

Political Science 30: Political Inquiry

Section 1

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By the end of section today, you should:

- Understand key concepts from lecture:
 - Independent Variable
 - Dependent Variable
 - Confounding Variable
 - Spurious Correlation
- Be able to evaluate whether hypotheses meet the criteria to be “good” hypotheses and write your own
- Be able to identify confounds and explain how they limit our ability to make causal claims

Plan for the Day

- Introduce ourselves
- Go over section participation expectations
- Answer questions from lecture this week
- Dig in!

A Little About Me

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- Contact Information:
 - Email: tncarlson@ucsd.edu
 - Office Hours: Wednesdays 8-9:30am; 11am-12pm in SSB 341, or by appointment
 - Discussion Section slides and materials can be found at <http://pages.ucsd.edu/~tfeenstr/>

Getting to Know You:

Please take a notecard and write the following:

- Name (and preferred name you go by)
- Fun fact about yourself
- 1 thing you are looking forward to in this class
- 1 thing you are nervous about in this class
- 1 thing that I can do to be helpful to you and your learning

Discussion Section Format and Expectations

- Section participation is *required* and accounts for 10% of your course grade (7 section attendances = full participation)
- Review concepts from lecture, give additional examples, practice problems, help learning Stata
 - Large group (whole class) discussions
 - Small group discussions with the people around you
 - Small group activities

General Advice for POLI 30

- Don't give up!
 - Inspiration: Minneapolis Miracle: Keenum to Diggs; Bruno Mars: Don't Give Up; Michael Scott
- Come to lecture – very interactive, take notes on the discussions
- Come to section
- Practice!
 - Odd problems in the textbook (answers in the back)
 - Additional practice exercises posted on my website
 - Examples from section and lecture
- Come to office hours sooner rather than later

Stats Motivation of the Week

“Stats sometimes mean something, sometimes mean nothing, and sometimes are just coincidence” - Trey Wingo post-game Jan 14, 2018

Questions??

What questions do you have from lecture this week?

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- How would you make it better?

Hypothesis Practice: Independently

Choose a hypothesis and write down your answers the two questions below.

- 1 Age and voter turnout are related.
 - 2 Career politicians are bad.
 - 3 UCSD students are happier than University of Wisconsin students.
- What's wrong with this hypothesis? (What's missing from the checklist?)
 - How would you make it better?

Hypothesis Practice: In Groups

Pair up with 2-3 other students and discuss your answers.

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 - 2 Career politicians are bad.
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Questions?

- We **want** to make causal claims ...

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- But it's hard

Confounds and Spurious Relationships

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 - Confound? Prior health / selection into going to the hospital

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- Examples of Confounds: Do hospital visits make people sicker?
 - IV: Hospital Visit
 - DV: Health (after visiting a hospital)
 - Confound? Prior health / selection into going to the hospital
- If we have a confound, then the correlation we observe between the IV and DV may be **spurious**
 - A third variable affects both the IV and the DV
 - Example: the weather affects both ice cream sales and shark attacks

How do we show causality?

- ① Establish temporal ordering (did the IV come before the DV?)
- ② Establish correlation (when changes in one variable occur together with changes in another variable)
- ③ Causal mechanism (tell the story)
- ④ Rule out confounds

Confounds Practice

- Go back to the improved hypotheses you wrote earlier.
- Brainstorm any possible confounds in these relationships.
- Can you show causality with your hypothesis?