

WHAT HAVE WE LEARNED?

We've learned that when the conditions for linear regression are not met, a simple re-expression of the data may help. There are several reasons to consider a re-expression:

- ◆ To make the distribution of a variable more symmetric (as we saw in Chapter 4)
- ◆ To make the spread across different groups more similar
- ◆ To make the form of a scatterplot straighter
- ◆ To make the scatter around the line in a scatterplot more consistent

We've learned that when seeking a useful re-expression, taking logs is often a good, simple starting point. To search further, the Ladder of Powers or the log-log approach can help us find a good re-expression.

We've come to understand that our models won't be perfect, but that re-expression can lead us to a useful model.

TERMS

Re-expression

Ladder of Powers

ON THE COMPUTER

Re-expression

Computers and calculators make it easy to re-express data. Most statistics packages offer a way to re-express and compute with variables. Some packages permit you to specify the power of a re-expression with a slider or other moveable control, possibly while watching the consequences of the re-expression on a plot or analysis. This, of course, is a very effective way to find a good re-expression.