

Stat 462: Lab 6

For this lab, do the following exercises from DAAG:

- 5.5 and 5.6
- 5.10
- 6.7 and 6.8
- 6.10

Stat 862 students: Estimate the posterior distribution of the model parameters for the model fit in 6.10(c). Use a vague prior of your choice. Provide a plot of the marginal posterior distribution for each parameter and compute the mean of the posterior distribution. Also compute 95% credible regions for each model parameter and compare your results to confidence intervals computed from the linear model fit in question 6.10(c).

You are free to use either R or SAS to answer each question. I have created SAS datasets from the R datasets you will need for 5.5, 6.7, and 6.10. These datasets were created using the `foreign` package in R. They are attached to this pdf. To import each dataset, run the corresponding `.sas` file.

For all questions, provide the code you used as well as any output asked for and clear, thorough explanations where necessary. Do not provide output that was not requested in the question.