

Changes in This Edition

As in previous editions, this twelfth edition includes a substantial revision of examples, exercises, and Chapter Problems, as shown in the following table:

	Number	New to This Edition	Use Real Data
Exercises	1851	85% (1582)	89% (1640)
Examples	227	84% (191)	91% (206)
Chapter Problems	14	100% (14)	100% (14)

Organization

New Section Section 15-1: “Ethics in Statistics,” discusses ethics in data collection, analysis, and reporting, as well as samples of ethical guidelines that have been established by various organizations.

Combined Sections

- The 11th edition Section 1-2 (“Statistical Thinking”) and Section 1-4 (“Critical Thinking”) have been combined into one section in this 12th edition:

Section 1-2 Statistical and Critical Thinking

- The 11th edition Section 2-4 (“Statistical Graphics”) and Section 2-5 (“Critical Thinking: Bad Graphs”) have been combined into one section in this 12th edition:

Section 2-4 Graphs That Enlighten and Graphs That Deceive

- The 11th edition Section 7-3 (“Estimating a Population Mean: σ Known”) and Section 7-4 (“Estimating a Population Mean: σ Not Known”) have been combined into one section in this 12th edition:

Section 7-3 Estimating a Population Mean

This change is motivated by two factors: (1) Technology makes use of the t distribution relatively simple, and (2) professional statisticians almost never use the normal distribution when constructing confidence interval estimates of population means.

- The 11th edition Section 8-4 (“Testing a Claim About a Mean: σ Known”) and Section 8-5 (“Testing a Claim About a Mean: σ Not Known”) have been combined into one section in this 12th edition:

Section 8-4 Testing a Claim About a Mean

This change is motivated by two factors: (1) Technology makes use of the t distribution relatively simple, and (2) professional statisticians almost never use the normal distribution when testing claims about a population mean.

- Section 11-4 (“McNemar’s Test for Matched Pairs”) in the 11th edition has been moved to Part 2 of Section 11-3 in this 12th edition.

Switched Sections Sections 6-6 and 6-7 from the previous edition have been switched so that Section 6-6 is now “Assessing Normality” and Section 6-7 is now “Normal as Approximation to Binomial.” This change is motivated by the widespread availability of technology that facilitates methods for assessing normality, while the same technology has diminished the importance of using a normal approximation for a binomial distribution.

Moved to CD Section 4-6 (“Probabilities Through Simulations”) in the 11th edition has been moved from the text to the CD that is included with this book. Section 4-7 (“Counting”) from the 11th edition now becomes Section 4-6 in this 12th edition.