Linear model assumptions

By popular demand, a quick recap

- Linear models make some assumptions on the data we are modeling
- Deviations from these assumptions are not fatal, but understanding what each assumption implies helps us to interpret the deviations

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

$$E(u \mid x) = 0$$