# 634 HW6

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November 2017

## 1 OLS Regression

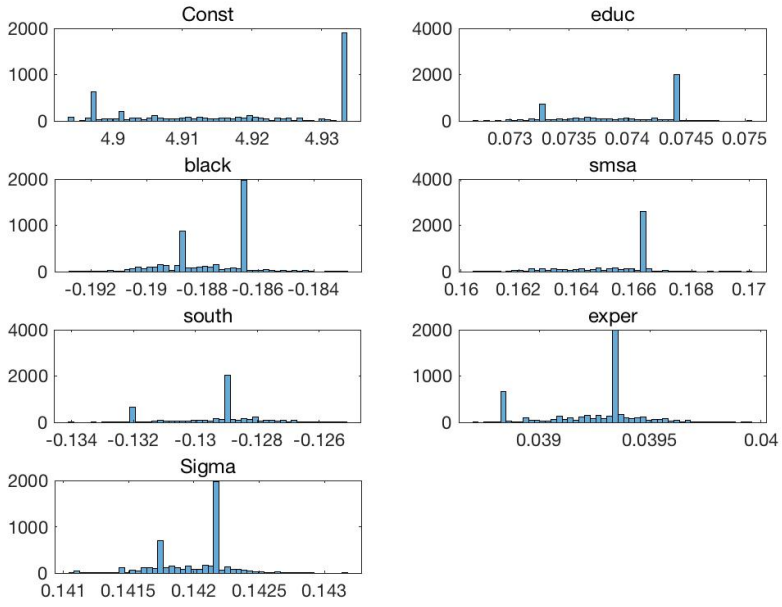
The OLS regression result is:

$$\widehat{lwage} = 4.9133 + 0.0738educ - 0.1882black + 0.1647smsa - 0.1291south + 0.0393exper \quad (1)$$

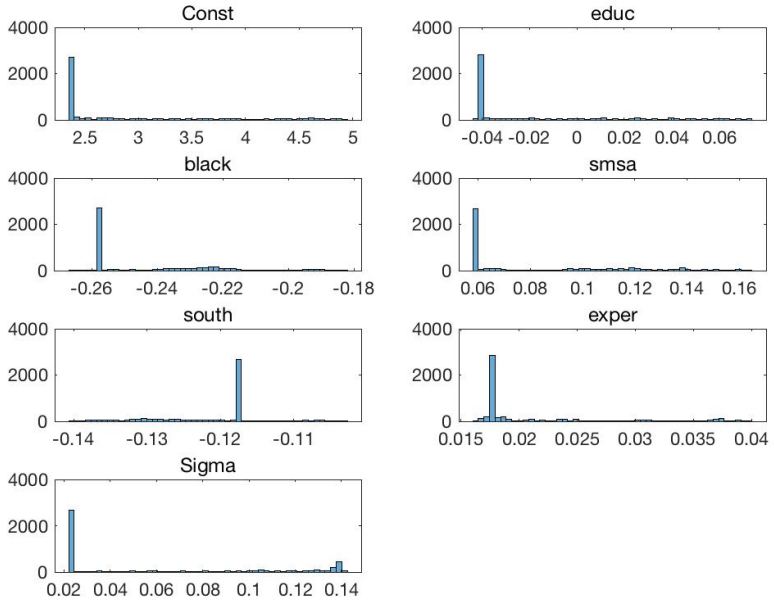
The standard error of regression is $\hat{\sigma}_\epsilon = 0.1420$.

## 2 Metropolis-Hastings Algorithm

### 2.1 All priors flat



## 2.2 All priors flat except education




We can see that the all flat prior scenario is close related to what we obtain in the OLS. The posterior distributions are mostly centered around the OLS coefficients. It's hard to say so with the exception of education, the ranges of the posterior distributions are way off.