Lab Notes

Chapter 6

OpenIntro Biostatistics

Overview

1. Examining Scatterplots
   - *OI Biostat* Section 6.1
2. Introduction to Least Squares Regression
   - *OI Biostat* Sections 6.2 and 6.3.1
3. Understanding R^2
   - *OI Biostat* Section 6.3.2
4. Categorical Predictors with Two Levels and Inference in Regression
   - *OI Biostat* Sections 6.3.3 and 6.4

Lab 1 introduces the idea of using a straight line to summarize data that exhibit an approximately linear relationship and the mechanics of fitting and interpreting a line of best fit.

Lab 2 formally introduces the statistical model for least squares regression and discusses the residual plots used to assess the assumptions for linear regression.

Lab 3 explores the idea behind the quantity R^2 by sampling observations according to a population regression model with known parameters.

Lab 4 discusses the use of binary categorical predictor variables and the extension of statistical inference to a regression context.

Lab 1: Examining Scatterplots

Lab 2: Introduction to Least Squares Regression

Lab 3: Understanding R^2

Lab 4: Categorical Predictors with Two Levels and Inference in Regression