

# Introduction to Statistical Modeling MSDS 598

More  
Linear Regression

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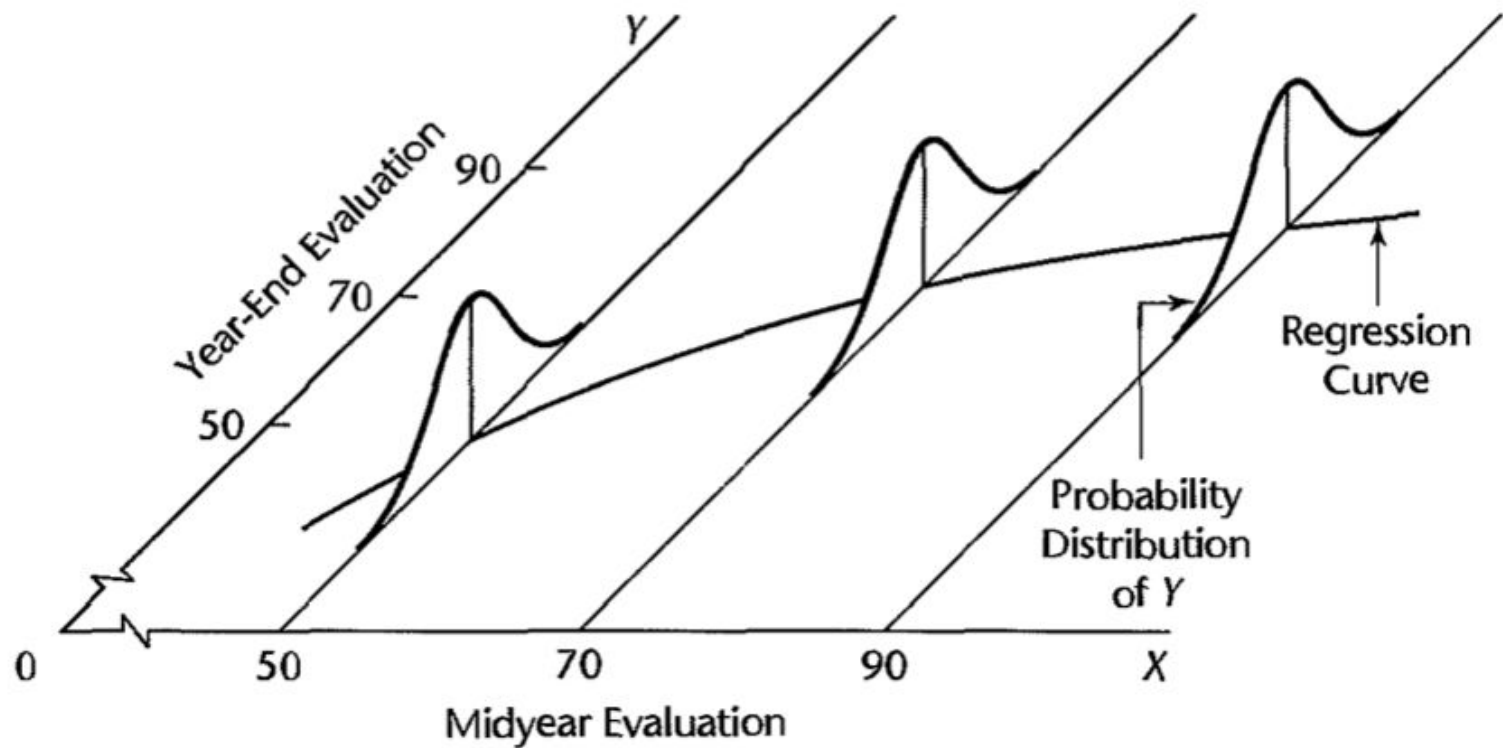
# Last Time

- Linear Regression by Least Squares:
  - Find  $\beta_0, \beta_1$  that minimizes the Residual Sum of Squares
- We can evaluate our model using the  $R^2$  statistic.

$$R^2 = \frac{TSS - RSS}{TSS}$$

$$TSS = \sum_{i=1}^N (y_i - \bar{y})^2$$

Total Sum of Squares



From Applied Linear Statistical Models by  
Kutner, Nachtsheim, Neter, Li