PSC 202

SYRACUSE UNIVERSITY

INTRODUCTION TO POLITICAL ANALYSIS

EXPERIMENTS, PART 1

EXAM

- Exam 3 next week Wednesday
  - If you take it at CDR, please sign up now!
- “Study Guide” slides will be posted later today
- Review on Monday
  - Email questions by Sunday evening

STUDENT HOURS

- Next week: Tuesday 1-3
- 530 Eggers or Zoom
  - Zoom info on syllabus

LINEAR REGRESSION RECAP

Canvassing → Turnout

- Does canvassing people in campaigns increase turnout?
  - How could we study that?

LINEAR REGRESSION RECAP

- Does canvassing people in campaigns increase turnout?
  - Survey people:
    - Did you vote in the last election?
    - Were you contacted by a campaign?

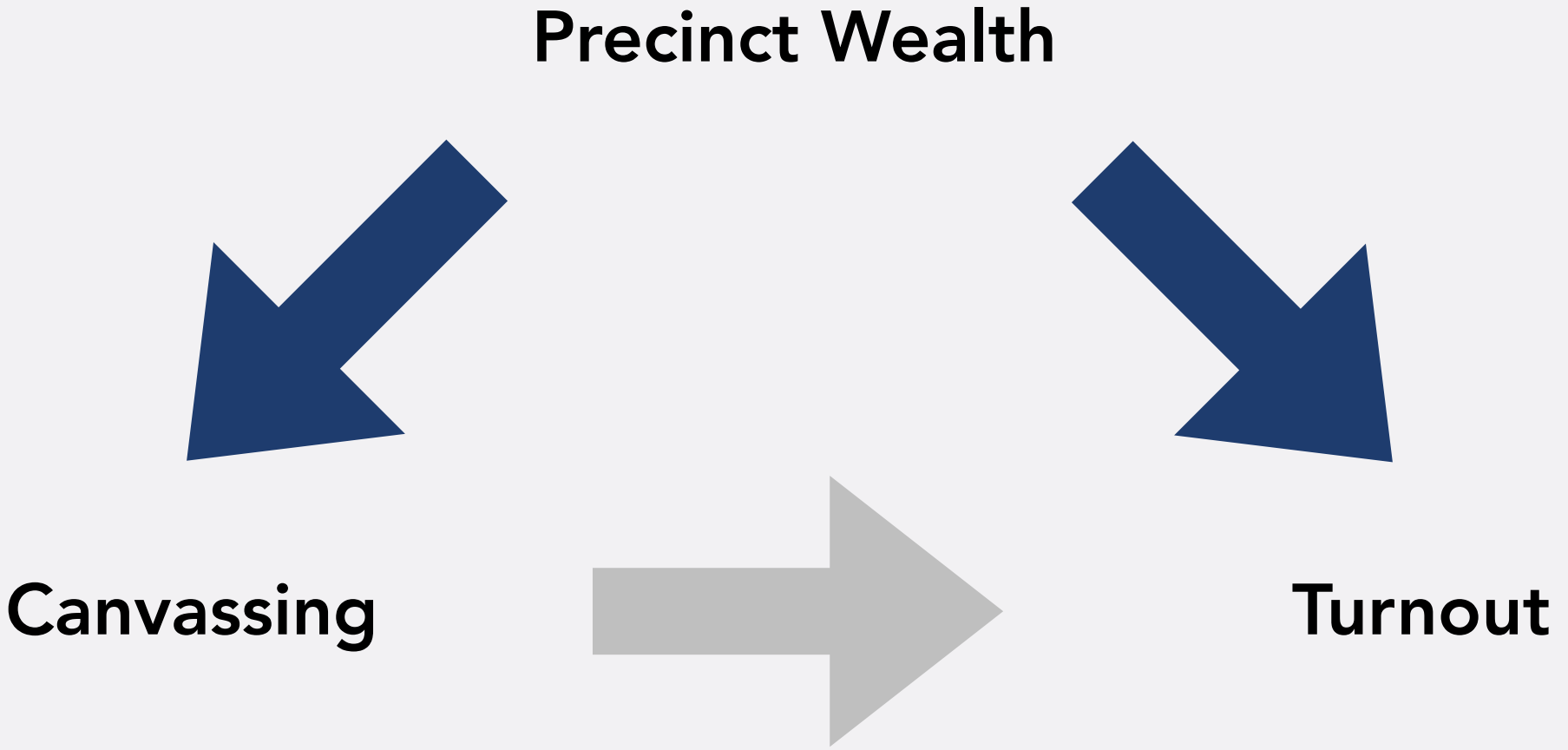
LINEAR REGRESSION RECAP

- Does canvassing people in campaigns increase turnout?
  - Collect data precinct-level data:
    - How high is turnout in different precincts? (%)
    - How much did the campaigns canvass in precincts? (total hours)

PROBLEM

- We do a linear regression
  - Turnout = a + b_1 * Canvassing Hours
- Suppose we find: Precincts in which campaigns canvassed more hours have higher turnout
- Is this evidence that canvassing *causes* higher turnout?

ELIMINATION OF ALTERNATIVE CAUSES

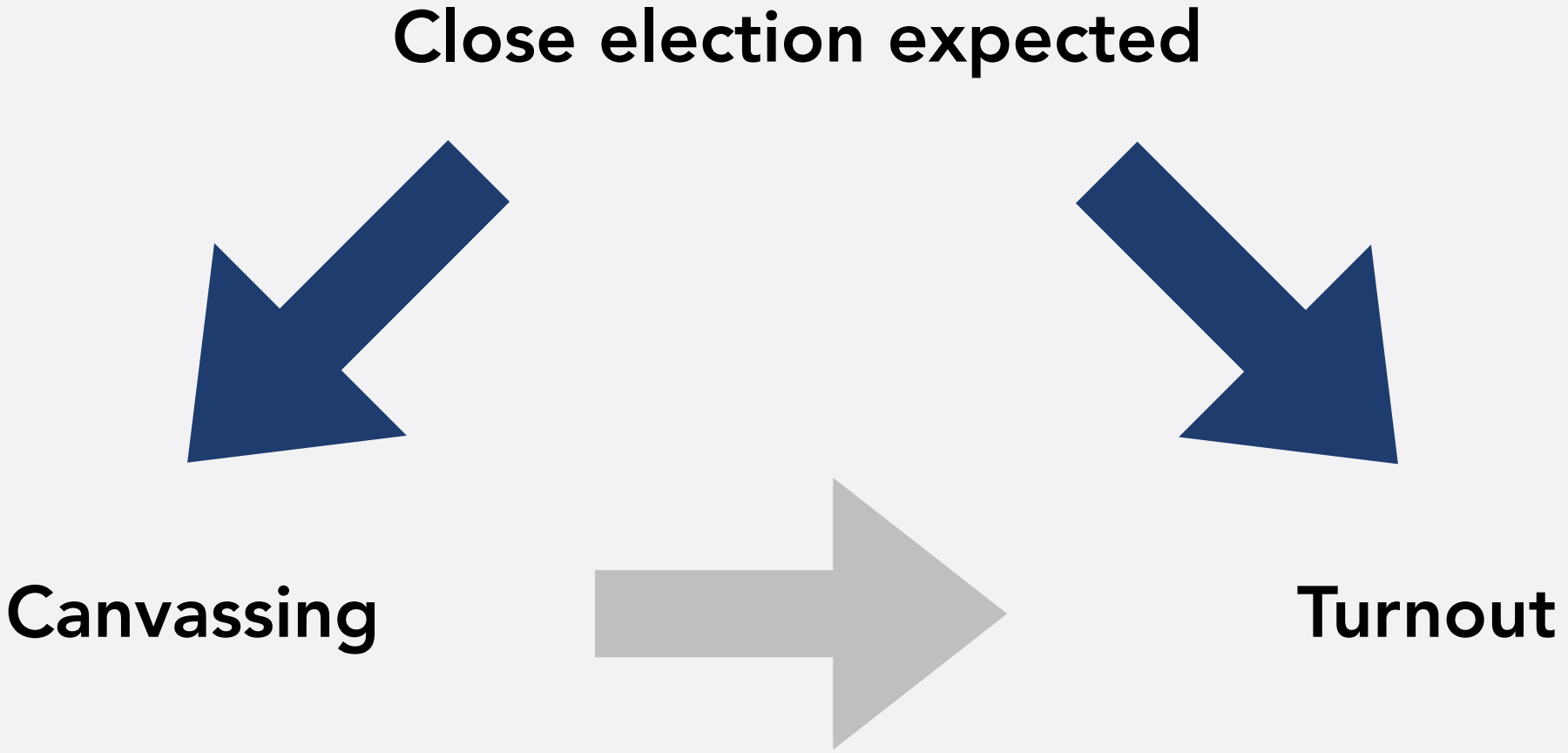


- Maybe campaigns canvass more in rich precincts, and wealthier people are more likely to turn out

ELIMINATION OF ALTERNATIVE CAUSES

- Turnout = a + b_1 * Canvassing Hours + b_2 * Precinct Wealth
- If b_1 is still positive and significant, is this evidence that canvassing *causes* higher turnout?

ELIMINATION OF ALTERNATIVE CAUSES



- Maybe campaigns canvass more when election expected to be close, and people turn out more when they expect nail-biter

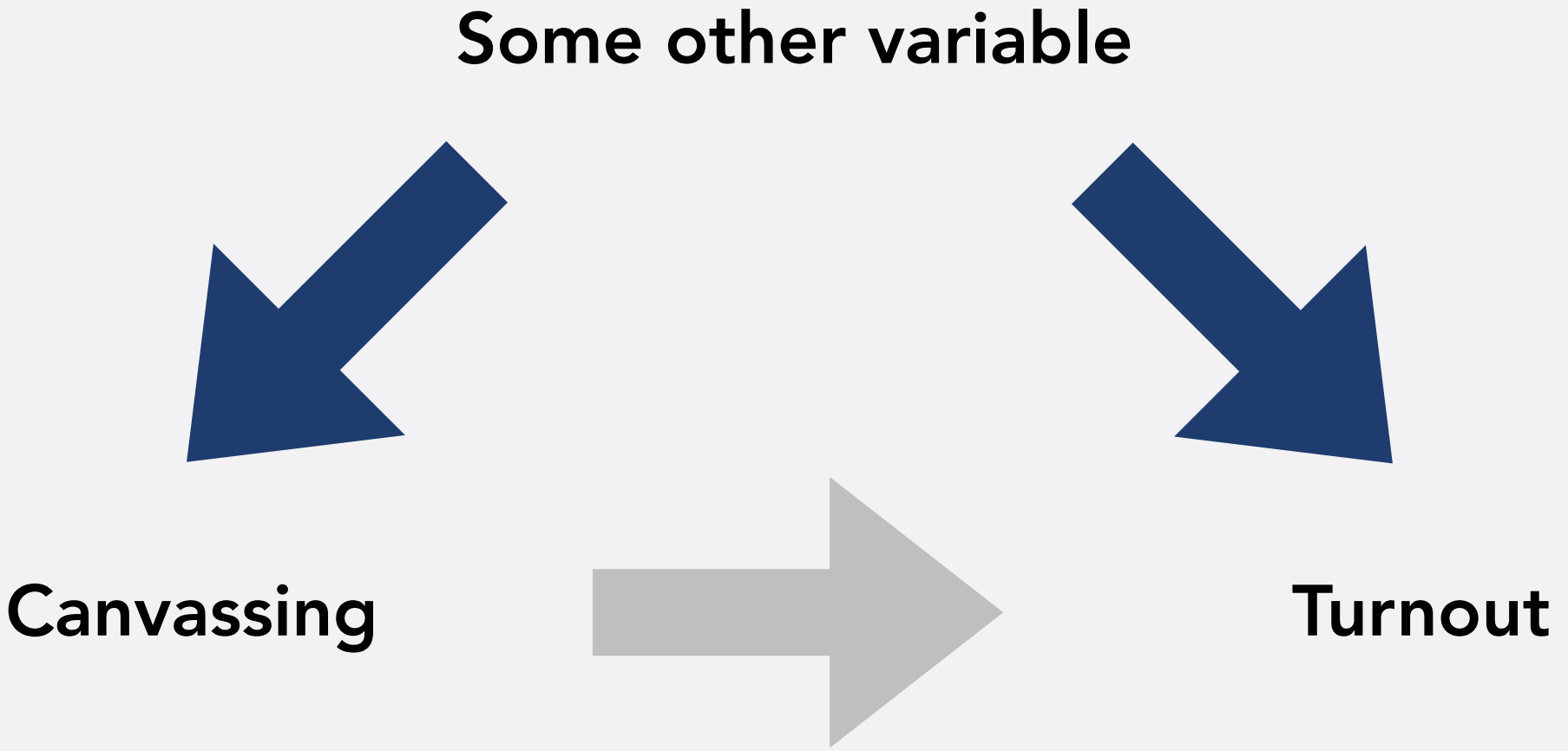
ELIMINATION OF ALTERNATIVE CAUSES

- Turnout = a + b_1 * Canvassing Hours + b_2 * Precinct Wealth + b_3 * Expected Closeness
- If b_1 is still positive and significant, is this evidence that canvassing *causes* higher turnout?

HURDLES TO CAUSALITY

- Is there a credible causal mechanism that connects X to Y?
- Can we rule out the possibility that Y could cause X?
- Is there covariation between X and Y?
- Have we controlled for all confounding variables (Z) that might make the association between X and Y spurious?

ELIMINATION OF ALTERNATIVE CAUSES



- We can *never* be sure that we have controlled for all alternative causes

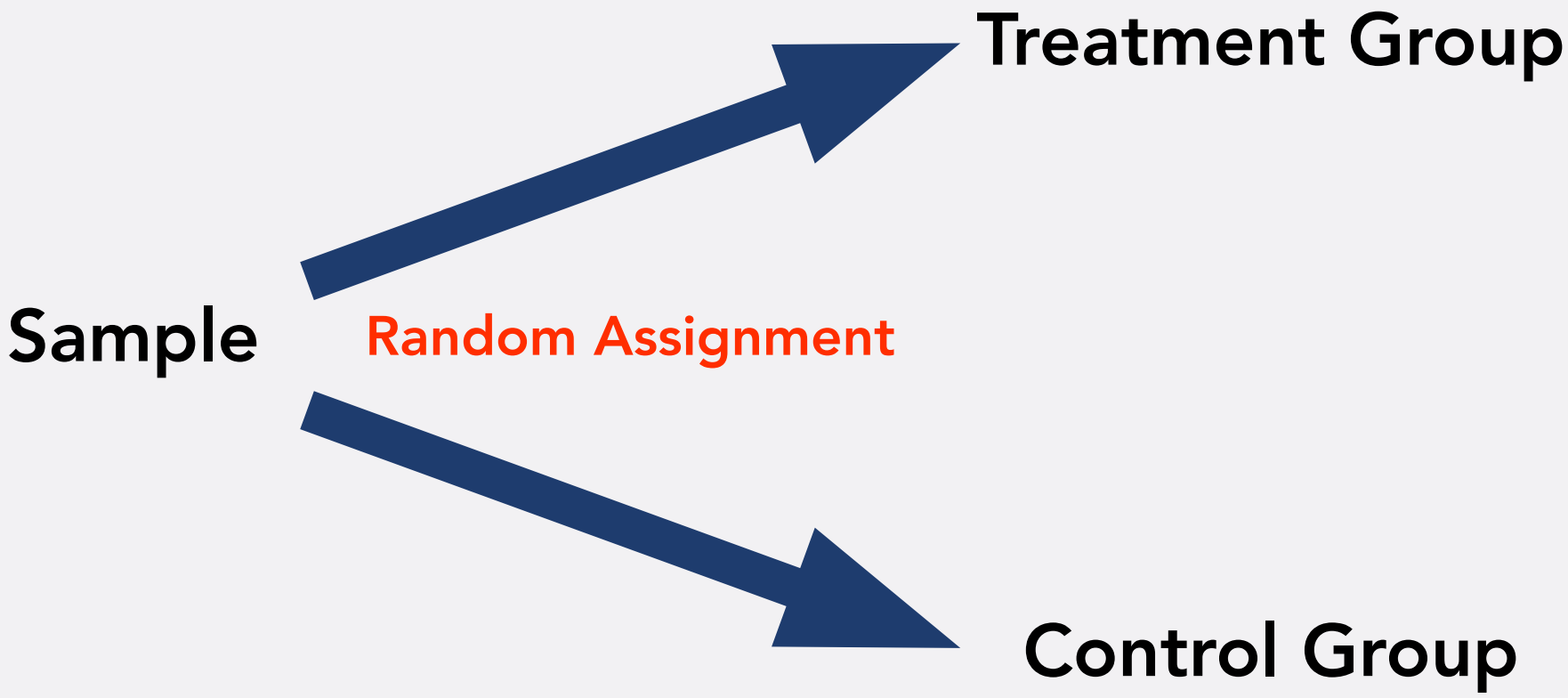
LINEAR REGRESSION RECAP

- *Observational* analysis
  - Takes data as we find it in the world
  - Regression tries to find the "data-generating process"
  - Does "our" X cause Y, controlling for potential alternative explanations?
  - Problem: We never know if we have controlled for *all* potential alternative explanations

A DIFFERENT APPROACH

- Observational approach: Researchers *observe* turnout and canvassing efforts, try to control for potential alternative explanations
- Experimental approach: Researchers *decide* how much canvassing happens in different precincts, see whether those with more canvassing have higher turnout

EXPERIMENTS



EXPERIMENTS

- A sample of precincts
- For each precinct, flip a coin
  - Heads: Canvassing happens
  - Tails: Canvassing does not happen
- Compare turnout between two groups

WHY DOES THIS WORK?

- Researcher *controls* canvassing, assigns precincts *randomly*
  - Average wealth about the same for treatment and control precincts
  - Expected closeness of election too
  - *All* characteristics should be about the same in the two groups
    - If sample is big enough and assignment is truly random

EXAMPLE

Getting Out the Vote in Local Elections: Results from Six Door-to-Door Canvassing Experiments

Donald P. Green
Alan S. Gerber
David W. Nickerson
Yale University

- Local elections in 2001
- 6 cities: Bridgeport, Columbus, Detroit, Minneapolis, Raleigh, St. Paul
- Collaboration with non-partisan GOTV organization

EXAMPLE

- Official voter lists
- Randomly assigned citizens to treatment and control group
  - Treatment: In-house visit by volunteers
  - Control: No visit
  - Random assignment at individual level
- Total: ~19,000 subjects

EXAMPLE

- Get data on whether people in sample voted or not (public information)
- Turnout in treatment group (canvassed) about 7 percentage points higher

ANOTHER EXAMPLE

The Effects of Canvassing, Telephone Calls, and Direct Mail on Voter Turnout: A Field Experiment

ALAN S. GERBER and DONALD P. GREEN *Yale University*

- Midterm elections in 1998
- New Haven, CT
- What is most effective: canvassing, phone calls, direct mail?

EXAMPLE

- Official voter lists
- Randomly assigned citizens to several treatment groups (and a control group)
  - Treatment 1: In-person visit by volunteers
  - Treatment 2: Phone call made
  - Treatment 3: Direct mail sent
  - Control: No mail/call/visit
  - Random assignment at individual level
- Total: ~30,000 subjects

EXAMPLE

- Again get data on whether people in sample voted or not (public information)
- Effect of different contact methods on turnout:
  - in-person canvassing: 9.8%
  - each piece of mail: 0.6%
  - phone call: no effect

DOOR-TO-DOOR CANVASSING

- Many canvassing experiments have been done
  - Canvassing increases turnout
  - Effectiveness depends on election and voters
  - Canvassing works better close to election day
  - Who delivers the message matters
  - Canvassing has spillover effects

DOOR-TO-DOOR CANVASSING

- How effective is it?
  - Best estimate: 1 additional vote for each 14 contacts
  - Cost: $29 for each additional vote

BASIC STEPS

1. *Randomly* assign participants
2. *Manipulate* independent variable
   - Control group, treatment group
3. *Measure* dependent variable
4. *Analyze differences* in dependent variable between treatment and control groups
   - Because of random assignment, only independent variable can explain differences
   - All other variables are "balanced" between treatment and control group
   - Not necessary to control for potential confounding variables

INTERNAL VALIDITY

- Does the study isolate the effect of the independent variable on the dependent variable?
  - If yes: high validity
  - If no: low validity
- Experiments usually have *high* internal validity
  - Because of random assignment, other variables (Z) cannot explain differences between treatment and control groups

EXTERNAL VALIDITY

- Can we generalize the finding of the study to other settings?
  - If yes: high external validity
- Experiments often have *low* external validity
  - e.g. not clear if results would be similar if done in other cities or countries
  - If partisan canvassing, candidates may only agree to experiment in uncompetitive elections, not clear if results would be same for competitive elections

TYPES OF EXPERIMENTS

- What kinds of experiments are there?

FIELD EXPERIMENTS

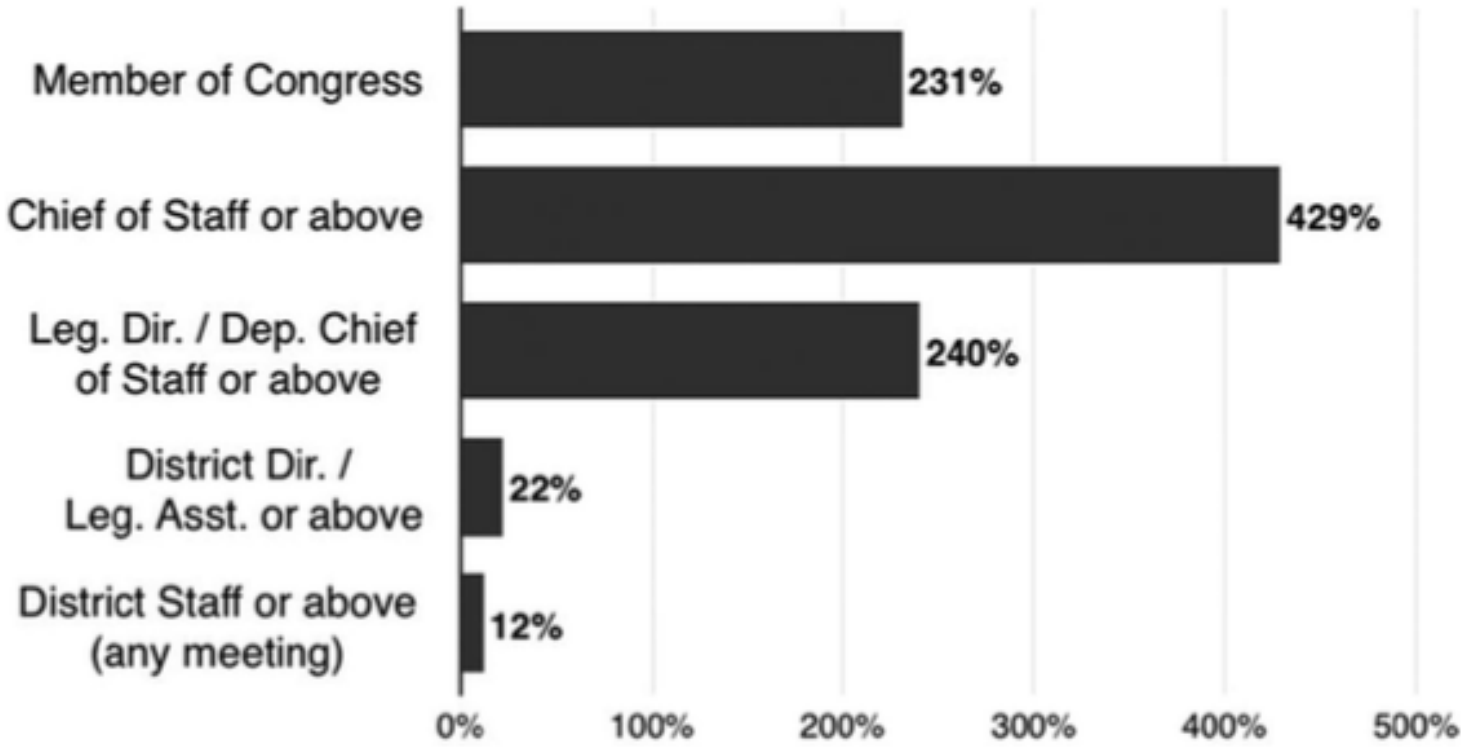
- What is the effect of campaign contributions on access to politicians?

FIELD EXPERIMENTS

- Organization tries to arrange meeting between its members and congressional officials
  - Per e-mail
- Experimental manipulation
  - Control group: “local constituents”
  - Treatment group: “local campaign donors”
- Outcome: Is a meeting granted, and who will it be with?

FIELD EXPERIMENTS

FIGURE 2 Percentage Increase in Access Revealed Donors Gained, at or above Each Level.



TYPES OF EXPERIMENTS

- Field Experiment
- Lab Experiment
- Survey Experiment

FIELD EXPERIMENTS

- Experiment in the real world
  - Some aspect of people's real-world experience is experimentally manipulated
  - Participants often not aware that they are subjects
- Canvassing and turnout is a field experiment

FIELD EXPERIMENTS

- Do messages like this increase turnout?

FIELD EXPERIMENTS

A 61-million-person experiment in social influence and political mobilization

Robert M. Bond[1], Christopher J. Fariss[1], Jason J. Jones[2], Adam D. I. Kramer[3], Cameron Marlow[3], Jaime E. Settle[1] & James H. Fowler[1,4]

37.8% in 2010. Our results suggest that the Facebook social message increased turnout directly by about 60,000 voters and indirectly through social contagion by another 280,000 voters, for a total of 340,000 additional votes. That represents about 0.14% of the voting

FIELD EXPERIMENTS

- All kinds of field experiments
  - Candidates randomize TV ad buys to see if they have an effect on voter preferences
  - Candidates randomize what they talk about on the campaign trail to see if it affects vote share
  - Aid organizations randomize who gets aid (and in what way) to see if it helps people succeed
  - Military randomizes whether soldiers are in team with women or not to see how it affects performance and attitudes
- Among experiments, field experiments tend to have highest external validity