Linear Regression for Business Statistics

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$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots + \beta_k X_k + error$$

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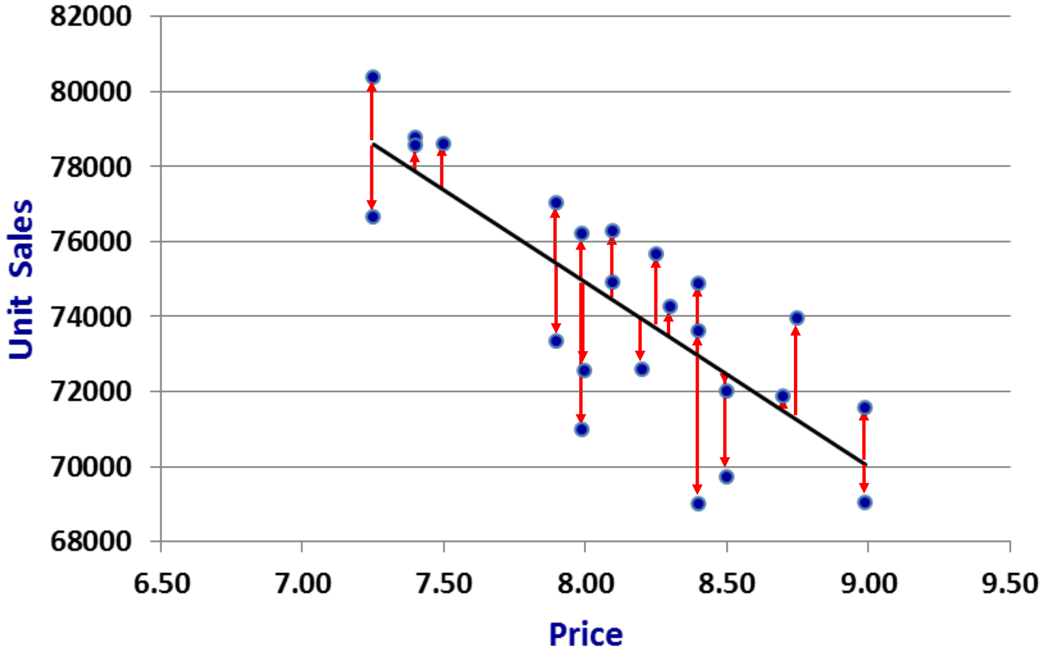

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Some important results…

$$\frac{b_0 - \beta_0}{s_{b_0}} \sim t_{n-k-1}$$

n = number of observations

k = number of “X” variables

n-k-1 = residual degrees of freedom

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These results enable us to…,

- ***test stability and precision of coefficients***
- ***conduct hypothesis testing in a regression***

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A note on notations…

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