

Practice: Exploring Least Squares

Open the **Demonstrate Regression** teaching module, which was shown in the previous video. Use the default population characteristics. One sample was drawn using these characteristics.

- 1. To open the **Demonstrate Regression** teaching module, do the following:
 - a. Select **Sample Data** on the Help menu in JMP.
 - b. Under Teaching Resources, open the **Teaching Scripts** outline, and then open the **Interactive Teaching Modules** outline.
 - c. Select **Demonstrate Regression** in the list.
- 2. Select Fit My Line and Show My Squares from the red triangle next to Sample Data, and use the grabbers to reposition the line. Try to find the line that results in the lowest SSE. If you click and miss the grabber, points will be added to the plot. If this happens, select Revert to Original to reset the original data points.
- 3. From the red triangle, select **Fit LS Line**.

How good is your line relative to the least squares line? Are you able to find a line of fit that has a lower SSE than the least squares line?

You might be able to get close to the least squares line. However, you won't be able to do better than the least squares line. The least squares line is the line that, by definition, results in the lowest sum of squared errors.

Hide Solution

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