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**About the Authors**

**Karl E. Case** is Professor of Economics Emeritus at Wellesley College where he has taught for 34 years and served several tours of duty as Department Chair. He is a Senior Fellow at the Joint Center for Housing Studies at Harvard University and a founding partner in the real estate research firm of Fiserv Case Shiller Weiss, which produces the S&P Case-Shiller Index of home prices. He serves as a member of the Index Advisory Committee of Standard and Poor’s, and along with Ray Fair he serves on the Academic Advisory Board of the Federal Reserve Bank of Boston.

Before coming to Wellesley, he served as Head Tutor in Economics (director of undergraduate studies) at Harvard, where he won the Allyn Young Teaching Prize. He was Associate Editor of the *Journal of Economic Perspectives* and the *Journal of Economic Education*, and he was a member of the AEA’s Committee on Economic Education.

Professor Case received his B.A. from Miami University in 1968; spent three years on active duty in the Army, and received his Ph.D. in Economics from Harvard University in 1976.

Professor Case’s research has been in the areas of real estate, housing, and public finance. He is author or coauthor of five books, including *Principles of Economics*, *Economics and Tax Policy*, and *Property Taxation: The Need for Reform*, and he has published numerous articles in professional journals.

For the last 25 years, his research has focused on real estate markets and prices. He has authored numerous professional articles, many of which attempt to isolate the causes and consequences of boom and bust cycles and their relationship to regional and national economic performance.

**Ray C. Fair** is Professor of Economics at Yale University. He is a member of the Cowles Foundation at Yale and a Fellow of the Econometric Society. He received a B.A. in Economics from Fresno State College in 1964 and a Ph.D. in Economics from MIT in 1968. He taught at Princeton University from 1968 to 1974 and has been at Yale since 1974.

Professor Fair’s research has primarily been in the areas of macroeconomics and econometrics, with particular emphasis on macroeconometric model building. He also has done work in the areas of finance, voting behavior, and aging in sports. His publications include *Specification, Estimation, and Analysis of Macroeconometric Models* (Harvard Press, 1984); *Testing Macroeconometric Models* (Harvard Press, 1994); and *Estimating How the Macroeconomy Works* (Harvard Press, 2004).

Professor Fair has taught introductory and intermediate macroeconomics at Yale. He has also taught graduate courses in macroeconomic theory and macroeconometrics.

Professor Fair’s U.S. and multicountry models are available for use on the Internet free of charge. The address is http://fairmodel.econ.yale.edu. Many teachers have found that having students work with the U.S. model on the Internet is a useful complement to an introductory macroeconomics course.

**Sharon M. Oster** is the Dean of the Yale School of Management, where she is also the Frederic Wolfe Professor of Economics and Management. Professor Oster joined Case and Fair as a coauthor in the ninth edition of this book. Professor Oster has a B.A. in Economics from Hofstra University and a Ph.D. in Economics from Harvard University.

Professor Oster’s research is in the area of industrial organization. She has worked on problems of diffusion of innovation in a number of different industries, on the effect of regulations on business, and on competitive strategy. She has published a number of articles in these areas and is the author of several books, including *Modern Competitive Analysis* and *The Strategic Management of Nonprofits*.

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Our goal in the 10th edition, as it was in the first edition, is to instill in students a fascination with both the functioning of the economy and the power and breadth of economics. The first line of every edition of our book has been “The study of economics should begin with a sense of wonder.” We hope that readers come away from our book with a basic understanding of how market economies function, an appreciation for the things they do well, and a sense of the things they do poorly. We also hope that readers begin to learn the art and science of economic thinking and begin to look at some policy and even personal decisions in a different way.

What’s New in This Edition?

• In microeconomics, there has been a good deal of exciting new work in the areas of economic development, behavioral economics, and experimental economics. This edition has added material in various places throughout the microeconomics chapters that describe this work. A particular highlight is Chapter 21, which carefully lays out the methodological approach used by researchers doing randomized experiments in the economic development area and describes some of the results of that work.

• This edition has augmented the current research focus of many of the Economics in Practice boxes. Historically, the boxes have focused principally on newspaper excerpts related to the subject of the chapter. Beginning last edition and pushed through more strongly this edition, we have added boxes that we hope will demonstrate more clearly the ideas that lie at the heart of economic thinking. Thus, two thirds of the boxes in the chapters relate an economic principle either to a personal observation (why does Denzel Washington get paid what he does?) or to a recent piece of economic research (new work by Emmanuel Saez on the fact that much of modern wealth comes from wages rather than interest, Carola Frydman’s work on executive compensation, and Rachel Croson’s work on gender and trust). When possible, we focus on work by younger scholars and on more recent research. It is our hope that new students will be inspired by the wide breadth and exciting nature of the research currently going on in economics as they read these boxes.

• Many graphs and tables have been heavily revised and updated to include the most recent data available from 2008 to as recent as the fall of 2010. The inclusion of up-to-date studies and data is essential to promoting a better understanding of recent microeconomic developments.
A number of the chapters have been reworked to improve their readability. Chapters 9, 12, and 18 have been most affected.

We have added many new problems in the end-of-chapter materials, aiming for more text-specific questions.

Economics is a social science. Its value is measured in part in terms of its ability to help us understand the world around us and to grapple with some of the social issues of the times: How do markets work, and why are they so powerful? Why do firms earn profits, and how are wages determined? Does it matter to consumers if there are many firms in an industry or only one? In 2006, the top 20 percent of the households in the United States earned 48 percent of all income generated. Why do we see this income inequality, and why has it been growing? There is enormous poverty in many parts of the world. Are there ways to intervene, either at the country level or the individual level? In almost any marketplace in the United States we see goods that were produced in countries from all over the world. U.S. goods also travel to far corners of the world to be sold to consumers in Europe, Asia, and Latin America. Why do we see the pattern we do? Across the globe, people are increasingly worried about global warming. What tools can an economist bring to the table in helping to solve this complex problem? These questions are microeconomic questions. To answer them, we need to learn how households and firms make decisions and how those decisions are interconnected. As we begin to see the way in which market outcomes—like prices, profits, industry growth, and the like—emerge from the interplay of decisions made by a legion of households and firms, acting largely in their own interests, we hope that the reader’s sense of wonder will grow.

The Foundation

The themes of *Principles of Microeconomics*, 10th edition, are the same themes of the first nine editions. The purposes of this book are to introduce the discipline of economics and to provide a basic understanding of how economies function. This requires a blend of economic theory, institutional material, and real-world applications. We have maintained a balance between these ingredients in every chapter. The hallmark features of our book are its:

1. Three-tiered explanations of key concepts (*stories-graphs-equations*)
2. Intuitive and accessible structure
3. International coverage

Three-Tiered Explanations: Stories-Graphs-Equations

Professors who teach principles of economics are faced with a classroom of students with different abilities, backgrounds, and learning styles. For some students, analytical material is difficult no matter how it is presented; for others, graphs and equations seem to come naturally. The problem facing instructors and textbook authors is how to convey the core principles of the discipline to as many students as possible without selling the better students short. Our approach to this problem is to present most core concepts in the following three ways:

First, we present each concept in the context of a simple intuitive *story* or example in words often followed by a table. Second, we use a *graph* in most cases to illustrate the story or example. And finally, in many cases where appropriate, we use an *equation* to present the concept with a mathematical formula.

Microeconomic Structure

The organization of the microeconomic chapters continues to reflect our belief that the best way to understand how market economies operate—and the best way to understand basic economic theory—is to work through the perfectly competitive model first, including
discussions of output markets (goods and services) and input markets (land, labor, and capital), and the connections between them before turning to noncompetitive market structures such as monopoly and oligopoly. When students understand how a simple, perfectly competitive system works, they can start thinking about how the pieces of the economy “fit together.” We think this is a better approach to teaching economics than some of the more traditional approaches, which encourage students to think of economics as a series of disconnected alternative market models.

Learning perfect competition first also enables students to see the power of the market system. It is impossible for students to discuss the efficiency of markets as well as the problems that arise from markets until they have seen how a simple, perfectly competitive market system produces and distributes goods and services. This is our purpose in Chapter 6 through 11.

Chapter 12, “General Equilibrium and the Efficiency of Perfect Competition,” is a pivotal chapter that links simple, perfectly competitive markets with a discussion of market imperfections and the role of government. Chapter 13 through 15 cover three noncompetitive market structures—monopoly, monopolistic competition, and oligopoly. Chapter 16 covers externalities, public goods, and social choice. Chapter 17, which is new to this edition, covers uncertainty and asymmetric information. Chapters 18 and 19 cover income distribution as well as taxation and government finance. The visual below (Figure II.2 from page 118), gives you an overview of our structure.

**International Coverage**

As in previous editions, we continue to integrate international examples and applications throughout the text. This probably goes without saying: The days in which an introductory economics text could be written with a closed economy in mind have long since gone.
Tools for Learning

As authors and teachers, we understand the challenges of the principles of economics course. Our pedagogical features are designed to illustrate and reinforce key economic concepts through real-world examples and applications.

Economics in Practice

As described earlier, the Economics in Practice feature presents a real-world personal observation, current research work, or a news article that supports the key concept of the chapter and helps students think critically about how economics is a part of their daily lives. The end-of-chapter problem sets include a question specific to each Economics in Practice feature. Students can visit www.myconlab.com for additional updated news articles and related exercises.

Graphs

Reading and interpreting graphs is a key part of understanding economic concepts. The Chapter 1 Appendix, “How to Read and Understand Graphs,” shows readers how to interpret the 200-plus graphs featured in this book. We use red curves to illustrate the behavior of firms and blue curves to show the behavior of households. We use a different shade of red and blue to signify a shift in a curve.

Problems and Solutions

Each chapter and appendix ends with a problem set that asks students to think about and apply what they’ve learned in the chapter. These problems are not simple memorization questions. Rather, they ask students to perform graphical analysis or to apply economics to a real-world situation or policy decision. More challenging problems are indicated by an asterisk. Additional questions specific to the Economics in Practice feature have been added. Several problems have been updated. The solutions to all of the problems are available in the Instructor’s Manuals. Instructors can provide the solutions to their students so they can check their understanding and progress.

MyEconLab

Both the text and supplement package provide ways for instructors and students to assess their knowledge and progress through the course. MyEconLab, the new standard in personalized online learning, is a key part of Case, Fair, and Oster’s integrated learning package for the 10th edition.
For the Instructor

MyEconLab is an online course management, testing, and tutorial resource. Instructors can choose how much or how little time to spend setting up and using MyEconLab. Each chapter contains two Sample Tests, Study Plan Exercises, and Tutorial Resources. Student use of these materials requires no initial setup by their instructor. The online Gradebook records each student’s performance and time spent on the Tests and Study Plan and generates reports by student or by chapter. Instructors can assign tests, quizzes, and homework in MyEconLab using four resources:

- Preloaded Sample Tests
- Problems similar to the end-of-chapter problems
- Test Item File questions
- Self-authored questions using Econ Exercise Builder

Exercises use multiple-choice, graph drawing, and free-response items, many of which are generated algorithmically so that each time a student works them, a different variation is presented. MyEconLab grades every problem, even those with graphs. When working homework exercises, students receive immediate feedback with links to additional learning tools.

Customization and Communication MyEconLab in CourseCompass™ provides additional optional customization and communication tools. Instructors who teach distance learning courses or very large lecture sections find the CourseCompass format useful because they can upload course documents and assignments, customize the order of chapters, and use communication features such as Digital Drop Box and Discussion Board.

Experiments in MyEconLab

Experiments are a fun and engaging way to promote active learning and mastery of important economic concepts. Pearson's experiments program is flexible and easy for instructors and students to use.

- Single-player experiments allow your students to play an experiment against virtual players from anywhere at anytime with an Internet connection.
- Multiplayer experiments allow you to assign and manage a real-time experiment with your class. In both cases, pre- and post-questions for each experiment are available for assignment in MyEconLab.

For the Student

MyEconLab puts students in control of their learning through a collection of tests, practice, and study tools tied to the online interactive version of the textbook, as well as other media resources. Within MyEconLab's structured environment, students practice what they learn, test their understanding, and pursue a personalized Study Plan generated from their performance on Sample Tests and tests set by their instructors. At the core of MyEconLab are the following features:

- Sample Tests, two per chapter
- Personal Study Plan
- Tutorial Instruction
- Graphing Tool

Sample Tests Two Sample Tests for each chapter are preloaded in MyEconLab, enabling students to practice what they have learned, test their understanding, and identify areas in which they need further work. Students can study on their own, or they can complete assignments created by their instructor.
Personal Study Plan
Based on a student’s performance on tests, MyEconLab generates a personal Study Plan that shows where the student needs further study. The Study Plan consists of a series of additional practice exercises with detailed feedback and guided solutions that are keyed to other tutorial resources.

Tutorial Instruction
Launched from many of the exercises in the Study Plan, MyEconLab provides tutorial instruction in the form of step-by-step solutions and other media-based explanations.

Graphing Tool
A graphing tool is integrated into the Tests and Study Plan exercises to enable students to make and manipulate graphs. This feature helps students understand how concepts, numbers, and graphs connect.

Additional MyEconLab Tools
MyEconLab includes the following additional features:

1. Economics in the News—This feature provides weekly updates during the school year of news items with links to sources for further reading and discussion questions.
2. eText—While students are working in the Study Plan or completing homework assignments, one of the tutorial resources available is a direct link to the relevant page of the text so that students can review the appropriate material to help them complete the exercise.
3. Glossary—This searchable version of the textbook glossary provides additional examples and links to related terms.
4. Glossary Flashcards—Every key term is available as a flashcard, allowing students to quiz themselves on vocabulary from one or more chapters at a time.
5. Research Navigator (CourseCompass™ version only)—This feature offers extensive help on the research process and provides four exclusive databases of credible and reliable source material, including the New York Times, the Financial Times, and peer-reviewed journals.

MyEconLab content has been created through the efforts of:

Charles Baum, Middle Tennessee State University; Sarah Ghosh, University of Scranton; Russell Kellogg, University of Colorado—Denver; Bert G. Wheeler, Cedarville University; and Noel Lotz and Douglas A. Ruby, Pearson Education.

Resources for the Instructor
The following supplements are designed to make teaching and testing flexible and easy.

Instructor’s Manuals
Prepared by Tony Lima of California State University, East Bay (Hayward, California), the Instructor’s Manual is designed to provide the utmost teaching support for instructors. It includes the following content:

• Detailed Chapter Outlines include key terminology, teaching notes, and lecture suggestions.
• Topics for Class Discussion provide topics and real-world situations that help ensure that economic concepts resonate with students.
• Unique Economics in Practice features that are not in the main text provide extra real-world examples to present and discuss in class.
• Teaching Tips provide tips for alternative ways to cover the material and brief reminders on additional help to provide students. These tips include suggestions for exercises and experiments to complete in class.
• Extended Applications include exercises, activities, and experiments to help make economics relevant to students.
• Excel Workbooks, available for many chapters, make it easy to customize numerical examples and produce graphs.
• Solutions are provided for all problems in the book.

Three Test Item Files

We have tailored the Test Item Files to help instructors easily and efficiently assess student understanding of economic concepts and analyses. Test questions are annotated with the following information:

• Difficulty: 1 for straight recall, 2 for some analysis, 3 for complex analysis
• Type: Multiple-choice, true/false, short-answer, essay
• Topic: The term or concept the question supports
• Skill: Fact, definition, analytical, conceptual
• AACSB: See description in the next section.

The Test Item Files include questions with tables that students must analyze to solve for numerical answers. The Test Item Files also contain questions based on the graphs that appear in the book. The questions ask students to interpret the information presented in the graph. Many questions require students to sketch a graph on their own and interpret curve movements.

Microeconomics Test Item File 1, by Randy Methenitis of Richland College: Test Item File 1 (TIF1) includes over 2,700 questions. All questions are machine gradable and are either multiple-choice or true/false. This Test Item File is for use with the 10th edition of Principles of Microeconomics in the first year of publication. TIF1 is available in a computerized format using TestGen EQ test-generating software and is included in MyEconLab.

Microeconomics Test Item File 2, by Randy Methenitis of Richland College: This additional Test Item File contains another 2,700 machine-gradable questions based on the TIF1 but regenerated to provide instructors with fresh questions when using the book the second year. This Test Item File is available in a computerized format using TestGen EQ test-generating software.

Microeconomics Test Item File 3, by Richard Gosselin of Houston Community College: This third Test Item File includes 1,000 conceptual problems, essay questions, and short-answer questions. Application-type problems ask students to draw graphs and analyze tables. The Word files are available on the Instructor’s Resource Center (www.pearsonhighered.com/educator).

The Test Item Files were checked for accuracy by the following professors:

Leon J. Battista, Bronx Community College; Margaret Brooks, Bridgewater State College; Mike Cohick, Collin County Community College; Dennis Debrecht, Carroll College; Amrik Dua, California State Polytechnic University, Pomona; Mitchell Dudley, The College of William & Mary; Ann Eike, University of Kentucky; Connel Fullencamp, Duke University; Craig Gallet, California State University, Sacramento; Michael Goode, Central Piedmont Community College; Steve Hamilton, California State Polytechnic University; James R. Irwin, Central Michigan University; Aaron Jackson, Bentley College; Rus Janis, University of Massachusetts, Amherst; Jonatan Jelen, The City College of New York; Kathy A. Kelly, University of Texas, Arlington; Kate Krause, University of New Mexico; Gary F. Langer, Roosevelt University; Leonard Lardaro, University of Rhode Island; Ross LaRoe, Denison University; Melissa Lind, University of Texas, Arlington; Solina Lindahl, California State Polytechnic University; Pete Mavrokkodatos, Tarrant County College; Roberto Mazzoleni, Hofstra University; Kimberly Mencken, Baylor University; Ida Mirzaie, Ohio State University; Shahruz Mohtadi, Suffolk University; Mary Pranzo, California State University, Fresno; Ed Price, Oklahoma State University; Robert Shoffner, Central Piedmont Community College; James Swofford, University of South Alabama; Helen Tauchen, University of North Carolina, Chapel Hill; Eric Taylor, Central Piedmont Community College; Henry Terrell, University of Maryland; John Tommasi, Bentley College; Mukti Upadhyay, Eastern Illinois University; Robert Whaples, Wake Forest University; and Timothy Wunder, University of Texas, Arlington.
The Association to Advance Collegiate Schools of Business (AACSB)  The authors of the Test Item File have connected select Test Item File questions to the general knowledge and skill guidelines found in the AACSB assurance of learning standards.

What Is the AACSB?  AACSB is a not-for-profit corporation of educational institutions, corporations, and other organizations devoted to the promotion and improvement of higher education in business administration and accounting. A collegiate institution offering degrees in business administration or accounting may volunteer for AACSB accreditation review. The AACSB makes initial accreditation decisions and conducts periodic reviews to promote continuous quality improvement in management education. Pearson Education is a proud member of the AACSB and is pleased to provide advice to help you apply AACSB assurance of learning standards.

What Are AACSB Assurance of Learning Standards?  One of the criteria for AACSB accreditation is quality of the curricula. Although no specific courses are required, the AACSB expects a curriculum to include learning experiences in areas such as the following:

- Communication
- Ethical Reasoning
- Analytic Skills
- Use of Information Technology
- Multicultural and Diversity
- Reflective Thinking

Questions that test skills relevant to these guidelines are appropriately tagged. For example, a question testing the moral questions associated with externalities would receive the Ethical Reasoning tag.

How Can Instructors Use the AACSB Tags?  Tagged questions help you measure whether students are grasping the course content that aligns with the AACSB guidelines noted. In addition, the tagged questions may help instructors identify potential applications of these skills. This in turn may suggest enrichment activities or other educational experiences to help students achieve these skills.

TestGen  The computerized TestGen package allows instructors to customize, save, and generate classroom tests. The test program permits instructors to edit, add, or delete questions from the Test Item Files; create new graphics; analyze test results; and organize a database of tests and student results. This software allows for extensive flexibility and ease of use. It provides many options for organizing and displaying tests, along with search and sort features. The software and the Test Item Files can be downloaded from the Instructor’s Resource Center (www.pearsonhighered.com/educator).

PowerPoint® Lecture Presentations  Three sets of PowerPoint® slides, prepared by Fernando Quijano of Dickinson State University and his assistant Shelly TefT, are available:

- A comprehensive set of PowerPoint® slides that can be used by instructors for class presentations or by students for lecture preview or review. The presentation includes all the figures, photos, tables, key terms, and equations in the textbook. Two versions are available—the first is in step-by-step mode so that you can build graphs as you would on a blackboard, and the second is in automated mode, using a single click per slide.
- A comprehensive set of PowerPoint® slides with Classroom Response Systems (CRS) questions built in so that instructors can incorporate CRS “clickers” into their classroom lectures. For more information on Pearson’s partnership with CRS, see the description below. Instructors may download these PowerPoint presentations from the Instructor’s Resource Center (www.pearsonhighered.com/educator).
- Student versions of the PowerPoint presentations are available as .pdf files from the book’s MyEconLab course. This version allows students to print the slides and bring them to class for note taking.
Instructor’s Resource CD-ROM

The Instructor’s Resource CD-ROM contains all the faculty and student resources that support this text. Instructors have the ability to access and edit the following three supplements:

- Instructor’s Manuals
- Test Item Files
- PowerPoint® presentations

By clicking on a chapter or searching for a key word, faculty can access an interactive library of resources. Faculty can pick and choose from the various supplements and export them to their hard drives.

Classroom Response Systems

Classroom Response Systems (CRS) is an exciting new wireless polling technology that makes large and small classrooms even more interactive because it enables instructors to pose questions to their students, record results, and display the results instantly. Students can answer questions easily by using compact remote-control transmitters. Pearson has partnerships with leading providers of classroom response systems and can show you everything you need to know about setting up and using a CRS system. We provide the classroom hardware, text-specific PowerPoint® slides, software, and support; and we show you how your students can benefit. Learn more at www.pearsonhighered.com/crs.

Blackboard® and WebCT® Course Content

Pearson offers fully customizable course content for the Blackboard® and WebCT® Course Management Systems.

Resources for the Student

The following supplements are designed to help students understand and retain the key concepts of each chapter.

MyEconLab

MyEconLab allows students to practice what they learn, test their understanding, and pursue a personalized Study Plan generated from their performance on Sample Tests and tests set by their instructors. Here are MyEconLab’s key features. (See page xx of this preface for more details on MyEconLab.)

- Sample Tests, two per chapter
- Personal Study Plan
- Tutorial Instruction
- Graphing Tool

Study Guide

The Study Guide, prepared by Thomas M. Beveridge of Durham Technical Community College, provides students with additional applications and exercises.

Each chapter of the Study Guide contains the following elements:

- **Point-by-Point Chapter Objectives**  A list of learning goals for the chapter. Each objective is followed up with a summary of the material, learning tips for each concept, and practice questions with solutions.
- **Economics in Practice Questions**  A question that requires students to apply concepts of the chapter to the Economics in Practice feature. The answer accompanies the question.
• **Practice Tests**  Approximately 20 multiple-choice questions and answers and application questions that require students to use graphic or numerical analysis to solve economic problems.

• **Solutions**  Worked-out solutions to all questions in the Study Guide.

• **Comprehensive Part Exams**  Multiple-choice and application questions to test students’ overall comprehension. Solutions to all questions are also provided.

**CourseSmart**

CourseSmart is an exciting new *choice* for students looking to save money. As an alternative to purchasing the print textbook, students can purchase an electronic version of the same content and save up to 50 percent off the suggested list price of the print text. With a CourseSmart eTextbook, students can search the text, make notes online, print out reading assignments that incorporate lecture notes, and bookmark important passages for later review. For more information or to purchase access to the CourseSmart eTextbook, visit [www.coursesmart.com](http://www.coursesmart.com).

**Student Subscriptions**

Staying on top of current economic issues is critical to understanding and applying microeconomic theory in and out of class. Keep students engaged by packaging, at a discount, a semester-long subscription to the *Financial Times* or Economist.com with each student text. Contact your local Pearson Prentice Hall representative for more information about benefits of these subscriptions and how to order them for your students.

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