

Linear model assumptions

Three of five

1. Linear relation between the response y and predictor x :

$$y_i = \alpha + \beta x_i + u_i$$

2. The sample $[y_i, x_i]$ is a random sample of the population

3. The errors (u_i) have zero mean when conditioned on x

$$E(u | x) = 0$$

OLS estimates $\hat{\alpha}$ and $\hat{\beta}$ are unbiased

Linear model assumptions

Two more

