

Look at your Data Carefully: Tables and Graphs with R

Vikram Dayal and Yateendra Joshi

Abstract

The Internet and digital publishing offer unprecedented access to masses of data of all kinds not only to academics and researchers but also to the general public. But mere access means little, unless users can make sense of the data and, having done that, communicate the findings effectively—which is where this book will make a difference. It is to this end that the book is divided into two sections. The first section enables users to view tables and graphs from the perspective of the information designer—who focuses on usability and efficiency and not merely cosmetics: What are the parts of a typical table and of a graph and how should they be designed? What works and what does not, and why? This section also provides examples of tables and different kinds of graphs, drawn from a variety of academic disciplines and everyday statistics and, more important, teaches, step by step, how to create such graphs using R. The second section, mainly inspirational, presents some key examples from the ‘masters’ with detailed comments: Ehrenberg’s pointed suggestions for improving tables, Edward Tufte’s ideas on combining text and graphs, William Cleveland’s searching examination of the structure of data and graphs, Howard Wainer’s focus on graphs for discovery, and Andrew Gelman’s insistence on graphs to understand models.