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高等院校双语教学适用教材·经济学

Basic Statistics for Business & Economics

Eighth Edition

Douglas A. Lind
William G. Marchal
Samuel A. Wathen

第8版

商务与经济统计学

(美) 道格拉斯·A.林德 威廉·G.马夏尔 塞缪尔·A.沃森 著
王维国 译注

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Basics Statistics for Business & Economics
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出版者的话

当前，在教育部的的大力倡导下，财经和管理类专业的双语教学在我国各大高校已经逐步开展起来。一些双语教学开展较早的院校积累了丰富的经验，同时也发现了教学过程中存在的一些问题，尤其对教材提出了更高的要求；一些尚未进入这一领域的院校，也在不断探索适于自身的教学方式和方法以及适用的教材，以期时机成熟时加入双语教学的行列。总之，对各类院校而言，能否找到“适用”的教材都成为双语教学成功与否的关键因素之一。

然而，国外原版教材为国外教学量身定做的一些特点，如普遍篇幅较大、侧重于描述性讲解、辅助材料（如习题、案例、延伸阅读材料等）繁杂，尤其是许多内容针对性太强，与所在国的法律结构和经济、文化背景结合过于紧密等，却显然不适于国内教学采用，并成为制约国内双语教学开展的重要原因。因此，对国外原版教材进行本土化的精简改编，使之变成更加“适用”的双语教材，已然迫在眉睫。

东北财经大学出版社作为国内较早涉足引进版教材的一家专业出版社，秉承自己一贯服务于财经教学的宗旨，总结自身多年的出版经验，同麦格劳—希尔教育出版公司、培生教育出版集团和圣智出版集团等国外著名出版公司通力合作，在国内再次领先推出了会计、工商管理、经济学等专业的“高等院校双语教学适用教材”。这套丛书的出版经过了长时间的酝酿和筛选，编选人员本着“品质优先、首推名作”的选题原则，既考虑了目前我国财经教育的现状，也考虑了我国财经高等教育所具有的学科特点和需求指向，在教材的遴选、改编和出版上突出了以下一些特点：

- 优选权威的最新版本。入选改编的教材是在国际上多次再版的经典之作的最新版本，其中有些教材的以前版本已在国内部分高校中进行了试用，获得了一致的好评。
- 改编后的教材在保持英文原版教材特色的基础上，力求内容精要，逻辑严密，适合中国的双语教学。选择的改编人员既熟悉原版教材内容，又具有本书或本门课程双语教学的经验。
- 改编后的教材配有丰富的辅助教学支持资源，教师可在网上免费获取。
- 改编后的教材篇幅合理，符合国内教学的课时要求，价格相对较低。

本套教材是在双语教学教材出版方面的一次新的尝试。我们在选书、改编及出版的过程中得到了国内许多高校的专家、教师的支持和指导，在此深表谢意，也期待广大读者提出宝贵的意见和建议。

尽管我们在改编的过程中已加以注意，但由于各教材的作者所处的政治、经济和文化背景不同，书中的内容仍可能有不妥之处，望读者在阅读中注意比较和甄别。

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A Note from

Over the years, we have received many compliments on this text and understand that it's a favorite among students. We accept that as the highest compliment and continue to work very hard to maintain that status.

The objective of *Basic Statistics for Business and Economics* is to provide students majoring in management, marketing, finance, accounting, economics, and other fields of business administration with an introductory survey of the many applications of descriptive and inferential statistics. We focus on business applications, but we also use many exercises and examples that relate to the current world of the college student. A previous course in statistics is not necessary, and the mathematical requirement is first-year algebra.

In this text, we show beginning students every step needed to be successful in a basic statistics course. This step-by-step approach enhances performance, accelerates preparedness, and significantly improves motivation. Understanding the concepts, seeing and doing plenty of examples and exercises, and comprehending the application of statistical methods in business and economics are the focus of this book.

The first edition of *Basic Statistics for Business and Economics* was published in 1994. In 1994, locating relevant business data was difficult. That has changed! Today, locating data is not a problem. The number of items you purchase at the grocery store is automatically recorded at the checkout counter. Phone companies track the time of our calls, the length of calls, and the identity of the person called. Credit card companies maintain information on the number, time and date, and amount of our purchases. Medical devices automatically monitor our heart rate, blood pressure, and temperature from remote locations. A large amount of business information is recorded and reported almost instantly. CNN, USA Today, and MSNBC, for example, all have websites that track stock prices with a delay of less than 20 minutes.

Today, skills are needed to deal with a large volume of numerical information. First, we need to be critical consumers of information presented by others. Second, we need to be able to reduce large amounts of information into a concise and meaningful form to enable us to make effective interpretations, judgments, and decisions. All students have calculators and most have either personal computers or access to personal computers in a campus lab. Statistical software, such as Microsoft Excel and Minitab, is available on these computers. The commands necessary to achieve the software results are available in a special section at the end of each chapter. We use screen captures within the chapters, so the student becomes familiar with the nature of the software output.

Because of the availability of computers and software, it is no longer necessary to dwell on calculations. We have replaced many of the calculation examples with interpretative ones, to assist the student in understanding and interpreting the statistical results. In addition, we now place more emphasis on the conceptual nature of the statistical topics. While making these changes, we still continue to present, as best we can, the key concepts, along with supporting interesting and relevant examples.

What's New in This Eighth Edition?

We have made changes to this edition that we think you and your students will find useful and timely.

- We have revised the learning objectives so they are more specific, added new ones, identified them in the margin, and keyed them directly to sections within the chapter.
- We have replaced the key example in Chapters 1 to 4. The new example includes more variables and more observations. It presents a realistic business situation. It is also used later in the text in Chapters 13 and 15.
- We have added or revised several new sections in various chapters:
 - Chapter 9 has been reorganized to make it more teachable and improve the flow of the topics.
 - Chapter 13 has been reorganized and includes a test of hypothesis for the slope of the regression equation.
 - Chapter 15 now includes a graphic test for normality and the chi-square test for normality.
- New exercises and examples use Excel 2010 screenshots and the latest version of Minitab. We have also increased the size and clarity of these screenshots.
- There are new Excel 2010 software commands and updated Minitab commands at the ends of chapters.
- We have carefully reviewed the exercises and added many new or revised exercises throughout. You can still find and assign your favorites that have worked well, or you can introduce fresh examples.
- Section numbers have been added to more clearly identify topics and more easily reference them.
- The exercises that contain data files are identified by an icon for easy identification.
- The Data Exercises at the end of each chapter have been revised. The baseball data has been updated to the most current completed season, 2010. A new business application has been added that refers to the use and maintenance of the school bus fleet of the Buena School District.
- There are many new photos throughout, with updated exercises in the chapter openers.

How Are Chapters Organized to

Chapter Learning Objectives

Each chapter begins with a set of learning objectives designed to provide focus for the chapter and motivate student learning. These objectives, located in the margins next to the topic, indicate what the student should be able to do after completing the chapter.

Chapter Opening Exercise

A representative exercise opens the chapter and shows how the chapter content can be applied to a real-world situation.

What Is Statistics?

Learning Objectives
When you have completed this chapter, you will be able to:

- LO 1-1 List ways that statistics is used.
- LO 1-2 Know the difference between descriptive and inferential statistics.
- LO 1-3 Understand the difference between a sample and a population.
- LO 1-4 Explain the difference between qualitative and quantitative variables.
- LO 1-5 Compare discrete and continuous variables.
- LO 1-6 Recognize the levels of measurement in data.

Barnes & Noble recently began selling an electronic book reader called the book Color. With this device, you can download from a selection of over two million classic, newspaper, and magazine e-books downloaded materials in full color. Assume you know the number of book Color units sold each day for the last month at the Barnes & Noble store at the Market Commons Mall in Waverly, California. Describe a condition in which this information could be considered to

Introduction to the Topic


Each chapter starts with a review of the important concepts of the previous chapter and provides a link to the material in the current chapter. This step-by-step approach increases comprehension by providing continuity across the concepts.

2.1 Introduction

The highly competitive automobile retailing industry in the United States has changed dramatically in recent years. These changes spurred events such as the:

- bankruptcies of General Motors and Chrysler in 2009.
- elimination of well-known brands like Pontiac and Saturn.
- closing of over 1,500 local dealerships.
- collapse of consumer credit availability.
- consolidation of dealership groups.

Traditionally, a local family owned and operated the community dealership, which might have included one or two manufacturers or brands, like Pontiac and GMC Trucks or Chrysler and the popular Jeep line. Recently, however, skillfully managed and well-financed companies have been acquiring local dealerships in large regions of the country. As these groups acquire the



Example/Solution


After important concepts are introduced, a solved example is given to provide a how-to illustration for students and to show a relevant business or economics-based application that helps answer the question, "What will I use this for?" All examples provide a realistic scenario or application and make the math size and scale reasonable for introductory students.

Example

Layton Tire and Rubber Company wishes to set a minimum mileage guarantee on its new MX100 tires. Tests reveal the mean mileage is 67,900 with a standard deviation of 2,050 miles and that the distribution of miles follows the normal probability distribution. Layton wants to set the minimum guaranteed mileage so that no more than 4% of the tires will have to be replaced. What minimum guaranteed mileage should Layton announce?

Solution

The facets of this case are shown in the following diagram, where X represents the minimum guaranteed mileage.



Self-Reviews


Self-Reviews are interspersed throughout each chapter and closely patterned after the preceding Examples. They reinforce important topics and provide students with immediate feedback regarding their comprehension of the topics.

Self-Review 3-5

The weights of containers being shipped to Ireland are (in thousands of pounds):

95	103	105	110	104	105	112	90
----	-----	-----	-----	-----	-----	-----	----

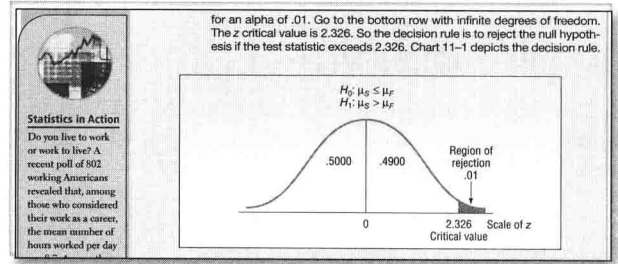
- (a) What is the range of the weights?
- (b) Compute the arithmetic mean weight.
- (c) Compute the mean deviation of the weights.



Engage Students and Promote Learning?

Statistics in Action

Statistics in Action articles are scattered throughout the text, usually about two per chapter. They provide unique and interesting applications and historical insights in the field of statistics.



Margin Notes

There are more than 300 concise notes in the margin. Each is aimed at reemphasizing the key concepts presented immediately adjacent to it.

The variance is non-negative and is zero only if all observations are the same.

STANDARD DEVIATION The square root of the variance.

Variance and standard deviation are based on squared deviations from the mean.

Population Variance The formulas for the population variance and the sample variance are slightly different. The population variance is considered first. (Recall that a population is the totality of all observations being studied.) The **population variance** is found by:

Definitions

Definitions of new terms or terms unique to the study of statistics are set apart from the text and highlighted for easy reference and review.

POPULATION VARIANCE

$$\sigma^2 = \frac{\sum(X - \mu)^2}{N}$$

[3-6]

Formulas

Formulas that are used for the first time are boxed and numbered for reference. In addition, a formula card is bound into the back of the text, which lists all the key formulas.

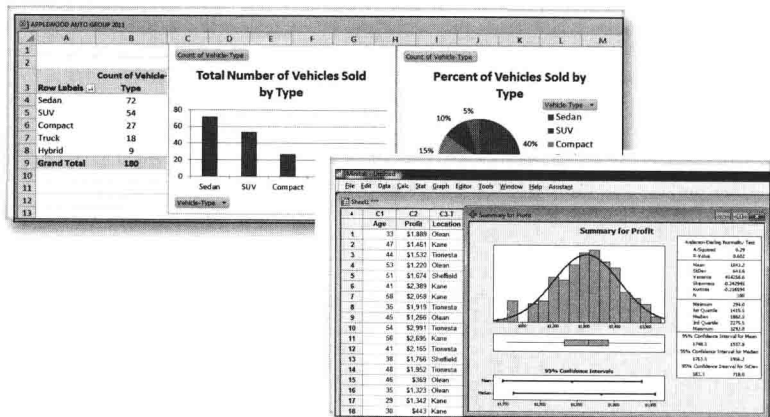
Exercises

connect For Exercises 27–30, calculate the (a) range, (b) arithmetic mean, and (c) mean deviation and (d) interpret the values.

- There were five customer service representatives on duty at the Electronic Super Store during last weekend's sale. The numbers of HDTVs these representatives sold are: 5, 8, 4, 10, and 3.
- The Department of Statistics at Western State University offers eight sections of basic statistics. Following are the numbers of students enrolled in these sections: 34, 46, 52, 29, 41, 38, 36, and 28.

Exercises

Exercises are included after sections within the chapter and at the end of the chapter. Section exercises cover the material studied in the section.



Computer Output

The text includes many software examples, using Excel, MegaStat®, and Minitab.

BY CHAPTER

Chapter Summary

Each chapter contains a brief summary of the chapter material, including the vocabulary and the critical formulas.

Chapter Summary

I. There are many reasons for sampling a population.

- A. The results of a sample may adequately estimate the value of the population parameter, thus saving time and money.
- B. It may be too time consuming to contact all members of the population.
- C. It may be impossible to check or locate all the members of the population.
- D. The cost of studying all the items in the population may be prohibitive.
- E. Often testing destroys the sampled item and it cannot be returned to the population.

II. In an unbiased or probability sample, all members of the population have a chance of being

Pronunciation Key

This tool lists the mathematical symbol, its meaning, and how to pronounce it. We believe this will help the student retain the meaning of the symbol and generally enhance course communications.

Pronunciation Key

SYMBOL	MEANING	PRONUNCIATION
μ	Population mean	<i>mu</i>
Σ	Operation of adding	<i>sigma</i>
ΣX	Adding a group of values	<i>sigma X</i>
\bar{X}	Sample mean	<i>X bar</i>

Chapter Exercises

Generally, the end-of-chapter exercises are the most challenging and integrate the chapter concepts. The answers and worked-out solutions for all odd-numbered exercises appear at the end of the text. For exercises with more than 20 observations, the data can be found on the text's website. These files are formatted so that they can be opened in Excel and Minitab.

Chapter Exercises

11. A multiple regression equation yields the following partial results.

Source	Sum of Squares	df
Regression	750	4
Error	500	35

- a. What is the total sample size?
- b. How many independent variables are being considered?
- c. Compute the coefficient of determination.

Data Set Exercises

The last several exercises at the end of each chapter are based on three large data sets. These data sets are printed in Appendix A in the text and are also on the text's website. These data sets present the students with real-world and more complex applications.

Data Set Exercises

49. Refer to the Real Estate data, which report information on the homes sold in Goodyear, Arizona, last year.

- a. At the .05 significance level, can we conclude that there is a difference in the mean selling price of homes with a pool and homes without a pool?
- b. At the .05 significance level, can we conclude that there is a difference in the mean selling price of homes with an attached garage and homes without an attached garage?
- c. At the .05 significance level, can we conclude that there is a difference in the mean selling price of homes in Township 1 and Township 2?
- d. Find the median selling price of the homes. Divide the homes into two groups, those that sold for more than (or equal to) the median price and those that sold for less. Is there a difference in the proportion of homes with a pool for those that sold at or above the median price versus those that sold for less than the median price? Use the .05 significance level.

e. Write a summary report on your findings to parts (a), (b), (c), and (d). Address the report to all real estate agents who sell property in Goodyear.

50. Refer to the Baseball 2010 data, which report information on the 30 Major League Baseball teams for the 2010 season.

- a. At the .05 significance level, can we conclude that there is a difference in the mean payroll of teams in the American League versus teams in the National League?

Practice Test

The Practice Test that appears at the end of each chapter is intended to give students an idea of content that might appear on a test and how the test might be structured. The Practice Test includes both objective questions and problems covering the material studied in the chapter.

Part 1—Objective

1. A listing of the possible outcomes of an experiment and the probability associated with each outcome is called a probability distribution.
2. The essential difference between a discrete random variable and a discrete probability distribution is that a discrete probability distribution includes the
3. In a discrete probability distribution, the sum of the possible probabilities is always equal to _____.
4. The expected value of a probability distribution is also called the _____.
5. How many outcomes are there in a particular binomial trial?

Part 2—Problems

1. IRI data show that 15% of personal tax returns reporting an adjusted gross income more than \$1,000,000 will be subject to a computer audit. The year a CPA completed 16 returns with adjusted gross incomes more than \$1,000,000. The CPA wants to know the likelihood that the returns will be audited.
 - a. What probability distribution applies to this situation?
 - b. What is the probability exactly one of these returns is audited?
 - c. What is the probability at least one of these returns is audited?
2. For certain personal tax returns, the IRS will compute the amount to refund a taxpayer. Suppose the Cincinnati office of the IRS processes an average of three returns per hour that require a refund calculation.
 - a. What probability distribution applies to this situation?
 - b. What is the probability the IRS processes exactly three returns in a particular hour that require a refund calculation?
 - c. What is the probability the IRS does not compute a refund on any return in an hour?
 - d. What is the probability the IRS processes at least one return in a particular hour that requires a refund calculation?
3. A CPA studied the number of exemptions claimed on tax returns. The data are summarized in the following table.

Exemptions	Percent
1	20
2	60
3	20
4	10

 - a. What is the mean number of exemptions claimed?
 - b. What is the variance of the number of exemptions claimed?

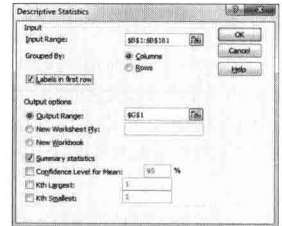
Reinforce Student Learning?

Software Commands

Software examples using Excel, MegaStat®, and Minitab are included throughout the text, but the explanations of the computer input commands for each program are placed at the end of the chapter. This allows students to focus on the statistical techniques rather than on how to input data.

Software Commands

- The Excel Commands for the descriptive statistics on page 71 are:
 - From the website, www.mhhe.com/lindbasic8e, retrieve the Applewood data.
 - From the menu bar, select **Data** and then **Data Analysis**. Select **Descriptive Statistics** and then click **OK**.
 - For the **Input Range**, type **C1:C181**, indicate that the data are grouped by column and that the labels are in the first row. Click on **Output Range**, indicate that the output should go in **G1** (or any place you wish), click on **Summary statistics**, then click **OK**.
 - After you get your results, double-check the count in the output to be sure it contains the correct number of items.

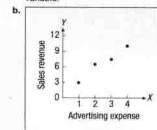


Answers to Self-Review

The worked-out solutions to the Self-Reviews are provided at the end of each chapter.

Chapter 13 Answers to Self-Review

- 13-1 a. Advertising expense is the independent variable, and sales revenue is the dependent variable.



c.

X	Y	(X - \bar{X})	(X - \bar{X}) ²	(Y - \bar{Y})	(Y - \bar{Y}) ²	(X - \bar{X})(Y - \bar{Y})
2	7	-0.5	.25	0	0	0
1	3	-1.5	2.25	-4	16	6
3	8	0.5	.25	1	1	0.5
4	10	1.5	2.25	3	9	4.5
10	28	5.00	25.00	26	26	11.0

$$\bar{X} = \frac{10}{4} = 2.5 \quad \bar{Y} = \frac{28}{4} = 7$$

$$s_x = \sqrt{\frac{5}{3}} = 1.2909944$$

$$s_y = \sqrt{\frac{26}{3}} = 2.9438203$$

$$r = \frac{\sum(X - \bar{X})(Y - \bar{Y})}{(n - 1)s_x s_y} = \frac{11}{(4 - 1)(1.2909944)(2.9438203)} = 0.9648$$

What Technology Connects Students...

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McGraw-Hill *Connect Business Statistics* is an online assignment and assessment solution that connects students with the tools and resources they'll need to achieve success through faster learning, higher retention, and more efficient studying. It provides instructors with tools to quickly select content for assignments according to the topics and learning objectives they want to emphasize.

Online Assignments. *Connect Business Statistics* helps students learn more efficiently by providing practice material and feedback when they are needed. *Connect* grades homework automatically and provides instant feedback on any problems that students are challenged to solve.

Integration of Excel Data Sets. A convenient feature is the inclusion of an Excel data file link in many problems using data files in their calculation. The link allows students to easily launch into Excel, work the problem, and return to *Connect* to key in the answer and receive feedback on their results.

television commercials on 12-year-old children measured their attention span, in seconds, for clothes, food, and toys.

Food	Toys
45	60
48	51
43	43
53	54
47	63
42	53
34	46
43	58
57	47
47	51
44	51
54	

[Click here for the Excel Data File](#) ← **Excel Integrated Data File**

Required:

(a) Complete the ANOVA table. Use .05 significance level (Round the SS and MS values to 1 decimal place and F value to 2 decimal places. Round the DF values to nearest whole number.)

Source	DF	SS	MS	F	P
Factor					
Error					
Total					

Student Resource Library. The *Connect Business Statistics* Student Library is the place for students to access additional resources. The Student Library provides quick access to recorded lectures, practice materials, the eBooks, data files, PowerPoint files, and more.

to Success in Business Statistics?

Guided Examples. These narrated video walkthroughs provide students with step-by-step guidelines for solving selected exercises similar to those contained in the text. The student is given personalized instruction on how to solve a problem by applying the concepts presented in the chapter. The narrated voiceover shows the steps to take to work through an exercise. Students can go through each example multiple times if needed.

Ejercicio 7.46

Exercise 7-46

The accounting department at Weston Materials, Inc., a national manufacturer of unattached garages, reports that it takes two construction workers a mean of 30 hours and a standard deviation of 2 hours to erect the Red Barn model. Assume the assembly times follow the normal distribution.

$\mu = 30$ hours
 $\sigma = 2$ hours
 X – hours to erect the Red Barn model and follows the normal distribution

Area between -0.5 and $+2.0$
 $= 0.1915 + 0.4772$
 $= 0.6687$

- Determine the z values for 29 and 34 hours.
- What percent of the garages take between 29 hours and 34 hours to erect?
- What percent of the garages take 28.7 hours or less to erect?
- Of the garages, 5 percent take how many hours or more to erect?

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5518	0.5558	0.5598	0.5638	0.5677	0.5717	0.5757
0.2	0.5797	0.5837	0.5877	0.5917	0.5957	0.5997	0.6037	0.6077	0.6117	0.6157
0.3	0.6197	0.6237	0.6277	0.6317	0.6357	0.6397	0.6437	0.6477	0.6517	0.6557
0.4	0.6597	0.6637	0.6677	0.6717	0.6757	0.6797	0.6837	0.6877	0.6917	0.6957
0.5	0.6997	0.7037	0.7077	0.7117	0.7157	0.7197	0.7237	0.7277	0.7317	0.7357
0.6	0.7397	0.7437	0.7477	0.7517	0.7557	0.7597	0.7637	0.7677	0.7717	0.7757
0.7	0.7797	0.7837	0.7877	0.7917	0.7957	0.7997	0.8037	0.8077	0.8117	0.8157
0.8	0.8197	0.8237	0.8277	0.8317	0.8357	0.8397	0.8437	0.8477	0.8517	0.8557
0.9	0.8597	0.8637	0.8677	0.8717	0.8757	0.8797	0.8837	0.8877	0.8917	0.8957
1.0	0.8997	0.9037	0.9077	0.9117	0.9157	0.9197	0.9237	0.9277	0.9317	0.9357
1.1	0.9397	0.9437	0.9477	0.9517	0.9557	0.9597	0.9637	0.9677	0.9717	0.9757
1.2	0.9797	0.9837	0.9877	0.9917	0.9957	1.0000				

Excel function =NORMSDIST(z) NORMSINV(-0.9)

What Technology Connects Students...

Simple Assignment Management and Smart Grading. When it comes to studying, time is precious. *Connect Business Statistics* helps students learn more efficiently by providing feedback and practice material when they need it, where they need it. When it comes to teaching, your time also is precious. The grading function enables you to:

- Have assignments scored automatically, giving students immediate feedback on their work and the ability to compare their work with correct answers.
- Access and review each response; manually change grades or leave comments for students to review.

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- View scored work immediately and track individual or group performance with assignment and grade reports.
- Access an instant view of student or class performance relative to topic and learning objectives.
- Collect data and generate reports required by many accreditation organizations, such as AACSB.

Basic Statistics: Lind 8e

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home library reports

assignment results report type: Assignment Results

Use the options below to view assignment scores. show report options & settings

assignment results: Multiple Sections

report created: 09/09/2012 9:57 AM CDT

report date range: -

attempt: Best score style: Percents (Averaged)

assignment type: Homework, Practice, Quiz, Exam

Select the checkboxes on columns you want to export or print. export to excel print

Section	<input checked="" type="checkbox"/> Assignment 1	<input checked="" type="checkbox"/> Assignment 2	<input checked="" type="checkbox"/> Exam 1
Total Value (Points)	20	25	20
Townsend, Rachel Section One MWF 1:30-3:30	89%	91.50%	89%
Mann, Becky Section One MWF 1:30-3:30	85.33%	93%	85%
Dalo, Danielle Section One MWF 1:30-3:30	89%	91.50%	91%
Billows, Nancy Section One MWF 1:30-3:30	85.33%	93%	93%

Instructor Library. The *Connect Business Statistics* Instructor Library is your repository for additional resources to improve student engagement in and out of class. You can select and use any asset that enhances your lecture. The *Connect Business Statistics* Instructor Library includes:

- eBook
- PowerPoint presentations
- Test Bank
- Instructor's Solutions Manual
- Digital Image Library

to Success in Business Statistics?

McGraw-Hill *Connect*[®] *Plus* *Business Statistics*

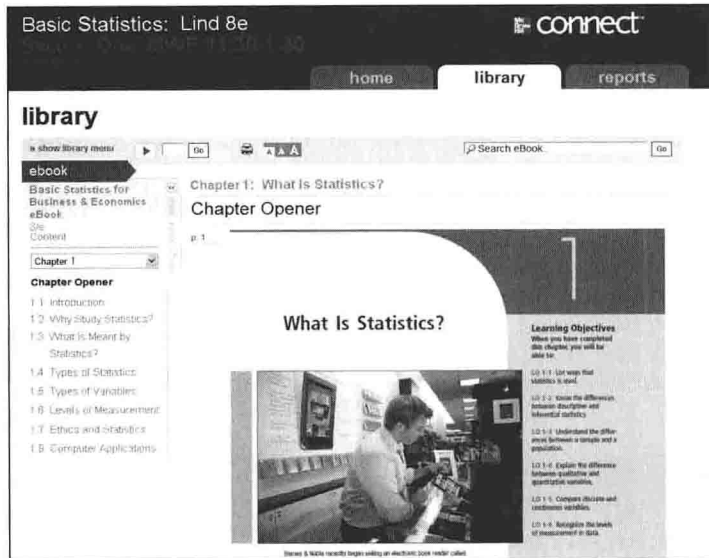


Connect Plus Business Statistics includes a seamless integration of an eBook and *Connect Business Statistics*, with rich functionality integrated into the product.

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Dynamic Links. Dynamic links provide a connection between the problems or questions you assign to your students and the location in the eBook where that problem or question is covered.

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Educators know that the more students can see, hear, and experience class resources, the better they learn. In fact, studies prove it. With *Tegrity Campus*, students quickly recall key moments by using *Tegrity Campus*'s unique search feature. This search helps students efficiently find what they need, when they need it, across an entire semester of class recordings. Help turn all your students' study time into learning moments immediately supported by your lecture. To learn more about *Tegrity*, watch a two-minute Flash demo at <http://tegritycampus.mhhe.com>.

What Software Is Available with This Text?

MegaStat[®] for Microsoft Excel[®] 2003, 2007, and 2010 (and Excel: Mac 2011)

CD ISBN: 0077496442

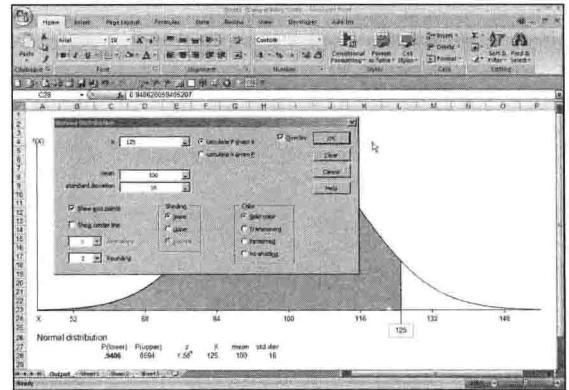
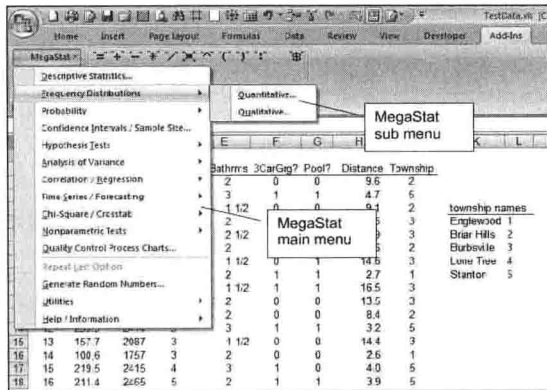
Note: The CD-ROM is for Windows users only.

Access Card ISBN: 0077426274

Note: Best option for both Windows and Mac users.

MegaStat[®] by J. B. Orris of Butler University is a full-featured Excel add-in that is available on CD and on the *MegaStat* website at www.mhhe.com/megastat. It works with Excel 2003, 2007, and 2010. On the website, students have 10 days to successfully download and install *MegaStat* on their local computer. Once installed, *MegaStat* will remain active in Excel with no expiration date or time limitations. The software performs statistical analyses within an Excel workbook. It does basic functions, such as descriptive statistics, frequency distributions, and probability calculations, as well as hypothesis testing, ANOVA, and regression.

MegaStat output is carefully formatted and ease-of-use features include Auto Expand for quick data selection and Auto Label detect. Since *MegaStat* is easy to use, students can focus on learning statistics without being distracted by the software. *MegaStat* is always available from Excel's main menu. Selecting a menu item pops up a dialog box. *MegaStat* works with all recent versions of Excel, including Excel 2007 and Excel 2010. Screencam tutorials are included that provide a walkthrough of major business statistics topics. Help files are built in, and an introductory user's manual is also included.



Minitab[®] (ISBN: 007305237X)

SPSS[®] (ISBN: 0077327144)

JMP[®] (ISBN: 007739030X)

Minitab[®] Student Version 14, SPSS[®] Student Version 18.0, and JMP[®] Student Edition Version 8 are software tools that are available to help students solve the business statistics exercises in the text. Each can be packaged with any McGraw-Hill business statistics text.

What Resources Are Available for Instructors?

Instructor's Resources CD-ROM (ISBN: 0077416759)

This resource allows instructors to conveniently access the Instructor's Solutions Manual, Test Bank in Word and EZ Test formats, Instructor PowerPoint slides, data files, and data sets.

Online Learning Center: www.mhhe.com/lindbasic8e

The Online Learning Center (OLC) provides the instructor with a complete Instructor's Solutions Manual in Word format, the complete Test Bank in both Word files and computerized EZ Test format, Instructor PowerPoint slides, text art files, an introduction to ALEKS®, an introduction to McGraw-Hill *Connect Business Statistics*, access to Visual Statistics, and more.



All test bank questions are available in an EZ Test electronic format. Included are a number of multiple-choice, true/false, and short-answer questions and problems. The answers to all questions are given, along with a rating of the level of difficulty, the chapter goal that the question tests, Bloom's taxonomy question type, and the AACSB knowledge category.

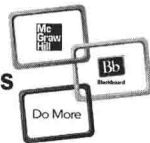
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What Resources Are Available for Students?

CourseSmart

CourseSmart

CourseSmart is a convenient way to find and buy eTextbooks. CourseSmart has the largest selection of eTextbooks available anywhere, offering thousands of the most commonly adopted textbooks from a wide variety of higher-education publishers. CourseSmart eTextbooks are available in one standard online reader with full text search, notes and highlighting, and e-mail tools for sharing notes between classmates. Visit www.CourseSmart.com for more information on ordering.

ALEKS®

ALEKS is an assessment and learning program that provides individualized instruction in Business Statistics, Business Math, and Accounting. Available online in partnership with McGraw-Hill/Irwin, ALEKS interacts with students much like a skilled human tutor, with the ability to assess precisely a student's knowledge and provide instruction on the exact topics the student is most ready to learn. By providing topics to meet individual students' needs, allowing students to move between explanation and practice, correcting and analyzing errors, and defining terms, ALEKS helps students to master course content quickly and easily.

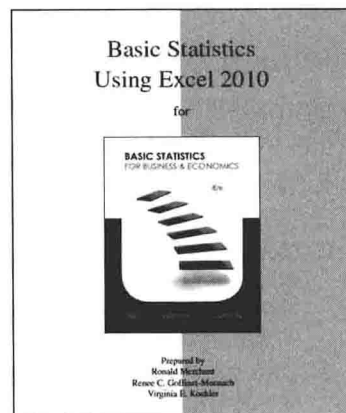
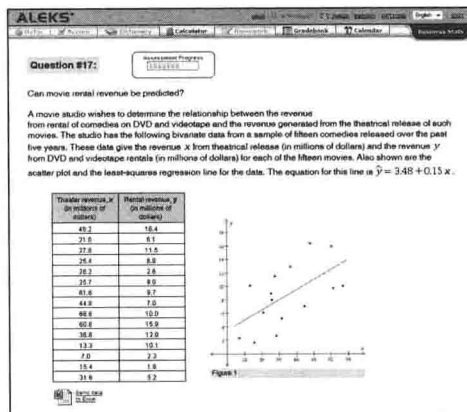
ALEKS also includes a new instructor module with powerful, assignment-driven features and extensive content flexibility. ALEKS simplifies course management and allows instructors to spend less time with administrative tasks and more time directing student learning. To learn more about ALEKS, visit www.aleks.com.

Online Learning Center: www.mhhe.com/lindbasic8e

The Online Learning Center (OLC) provides students with the following content:

- Quizzes
- PowerPoint
- *Narrated PowerPoint
- *Screenam tutorials
- *Guided Examples
- Data sets/files
- Appendixes

*Available through *Connect*



Basic Statistics Using Excel 2010 (ISBN: 0077416821)

Connect®: One Semester Access Card (ISBN: 0077416716)

Connect Plus®: One Semester Access Card (ISBN: 0077416813)

This workbook introduces students to Excel and shows how to apply it to introductory statistics. It presumes no prior familiarity with Excel or statistics and provides step-by-step directions in a how-to style using Excel 2007 with text examples and problems.