

Crafting with Data

Reality, Illusions, Truth & the Future

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Plan for Today

- Map Discussion
- Estimation
- Exercise One
- Present self-portraits
- Present data gathering redux
- Exercise Two
- Readings & Assignments

Kidney Cancer Rates



Figure 1. Counties of the U.S., with Three Levels of Shading Indicating the Counties with the Highest 25%, 10%, and 5% Age-Standardized Death Rates for Cancer of Kidney/Ureter for U.S. White Males, 1970—1979. From Manton et al. (1989).

Estimation: Thinking Quantitatively

- Numbers don't need to be exact to be useful
- How many pens are in this classroom?
- What is the weight of an elephant?
- How many people will be born today?
- Rounding
- Working it out to within an order of magnitude

Exercise One

- How many school buses in America?
- In groups, and without looking anything up, figure an estimate, based upon things you know in your heads. Document how you calculated your estimate.



Self-Portraits

Present data gathering redux

- Remind us what data you looked at and what
- What changes did you make from your first pilot?
- How were the results affected?

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

Readings and Assignments

- Readings
 - Exploratory Data Analysis handout
- Assignments
 - Countries in Africa Survey: Have at least eight people answer the survey. Remember that there's two versions of the survey, one with the number 10 on it and the other with the number 65. Chose one at random for each person you poll. We'll compile the results in class.
More surveys: http://www.faludi.com/classes/craftingwithdata/Countries_in_Africa_Survey.pdf
 - Discovery Seeker, PREP: The best way to have a good idea is to have a lot of ideas, so put that into practice by preparing six different project ideas to present to the class. You'll enlist their help to choose one..