

- $k$  is always lies between 0 and 1 so  $\hat{u}_j \leq \bar{r}_j$
- For large  $n_j$ ,  $k$  will be close to 1 and so  $\hat{u}_j$  will be close to  $\bar{r}_j$
- $k$  also close to 1 when  $\hat{\sigma}_e^2$  small relative to  $\hat{\sigma}_u^2$
- Greater shrinkage ( $k$  closer to zero) when  $n_j$  small or  $\hat{\sigma}_e^2$  is large relative to  $\hat{\sigma}_u^2$  (high within-group variability), i.e. when we have little information about the group. Then the group mean  $\hat{\beta}_0 + \hat{u}_j$  is pulled towards the overall mean  $\hat{\beta}_0$