The MCMC Procedure

Number of Observations Read	80
Number of Observations Used	80

Parameters					
Block	**Parameter**	**Array Index**	**Sampling Method**	**Initial Value**	**Prior Distribution**
1	**theta_c1**		Conjugate	0	MVNormal(mu0, Sig0)
	theta_c2			0	
2	**Sig_c1**	[1,1]	Conjugate	0.3040	iWishart(2, S)
	Sig_c2	[1,2]		-0.0150	
	Sig_c3	[2,1]		-0.0150	
	Sig_c4	[2,2]		0.0150	
3	**var_y**		N-Metropolis	4.2000	gamma(3.1, iscale=0.5)

Random Effect Parameters					
Parameter	**Sampling Method**	**Subject**	**Number of Subjects**	**Subject Values**	**Prior Distribution**
theta	N-Metropolis	id	20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MVNormal(theta_c, Sig_c)

The MCMC Procedure

Posterior Summaries						
				Percentiles		
Parameter	N	Mean	Standard Deviation	25	50	75
theta_c1	35385	48.6610	0.5845	48.2818	48.6584	49.0437
theta_c2	35385	0.9335	0.1315	0.8476	0.9337	1.0186
bint_1	35385	47.8712	0.3960	47.6095	47.8742	48.1340
bslp_1	35385	0.6437	0.2049	0.5077	0.6425	0.7804
bint_2	35385	46.4568	0.3980	46.1917	46.4590	46.7213
bslp_2	35385	0.6799	0.2064	0.5419	0.6798	0.8168
bint_3	35385	46.2140	0.3917	45.9556	46.2135	46.4760
bslp_3	35385	0.7773	0.2033	0.6405	0.7766	0.9106
bint_4	35385	44.8757	0.3992	44.6108	44.8733	45.1412
bslp_4	35385	0.7301	0.2088	0.5922	0.7290	0.8693
bint_5	35385	47.6700	0.3967	47.4080	47.6703	47.9347
bslp_5	35385	0.6108	0.2074	0.4728	0.6099	0.7461
bint_6	35385	52.4040	0.4079	52.1354	52.4126	52.6762
bslp_6	35385	0.4864	0.2125	0.3448	0.4829	0.6255
bint_7	35385	51.5557	0.3937	51.2936	51.5576	51.8204
bslp_7	35385	1.1045	0.2050	0.9666	1.1041	1.2423
bint_8	35385	49.3271	0.3927	49.0652	49.3282	49.5882
bslp_8	35385	0.9102	0.2031	0.7746	0.9097	1.0464
bint_9	35385	48.6178	0.4187	48.3354	48.6068	48.8905
bslp_9	35385	1.8481	0.2230	1.7041	1.8562	1.9996
bint_10	35385	45.4527	0.3976	45.1901	45.4526	45.7121
bslp_10	35385	0.9884	0.2062	0.8507	0.9893	1.1270
bint_11	35385	50.9575	0.4057	50.6908	50.9652	51.2315
bslp_11	35385	0.3628	0.2133	0.2195	0.3589	0.5031
bint_12	35385	48.2238	0.4336	47.9319	48.2077	48.4988
bslp_12	35385	2.2124	0.2384	2.0651	2.2231	2.3729
bint_13	35385	51.9045	0.3962	51.6429	51.9030	52.1692
bslp_13	35385	0.9725	0.2054	0.8352	0.9723	1.1092
bint_14	35385	48.1759	0.3931	47.9151	48.1751	48.4389
bslp_14	35385	0.5894	0.2042	0.4528	0.5885	0.7249
bint_15	35385	49.5751	0.3922	49.3173	49.5738	49.8326
bslp_15	35385	0.7762	0.2031	0.6416	0.7765	0.9093
bint_16	35385	50.7260	0.3963	50.4659	50.7265	50.9920
bslp_16	35385	0.9008	0.2060	0.7639	0.8996	1.0376

The MCMC Procedure

Posterior Summaries						
				Percentiles		
Parameter	N	Mean	Standard Deviation	25	50	75
bint_17	35385	47.0460	0.3939	46.7844	47.0481	47.3079
bslp_17	35385	0.7809	0.2047	0.6457	0.7804	0.9151
bint_18	35385	53.4332	0.4054	53.1685	53.4375	53.7047
bslp_18	35385	0.7257	0.2101	0.5861	0.7237	0.8643
bint_19	35385	46.4585	0.3905	46.2001	46.4585	46.7193
bslp_19	35385	0.7452	0.2038	0.6111	0.7444	0.8810
bint_20	35385	46.5343	0.4214	46.2503	46.5207	46.8012
bslp_20	35385	1.8222	0.2240	1.6795	1.8294	1.9733

Posterior Intervals					
		Equal-Tail Interval		HPD Interval	
Parameter	Alpha				
theta_c1	0.050	47.5027	49.8178	47.5338	49.8401
theta_c2	0.050	0.6721	1.1934	0.6707	1.1907
bint_1	0.050	47.0869	48.6473	47.0705	48.6249
bslp_1	0.050	0.2382	1.0460	0.2513	1.0570
bint_2	0.050	45.6738	47.2413	45.6752	47.2422
bslp_2	0.050	0.2757	1.0867	0.2705	1.0805
bint_3	0.050	45.4412	46.9807	45.4561	46.9948
bslp_3	0.050	0.3817	1.1859	0.3815	1.1854
bint_4	0.050	44.0892	45.6662	44.0606	45.6352
bslp_4	0.050	0.3195	1.1407	0.3113	1.1312
bint_5	0.050	46.8824	48.4454	46.8882	48.4494
bslp_5	0.050	0.2028	1.0204	0.2001	1.0162
bint_6	0.050	51.5835	53.1867	51.5791	53.1797
bslp_6	0.050	0.0733	0.9162	0.0536	0.8939
bint_7	0.050	50.7737	52.3191	50.7842	52.3268
bslp_7	0.050	0.7033	1.5089	0.6950	1.4988
bint_8	0.050	48.5556	50.0997	48.5548	50.0980
bslp_8	0.050	0.5120	1.3100	0.5120	1.3098
bint_9	0.050	47.8245	49.4614	47.8115	49.4468
bslp_9	0.050	1.3973	2.2627	1.4084	2.2715
bint_10	0.050	44.6736	46.2408	44.6502	46.2159
bslp_10	0.050	0.5821	1.3888	0.5748	1.3792
bint_11	0.050	50.1386	51.7343	50.1425	51.7369

The MCMC Procedure

Posterior Intervals					
Parameter	Alpha	Equal-Tail Interval		HPD Interval	
bslp_11	0.050	-0.0471	0.7938	-0.0408	0.7990
bint_12	0.050	47.4123	49.1152	47.3810	49.0747
bslp_12	0.050	1.7107	2.6472	1.7469	2.6768
bint_13	0.050	51.1216	52.6814	51.1285	52.6845
bslp_13	0.050	0.5684	1.3761	0.5645	1.3712
bint_14	0.050	47.4050	48.9493	47.4033	48.9464
bslp_14	0.050	0.1897	0.9928	0.1891	0.9909
bint_15	0.050	48.7994	50.3479	48.7944	50.3410
bslp_15	0.050	0.3759	1.1768	0.3749	1.1744
bint_16	0.050	49.9428	51.5001	49.9425	51.4994
bslp_16	0.050	0.4956	1.3073	0.5014	1.3115
bint_17	0.050	46.2662	47.8193	46.2733	47.8237
bslp_17	0.050	0.3788	1.1896	0.3853	1.1939
bint_18	0.050	52.6248	54.2178	52.6541	54.2434
bslp_18	0.050	0.3141	1.1404	0.3002	1.1243
bint_19	0.050	45.6860	47.2184	45.6996	47.2277
bslp_19	0.050	0.3390	1.1431	0.3432	1.1454
bint_20	0.050	45.7405	47.3928	45.7369	47.3861
bslp_20	0.050	1.3626	2.2457	1.3787	2.2587

The MCMC Procedure

Monte Carlo Standard Errors			
Parameter	MCSE	Standard Deviation	MCSE/SD
theta_c1	0.00311	0.5845	0.00532
theta_c2	0.000699	0.1315	0.00532
bint_1	0.00211	0.3960	0.00532
bslp_1	0.00110	0.2049	0.00538
bint_2	0.00212	0.3980	0.00532
bslp_2	0.00110	0.2064	0.00532
bint_3	0.00208	0.3917	0.00532
bslp_3	0.00108	0.2033	0.00532
bint_4	0.00212	0.3992	0.00532
bslp_4	0.00111	0.2088	0.00532
bint_5	0.00211	0.3967	0.00532
bslp_5	0.00110	0.2074	0.00532
bint_6	0.00241	0.4079	0.00590
bslp_6	0.00127	0.2125	0.00600
bint_7	0.00209	0.3937	0.00532
bslp_7	0.00109	0.2050	0.00532
bint_8	0.00234	0.3927	0.00595
bslp_8	0.00125	0.2031	0.00616
bint_9	0.00263	0.4187	0.00628
bslp_9	0.00163	0.2230	0.00732
bint_10	0.00211	0.3976	0.00532
bslp_10	0.00110	0.2062	0.00532
bint_11	0.00244	0.4057	0.00602
bslp_11	0.00136	0.2133	0.00637
bint_12	0.00336	0.4336	0.00775
bslp_12	0.00211	0.2384	0.00884
bint_13	0.00211	0.3962	0.00532
bslp_13	0.00109	0.2054	0.00532
bint_14	0.00209	0.3931	0.00532
bslp_14	0.00109	0.2042	0.00532
bint_15	0.00208	0.3922	0.00532
bslp_15	0.00108	0.2031	0.00532
bint_16	0.00211	0.3963	0.00532
bslp_16	0.00110	0.2060	0.00532
bint_17	0.00213	0.3939	0.00540

The MCMC Procedure

Monte Carlo Standard Errors			
Parameter	MCSE	Standard Deviation	MCSE/SD
bslp_17	0.00109	0.2047	0.00532
bint_18	0.00222	0.4054	0.00548
bslp_18	0.00114	0.2101	0.00541
bint_19	0.00208	0.3905	0.00532
bslp_19	0.00108	0.2038	0.00532
bint_20	0.00293	0.4214	0.00695
bslp_20	0.00165	0.2240	0.00737

Posterior Autocorrelations				
Parameter	Lag 1	Lag 5	Lag 10	Lag 50
theta_c1	-0.0041	-0.0003	-0.0026	0.0019
theta_c2	0.0074	0.0021	0.0076	-0.0022
bint_1	-0.0009	0.0001	0.0035	0.0032
bslp_1	0.0120	0.0066	0.0025	0.0044
bint_2	0.0056	-0.0025	0.0013	-0.0016
bslp_2	0.0045	-0.0011	0.0053	0.0085
bint_3	-0.0013	-0.0008	-0.0009	-0.0032
bslp_3	0.0039	0.0035	-0.0047	-0.0028
bint_4	-0.0044	0.0060	-0.0073	-0.0026
bslp_4	0.0031	0.0070	-0.0053	0.0011
bint_5	0.0065	0.0006	0.0008	-0.0031
bslp_5	0.0068	0.0005	0.0020	-0.0032
bint_6	0.0225	0.0179	0.0003	0.0016
bslp_6	0.0203	0.0156	0.0038	-0.0022
bint_7	0.0029	0.0164	-0.0002	-0.0001
bslp_7	0.0046	0.0115	0.0015	-0.0003
bint_8	0.1049	-0.0071	-0.0089	-0.0006
bslp_8	0.1415	0.0034	-0.0036	-0.0019
bint_9	0.0544	0.0237	0.0154	0.0005
bslp_9	0.0786	0.0339	0.0231	-0.0001
bint_10	0.0078	-0.0034	0.0049	-0.0048
bslp_10	0.0026	0.0006	0.0065	-0.0002
bint_11	0.0303	0.0137	0.0109	0.0002
bslp_11	0.0393	0.0118	0.0086	-0.0034
bint_12	0.0782	0.0565	0.0190	0.0037

The MCMC Procedure

Posterior Autocorrelations				
Parameter	**Lag 1**	**Lag 5**	**Lag 10**	**Lag 50**
bslp_12	0.1228	0.0772	0.0301	-0.0071
bint_13	-0.0009	-0.0001	-0.0018	0.0025
bslp_13	0.0051	0.0040	0.0056	-0.0048
bint_14	-0.0055	0.0022	0.0022	0.0028
bslp_14	0.0048	0.0032	0.0096	0.0002
bint_15	0.0007	-0.0005	0.0007	-0.0019
bslp_15	0.0005	0.0068	-0.0035	0.0070
bint_16	0.0085	0.0052	-0.0018	-0.0067
bslp_16	0.0024	0.0047	0.0013	-0.0027
bint_17	0.0160	-0.0032	0.0011	0.0022
bslp_17	0.0089	-0.0001	-0.0051	0.0057
bint_18	0.0171	0.0053	0.0035	-0.0028
bslp_18	0.0183	0.0042	-0.0021	-0.0099
bint_19	-0.0002	0.0091	-0.0093	0.0049
bslp_19	0.0036	0.0104	-0.0072	-0.0031
bint_20	0.0566	0.0278	0.0179	0.0104
bslp_20	0.0714	0.0326	0.0221	0.0051

Geweke Diagnostics		
Parameter	**z**	**Pr > |z|**
theta_c1	1.7774	0.0755
theta_c2	1.3490	0.1773
bint_1	0.8873	0.3749
bslp_1	-1.3634	0.1728
bint_2	-0.7041	0.4814
bslp_2	0.7085	0.4786
bint_3	-1.0728	0.2834
bslp_3	-0.8110	0.4174
bint_4	-1.2755	0.2021
bslp_4	0.5167	0.6054
bint_5	-0.1081	0.9139
bslp_5	0.2902	0.7716
bint_6	0.8280	0.4077
bslp_6	-0.6320	0.5274
bint_7	-0.5271	0.5981
bslp_7	0.1218	0.9031

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Geweke Diagnostics		
Parameter	**z**	**Pr > |z|**
bint_8	0.4582	0.6468
bslp_8	-1.2047	0.2283
bint_9	0.2624	0.7930
bslp_9	0.8481	0.3964
bint_10	-1.0779	0.2811
bslp_10	0.5395	0.5896
bint_11	1.0494	0.2940
bslp_11	-1.7136	0.0866
bint_12	-1.7486	0.0804
bslp_12	2.1609	0.0307
bint_13	1.8358	0.0664
bslp_13	-2.5433	0.0110
bint_14	1.3319	0.1829
bslp_14	-1.1730	0.2408
bint_15	0.4926	0.6223
bslp_15	-1.5246	0.1274
bint_16	1.5734	0.1156
bslp_16	-2.3694	0.0178
bint_17	0.8819	0.3778
bslp_17	0.4289	0.6680
bint_18	1.0467	0.2952
bslp_18	-1.2282	0.2194
bint_19	-0.5516	0.5812
bslp_19	0.8041	0.4213
bint_20	-2.3605	0.0183
bslp_20	1.8285	0.0675

Raftery-Lewis Diagnostics				
Quantile=0.025 Accuracy=+/-0.005 Probability=0.95 Epsilon=0.001				
	Number of Samples			**Dependence Factor**
Parameter	**Burn-In**	**Total**	**Minimum**	
theta_c1	2	3702	3746	0.9883
theta_c2	2	3702	3746	0.9883
bint_1	2	3850	3746	1.0278
bslp_1	2	3771	3746	1.0067

The MCMC Procedure

Raftery-Lewis Diagnostics				
Quantile=0.025 Accuracy=+/-0.005 Probability=0.95 Epsilon=0.001				
	Number of Samples			
Parameter	Burn-In	Total	Minimum	Dependence Factor
bint_2	2	3771	3746	1.0067
bslp_2	2	3797	3746	1.0136
bint_3	2	3736	3746	0.9973
bslp_3	2	3715	3746	0.9917
bint_4	2	3727	3746	0.9949
bslp_4	2	3754	3746	1.0021
bint_5	2	3833	3746	1.0232
bslp_5	2	3736	3746	0.9973
bint_6	4	8167	3746	2.1802
bslp_6	2	3727	3746	0.9949
bint_7	2	3797	3746	1.0136
bslp_7	2	3833	3746	1.0232
bint_8	2	3968	3746	1.0593
bslp_8	3	4044	3746	1.0796
bint_9	2	3874	3746	1.0342
bslp_9	5	8326	3746	2.2226
bint_10	2	3710	3746	0.9904
bslp_10	2	3754	3746	1.0021
bint_11	5	8556	3746	2.2840
bslp_11	1	3740	3746	0.9984
bint_12	2	3771	3746	1.0067
bslp_12	8	12783	3746	3.4124
bint_13	2	3762	3746	1.0043
bslp_13	1	3744	3746	0.9995
bint_14	2	3780	3746	1.0091
bslp_14	1	3744	3746	0.9995
bint_15	1	3744	3746	0.9995
bslp_15	2	3754	3746	1.0021
bint_16	2	3850	3746	1.0278
bslp_16	2	3710	3746	0.9904
bint_17	2	3780	3746	1.0091
bslp_17	2	3754	3746	1.0021
bint_18	2	3895	3746	1.0398

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Raftery-Lewis Diagnostics				
Quantile=0.025 Accuracy=+/-0.005 Probability=0.95 Epsilon=0.001				
	Number of Samples			
Parameter	Burn-In	Total	Minimum	Dependence Factor
bslp_18	2	3702	3746	0.9883
bint_19	2	3762	3746	1.0043
bslp_19	2	3794	3746	1.0128
bint_20	2	3719	3746	0.9928
bslp_20	6	8466	3746	2.2600

Heidelberger-Welch Diagnostics								
	Stationarity Test				Half-Width Test			
Parameter	Cramer-von Mises Stat	p-Value	Test Outcome	Iterations Discarded	Half-Width	Mean	Relative Half-Width	Test Outcome
theta_c1	0.0761	0.7149	Passed	0	0.00629	48.6610	0.000129	Passed
theta_c2	0.1048	0.5617	Passed	0	0.00111	0.9335	0.00119	Passed
bint_1	0.0974	0.5977	Passed	0	0.00486	47.8712	0.000101	Passed
bslp_1	0.1032	0.5692	Passed	0	0.00259	0.6437	0.00403	Passed
bint_2	0.0371	0.9475	Passed	0	0.00564	46.4568	0.000121	Passed
bslp_2	0.0344	0.9594	Passed	0	0.00265	0.6799	0.00390	Passed
bint_3	0.1880	0.2919	Passed	0	0.00444	46.2140	0.000096	Passed
bslp_3	0.2236	0.2261	Passed	0	0.00215	0.7773	0.00277	Passed
bint_4	0.1467	0.3996	Passed	0	0.00456	44.8757	0.000102	Passed
bslp_4	0.1772	0.3163	Passed	0	0.00180	0.7301	0.00246	Passed
bint_5	0.1177	0.5049	Passed	0	0.00404	47.6700	0.000085	Passed
bslp_5	0.1749	0.3220	Passed	0	0.00198	0.6108	0.00324	Passed
bint_6	0.0762	0.7141	Passed	0	0.00467	52.4040	0.000089	Passed
bslp_6	0.0705	0.7487	Passed	0	0.00238	0.4864	0.00490	Passed
bint_7	0.1605	0.3591	Passed	0	0.00353	51.5557	0.000069	Passed
bslp_7	0.0306	0.9741	Passed	0	0.00212	1.1045	0.00192	Passed
bint_8	0.1002	0.5841	Passed	0	0.00461	49.3271	0.000093	Passed
bslp_8	0.1129	0.5253	Passed	0	0.00249	0.9102	0.00273	Passed
bint_9	0.0545	0.8488	Passed	0	0.00510	48.6178	0.000105	Passed
bslp_9	0.0499	0.8767	Passed	0	0.00317	1.8481	0.00172	Passed
bint_10	0.1223	0.4862	Passed	0	0.00380	45.4527	0.000084	Passed
bslp_10	0.2883	0.1458	Passed	0	0.00201	0.9884	0.00204	Passed
bint_11	0.1326	0.4471	Passed	0	0.00629	50.9575	0.000123	Passed
bslp_11	0.1356	0.4367	Passed	0	0.00320	0.3628	0.00882	Passed

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Heidelberger-Welch Diagnostics								
	Stationarity Test				Half-Width Test			
Parameter	Cramer-von Mises Stat	p-Value	Test Outcome	Iterations Discarded	Half-Width	Mean	Relative Half-Width	Test Outcome
bint_12	0.2993	0.1358	Passed	0	0.00824	48.2238	0.000171	Passed
bslp_12	0.2136	0.2426	Passed	0	0.00496	2.2124	0.00224	Passed
bint_13	0.3128	0.1244	Passed	0	0.00365	51.9045	0.000070	Passed
bslp_13	0.3735	0.0850	Passed	0	0.00227	0.9725	0.00234	Passed
bint_14	0.0592	0.8191	Passed	0	0.00440	48.1759	0.000091	Passed
bslp_14	0.0695	0.7546	Passed	0	0.00229	0.5894	0.00389	Passed
bint_15	0.3775	0.0829	Passed	0	0.00396	49.5751	0.000080	Passed
bslp_15	0.2005	0.2665	Passed	0	0.00252	0.7762	0.00325	Passed
bint_16	0.2359	0.2076	Passed	0	0.00418	50.7260	0.000082	Passed
bslp_16	0.1812	0.3071	Passed	0	0.00245	0.9008	0.00272	Passed
bint_17	0.1027	0.5717	Passed	0	0.00429	47.0460	0.000091	Passed
bslp_17	0.1111	0.5330	Passed	0	0.00235	0.7809	0.00301	Passed
bint_18	0.0700	0.7518	Passed	0	0.00494	53.4332	0.000092	Passed
bslp_18	0.0732	0.7318	Passed	0	0.00280	0.7257	0.00386	Passed
bint_19	0.0693	0.7560	Passed	0	0.00391	46.4585	0.000084	Passed
bslp_19	0.1416	0.4164	Passed	0	0.00221	0.7452	0.00297	Passed
bint_20	0.2601	0.1760	Passed	0	0.00766	46.5343	0.000165	Passed
bslp_20	0.2520	0.1859	Passed	0	0.00458	1.8222	0.00251	Passed

Effective Sample Sizes			
Parameter	ESS	Autocorrelation Time	Efficiency
theta_c1	35385.0	1.0000	1.0000
theta_c2	35385.0	1.0000	1.0000
bint_1	35385.0	1.0000	1.0000
bslp_1	34558.0	1.0239	0.9766
bint_2	35385.0	1.0000	1.0000
bslp_2	35385.0	1.0000	1.0000
bint_3	35385.0	1.0000	1.0000
bslp_3	35385.0	1.0000	1.0000
bint_4	35385.0	1.0000	1.0000
bslp_4	35385.0	1.0000	1.0000
bint_5	35385.0	1.0000	1.0000
bslp_5	35385.0	1.0000	1.0000
bint_6	28707.9	1.2326	0.8113

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Effective Sample Sizes			
Parameter	ESS	Autocorrelation Time	Efficiency
bslp_6	27776.7	1.2739	0.7850
bint_7	35385.0	1.0000	1.0000
bslp_7	35385.0	1.0000	1.0000
bint_8	28202.9	1.2547	0.7970
bslp_8	26377.2	1.3415	0.7454
bint_9	25393.3	1.3935	0.7176
bslp_9	18638.6	1.8985	0.5267
bint_10	35385.0	1.0000	1.0000
bslp_10	35385.0	1.0000	1.0000
bint_11	27600.4	1.2820	0.7800
bslp_11	24618.1	1.4374	0.6957
bint_12	16634.3	2.1272	0.4701
bslp_12	12796.8	2.7651	0.3616
bint_13	35385.0	1.0000	1.0000
bslp_13	35385.0	1.0000	1.0000
bint_14	35385.0	1.0000	1.0000
bslp_14	35385.0	1.0000	1.0000
bint_15	35385.0	1.0000	1.0000
bslp_15	35385.0	1.0000	1.0000
bint_16	35385.0	1.0000	1.0000
bslp_16	35385.0	1.0000	1.0000
bint_17	34288.8	1.0320	0.9690
bslp_17	35385.0	1.0000	1.0000
bint_18	33359.2	1.0607	0.9427
bslp_18	34135.8	1.0366	0.9647
bint_19	35385.0	1.0000	1.0000
bslp_19	35385.0	1.0000	1.0000
bint_20	20710.5	1.7086	0.5853
bslp_20	18434.5	1.9195	0.5210

Deviance Information Criterion	
Dbar (posterior mean of deviance)	108.377
Dmean (deviance evaluated at posterior mean)	72.085
pD (effective number of parameters)	36.292
DIC (smaller is better)	144.670