Lab 9
Using the Data Base Management Features of Excel
CRP 272 Fall 2008

This lab helps you learn some of the filter and sort functions that are part of Excel. You will also use a few statistical functions.

Step 1. Download the excel data set, BEAdata.xls, save it, and then open it in Excel.

The data set has 5 column titles:
- Region is the area of the U.S. that the state is in. There are 8 of them. There is a spreadsheet in this workbook that tells you the name for the regions.
- Line code is just the BEA code for that data item.
- Line title tells you about the data that you are working with
- Area name is the state (or the District of Columbia)
- Year 2004 are the data for that year.

The data set contains concatenated information for all of the states.

Step 2. Using filter. If you have never used the filter command, go to the help facility and read up on it. Once you have a sense of it, go to cell A1 and then go to Data / Filter to turn the filter on or off. When the filter is on you can toggle between different sets and subsets of data in your spreadsheet. You will also be using the Data / Sort facility. This is pretty easy to master, but make sure that you always sort an entire data set that you are working with, not just the variable that you are interested in.

Note: for several of the following questions, you will need to copy the data from the main spreadsheet onto another spreadsheet to work with the data after you have filtered out what you need.

Step 3. Answer the following questions or provide the following information in a separate Word document to hand in.

Task 1. Filter for “Average Earnings Per Job”. Copy the data to a separate worksheet and sort the data from most to least.

- Make a table of the top 5 states. Make sure that the table is labeled properly and looks professionally prepared.
- Make a table of the bottom 5 states.
- For all of the states, for this variable, provide these statistics (use the functions in Excel):
  - Mean
  - Median
  - Standard deviation
**Task 2.** Filter for region 4 and then “per capita income.” Copy the data to a separate worksheet and sort the data from highest to least.

- Make a table of the states in region 4 and appropriately label and title the table.
- Answer this: Which state had the median per capita income? What was that value?

**Task 3.** For all of the states in Region 5, create a table that contains this information as column headings sorted by state name alphabetically:

- Name of the state, total population, total full and part time jobs, per capita income, and average earnings per job.
- For each column of data, provide these statistics
  - Mean
  - Median
  - Standard deviation

**Task 4.** For all of the states, use filter to select population and total full time jobs. Copy those variables to a separate worksheet to process. (make sure that you copy the state names, too). Next,

- Compute the number of full and part time jobs per capita. (Note: “per” always means divided by, so *per capita* means divided by the population).
- Sort the data from the highest ratio to the lowest.
- Make a table of the top 5 (or the highest ratio of jobs to people) states and of the bottom 5 states.
- For the entire column of data for all of the states, provide these statistics
  - Mean
  - Median
  - Standard deviation

When finished turn in your Word document containing all of the requested tables and information. Make sure that you have formatted the document appropriately and the information is easy to read and understand.