Introduction to Statistics for the Social Sciences
SSS200, COMM200, GEOG200, PA200, POL200, or SOC200
Labs Sessions, Spring 2013 – Room 480 Marshall Elide

Agenda Week 1 - Research Methods Lab
January 26 – January 30th

Agenda Week 1 - The purpose of this lab is to complete a questionnaire, input data into Excel and explore the results.
Step 1. Complete the questionnaire
Step 2. Download Excel spreadsheet
Step 3. Enter the data for the 3-4 students in your group at the end of the spreadsheet
Step 4. Summarize findings by completing the attached worksheet
Step 5. Brain storm as a group and generate one interesting comparison (or hypothesis) you can make using these data
- For example you might want to know whether men spend more time on Facebook,
- Or whether there will be a difference on the general knowledge quiz between majors

Step 1: Complete the questionnaire
- Your TA will distribute the questionnaires, please complete it the best you can working on your own

Step 2: Download Excel spreadsheet
- Go to the class website and download the questionnaire for your lab

Step 3: Pair and share
- Open the Excel spreadsheet
- The spreadsheet looks like this, please consider how each cell corresponds to questionnaire:

<table>
<thead>
<tr>
<th>Subject#</th>
<th>Q1:Africa1</th>
<th>Q2:Africa2</th>
<th>Q3:Moon1</th>
<th>Q4:Moon2</th>
<th>Q5:train1</th>
<th>Q5:train_low</th>
<th>Q5:train_hi</th>
<th>Q6:card1</th>
<th>Q6:card_low</th>
<th>Q6:card_hi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simply number the entries</td>
<td>Recode Yes = 1</td>
<td>No = 2</td>
<td>Simply enter number</td>
<td>Recode Yes = 1</td>
<td>No = 2</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q7:internet1</td>
<td>Q7:internet_low</td>
<td>Q7:internet_hi</td>
<td>Q8:miles1</td>
<td>Q8:miles_low</td>
<td>Q8:miles_hi</td>
<td>Q9:circle1</td>
<td>Q9:circle_low</td>
<td>Q9:circle_hi</td>
</tr>
<tr>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U</th>
<th>V</th>
<th>W</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
<th>AA</th>
<th>AB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Enter Major</td>
<td>Recode Female = 1</td>
<td>Male = 2</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AC</th>
<th>AD</th>
<th>AE</th>
<th>AF</th>
<th>AG</th>
<th>AH</th>
<th>AI</th>
<th>AJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simply enter number</td>
<td>Enter Beverage Name</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
<td>Simply enter number</td>
</tr>
</tbody>
</table>

Step 3: Pair and share (cont)
- Please work with 2 other students to add all of your responses into the Excel spreadsheets (Please note, you will be subject numbers 116, 117 and 118 at the bottom of the sheet)
- Please score the responses to the 8 quiz questions for each student in group and enter into column marked “Number Correct” on quiz

Here are the answers to quiz items
Note on grading quiz responses: If the correct answer falls inside range provided by student (between lower and upper bound) it is considered correct.

2. How many countries are there in Africa? 55 (51-59 is close enough to be correct)
4. How many miles is the moon from the earth? 225,000 – 255,000 miles (in this range is correct)
5. In 1938 a British steam locomotive set a new speed record by going how fast (mph)? 126
6. How many inches long is a typical business card? 3.5”
7. What year was the Internet (then “Arpanet”) established as a military communications system? 1969
8. What is the air distance between New York and Los Angeles (miles)? 2,451
9. What percentage of a square could be covered by a circle of the same width? 78.5%
10. The TV show “The Simpson’s” first aired on what date? December 17, 1989
Please complete this worksheet and hand it in to your TA before you leave lab

(Please write your answer neatly in the space provided)

These first questions can be solved using the “sort” function
- Use the sort function to organize the data in different ways to answer the questions on the worksheet.
  *When sorting: Remember to select all of the cells you need when sorting and not just the one column or the data will get scrambled*

**After sorting your data by Quiz #C provide the following data**

1. What was your largest Quiz #C score? 
2. What was the major for the student who got this highest score on quiz? 
3. What was your smallest Quiz #C score? 
4. How many people got this lowest score?

**Use the sorting option to provide the following data**

5. How many women are there? (sort by gender) 
6. How many men are there? (sort by gender) 
7. Using column “U” what was the earliest year guessed for the start of the Simpsons? 
8. Using column AC how old is the oldest person in the database? 
9. Using column B what was the largest guess for number of countries in Africa?

For the next items create your own question that can be solved by sorting and write it here 

10.____________________________________

**Use the “average” function to provide the following data**
- Use the “average” formula to find the means and answer the questions on the worksheet
  - Click on a blank cell at the bottom of column and either
  - Type the command: =AVERAGE(
  - or use dropdown function (it looks like this Σ) and choose the “average” option, then click and drag to select the data you want to use
  *When selecting cells: Remember to hit return immediately upon selecting the cells, otherwise any additional mouse clicks will confuse Excel*

11. What is the average height of all of the subjects? 
12. What is the average height of all of the male subjects 
   *(note you will have to sort by gender first)*
13. What is the average height of all of the female subjects 
14. What is the average number correct on the quiz for women? 
   *(note you will have to sort by gender first)*
15. What is the average number correct on the quiz for men? 
16. What is the average travel time for all students? 
17. What is the average amount of time spent on Facebook for all students?

For the next items create your own question that can be solved by finding averages and write it here 

18.____________________________________