
STAT 51200--FALL 2022
Applied Regression Analysis

Homework #05

1. Read Chapter 3 in the text.
2. Do Problems: 3.3 (parts a-d and f, the complete data set can be found on the Canvas site under Chapter 3 data, refer to the first two columns), 3.8, (a-d), 3.15, 3.16, 3.18, 3.20 on pages 146-151 of textbook.
3. Additionally, refer to Problem 3.3 above and:
 - a. For the regression of GPA on Entrance Test Score, use the **proc univariate** or other similar procedure to verify that the sum of the residuals is zero.
 - b. Change the data set by changing the value of the GPA for the first observation from 3.897 to 0.897 (as if a typing error was inadvertently made) and conduct a regression analysis of the altered data. Make a table comparing the results of this analysis with the results of the original analysis. Include in the table the estimated regression coefficients, with standard errors, p-values, R^2 and the likes. Discuss the differences that you see.