

# Introduction

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**H**ave you always been scared to death of statistics? You and just about everyone else! The equations are extremely intimidating, and the terminology sounds so . . . boring.

Why, then, is statistics so important? All business disciplines can be analyzed with statistical principles. Statistics make it possible to analyze real world problems with actual data, so that we can understand if our marketing strategy is really working, or how much a company should charge for its products, or any of a million other practical questions.

Without a formal framework for analyzing these types of situations, it would be impossible to have any confidence in our results. This is where the science of statistics comes in. Far from being an overbearing collection of equations, it is a logical framework for analyzing practical business problems with real-world data.

This book is designed to show you how to apply statistics to practical situations in a step-by-step manner, so that by the time you're done, you'll know as much about statistics as people with far more education in this area!

## *About This Book*

All business degrees require at least some statistics courses, and there's a good reason for that! All business disciplines are empirical by nature, meaning that they need to analyze actual data to be successful. The purpose of this book is to:

- ✓ Give you the principles on which statistical analysis is based
- ✓ Provide you with many worked-out examples of these principles so that you can master them
- ✓ Improve your understanding of the circumstances in which each statistical technique should be used

As a *For Dummies* title, this book is organized into modules; you can skip around and learn about various statistical techniques in the order that suits you. In cases where the contents of a chapter are based on previous readings, you are guided back to the original material. Along the way, there are many helpful tips and reminders so that you get the most out of each chapter. I explain each equation in great detail, and all key terms are explained in depth. You will also find a summary of key formulas at the back of the book along with important statistical tables.

This book can't make you an expert in statistics, but provides you with a way of improving your knowledge very quickly so that you can use statistics in practical settings right away.

## *Foolish Assumptions*

I am willing to make the following assumptions about you as the reader of this book:

- ✔ You need to use the techniques in this book in a practical setting and have little or no previous experience with statistics.

OR

- ✔ You're a student who feels overwhelmed by a traditional statistics course and feels the need for more background. You can benefit from seeing more examples of the material; statistics is a science that can be learned through practice!

OR

- ✔ You're simply interested in improving your knowledge of this field.

In all of these cases, you're extremely well motivated and can put as much effort into learning statistics as you need. Congratulations! Your reward for reading this book will be a greater understanding of business statistics.

## *Icons Used in This Book*

The following icons are designed to help you use this book quickly and easily. Be sure to keep an eye out for them.



The Remember icon points to information that's especially important to remember for exam purposes.



The Tip icon presents information like a memory acronym or some other aid to understanding or remembering material.



When you see this icon, pay special attention. The information that follows may be somewhat difficult, confusing, or harmful.



The Technical Stuff icon is used to indicate detailed information; for some people, it might not be necessary to read or understand.

## *Beyond the Book*

In addition to the informative, clever, and (if I may say so) well-written material you're reading right now, this product also comes with some access-anywhere goodies on the web. No matter how well you know statistics by the end of this book, a little extra information is always helpful. Check out the free Cheat Sheet at [www.dummies.com/cheatsheet/businessstatistics](http://www.dummies.com/cheatsheet/businessstatistics) to learn more about describing populations and samples, random variables, probability distributions, hypothesis testing, and more.

## *Where to Go from Here*

When you've become more adept at statistical analysis, you may want to learn the capabilities of a spreadsheet program such as Excel. You may also want to tackle a full-blown statistical package, such as SPSS or SAS. These will eliminate a great deal of the computational burden, freeing you to concentrate on the analysis of the results.

You may also be interested in obtaining further education in this area. For example, you may want to pursue a graduate degree, such as an MBA (master of business administration.) This is an extremely important credential that will open a large number of doors in the business world. You'll need your statistical skills in order to earn this degree, since it is heavily used throughout the curriculum.

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## Business Statistics For Dummies

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If you're not ready for graduate school, you may simply want to explore some college-level statistics courses at your local university. The most important thing is to continue using your statistical skills, as you'll only become adept at using them through constant practice.