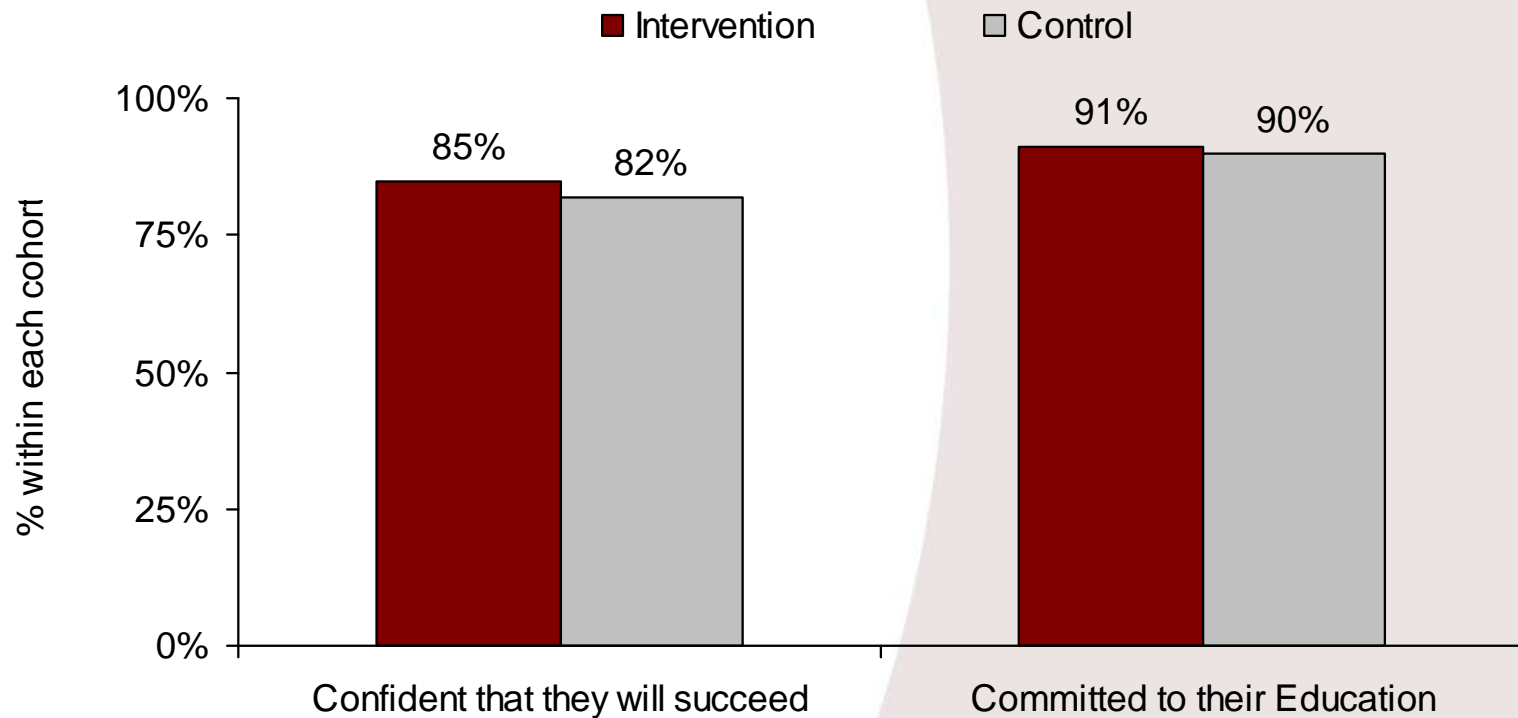
- *Foundation for Success*- utilized random assignment methodology to assign at risk college students to three possible interventions:
 - case management only (Group 1)
 - case management and financial supports (group 2)
 - No service (group 3)
- Characteristics of control and service clients were almost a perfect match.

With Large Samples – Random Assignment Typically Generates Very Close Matches



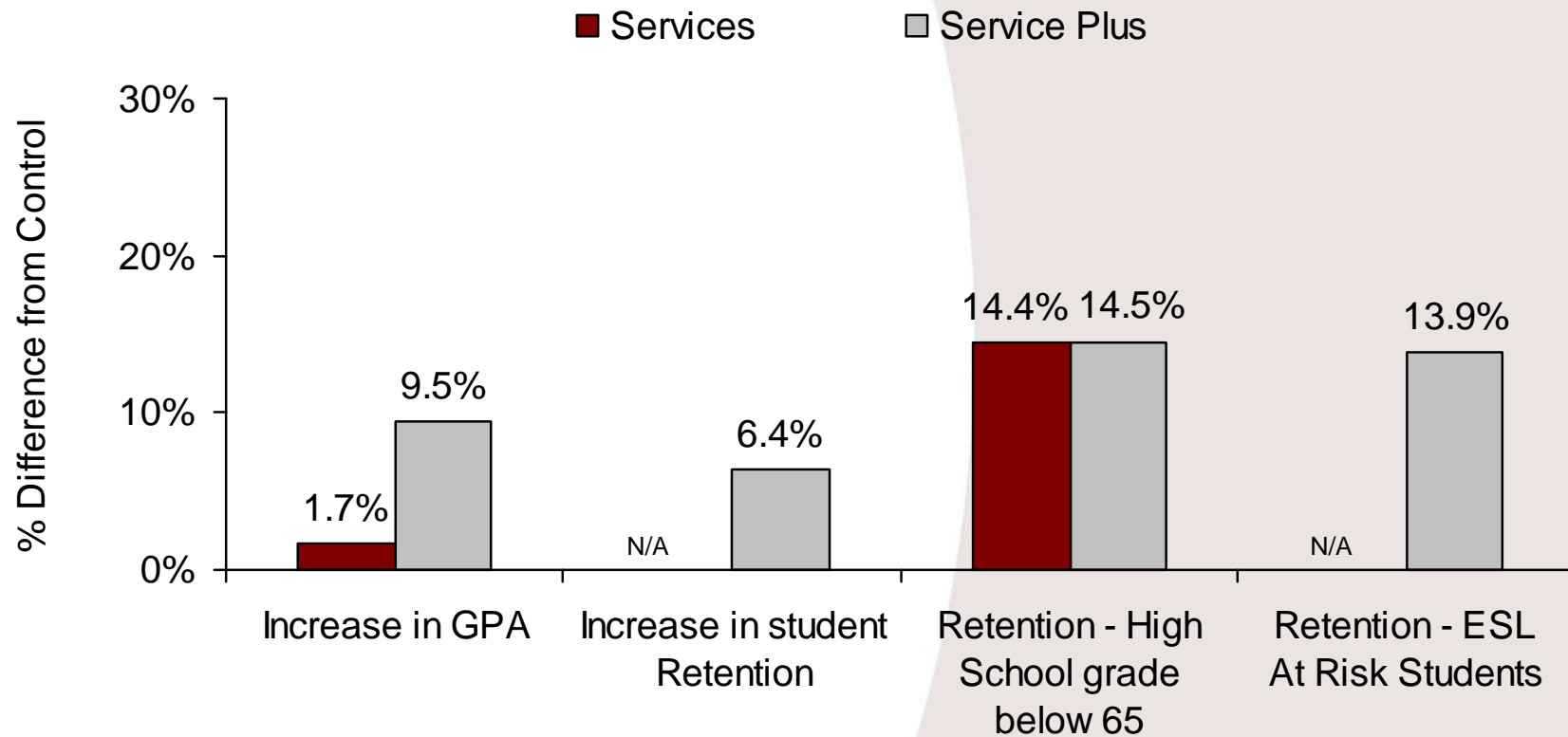
Source: Foundations for Success (n=1,740)

Random Assignment Results in Groups with Similar “Motivations”



Source: Foundations for Success (n=1,740)

Methodology Allowed for Greater Confidence in Estimating Program Impacts



Source: Foundations for Success (n=1,740)

Lessons Learned - Practitioner

- Allow more time.
- Expect recruitment challenges – OVERSAMPLE!
- Easier to demonstrate outcomes
 - (bootstrapping, propensity score matching etc. don't appear in the evaluation report).
- Ideally supported with process evaluation elements to explain why results may/may not have occurred.

Lessons Learned - Funders

- Allow more time.
- Contract Authority reluctance to engage in random assignment usually revolves around “ethical” issues – however, to make informed decisions is it not in the interest of taxpayers to use best available tools to determine program effects?
- Ideally suited to
 - evaluation of pilot projects (a new “intervention”).
 - projects which will involve a rationing of services.
 - projects that do not involve significant ramifications for excluded participants.

Hopes for the Future

- Random assignment can work to demonstrate social program impacts – funders need to support RA projects in Canada.
- An important element of any RA study is the dissemination of both *process* (how it was done) and *outcomes* to the research community – capacity building is important – but it comes at a cost.
- May require Treasury Board or other oversight agencies to demand more rigorous evaluation models to encourage evaluation authorities to “move out of their comfort zone” to adopt RA evaluation models.

For More Information About Foundations for Success:

Early Implementation Report:

http://www.millenniumscholarships.ca/images/Publications/090113_FFS_EIR.pdf

Short-Term Impacts Report:

http://www.millenniumscholarships.ca/images/Publications/090428_FFS_STI_Ir.pdf



For More Information

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