1. Class purpose
2. Class format
   1. Lecture days
3. Expectations and due dates
4. Planning a research design
   1. Feasibility – Is this an answerable questions given constraints?
   2. Design – Will my research design provide a reliable answer?
   3. Relevancy (particularly important for policy analysis) – Is this an important question to ask? Who is the audience for this answer?
5. Feasibility
   1. Scoping the research question
   2. Planning out steps (Flow chart)
   3. Planning out labor (Gantt chart)
   4. Planning out budget (Budget estimator)
6. Design
   1. Large focus of this course – next several weeks will discuss this topic
   2. Starting point: Causal pathway diagram and MIDA
   3. Causal pathway diagram – informed by theory
   4. MIDA framework – informed by simulation
7. Relevancy
   1. Field dependent – critical components:
      1. Audience
      2. Decisionmaker
      3. Policy lever
   2. For design:
      1. Writing early with an audience in mind
      2. Premortem: What does an end goal look like if your hypothesis is confirmed? What if the hypothesis turns out to be false
8. For Wednesday
   1. Be prepared to describe your research question in 2-3 mins:
      1. What is the question you want to answer?
      2. What data will you use to answer it?
      3. What approach will generate your answer from the data?
      4. Who is the audience?
   2. Be prepared to answer two questions from the audience:
   3. We will briefly discuss the reading:
      1. What about the author’s thesis is convincing?
      2. Where does it fall short?
   4. Have rstudio downloaded and installed and GitHub studio downloaded and installed
9. Brief coding example
   1. Loading data into R
   2. Using R for basic calculations and mathematical functions
   3. Using R for probability and statistics
   4. Using R for dataframe manipulation
   5. Using R to plot scatters, line graphs, and distributions