

MCMC Diagnostics - IFLS data

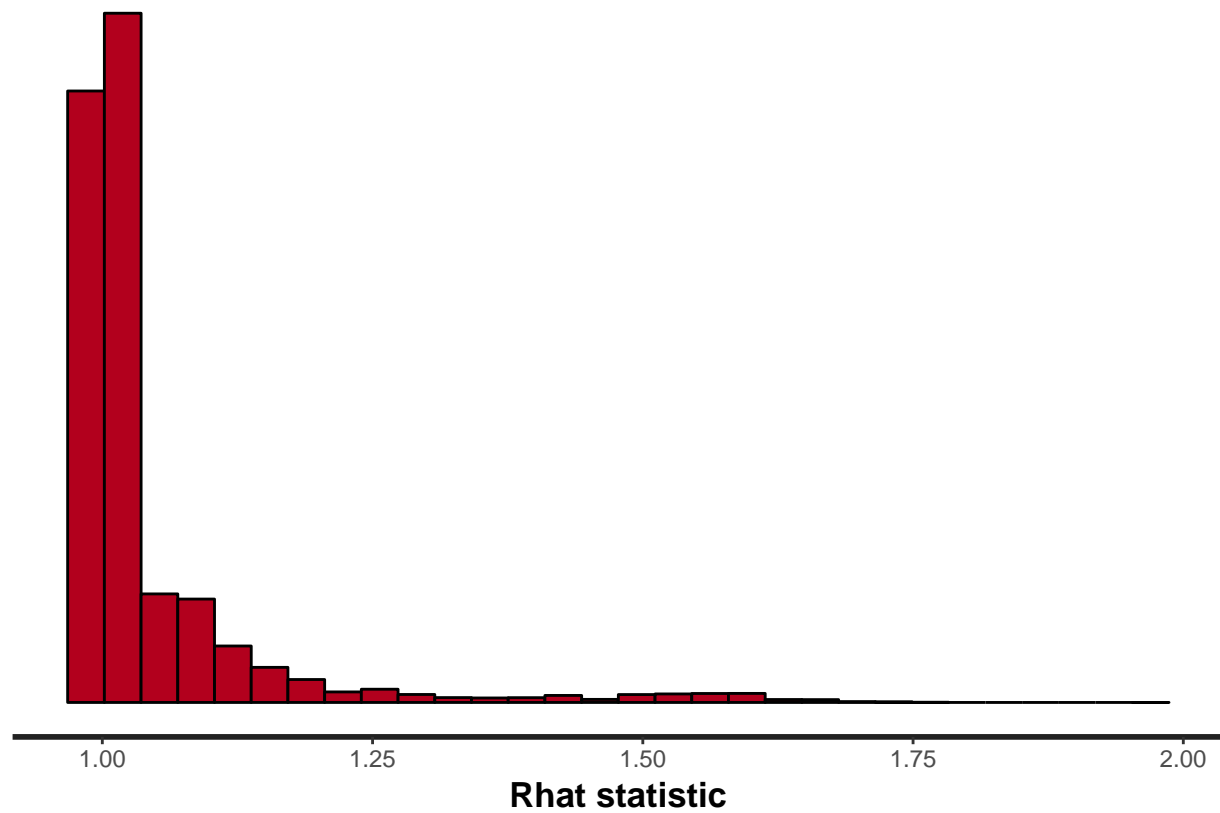
Sarah Teichman

08/04/2020

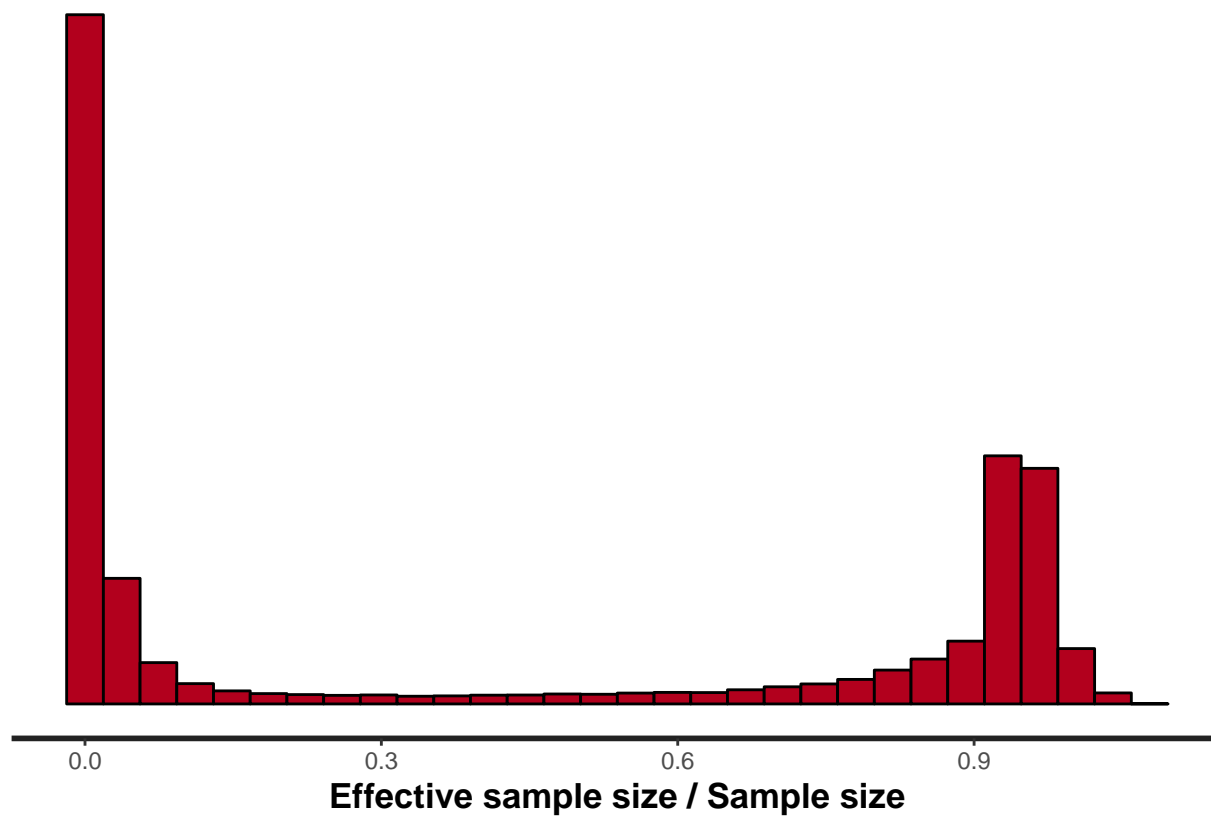
General MCMC diagnostic plots

Overall model diagnostics from rstan package.

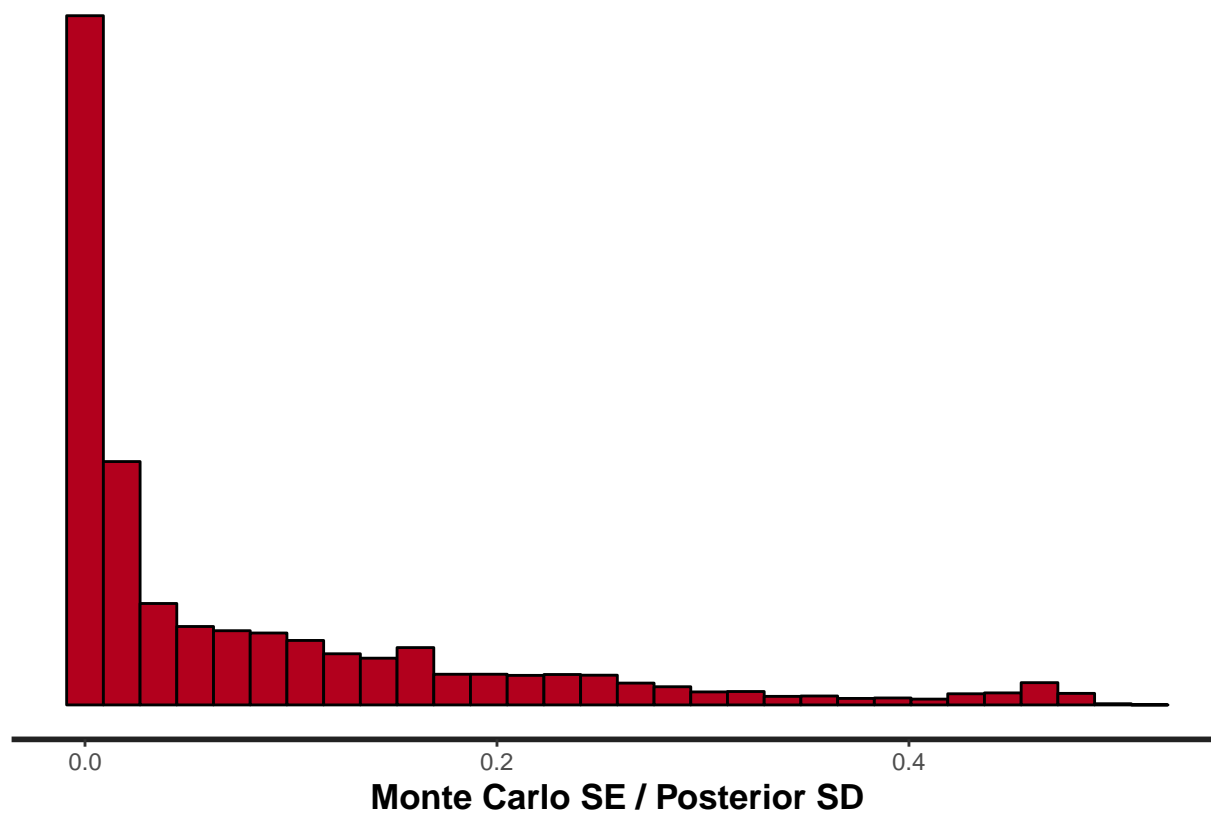
```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



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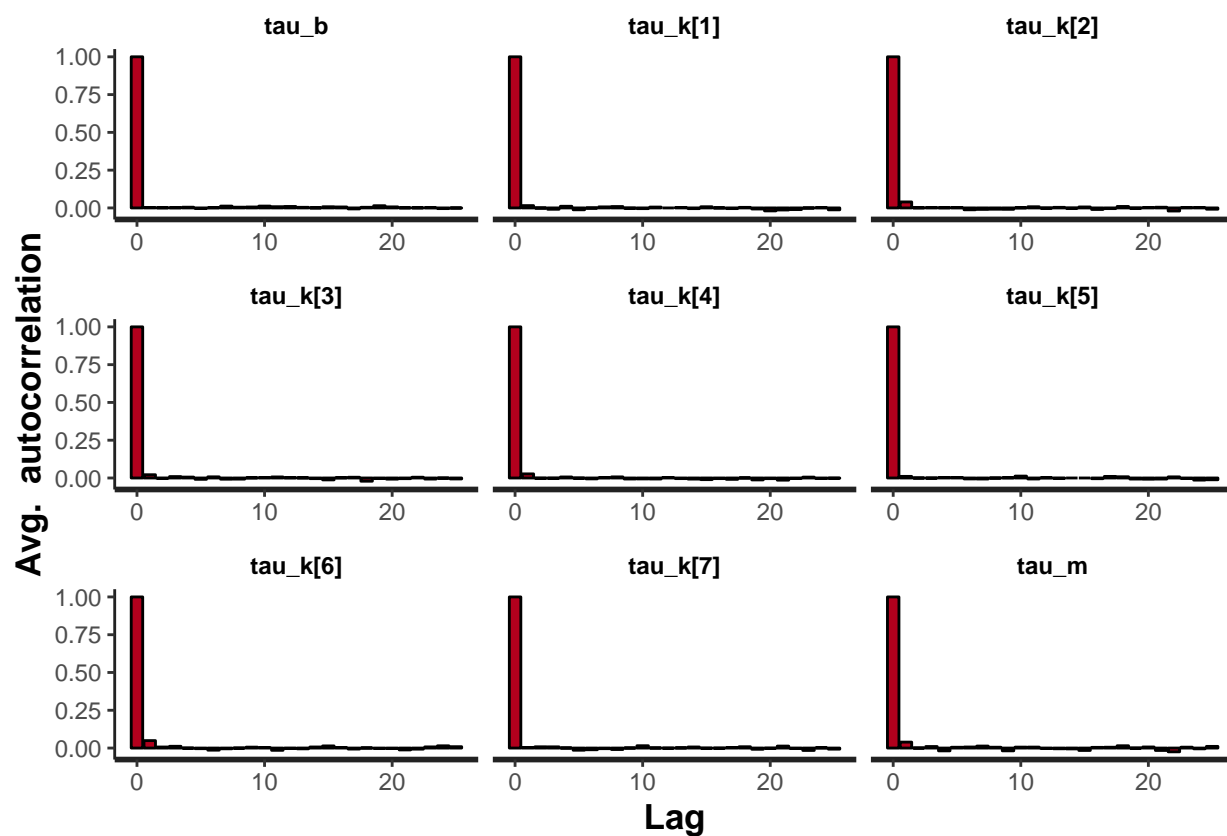
```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

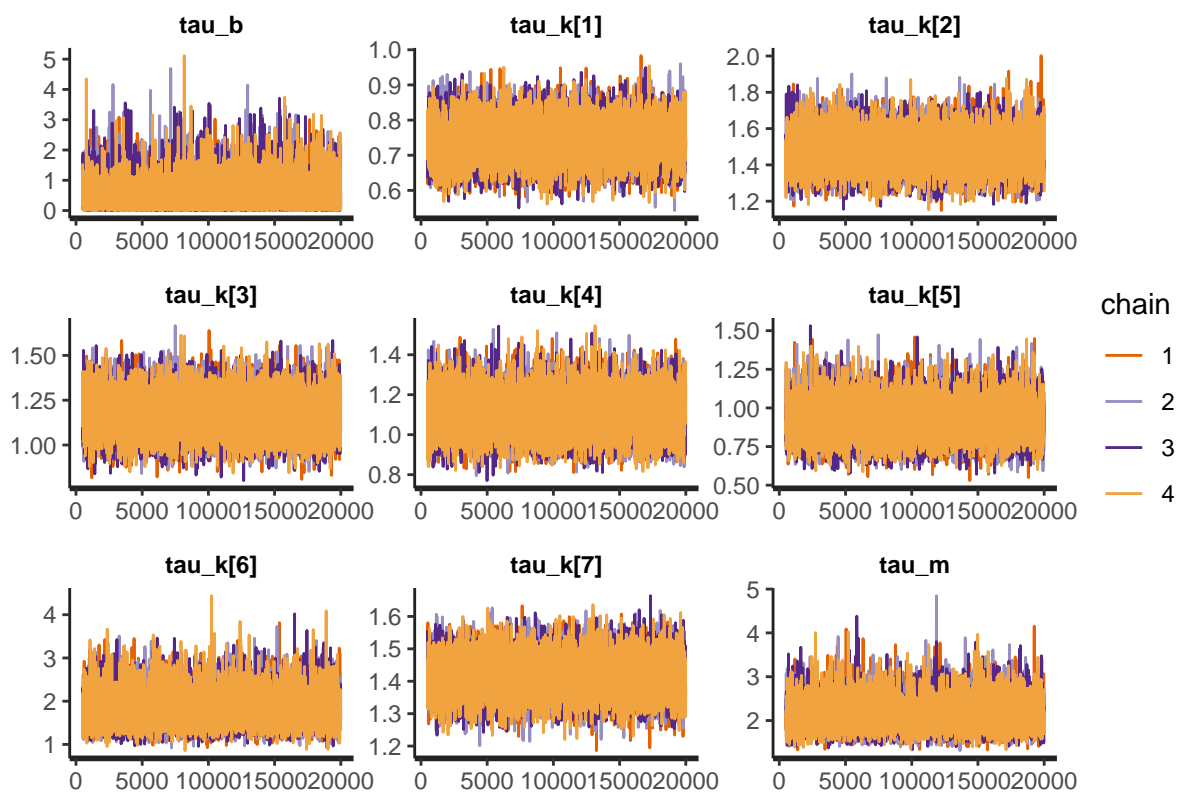


Individual Parameter Diagnostics

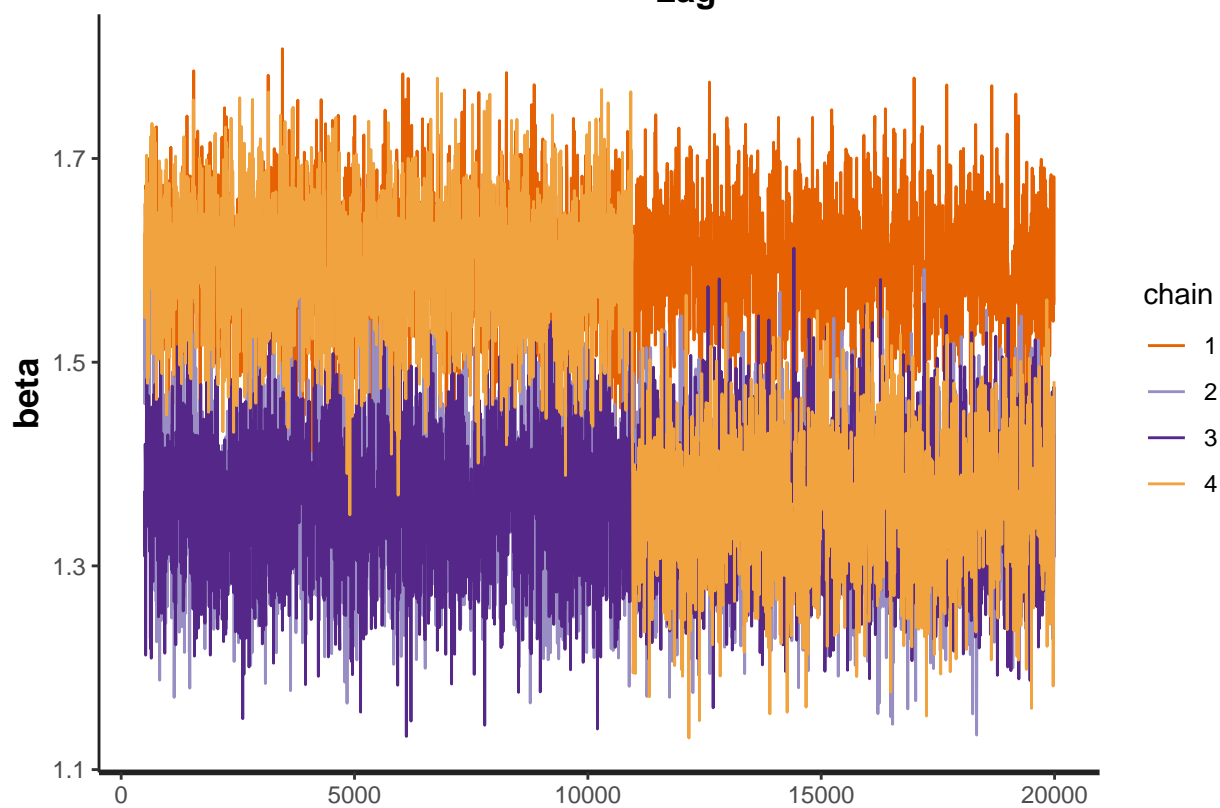
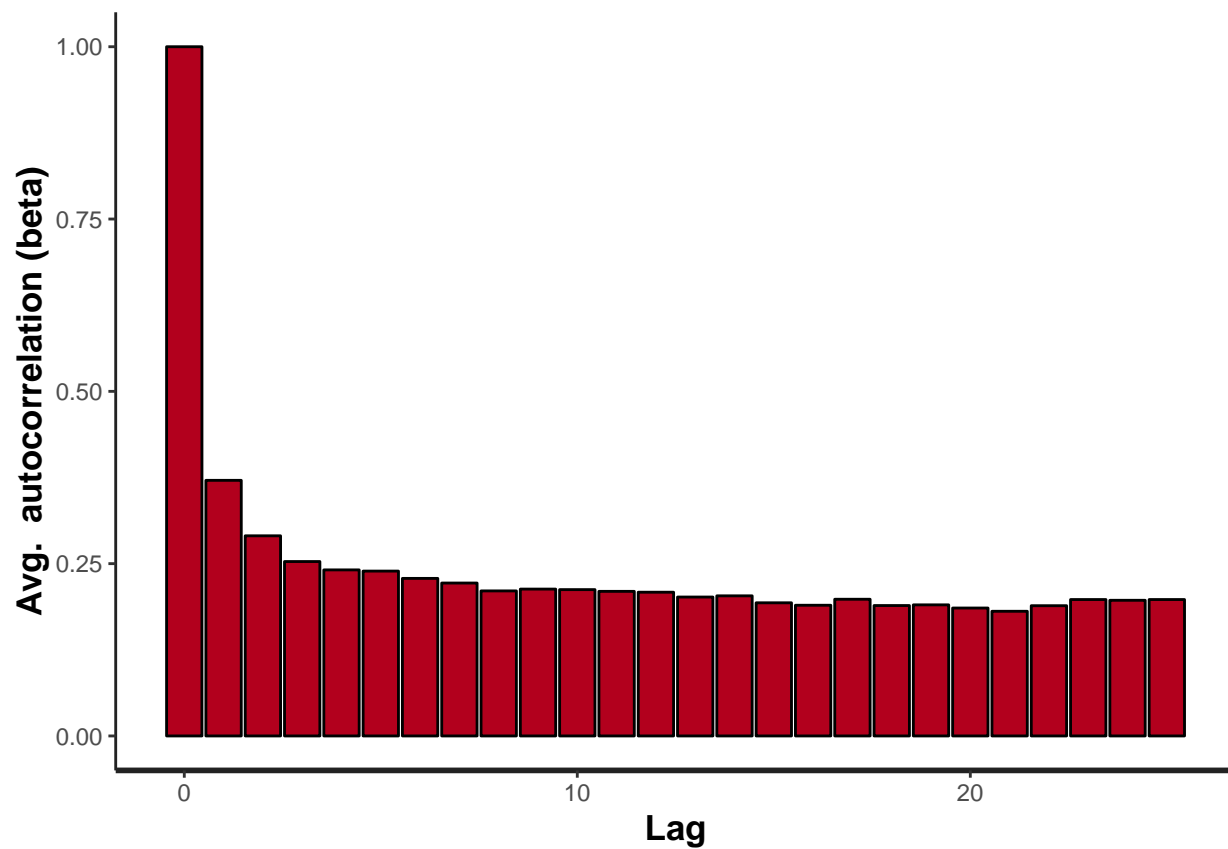
Individual parameter plots. Autocorrelation and trace plots for individual parameters, and histograms of posterior medians for group parameters.

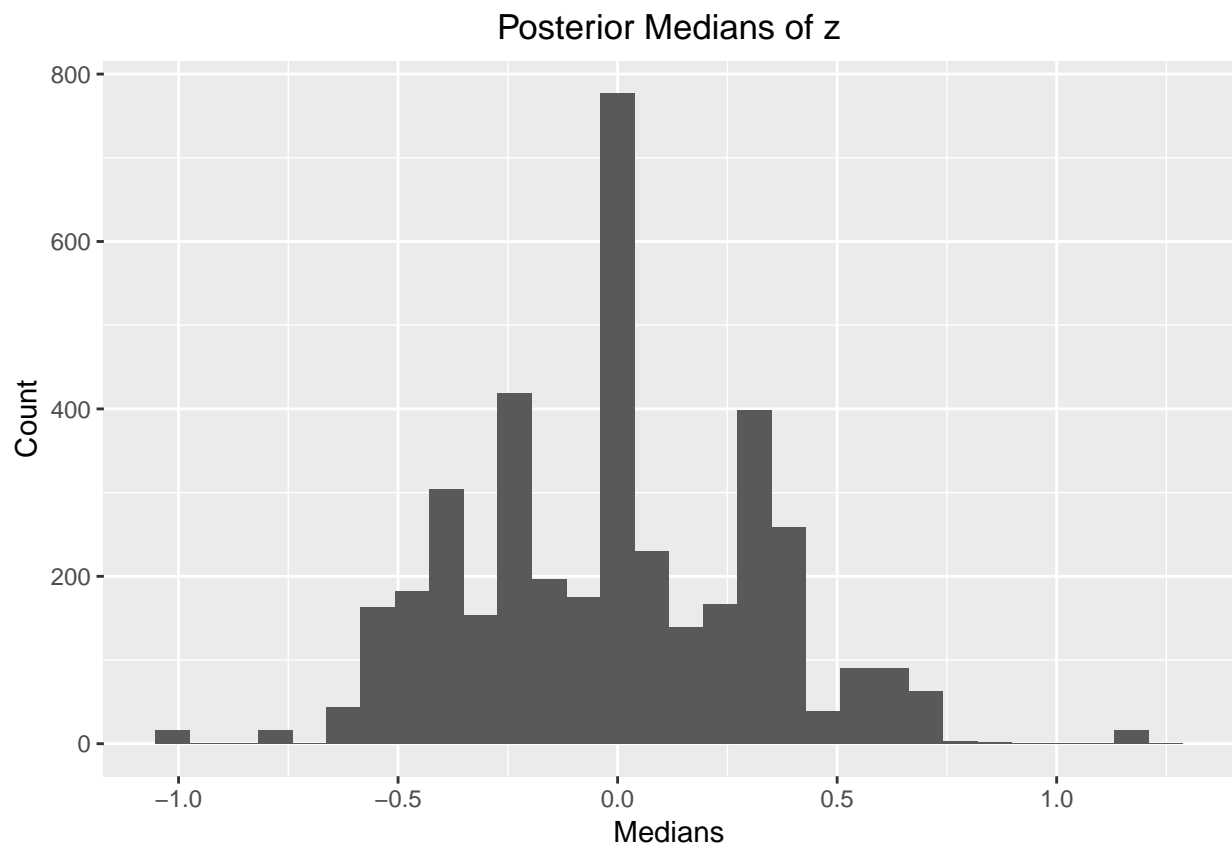
```
##              mean      se_mean      sd      25%      50%      75%
## tau_b      0.4943918 0.0047392662 0.50110332 0.1385006 0.3409874 0.6782820
## tau_k[1]   0.7388196 0.0004627388 0.05693857 0.6995049 0.7366577 0.7758627
## tau_k[2]   1.4768544 0.0008611203 0.10281118 1.4054942 1.4730252 1.5440322
## tau_k[3]   1.1607571 0.0009249912 0.11239044 1.0825702 1.1546132 1.2327676
## tau_k[4]   1.1033157 0.0008499480 0.10335987 1.0320582 1.0996086 1.1693642
## tau_k[5]   0.9154955 0.0010088949 0.12470024 0.8275566 0.9074377 0.9937550
## tau_k[6]   1.8257012 0.0032586385 0.38197531 1.5537674 1.7811538 2.0445405
## tau_k[7]   1.4144689 0.0004889615 0.05990649 1.3727783 1.4133497 1.4544129
## tau_m      2.1364004 0.0029003680 0.34551786 1.8892921 2.0911511 2.3332263
##              n_eff      Rhat
## tau_b      11179.76 1.0041178
## tau_k[1]   15140.53 1.0000450
## tau_k[2]   14254.53 1.0001578
## tau_k[3]   14763.30 1.0000716
## tau_k[4]   14788.33 0.9999587
## tau_k[5]   15277.16 1.0000239
## tau_k[6]   13740.36 0.9999191
## tau_k[7]   15010.61 1.0000257
## tau_m      14191.71 1.0003626
```



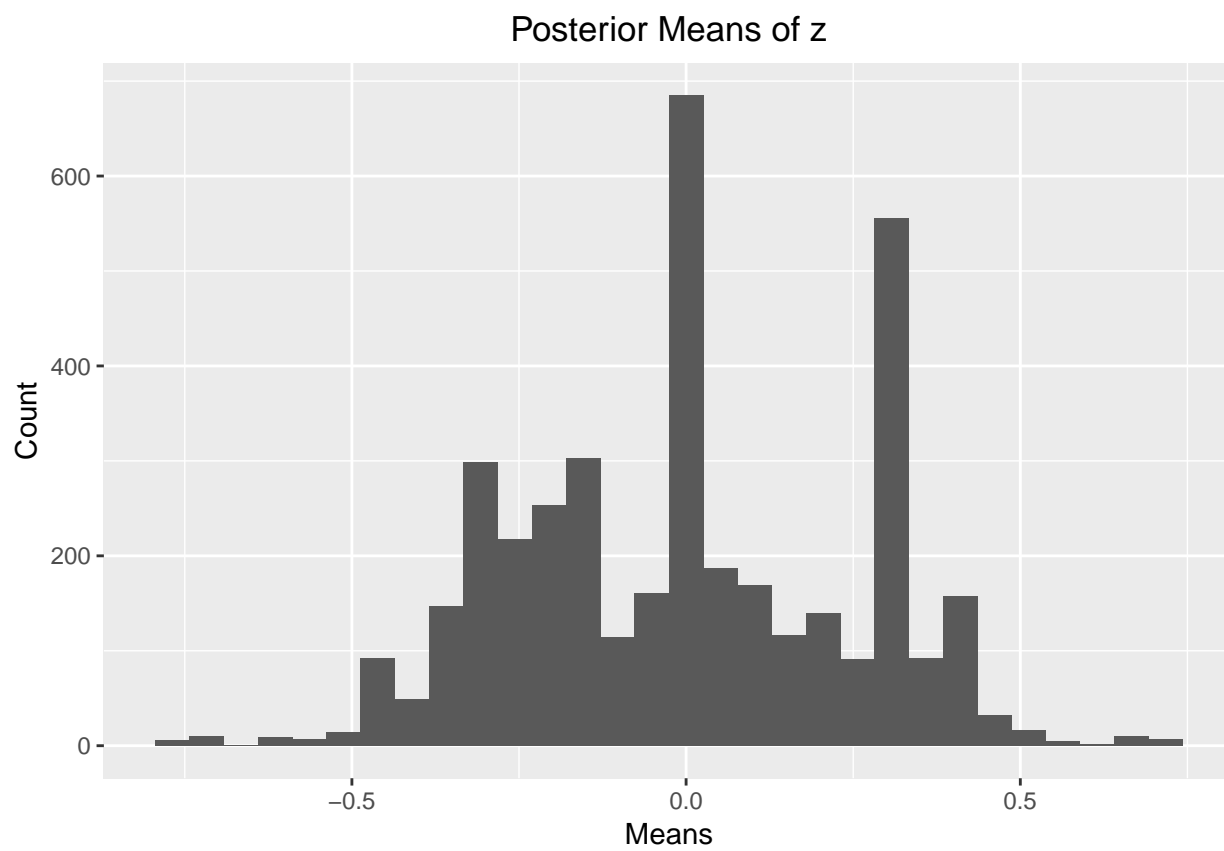


```
##           mean    se_mean      sd    25%    50%    75%    n_eff
## beta  1.452357  0.06914719  0.1318162  1.346345  1.420808  1.575491  3.634029
##           Rhat
## beta  1.984661
```

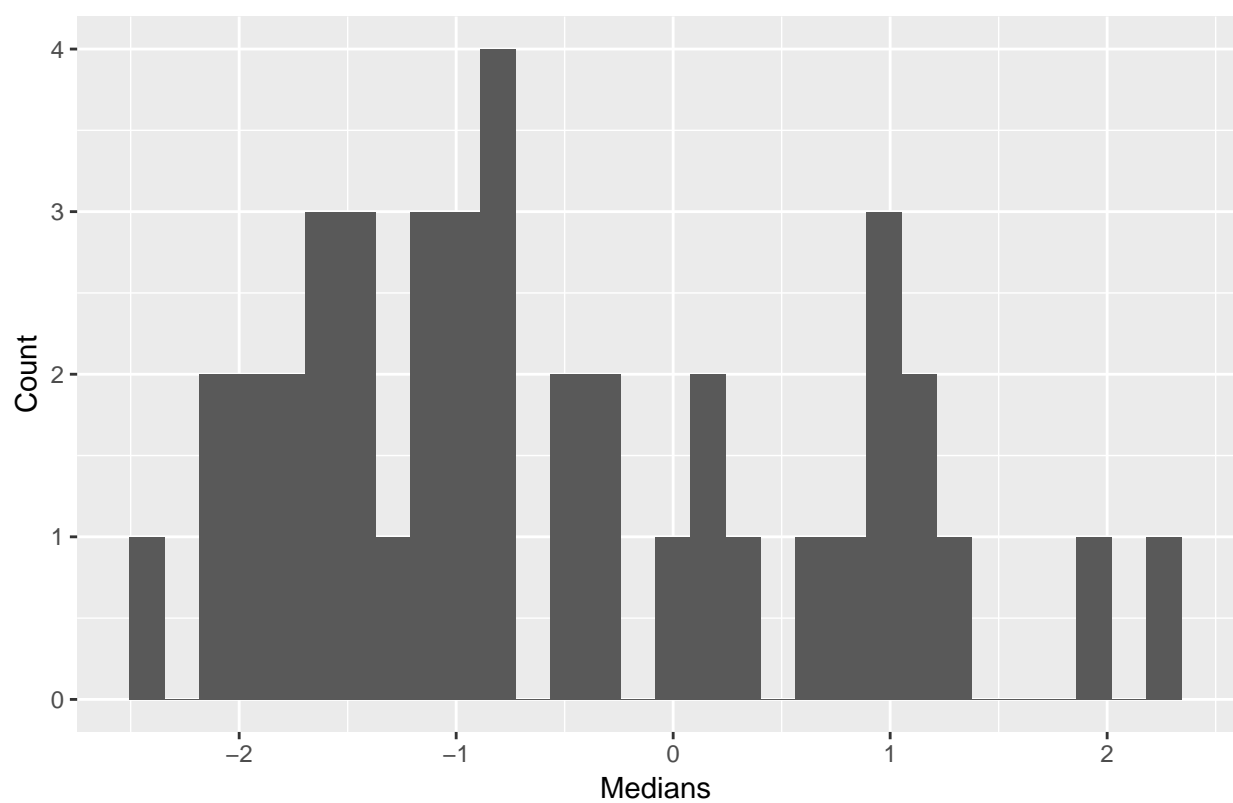
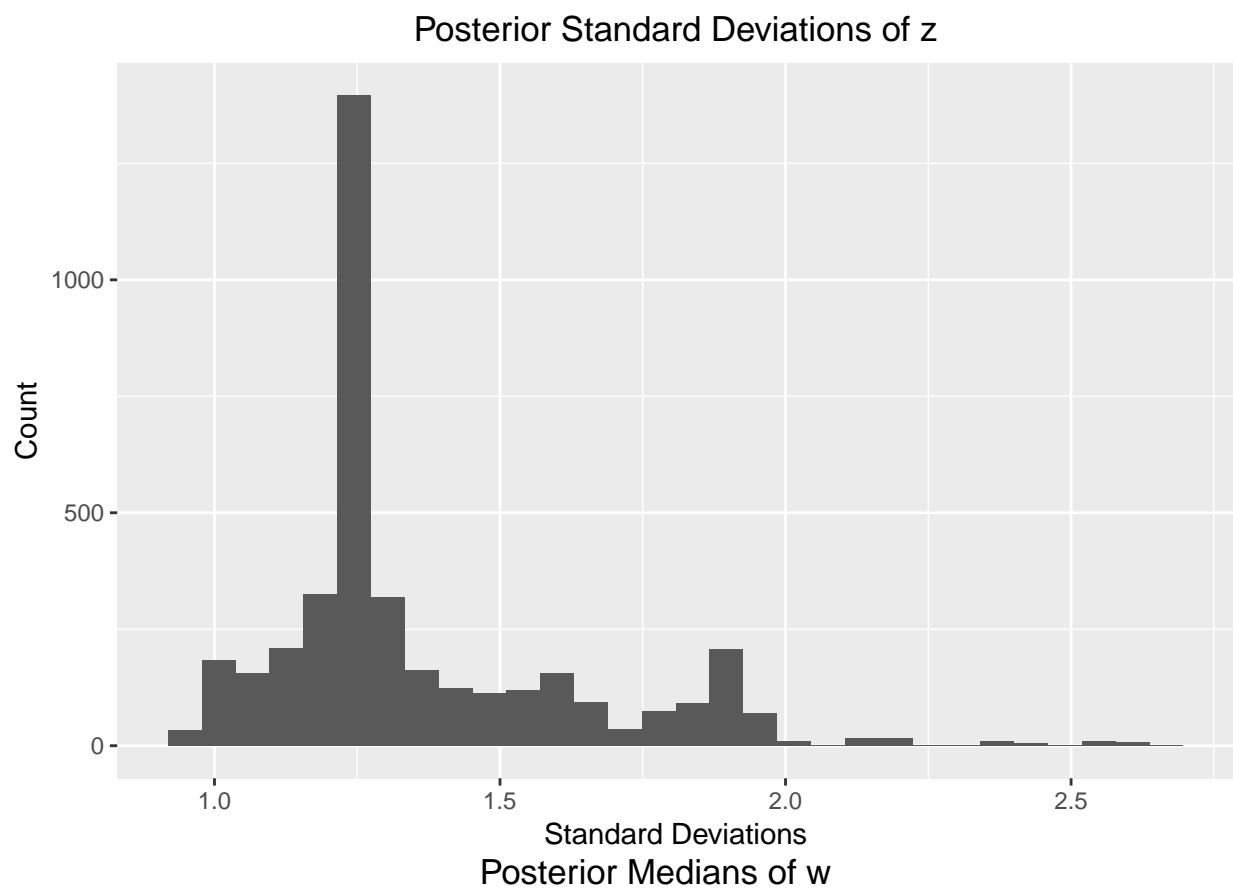




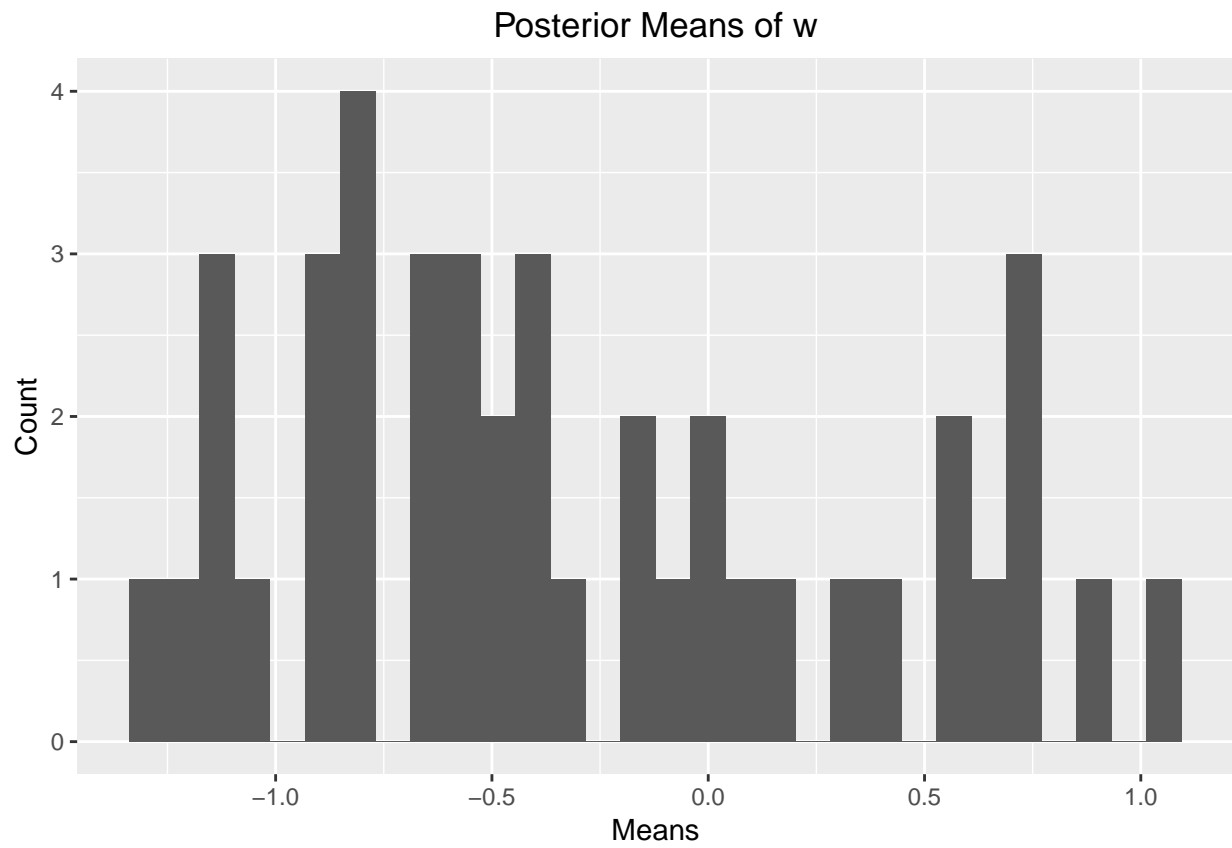
```
## [1] "    "
```



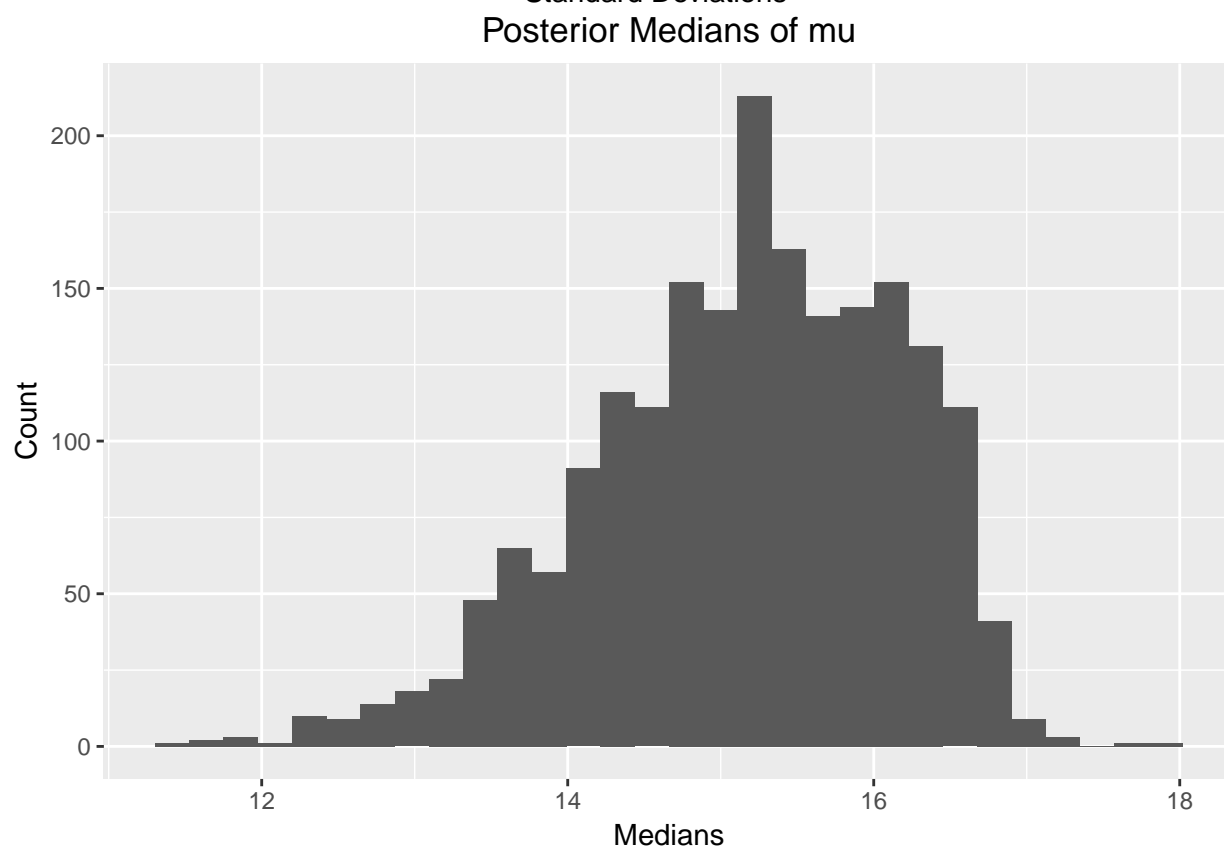
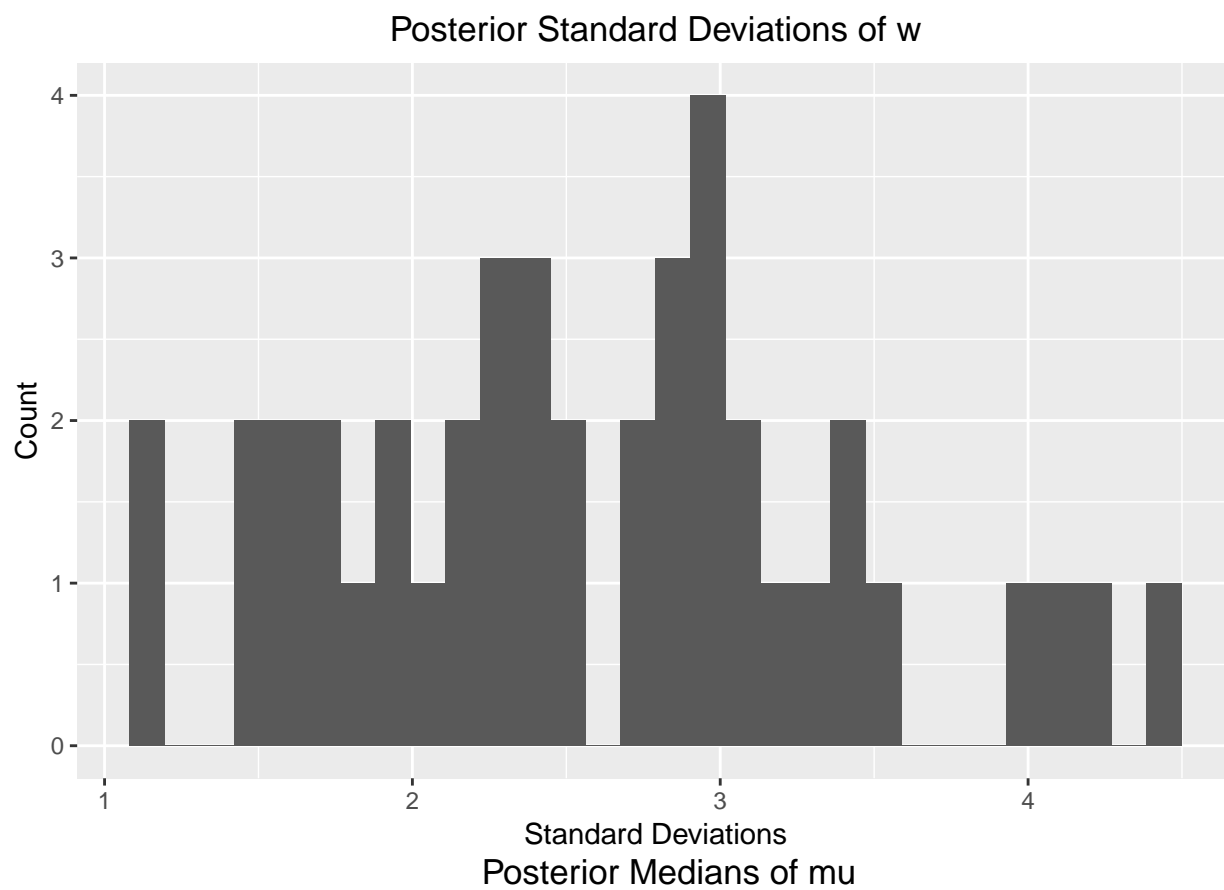
```
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```



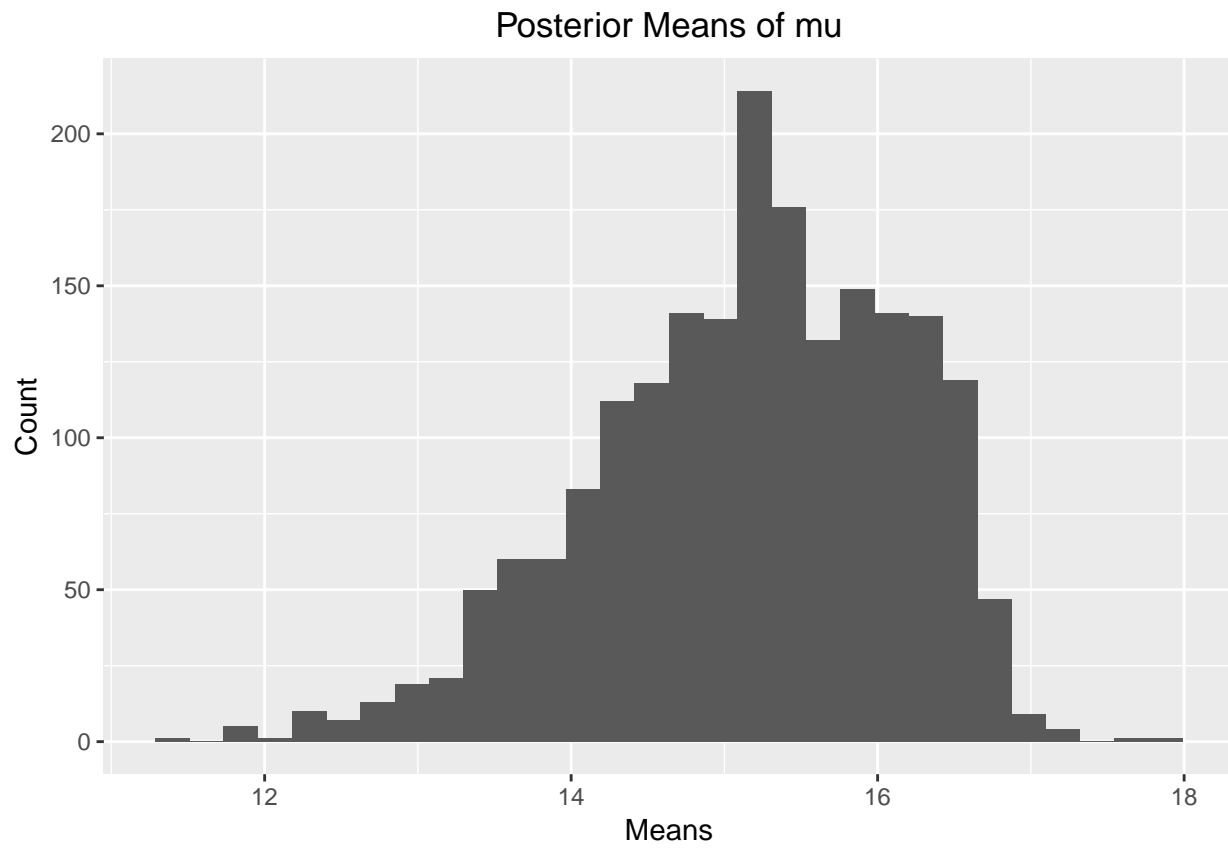

```
## [1] " "
```



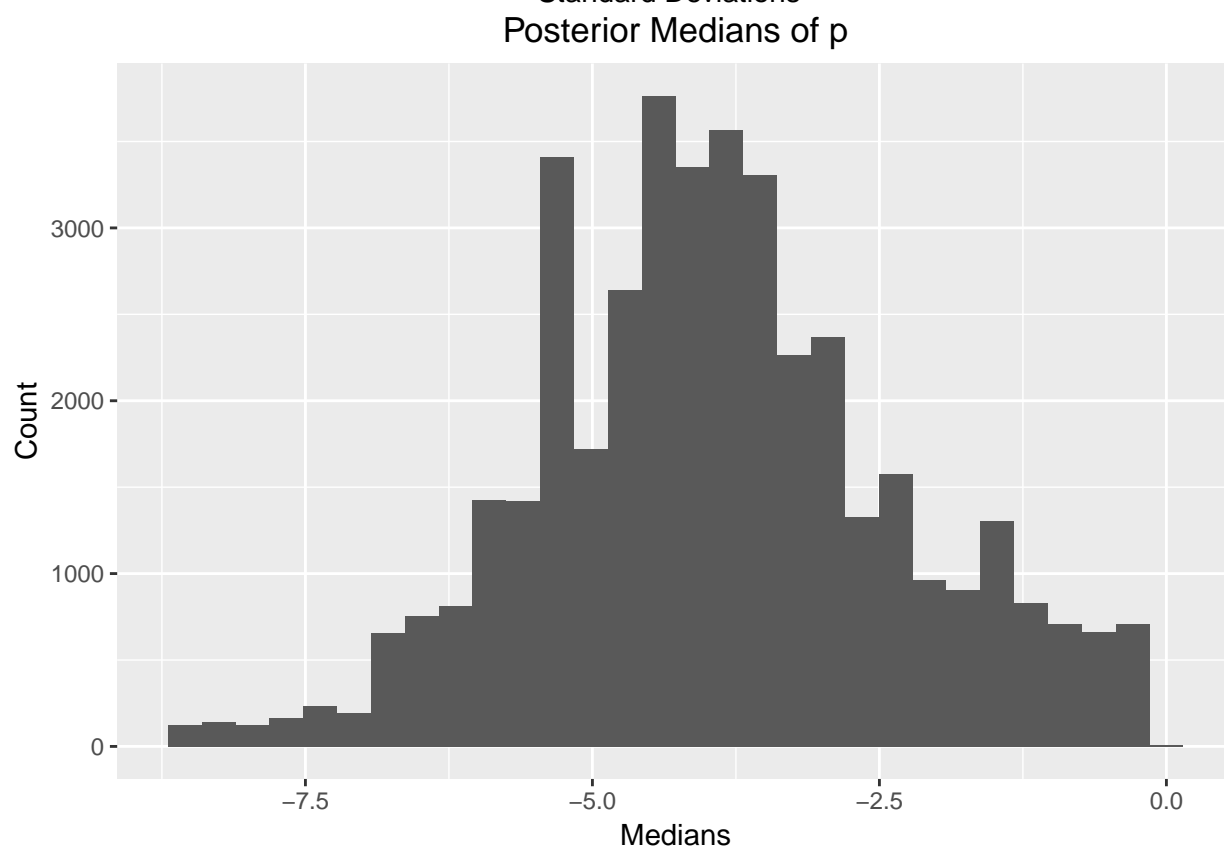
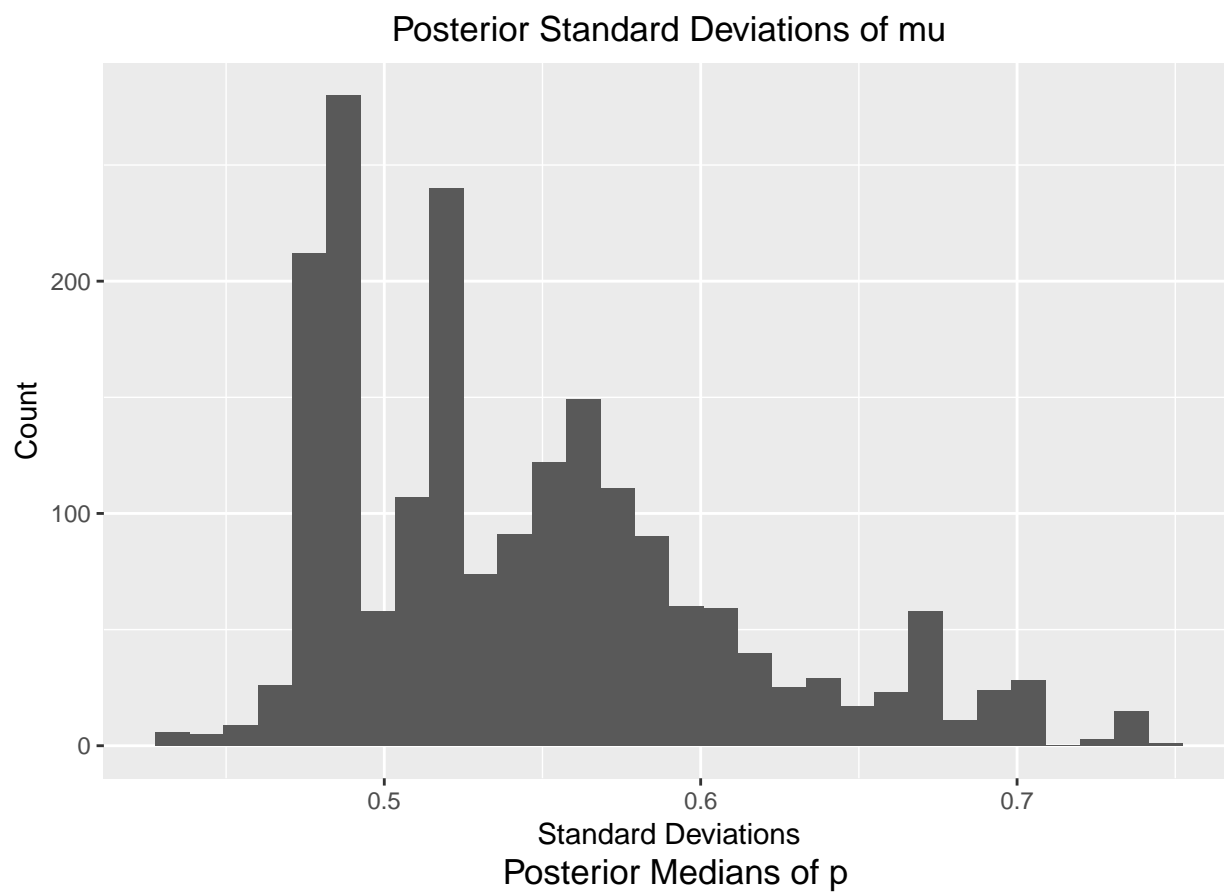
```
## [1] " "
```



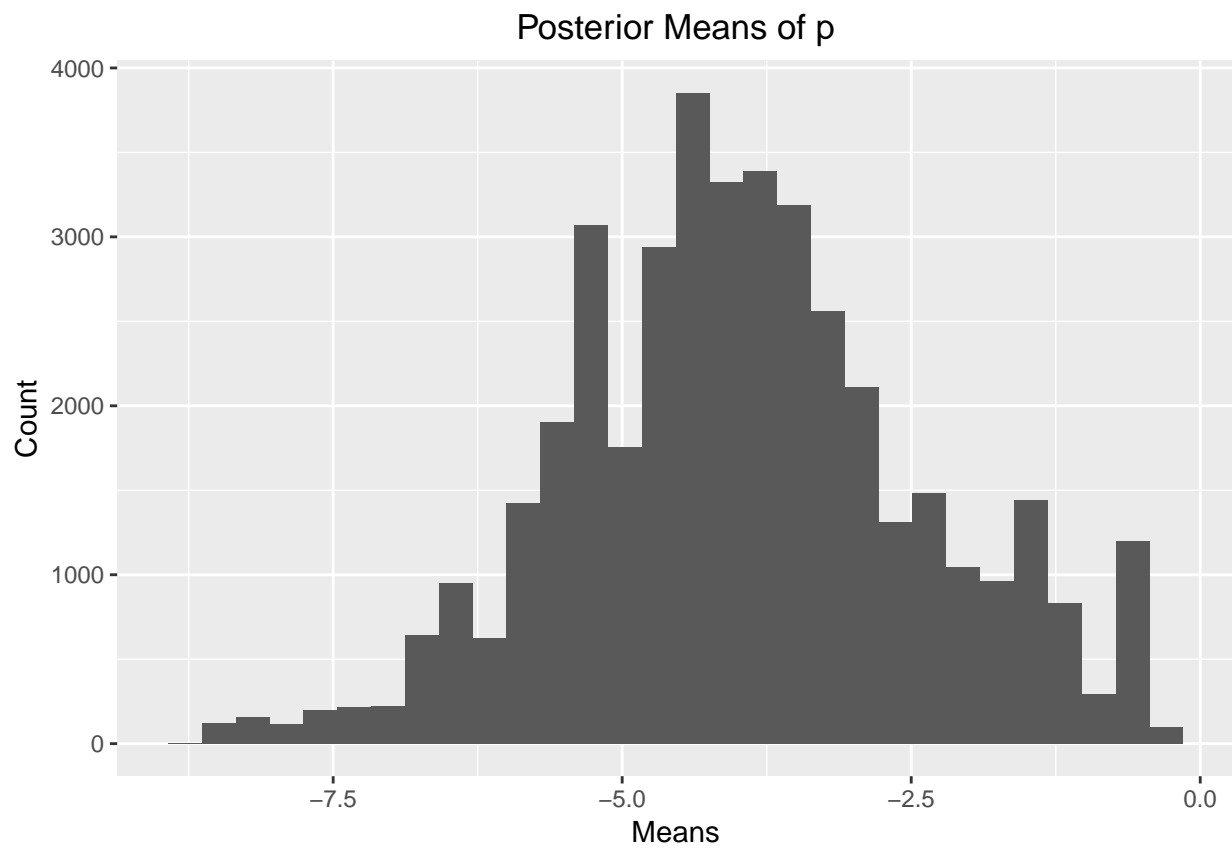
```
## [1] "      "
```



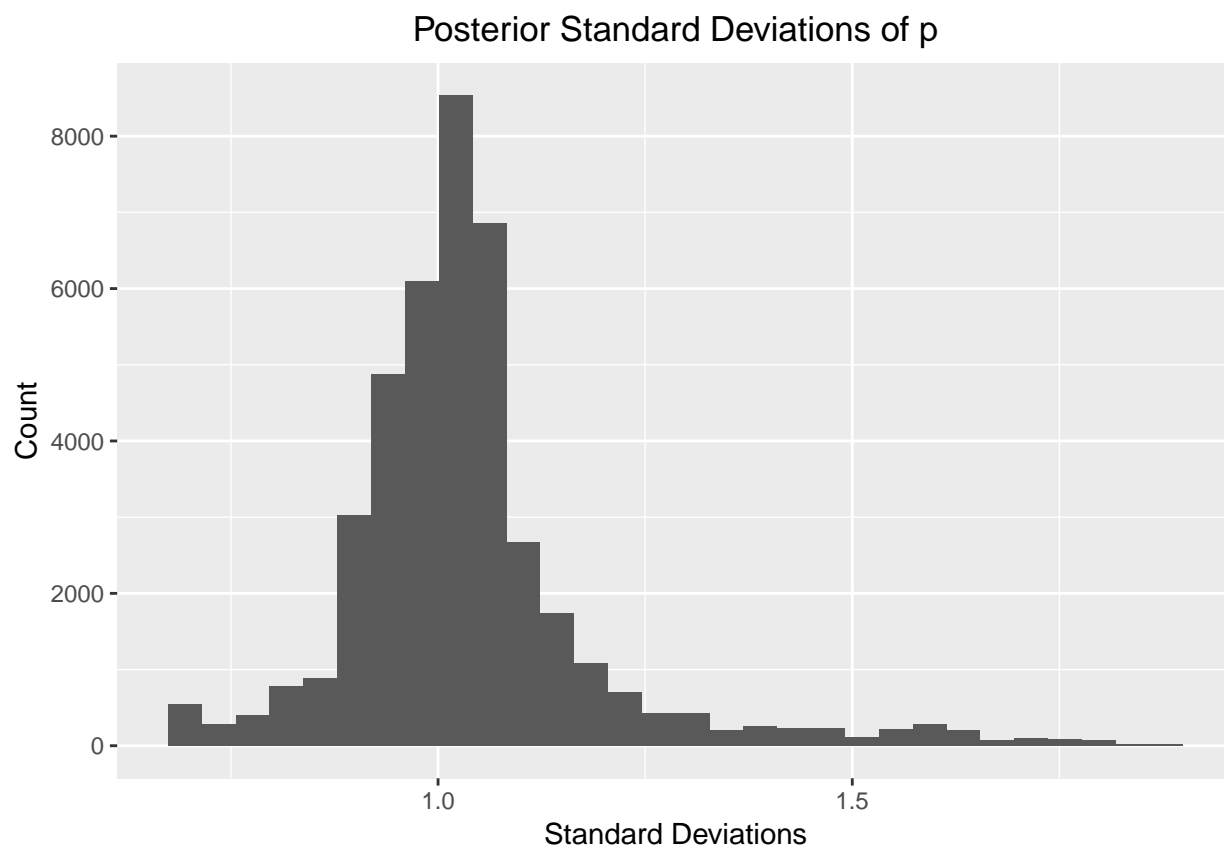
```
## [1] "      "
```



```
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```



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```



Histograms for β values and w , and z posterior means across chains.