**[3.3 Analysis Assignment #3](https://trevecca.blackboard.com/webapps/assignment/uploadAssignment?content_id=_1152173_1&course_id=_51568_1&group_id=&mode=view)**

**Case #1: (45 pts.)**  Note:  The following data set is used for both Case #1 and Case #2:    [Wk 3 Data Sets BUS 6073 Ver 02.xlsx](https://trevecca.blackboard.com/bbcswebdav/pid-1152173-dt-content-rid-17574554_1/xid-17574554_1" \t "_blank)

Complete the data analysis (as listed below) for the following variables: **V4** (Income), **V6** (Credit Card Debt), **V9** (Interest + Penalties and **V10** (Credit Score). Your analysis must address the following three questions:

1. Complete a Descriptive Statistics analysis for the above variables, including the following: the mean, the median, the sample SD, and the CI for three Confidence Levels (i.e., 90%, 95% & 99%).  You must identify all three Confidence Intervals (and the calculations you used to determine each of the Intervals).
2. What do you observe as the Confidence Level increases from 90% up to 99%?  What causes this result to occur?  Explain.
3. Next, how would you describe the meaning of the CI to your client?  What Confidence Level would you recommend to your client and why?
4. Finally, do you think the CI is a better estimate than the mean?  Explain why or why not?

**Q2: (50 pts.)** Note: the required data set can be found in the link above.  

The data for Case #2 is a random sample of the results of a test to measure the strength of a manufacturer’s new trash bag material.

These data were collected because the CEO of Durable Bags Inc. is planning to introduce a new, improved version of the company's trash bag.  The new material for the bags utilizes a new formula that the CEO hopes will prove to be the strongest on the market.  This new material was developed to surpass the number one bag on the market that claims to hold 50 lbs. of material without breaking.

Thus, the CEO of Durable Bags Inc. has asked you to design a research study that will prove that the new Durable bag is the strongest on the market.

You developed an approach using the Six-Step Process (Version 1) as defined in the reference titled “Hypothesis Testing – the Six Step Process," This SSP is also discussed (and demonstrated) in the Week 3 PPT slides and the Wk. 3 Study Guide. Your approach should be as follows:

1. Complete the first four steps of the SSP
2. Prepare the data from the random sample taken by your staff
3. Run the appropriate test
4. Finish Steps 5 & 6 of the SSP.

**Additional Notes related to this Assignment:**

**Note 1:**  Save your output for **both problems in** **one** Excel data file.  Title one worksheet with the output for Case #1, “Case 1 Output” and the second worksheet with the output for Case #2, “Case 2 Output.”   Title the file, “\_\_\_\_\_\_ (Your Last Name) **AA # 3a**.”

**Note 2**:  Save your discussion **for both problems in one Word file**.  Do not make comments in the Excel Worksheet.  Title the file, “\_\_\_\_\_\_ (Your Last Name) **AA # 3b**.”