**Final Project - Assignment #3**

Find a data set to download and analyze. Please answer the following:

1. What is the name of your dataset? Where did you find the dataset? I should be able to find your dataset by your answers to these two questions. Please also include a summary of how the data was collected and what the dataset contains. If you had to do any sort of data processing or cleaning, please explain that process here.
2. Present two questions which can be answered by descriptive statistics and are geared towards describing the dataset using demographics information. Then, answer these questions. Do not just provide a question and numerical answer, but rather synthesize this information and present it using complete sentences. Include not only a mention of your statistical approach, but also any reasoning behind this choice if it is not clear.
3. Present one question which can be answered by using a hypothesis test. Be sure to explain not only your null and alternate hypotheses, but also your choice of test as well as the strengths and weaknesses. Run the test and present the result. After presenting the result, please interpret this result. What does it mean statistically? What are the implications for the research field? How would you explain the numerical result in a non-numerical way?
4. Create a graphical data visualization which either relates to the descriptive statistics or the hypothesis test. Explain the reason you chose the graph you did.

**For the Final Paper:** Select a research project and data source from the approved set of questions. You will answer a series of questions posed by the instructor and then synthesize these responses in the format of a cohesive paper focused on the statistics you used to answer your question. Questions will be equivalent but unique to each data source. See blackboard for more details. The final paper should be no more than 10 pages. APA guidelines should be followed. (SLO 1-6; 30% of course grade)

**For the Final Presentation**: Students will give a 5-minute presentation on a topic chosen from an approved list to include subjects like t-tests, parametric versus nonparametric approaches, and so on. The presentation will address the following:

* Introduction to Subject
* Strengths
* Limitations
* When to Use
* How to Use

Each bullet point should be the heading of a slide. You should have 5 slides total for your presentation. (SLO 1-6; 5% of course grade)