Empirical Legal Studies in America

Prof. Daniel Klerman

Sichuan University
University Immersion Program

July 8-10, 2018

Agenda for 2nd Class

- Review of last class
- Lab Experiments
  - Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, Inside the Judicial Mind (2001)
  - 15 minute break
- How to Do Empirical Legal Research
  - Lee Epstein & Andrew D. Martin, Quantitative Approaches to Empirical Legal Research (2010)
  - 15 minute break
- Natural Experiments
  - Cass R. Sunstein, David Schkade & Lisa Michelle Ellman, Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation (2004)
- Join me for lunch

Grading

- 25% attendance
- 25% participation
  - Asking and answering questions
  - Quality as well as quantity
- 50% Exam
  - Multiple choice
  - Open book
  - Last hour of class on Tuesday
    - 10:45-11:45

Review of Last Class

- History of Empirical Legal Studies
  - Roots in Holmes, legal realism, law & society, law & economics
  - Early 2000s. Ted Eisenberg, JELS, CELS, and SELS
  - Law professors, economists, psychologists, political scientists
    - Often law professors with Ph.D.s in economics, psychology…
- Correlation & Causation
  - Selection bias – treatment and control differ
  - Doctor visits & health, mediation & settlement rate examples
- Field Experiments
  - Greiner et al.
    - Random assignment of tenants to lawyers or no lawyers
    - Lawyers reduce eviction rate
  - Bertrand & Mullainathan
    - Resumes with white or African American names
    - Employers called back fewer African Americans for interviews

Lab Experiments

Lab Experiments

- Give subjects fact pattern on paper or computer
- Ask to make legal decision or to negotiate agreement
- Babcock & Loewenstein (1997)
  - Settlement negotiation and self-serving bias
- Advantages: cheap, easy to control everything
- Disadvantage: external validity (applicability to real world)
- Inspired by psychology
  - Often test for psychological biases
  - Deviation from rational-actor economic model of human behavior

Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich

Inside the Judicial Mind (2001)

Anchoring Experiment

- 167 federal magistrate judges
- Anchoring
  - When people have to make numerical estimate, they are often influenced by numbers they have heard recently, even if they are irrelevant
  - In litigation might be influenced by
    - Amount claimed in complaint
    - Amount of first settlement offer
    - Statutory cap on damages
  - Sometime rational
    - Because number conveys information
  - But often irrational

No Anchor Condition

Suppose that you are presiding over a personal injury lawsuit that is in federal court based on diversity jurisdiction. The defendant is a major company in the package delivery business. The plaintiff was badly injured after being struck by one of the defendant's trucks when its brake lights failed at a traffic light. Subsequent investigations revealed that the braking system on the truck was faulty, and that the truck had not been properly maintained by the defendant. The plaintiff was hospitalized for several months, and has been in a wheelchair ever since, unable to use his legs. He had been earning a good living as a free-lance electrician and had built up a steady base of loyal customers. The plaintiff has requested damages for lost wages, hospitalization, and pain and suffering, but has not specified an amount. Both parties have waived their rights to a jury trial. How much would you award the plaintiff in compensatory damages?

Anchor Condition

Suppose that you are presiding over a personal injury lawsuit that is in federal court based on diversity jurisdiction. The defendant is a major company in the package delivery business. The plaintiff was badly injured after being struck by one of the defendant's trucks when its brake lights failed at a traffic light. Subsequent investigations revealed that the braking system on the truck was faulty, and that the truck had not been properly maintained by the defendant. The plaintiff was hospitalized for several months, and has been in a wheelchair ever since, unable to use his legs. He had been earning a good living as a free-lance electrician and had built up a steady base of loyal customers. The plaintiff has requested damages for lost wages, hospitalization, and pain and suffering, but has not specified an amount. Both parties have waived their rights to a jury trial. **The defendant has moved for dismissal of the case, arguing it does not meet the jurisdictional minimum for a diversity case of $75,000…. If you deny the motion,** how much would you award the plaintiff in compensatory damages

Results

- Judges in no-anchor condition: $1,249,000 in damages
- Judges in anchor condition: $882,000 in damages
- Judges were influenced by mention of $75,000 jurisdictional minimum
  - Even though it was legally irrelevant

Expected Value & Expected Utility

- Expected value
  - Multiply probability of each event times payoff of each event and then add
  - So if plaintiff has 50% chance of winning $200,000 and 50% chance of winning $0
    - Expected value is $100,000 = 50% x $200,000 + 50% x $0
  - If plaintiff must pay $50,000 in litigation expenses
    - Then expected value is $50,000 = (50% x $200,000 + 50% x $0) - $50,000
  - If defendant must also pay $50,000 in litigation expenses, defendant's expected value is:
    - -150,000 = (50% x -$200,000 + 50% x $0) - $50,000
- Expected utility
  - People may be risk neutral, risk averse, or risk preferring
  - If risk neutral, then utility is expected value
  - If risk averse then utility is less than expected value
    - Plaintiff. Less than $50,000
      - Defendant. Less than -$150,000
        - So willing to pay more than $150,000
  - If risk preferring, the utility is more than expected value

Prospect Theory

- People are risk averse with respect to gains
  - Would prefer $100,000 to 50% chance of $200,000
  - Plaintiff would prefer $50,000 settlement in litigation scenario in previous slide
    - Because judgment for plaintiff is gain to plaintiff
    - Certainly prefers $60,000
- People are risk preferring with respect to losses
  - Would prefer 50% chance of losing $200,000 to paying $100,000
  - Defendant would prefer not to pay $150,000 settlement in litigation scenario in previous slide
    - Because judgment for plaintiff is loss to defendant
    - Might even prefer not to pay $140,000
      - But certainly would prefer to pay $140,000 if risk neutral or risk averse
- So same scenario evaluated differently if gain or loss

Framing Experiment: Gains Condition

Imagine that you are presiding over a case in which a plaintiff has sued a defendant for $200,000 in a copyright action. Both the plaintiff and the defendant are mid-sized publishing companies with annual revenues of about $2.5 million per year. They are represented by competent attorneys who have not tried cases before you in the past. You believe that the case is a simple one, but presents some tough factual questions. There is no dispute as to the amount at stake, only as to whether the defendant's actions infringed on the plaintiff's copyright. You believe that the plaintiff has a 50% chance of recovering the full $200,000 and a 50% chance of recovering $0. You expect that should the parties fail to settle, each will spend approximately $50,000 at trial in litigation expenses. Assume that there is no chance that the losing party at trial will have to compensate the winner for these expenses.

The case is approaching a trial date and you have scheduled a settlement conference. You have learned that the defendant intends to offer to pay the plaintiff $60,000 to settle the case. Do you believe that the plaintiff should be willing to accept $60,000 to settle the case?

Framing Experiment: Loss Condition

Imagine that you are presiding over a case in which a plaintiff has sued a defendant for $200,000 in a copyright action. Both the plaintiff and the defendant are mid-sized publishing companies with annual revenues of about $2.5 million per year. They are represented by competent attorneys who have not tried cases before you in the past. You believe that the case is a simple one, but presents some tough factual questions. There is no dispute as to the amount at stake, only as to whether the defendant's actions infringed on the plaintiff's copyright. You believe that the plaintiff has a 50% chance of recovering the full $200,000 and a 50% chance of recovering $0. You expect that should the parties fail to settle, each will spend approximately $50,000 at trial in litigation expenses. Assume that there is no chance that the losing party at trial will have to compensate the winner for these expenses.

The case is approaching a trial date and you have scheduled a settlement conference. **You have learned that the plaintiff intends to offer to accept $140,000 to settle the case. Do you believe that the defendant should be willing to pay $140,000 to settle the case?**

Results

- Gains Condition: 39.8% of judges said that plaintiff should accept
- Loss Condition. 25% of judges said defendant should accept
- Consistent with framing
  - Under expected utility theory judges should recommend plaintiff and defendant to accept with same (100%) probability
  - Fact that recommended defendant accept with lower probability is consistent with framing
    - Defendant settling is loss, so risk preferring
    - Litigation is risky, whereas settlement is sure thing

3 Other Experiments

- Hindsight Bias
- Representativeness Heuristic
- Egocentric biases
- In each experiment, judges were subject to predicted psychological biases
  - Although sometimes less than non-judges

Discussion

- Were you surprised by the results?
- Do you have any criticisms of the study?
- Could a similar study by done in China?
  - What do you think it would find?
- Can you think of other lab experiments that would be good to do in China?

How to Do Empirical Legal Research

Lee Epstein & Andrew D. Martin

Quantitative Approaches to Empirical Legal Research (2010)

4 Steps in Empirical Research

- Design
- Collecting and coding data
- Analyzing data
- Presenting results

Project Design I

- Two key elements
  - Research question and hypotheses (Sunstein et al.)
    - Question: How does ideology affect judging?
    - Hypothesis: Liberal judges will be more likely to decide in favor of plaintiffs in civil rights cases
    - Hypothesis often derived from social science theory
  - Data
    - Decisions of US federal court of appeals judges
- Some researchers start with research questions and then look for data
  - Some researchers start with data and then formulate research questions
  - Usually data, questions, and hypotheses refined as project goes forward
- Key question: How will deal with problem of "causal inference"?
  - Natural experiment: Random assignment of judges to panels by court administrators

Project Design: Bertrand and Mullainathan

- Question: How much racial discrimination is there in employment?
- Hypothesis: African Americans less likely to receive interview callbacks than similarly qualified whites
- Data & causal inference strategy: Field experiment, where employers are sent equally qualified white/black resumes, but employers can infer race through names.

Project Design: Donohue & Wolfers

- Question: Does the death penalty deter crime?
- Hypothesis: Death penalty deters crime
- Data. Death penalty laws and rates, crime rates, by state and country
- Causal inference strategy:
  - Panel data. Different states and countries over time
  - Compare countries that do have death penalty (US, "treatment") to those that do no (Canada, "control").
  - Examine effect of state abolishing death penalty, using other states that did not change death penalty laws as controls

Collecting and Coding Data

- Collecting data
  - Sometimes easy
    - Download data from public sources
  - Sometimes hard
    - Experiments
    - Confidential data from which need special permission
    - Interviews
    - Historical documents
  - Need to decide what data are most relevant
    - Sunstein:
      - Appellate court rather than district court
      - What types of cases?
    - Donohue & Wolfers
      - What years? Which crimes? What comparison countries?

Collecting and Coding Data

- Coding data
  - Data is easiest to analyze if in numerical form: 0, 1
    - Can analyze non-numerical data, but harder
  - But data is often not numerical
    - Sex: male or female
  - So "code" data
    - Male: 0
    - Female: 1
    - Or vice versa
  - Usually record data in spreadsheet (e.g. Excel)
  - Create Codebook so remember codes
    - Take notes on borderline cases

Collecting and Coding Data

- More complex coding -- Greiner study
  - Need to code events in case
  - What events are relevant to determining effect of legal representation?
  - How categorize events?
  - How many pretrial motions by plaintiff
  - How many "judge looks"
  - How many judge rulings
  - Hard, because, data are court documents
    - Greiner or research assistants need to read court documents and categorize each as "motion" or "judge look"
    - Then count and record number of each
  - Often good to collect more data than think will need
    - Then decide during analysis which is most helpful
  - But tradeoff between quantity and time

New Frontiers in Data Collection & Coding

- "Scraping" of data from websites
- Machine coding of data
- Automated text processing

Analyzing Data

- Need to learn statistics
- Start with very simple comparisons
  - Greiner
    - % evicted in treatment group (with lawyer)
    - % evicted in control group (without lawyer)
  - Bertrand & Mullainathan
    - % of African Americans who received call back (treatment)
    - % of whites who received call backs (control)
- Then consider other factors
  - Greiner
    - Different eviction rates depending on location, type of apartment, race, gender, reason for eviction?
      - Compare eviction rates for non-payment of rent (treatment and control) and violation of lease terms (treatment and control)
  - Bertraind & Mullainathan
    - Compare discrimination rates for males & females
  - Statistics get more important (and more complicated) as examine more factors
    - E.g. multi-variate regression

Presenting Results

- Two types of presentation
  - Conference or workshop presentation
  - Written paper or article or book chapter or book
- Think about reader and audiencer
  - How to convey ideas simply and intuitively
- Graphs are easier to read than charts
  - But keep them simple
- Start with simple graphs and charts
  - And then build in complexity
  - Even if you know a lot of statistics, start with simple analysis
    - Easier to understand
    - Should show why more complex analysis is helpful and appropriate
- Always discuss tables and graphs --Never assume reader can get idea by looking at graphs/charts herself

Conference and Workshop Presentations

- How sophisticated is your audience?
  - How much statistics do they know?
  - How much law do they know?
- Find out how much time you have
  - Practice to make sure you can present in time allotted
    - Without rushing
  - Present main points
    - Save complications for questions and written paper
  - Leave time for questions
- Listen carefully to questions
  - Take notes, especially when question has multiple parts
  - Address each question and each part
- Don't be defensive
  - Acknowledge insight in question
    - Then explain why may or may not require changes in your analysis
  - Freely acknowledge
    - When more work required
    - When question cannot be answered

Discussion

- Do you think Epstein & Martin left out anything important about doing empirical legal research?
- Any questions about doing empirical legal research?

Natural Experiments

Natural Experiments

- Field experiments are "gold standard"
  - But often impractical
- Next best are "natural experiments"
  - Where randomization has happened for reasons other than research design
- Examples
  - Random assignment of judges to cases (U.S. district court)
  - Random assignment of judges to panels (Sunstein study)
  - Program or law applied geographically in phases
    - If locations chosen randomly (or without correlation to likely effects)
  - Random assignment of lawyers to poor criminal defendants (Abrams study)
  - Regression discontinuity analysis
    - Discuss at end of class, if have time

Cass R. Sunstein, David Schkade & Lisa Michelle Ellman

Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation (2004)



Design I

- Question I: How does ideology affect judicial decisionmaking?
  - Legal ideal: Judges set aside ideology, preferences, there own ideas about justice and morality and simply "apply the law"
  - Legal realism: Legal ideal is impossible
    - Legal rules almost always allow for judicial choice
    - Judges are human and will be affected by ideology
      - Consciously or unconsciously
- Hypothesis
  - Liberal judges will be more likely to decide
    - Affirmative action cases for minority
    - Sex discrimination cases for women
    - Environmental cases for environment
    - Criminal cases for defendant
    - Etc.

Design II

- Question II
  - How are decisions affected when judges decide cases in panels of 3?
- Hypothesis
  - Judicial voting will be influenced by other ideology of other judges
  - Liberals will vote more conservatively, when other judges are conservative
  - Conservative judges will vote more liberally, when other judges are liberal

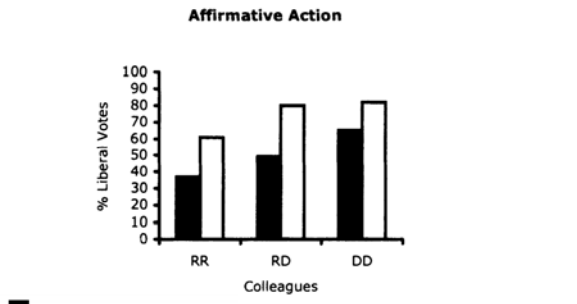
Causal Inference Strategy & Data

- Judges are randomly assigned to panels by court administrators
  - For fairness purposes, not research purposes
  - So "natural experiment"
- Public data on judicial voting
  - US federal courts of appeals
  - Decisions published
    - Include names of all judges
  - Dissent is common
    - Name of dissenting justice is noted

Coding

- How measure judicial ideology?
  - Judges in US federal court are appointed by President
    - Confirmed by majority vote in Senate
  - Party of president that appointed is good proxy for ideology
    - Democratic President usually appoints liberal judges
    - Republican President usually appoints conservative judges
    - Ok that some exceptions
      - Eisenhower (Republican) appointed Earl Warren (liberal)
  - More complex measures of ideology
    - Analysis of voting records
    - Analysis of which interest groups supported nomination
    - Analysis of news reports
    - But Sunstein et al used simple method
      - Easy to measure
      - Easy to analyze, because binary
- How measure liberal/conservative decisions
  - Conventional wisdom about liberal/conservative positions on issues

Results & Presentation



Other results

- Similar results for
  - Sex discrimination cases
  - Environmental cases
  - Other categories
- No party or panel effects for
  - Criminal law cases
  - Federalism cases
  - Takings cases
- Only party effect (but not panel effects)
  - Abortion cases
  - Capital punishment cases

Discussion

- Any questions about Sunstein et al. study?
- Any criticisms of Sunstein et al. study?
- Could a similar study be performed in China?
  - What do you think it would find?
- Can you think of other natural experiments you could analyze?

Next class

- This afternoon. 13:55-17:25
- Panel data: Crime
  - John J. Donohue & Justin Wolfers, Uses and Abuses of Empirical Evidence in the Death Penalty Debate (2005)
- Event studies
- Event studies
  - Sanjai Bhagat & Roberta Romano, Event Studies and the Law (2002)
  - Klerman & Mahoney, The Value of Judicial Independence (2005)
- Cross-Country Studies
  - Rafael La Porta, Florencio Lopez-de-Silanes & Andrei Shleifer, The Economic Consequences of Legal Origins (2008)
  - Klerman, Mahoney, Spamann & Weinstein, Legal Origin or Colonial History? (2011)
  - Klerman & de Figueiredo, Legal Origin from Outer Space (in progress)

Join me for lunch