Assignment_1

Gasoline

a) Estimate the elasticity of supply of gasoline. Provide a confidence interval. Can you reject the hypothesis that the supply of gasoline is elastic?

Our aim is to estimate $\theta = \frac{\partial G_{jt}}{\partial P_{jt}} \frac{P_{jt}}{G_{jt}}$. If we assume that the elasticity of supply is constant over time and across states, we can estimate a model opf the form:

$\ln(G_{jt}) = \beta_0 + \beta_1 \ln(P_{jt}) + X'_{jt}\gamma + \eta_j + \eta_t + \epsilon_{jt}$

In order to estimate the elasticity of supply, we need a demand shifter such that a change does not shift supply.

Including Plots

You can also embed plots, for example: