Week 8 writing

Case Study: Weekend Drinking

A set of study was conducted on a dry campus where no alcohol is allowed, to show whether there is a correlation between the amount of alcohol consumed by the college students and their sex, age, whether they live in campus or not. The idea behind the study was to show that the data involves both students who are drinkers but just do not consumer within a week and students who are completely non-drinkers. The set of data is believed to be a Poisson data set priorly, and by exploring the data set we would like to sort out the two types of drinkers. The method of collecting the data set is by surveying. Several questions related to the covariate factors are being asked to students. The response variable for the study is the number of drinks the student consumed the previous weekend, and sex, whether living in campus or not are the explanatory variable. The analysis was done through computer software. Since there is a reason to believe that the data can use a Poisson regression model, one additional parameter was used to separate the proportion of non-drinkers in the population. The result shows that both covariates are significant. Then by using the ZIP test where the covariate “firstYear” is used to distinguish the groups of drinkers and non-drinkers whose answers are both zero. The result of the test shows that there are about 63% students that are first-year student that are non-drinkers. The finding helps to show that by using a Poisson regression model we can separate out groups within the data set, and that students’ sex and whether living on campus or not are correlated with their drinking behaviors.