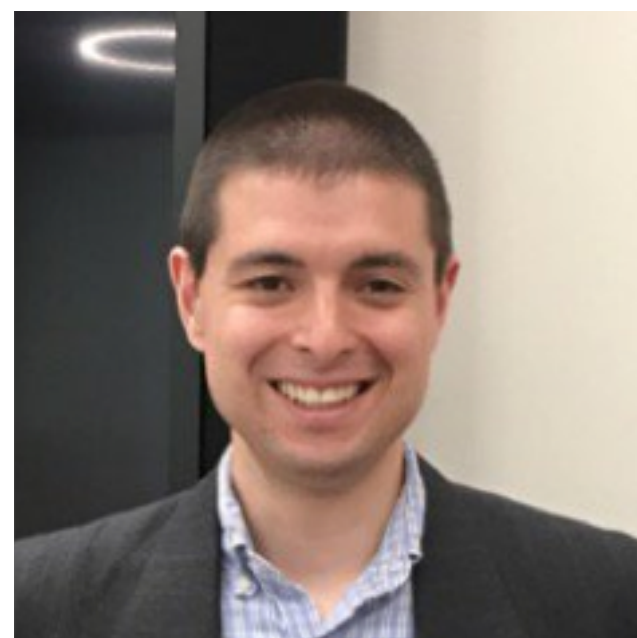


# Graceful Recovery from Problems

## (SOC 412)

Lecture 12

Sherrerd Hall 306

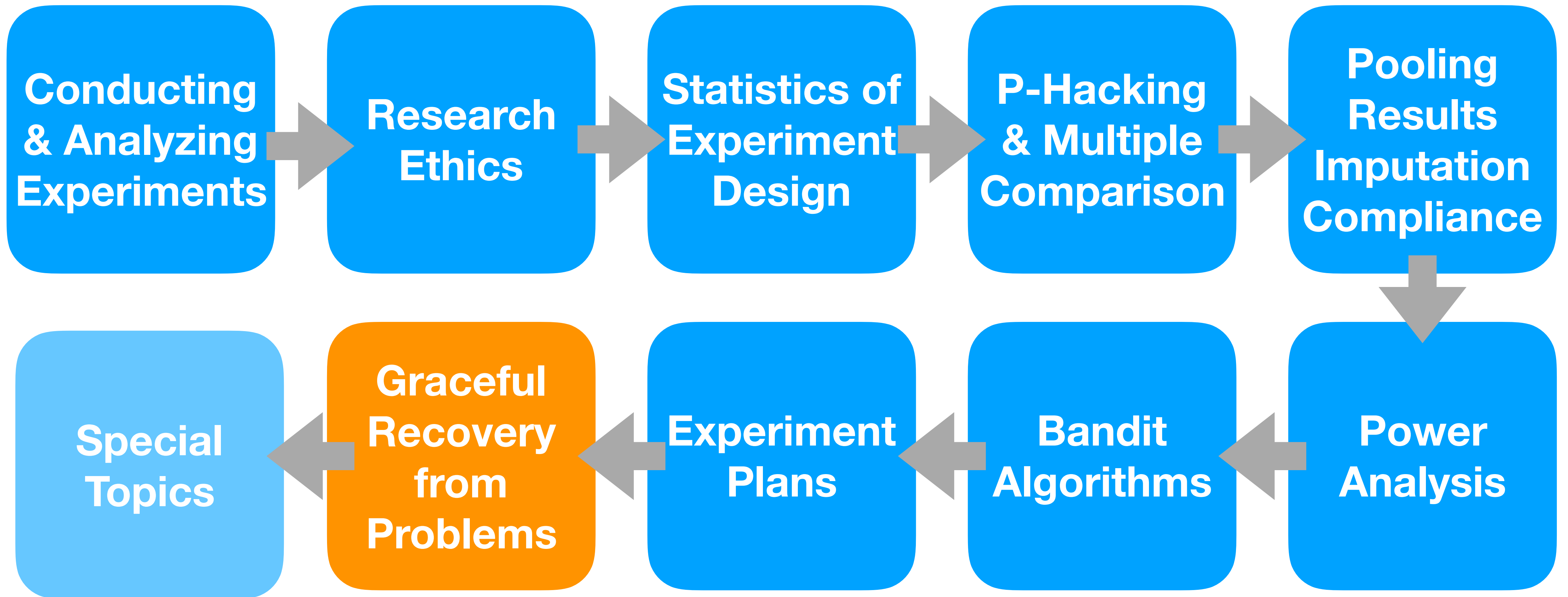


**J. Nathan Matias**

@natematias

[jmatias@princeton.edu](mailto:jmatias@princeton.edu)



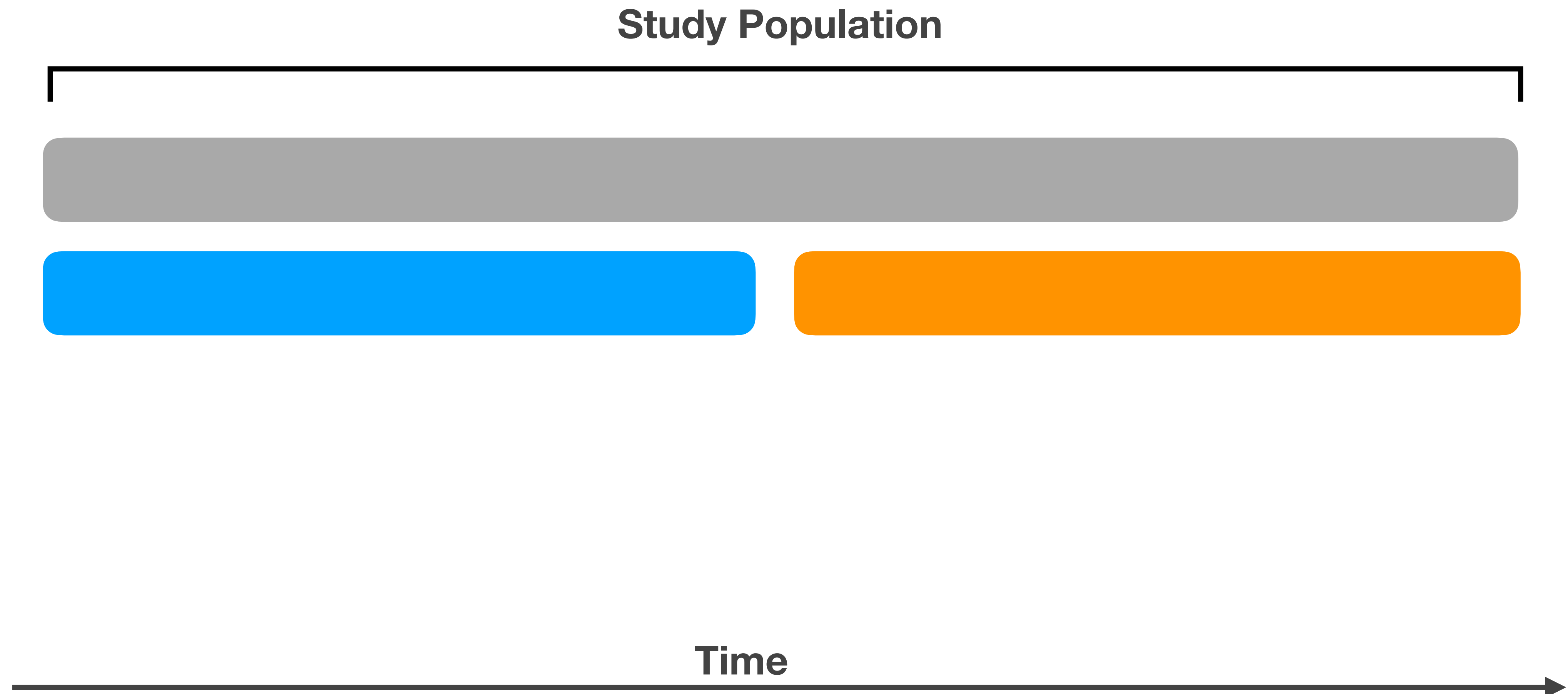


# What Could Possibly Go Wrong?

- Problems in the delivery of the treatment (compliance)
- The effect is very different from what you expect, perhaps even harmful
- People ask hard questions and/or object to the experiment
- We Pre-registered the wrong analysis...

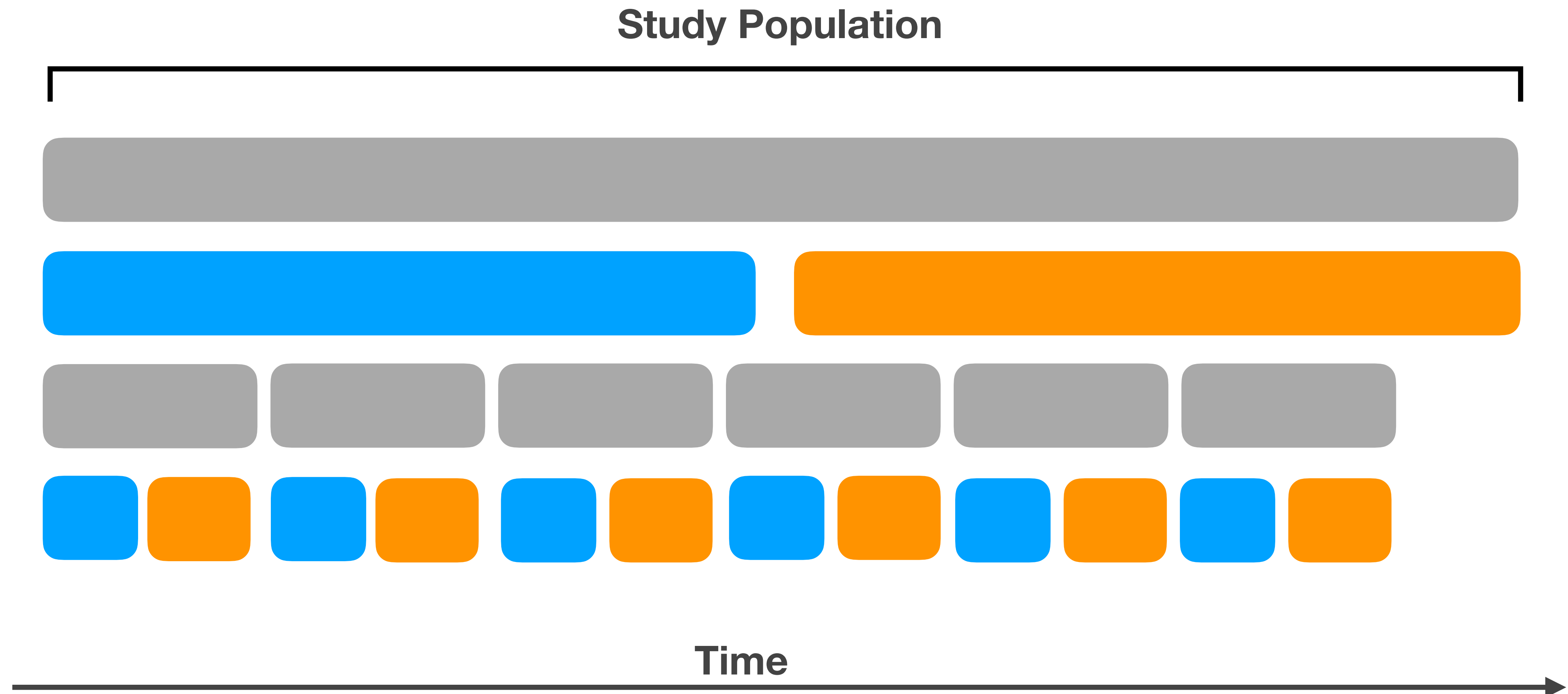
# Block Randomization

(when there is a sequence of treatments)



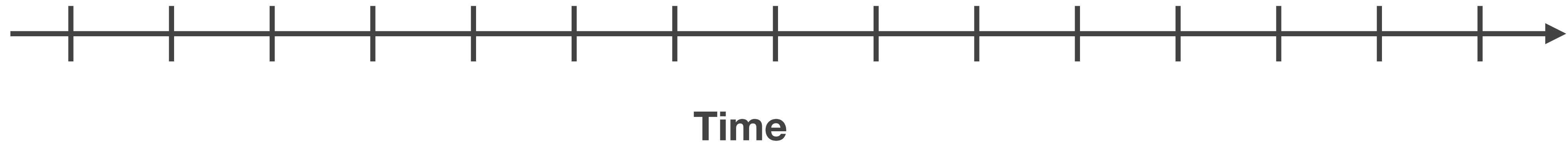
# Block Randomization

(when there is a sequence of treatments)



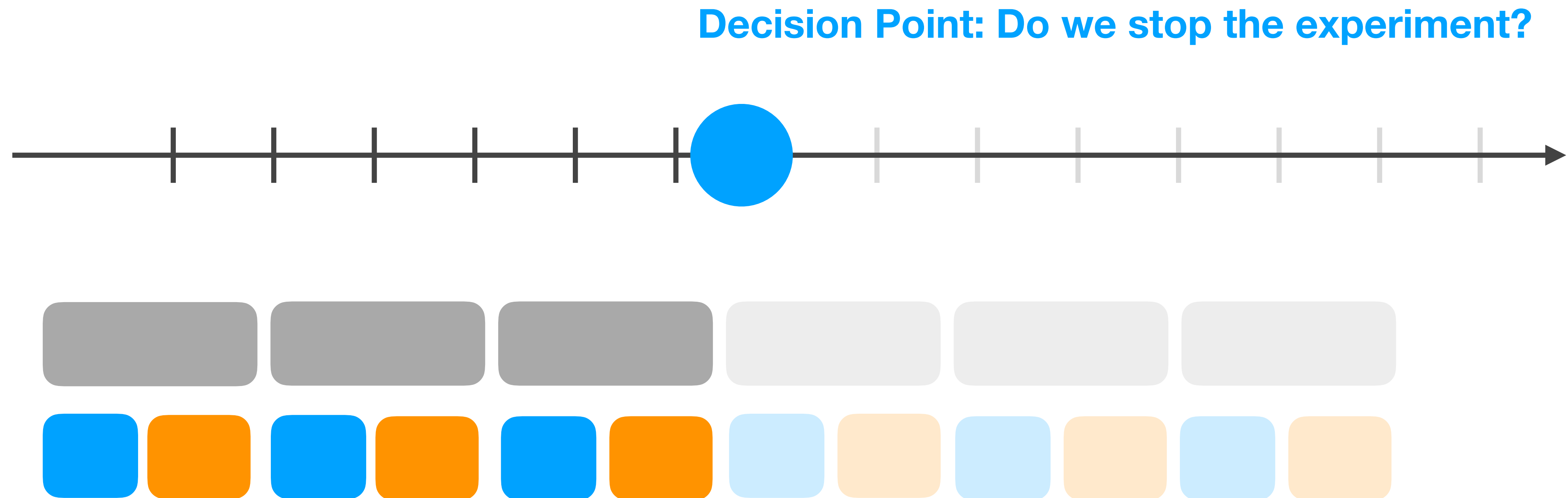
# Regular Measurement

(when there is ongoing treatment)



# Stop Rule

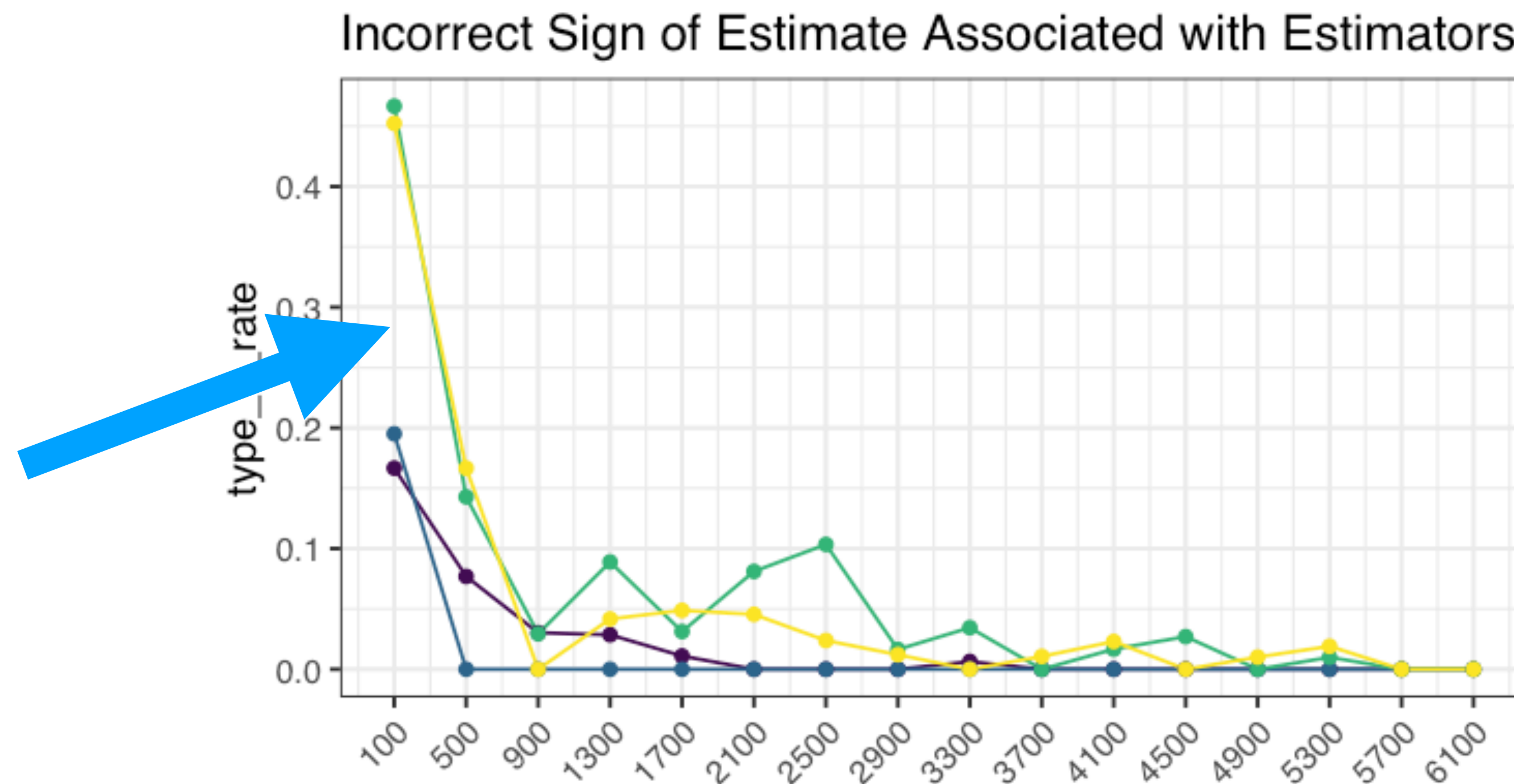
(pre-stated criteria for ending the experiment)



Time

# Planned Reasons to Stop an Experiment

- Harm Reduction
- Cost / Inconvenience Management
- **BUT: There are risks from stopping early**





# Standard Operating Procedures: A Safety Net for Pre-Analysis Plans

**Winston Lin**, *Columbia University*

**Donald P. Green**, *Columbia University*

**ABSTRACT** Across the social sciences, growing concerns about research transparency have led to calls for pre-analysis plans (PAPs) that specify in advance how researchers intend to analyze the data they are about to gather. PAPs promote transparency and credibility by helping readers distinguish between exploratory and confirmatory analyses. However, PAPs are time-consuming to write and may fail to anticipate contingencies that arise in the course of data collection. This article proposes the use of “standard operating procedures” (SOPs)—default practices to guide decisions when issues arise that were not anticipated in the PAP. We offer an example of an SOP that can be adapted by other researchers seeking a safety net to support their PAPs.

# Advanced Topics to Discuss

- Cluster randomization & estimation  
(treating individuals by treating groups)
- Establishing Mediators / Mechanisms
- Meta-analysis (pooling studies together)
- Interference
- Demand Effect & Deception
- Research Synthesis and Utilization