

































































# Definitions

✦ **Average Bias:**

$$\%Bias = 100 \times \frac{1}{n} \sum \frac{y_i - \hat{y}}{\hat{y}}$$

✦ **Pearson R<sup>2</sup>:** Pearson product-moment correlation squared (between actual and estimated costs), which is the percentage of variation in actual costs that is explained by the CER.

$$R^2 = \left[ \frac{n \sum y_i f(x_i) - \sum y_i \sum f(x_i)}{\sqrt{n \sum y_i^2 - (\sum y_i)^2} \sqrt{n \sum f(x_i)^2 - (\sum f(x_i))^2}} \right]^2$$

✦ **SPE:** Standard Percent Error. For  $n$  data points and  $m$  estimated coefficients,

$$SPE = 100 \times \sqrt{\frac{1}{(n-m)} \sum_{i=1}^n \left( \frac{y_i - \hat{y}}{\hat{y}} \right)^2}$$