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Samples; 6.2 Margin of Error: Sampling Distribution for a Proportion; 6.3 Sampling Distribution for a Mean; 6.4 A Shortcut-the Bootstrap; 6.5 Beyond Simple Random Sampling; 6.6 Absolute Versus Relative Sample Size; 6.7 Exercises; Chapter 7 Confidence Intervals; 7.1 Point Estimates; 7.2 Interval Estimates (Confidence Intervals); 7.3 Confidence Interval for a Mean
7.4 Formula-Based Counterparts to the Bootstrap7.5 Standard Error; 7.6 Confidence Intervals for a Single Proportion; 7.7 Confidence Interval for a Difference in Means; 7.8 Confidence Interval for a Difference in Proportions; 7.9 Recapping; Appendix A: More on the Bootstrap; Resampling Procedure-Parametric Bootstrap; Formulas and the Parametric Bootstrap; Appendix B: Alternative Populations; Appendix C: Binomial Formula Procedure; 7.10 Exercises; Chapter 8 Hypothesis Tests; 8.1 Review of Terminology; 8.2 A-B Tests: The Two Sample Comparison; 8.3 Comparing Two Means
8.4 Comparing Two Proportions8.5 Formula-Based Alternative-t-Test for Means; 8.6 The Null and Alternative Hypotheses; 8.7 Paired Comparisons; Appendix A: Confidence Intervals Versus Hypothesis Tests; Confidence Interval; Relationship Between the Hypothesis Test and the Confidence Interval; Comment; Appendix B: Formula-Based Variations of Two-Sample Tests; Z-Test With Known Population Variance; Pooled Versus Separate Variances; Formula-Based Alternative: Z-Test for Proportions; 8.8 Exercises; Chapter 9 Hypothesis Testing-2; 9.1 A Single Proportion; 9.2 A Single Mean
9.3 More Than Two Categories or Samples

Sommario/riassunto

"Developed by the founder of Statistics.com, one of the first online e-learning companies in the discipline, and class-tested there for over ten years, this intuitive book provides a brief but essential introduction to statistics for those with little or no prior exposure to basic probability and statistics. Its simulation/resampling approach (drawing numbers or data from a hat) demystifies traditional formulas and demonstrates the fundamental basis for statistical inference. Topics covered include probability, the Normal distribution, hypothesis testing, independence, conditional probability, Bayes Rule, 2-way tables, random sampling, and confidence intervals. Special connections to statistical distance, recommender systems, predictive modeling, and general analytics are systematically woven throughout the text. The aim is to apply statistically valid designs to basic studies, and test hypotheses regarding proportions and means. The goal is real understanding, not cookbook learning. Even the most anxious novice (as well as the expert) will benefit. The book meets all of the Guidelines for Assessment and Instruction in Statistics Education (GAISE) for the introductory statistics course, as developed in 2005 by a group of noted educators and with funding from the American Statistical Association. Excel and StatCrunch are the software systems of choice. R subroutines are available on an author-maintained web site. The book is available in print and online"--
"This book provides a brief but essential introduction to statistics for those with little or no prior exposure to basic probability and statistics. Topics covered include probability, the Normal distribution, hypothesis testing, independence, conditional probability, Bayes Rule, 2-way tables, random sampling, and confidence intervals"--