

Chapter 15: Multiple Regression.

15.1: Multiple Regression Model.

→ Model: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p + \epsilon$.

When $X_1 = x_1$, $X_2 = x_2$, $X_p = x_p$.

↳ Multiple linear Regression Model.
(Multiple Regression Model).

→ Multiple linear Regression Equation (Multiple Regression Equation).

$$E(Y) = \hat{\beta}_0 + \hat{\beta}_1 X_1 + \dots + \hat{\beta}_p X_p.$$

→ Estimated multiple linear Regression Equation (Estimate multiple Regression Equation).

$$\hat{y} = b_0 + b_1 X_1 + \dots + b_p X_p.$$

→ b_0, \dots, b_p estimates for β_0, \dots, β_p .