SOC-5811 Week 1: Introduction to the course

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9/3/2025

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  - Asst Prof at Minnesota
- 12 years of coding/stats experience

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- But, many things take me 15 minutes today that took me 3 hours last year, or all day three years ago.

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- Quantitative methods are particularly threatening in this way and can trigger a lot of stereotype threat.
- People may have also had access to very different opportunities around math/stats up to this point - or very negative experiences.
- **This course will be a space where it's very important to ask questions and be confused.**

Why should we understand quantitative methods (and coding)?

- **There is some inherent value.** Quantitative methods can provide empirical, falsifiable facts about the social world (but not what those facts mean!); for example, how did different groups vote in 2024, and was this different from how those groups voted in 2020?

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- **Non-academic careers.**
- **Organizing/advocacy.**

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- Data doesn't speak for itself; it must be carefully interpreted, summarize, and analyzed.

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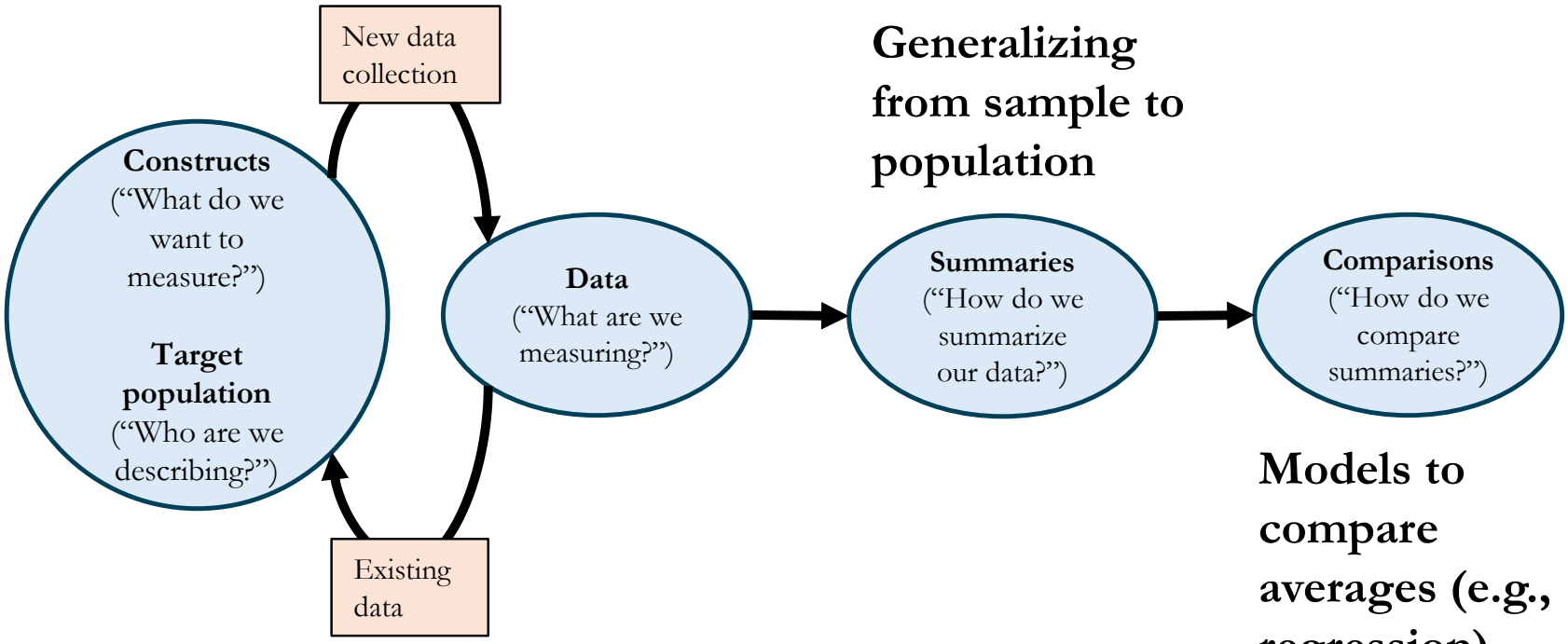
- **First principles $\longrightarrow$ Heuristics**
- A critical skill is being able to know where your understanding is and where you want it to be.
- It's very common to take a math/stats course that focuses a lot on first principles, say "why do I need to know this?", and give up on any level of understanding.


New data collection
Constructs ("What do we want to measure?")
Target population ("Who are we describing?")
Data ("What are we measuring?")
Existing data
Generalizing from sample to population
Summaries ("How do we summarize our data?")
Comparisons ("How do we compare summaries?")
Models to compare averages (e.g., regression)

Structure of the course

- Lectures.

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- Grading.

Coding

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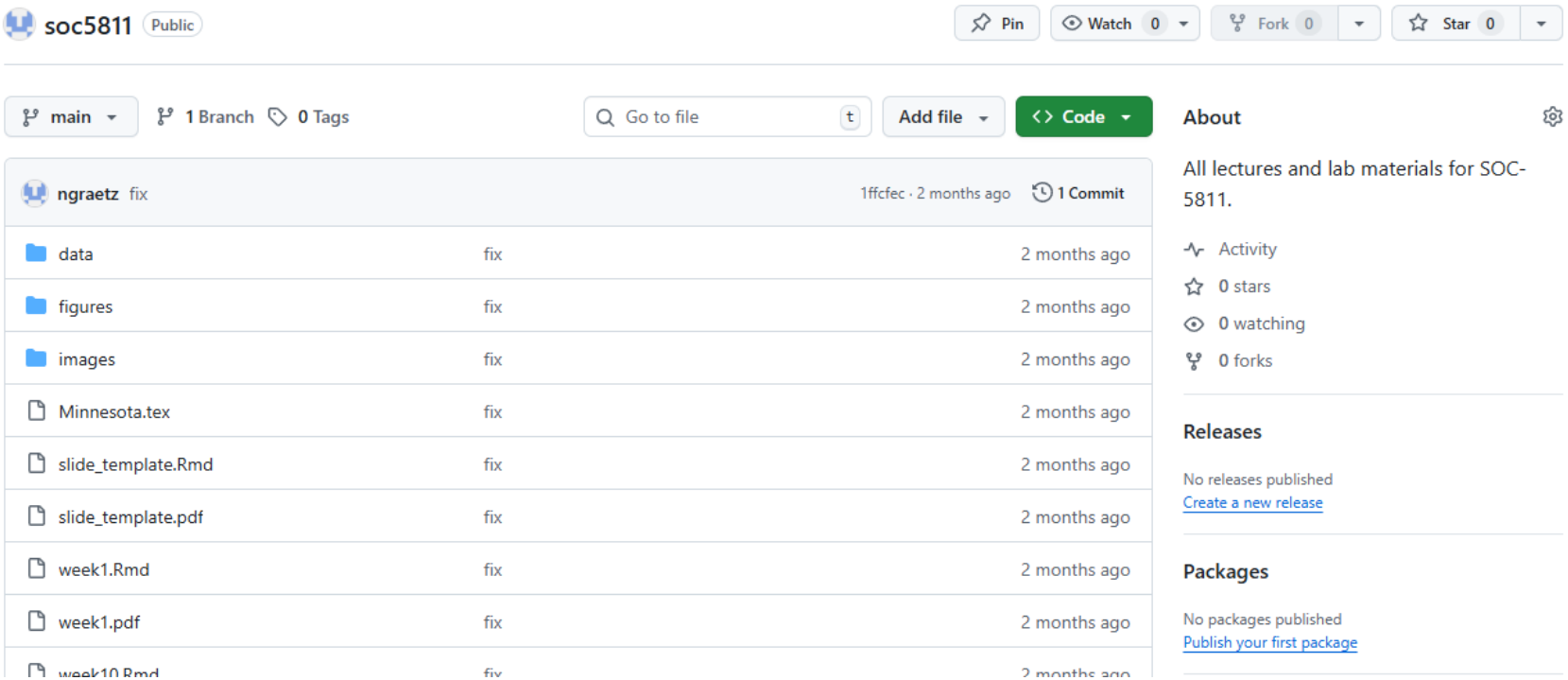
- Make use of free resources.

Syllabus

Week	Day	Topic	Reading, etc.
1	9/3	Introduction to the course	
2	9/8	**No class!**	
	9/10	Introduction to R and ggplot2	*ModernDive*, Getting Started with Data in R 1.1-1.3 *R for Data Science*, Data Visualization 1.1-1.2
3	9/15	**No class!**	
	9/17	Quantitative research methods	*Causal Inference: The Mixtape*, Chapter 2: Probability and Regression Review 2.1-2.12
		Part 1: Probability and regression	
4	9/22	Linear regression I	*Causal Inference: The Mixtape*, Chapter 2: Probability and Regression Review: 2.13-2.25
	9/24	Linear regression II	

GITHUB

https://github.com/ngraetz/soc5811



This could be a weird semester

- We may need to be flexible and adapt.