Stats Video Lectures – Transforming Data

Week 1, Video 10

1. Define transformations
   1. a transformation is the rescaling of data using a function
   2. when data are strongly skewed, it is transformed to make modeling easier
2. Common Transformation
   1. natural log transformations
      1. applied when much of the data clusters near zero relative to larger values
      2. applied when all observations are positive
      3. natural log can be applied to both the x variable and the response variable to make the model more linear thus easier to manipulate manually
   2. Square root transformation
      1. linearizes the data
   3. inverse transformation
      1. linearizes the data and creates a positive association
      2. 1/*var*
3. Goals of transformation
   1. see data structure differently
   2. reduce skew to assist in modeling
   3. straighten a non linear relationship to use linear modeling methods