

## **Excel Homework for Descriptive Statistics PART 1: Due Wednesday, February 26, 2014**

You have been provided with an Excel spreadsheet (on my website: [http://profbutterworth.com/canada/can\\_Stat.html](http://profbutterworth.com/canada/can_Stat.html)) containing 3 columns of data and a code key in the first sheet. In addition there are 4 other sheets containing gender & height, gender & community, gender only, and height only.

The data represent:

- Gender
- Community of Residence
- Height in Inches (reported)

The data was provided via a survey conducted by Foothill college students during the Spring 2013 quarter about the Foothill student population. The sample was collected mainly via convenience sampling.

### **For full credit on this homework you will complete Tasks 1 through 5:**

#### **Task #1: Learn to count data using the “countif” & “count” function to create a frequency/relative frequency table**

- 1) Use Excel to count the number of males & number of females in the “gender sheet” and make a nice table to represent male & female counts. You will use this in Task #5 below.  
*=countif(columnrow:columnrow, value counting) Ex. =countif(a1:a167, 0)*
- 2) Use Excel to count all the values in gender to give the total of males and females  
*=count(column:column) Ex. =count(a:a)*
- 3) Use Excel to find the proportions (%; relative frequency) for the counts in 1)  
*=columnrow/columnrow Ex. =e4/e6 in f4*

#### **Task #2: Create a pie chart for qualitative data**

- 1) Use the table for gender counts in 1) of Task #1 to create a pie chart
- 2) Make the pie chart “fancy”
  - a) Change the fill
  - b) Make lines around the pie pieces
  - c) Add labels giving percentages & data labels
  - d) Remove legend
  - e) Give a title to the chart

- **Print the table for gender counts & pie chart.**

#### **Task #3: Learn to use the Sort Data function in Excel:**

- 1) Use Excel to sort the gender & community data by gender  
*Highlight the two columns & choose data & sort from the menus. Choose to sort by the sort 1<sup>st</sup> by gender (1<sup>st</sup> column).*

#### **Task #4: Learn to cut & paste data in an Excel spreadsheet**

- 1) Cut the female data (both gender & community columns) from the sorted data in 1) of Task #3 and move it to two new columns (do it simultaneously, not as separate tasks).  
*Highlight, Edit & Cut (or control X) and then move cursor to where you would like new data and Edit Paste (or control V)*

**Task #5: Use “countif” function to create a two-way table**

- 1) Use Excel to count the number of females in community 1, females in community 2, females in community 3, females in community 4, females in community 5, females in community 6, females in community 7, females in community 8  
*Ex. =countif(d1:d78, 1) going into the first row & column of the two way table for females in SanJose/SantaClara/Campbell*
- 2) Use Excel to count the number of males in community 1, males in community 2, males in community 3, males in community 4, males in community 5, males in community 6, males in community 7, males in community 8
- 3) Form a 2-way table for gender by community using the counts in 1) & 2). Don't forget to total rows & columns and overall total by using the sum feature in EXCEL

- **Print the Gender Community sheet including the table you created for Gender X Community**

I created a YouTube video on how to do many of these tasks in Excel. You can find it on my YouTube channel by searching “Excel” and looking for the Lab #1 video or by using this link:  
<http://www.youtube.com/watch?v=JLP0EUXE9PA>

The data is on the page created for your class on my Website. Here is the link:  
[http://profbutterworth.com/canada/can\\_Stat/ExcelHWDDataF13.xls](http://profbutterworth.com/canada/can_Stat/ExcelHWDDataF13.xls)