

## Stat 404 Lab4

All files and data will be published in BbLearn to download and save or on the shared (S:) drive (you need to have mapped the uidaho drives to your computer). The address is:

When using SAS: S:\Courses\stat-renaes\Stat404\SAS datafiles\  
When using R: S:/Courses/stat-renaes/Stat404/

Something to remember is that I will have example code for you to use to help you write your programs in labs.

Lab collection:

When I decide to collect a lab, I will let you know at the beginning of the lab and it will be due within 1-2 class periods of the lab.

What to copy and paste into the document for submission:

All code from both programs and the log window from SAS (please clean it up a bit and get rid of errors if there are any). Do not paste the results from either program unless I specify in the exercises.

Submission:

Is through BbLearn. Go to the Labs link, click on the lab and follow instructions to attach the file. The file MUST be in PDF format. No other formats will be allowed for submission. The easiest way I find to create a PDF is to do all the work in Word or Pages then "save as" PDF format.

One recommendation I have is to create a few folders on your computer for this class. I would create R, SAS, Data, Labs. That way you can save all the files and data you need for labs and it will make things easier for later labs.

## **R**

1. With either code or mouse, change your working directory to S:/Courses/stat-renaes/Stat404 or to a folder of your choice on your computer that contains the files you need (can download from BbLearn).
2. Once the working directory is set up, type `dir()` into the console (or script) to view all the file names in that directory. Remember that in the bottom right window of RStudio you can view all the files in the directory with the Files tab.
3. Read in the file called "newemps.csv" located in S:/Courses/stat-renaes/Stat404 and use `attach()`.
4. Using the individual commands, find the mean, median, variance, and standard deviation of the Salary variable.

5. Now use `summary()` to calculate the 5 number summary and the mean of Salary.
6. Find the summary statistics for Salary using `stat.desc()`. To find information about `stat.desc()`, type `?stat.desc` after the package (`pastecs`) has been installed and loaded. After installation, you will only need to load the package again to use (no re-installation will be necessary).

## **SAS**

1. Use an `INFILE` statement to bring in the file called "newemps.csv" that is located in the shared drive (S:\Courses\stat-renaes\Stat404\).
2. Use an `INPUT` statement to specify the variables First, Last, Title, and Salary.
3. Use a `LABEL` statement to call your variables First Name, Last Name, Job Title, and Salary.
4. Use a `FORMAT` statement to format the Salary variable to using a dollar sign (no decimals are needed).
5. Use `PROC CONTENTS` to see all the formats and labels.
6. Use `PROC PRINT` and make sure to include the labels. (`PROC PRINT data=NewEmployees label; run;`)