Andrew J. Spieker, PhD BIOS 6312 - Modern Regression Analysis

Documentation: fev.csv

Much of the data to support this claim that smoking tends to impair lung function arises from studies of pulmonary function in adults who are long-time smokers. A question then arises as to whether similar effects can be detected in children who smoke. To address this question, lung function was measured in 654 children seen for a routine checkup in a particular pediatric clinic. The study subjects were asked whether they were current smokers.

Forced expiratory volume (FEV) measures the volume of air you can blow out of your lungs in a short period of time; a higher value is usually associated with better respiratory function. It is well known that prolonged smoking diminishes FEV in adults, and those adults with diminished FEV also tend to have decreased pulmonary function as measured by other clinical variables, (e.g., blood oxygen and carbon dioxide levels).

The data set fev.csv contains the data in free field format. Each row corresponds to a single clinic visit. The first line of the file contains the variable names.

seqnbr	case number (the numbers 1 to 654)
subjid	subject identification number (unique for each different child)
age	subject age at time of measurement (years)
fev	measured FEV (liters per second)
height	subject height at time of measurement (inches)
sex	subject sex $(1 = \text{male}, 2 = \text{female})$
smoke	smoking habits $(1 = yes, 2 = no)$