

PREFACE TO "COLLABORATIVE STATISTICS"*

Susan Dean
Barbara Illowsky, Ph.D.

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Abstract

This module introduces the Connexions online textbook "Collaborative Statistics" by Barbara Illowsky and Susan Dean.

Welcome to *Collaborative Statistics*, presented by Connexions. The initial section below introduces you to Connexions. If you are familiar with Connexions, please skip to About "Collaborative Statistics." (Section 1: About Connexions)

1 About Connexions

Connexions Modular Content

Connexions (cnx.org¹) is an online, **open access** educational resource dedicated to providing high quality learning materials free online, free in printable PDF format, and at low cost in bound volumes through print-on-demand publishing. The *Collaborative Statistics* textbook is one of many **collections** available to Connexions users. Each **collection** is composed of a number of re-usable learning **modules** written in the Connexions XML markup language. Each module may also be re-used (or 're-purposed') as part of other collections and may be used outside of Connexions. Including *Collaborative Statistics*, Connexions currently offers over 6500 modules and more than 350 collections.

The modules of *Collaborative Statistics* are derived from the original paper version of the textbook under the same title, *Collaborative Statistics*. Each module represents a self-contained concept from the original work. Together, the modules comprise the original textbook.

Re-use and Customization

The Creative Commons (CC) Attribution license² applies to all Connexions modules. Under this license, any module in Connexions may be used or modified for any purpose as long as proper attribution to the original author(s) is maintained. Connexions' authoring tools make re-use (or re-purposing) easy. Therefore, instructors anywhere are permitted to create customized versions of the *Collaborative Statistics* textbook by editing modules, deleting unneeded modules, and adding their own supplementary modules. Connexions' authoring tools keep track of these changes and maintain the CC license's required attribution to the original authors. This process creates a new collection that can be viewed online, downloaded as a single PDF file,

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¹<http://cnx.org/>

²<http://creativecommons.org/licenses/by/2.0/>

or ordered in any quantity by instructors and students as a low-cost printed textbook. To start building custom collections, please visit the help page, “Create a Collection with Existing Modules”³. For a guide to authoring modules, please look at the help page, “Create a Module in Minutes”⁴.

Read the book online, print the PDF, or buy a copy of the book.

To browse the *Collaborative Statistics* textbook online, visit the collection home page at cnx.org/content/col10522/latest⁵. You will then have three options.

1. You may obtain a PDF of the entire textbook to print or view offline by clicking on the “Download PDF” link in the “Content Actions” box.
2. You may order a bound copy of the collection by clicking on the “Order Printed Copy” button.
3. You may view the collection modules online by clicking on the “Start »” link, which takes you to the first module in the collection. You can then navigate through the subsequent modules by using their “Next »” and “Previous »” links to move forward and backward in the collection. You can jump to any module in the collection by clicking on that module’s title in the “Collection Contents” box on the left side of the window. If these contents are hidden, make them visible by clicking on “[show table of contents]”.

Accessibility and Section 508 Compliance

- For information on general Connexions accessibility features, please visit <http://cnx.org/content/m17212/latest/>⁶.
- For information on accessibility features specific to the *Collaborative Statistics* textbook, please visit <http://cnx.org/content/m17211/latest/>⁷.

Version Change History and Errata

- For a list of modifications, updates, and corrections, please visit <http://cnx.org/content/m17360/latest/>⁸.

Adoption and Usage

- The *Collaborative Statistics* collection has been adopted and customized by a number of professors and educators for use in their classes. For a list of known versions and adopters, please visit <http://cnx.org/content/m18261/latest/>⁹.

2 About “Collaborative Statistics”

Collaborative Statistics was written by Barbara Illowsky and Susan Dean, faculty members at De Anza College in Cupertino, California. The textbook was developed over several years and has been used in regular and honors-level classroom settings and in distance learning classes. Courses using this textbook have been articulated by the University of California for transfer of credit. The textbook contains full materials for course offerings, including expository text, examples, labs, homework, and projects. A Teacher’s Guide is currently available in print form and on the Connexions site at <http://cnx.org/content/col10547/latest/>¹⁰, and supplemental course materials including additional problem sets and video lectures are available at <http://cnx.org/content/col10586/latest/>¹¹. The on-line text for each of these collections will meet the Section 508 standards for accessibility.

³<http://cnx.org/help/CreateCollection>

⁴<http://cnx.org/help/ModuleInMinutes>

⁵*Collaborative Statistics* <<http://cnx.org/content/col10522/latest/>>

⁶“Accessibility Features of Connexions” <<http://cnx.org/content/m17212/latest/>>

⁷“Collaborative Statistics: Accessibility” <<http://cnx.org/content/m17211/latest/>>

⁸“Collaborative Statistics: Change History” <<http://cnx.org/content/m17360/latest/>>

⁹“Collaborative Statistics: Adoption and Usage” <<http://cnx.org/content/m18261/latest/>>

¹⁰*Collaborative Statistics Teacher’s Guide* <<http://cnx.org/content/col10547/latest/>>

¹¹*Collaborative Statistics: Supplemental Course Materials* <<http://cnx.org/content/col10586/latest/>>

An on-line course based on the textbook was also developed by Illowsky and Dean. It has won an award as the best on-line California community college course. The on-line course will be available at a later date as a collection in Connexions, and each lesson in the on-line course will be linked to the on-line textbook chapter. The on-line course will include, in addition to expository text and examples, videos of course lectures in captioned and non-captioned format.

The original preface to the book as written by professors Illowsky and Dean, now follows:

This book is intended for introductory statistics courses being taken by students at two- and four-year colleges who are majoring in fields other than math or engineering. Intermediate algebra is the only prerequisite. The book focuses on applications of statistical knowledge rather than the theory behind it. The text is named *Collaborative Statistics* because students learn best by **doing**. In fact, they learn best by working in small groups. The old saying “two heads are better than one” truly applies here.

Our emphasis in this text is on four main concepts:

- thinking statistically
- incorporating technology
- working collaboratively
- writing thoughtfully

These concepts are integral to our course. Students learn the best by actively participating, not by just watching and listening. Teaching should be highly interactive. Students need to be thoroughly engaged in the learning process in order to make sense of statistical concepts. *Collaborative Statistics* provides techniques for students to write across the curriculum, to collaborate with their peers, to think statistically, and to incorporate technology.

This book takes students step by step. The text is interactive. Therefore, students can immediately apply what they read. Once students have completed the process of problem solving, they can tackle interesting and challenging problems relevant to today’s world. The problems require the students to apply their newly found skills. In addition, technology (TI-83 graphing calculators are highlighted) is incorporated throughout the text and the problems, as well as in the special group activities and projects. The book also contains labs that use real data and practices that lead students step by step through the problem solving process.

At De Anza, along with hundreds of other colleges across the country, the college audience involves a large number of ESL students as well as students from many disciplines. The ESL students, as well as the non-ESL students, have been especially appreciative of this text. They find it extremely readable and understandable. *Collaborative Statistics* has been used in classes that range from 20 to 120 students, and in regular, honor, and distance learning classes.

Susan Dean

Barbara Illowsky