This topic helps you develop a basic understanding of statistics. Two distinct types of statistics are addressed: descriptive and inferential. In this assignment, you will have another opportunity to use the SPSS program. SPSS makes it easy to analyze data using specific tests. This assignment will give you practice with t-tests and ANOVA.

Data Collection Link: <https://hcup-us.ahrq.gov/db/state/siddist/siddist_discharge.jsp>

**General Requirements:**

Use the following information to ensure successful completion of the assignment:

* Before beginning this assignment, be sure to view the tutorial videos located in the topic materials.
* Doctoral learners are required to use APA style for their writing assignments. The APA Style Guide is located in the Student Success Center.
* This assignment uses a rubric. Review the rubric prior to beginning the assignment to become familiar with the expectations for successful completion.
* You are not required to submit this assignment to LopesWrite.

**Directions:**

After you have completed the assigned readings and viewed the assigned videos, write a 500-750 word summary of your results. Use the data provided in the topic material, "HCUP State Inpatient Databases (SID) File Composition - Number of Discharges by Year," and appropriate statistics to address the following:

1. Describe the mean, median, and mode of discharges by state in 2014.
2. Compare the number of discharges in 2010, 2012, and 2015 in all states using an ANOVA. Are there significantly more discharges? Describe the assumption of variance between groups and within groups?
3. Compare the number of discharges in all states between 2010 and 2015 using an independent t-test. Are there significantly more discharges in 2015 versus 2010? Describe the assumption of variance using Levine’s test.
4. Using an ANOVA, compare the number of discharges in 2011 in:

-Northwestern states (Washington, Oregon, Idaho, Montano, Wyoming)

-Southwestern states (California, Nevada, Utah, Arizona, New Mexico, Oklahoma, and Texas)

-Central states (North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa, Minnesota, Wisconsin, Illinois)

-Southeastern states (West Virginia, Virginia, North Carolina, South Carolina, Georgia, and Florida)

-Northeastern states (Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, Washington D.C., New York, New Jersey, Pennsylvania, Delaware, and Maryland)

Are there significantly more discharges? Describe the assumption of variance between groups and within groups?

1. Attach your SPSS statistical outputs as an Appendix.

**Portfolio Practice Hours:**

Practice immersion assignments are based on your current course objectives and are application-based learning using your real-world practice setting. These assignments earn practice immersion hours and are indicated in the syllabus by a Portfolio Practice Hours statement which reminds you, the learner, to enter in a corresponding case log in Typhon. Actual practice immersion hours are entered, but the average hours associated with each practice immersion assignment is 10.

You are required to complete your assignment using real-world applications. Real-world application requires the use of evidence-based data, contemporary theories, and concepts presented in the course. The culmination of your assignment must present a viable application in a current practice setting. For more information on parameters for practice immersion hours, please refer to DNP resources in the DC Network.