

Prior V posterior

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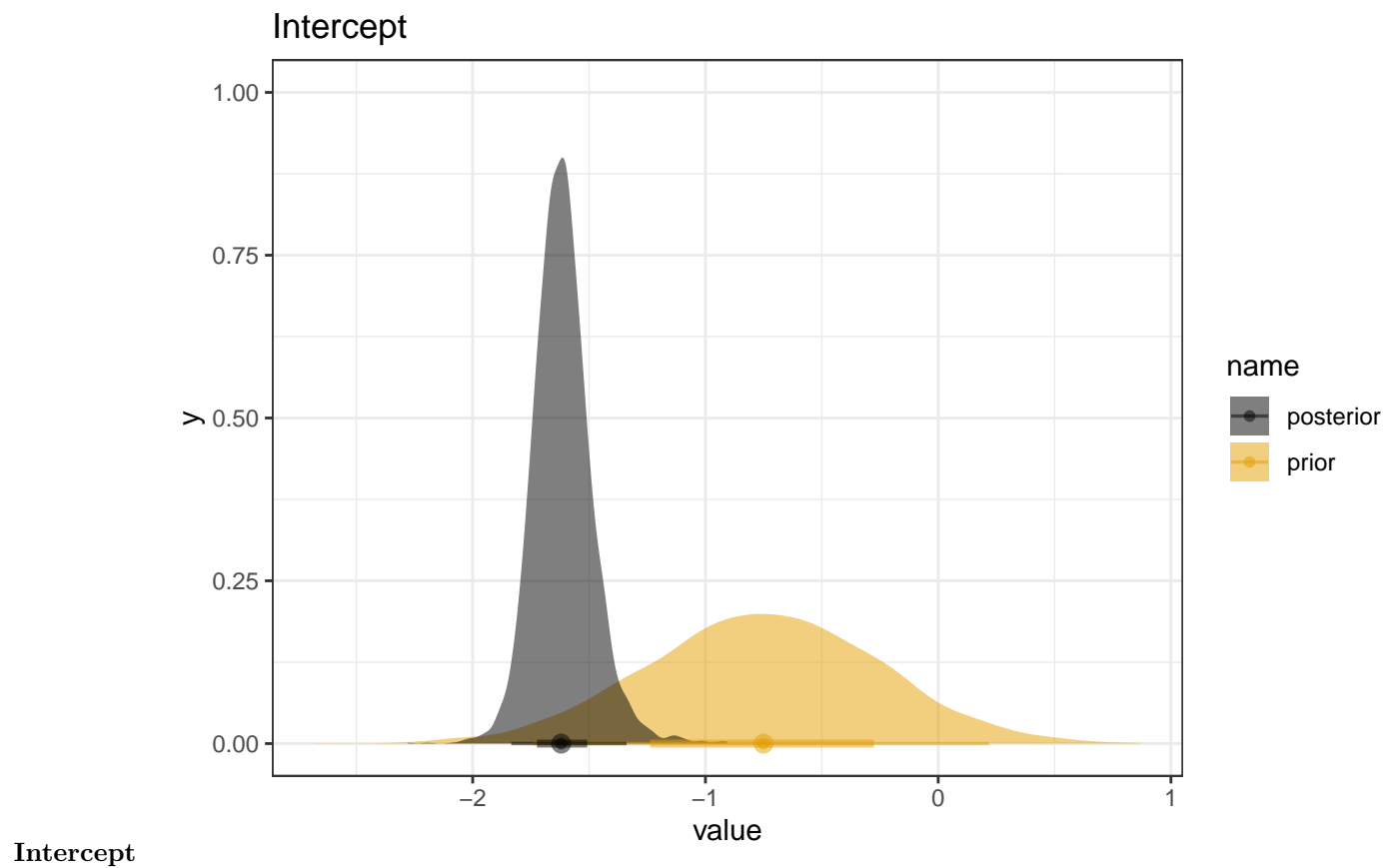
2025-05-30

Supplemental Information: Prior vs. Posterior

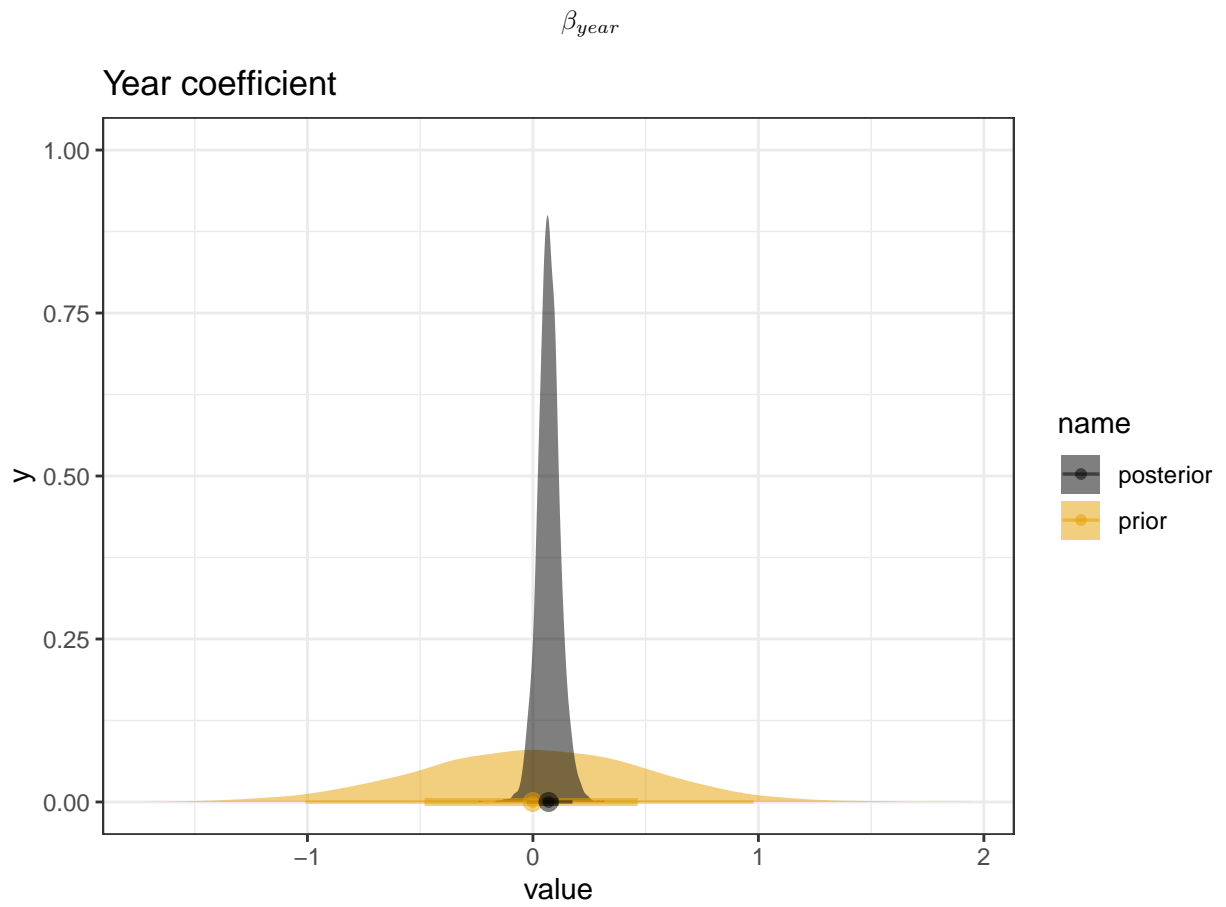
The following document shows the prior and posterior distributions for all model parameters

Fixed effect parameters

```
prior_post_plot(prior_Intercept, Intercept, "Intercept")
```

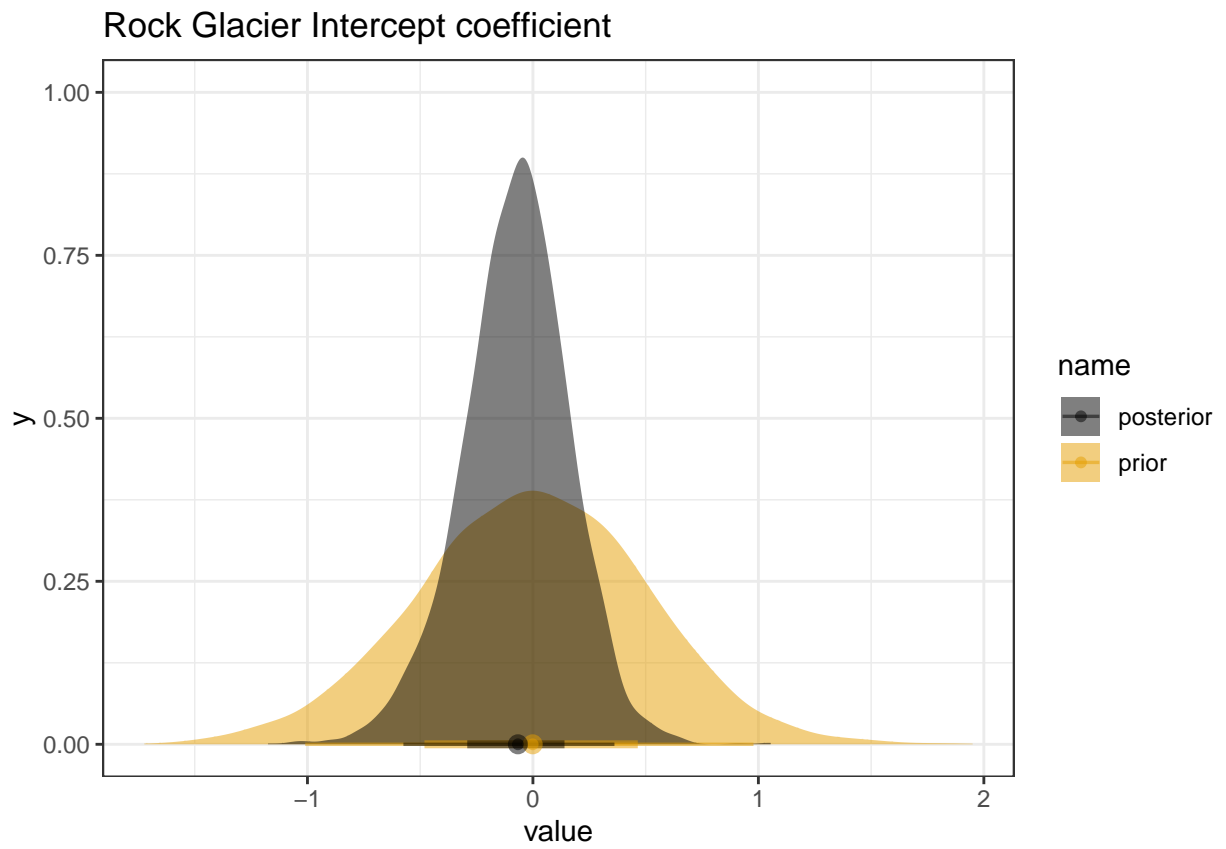


```
prior_post_plot(prior_b, b_year_s, "Year coefficient")
```



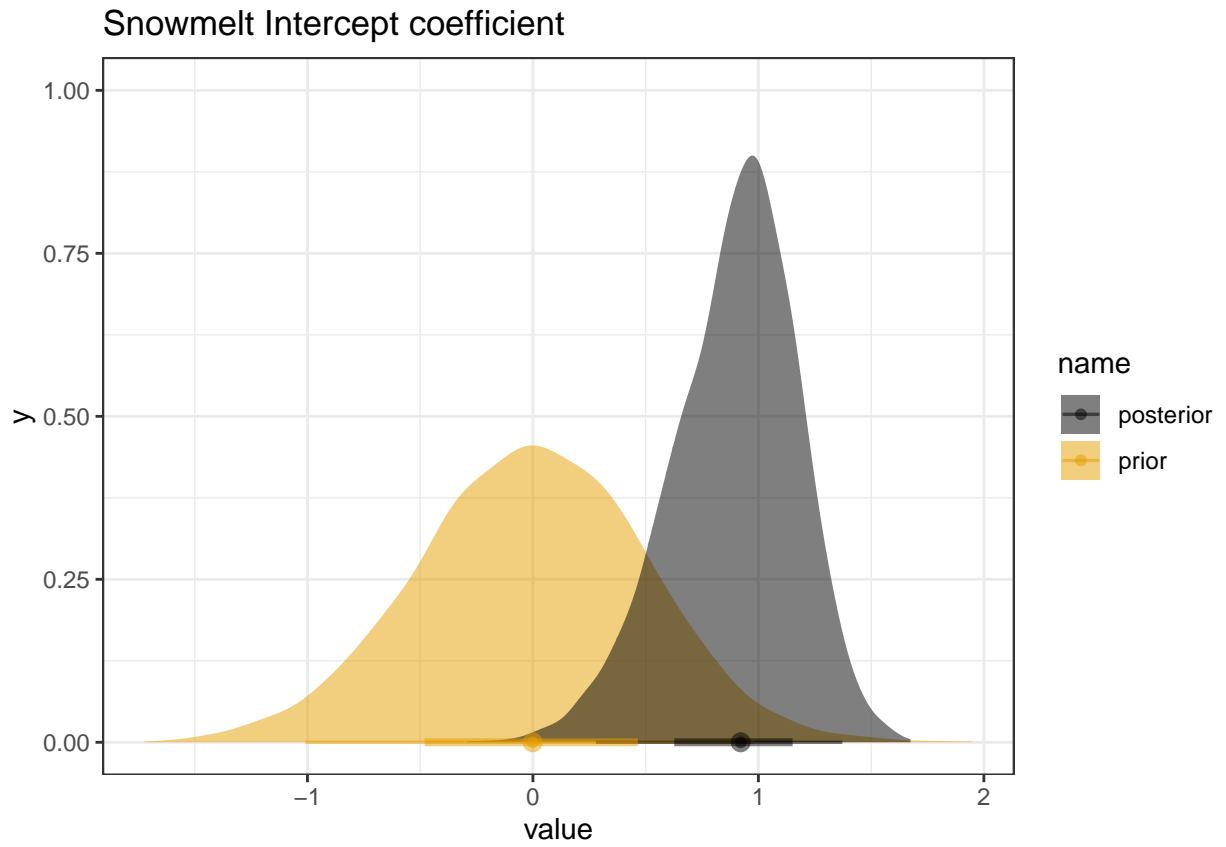
```
prior_post_plot(prior_b, b_sourcerock_glacier, "Rock Glacier Intercept coefficient")
```

$\beta_{rockglacier}$



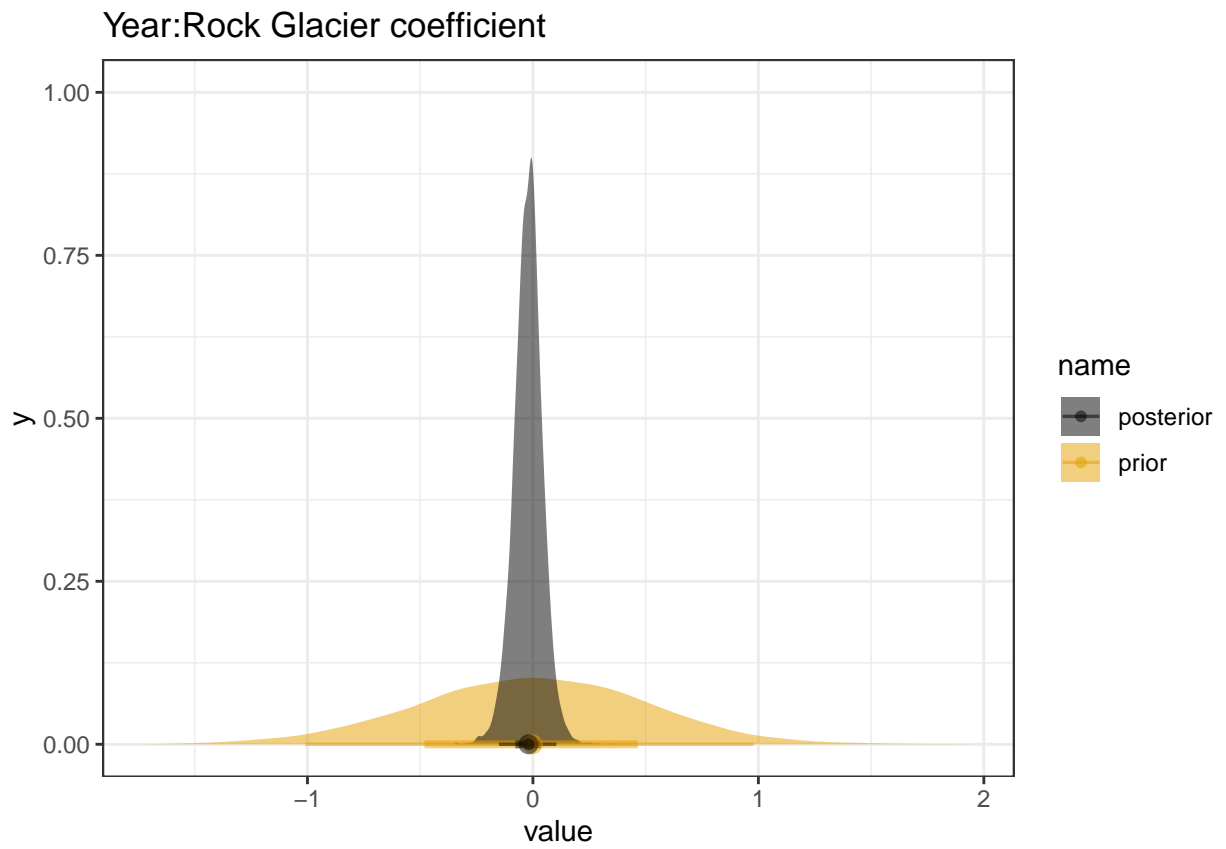
```
prior_post_plot(prior_b, b_sourcесnowmelt, "Snowmelt Intercept coefficient")
```

$\beta_{snowfield}$



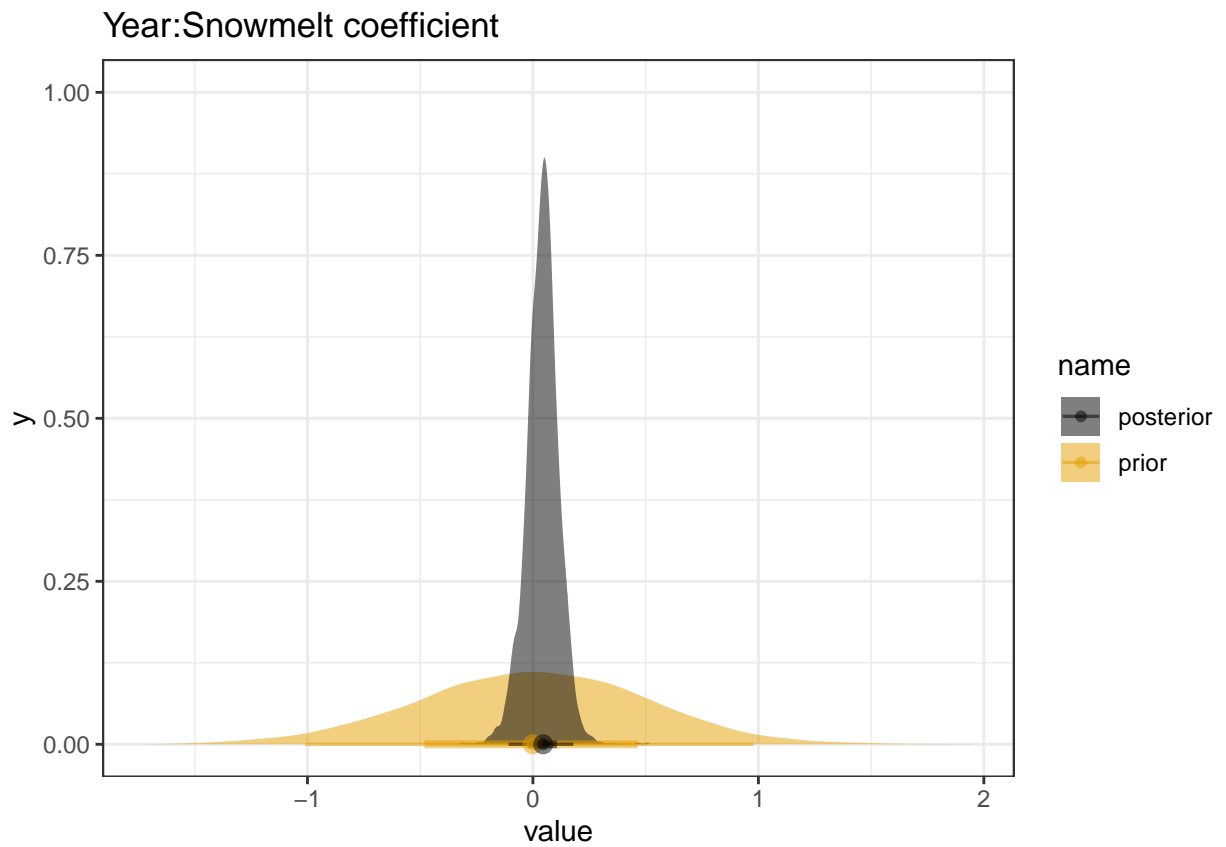
```
prior_post_plot(prior_b, `b_year_s:sourcerock_glacier`, "Year:Rock Glacier coefficient")
```

$\beta_{year,ockglacier}$



```
prior_post_plot(prior_b, `b_year_s:sourcesnowmelt`, "Year:Snowmelt coefficient")
```

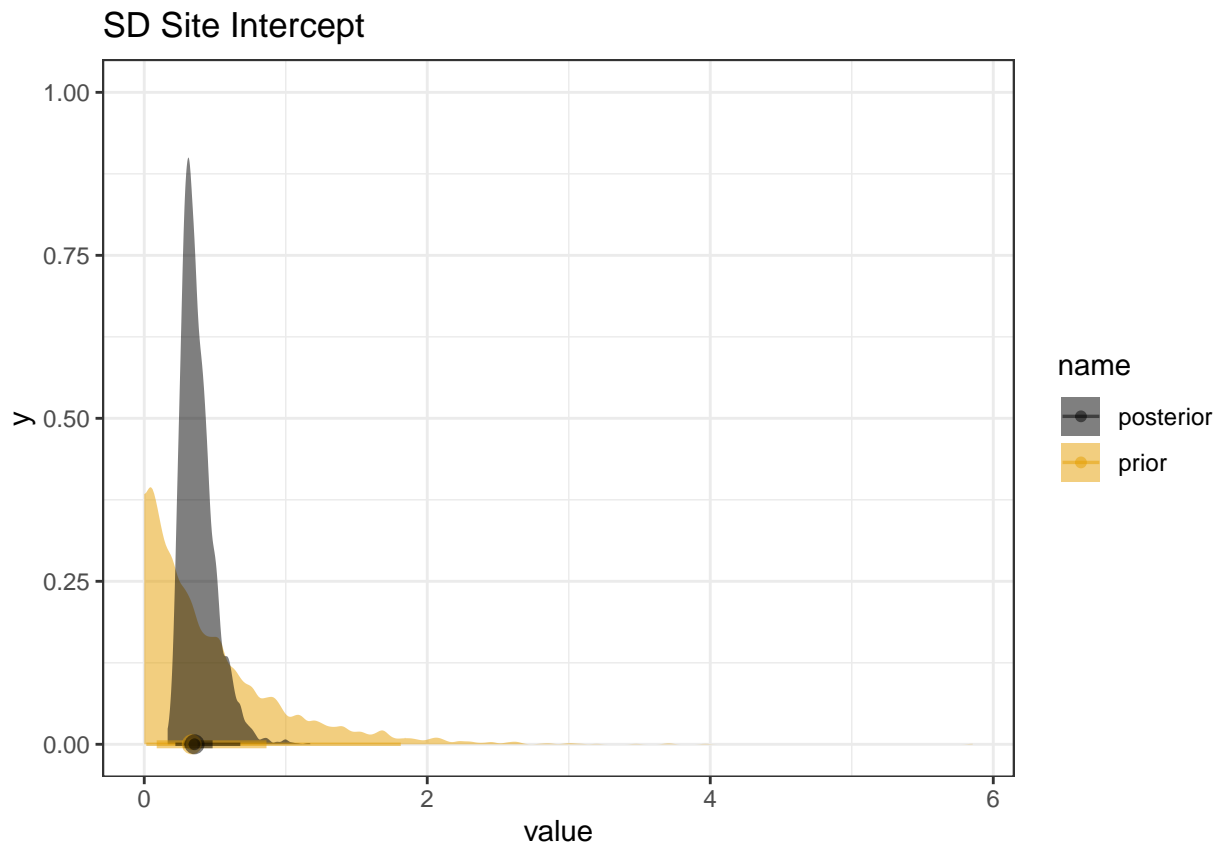
$$\beta_{year_s now field}$$



Standard Deviations

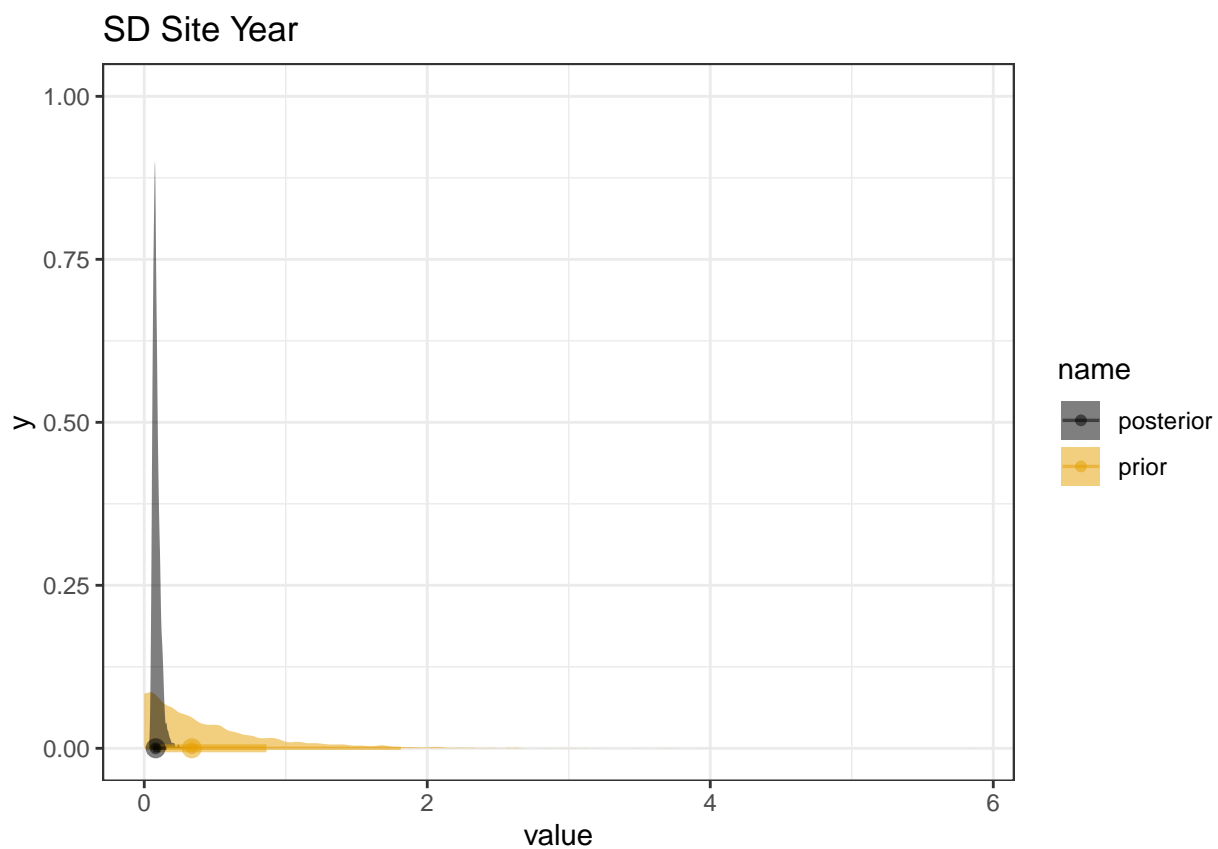
```
prior_post_plot(prior_sd_site, sd_site__Intercept, "SD Site Intercept")
```

$\sigma_{\text{SiteIntercept}}$



```
prior_post_plot(prior_sd_site, sd_site__year_s, "SD Site Year")
```

$\sigma_{SiteYear}$



```
prior_post_plot(prior_cor_site, cor_site__Intercept__year_s, "Correlation of Site intercept and Year slope")
```

$\rho_{SiteYear}$

Correlation of Site intercept and Year slope

