RCTs to Scale: Comprehensive Evidence from Two Nudge Units

Dellavigna and Linos (2022)

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Abstract

- A meta-analysis of Nudge interventions.
  - A unique dadtaset that assembles 126 RCTs covering 23 million individuals (two of the largest Nudge Units in the U.S.).
- Comparing these samples found a difference in the size of average impacts.
  - Evidence from academic journals shows very large and significant impact, while that from Nudge Units are smaller.
- Three dimensions accounts for these defferences.
  1. Statistical power of trials
  2. Characteristics of the interventions
  3. Selective publication
- Among them, selective publication explains about 70% of the difference in effect sizes.

Section 1

Introduction

Nudge Interventions

- Nudge
  - "*choice architecture that alters perple's behavior in a predictable way without forbidding any prtions or significantly changing their economic incentives.*"
  - have become common in the literature in fields such as economics, political science, public health, decision-making, and marketing.
- Nudge Units: larger-scale applications by governments.
  - Behavioral science to improve government services.
    - ideas42 in the U.S. (2008)
    - the UK's Behavioural Insights. (2010)
    - Office of Evaluation Sciences (2015)
  - As of last count, there are more than 200 Nudge Units globally.

What this paper did

- A meta-analysis which colloborates with two major Nudge Units
  - BIT North America: conducts projects with multiple U.S. local governments
  - OES: collaborates with multiple U.S. Federal agencies.
- They conducted a total of 165 trials testing 347 nudge treatments, affecting almost 37 million participants.
- This paper avails 126 RCT trials, involving 241 nudges and collectively impacting over 23 million participants.

Literature and Contribution

- Trials to nudges: Benartzi et al. (2017) and Hummel and Maedche (2019) summarizes over 100 published nudge RCTs.
- However, most of them are not have been documented in working papers or academic publications.
  - BIT and OES conducted 165 trials, but 87% of them are not published as papers.
- Evidence from their unique data set differs from a traditional meta-data analysis in:
  1. The large majority of have not previously appeared in academic journals.
  2. No scope for selective publications.

Summary of Results

- In the 26 papers in the Academic Journals sample, the average impact of nudge interventions raised take-up rate by 8.7 percentage points (33.4%).
- Including all 126 trials by Nudge Units showed an unweighted impact of 1.4 percentage point (17.3%).
  - The impace is highly statistically significant, but there is large difference between two samples.
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Section 2

Setting and Data

Section 3

Impact of Nudges

Section 4

Nudge Units Versus Academic Journal Nudlges

Section 5

Introduction

Section 6

Discussion and Conclusion