500 Class 02 (Zoom)

https://thomaselove.github.io/500-2025/

2025-01-23

Agenda for Zoom Call

Thursday 2025-01-23 from 10 to 11 AM. Zoom details in your email and on Canvas.

- Welcome to 500 Survey
- Lab 0 and how things are going so far
- Abramson, Chapter 2
- Rosenbaum *Causal Inference* Chapters 1-3

Discussion

- the Welcome to 500 survey
- Lab 0
- how things are going so far?
- questions about the recording?

Abramson Chapter 2

from *Overdosed America*, Spinning the Evidence: Even the most respected medical journals are not immune...

- The Devil is in the (Statistical) Details
- Studying the Wrong People
- Collaboration in the Academy
- Two Articles on Stroke Reduction

Rosenbaum, *Causal Inference*

Chapters 1-3

1. The Effects Caused By Treatments
   - Bleeding George Washington
2. Randomized Experiments
   - Treatments for Ebola
3. Observational Studies: The Problem
   - Smoking and Periodontal Disease
   - Smoking and Lung Cancer
   - Boxplots and the Propensity Score

For Discussion

- What was the most **important** thing you learned from reading Chapters 1-3?
- What was the **muddiest**, least clear thing that arose in your reading?
- What questions are at the front of your mind now?

Section 1

Next Time?

Class 3 Recording: before 10 AM 2025-01-30

- We'll walk through direct adjustment for the PS and 1:1 matching with the PS. (No R code in slides)
- Class 4: Essentially nothing but R code.
- Skim Connors 1996 and Gum 2001 to see how propensity score matching has been done in practice

Class 3 Zoom at 10 AM 2025-01-30

- Lab 1 due to Canvas by 9 AM 2025-01-30
  - discussion of Lab 1 sketch during Zoom Session
  - some comments on the next slide
- *Causal Inference* read Chapter 4 (Adjustments for Measured Covariates)
- Look into what you need to do to select an OSIA article (due Tuesday 2025-02-19)

Lab 1

Use our Lab 1 template, please!

1. Get access to the DIG teaching data from NHLBI
2. Create a sample according to our specifications
3. Create a Table 1 comparing MI to no MI (lots of help in template)
4. Build a logistic regression model comparing MI to no MI (like Task 1 in Lab 0)
5. Redefine sample and redo 3 and 4
6. Add fitted probabilities from 5 to your data and plot against observed MI status (like Task 3 in Lab 0)