### Assignment #1

Chad R. Bhatti

#### Introduction:

The introduction should describe the purpose of the assignment. 'In this report we ...'. Writing the introductory section of a report is no different than writing the introductory section of a paper. Introduce your reader to the statistical analysis that you have performed. Use the introduction to frame your report and highlight some of your findings.

### Data:

Provide a description of the data that you used in this statistical analysis. If the assignment requires you to define a sample from a larger data set, then outline how you defined that sample and provide a 'waterfall' illustrating how many observations were in the original data set and how many observations were dropped using each drop condition.

### <Results>:

The next sections should be used to showcase and discuss your results. Name your sections accordingly. Do not use 'Results', instead use 'Initial Exploratory Data Analysis' or 'Simple Linear Regression Model' or 'Selecting the Number of Principal Components'.

Display the relevant SAS results for your assignment. Comment and discuss the results. Your discussion of the results should be intertwined with (or linked to) the SAS output. The discussion should be on or near the page containing the output. The output should not be packed to the end of the paper.

SAS output should be well organized. SAS output should have a caption attached to it. SAS output and graphics should be centered in the page when appropriate.

You should not be showing unnecessary SAS output. For example, you should never include the output from a PROC CONTENTS procedure in your homework report. Also, if you are performing a number of steps or PROC PRINT statements for your benefit, these should also be eliminated. You can eliminate them by hand or comment them out in your code and resubmit the program to generate a new output file. Be very careful about including SAS output in your report for which you make no comments. If it is not worth your consideration and comments, then it probably should not be included in the report.

Use sections to control the flow and discussion of your results. All tables and figures should be centered in the page if there is no typing to the side.

## **Conclusions:**

Conclude your report. The conclusion for your report is no different than the conclusion section of a paper. Write a short summary of your report highlighting the key results and discuss any topics that should be considered for further analysis.

You are required to write papers in courses that are required to be taken before Predict 410. Writing an academic paper is not much different than writing a Predict 410 assignment report. These are structured like research reports. If writing the assignment report seems foreign to you, then consider reading Method 4: Writing your Research Paper on WikiHow.

http://www.wikihow.com/Write-a-Research-Paper

### Code:

Paste your code in a separate section at the end of the report.

# **General Comments:**

- We write reports, not power point slides. By writing reports we are articulating our statistical problem and our statistical results.
- The assignments are not directly mapped to a report. You are the data scientist. You must organized your task, your results, and your discussion. In the real world this is not handed to you, this is part of your job.
- Proof read your report. Many reports can be significantly improved with a single proof reading. Write your report, put it down for a couple of hours, and then read it. Does it read well? Are you articulating your results?
- An intelligent reader who does not know what the assignment asked you to do should be able to read your report to understand the statistical problem at hand and the results associated with that problem. If an intelligent reader cannot tell what your statistical problem is, what results you have, and how those results are interpreted through your discussion, then your report is not properly written.