

4th EDITION

# Survey of **Economics**

Principles, Applications, and Tools

O'Sullivan  
Sheffrin  
Perez



# Survey of Economics

PRINCIPLES, APPLICATIONS, AND TOOLS

4TH EDITION

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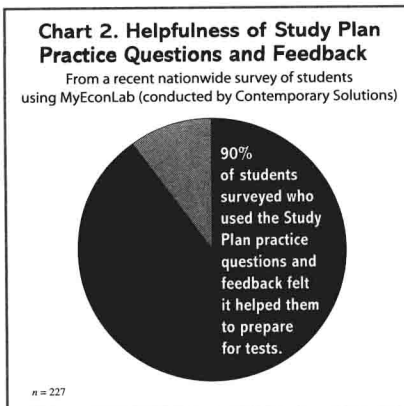
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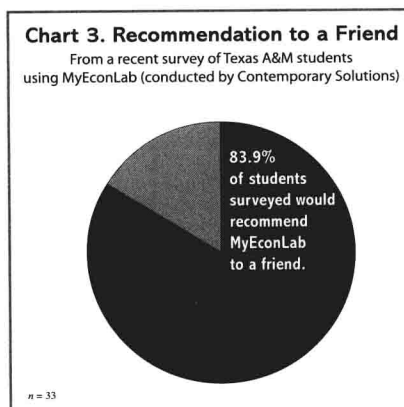


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“I would recommend MyEconLab to a friend. It was really easy to use and helped in studying the material for class.”

—student, Northern Illinois University

“I would recommend taking the quizzes on MyEconLab because it gives you a true account of whether or not you understand the material.”

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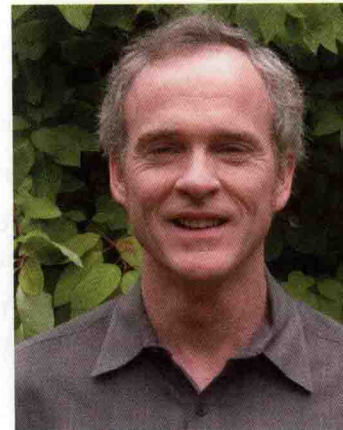
# About the Authors

## ARTHUR O'SULLIVAN

Is a professor of economics at Lewis and Clark College in Portland, Oregon. After receiving his B.S. in economics at the University of Oregon, he spent two years in the Peace Corps, working with city planners in the Philippines. He received his Ph.D. in economics from Princeton University in 1981 and has taught at the University of California, Davis, and Oregon State University, winning teaching awards at both schools. He is the author of the best-selling textbook *Urban Economics*, currently in its seventh edition.

Professor O'Sullivan's research explores economic issues concerning urban land use, environmental protection, and public policy. His articles have appeared in many economics journals, including the *Journal of Urban Economics*, *Journal of Environmental Economics and Management*, *National Tax Journal*, *Journal of Public Economics*, and *Journal of Law and Economics*.

Professor O'Sullivan lives with his family in Lake Oswego, Oregon. For recreation, he enjoys hiking, boogie-boarding, paragliding, and squash.



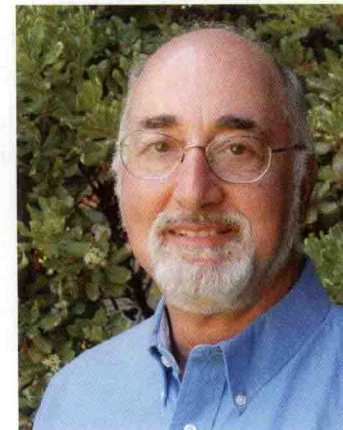
## STEVEN M. SHEFFRIN

Is a professor of economics at the University of California, Davis. He has been a visiting professor at Princeton University, Oxford University, London School of Economics, and Nanyang Technological University, and he has served as a financial economist with the Office of Tax Analysis of the United States Department of the Treasury. He has been on the faculty of the University of California, Davis, since 1976 and has served as the chairman of the department of economics and the dean of the division of social sciences. He received his B.A. from Wesleyan University and his Ph.D. in economics from the Massachusetts Institute of Technology.

Professor Sheffrin is the author of 10 other books and monographs and over 100 articles in the fields of macroeconomics, public finance, and international economics. His most recent books include *Rational Expectations* (second edition) and *Property Taxes and Tax Revolts: The Legacy of Proposition 13* (with Arthur O'Sullivan and Terri Sexton).

Professor Sheffrin has taught macroeconomics and public finance at all levels, from general introduction to principles classes (enrollments of 400) to graduate classes for doctoral students. He is the recipient of the Thomas Mayer Distinguished Teaching Award in economics.

He lives with his wife Anjali (also an economist) in Davis, California, and has two daughters who have studied economics. In addition to a passion for current affairs and travel, he plays a tough game of tennis.



## STEPHEN J. PEREZ

Is a professor of economics and assistant to the president for special projects at California State University, Sacramento. After receiving his B.A. in economics at the University of California, San Diego, he was awarded his Ph.D. in economics from the University of California, Davis, in 1994. He taught economics at Virginia Commonwealth University and Washington State University before coming to California State University, Sacramento, in 2001. He teaches macroeconomics at all levels as well as econometrics, sports economics, labor economics, and mathematics for economists.

Professor Perez's research explores most macroeconomic topics. In particular, he is interested in evaluating the ability of econometric techniques to discover the truth, issues of causality in macroeconomics, and sports economics. His articles have appeared in many economics journals, including the *Journal of Monetary Economics*, *Econometrics Journal*, *Economics Letters*, *Journal of Economic Methodology*, *Public Finance and Management*, *Journal of Economics and Business*, *Oxford Bulletin of Economics and Statistics*, *Journal of Money, Credit, and Banking*, *Applied Economics*, and *Journal of Macroeconomics*.



# Preface

## ► ONE-SEMESTER BOOK

This book is a one-semester version of our full-length introductory text, *Economics: Principles, Applications, and Tools*, now in its sixth edition. This text has been a success in classrooms around the country, but many colleges and universities teach a one-semester economics course that covers both microeconomics and macroeconomics. This book preserves the key features of *Economics: Principles, Applications, and Tools*, including its organization around the five key principles of economics to explain the most important concepts of economics, and the extensive use of practical applications to reinforce the learning process.

In designing a one-semester book, we knew that we had to focus on the essential concepts of economics. We start with the five key principles of economics and move quickly into the heart of microeconomics: demand and supply. We then turn to production and cost, competition and market structure, market failure from imperfect information and externalities, and the labor market. Macroeconomics begins with chapters that introduce national income, unemployment, and inflation. We then explore the issues of economic growth and economic fluctuations. We cover monetary and fiscal policy, in both the short run and long run. The book concludes with international trade and finance. We've strived to make all explanations of key ideas and key concepts as simple as possible. In a one-semester book, the student will be introduced to a wide range of ideas. It is important that these ideas be as straightforward and transparent as possible.

CHAPTER

3

Demand, Supply, and Market Equilibrium

The price of vanilla is bouncing. A kilogram (2.2 pounds) of vanilla beans sold for \$50 in 2000, but by 2003 the price had risen to \$500 per kilogram. The price soared because a devastating cyclone hit Madagascar, the African nation that leads the world in vanilla production. Three years later in 2006, the price of vanilla beans had sunk to only \$25 per kilogram. What caused the price to go from \$50 to \$500 to \$25? As we'll

see in this chapter, the answer is "demand and supply." We'll use the model of demand and supply, the most popular tool of economic analysis, to explain the bouncing price of vanilla beans and other market phenomena.

APPLYING THE CONCEPTS

1

How do changes in demand affect prices?  
*Hurricane Katrina and Baton Rouge Housing Prices*

2

How do changes in supply in one market affect other markets?  
*Honey Bees and the Price of Ice Cream*

3

How does the adoption of new technology affect prices?  
*Electricity from the Wind*

4

How do changes in supply affect prices?  
*The Bouncing Price of Vanilla Beans*

5

How do producers respond to higher prices?  
*Drought in Australia and the Price of Rice*



## APPLICATION 3

## ELECTRICITY FROM THE WIND

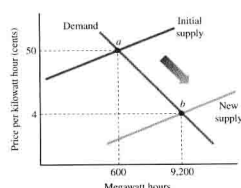
## APPLYING THE CONCEPT #3: How does the adoption of new technology affect prices?

In recent years, the supply of electricity generated from wind power has increased dramatically. Between 2000 and 2006, total wind power in the United States increased from 620 megawatts to 9,200 megawatts, enough power to serve the equivalent of 2.4 million households. Over the same period, the price of electricity generated from wind power decreased from 50 cents per kilowatt-hour to 4 cents.

Figure 3.16 shows the changes in the wind electricity market in recent years. Several design innovations, including the replacement of small, rigid rotors with large, slow-moving blades and the development of monitoring systems that change the direction and the angle of the blades to more efficiently harness the wind, have decreased the cost of producing electricity, shifting the supply curve downward and to the right. In Figure 3.16, the shift of the supply curve decreases the equilibrium price and increases the equilibrium quantity.

The innovations in wind generation have made wind power more competitive with conventional power sources such as coal and natural gas. The price of electricity from natural gas and coal is about 2 cents per kilowatt-hour. The producers of wind electricity receive a federal tax credit of almost 2 cents per kilowatt-hour, making the net price of wind power close to the price of conventional power. Related to Exercises 7.3 and 7.8.

SOURCE: Based on "A New Gust of Wind Projects Across the U.S.," *Christian Science Monitor*, January 19, 2006, p. 1.



▲ FIGURE 3.16

#### Wind Power and Electricity

Technological innovations in generating electricity from the wind decreased production costs, shifting the supply curve downward and to the right. The equilibrium price decreased and the equilibrium quantity increased. (To represent the large changes in price and quantity, the graph is not drawn to scale.)

## ► APPLYING THE CONCEPTS

This is an applications-driven textbook. We carefully selected over 120 real-world Applications that help students develop and master essential economic concepts. We start each chapter with three to five thought-provoking questions that convey important economic concepts. Once we present the economic logic behind a concept, we illustrate its use with a real-world Application. For each Application, we provide exercises that test students' understanding of the concepts and give them opportunities to do their own economic analysis. Here is an example of our approach from Chapter 4, "Demand, Supply, and Market Equilibrium."

## SUMMARY



In this chapter, we've seen how demand and supply determine prices. We also learned how to predict the effects of changes in demand or supply on prices and quantities. Here are the main points of the chapter:

- 1 A market demand curve shows the relationship between the quantity demanded and price, ceteris paribus.
- 2 A market supply curve shows the relationship between the quantity supplied and price, ceteris paribus.
- 3 Equilibrium in a market is shown by the intersection of the demand curve and the supply curve. When a market reaches equilibrium, there is no pressure to change the price.
- 4 A change in demand changes price and quantity in the same direction: An increase in demand increases the equilibrium price and quantity; a decrease in demand decreases the equilibrium price and quantity.
- 5 A change in supply changes price and quantity in opposite directions: An increase in supply decreases price and increases quantity; a decrease in supply increases price and decreases quantity.

## KEY TERMS

change in demand, p. 61  
change in quantity demanded, p. 53  
change in quantity supplied, p. 56  
change in supply, p. 65  
ceteris paribus, p. 61  
demand, p. 52  
demand (shortage), p. 59  
excess demand (surplus), p. 59

individual demand curve, p. 53  
individual supply curve, p. 55  
inferior good, p. 61  
law of demand, p. 53  
law of supply, p. 56  
market demand curve, p. 54  
market equilibrium, p. 58  
market supply curve, p. 57

minimum supply price, p. 56  
normal good, p. 61  
perfectly competitive market, p. 52  
quantity demanded, p. 52  
quantity supplied, p. 55  
substitutes, p. 61  
supply schedule, p. 55

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- 7.3 Innovations in wind technology decrease the price of electricity from wind from 50 cents per kilowatt-hour to \_\_\_\_\_ cents. (Related to Application 3 on page 71.)
- 7.4 Arrow up or down: The development of a sun-tolerant variety of the vanilla plant \_\_\_\_\_ the supply of vanilla and \_\_\_\_\_ its price. (Related to Application 4 on page 72.)
- 7.5 Arrow up or down: The drought in Australia \_\_\_\_\_ the supply of rice and \_\_\_\_\_ its price. (Related to Application 5 on page 73.)
- 7.6 Katrina Victims Move Back. Suppose that five years after Hurricane Katrina, half the people who had relocated to Baton Rouge move back to a rebuilt New Orleans. Use a demand and supply graph of the Baton Rouge housing market to show the market effects of the return of people to New Orleans. (Related to Application 1 on page 69.)
- 7.7 Honeybees and Ice Cream. Suppose the decline of bee colonies increases the prices of some ingredients used to produce ice cream. Consider two flavors of ice cream, strawberry and vanilla. The cost of producing strawberry ice cream increases by 20 percent, while the cost of producing vanilla ice cream increases by only 5 percent. Use a supply-demand graph to show the implications for the equilibrium

prices and quantities of the two flavors of ice cream. (Related to Application 2 on page 70.)

- 7.8 Electricity from Fuel Cells. Suppose that initially the cost of the capital required to generate electricity from fuel cells is \$4,500 per kilowatt capacity, compared to \$800 per kilowatt capacity for a diesel generator. The goal of the U.S. Department of Energy (DOE) is to cut the cost of fuel-cell generators to \$400 per kilowatt capacity. Consider the market for electricity from fuel cells. Use a demand and supply graph to show the effects of meeting the DOE goal on the price and quantity of electricity from fuel cells. (Related to Application 3 on page 71.)
- 7.9 Artificial versus Natural Vanilla. An artificial alternative to natural vanilla is cheaper to produce but doesn't taste as good. Suppose the makers of artificial vanilla discover a new recipe that improves its taste. Use a demand and supply graph to show the effects on the equilibrium price and quantity of natural vanilla. (Related to Application 4 on page 72.)
- 7.10 Drought and Rice Prices. Consider the market for rice. Use a demand and supply graph to illustrate the following statement: "The drought was a major factor in a near doubling of rice prices." (Related to Application 5 on page 73.)

## ECONOMIC EXPERIMENT

#### Market Equilibrium

This simple experiment takes about 20 minutes. We start by dividing the class into two equal groups: consumers and producers.

- The instructor provides each consumer with a number indicating the maximum amount he or she is willing to pay (WTP) for a bushel of apples. The WTP is a number between \$1 and \$100. Each consumer has the opportunity to buy one bushel of apples per trading period. The consumer's score for a single trading period equals the gap between the WTP and the price actually paid for apples. For example, if the consumer's WTP is \$80 and he or she pays only \$30 for apples, the consumer's score is \$50. Each consumer has the option of not buying apples. This will be sensible if the best price the consumer can get exceeds the WTP. If the consumer does not buy apples, his or her score will be zero.
- The instructor provides each producer with a number indicating the cost of producing a bushel of apples (a number between \$1 and \$100). Each producer has the opportunity to sell one bushel per trading period. The producer's score for a single trading period equals the gap between the selling price and the cost of producing

apples. So if a producer sells apples for \$20, and the cost is only \$15, the producer's score is \$5. Producers have the option of not selling apples, which is sensible if the best price the producer can get is less than the cost. If the producer does not sell apples, his or her score is zero.

Once everyone understands the rules, consumers and producers meet in a trading area to arrange transactions. A consumer may announce how much he or she is willing to pay for apples and wait for a producer to agree to sell apples at that price. Alternatively, a producer may announce how much he or she is willing to accept for apples and wait for a consumer to agree to buy apples at that price. Once a transaction has been arranged, the consumer and producer inform the instructor of the trade, record the transaction, and leave the trading area.

Several trading periods are conducted, each of which lasts a few minutes. After the end of each trading period, the instructor lists the prices at which apples sold during the period. Then another trading period starts, providing consumers and producers another opportunity to buy or sell apples. After all the trading periods have been completed, each participant computes his or her score by adding the scores from the trading periods.




## ► WHY FIVE KEY PRINCIPLES?

In Chapter 2, “The Key Principles of Economics,” we introduce the following five key principles and then apply them throughout the book:

1. **The Principle of Opportunity Cost.** The opportunity cost of something is what you sacrifice to get it.
2. **The Marginal Principle.** Increase the level of an activity as long as its marginal benefit exceeds its marginal cost. Choose the level at which the marginal benefit equals the marginal cost.
3. **The Principle of Diminishing Returns.** If we increase one input while holding the other inputs fixed, output will increase, but at a decreasing rate.
4. **The Principle of Voluntary Exchange.** A voluntary exchange between two people makes both people better off.
5. **The Real-Nominal Principle.** What matters to people is the real value of money or income—its purchasing power—not the face value of money or income.

This approach of repeating five key principles gives students the big picture—the framework of economic reasoning. We make the key concepts unforgettable by using them repeatedly, illustrating them with intriguing examples, and giving students many opportunities to practice what they’ve learned. Throughout the text, economic concepts are connected to the five key principles when the following callout is provided for each principle:



**MARGINAL PRINCIPLE**  
Increase the level of an activity as long as its marginal benefit exceeds its marginal cost. Choose the level at which the marginal benefit equals the marginal cost.

## ► HOW IS THE MARKET EQUILIBRIUM CHAPTER ORGANIZED?

Students need to have a solid understanding of demand and supply to be successful in the course. Many students have difficulty understanding movement along a curve versus shifts of a curve. To address this difficulty, we developed an innovative way to organize topics in Chapter 3, “Demand, Supply, and Market Equilibrium.” We examine the law of demand and changes in quantity demanded, the law of supply and changes in quantity supplied, and then the notion of market equilibrium. After students have a firm grasp of equilibrium concepts, we explore the effects of changes in demand and supply on equilibrium prices and quantities.

## ► WHAT’S NEW TO THIS EDITION?

Based on our teaching experiences and extensive feedback from economics instructors, we have revised selected key term definitions, added new graphs, updated existing graphs, and presented new examples and Applications.

We have updated all the discussions of current economic policy to include the recent financial crisis, the current recession, and the policy responses to the crisis. We have also updated examples, graphs, and tables with the latest data available.

Overall, there are 28 new Applications on topics such as elasticity and gasoline prices (Chapter 4), the average costs of a music video (Chapter 5), pharmaceutical companies and their response to generic drugs (Chapter 8), location and car insurance rates (Chapter 9), cultural factors and the Industrial Revolution (Chapter 13), factors that cause recessions in the United States (Chapter 14), and how to cope with the financial chaos of the mortgage crisis (Chapter 16).

We have also revised several Applications: How the U.S. Has Coped with Oil Price Fluctuations (Chapter 14), Were the 2001 Tax Cuts Spent or Saved (Chapter 15), New Ways to Borrow From the Fed (Chapter 17), and The Effectiveness of Committees (Chapter 17).

## ► 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 O’Sullivan, Sheffrin, and Perez’s integrated learning package for the sixth 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 set-up by the 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 Test questions
- Problems similar to the end-of-chapter problems
- Test Item File questions
- Self-authored questions using the 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.

## 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, and 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. Instructors can assign these articles with related, auto-graded questions to assess students' understanding of what they've read.
2. **eText**—While students are working in the Study Plan or completing homework assignments, part 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. **Ask the Author**—Students can e-mail economics-related questions to the author.
6. **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.

## ► WHAT INSTRUCTOR'S SUPPLEMENTS DID WE DEVELOP?

A fully integrated teaching and learning package is necessary for today's classroom. Our supplement package helps you provide new and interesting real-world Applications and assess student understanding of economics. The supplements are coordinated with the main text through the numbering system of the headings in each section. The major sections of the chapters are numbered (1.1, 1.2, 1.3, and so on), and that numbering system is used consistently in the supplements to make it convenient and flexible for instructors to develop assignments.

### Test Item File

*Survey of Economics*, Fourth Edition, is supported by a test item file created by Randy Methenitis of Richland College, Robert L. Shoffner III of Central Piedmont Community College, Brian Rosario of the University of California at Davis, and Kate Krause of the University of New Mexico.

The bank offers multiple-choice, true/false, and short-answer questions. The questions are referenced by topic and are presented in sequential order. Each question is keyed by degree of difficulty as *easy*, *moderate*, or *difficult*. Easy questions involve straightforward recall of information in the text. Moderate questions require some analysis on the student's part. Difficult questions usually entail more complex analysis and may require the student to go one step further than the material presented in the text. Questions are also classified as

*fact, definition, conceptual, and analytical.* Fact questions test the student's knowledge of factual information presented in the text. Definition questions ask the student to define an economic concept. Conceptual questions test the student's understanding of a concept. Analytical questions require the student to apply an analytical procedure to answer the question.

The test banks include tables and a series of questions asking students to solve for numeric values, such as profit or equilibrium output. There are also numerous questions based on graphs: Several questions ask students to interpret data presented in a graph, draw a graph on their own, and answer related questions.

In each chapter, there are several questions that support the Applications in the main book. Each test bank chapter also includes a *new* Application based on a newspaper, journal, or online news story. There are also new questions to support the updated and new content in the main book.

**The Association to Advance Collegiate Schools of Business (AACSB)** The authors of the test item files have connected select 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

*Survey of Economics* Test Item File appears in print and as computer files that may be used with TestGen test-generating software. This test-generating program permits instructors to edit, add, or delete questions from the test bank; analyze test results; and organize a database of tests and student results. This software allows for flexibility and ease of use. It provides many options for organizing and displaying tests, along with a search and sort feature.

## Instructor's Manual

The instructor's manual, revised by Daniel Condon of Dominican University, follows the textbook's organization, incorporating extra Applications questions. The manuals also provide detailed outlines (suitable for use as lecture notes) and solutions to all questions in the textbook. The instructor's manual is also designed to help the instructor incorporate applicable elements of the supplement package. The instructor's manual contains the following for each chapter:

- Summary: a bullet list of key topics in the chapter
- Approaching the Material: student-friendly examples to introduce the chapter
- Chapter Outline: summary of definitions and concepts
  - Teaching Tips on how to encourage class participation
  - Summary and discussion points for the Applications in the main text
  - New Applications and discussion questions
- Solutions to all end-of-chapter exercises

The instructor's manual is also available for download from the Instructor's Resource Center.

## PowerPoint® Lecture Presentation

Three sets of PowerPoint® slides, prepared by Fernando Quijano, Yvonn Quijano, and Xiao Xuan Xu, are available for instructors to use.

1. 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 graphs, tables, 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 in an automated mode, using a single click per slide.
2. 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

Prentice Hall's partnership with CRS, see the following description. Instructors may download these PowerPoint® presentations from the Instructor's Resource Center ([www.pearsonhighered.com/osullivan](http://www.pearsonhighered.com/osullivan)).

3. A student version of the PowerPoint® slides is available as PDF files from the book's companion Web site at [www.pearsonhighered.com/osullivan](http://www.pearsonhighered.com/osullivan). This version allows students to print the slides and bring them to class for note taking.
4. Instructors and students may download these PowerPoint® presentations from [www.pearsonhighered.com/osullivan](http://www.pearsonhighered.com/osullivan).

### Instructor's Resource Center on CD-ROM

The test banks, instructor's manuals, and PowerPoint® slides are also available on this CD-ROM. With this new, highly accessible menu, faculty can easily customize presentations or build their own online courses. By simply clicking on a chapter or searching for a key word, they can access an interactive library of resources. Faculty can pick and choose from the various supplements and export them to their hard drive.

### Instructor's Resource Center Online

This password-protected site is accessible from [www.pearsonhighered.com/osullivan](http://www.pearsonhighered.com/osullivan) and hosts all of the resources previously listed: test banks, instructor's manual, and PowerPoint® slides. Instructors can click on the "Help downloading Instructor Resources" link for easy-to-follow instructions on getting access or contact their sales representative for further information.

### Online Courses: Blackboard and WebCT

Prentice Hall offers fully customizable course content for the Blackboard and WebCT course management systems that includes a link to the MyEconLab software hosting all of the course materials.

### 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 those results instantly. Students can answer questions easily using compact remote-control transmitters. Prentice Hall has partnerships with leading CRS providers and can show you everything you need to know about setting up and using a CRS system. We'll provide the classroom hardware, text-specific PowerPoint® slides, software, and support, and we'll also show you how your students can benefit! Learn more at [www.pearsonhighered.com/elearning](http://www.pearsonhighered.com/elearning).

## ► WHAT STUDENT SUPPLEMENTS DID WE DEVELOP?

To accommodate different learning styles and busy student lifestyles, we provide a variety of print and online supplements.

## Study Guide

The study guide, created by David Eaton of Murray State University and Randy Methenitis of Richland College, reinforces economic concepts and Applications from the main book and helps students assess their learning. Each chapter of the study guide includes the following features:

- Chapter Summary: Provides a summary of the chapter, key term definitions, and review of the Applications from the main book.
- Study Tip: Provides students with tips on understanding key concepts.
- Key equations: Alerts students to equations they are likely to see throughout the class.
- Caution!: Alerts students to potential pitfalls and key figures or tables that deserve special attention.
- Activity: Encourages students to think creatively about an economic problem. An answer is provided so students can check their work.
- Practice Test: Includes approximately 25 multiple-choice and short-answer questions that help students test their knowledge. Select questions include a graph or table for students to analyze. Some of these questions support the Applications in the main book.
- Solutions to the practice test

## The Companion Web Site

([www.pearsonhighered.com/osullivan](http://www.pearsonhighered.com/osullivan))

This free Web site, [www.pearsonhighered.com/osullivan](http://www.pearsonhighered.com/osullivan), gives students access to an interactive study guide with instant feedback, economics news updates, and student PowerPoint® slides to promote success in the Principles of Economics news course.

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