2.6 The Least-Squares Regression Line (Part 1)

A good regression line makes the residuals as small as possible so that the predicted values are close to the actual values. For this reason, statisticians prefer using the **least-squares regression line**.

Use the website (highschool.bfwpub.com/spa3e) to calculate the least-squares regression line.

Click on *Two Quantitative Variables*, and after entering your information, press *Begin Analysis* and then find the "Calculate Least-Squares Regression Line" to get your equation.

Example: The following table shows the foot length (in centimeters) and the height (in centimeters) for a random sample of six high school seniors. Use technology to calculate the least-squares regression line for predicting height from foot length.

Foot length (cm)	Height (cm)	Foot length (cm)	Height (cm)
23	167	28	163
32	188	28	185
22	150	23	155

$\hat{y} = 82 + 3.308x$