Problem Set 6

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1. Get OLS estimates for Beta coefficients on log wages

	Coeff.	Std Dev
Intercept	4.913	0.063
Education	0.074	0.004
Experience	0.039	0.002
SMSA	0.164	0.016
Black	-0.188	0.017
South	-0.129	0.015
Residuals		0.377

2. Calculate Distribution of Coefficients with flat prior and with prior of 0.06 for the first Beta

3. Compare Bayesian and OLS results.

Below are the following distribution means and standard deviations. Overall the Mean of the Bayesian estimates is similiar to the OLS estimates. However, the standard errors in the Bayesian Estimation are a bit tighter.

	Coeff. Mean	Std Dev
Intercept	5.181	0.420
Education	0.061	0.017
Experience	0.032	0.010
SMSA	0.176	0.021
Black	-0.191	0.057
South	-0.074	0.085
Residuals		0.377

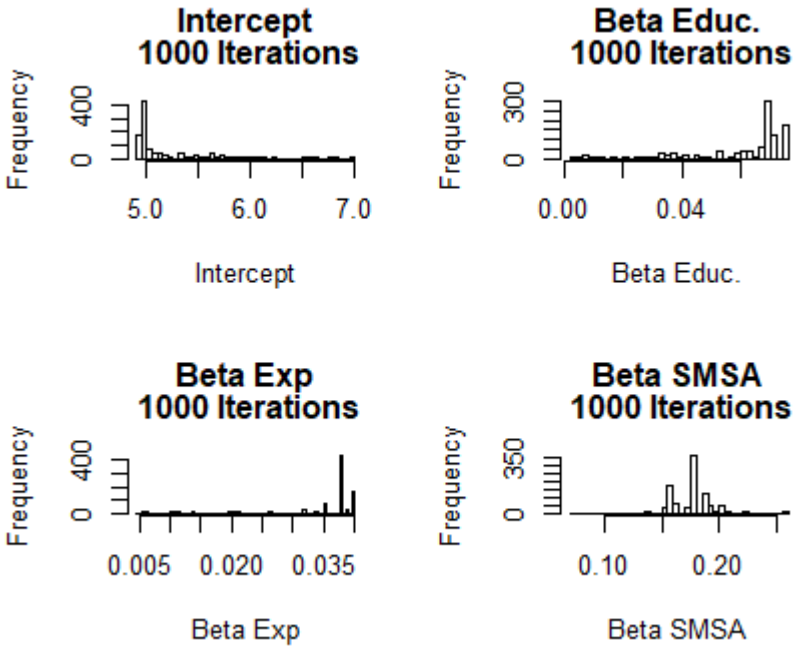
Intercept
1000 Iterations
Frequency
0
400
5.0
6.0
7.0
Intercept
Beta Educ.
1000 Iterations
Frequency
0
300
0.00
0.04
Beta Educ.
Beta Exp
1000 Iterations
Frequency
0
400
0.005
0.020
0.035
Beta Exp
Beta SMSA
1000 Iterations
Frequency
0
350
0.10
0.20
Beta SMSA

Figure 1:

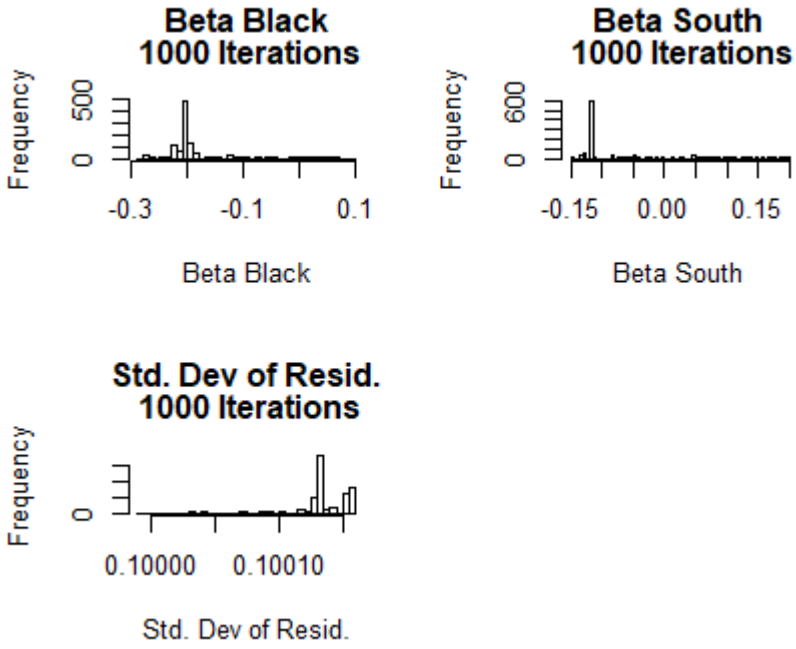
Beta Black
1000 Iterations
Frequency
0
500
-0.3
-0.1
0.1
Beta Black
Beta South
1000 Iterations
Frequency
0
600
-0.15
0.00
0.15
Beta South
Std. Dev of Resid.
1000 Iterations
Frequency
0
0.10000
0.10010
Std. Dev of Resid.

Figure 2: