ECO 4810 Senior Seminar—Dickinson

Statistical Analysis Homework----Take Two!

IF YOU HAVE ANY QUESTIONS, ASK ME BEFORE YOU TURN THIS IN!

STEP 1—Go to this website to find the data sets you must use for this assignment (it is on our class website also)

http://college.cengage.com/mathematics/brase/understandable_statistics/7e/students/datasets/

STEP 2—locate each of the data sets described below under "tasks" and import into Excel to perform the requested analysis.

STEP 3—Turn in at the beginning of class on the day indicated in our Announcements. Tables of results should be created in the same way you would create a Table of results for your final research paper (think of the reader always)

- **TASKS**
  - **T-test of means (paired data)**
    - Go to "Paired Data (dependent) Appropriate for T-tests
    - Use "Temperatures in Miami Vs. Honolulu". Then, go online (e.g., www.weather.com) to find data and create a third column of data showing average monthly temperatures in Boone, NC
    - Perform a paired sample t-test to test the hypothesis that average monthly temperatures are the same in Miami and Honolulu (**use a two-tailed test)**. Next, perform a paired sample t-test to test the hypothesis that average monthly temperatures are the same in Miami and Boone (**use a ONE-tailed test for this**, since it makes sense that you would consider the alternative hypothesis to be one-sided……that is, temps in Miami are GREATER than temps in Boone)
    - Present results in a table showing average monthly temperatures at each location with t-test results at bottom (see Answers Template)
    - **Describe in words what the results of the tests mean.**
  - **Multiple Regression**
    - Go to "Data for multiple linear regression"
    - Use "All Greens Franchise" data to perform one regression
      - Regression will look at how "annual sales (in thousands of dollars)" is affected by each of the other 5 variables (the X variables).
      - Report the results in an appropriate Table (see published Econ papers for examples of what such a table might look like).
      - Include a brief interpretation of the regression results, being specific to describe what the value of each significant coefficient means.

So, two data analysis tasks to complete. You may place answers to each task on separate sides of one sheet of paper….see Answers Template)