APPLIED STATISTICS TUTORIAL 11

Question 1 (ex from Chapter 22 of the class text "The Statistical Sleuth")

Some sociologists suspect that highly publicised suicides may trigger additional suicides. In one investigation of this hypothesis, D.P. Phillips collected information about 17 airplane crashes that were known (because of notes left behind) to be murdersuicides. For each of these crashes, Phillips reported an index of the news coverage (circulation in nine newspapers devoting space to the crash multiplied by length of coverage) and the number of multiple- fatality plane crashes during the week following the publicized crash. The data are contained in "ex2216.csv". Is there evidence that the mean number of crashes increases with increasing levels of publicity of a murdersuicide? Provide evidence that your model is appropriate.

Display 22.12 Multiple-fatality plane crashes in the week following a murder–suicide by plane crash, and the amount of newspaper coverage given the murder–suicide

| Index of coverage | Number of crashes | Index of coverage | Number of crashes |
|-------------------|-------------------|-------------------|-------------------|
| 376 | 8 | 63 | 2 |
| 347 | 5 | 44 | 7 |
| 322 | 8 | 40 | 4 |
| 104 | 4 | 5 | 3 |
| 103 | 6 | 5 | 2 |
| 98 | 4 | 0 | 4 |
| 96 | 8 | 0 | 3 |
| 85 | 6 | 0 | 2 |
| 82 | 4 | | |

1