

Crafting with Data

Reality, Illusions, Truth & the Future

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Plan for Today

- Confidence Intervals
- Countries in Africa
- Discovery Seeker ideas
- Ethics Redux
- Readings & Assignments

Exercise Two

- Subjective Probability Intervals and Calibration
 - percentage of people who are “black” on the 1990 Census
 - total egg production in 1965 (number of eggs)
 - number of airline passengers killed in plane crashes in 1980 worldwide
 - percentage of babies born in the US that are girls
 - percentage of entering college freshman whose probable field of study was physical sciences (1990)
 - number of people who watched the 1995 Super Bowl
 - number of native French speakers in Canada in 1992
 - number of babies born in the US in 1992
 - number of abortions in the US in 1992
 - median household income in the US in 1996
- Estimate the 50% confidence interval

Exercise One: Countries in Africa

- log in to our shared Google spreadsheet
- enter your data
- explanation of anchoring
- means, are they different?
- Student's T-test

Discovery Seeker: Proposals

- what you want to study
- what you expect to find
- how you will collect the data

Ethics again

- Human subjects (participants)
- Institutional Research Boards
 - approval mandatory when using government funds
- Informed consent, voluntary
- Subjects protected from harm, benefits maximized
- Privacy and confidentiality
- Protected populations

Nazi Human Experimentation



American Human Experimentation



“Tuskegee Study of Untreated Syphilis in the Negro Male”

Milgram Experiment

- <http://www.youtube.com/watch?v=y6GxluljT3w>



Stanford Prison Experiment

- <http://www.youtube.com/watch?v=mLrpq-iaTSU>



Your Experiment



Readings and Assignments

- Readings

- Descriptive Statistics: http://davidmlane.com/hyperstat/desc_univ.html

- Assignments

- Discovery Seeker: Gather original data that seeks to answer a question, unravel a mystery, solve a problem, prove a point or reveal a truth. Gather your own pilot data to share for critique.
- IRB Tutorial and Exam. [Please print your passing grade for me. http://www.nyu.edu/ucaihs/](http://www.nyu.edu/ucaihs/)