JSC270 –Assignment 2

Cindy (Shih-Ting) Huang

Report

Question: Regression

Background: This data explores the factors affecting income in 1994 America. Variables include *education\_num* (total number of years of education achieved)*, sex* (male/female)*, gross\_income\_group* (whether group has earned 50K+ or less annually)*, hours\_per\_week* (number of hours worked per week) and others. Each observation in the census data represents a group of people that share the same set of values for the variables and has a corresponding weight that indicates its share of the population.

Motivation: From this data, I wanted to investigate if there is a strong correlation between *hours\_per\_week* and a population’s gender, education level, and income sector.

Method: Those variables were fitted on a linear regression model to determine any potential relationship.

Results: Yes, they are fairly strongly correlated. In general, males work more than females and as income and education num increase, we also see a proportional addition to work hours.

Discussion: This is significant because leisure was often associated with families of high income back then. The results prove otherwise, that in fact high-income families did not have as much leisure time as one would expect. Moreover, education\_num did not alleviate the burden either. The work of intellectuals may have been perceived as effort-conserving since their work is more high-level. But no. :)