Economics at Work is a multimedia, contextual economics curriculum combining videodisc, video, print, and computer software into a comprehensive, one semester course designed around five major economic activities:

ECONOMICS® at Work

Economics at Work includes instructional modules, computer software, and a classroom utilization component.

The five instructional modules contain

- six Level I barcode-driven videodiscs
- five videocassettes (containing linear versions of the videodisc material)
- five annotated teacher's guides
- five ***Economics at Work*** student guides (sold separately)

The computer software and classroom utilization component consist of

- a set of Windows® and Macintosh® software diskettes
- one teacher training video program
- one workshop leader's handbook

TEACHER'S GUIDE

PRODUCING

MODULE 1

AIT
AGENCY FOR INSTRUCTIONAL TECHNOLOGY

AGENCY FOR INSTRUCTIONAL TECHNOLOGY
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ECONOMICS AT WORK CREDITS

Project Design

Chief Consultant
DeVon L. Yoho, Ph.D.
Department of Economics, Ball State University

Instructional Designer
Richard P. Lookatch, Ph.D.
Agency for Instructional Technology

Print Production

Senior Editor
John Pesta

Features Editor
Rhonda Rieseberg

Designer/Compositor
David Strange

Assistant Designer/Compositor
David Feuer

Lesson Writers
Barbara Flowers
University of Missouri–St. Louis

Sheryl Szot Gallaher
Governors State University (Illinois)

Sarapage McCorkle
University of Missouri -St. Louis

Mary Anne Pettit
Southern Illinois University at Edwardsville

Mary C. Suiter
University of Missouri–St. Louis

Writer
Teacher's Guide Introduction; Workshop Facilitator's Guide
Sybil Eakin

Illustrators
Dave Carpenter
Grady Gunter
Maureen O'Hara Pesta
Chris Sharp

Logo and Cover Designer
Brenda Grannan

Video Production

Executive Producer
Gary Mills

Scriptwriters
Julie Kirgo
Joey and Patrick O'Donnell
Mary Trimble

Writers
Teacher Advisement Component
Lisa Ellison
Robert Catus

Student Assessment Component
Michael Mysker

Producers
David J. Gudaitis, Ph.D.
Sharon Greene
Robert Risher
Carrie Savage-Zimmerman

Assistant Producers
Katie Ertmann
Brad Bloom

Video Editor
John MacGibbon

Assistant Video Editor
Amy Crowell

Original Music Composers
Hugh Kremer
Benjamin Schneider

(Continued on next page)

Software Development

Programming and Graphics
Created by Susan Mahoney & Associates, Inc.

Scriptwriter
James E. Clark, Ph.D.

Software Content Consultants
Brenda Benda
Roberta Floyd, Ed.D.
Jeff Hamilton
Jerry Pepple, Ed.D.
Chuck Scott
Peter Searls
Glenn Stidd

Special Consultants

William Yohe, Ph.D.
Department of Economics, Duke University

Michael Mysker
Department of Economics, Indiana University

Project Management

Frank J. Batavick
Director, New Products and Projects, AIT

Consortium Formation and Funding
John Nelson

Project Coordinator
Diane C. Sumner

Packaging and Marketing
Wayne Thoren
Jerry Rosenbusch
Scott Anderson

Administrative Assistant
Connie J. Williamson

Project Evaluation

Powell International, Inc.

Content Consultants/Reviewers

Thom Arnotte, Old Town, ME
Steven Baker, Gresham, OR
Del C. Bibles, Cairo, GA
Ronnie D. Brown, White Oak, NC
Pamela Bryant, Guntersville, AL
Judy Butler, Nashville, TN
Robert Catus, Indianapolis, IN
Vickie L. Chandler, Bruneau, ID
Milton Chapin, South Ostelic, NY
Karen Chilton, Auburn, NY
Tom Cleveland, Hancock, NY
Dee Colvin, Bardstown, KY
Judy Commers, Valparaiso, IN
Charles F. Cook, St. Simons Island, GA
Alan B. Curtis, Presque Isle, ME
Richard V. Dannhoff, LaCrosse, WI
Devin Davidson, Buffalo, MN
Anita K. Decker, Bismarck, ND
Larry D. Denton, Hatfield, AR
Lisa C. Ellison, Kokomo, IN
Allen Feldeverd, Nicollet, MN
Jason Fickett, Mapleton, MN
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Michael Gecawich, Warwick, RI
Rita Geiger, Norman, OK
Harold Gilbert, Anderson, SC
Rita Grimm, Howard Lake, MN
Joyce E. Hall, Buffalo, WY
Betty Hampton, St. Louis, MO
Leonard Holmes, Windham, ME
John Huisman, Blue Earth, MN
George W. Irwin, Peoria, IL
Suzanne Johnston, Brookville, PA
Betty Jones, Orlando, FL
Abbejean Kehler, West Worthington, OH
Gene LaRochelle, Calumet, MI
James Marlin, Ph.D., Lincoln, NE
Alfardretta M. Mason, Charlotte, NC
Thomas R. McKinnon, Ph.D., Fayetteville, AR
Michael Min, Pearl City, HI
Jack C. Morgan, Ph.D., Louisville, KY
Anna M. Northrop, Sheridan, WY
Tim O'Laughlin, Belle Plaine, MN
Carol Penland, Smyrna, GA
Virginia Peters, Jordan, MN
Charles W. Petersen, Ph.D., Portland, ME
Roger Popelka, LaCrosse, WI
F. Bradford Prior, Wyoming, RI
Frank Schleicher, Buffalo, WY
Margaret G. Thompson, Fort Smith, AR
Sandy Tracy, Hutchinson, MN
Ron Turner, Bangor, ME
William H. Turner, Washington, IN
Nanci VanLoan, Wells Bridge, NY
Tom Welsh, Bloomington, IN
Kathy A. White, Indianapolis, IN
Jon Williams, Rochester, MN

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Economic Literacy

We believe that every high school student in America should become economically literate and oriented to private enterprise. Students should understand and use economic ways of thinking and problem solving in order to live and work effectively as citizens in a changing world of commerce. Your use of Economics at Work *with your students will help us accomplish this important goal.*

—Robert F. Duvall
President and CEO
National Council on Economic Education

FOREWORD

ECONOMICS AT WORK: A NEW LEARNING EXPERIENCE FOR STUDENTS OF ECONOMICS

Economics is "a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions."

—John Maynard Keynes

I do not have faith in the market, I have evidence in the market.

—Thomas Sowell

WELCOME to *Economics at Work*. This curriculum should serve you well as your principal tool for teaching economics. It uses the latest instructional technology to prepare students to engage in the economic way of thinking, and it enables students to relate to economics by presenting the concepts and principles of this subject in workplace settings to which they can easily relate.

The economic way of thinking employs a relatively short list of concepts to bring order and understanding to the economic activities of producing, exchanging, consuming, saving, and investing. Students of economics—economists—know how these activities fit together.

These concepts allow us to make sense of economic activities, both as observers and as participants. They also allow us to appreciate the interdependence of economic activity—even if we never fully comprehend it. As a result, we are better prepared to understand that the economic policies we pursue, in an effort to manage pressing social problems, have consequences that are often far different from what we initially predict.

Because these concepts facilitate the understanding of economic activity and policy, it is appropriate to study them within the contexts in which they occur. This is precisely what *Economics at Work* does. Just as the need to know and understand basic economic concepts takes place in the context of the real world, so also students will learn and demonstrate their understanding of the concepts in a context to which they can relate and respond. For example, in the lesson "TicketMax," where students need to learn and understand transaction costs, they develop their understanding of such costs in the context of an actual market for concert and sports tickets.

Students' progress can be measured in many ways in *Economics at Work*. Besides the traditional questions and problems that appear in the printed guides, video-based assessment allows students to answer content questions by drawing on cues and prompts embedded in the video programs. While students should find the video interesting and enjoyable, these programs are far from mere entertainment. They are rigorous in the economics they dramatize, teach, and evaluate.

Videodisc technology not only provides support for the teacher in the form of an "assessment track," but it also provides a "teacher advisement track" that offers suggestions on how to present the material in the lessons as effectively as possible. Teachers may access the advisement component by swiping barcodes, which trigger content and pedagogy instruction that plays over the video students will see. This provides another dimension to the effective use of *Economics at Work*.

As you will see, *Economics at Work* is a complete instructional package, with many aids for teachers and students. But it is your human capital as an educator that is the critical input needed to generate the desired student outputs. I am sure you will find these materials an exciting and rewarding way to teach the concepts and principles of economics.

—DeVon L. Yoho, Ph.D.
Director, EconomicsAmerica

INTRODUCTION

ECONOMICS AT WORK

OVERVIEW AND RATIONALE

BEFORE long your students—the workers and employers of tomorrow—will be making decisions that are vital to the economic health of the nation. To decide wisely, they must have a sound foundation in the principles and concepts of economics, especially those affecting the free market and the workplace. *Economics at Work* is a new kind of resource—multimedia, interactive, and context-based—that will help you provide this essential foundation in economics.

Background

Since the publication of *A Nation at Risk* in 1983, several clear pointers have emerged to guide America's schools in preparing students for the 21st century. Two reports by the Secretary's Commission on Achieving Necessary Skills (SCANS) published in 1991 and 1992, combined with the school-to-work movement, have fueled the development of applied-academics curricula in science, mathematics, and English/communications. In spite of the growing recognition of the value of such curricula, however, no substantial applied-academics resources exist in social studies or business education.

This lack is especially surprising in the field of economics, which is naturally suited to an approach that applies concepts and principles to the problems and decisions of the workplace. As governments at all levels grapple increasingly with economic problems, students who will soon be workers need to be able to understand and discuss these complex issues. The "workplace know-how" advocated in the SCANS reports includes an understanding of economic forces that affect the workplace. Without this practical knowledge, employers and workers at all levels are likely to make poor workplace decisions based on faulty understanding of the principles of economics. As a result, their companies, their jobs, and ultimately their nation's prosperity may fall victim to economic ignorance.

Economics at Work

Exploiting the latest instructional technologies and methods, the Agency for Instructional Technology and the National Council on Economic Education have joined forces to develop a one-semester course that will help all secondary students apply economics to real-life experiences. The 27 lessons (20 of them centered around interactive video), the computer software, and the printed guides for students and teachers will provide your classes with a contextual foundation for the economics that you have been teaching. The materials are designed to support the five competencies and the foundation of skills laid out in the two SCANS reports. The software contains realistic problems involving economics in each of seven different career clusters.

The content of the lessons has been drawn from *A Framework for Teaching the Basic Concepts, with Scope and Sequence Guidelines* (1995), the National Council's Master Curriculum Guide in Economics. *Economics at Work* sets the principles and concepts of economics in an everyday or workplace context and challenges students to draw on a range of information, knowledge, and skills to solve problems, often in cooperation with one another. The curriculum offers you the materials and activities you need to meet the guidelines of these reports as well as the call for a school-to-work curriculum.

Education for Employment

The 1991 SCANS report, *What Work Requires of Schools*, spelled out the five "competencies" that workers need for success on the job. These competencies are listed below, together with a description of how *Economics at Work* addresses each of them. Effective workers can productively use:

- **Resources: allocating time, money, materials, space, staff**—The study of economics is the primary discipline for teaching students how to interpret, analyze, and solve problems involving the

management of time, money, human resources, and materials and facilities.

- **Interpersonal Skills: working on teams, teaching others, serving customers, and leading, negotiating, and working well with people from culturally diverse backgrounds**—Every module concludes with a substantive cooperative learning activity in which students are grouped according to their specific vocational interests and goals. Many of the activities suggested in the print also lend themselves to group work. In addition, many of the documentary and dramatic sequences highlight teams and groups working together to solve problems.
- **Information: acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information**—To solve the problems presented in the video segments and in their guides, students will need to evaluate, organize, interpret, and communicate data from a variety of sources. In the cooperative learning activities, they will also use computers to process information.
- **Systems: understanding social, organizational, and technological systems; monitoring and correcting performance; and designing or improving systems**—By studying the basic concepts in economics—producing, exchanging, consuming, saving, and investing—through examples from realistic business contexts, students will be introduced to the complexities of economic relationships in a market economy.
- **Technology: selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies**—*Economics at Work* is a multimedia curriculum, providing opportunities for students to work with and integrate material from print, video, and software sources. The documentary segments of both the video and print also present contemporary accounts of the effect of developing technologies on various businesses.

Economics at Work also addresses the three "foundation skills" cited in the SCANS report:

- **Basic skills**—reading, writing, arithmetic and mathematics, speaking, and listening
- **Thinking skills**—thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning
- **Personal qualities**—individual responsibility, self-esteem, sociability, self-management, and integrity

All lessons, both in their interactive video-based components and in the activities presented in the guides, require students to discuss, debate, and defend their decisions. They must also work with others to solve problems and to communicate their results, both orally and in writing.

In the second SCANS report, *Learning a Living: A Blueprint for High Performance* (1992), the commission addressed the changes and reforms that schools must make to implement the SCANS competencies and skills and to "bring all students to a level that, in the past, only a small minority reached." *Economics at Work* emphasizes contextual learning. The curriculum links abstract concepts with "real world" examples, and the challenging assessment suggestions require students to solve actual workplace problems. Field activities bring the community into the classroom and take students into the community, further supporting the recommendations of the report.

School to Work

School-to-work and applied-academics initiatives have flowered in response to the SCANS and other recent reports that have voiced concerns about students' lack of preparation for the workplace. Studies have found that the traditional classroom does not encourage the development of skills that students need to succeed in the workplace. Instruction has commonly been teacher-centered, with the instructor leading the group in practicing textbook problems and solutions. Drills, homework exercises, and tests measure students' achievement in recall and mental manipulation rather than in application or understanding.

Unfortunately, many students, especially those who learn abstract concepts in concrete ways, do not understand the relevance of such mental exercises to the real world. In *Economics at Work*, concepts are introduced not in a traditional linear sequence but rather in a context to which students can more easily relate; the context itself partly determines the concepts that are taught at that point in the lesson.

School-to-work transition programs help learners make the connection between school and employment. They seek to bridge the gap between what schools teach and what the workplace requires. This approach is based on a core of challenging courses in which traditional academic skills are taught by showing how those skills are used in a workplace setting. School-to-work programs prepare learners either for direct entry into the work force as technically skilled employees or for further education leading to advanced certification or academic degrees. School-to-work programs emphasize four key components:

- **Motivation**— Young people must be encouraged to stay in school and graduate.
- **Enablement**— Educators must enable learners to reach high academic achievement.
- **Linkage**— Classroom curricula must link school and work so that learners understand the importance of learning the skills they will need in the workplace.
- **Employment**— Education must lead to initial and continued employment.

In a general way, the entire *Economics at Work* curriculum, with its emphasis on contextual examples and actual workplace problems, supports these guidelines. More specifically, at the end of every module, an application lesson that is presented on computer software permits students to collaborate in applying economics concepts and reasoning strategies to problems set in their particular area of career interest.

This curriculum provides a choice of seven general career clusters. These clusters are categorized in ways that are aligned with—though not necessarily identical to—the career classification systems of most states. The seven areas are:

- agriculture/natural resources
- mechanics and transportation
- business and computer technologies
- health and human services
- engineering technologies
- construction and design
- communication technologies

Instructional Philosophy and Approach

Contextual Learning

The lessons in *Economics at Work* use videodisc technology to present economic issues in the context of actual workplace settings and documentary case studies. For every illustration, students are required to learn, elucidate, and apply basic concepts and principles, often by answering questions that ask them to consider the causes and the consequences of certain events. Interactive lessons within modules present economic problems arising from the challenges that workers face in real-life situations—for example, foreign exchange, transaction costs, and efficiency considerations at a Corvette plant, where many foreign-produced parts are used to manufacture a "domestic" car. Studies have shown that this approach, which asks students to solve actual workplace problems, has proven highly effective for learning outcomes.[1]

Authentic Instruction

Lesson design and student activities are driven by the five standards of authentic instruction described by Newman and Wehlage of the Center on Organization and Restructuring of Schools.[2] These standards are integrated into *Economics at Work* in the following ways.

- **Higher-order thinking**— The course requires students to manipulate economic information and concepts; generalize about events and their effects; speculate and hypothesize about causes and consequences; analyze, interpret, and explain complex workplace situations; and draw conclusions from observation and data.
- **Depth of knowledge**— The course is designed to permit sufficient time and background for students to analyze situations in depth, to make distinctions, to create arguments and construct explanations that support them, and to investigate and explain a variety of consequences.
- **Connectedness outside the classroom**— The illustrations connect economic principles and concepts with actual businesses, with real workers, and with the personal activities and experiences of students.
- **Substantive conversation ("talking to learn and understand the substance of a subject")**— The instructional materials are designed to include

opportunities for group interaction, sharing of experiences, and cooperative analysis and problem solving to reach a coherent and reasoned understanding and consensus.

- **Social support for achievement ("high expectations, respect, and inclusion of all students in the learning process")**—No single curriculum, by itself, can change a school's learning climate and culture; however, the teaching suggestions and inservice information on the videodiscs and in the annotated resource guides will help teachers to convey high expectations, to encourage risk taking, and to challenge students to improve. In addition, the teacher materials encourage interdisciplinary cooperation and promote staff collegiality. The student materials are user-friendly and inviting, but at the same time they require learners to grapple with sophisticated concepts and real problems. The materials are also designed to encourage pair and group activities that foster cooperative learning. Students receive ample opportunities to take pride in genuine achievement.

Cooperative Learning

Reflecting the modern workplace, many activities in the lessons encourage students to work together in pairs or small groups. Extension sections contain numerous optional activities for students who share an interest in the same career cluster (see page x).

In addition, the application activities in the seven software programs, which augment each of the five modules, permit students to select a challenging problem scenario related to the general career area they have chosen. Small groups of students who choose the same career area and program work together to solve the problem posed in the software. This cooperative learning project is designed to help all members of the group learn. By collaborating to attain a shared goal, students improve their social skills at the same time they acquire knowledge.

Limited English Proficiency

Economics at Work demands rigorous thinking on the part of students. The concepts taught in the course and the activities supporting the concepts are designed to stimulate and challenge all students, including those who are academically inclined. For these reasons, students with limited comprehension of English may require extra support and attention. Nevertheless, many features of the curriculum will help them, especially the 20 video programs, which dramatize economic events and the application of economic concepts, and the glossaries contained in the print and the software. Graphics and charts in the print and in the database on the videodiscs will also support their learning and help them understand the printed materials.

Encouraging Cooperative Learning in Your Classroom

IDEALLY, cooperative learning transforms the competitive instinct into teamwork. Much depends on teacher preparation, especially the adoption of effective grouping strategies and the avoidance of potential conflicts. Student choice, ability groups, peer tutorials, and career-interest teams may provide useful bases for grouping. To ensure that authentic collaboration is occurring, it is essential to monitor the interactions, especially in the early stages of group work. Without such monitoring, cooperative learning may fail either because one or more members "free ride" on the work of others, because cliques of students undermine others' cognitive efforts by rushing assignments to conclusion ("task gang-banging"), or because high-ability students lower their output in resistance to being "used" by less able peers.

The "group retest" technique has been shown to facilitate a cooperative social atmosphere. A teacher using *Economics at Work* may use this technique by first administering the assessments, which appear at the end of each lesson, to the class as individuals. Then the class may divide into small groups, which can attempt to answer the same questions cooperatively, discussing items, using appropriate resource materials, and developing and submitting a single answer sheet for the group. This technique may be especially fruitful when group members share a similar career interest. When the whole class gathers again, groups' answers can be discussed, and the next day their results can be posted.

Well-documented research manifests that cooperative activities of this kind enhance achievement, improve social skills, and ease the adjustment to workplace environments that demand collaborative skills.

Course Content and Organization

Course Objectives

Economics at Work is designed to help students achieve five goals:

- understand and interpret relatively commonplace economic events through the study and application of everyday economic concepts
- acquire critical-thinking and decision-making skills needed for workplace and career decision making
- comprehend the economic activities (producing, exchanging, consuming, saving, and investing) of individuals, companies, labor, and government, along with the interdependence of these entities
- understand the market system in a global economy
- comprehend the impact of economic events on careers, the workplace, and lifelong learning

Curriculum Materials

The multimedia curriculum makes use of these resources:

- 11 interactive **videodisc** sides (one to four sides per module); alternatively, five noninteractive **videotapes** can be substituted if videodisc players are unavailable
- five **student resource guides** (one per module)
- five **teacher's guides** (one per module)—annotated versions of the student guides, containing barcodes for accessing the videodisc segments
- **computer software** containing application activities (35 activities, one for each of seven career clusters); these activities are designed to follow each of the five modules
- a special **teacher advisement track** on the videodiscs (but not on the videotapes), offering content enhancement and instructional suggestions
- an **assessment track** on the videodiscs (but not on the videotapes), linked to video segments that are suitable for portfolio as well as traditional assessment procedures
- **classroom utilization component**—a teacher training videotape and a workshop leader's guide

Although the videotapes provide an option when videodisc players are not available, only the videodisc version will permit teachers and learners to take full advantage of the curriculum's interactive design and features.

The student guides provide blank spaces and empty lines for students to work out problems and to answer questions; therefore, the guides may be treated as consumable items. But directions for all written activities in the guides include the option of writing on "a separate sheet of paper," according to school policy or teacher preference. Teachers may also ask students to maintain journals in which they enter all written work. The guides lend themselves well to any of these practices.

The software programs are designed for small groups of students who share an interest in one of the seven career clusters. The 35 software programs (five simulations for each cluster) encourage students to apply the information and understanding they have gained in a module to realistic challenges in their own field of interest. Although the software may be used by individuals, it has been crafted for small teams of from two to four students.

Packaging

The videodisc(s), videotape, and printed guides for each of the five modules are packaged together. A sixth box contains the classroom utilization materials and the computer software diskettes, which contain the career application activities for use with all modules.

Portfolios

Teachers are strongly urged to have students maintain **portfolios** for collecting their work during the course. Module assignments, printouts of software activity, and tests collected in folders will allow instructors and students to track performance across all modules. A portfolio represents a convenient way for the instructor to monitor progress from one module to the next. The student may also find a portfolio advantageous when applying for a job, inasmuch as its contents can demonstrate the applicant's ability to perform key skills.

Module Topics and Treatment

The curriculum is divided into five modules, each organized around a central economic activity: producing, ex-

changing, consuming, saving, and investing. These modules are best taught in the sequence in which they are presented. Each module contains up to eight lessons spanning from 12 to 20 class periods of 50 minutes each. Taken together, the lessons in the five modules provide a comprehensive semester-long experience (75 class periods) in applied economics. The box below contains a brief description of module contents.

Contents of Modules

1. **Producing**—the activities and institutions needed to transform human and nonhuman resources into goods and services that satisfy individual and collective wants; eight lessons plus application and field activities; 20 class periods

   Concepts—resource allocation, demand, supply, costs, market price, profit, efficiency, equity, market structure, input and output prices, competition, comparative advantage, economic stability, economic growth

   Contextual illustrations—profits and loss at a General Motors plant; bicycle sales and manufacturing profits; profits, losses, technology, and competition in architecture and landscaping businesses; unemployment issues in the computer industry; foreign trade and its impact on the athletic shoe industry; labor costs and productivity in the United States and other countries; employment during recessions

2. **Exchanging**—the activities and institutions needed to deliver what is produced to consumers; four lessons plus application and field activities; 14 class periods

   Concepts—costs, transaction costs, markets, efficiency, transportation, merchandising, externalities, functions of money, foreign exchange, debtor, creditor, anticipated and unanticipated inflation, equity, economic stability

   Contextual illustrations—different means of ordering tickets to entertainment events; indirect costs of trash; use of foreign-produced components in the manufacture of cars; Consumer Price Index, inflation, credit and debt, the value of the dollar, and effect of these on a young photographer who needs to invest in new materials and equipment

3. **Consuming**—the activities and institutions needed to satisfy individual and collective wants; six lessons plus application and field activities; 17 class periods

   Concepts—competition, demand, supply, governmental regulation, efficiency, equity, market, public goods, externalities, equilibrium price, incentives, inventory, replacement and acquisition prices, comparative advantage, input prices, transportation costs, income, employment, economic stability

   Contextual illustrations—reasons for local, regional, and national price differences experienced by students traveling during spring break; effect of cost of pollution regulations on prices; price changes of gasoline and building supplies; difference between Mexico's and Korea's consumption of U.S. products; comparison of purchases of goods by unemployed and employed

4. **Saving**—the activities and institutions needed to satisfy the preference to consume more later; four lessons plus application and field activities; 13 class periods

   Concepts—market structure, supply, demand, costs, risk, efficiency, scarcity, income, choice, opportunity cost, interest rate, cost/benefit analysis, profit, equity, disposable income

   Contextual illustrations—difference in bank interest paid on savings and interest charged for 36-month new-car loan; difference between cash and credit prices of cars and stereos; effect of decreasing interest rates on investment decisions in agriculture; rising interest rates and the effect on savings accounts

5. **Investing**—the activities and institutions needed to increase resources and productivity; five lessons plus application and field activities; 11 class periods

   Concepts—productivity, demand, supply, opportunity cost, present value, discounting, interest rate, annuity, human capital, specialization, surplus, economic security, input prices, substitution, profit, efficiency, equity, economic stability, GDP, investment, economic growth

   Contextual illustrations—differences in earning powers of graduates of college, trade school, and high school, as observed at 10- and 20-year high school class reunions; effect of interest rates, present value, and future value on a decision to make a loan; robotics and automation and effect on employment in the medical field; investment in either tools or luxury goods by a young tradeswoman and effect of this kind of decision on GDP

Lesson Design

The first lesson in Module 1 introduces the five module activities (producing, exchanging, consuming, saving, and investing) and dramatizes the effect of economic events on people at work and in their personal lives. The video segments take viewers on a walk down Market Street in Anytown, U.S.A. The interactive feature permits students to see examples of any of the five economic activities they choose and to practice identifying the activities in additional settings.

This lesson also defines the concept of scarcity and explains how this concept, combined with the assumption that all individuals seek to satisfy their needs and wants with the least amount of effort, provides students of economics with a foundation for describing all economic activity and behavior.

All lessons draw their content from the National Council's *Framework*. Every lesson introduces an economic event in general terms in the printed guide ("Econ Briefing" and "Power Up"). When applicable, the guide then presents an introduction to the video segment ("Take a Closer Look"), which is punctuated with questions and problems ("Economic Puzzle Challenge") that draw in the students as active viewers and learners. (Twenty of the 27 lessons are accompanied by video.) This is followed by a "Put It Together" section in which the main themes of the lesson are connected.

Finally, the guide presents a concluding section with summary ("Net Gain"), extension ("Building on Success"), and assessment ("Quality Control") activities.

(Note: Some of the department headings in the seven nonvideo lessons have titles that differ from those of the video lessons. For example, in the print-only lessons "Case in Point" takes the place of "Economic Puzzle Challenge"; however, there is a general correspondence among the two types of lessons.)

Here is the sequence of a typical video lesson:

Introduction of an Economic Event and Related Concepts—Print

In the lesson "Nice Shoes!" the general economic event that is presented could be summarized as "The output of some firms is exported far from the place of production." The guide describes the experience of a young worker in a small town shopping at the only furniture store. This scenario leads students to consider the concept of competition. Students are asked to suggest options for the young worker to find less costly furniture.

Then examples, questions, and activities lead students to explore the economics of the production of oak (for furniture frames) and leather (for luxury upholstery) in order to discuss the concept of absolute advantage. The guide then compares two printing firms to introduce the concept of comparative advantage. Students are asked to decide whether each of the two firms should specialize in one kind of production, and, if so, which kind.

Video Presentation and Problem-Solving Challenges—Video and Print

The video in "Nice Shoes!" features the athletic shoe industry. The program is divided into several parts, which feature the design and production of shoes, a manufacturer's need to import leather for shoe production, the effect of a competitor's lower prices, and the effect of increased exports on U.S.-made shoes.

The videodisc segment pauses on screens that present discussion questions. (The videotape version must be paused manually.) All on-screen questions are also contained in the guides, where they are supported with background information. Some questions may require students to look up information or to do research. After discussion (or during the next class meeting), barcodes in the teacher's version of the guide permit the teacher to resume the videodisc segment.

These on-screen questions form part of a complex, multipart "Economic Puzzle Challenge." In every part of the challenge, students are typically asked to consider several options and to select a course of action or an appropriate response ("Decision Time"). Barcodes permit the teacher to play different portions of the videodisc in order to display the consequences of each option, in response to students' choices. Frequently additional sections in the print ("For More...") provide further information related to the challenge.

Conclusion—Print

The next three sections of the lesson appear in the guide. In "Nice Shoes!" the "Put It Together" section presents several high-interest short readings that explore currency

exchanges, the economic effect of the 1995 Kobe earthquake, and the economic impact of a popular rock group, the Beatles, in the 1960s and today. "Net Gain" offers students a chance to review key concepts and to apply them to other situations and to their own lives. "Building on Success" suggests creative extension activities, often to be completed in pairs or small groups.

Application and Field Activities

After completing the lessons in a module, teachers are encouraged to provide their students with time to complete the application activities related to the seven general career areas contained on the computer diskettes. The problems presented on the diskettes have been carefully designed for group use. All members of a group are required to enter responses to questions and problems. Furthermore, the programs retain all files on which groups work so that teacher or students can review and check them. The programs also delineate the contribution of each member of the group.

Assessment

For video lessons, "Quality Control," the final section of each lesson, contains two sets of questions for assessment purposes. The assessment opportunities are appropriate for both traditional and portfolio assessment methods.

The first set of questions, "On Your Own," appears only in the guides. Students may work on these either at home or in class, as the teacher prefers. The questions may be answered in the guides, on separate sheets of paper, or in journals. Suggested answers are contained in the annotated teacher's version of the guide.

A second part of the assessment section, "In Class," is linked to a special assessment track on the videodisc. By swiping barcodes, teachers can play questions as voice-overs to video footage that students previously viewed. Students are prompted to reflect upon and to apply previously learned material in new contexts. Then they answer the questions in class. (This assessment audiotrack is not available on the videotape version; nor is it accessible on older videodisc players.) Questions and correct answers to the questions are printed in the annotated version of the guide.

Teacher Support

Instructional Suggestions (Teacher Advisement Track)

An additional audiotrack on each of the *Economics at Work* videodiscs offers ongoing suggestions to teachers for introducing material and for managing student activities. Teachers can access these suggestions by swiping barcodes in their guides. (The teacher advisement track is not available on the videotape version of the curriculum.)

Extension Activities

In addition, the guides contain ideas for extension activities involving the community. These include suggestions for business and professional persons whom students might interview, individuals who might be invited to speak in class, "shadowing" or observation activities, research into local companies, and field trips.

Classroom Utilization Component

A videotape demonstrates actual classroom use of the *Economics at Work* curriculum. In addition, a workshop leader's handbook provides agendas and information for workshop leaders whose task is to introduce the curriculum to teachers. These materials are packaged with the software diskettes that contain the application and field activities.

Appendix—Videodisc and Print

The Appendix to every guide includes a glossary of the key terms ("Econcepts") introduced in the lessons. The glossary appears in both the student and teacher versions of the guides.

In addition, the teacher's version of the guides includes a list of resources, featuring a bibliography of books and articles for further information and background. The teacher's resource also contains a database of graphs and charts that are accessible by barcode from any videodisc; for instance, a teacher who wants to display a graph showing the relationship between price levels and output may swipe the appropriate barcode and bring up the graph on the video monitor, no matter which videodisc side is in the player.

Using Multimedia Technology

The *Economics at Work* curriculum takes full advantage of the resources of multimedia technology to stimulate student interest and to involve students in active learning. Interactive videodiscs or videotapes and computer software help deliver and support the lessons in the printed guides.

Instructors receive additional support through the special teacher advisement track, which contains suggestions for optimizing the effectiveness of the lessons. Further support is provided through an assessment track and an extensive database—which are accessible by barcodes in the guides—and through the classroom utilization component.

Interactive Videodiscs

Interactive videodiscs permit instructors to show students any part of a videodisc merely by swiping a barcode either with a wand or an automatic barcode reader. This nonlinear mode of instruction enables teachers to move swiftly from one segment of the videodisc to another for such purposes as exploring related topics or reviewing earlier material.

Instructors may also have students use barcoded material for individual work or remediation. Teachers may also access assessment material, instructional suggestions, or database items by using barcodes. (Note: The assessment and support materials, recorded on separate audiotracks, require LB2 videodisc players.)

Videocassettes

For instructors who do not have videodisc players available, a linear version of *Economics at Work* has been developed on videocassettes. The instructional materials on these videotapes are the same as those on the videodiscs; however, tapes do not allow instructors instant access to whatever part of the materials they wish to use. Instructors face the minor inconvenience of having to rewind or fast-forward to reach the desired part of a videotape.

To minimize this problem and to save classroom time, teachers should determine beforehand the exact locations of the segments that they wish to show in class. Each videotape contains a running clock (hour, minute, second) in the upper left-hand corner of the screen. Its purpose is to assist teachers in locating or cuing up specific parts of the tape. In addition, by using the counting display on a videocassette recorder or videocassette player, teachers can quickly move to the exact spot desired.

When viewing tapes, logical places to pause are the still frames containing discussion questions. Upon reaching these points, the teacher should press the Pause button on the tape player (not the Stop button, which may create a loud burst of static). At the end of the discussion period, the instructor may press the Play button to resume the tape.

The videocassettes do not contain the additional audiotracks with assessment and instructional suggestions; nor do they provide programmed interactivity or permit access to the database, which is barcoded in the guides. However, the videocassettes are closed-captioned for hearing-impaired individuals. (Videodisc technology does not allow this feature.)

Advantages of Videodiscs

Videodiscs offer several advantages over conventional classroom audiovisual materials, including filmstrips, slides, movies, or videotapes.

- Videodiscs are practically indestructible.
- They are easy to use.
- Access is fast and unlimited—an instructor can display any segment on the videodisc within seconds.
- Videodiscs save time, eliminating the need to rewind and fast-forward through a videotape to find a certain part.
- They allow special effects to enhance a classroom presentation. The instructor can freeze individual frames on the TV screen, step through a series of frames one at a time, or show scenes in slow motion.
- Videodiscs reduce storage space. They are compact, yet they hold a large amount of information. The *Economics at Work* videodiscs contain additional assessment questions, instructional suggestions, and an extensive database, all of which are barcoded in the guides.

How to Use a Videodisc Player

Setting Up

***Option A**—If the TV or Monitor Has Separate "Video-In" and "Audio-In" Ports:*

1. Connect the video-out port at the back of the videodisc player to the video-in port of the TV or monitor.
2. Connect the audio signal from the videodisc player to the TV or monitor.
3. Switch the TV to the appropriate source. (A button designated "Ext." or "Aux." will usually be found among the controls on the front of the set.)

***Option B**—If the Monitor Has Only a Single Coaxial-Cable Input:*

1. Connect the videodisc player's "RF" port (if it has one) to the coaxial "Antenna" or "Cable" port on the TV or monitor. (If the videodisc player does not have an RF port, then an RF modulator will be needed. This item can be purchased at an electronics supply store. If a modulator is needed, the videodisc player must be connected to it with the video and audio cables, and the modulator must be connected to the TV or monitor with the single coaxial cable.)
2. Under this option, the picture must be viewed on Channel 3 or Channel 4. Select the one desired on the TV or monitor and, if necessary, on the back of the videodisc player.

General Operating Instructions

1. Turn on the Power switch of the TV or monitor.
2. Turn on the Power switch of the videodisc player.
3. Press the Open/Close button—the videodisc table will extend from the player.
4. Place a videodisc on the table, with the labeled side of the videodisc to be played facing up. Use only one videodisc at a time. Take special care to align the videodisc within the guides on the table.
5. Press the Open/Close button—the table will close.
6. Some videodisc players require that a Play button be pressed to begin use.

Using the Barcode Wand

1. Press and hold down the Read button on the barcode wand.
2. Read (swipe) the barcode while constantly holding down the Read button. Hold the wand in a vertical position as if holding a pencil, and move it horizontally across the barcode in either direction. Be sure to swipe the entire barcode.
3. After the barcode has been read, an electronic "beep" will sound. (If the attempt to read the barcode was unsuccessful, change the angle at which the wand is being held, or modify swiping speed.) Next, aim the wand at the videodisc player and press the Send button.
4. If the barcode wand is hard-wired to the player, the wand automatically sends its instructions to the player after the swipe. If the barcode wand has no wire, press the Send key.

Note: Some of these instructions may not apply if you are using an automatic barcode reader.

Swiping the barcode wand is an acquired skill that takes a little practice. It's all in the wrist, and as time goes on you'll learn how easy the wand is to use. So don't be impatient. Do some "dry runs" before class. There's a learning curve for any new technology. The practice will be worth the effort.

Overall, using a videodisc player might take some practice at first, but once the technique is mastered it's as easy as pushing a button.

Caring for Videodiscs

1. When loading or removing a videodisc, hold it by the edges and try not to touch its playing surfaces.
2. Although fingerprints and other dirt on the videodisc will not actually damage the recorded signal, such soil will reduce the brightness of the light that is reflected from the signal surface. This can impair sound or picture quality. If the videodisc is dirty, clean it with a soft, damp, clean cloth before playing. *Do not clean the videodisc with record-cleaning or static-prevention sprays. Never use a cracked, scratched, or warped videodisc, for this can damage the player.*
3. After using a videodisc, always remove it from the player and replace it in its jacket. Store it vertically, away from excessive heat and humidity.

Follow any other instructions provided by the manufacturer for using the videodisc player and barcode reader.

Software

The software diskettes containing 35 application problems in seven different career clusters are designed for use with either Windows®- or Macintosh®-based operating systems. The software is self-contained and requires no other word- or data-processing program.

Computer Hardware Specifications

WINDOWS

- CPU: 386SX 16 MHz or compatible processor
- 4 MB RAM, 8 MB recommended
- Hard-drive space required, 30 MB
- Windows-compatible sound card, 8 bit DAC, 8 bit ADC
- Video display resolution of at least 640 x 480 with 256 colors
- Windows-compatible printer
- Windows 3.1 or higher; Windows for Workgroups 3.1 or higher; MS-DOS or PC-DOS 3.3 or higher

MACINTOSH

- Mac LCII or better with a minimum of 16 MHz 68020, 68030, or 68040 accelerator; or PowerMac compatible
- 13" monitor (640 x 480) or larger, 8-bit color or grayscale
- Hard-disk space, 30 MB
- At least 4 MB RAM, 2 MB available for program use
- System 6.0.7 or later

Some Compatible Laserdisc Equipment*

- Pioneer 2400, 2600, 8000 Models or later
- Sony MDP 1150, 1700 AR Models or later
- Suggested barcode readers: Pioneer Model V108-BC; Sony Model RM-B1150

*Not all-inclusive

ELECTRONIC MEDIA LIMITED WARRANTY

The Agency for Instructional Technology ("AIT") extends the following warranty to the original customer only.

Warranty Coverage

This warranty covers the media on which the AIT software/data are recorded. This limited warranty does not extend to the information contained on the media and in the accompanying book materials (the "software/data"). The media product is warranted against malfunction due to defective materials or construction.

This warranty is void if the media product is damaged by accident or unreasonable use, neglect, installation, improper service, or other causes not arising out of defects in material or construction.

Warranty Duration

The media product is warranted for a period of three months from the date of the original purchase by the customer.

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A. Any implied warranties that arise out of this sale are limited in duration to the above three-month period. AIT will not be liable for loss of use of the media or other incidental or consequential costs, expenses, or damages incurred by you, the consumer, or any other user. Furthermore, AIT will not be liable for any claim of any kind whatsoever by any other party against the user of the software/data.

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C. Any statements made concerning the utility of software/data are not to be construed as expressed or implied warranties.

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E. In no event will AIT be liable to anyone for special collateral, incidental, or consequential damages in connection with or arising out of the purchase or use of the software/data. The sole and exclusive liability of AIT, regardless of the form of action, will not exceed the purchase price of the media.

F. Some states do not allow the exclusion or limitation of implied warranties or consequential damages; therefore, the above limitations or exclusions may not apply to customers in those states.

Further Disclaimers of Warranty

AIT will extend no warranty where the software is used on a machine other than that designated on the software package.

Media Replacement

Provided that you, the consumer, have satisfactorily completed and returned a copy of the License Agreement, AIT will replace, during the warranty period, any defective media at no charge. At AIT's option, the defective media must be returned, postage prepaid, along with proof of purchase date. Please contact AIT at the address shown below for return instructions before returning any defective media.

Agency for Instructional Technology
Box A
Bloomington, IN 47402-0120
800/457-4509

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Toll-Free Assistance Number

Support is available to help you with any technical or content problems you may experience with this media product. If you need assistance, call AIT toll-free at 800/457-4509.

If you identify a technical problem, please check your hardware to make sure it is working properly. If the hardware is functioning correctly, contact http://ait.net on the World Wide Web or call the above number. Please have the following information and materials on hand when calling:

- instructor's manual
- list of any error messages
- students' printouts
- description of the problem
- computer type and model
- computer's memory configuration
- version number of operating system
- name and version number of commercial software (if applicable)

You should indicate to the person in customer service whether you have a technical or content question. A specialist will call you back.

Please do not permit your students access to this number. You may also call this number if you want to order software or if you need product information.

Notes

1. Cognition and Technology Group at Vanderbilt, "Anchored Instruction and Its Relationship to Situated Cognition," *Educational Researcher* 19 (1990): 2–11.

2. F. Newman and G. Wehlage, "Standards for Authentic Instruction," *Issues in Restructuring Schools* 4 (1993): 3–6.

Side 1
Graphical Database Barcodes

(Use "step still" function or barcodes below to advance within categories.)

Step Back

Step Forward

Elasticity

Role of Profits

Product Markets

Consumer Behavior Theory

Production Theory

Foreign Exchange Markets

Human Resource Market

Nonhuman Resource Market

Aggregate Supply & Demand

Loanable Funds Market

Side 1
Teacher-Track Barcodes

About the Teacher Track

Welcome to Market Street

A Market Myth

Scarcity

Is It Fair?

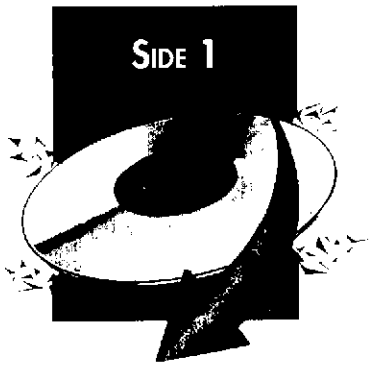
***The "Investing" Myth** (audio only)**

***School as a Market** (audio only)**

*Swipe any other barcode to restore video.

ECONOMICS® at Work

Module 1, Lesson A



MARKET STREET

ECON BRIEFING

"IF I just had a blouse that goes with my new skirt, I'd be **totally** satisfied!"..."All I need is one issue of *The Avengers* and my collection will be complete."..."Yeah, the new paint job on my car looks real sharp, but it makes the interior look worse than ever."...

When it comes to the economics of your life, it's always something, isn't it? You buy the matching blouse, and then you spy a pair of shoes that would **really** complete the outfit. You find that missing issue of *The Avengers*, and the dealer shows you the first issue of *The X-Men*. And after the new paint job, seat covers, and carpeting, the tires on your car look as if they won't make it around the block!

If this sounds like you or your family, don't worry—you're in good company. Everybody in the world has to cope with the unlimited desire for goods and services. The wish to satisfy these wants with the least amount of effort is what drives economic activity. People's boundless appetite for economic output is what causes Market Streets all over the globe to bustle with activity.

This lesson formally introduces you to economics. But you already know a lot about econ. After all, you live and breathe it every day—you work; you spend money; you go to school....Economics is the study of how people **produce**, **exchange**, **consume**, **save**, and **invest** to satisfy their unlimited wants.

WHAT YOU'LL LEARN IN THIS LESSON

- People everywhere have an unlimited desire for goods and services.
- Scarcity occurs because wants are unlimited, whereas resources are limited.
- Scarcity drives a society's economic activity.
- Economics is the study of how people produce, exchange, consume, save, and invest to satisfy their current and future wants.

2 CLASS PERIODS

Materials

This lesson uses the videodisc (or videotape) program **Market Street**. To complete the activities, students will need only writing paper or a notebook or journal. A videotape of any feature film keyed to play at the end of the movie, where the full credits are listed, is also recommended. This can be used to illustrate the resources used to produce a movie.

INTRODUCTION

This lesson introduces students to the fundamental economic problem: scarce resources vs. unlimited wants. Students will examine the different types of economic activity in which people engage to satisfy their wants.

GOALS

Students will be able to demonstrate their understanding of scarcity and to explain why people engage in economic activity.

PAYBACK

Much of your daily activity involves your attempts to satisfy your wants with the least amount of effort. If you can finish your homework in one hour instead of two, you will have time before dinner to shoot some baskets. If you buy concert tickets at the box office instead of through the ticket service, you will have more money left for food and T-shirts. If you turn down the full-time job so that you can finish a training program, you will have a chance at a better job with higher pay. In all of these instances, you want to make the best decision on the use of your limited resources. How can economics help you with these decisions?

The study of economics emphasizes the "efficient" use of resources. After you have completed this lesson, you will understand how to use resources more efficiently. You will know that when you use fewer resources to satisfy one want, there will be more resources available to satisfy the new want that pops up.

Getting the most from the least is what economics is all about. You can use this information a thousand different ways every day of your life.

OBJECTIVES

Upon completing this lesson, students will be able to:

- explain the nature of scarcity in economics
- identify the categories of limited economic resources
- explain the economic activities of producing, exchanging, consuming, saving, and investing and give examples of each activity

Before you can buy the perfect pair of sandals for summer, the shoe manufacturer must exchange money for resources, such as rubber and leather, and then transform these resources into sandals.

Econcepts

consuming—satisfying individual and collective wants

exchanging—trading goods and services for money or for other goods and services

investing—improving productive resources; for example, if a business buys a new piece of equipment or trains its employees, that's investing

producing—transforming resources into goods and services

productive resources—natural resources (land), human resources (labor and the entrepreneur), and capital resources (tools and equipment), all of which are used to produce goods and services

saving—postponing consumption

scarcity—the condition in which resources are limited and the desire for goods and services is unlimited

POWER UP

OKAY, so you always want more things—CDs, clothes, concert tickets, cars, cosmetics...but you don't have enough monetary resources to buy all the goods and services you want. Why not? And what are "resources" anyway?

Resources are the inputs that businesses use to produce the goods and services you want. Resources fall into three categories. The first category is **land**. This includes all natural resources, such as acreage, minerals, and water. The second category is **labor**, which includes all human resources and effort. The third category is **capital**. Capital resources are goods made by people and used to produce other goods and services. Tools, equipment, a factory, and a store are examples of capital.

For most households, labor is the most abundant resource they have. When you sell your labor to a business, you receive wages in return. You use this income to buy goods and services.

Because every household has a limited amount of labor available, its income will also have a limit. The fact that you have limited resources but unlimited wants creates the condition called **scarcity**.

Lesson Description

This lesson focuses on scarcity as the driving force behind economic activity in American society. Students will follow the host, Gordon, as he explores examples of economic activity taking place on "Market Street."

Key Terms

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

PREVIEW

Have students read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 1–2). Ask them to think about the impact of scarcity in their own lives. Do they have an "unlimited" want for goods and services? Encourage whole-class discussion.

Introduce the **Econcepts**, and give contextual examples of each. Ask students to refer to them as needed during the lesson.

Have students read **Power Up** as far as **Batman Resources**. Discuss the definition of "resources" in economics. Ensure that students understand the three major categories of resources and that they can give examples of the resources needed to produce an everyday item, such as a hamburger or a pencil.

Have students work either in groups or as individuals to complete the **Batman Resources** activity on page 4.

Lead a whole-class discussion of students' responses. If possible, play the final credits to a feature film to emphasize the variety of human resources used in movie production. Students may want to add to their list after viewing the credits.

Riddle Me This, Batman

IN *Batman Forever*, not only does Robin appear in a feature film for the first time, but so do villains Riddler and Harvey Two-Face. To provide readers with more information on the third film featuring the caped crusader, *Premiere* magazine interviewed several of the stars and others involved in the production. Here is one of the questions:

What was the coolest stunt in the movie?

Val Kilmer (Batman): I'm encased in a vat of acid, I fall out of a helicopter, I'm buried alive, I walk through fire.

Joel Schumacher (director): Val's stuntman crashes through the ceiling of the Pantages Theater, lands in a fountain, then does a double backflip and knocks out Tommy Lee's thugs. I couldn't believe it while I was watching it happen.

Tommy Lee Jones (Harvey Two-Face): The Batmobile drives into a wall, then straight up it. I think that's pretty cool.

Chris O'Donnell (Robin): The coolest stunt for my character is flipping through the beams and the chandeliers at Wayne Manor.

—Adopted from Bruce Bibby, "Riddle Me This, Batman," *Premiere* (May 1995); courtesy of *Premiere*® magazine

Now you can see why economics is called the "science of constrained choice." Your unlimited desire for goods and services is constrained (held back) by your limited resources and income. Because you cannot buy everything—and because individual firms cannot produce everything—choices must be made about how to allocate or distribute limited resources. Scarcity requires choice.

Because resources are scarce, businesses do not want to waste them by producing goods and services that people won't buy. Businesses are motivated by the desire to earn a profit; therefore, they must make choices about the best way to use their resources.

To check your understanding of how producers transform resources into goods and services, imagine that you are Joel Schumacher, the director of *Batman Forever*. You will begin shooting a new Batman film next year.

As a movie director and as an employee of a motion picture production company, you know that resources needed to produce a Batman film will not be available for use on another film. If Val Kilmer is to play Batman, he cannot be considered for a part in a comedy that is scheduled to start shooting at the same time. Remember, scarcity requires choice.

Val Kilmer or Michael Keaton are examples of the human resources or labor needed to produce the film. Can you think of other resources? Use the space provided below or a separate sheet of paper to make a list of resources that would be needed to produce another Batman feature. Then discuss your list with your classmates.

Batman Resources

Land	Labor	Capital

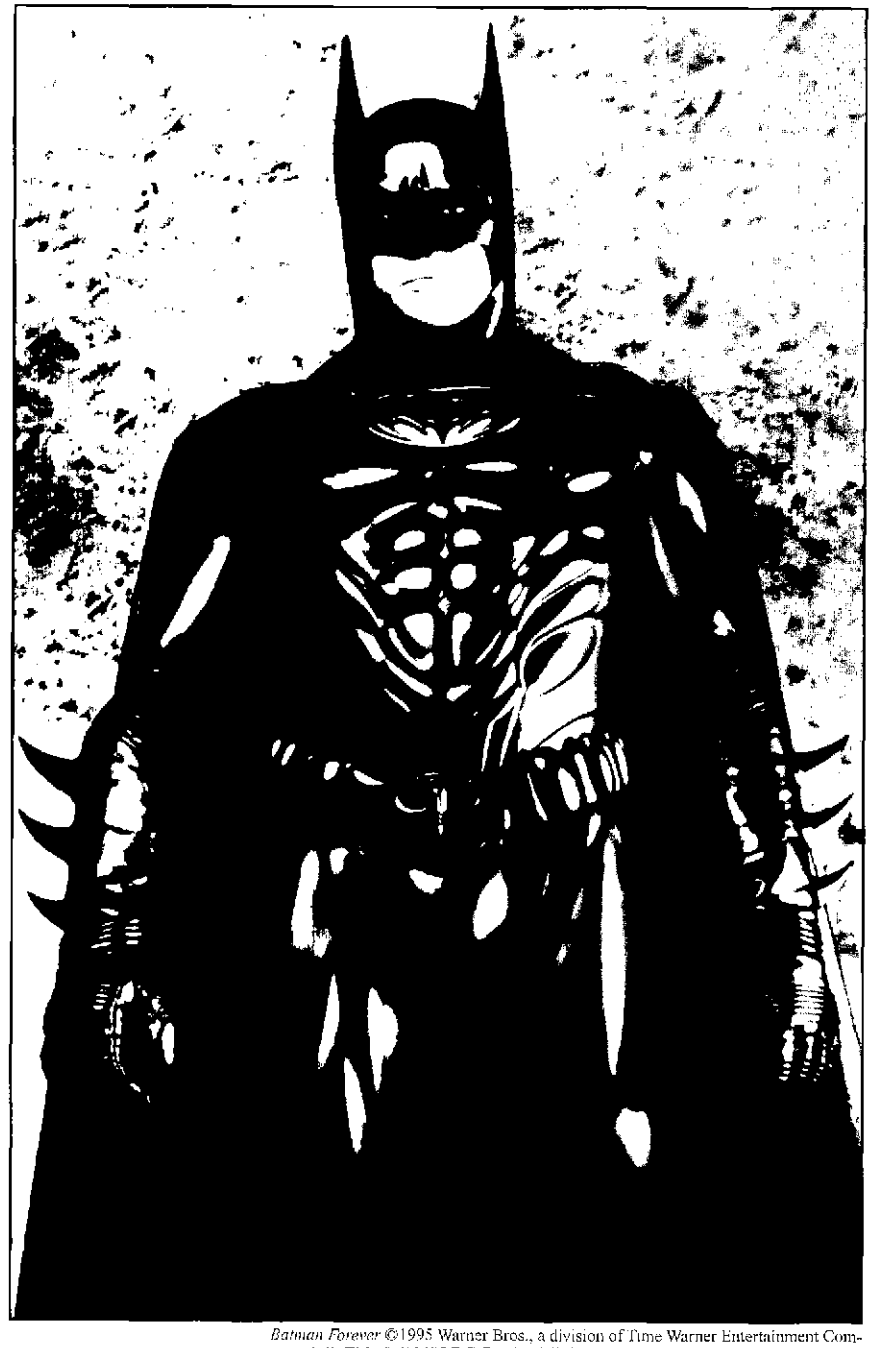
Students may respond:

Land: *property or location used in filming; other natural resources.*

Labor: *producer, director, actors, camera operators, and hundreds of other workers in casting, costumes, props, production, scriptwriting, film editing, hairstyling, set design, stunts, makeup, special effects, etc.*

Capital: *cameras, sound equipment, sets, stages, props, film-editing equipment, computers, etc.* (Remind students that capital resources can be used over and over. For example, the studio can use the cameras to produce other movies.)

Batman made his first appearance in 1939 as a character in Detective Comics. *His creator, Bob Kane, introduced him as "this weird figure of the dark...this avenger of evil...the Batman." In the 1960s Batman got his own TV series, and today he's more popular than ever, with three major movies to his credit. Val Kilmer (right) starred in the most recent movie,* Batman Forever, *which was released in 1995.*



Batman Forever ©1995 Warner Bros., a division of Time Warner Entertainment Company, L.P.: TMs & ©1995 DC Comics (all rights reserved). Photo by Ralph Nelson.

TAKE A CLOSER LOOK

SCARCE resources...unlimited wants...Economic activity takes place as people make choices about how to use their scarce resources in order to satisfy their unlimited wants.

A Hollywood filmmaker transforms resources to **produce** a movie that she hopes people will pay to see. If the film is appealing, patrons will gladly buy tickets in **exchange** for seats at the show. While people are enjoying the movie, they may satisfy their hunger by **consuming** popcorn. If the movie is a hit, some young people will begin **saving** their money to go see it again. And back in Hollywood, the filmmaker begins **investing** in better sound equipment and cameras in hopes of producing an even bigger box office hit. So, the next time you satisfy your desire to see a movie, think about all the economic activity it takes to provide you with that satisfaction!

VIDEO CORE

Ask students to read the first two paragraphs of **Take a Closer Look** for an introduction to the five types of economic activity. Make sure students grasp the distinction between saving and investing. Encourage students to offer other examples of each type of economic activity.

Introduction to the Video

Have students read **What You'll See on the Screen**. As they prepare to watch the first part of the video, encourage students to think about the activities that take place on "Market Street" in their hometown.

What You'll See on the Screen

As you watch the first video program, you will take a walk down Market Street. Practically every city in the United States has a "Market Street." These streets are alive with economic activity. In the early days of the United States, much of the population lived on family farms. Businesses such as a dry-goods store, a blacksmith, or a butcher's shop were usually all found on one main street. People would make the trip from the farm and gather in the market area to exchange their output (crops or livestock) for the goods and services they wanted (fabric, clothing, haircuts, etc.); when buyers and sellers began coming together, Market Street was born.

"Welcome to Market Street," says Gordon. "You can walk down streets like this in any town across the country and spot dozens of examples of economic activity. The trick is knowing what to look for..."

As you walk down a typical Market Street with Gordon, the host, you will see economic activity everywhere. These activities take place as people go about the business of satisfying their wants and making the best use of their resources. You may not see a blacksmith at work, but you'll see plenty of other activity.

Video-Based Activities

Have students read the opening paragraph of **Talk This Over**. Then start the videodisc (Side 1), and swipe this barcode to play:

Market Street
(introductory segment)

The video will pause on a screen with the following questions (which also appear in the *Student Guide*).

What are some examples of "scarcity"?

What does it mean to allocate limited resources?

How does a market economy allocate limited resources?

In the Economic Puzzle Challenge sequence, you will explore economic activity—producing, exchanging, consuming, saving, and investing—as it takes place on Market Street, U.S.A.

Talk This Over

Market Streets are everywhere. In fact you could say the U.S. economy is one big Market Street. You're almost out of gas? Pull right in to one of three service stations already in sight. You need milk and bread for breakfast? There's a 24-hour supermarket ready to serve you. You want a new outfit for the junior prom? A trip to the mall will provide hundreds of choices.

This is what Market Streets and market systems are all about. People freely choose what goods and services they want from super-unleaded gas to suspenders to skim milk—and businesses are willing to transform resources into the goods and services that people will buy.

At the end of the first part of the video, the screen asks a series of questions:

What are some examples of "scarcity"?

What does it mean to allocate limited resources?

How does a market economy allocate limited resources?

Answer these questions on the following lines or on a separate piece of paper, and then discuss your response with your classmates.

For More...

In a market economy, people make their own decisions about how to use their limited resources. You and your family choose where to work, where to live, and where to go to school. You choose what food to eat, which movies to see. Every day people make thousands of individual decisions like these. With so many personal decisions being made all the time, how do businesses know what to produce?

Answer the following question on the lines provided or a separate piece of paper. Then share your ideas with your classmates.

- How do producers know what goods and services people wish to consume or exchange for money?

In our working and personal lives, we play many roles. We're definitely consumers; we may be producers of goods and services; we might be investors—and, if we manage our money, we might also be savers.

Have students respond in writing. Encourage discussion when they finish.

Students should respond along these lines:

Examples of scarcity can include any case where resources are scarce relative to the unlimited desire for goods or services.

To "allocate limited resources" means to make decisions about how resources will be used to produce goods and services, and which goods and services will be produced to satisfy unlimited wants.

A market economy "allocates limited resources" through the interaction of people who are producing, exchanging, consuming, saving, and investing. People freely choose the goods and services for which they are willing to exchange money. Businesses are willing to produce goods and services that satisfy wants because they want to earn a profit.

Swipe the following barcode to view the rest of the introductory segment.

Market Street
(introductory segment, continued)

Further Discussion

Ask students to read **For More...** on this page. Have them answer the question in writing. Encourage whole-class discussion of responses.

Students should respond along these lines: Producers rely on information about what people are currently buying. If the shelves are empty, if the item is on back order, if people are looking for it, and if price is increasing, these are important signals. Businesses also take surveys and do research to find out what products and services people are willing and able to buy. Emphasize that the desire to make a profit is a strong incentive. Businesses have a vested interest in finding out what people want.

(Note: The introductory segment of the video ends with a still frame that points to the **Economic Puzzle Challenge**. You must swipe the next barcode—see page 8—to start the Puzzle Challenge segment.)

Economic Puzzle Challenge, Part 1

Before swiping the barcode to continue, ask students to read the paragraphs that introduce **Economic Puzzle Challenge, Part 1**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 1

Economic Puzzle Challenge, Part 1

As you've seen on your walk down Market Street, there's evidence of economic activity all around you.

In a shoe factory, workers use tools to transform rubber, nylon, leather, and other inputs into the shoes they are producing. In a cycle shop, a customer exchanges money for a new mountain bike. And on a hot day you see people consuming ice cream at the corner store. Producing, exchanging, consuming—these are economic activities you can expect to see as people seek to satisfy their wants for shoes, bikes, and ice cream.

Now take a closer look at market activities as Gordon makes some special stops—a coffee shop, a shoe store, a bank…

A Penny Saved...

"When you have lived for years on end without any sense of the future…the whole idea of putting something aside, of saving, goes clean out of your head.…We could have saved up for a rainy day. But when every day is rainy, you somehow don't think about it."

—Eugenia Ginzburg, Soviet social critic and author

"Money is made to be spent. But that doesn't mean you have to throw it out the window."

—Eddie Barclay, French film producer

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Which of these economic activities is Gordon engaging in at the bank?

Ensure that students understand the five basic economic activities. Allow time for them to respond in writing, and then swipe barcodes for the options you wish to view.

A. Producing

Analysis: No. Gordon's bank transaction does not involve production; however, the bank does transform resources into financial services, and so production does take place at the bank.

Decision Time

At the end of the first part of the Puzzle Challenge, the following question appears on the screen.

> Which of these economic activities is Gordon engaging in at the bank?

Use the lines provided or a separate sheet of paper to mark your choice(s) and to explain your reasons. Then watch the video to see the results of your decision.

☐ A. Producing

"I got a sales bonus yesterday, and I want to put it right into my savings account before I get any ideas about spending it."

☐ B. Exchanging

_____

_____

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☐ C. Consuming

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☐ D. Saving

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☐ E. Investing

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_____

B. Exchanging

Analysis: Yes. Exchanging means trading goods and services for money or for other goods and services. When customers such as Gordon have a savings account, the bank will pay them interest in exchange for holding their money at the bank. Other customers will borrow money and will pay interest to the bank in exchange for the loan.

C. Consuming

Analysis: No. Consuming is not really going on here. Consuming refers to satisfying individual and collective wants, in the specific sense that people are using up what is consumed.

D. Saving

Analysis: Yes. Gordon is saving. He is making the decision to consume less now in order to consume or receive the benefits at some later date. Saving allows customers to make large purchases in the future, and it enables financial intermediaries, such as banks, to make loans for investment spending that helps the economy. (This option will play directly into **Economic Puzzle Challenge, Part 2**.)

E. Investing

Analysis: No. Investing is not taking place. Investing occurs when businesses improve or enhance resources. A business may use the proceeds from a bank loan to invest in new equipment, but the process of investing is not occurring at the bank or through Gordon's transaction.

Economic Puzzle Challenge, Part 2

Option D of **Economic Puzzle Challenge, Part 1** played through the introduction to **Part 2**. If you wish to review this introductory part of the video, swipe the following barcode:

Economic Puzzle Challenge, Part 2

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Which of these economic activities do you see occurring at the doctor's office?

Ask students to read the paragraph that opens **Decision Time**. Give them time to respond to the question, and then swipe barcodes for the options you wish to view. (Note: Barcodes for options D and E feature the same video.) When you finish playing the options, proceed to **Economic Puzzle Challenge, Part 3** by swiping the barcode for that segment.

A. Producing

Analysis: Yes. Producing is occurring here. Human capital (doctors, nurses, and technicians), together with physical capital (X-ray and lab equipment, for example), are transformed into the service of health care.

B. Exchanging

Analysis: Yes. Exchanging, the process of getting what is produced to consumers, is taking place in the doctor's office. Patients exchange money for the medical care provided by doctors, nurses, and technicians.

Economic Puzzle Challenge, Part 2

Decision Time

It's easy to spot economic activity in a bank. But sometimes the activity in a market economy is less obvious. The second part of the Puzzle Challenge has taken you to a doctor's office. Were you able to spot the economic activity?

The video challenges you with this question:

> Which of these economic activities do you see occurring at the doctor's office?

Use the lines below or a separate sheet of paper to mark your choice(s) and to explain your reasons. Then discuss your response with the rest of the class.

☐ A. Producing

☐ B. Exchanging

Doctors and nurses provide quality medical care—and people are willing to pay for it.

☐ C. Consuming

_____

_____

_____

☐ D. Saving

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☐ E. Investing

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Economic Puzzle Challenge, Part 3

As you have seen up to this point in the video, producing, consuming, and exchanging are economic activities that can be spotted rather quickly. But saving and investing can be more difficult to observe.

Investing is the process of improving and enhancing productive resources, especially capital and labor. If you see a business knocking down a wall to add factory space, that's investing. If a business upgrades its computer system and establishes an employee training program, those are also examples of investing. On the other hand, if you see a factory that has already been constructed, that is **not** an example of investing. The completed factory could be called an "investment," a result of previous investing.

The next part of the Puzzle Challenge takes you to a high school. Can learning and economic activity occur together? Watch the video and find out.

Decision Time

The screen challenges you with this question:

> Which of these economic activities do you see occurring at the high school?

Use the lines on the following page or a separate sheet of paper to mark and explain your choice(s), and then watch the video to see the results.

C. Consuming

Analysis: Yes. At the doctor's office patients are consuming the service of medical care.

D. Saving

Analysis: No. Saving is not occurring at the doctor's office. Saving is the decision to postpone consumption. The people in the doctor's office are consuming medical services now.

E. Investing

Analysis: No. Investing is not taking place at the doctor's office. Investing is the process of improving or enhancing productive resources. Evidence of previous investing includes the trained doctors and staff (human capital) and the building and equipment (physical capital).

Economic Puzzle Challenge, Part 3

Before swiping the barcode, ask students to read the introductory paragraphs of **Economic Puzzle Challenge, Part 3**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 3

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

> **Which of these economic activities do you see occurring at the high school?**

Allow time for students to respond in writing, and then swipe barcodes (page 12) for the options you wish to view.

(Note: When you finish playing the options, proceed to **Economic Puzzle Challenge, Part 4** by swiping the barcode for that segment.)

A. Producing

Analysis: Yes. Producing is taking place at school. Resources (teachers, books, school building, and equipment) and the time and effort that students put into studying are transformed into the service of education.

B. Exchanging

Analysis: Yes. Exchanging is occurring at school. Households previously paid taxes to the school district in exchange for the education delivered at the school. Other exchanges include teachers' exchanging labor for wages and students' exchanging money for food in the cafeteria.

C. Consuming

Analysis: Yes and No. Consuming occurs in the school cafeteria where the goods are "used up." But consuming does not occur when students are "educated" because resources are not "used up." They are transformed into human capital—that is, knowledge and ability.

D. Saving

Analysis: No. The activity of saving does not take place at school. Saving involves not spending (postponing consumption).

E. Investing

Analysis: Yes. Obtaining an education is an example of investing in human capital. Human capital is the stock of knowledge and ability that people possess, and it can be enhanced through education.

☐ A. Producing

☐ B. Exchanging

☐ C. Consuming

☐ D. Saving

☐ E. Investing

Schools help develop human capital—a person's knowledge and abilities.

Economic Puzzle Challenge, Part 4

Now that you've taken a walk down Market Street and visited a coffee shop, a doctor's office, and a high school, you should have a better idea about all the economic activity taking place around you.

"We've talked about a lot of economic activities...But we haven't even scratched the surface in learning about what these activities mean—and how they affect our everyday lives."

As you have seen, economic activity doesn't occur in a vacuum. All five types of economic activity are "interdependent." You can't satisfy your want for running shoes if no firm produces shoes you will buy. If a business wants to produce shoes that you will buy, it must have invested in the right equipment and its workers must have invested in appropriate "human capital." Everyone has an important part to play in a market economy.

Try to think of other examples of producing, consuming, exchanging, saving, and investing as you watch the final part of the Puzzle Challenge.

Talk This Over

The video poses the following question.

What economic activities have you participated in today?

Share your thoughts with your classmates, and then express your conclusions in writing. Use the lines below or another piece of paper.

Economic Puzzle Challenge, Part 4

Before swiping the barcode, ask students to read the three paragraphs introducing **Economic Puzzle Challenge, Part 4**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 4

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

What economic activities have you participated in today?

Give students time to brainstorm responses, and then have them write their answers.

Next ask students to work as individuals in completing the final activity. Encourage them to list examples of economic activity that occur on a "Market Street" where they live.

When students have finished, discuss their responses. Make sure that students clearly understand how the five basic economic activities differ from one another.

Side 1 Menu

Quit Instructions

How does "Market Street" look where you live? Is it the one main street in a small town, or is it one of many busy shopping districts in a big city?

Give examples of these activities:

☐ A. Producing

_____

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☐ B. Exchanging

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☐ C. Consuming

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_____

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☐ D. Saving

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_____

_____

☐ E. Investing

_____

_____

_____

"The current misconception is that money can solve all your problems. Money creates problems, and the more you have the greater are your problems. And one of the biggest problems is knowing how to spend it wisely."
—Ray Kroc, founder of McDonald's

CLOSING

Have students read **Put it Together**, and then ask them to work in groups or as individuals to complete the activity. Encourage whole-class discussion of their responses. While responses to this activity will vary, make sure their answers are truly noneconomic. For example, eating lunch or snacks is in fact "consuming."

PUT IT TOGETHER

ECONOMIC activities are not reserved for businesses and corporations. Whenever you make a choice to use some of your limited resources to satisfy a want, you are making an economic decision. As you have learned in this lesson, you yourself are actively involved in economics every day, whether you are buying a pizza, studying for a math test, or going to the movies.

The purpose of all this economic activity is to satisfy as many wants as possible with the limited resources that are available. This is an enormous task, but the market system has the power to accomplish the mission.

Anyone for a Cup of Coffee?

WHILE it takes 15 minutes, perhaps, to drink a cup of coffee, it takes seven years for a tree to start flowering with coffee "cherries," and it takes one tree to produce one pound's worth of green coffee beans.

—Mark Schapiro, "Muddy Waters: The Lore, the Lure, the Lowdown on America's Favorite Addiction," *Utne Reader* (November/December 1994)

Think about Laura and Joe and their coffee shop. If you wanted a steaming cup of coffee made from specially roasted beans and a big fresh doughnut, you'd probably stop at their place. If you didn't want a cup of coffee and a doughnut, you wouldn't go there. The morning crowds and the sound of the cash register signal to Joe and Laura that their place is a success. They have an incentive to expand their store. They add space, tables, and more coffee-roasting equipment.

Notice how the market system works. Consumers "cast their votes" for the production of coffee by Laura and Joe. They do this every time they show up at the shop and exchange money for coffee and a bite to eat. Laura and Joe are willing to produce the desired goods and service because they want a profitable business. As their business expands, more resources will be "allocated" or used for the production of their kind of coffee. This is what "allocating scarce resources" involves, and this is how a market system does it—all the time.

▶ Are you sure you can identify economic activity when you see it or when you are participating in it? To check yourself, take a minute to list three things you did yesterday that did not involve economic activity. It might be harder than you think!

Use the lines below or a separate sheet of paper to compile your list. Explain why you believe each event was not an economic activity, and then discuss your response with your classmates.

_____

_____

_____

NET GAIN

THE U.S. economy is like one big "Market Street." Economic activity goes on everywhere, as resources are used to satisfy wants. And just as Market Streets have grown and thrived all across the country, the U.S. market economy continues to grow. As you engage in vari-

SUMMARY

Have students read **Net Gain**. Review the three content statements with the class, and clarify any points they do not understand.

ous economic activities, you will be part of that growth. Try to remember the main points of this lesson:

1. **Wants are unlimited.** Because the desire for goods and services is boundless, choices must be made about which wants to satisfy. Does this mean that people are greedy and selfish? Some may be, but economics doesn't promote greed and selfishness. Economics simply recognizes that in a growing economy, a person will always have another want to satisfy—a bigger house, more health care, a new car, a less expensive lawn service, faster fast food.... The desire to satisfy these wants is the fuel for the economic engine, and you help drive that engine.

2. **Resources are scarce.** To an economist, the term "resources" refers to the productive resources of land, labor, and capital. As you watched the video, you saw examples of producers transforming these resources into shoes, coffee, breakfasts, education, and banking services. In every case, the producer made choices about the use of scarce resources. For example, Laura and Joe chose to use their resources to produce coffee and serve food instead of opening a hamburger franchise or a body shop. Scarcity requires choice. Throughout your life you will have to make important choices about the best ways to use your limited resources.

—Drawing by Dana Fradon; ©1992 The New Yorker Magazine, Inc.

3. **Economics is the study of how people go about the business of allocating scarce resources to satisfy unlimited wants.** In a market economy there is no central "economic authority" commanding that resources be used to produce this much of one good or that much of another. Decisions about how to use resources and which wants to satisfy are made by individual households and firms. As you and other people make these decisions, you engage in the economic activities of producing, consuming, exchanging, saving, and investing.

BUILDING ON SUCCESS

▶ ASSUME that you are making a time capsule about economic activity occurring this year. The time capsule will contain mementos representing the five economic activities that you examined in this lesson. Prepare a list of items to be included. Be sure to explain why you think each item belongs in the capsule. You may also bring in or make items for the "economic time capsule." Share your list or actual items with the class.

▶ Contact a business in your area, and make an appointment to interview the owner or manager. Explain that you are taking a course in economics and that you want to discuss some of the economic activities of the business. Develop a list of questions to find out what kinds of "investing" the firm plans to do during its next fiscal year. Here are a few questions you might ask:

- Will you be purchasing any new equipment?
- How do you decide when to invest in new tools and equipment?
- Do you plan to add any space by expanding your building or factory?
- Do you have an employee training program?

Make up more questions, and add them to the list. After the interview, use the information to write a report about the investment strategy of the business. Then share your report with the class.

▶ Before its breakup, the Soviet Union did not rely on a market system to allocate scarce resources to satisfy unlimited wants. Use the library or other resources to research the economy of the former Soviet Union. Gather information to answer these questions:

- Did the Soviet Union face the problem of scarcity?
- How did the U.S.S.R. make decisions about which wants to satisfy?
- Who made those decisions?
- How were decisions made about the use of scarce resources?
- Who made the decisions?

Also, try to find descriptions or examples of each type of economic activity discussed in this lesson—producing, consuming, exchanging, saving, and investing. Do the descriptions or examples sound different from your own experiences with these activities? Explain. Summarize your findings in a written report, and be prepared to share your work with your classmates.

EXTENSION

Assign the activities in **Building on Success** to different members of the class, or ask students to choose activities. Encourage them to apply the concepts they have learned in this lesson. Suggest that they refer to the **Econcepts** (page 3) and to other parts of the lesson whenever necessary.

"I cannot forecast to you the action of Russia. It is a riddle wrapped in a mystery inside an enigma; but perhaps there is a key. That key is Russian national interest."

—Winston Churchill, British statesman, in a BBC radio broadcast (October 1, 1939)

ASSESSMENT

Two types of assessment are provided for you to evaluate students' comprehension and mastery of the material presented in this lesson.

ON YOUR OWN

Have students complete the activity by correcting the eight statements in this section. Although the material in **On Your Own** is designed as a homework assignment, it may also be used as an in-class activity.

Suggested answers:

1. *Consuming occurs when goods or resources are "used up" to satisfy wants.*

2. *Economics is the study of how people produce, exchange, consume, save, and invest to satisfy unlimited wants.*

3. *Exchanging takes place when workers provide their labor in exchange for wages.*

4. *In economics, the term "investing" refers to enhancing or improving productive resources.*

QUALITY CONTROL

ON YOUR OWN

EACH of the following statements is false. Read and analyze each statement, and then rewrite it to make it true. Use the lines provided or a separate sheet of paper.

1. Consuming occurs when businesses use resources to produce goods and services.

2. Economics is the study of how businesses create wants for various goods and services so that they can use unlimited productive resources.

3. Exchanging takes place when workers transform resources into goods and services.

4. In economics, the term "investing" refers to the purchase of a financial asset, such as shares of a mutual fund or a certificate of deposit.

5. Because wants are limited and resources are unlimited, scarcity occurs.

5. Because wants are unlimited and resources are limited, scarcity occurs.

6. If an employee at an architectural firm attends a training program on CAD systems, this is an example of postponing consumption.

6. If an employee at an architectural firm attends a training program on CAD systems, this is an example of investing in human capital.

7. The purchase of new equipment for a factory is an example of producing.

7. The purchase of new equipment for a factory is an example of investing.

8. Saving and investing are basically the same economic activity.

8. Saving and investing are different economic activities.

When you use fewer resources to satisfy one want, there will be more resources available to satisfy the new want that pops up. Getting the most from the least is what economics is all about. You can use this information a thousand different ways every day of your life.

Assessment-Track Questions

Besides appearing in the *Student Guide*, the questions under the heading **In Class** are contained on a special assessment track of the videodisc for this module. Using the appropriate disc side, you can access each question by swiping its barcode. Each question is presented as a voice-over to part of a video program that students previously watched. The video will provide students with valuable cues, enabling them to generalize previously learned material to new situations.

Assessment Question 1

1. *The concept of scarcity is central to economics. All economic goods share the quality of being scarce—that is, not enough exists to satisfy everyone's wants. All people would like to have more and more of the goods and services that give them pleasure; however, because of scarcity, they cannot. Scarcity results from the imbalance between relatively unlimited wants and relatively limited resources.*

Assessment Question 2

2. *Economics examines how individuals, firms, and governments choose to employ scarce productive resources, such as labor and capital, in order to produce goods and services and to distribute them among various persons and groups in society. Economics does not solve the problem of scarcity; rather, it studies the choices that people make and the actions that they take in order to make the best use of scarce resources in meeting their wants.*

In Class

These questions should be answered while you watch a special section of the videodisc that your teacher will play for you. Write your answers on the lines provided or on a separate sheet of paper.

1. Scarcity is very important to the study of economics. What is scarcity?

2. Scarcity is central to the study of economics. Scarcity means that there is not enough of a resource to meet all of everyone's wants. With that in mind, what is economics, and does it solve the problem of scarcity?

3. In a world of scarcity, all societies must make basic economic decisions, such as what goods and services to produce, what to forego or postpone, and when and how to transfer productive resources from one use to another. What are the five basic economic activities that result from scarcity?

Assessment Question 3

3. *The five economic activities that result from scarcity are producing, exchanging, consuming, saving, and investing. Producing occurs in transforming resources into goods and services. Exchanging is the process of getting what is produced to consumers. Consuming involves satisfying individual and collective wants. Saving is designed to satisfy a preference to postpone consumption now in order to consume more later. Investing is the process of increasing resources and productivity for the future production of goods and services.*

4. Now that you've visited Market Street, you know a little more about scarcity and how an economy organizes its activities to satisfy its wants. How then is every street, even in your hometown, a "Market Street"?

Assessment Question 4

4. *The process of transforming resources into goods and services, exchanging those goods and services at the time of sale, consuming those goods and services, saving part of the income that is not consumed, and investing those savings in the future are the fundamental activities of any market.*

THE RISE AND FALL OF PROFITS

ECON BRIEFING

TODAY on the news you might have heard that Ford Motor Company earned record profits. Do you really care? Probably not, because it doesn't have anything to do with you, does it? As a matter of fact, you've probably heard the term **profit** often. By now you may even have formed some opinions about profit. Most high school students have.

What percentage rate of profit do you think most businesses make as a return on their investment? Choose one of the following ranges.

a. 0–19%

b. 20–39%

c. 40–59%

d. 60–79%

e. 80–100%

f. don't know

In a 1994 Gallup survey of high school students, 12% thought that the percentage rate of profit as a return on investment ranged from 0 to 19%; 67% thought the profit rate exceeded 19%; and the rest of the students said they didn't know. The correct response is 0–19%.

- Do you think the price of blue jeans is high because the manufacturers make too much profit?
- Have gasoline prices risen because gas station owners are earning more and more profit?
- Do grocery stores earn a lot of profit?

In this lesson, you will learn what profit is, how costs and revenues affect profit, and what role profit plays in a market economy.

2 CLASS PERIODS

Materials

To complete the activities in this lesson, students will need only writing paper or a notebook or journal.

INTRODUCTION

This lesson introduces students to the concept of profit and to the profit motive. They learn how profit is important to most people, how profit is affected by revenues and costs of production, how profit can be reported in different ways, and how profit plays an important role in a market economy. Students also learn that profits change over time.

GOALS

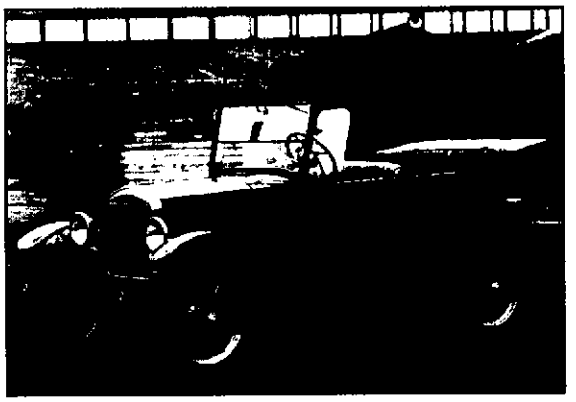
Students will be able to demonstrate their understanding that production costs (both explicit and implicit) and revenues affect economic profits. They will also be able to show that they recognize different types of profit reporting, and that they understand how profits may be earned in the short run but are likely to be eliminated in the long run in competitive markets.

What You'll Learn in This Lesson

- Profit is a return to the entrepreneur for risk taking and innovation.
- Profit is calculated by subtracting costs of production from revenue received.
- The economic costs of production reflect the use of resources by the firm. Explicit costs are those for which the firm is billed or makes a payment that is recorded by accountants. Implicit costs are those that are not billed and for which no direct financial payment is recorded.
- Economic profit is smaller than accounting profit because economic profit considers the use of all resources—that is, both explicit and implicit costs.
- The profit motive guides the actions of business owners.
- In the short run, firms may earn a profit, earn a loss, or break even.
- In the long run, firms in competitive markets tend to break even; that is, they earn a normal profit.
- A normal profit means that a firm is just breaking even; that is, it is covering all its explicit and implicit costs, but no **economic profit** exists.

Mass Production and the Model T

Henry Ford recognized the power of mass production at an early age. With money he saved from his first job, he bought a three-dollar watch. When he took it apart and priced each part separately, he realized that if thousands of this watch were produced, the materials for each would cost 37 cents. He realized the watches could be sold for less and still return a profit. If the watch cost less, more people would be able to afford it and more watches would be sold.



Ford Motor Company Photomedia Service

When Ford built his first horseless carriage in 1893, each piece was hand-designed and few people could afford the $9,000 price. Remembering his experience with the watch, Ford turned to mass production to push down costs to a level most families could afford. By 1908, his Model T was selling for $850, and by 1926 the basic Model T could be bought for a mere $284. By 1926 Ford had sold nearly 15 million Model Ts—what had started as a luxury item had become an affordable replacement of the horse.

—Adapted from Louis E. Boone, *Quotable Business*

Objectives

Upon completing this lesson, students will be able to:

- state the size of average profit as a return on investment
- explain why profit levels change over time
- explain the role of normal and economic profit
- define profit, explicit costs, accounting profit, implicit costs, economic profit, and normal profit

Payback

Many people believe that prices are high because profits are high. Are they right? Should businesses expect to earn a profit? Do profit levels affect only business owners? Why should you care about profit?

When you have completed the following activities, you will be able to explain how profit is determined and how it plays an important part in the economy. You will also understand how profit might affect you as a worker, business owner, saver, stockholder, and in the many other economic roles you might play in the future.

Econcepts

accounting profit—revenues minus all explicit costs

economic profit—revenues minus all explicit and implicit costs

explicit costs—costs that take the form of payments for resources purchased by the firm and that are recorded by accountants

implicit costs—the firm's opportunity cost of using its own resources or those provided by the owners without a corresponding cash payment

normal profit—the situation that exists when a firm's revenue just covers all implicit and explicit costs

profit—the difference between revenues and total costs entailed in producing or selling a good or service; a return for risk taking

POWER UP

If you're like most people, you have opinions about profit. Using your opinions, try to answer the following questions.

- The price of jeans at your favorite clothing store is higher than the price at the local discount store. Does this mean that the clothing store earns a greater profit?
- Mario's, one of the pizza restaurants in your town, has begun to deliver pizzas. No other pizza restaurant has home delivery. Do you think Mario's will increase its profit?
- Music Country had a buy-one-get-one-free sale on popular compact discs. Customers had to wait in line more than 45 minutes. Did Music Country earn greater profits?

Unfortunately, your opinions probably don't provide you with enough information to answer these questions. You can't answer them unless you know a lot more about what profit is and how it's determined. First, let's think about how profit might affect different people.

Your teacher will assign you to a group. Each group will consider one of the following profit scenarios. Your group should

Lesson Description

This lesson focuses on two case studies about entrepreneurs to illustrate how economists and accountants view profit. By reading **Bill and Ted's Excellent Venture**, which tells the story of two friends who open their own restaurant, students will learn about explicit and implicit costs and about the relationship between costs, revenues, and profit. The second case study, **Debbie's Shuttle Service**, reinforces these concepts and helps students understand how profit may be reported as a return on investment, how profit can change over time, and what normal profit is.

Key Terms

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

PREVIEW

Ask students to read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 23–24). Discuss the central topics, and brainstorm questions that students may have. You might want to put their questions on the chalkboard and display them throughout the lesson. Encourage students to keep notes as they develop ideas about the topics of the questions.

Introduce the **Econcepts**, and give contextual examples of each. Ask students to refer to them as needed during the lesson.

Ask students to read the **Power Up** section through the three bulleted items, which include questions about profit in three different businesses. Briefly discuss their speculative answers to these questions.

Divide the class into groups of three or four students. Assign each group one of

"Profit is a natural byproduct of doing something well."

—Anonymous

the five profit scenarios. Allow time for the groups to discuss the scenarios and to answer the questions. Ask the reporter for each group to describe the company's experience and to explain how the group answered the questions.

Appropriate responses are:

AllCare Health Insurance Company

- *An AllCare secretary might have a greater sense of job security if profits are high.*
- *A pediatrician associated with AllCare might ask for a larger per-patient payment each month.*
- *An AllCare stockholder might expect the price of AllCare stock to rise and/or higher dividends to be paid to stockholders.*
- *Doctors might decide to leave HealthGeneral and contract with AllCare.*

discuss and answer the questions. The group should choose one member to serve as a reporter. The reporter's job will be to share the group's scenario and answers with the class.

AllCare Health Insurance Company

Last quarter, AllCare earned record profits.

- As a medical secretary for AllCare, how might this affect you?
- As a pediatrician supplying services to AllCare, how might this affect you?
- As an AllCare stockholder, how might this affect you?
- As an owner of HealthGeneral, a competing health maintenance organization, how might this affect you?

The Costs of Insuring American Health

According to Senator Harry Reid of Nevada, the average cost of health insurance in the United States has increased by 117 percent since 1986. From 1987 to 1993 almost eight million Americans have been added to the ranks of the uninsured. Who are these uninsured? In the U.S. more than 60 percent of the uninsured are people who work every day.

WorldWide Airlines

WorldWide Airlines (WWA) declared bankruptcy. To keep the airline operating, the employees became its owners. After two years, the company is still struggling to pay its creditors and maintain operations.

WorldWide Airlines

- *The mechanic might be worried about remaining employed.*
- *WorldWide might cut the percentage it pays to travel agents who book customers.*
- *WWA might reduce the number of meals it serves on its planes.*
- *Transcontinental might experience an increase in business, as customers leave WWA.*

- As a WWA mechanic and an employee-owner, how might the present situation affect you?
- You work for Travel Unlimited as a travel agent. How might WWA's situation affect you?
- You work for Flying Food Corporation, providing food for WWA flights. How might WWA's situation affect you?
- You work for a competitor, Transcontinental Air. How might WWA's situation affect you?

Computer Business Machines

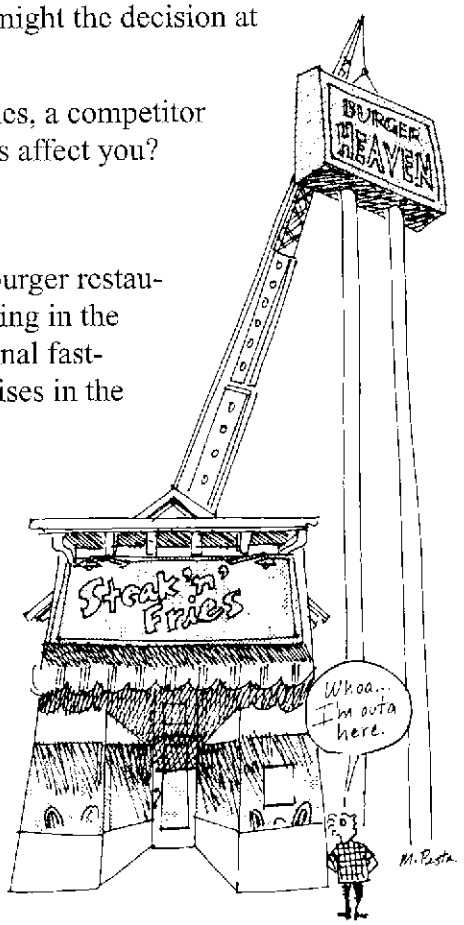
Computer Business Machines (CBM) posted a higher-than-expected profit for the year. The board of directors now plans to expand its line of products and acquire CompuPlay, a small company that produces computer games.

- As a CBM computer technician, how might this affect you?
- As a CBM stockholder, how might this affect you?
- You work in the Microparts factory, which supplies electronic components to CBM. How might the decision at CBM affect you?
- You work for Sonic Office Machines, a competitor of CBM. How might CBM's moves affect you?

Steak 'n' Fries

Steak 'n' Fries, a local chain of hamburger restaurants, has been very profitable operating in the suburbs of your city. Recently a national fast-food chain has begun opening franchises in the same area.

- As a night manager at Steak 'n' Fries, how might this affect you?
- As an owner of a Steak 'n' Fries, how might this affect you?
- You work for a meat supplier to Steak 'n' Fries. How might the increased competition affect you?
- As a Steak 'n' Fries stockholder, how might this affect you?



TriStar Motor Corporation

The United Auto Workers (UAW) recently negotiated a new labor contract with TriStar Motor Corporation. This contract provides increased wages, without changes in the benefit package. Unless TriStar can reduce other costs and/or increase car sales, this contract will reduce profits.

- As a salaried production manager for TriStar, how might this affect you?
- As a UAW assembly-line worker at TriStar, how might this affect you?
- You work for Motor Assembly, an auto parts supplier to TriStar. How might the developments at TriStar affect you?
- Your company's retirement fund has purchased a sizable amount of TriStar stock. How might this affect you?

Computer Business Machines

- *The CBM computer technician might have a sense of greater job security.*
- *The stockholder might expect the price of CBM stock to rise and/or higher dividends to be paid to stockholders.*
- *A Microparts worker might have greater job security because CBM might buy more electronic components in the future.*
- As CBM computers become more popular because of available games, a Sonic Office Machines worker might become unemployed.

Steak 'n' Fries

- *A night manager might be concerned about losing job security, as customers move to the competitor.*
- *With fewer customers, the owner might earn less income.*
- *If the national chain doesn't use the local meat supplier, then business may decline and some workers might lose their jobs.*
- A stockholder might expect the price of the stock to fall and/or dividends to decrease.

TriStar Motor Corporation

- *The salaried production manager might be concerned about unemployment, as TriStar tries to reduce costs.*
- *If TriStar raises prices, it will probably sell fewer cars; therefore, the assembly-line worker has a higher risk of being laid off.*
- *Because TriStar may buy fewer motors and other auto parts, a Motor Assembly worker might be laid off.*
- The value of your retirement fund might decrease because of a fall in the value of TriStar stock and/or a decrease in dividends paid to the fund.

PRINT CORE

Ask students to read the introductory paragraph of **Take a Closer Look**.

TAKE A CLOSER LOOK

Now you can see that profit is important to a lot of people, but you still don't know what profit is. In general, profit is measured by subtracting a firm's costs of production from its revenues. Accountants calculate profit in a different way than economists do. Accounting profit is revenue minus all explicit costs. Economic profit is revenue minus all explicit costs and implicit costs.

CONCEPT PRESENTATION

Have students read the first paragraph of **Focus**. Discuss the fact that profit reports often appear in the media. Point out that this information usually comes from an accountant and that economists calculate profit quite differently.

As a bridge to the next section, have students read the second paragraph of **Focus**.

FOCUS

This lesson contains two case studies, **Bill and Ted's Excellent Venture** and **Debbie's Shuttle Service**. They will help you learn about accounting profit, economic profit, explicit costs, and implicit costs. If you understand these terms, you will be able to analyze why firms make some decisions that may appear to be confusing.

But before getting into the case studies, read about Joe Andulati. He went into business for himself and, according to his accountant, made a nice profit. So then why did Joe go back to his old job?

CLARIFICATION AND DISCUSSION QUESTIONS

Ask students to read **Talk This Over**. (They will discover that Joe is making a sound economic decision.) Have students answer the two questions in this section.

TALK THIS OVER

> Joe Andulati's accountant told him that he earned $30,000 in profit last year. At first Joe thought this was great news, but after further consideration, he decided that his business wasn't so great after all. Joe decided to sell the business to someone else. He took the money from the sale, put it in the bank, and went back to work at his old job, which paid $29,000. Joe's accountant and other people think he's crazy.

Answer the following questions on the lines provided or on a separate sheet of paper. Then discuss your responses with the class.

- How would the accountant calculate the $30,000 profit figure?

_____

_____

_____

- Why would the accountant think Joe is crazy?

_____

_____

_____

_____

They should respond:

The accountant subtracted Joe's explicit costs from his revenue.

Joe's accountant recognizes that Joe is earning $30,000, which is a lot of money. He thinks Joe is foolish to give it up, particularly since Joe's other job pays only $29,000.

Who's Eating Out?

Fifty-six percent of Americans say they ate dinner at a restaurant or fast-food place sometime during the last week. And another 28 percent ate out sometime during the last month. On some occasions, dinner at a restaurant isn't a treat—it's a timesaving device. Young adults eat out more than older Americans.

—Judith Waldrop, "Business Reports: Food: Most Restaurant Meals Are Bought on Impulse," *American Demographics* (February 1994)

Case in Point: Bill and Ted's Excellent Venture

At first glance, it probably appears that Joe Andulati is a poor decision maker—$30,000 seems to be better than $29,000. However, even though Joe earned an accounting profit of $30,000, he probably wasn't earning an economic profit. There are many things to consider when calculating economic profit.

Maybe Bill and Ted can help you figure it out. Read the following story, and see if you begin to understand the economist's way of thinking about profit.

Bill and Ted's Excellent Venture

Bill and Ted met when they began working at Andrew's, a fancy restaurant. Ted received an associate degree in food service and preparation from the local junior college. He has six years of experience as a chef at the restaurant. Bill started as a busboy while he studied hotel and restaurant management. He soon became the best waiter at Andrew's. Over the past year he has spent a lot of time learning how to operate a restaurant.

Bill and Ted would like to open their own restaurant. Ted has been experimenting with some special recipes, and Bill is certain that he can hire and train a staff that will provide excellent service. They are convinced that their restaurant will be profitable.

Bill has started listing the items they will need to open the business. He has found a small building for rent in a good location. The building has a kitchen, but Bill and Ted will have to buy pots, pans, utensils, tables, chairs, linens, plates, and cutlery. They must also develop, design, and print a menu. They will need a business license and a food license, and they will have to hire three workers to assist Ted in the kitchen.

Case Study

Have students read the two paragraphs that open **Case in Point: Bill and Ted's Excellent Venture**. Clarify any points that they may not understand. Then ask students to read the story about Bill and Ted as far as **Decision Time 1**.

Bangkok Giant

The largest restaurant in the world is the Royal Dragon (Mang Gorn Luang) in Bangkok, Thailand. Opened in October 1991, the Royal Dragon can seat 5,000 customers served by a staff of 1,200. To cover the 8.35-acre service area, the employees wear roller skates, which help to improve their service speed.

***—The Guinness Book of Records*, 1994 Edition**

Milestone 1

Have the class read the first paragraph of this section. Ask students to generate a list of other explicit costs. *They might list: wages for servers, dishwashers, and host or hostess; charges for food and cleaning supplies; utility deposits.*

Ensure that students can define explicit costs and can provide examples.

Have students continue reading about Bill and Ted until they reach **Decision Time 2**.

Decision Time 1

All of the preliminary matters that Bill and Ted must handle represent **explicit costs**. Explicit costs are payments that the business makes for resources that it purchases. In other words, Bill and Ted must write a check to pay for these resources.

What are some other important explicit costs that Bill and Ted should consider? Write your answer on the following lines or on a separate piece of paper, then share your response with the class.

_____

_____

_____

Bill and Ted have a lot of explicit costs to consider. Of course, to cover their explicit costs, they must earn revenue from sales at the restaurant. For each menu item they sell, they will receive revenue equal to the price they charge. Their total revenue will be determined by multiplying the price of each item by the quantity of that item sold, and then by adding up the subtotals.

After all their planning and hard work, Bill and Ted opened their business. During the first six months, they paid out $25,000 for expenses, and their revenues were $50,000.

What profit will their accountant report? _____

Bill and Ted's accountant will report $25,000 profit.

Milestone 2

Ask students to read the opening paragraph of this section. Verify that students understand that a business's accounting profit or loss is calculated by subtracting its explicit costs from revenue. Have students speculate on other things that Bill and Ted should consider. *Possible responses include: salaries for Bill and Ted.*

Ask students to respond to the question in the second paragraph and to explain their answers. *Bill and Ted should not be pleased.*

Have students continue reading up to **Decision Time 3**.

Explain that implicit costs are the firm's opportunity cost of using its own resources or those provided by the owners. In this case, implicit costs are the costs of Bill and Ted's labor—measured as the wage they could be earning at their previous jobs. Another implicit cost might be the interest lost on their savings when that money is taken out of the bank and invested in equipment for the business.

Decision Time 2

Do you think Bill and Ted should be happy? Don't answer too soon! You have information only about Bill and Ted's explicit costs and total revenue. Bill and Ted's revenue is greater than the explicit costs; therefore, they are earning an accounting profit. But there may be some other things to consider before you decide whether Bill and Ted should be pleased. For example, as a cook at Andrew's, Ted earned $2,600 a month. As a waiter, Bill earned $2,400 a month in wages and tips.

Now, do you think Bill and Ted should be pleased? Be sure to explain why or why not. Use the lines below or a separate sheet of paper for your answer.

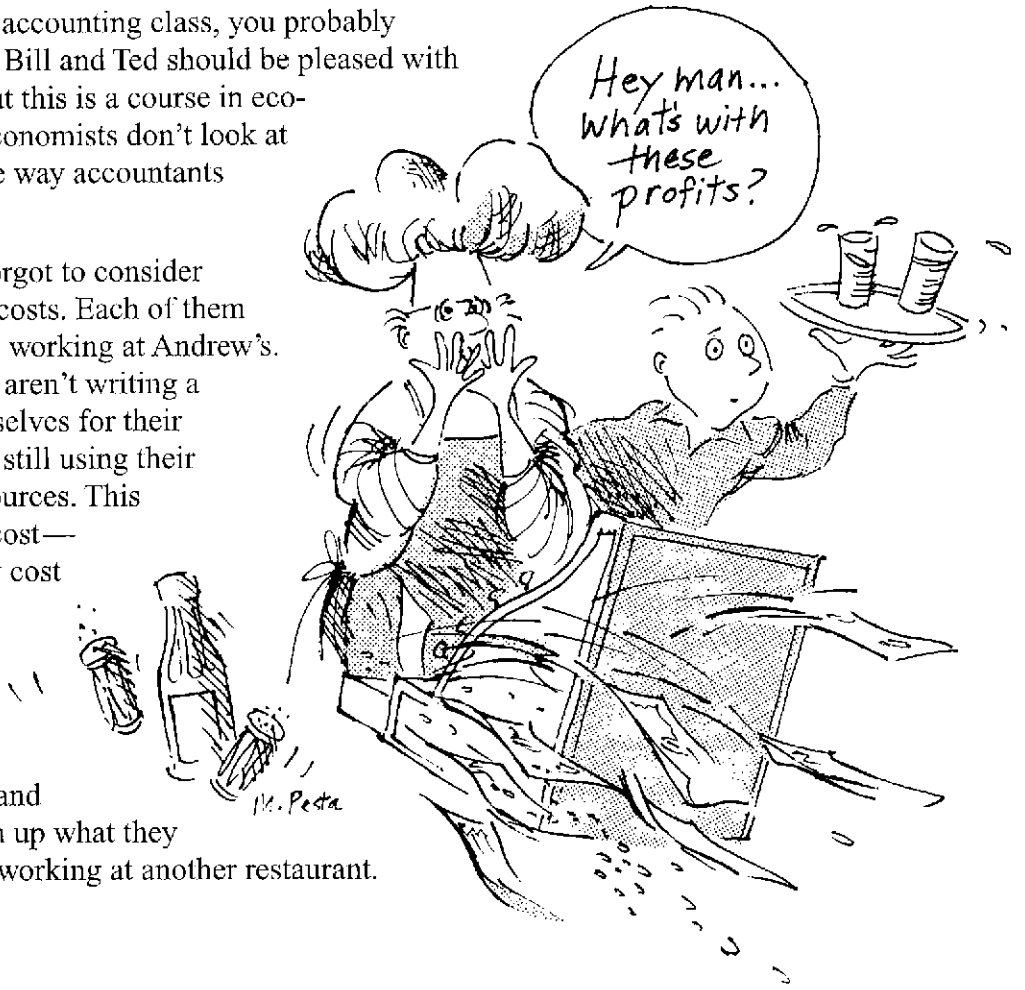
_____

_____

_____

_____

If this were an accounting class, you probably would say that Bill and Ted should be pleased with their profit. But this is a course in economics, and economists don't look at profit the same way accountants do.



Bill and Ted forgot to consider some implicit costs. Each of them earned income working at Andrew's. Although they aren't writing a check to themselves for their labor, they are still using their own labor resources. This is an implicit cost—an opportunity cost of working for their own business. By working for their own business, Bill and Ted have given up what they could earn by working at another restaurant.

The American Restaurateur

EVERY year the National Restaurant Association surveys hundreds of restaurateurs—the owners and executives of restaurants. In 1993 restaurateurs of 1,900 of America's 554,000 commercial food-service establishments participated in this survey. Although survey results do not necessarily represent the entire industry or minority ownership of restaurants, they do provide insights into the career field Bill and Ted have chosen.

- Restaurateurs describe themselves as friendly, aggressive, broad-minded, and adventurous.
- More than half of the restaurateurs work at least 60 hours a week, and one in every eight works 80 hours or more. Vacations are rare.
- Three of every four restaurateurs have attended college.
- Above-average risks yield above-average income for many restaurateurs, with almost half reporting annual incomes of $75,000 or more.
- Favorite leisure activities include spending time with family and eating out at restaurants.
- Nearly all restaurateurs said they were proud of their work, but only 38 percent would recommend a food-service career to their children.

Milestone 3

Make sure students understand that to determine economic profit or loss, both explicit and implicit costs are subtracted from the firm's revenue. Have the class answer the questions in this section. *They should respond:*

Revenues are $50,000.

Explicit costs are $25,000.

The implicit cost of their labor is $30,000.

They now have a loss of $5,000.

Decision Time 3

Answer the following questions about the first six months that Bill and Ted were in business. Use the lines provided or a separate sheet of paper for your responses.

What are the revenues? _____

What are the explicit costs? _____

What is their implicit cost? _____

What is the profit or loss? _____

Milestone 4

Encourage students to read the first three paragraphs of this section and to answer the questions that follow.

Decision Time 4

You have learned that there is a difference between how accountants and economists measure profit. According to accounting guidelines and tax laws, the accountant would have reported a substantial profit. But an economist would have come up with a loss, because the economist would have considered the opportunity cost of Bill and Ted's labor.

Suppose Bill and Ted hired you as their economist to answer the following questions. You'd certainly have your work cut out for you! Write your answers on the lines provided or on a separate sheet of paper.

- Bill and Ted want to know why their accountant reported $25,000 in profit, whereas you tell them they suffered a loss. How would you explain it to them?

_____

_____

_____

They should respond along these lines:

Accounting profit does not take Bill and Ted's implicit costs into account. After subtracting implicit costs of $30,000, they are sustaining a $5,000 economic loss.

- Suppose Bill and Ted's rent went up. If their other costs stay the same, what would happen to their explicit costs and profit?

_____

_____

_____

If Bill and Ted's rent increased, their explicit costs would increase and their economic loss would increase.

Profit Motive

"The worst crime against working people is a company which fails to operate at a profit."

—Samuel Gompers, American labor leader

"The trouble with the profit system has always been that it was highly unprofitable to most people."

—E.B. White, American author and editor

"Humans must breathe, but corporations must make money."

—Alice Embree, American author

Dining with the Stars

WHAT is a five-star restaurant? Would you want to eat in a one-star restaurant? You can decide once you understand the restaurant rating criteria used by *Mobil Travel Guide*, which rates restaurants on a five-star scale.

★★★★★ Offers finest cuisine in its specialty in the country. Service is attentive and unhurried. The unequalled level of excellence provides a virtually flawless experience for the guest.

★★★★ Total dining experience includes elegant setting, professional service, and exquisitely prepared dishes. Fresh, first-quality ingredients are used, and table settings include special touches, such as fresh flowers and linen.

★★★ Offers complex cuisine and more elaborate service. Decor is tasteful, and service is professional and attentive. Most food is made from fresh ingredients, and seasonal or regional dishes are offered.

★★ Appealing decor. Pleasant, efficient service. Some fresh ingredients are used. Moderate prices, casual atmosphere.

★ Modest decor. Above-average service. The food tastes good but may have been prepackaged or frozen.

—"Restaurants Rating Material," *Mobil Travel Guide*, adapted with permission from Mobil Corporation

- Recently Ted was offered a job as the executive chef at Donello's, a Mobil five-star restaurant. They have offered Ted a salary of $1,000 a week. Does this change Bill and Ted's explicit or implicit costs? What would you advise Ted to do?

_____

_____

This would increase Bill and Ted's implicit costs. Students might advise Ted to take the new job.

Have students continue reading as far as **Talk This Over**.

Businesses often do not report the dollar amount of profit they have earned. For example, a grocery store chain might not report that it earned $1 million in accounting profit. Instead it might report that it earned a 2% profit on sales. Many firms prefer to report their profits in this way. Profit as a return on sales is a simple combination of division and multiplication, requiring only two steps to calculate.

Step 1. Divide the accounting profit by sales (total revenue). For example, if the grocery store chain has $1 million in accounting profit and $50 million in sales, the quotient is 0.02.

Step 2. Multiply the quotient by 100 to get a percentage. For example, 0.02 x 100 = 2%.

Talk This Over

Working with your classmates, discuss what you know about Bill and Ted's restaurant. Then calculate their profit as a return on sales. Use the lines below or another sheet of paper to do your figuring.

Step 1. _____

_____

Step 2. _____

_____

Milestone 5

Ask students to complete the activity in the **Talk This Over** section.

Bill and Ted earned $25,000 in accounting profit. Their revenue was $50,000. The quotient of $25,000 ÷ $50,000 is 0.5; multiplying the quotient by 100 produces 50%.

Case Study

Have students read **Case in Point: Debbie's Shuttle Service** up to **Decision Time 1**.

Case in Point: Debbie's Shuttle Service

You've made a lot of progress in understanding revenues, costs of production, and profit. But there's a lot more to the story. Even though businesses may report profit as a return on sales, economists do not seriously consider the return on sales as a good profit measure. Just look at Bill and Ted's return on sales. It's a whopping 50%! Meanwhile, an economist is telling them that they haven't really earned a profit at all. They've had a loss. The return-on-sales measurement of profit tends to be meaningless.

Now see how what you have learned up to now applies to another situation, Debbie's shuttle-bus service. As you work through this case study, you'll learn more about costs of production, and you'll discover how economists prefer to look at profit.

Debbie's Shuttle Service

Debbie quit her job at Southern Electric, where she had been earning $25,000 a year. She cashed in $20,000 in corporate bonds, which were earning 10% interest annually.

Debbie decided to invest the $20,000 in a bus and to establish a shuttle service for students who travel from Hendersonville, the town where Debbie lives, to Bartsville where the community college is located.

After conducting a market survey, Debbie determined that 1,000 students would be willing to pay $200 a year each to ride on the bus. Debbie must pay for gas, maintenance, insurance, and other expenses. She determined that these items will cost $170 per student.

Milestone 1

Give students time to generate the information that Debbie needs.

Total revenue will be $200 x 1,000 students = $200,000.

Explicit costs are $170 x 1,000 students = $170,000.

Accounting profit is $200,000 – $170,000 = $30,000.

Debbie's implicit costs include her foregone salary of $25,000 and $2,000 of foregone interest.

Debbie is earning an economic profit of $3,000.

Discuss the preceding answers, then have students read as far as **Decision Time 2**.

Decision Time 1

Debbie is not sure what to do with all this information. Assuming that her figures are correct, use them to help Debbie determine where she stands. She needs to know the following things.

Total revenue will be_____

Explicit costs are_____

Accounting profit or loss is _____

Implicit costs are_____

Economic profit or loss is_____

There's something important to note here. Debbie has considered all explicit and implicit costs. After all these costs are taken into

account, the amount left over is called her economic **profit**. Economic profit is total revenue minus explicit and implicit costs.

Debbie's cousin Dave, an auto repair shop owner, has suffered an economic loss for the past two years. He has learned that Debbie is doing much better—she's earning a $3,000 economic profit. Now he wonders if he should go into the student transportation business. Economic profit provides an incentive for people to enter into a market. It's called the profit motive. If people expect to earn a profit in running a business, then they are likely to start one.

Decision Time 2

Is $3,000 a lot of profit? Do you have enough information to make a recommendation to Dave? Answer these questions on the following lines or on a separate sheet of paper, and then discuss your responses with the class.

_____

_____

Decision Time 3

Maybe Dave should think about profit in another way. If he calculates profit as a percentage of sales, that percentage might give him some more information. Debbie had sales or total revenue of $200,000, and her economic profit was $3,000. What is Debbie's profit as a return on sales? _____

Do you think most businesses with this return on sales would believe their profits are too high, too low, or just right? _____

You would have a tough time finding any business that would say its profit is too high. After all, profit is the reward to the owner for hard work, risk taking, and innovation. Do you think Sam Walton, the founder of Wal-Mart, thought his profits were too high? Do you think Ray Kroc, founder of McDonald's, thought his company was making too much money? Not likely!

What about Debbie? Is her return on sales too low or just right? If you're having trouble answering this question, welcome to the club!

So, You Want to Be an Entrepreneur...

"Going into business for yourself, becoming an entrepreneur, is the modern-day equivalent of pioneering on the old frontier."

—Paula Nelson, American economist

"Entrepreneurs are gamblers, but the smart ones gamble on themselves."

—James L. Sorenson, American entrepreneur

"I became a real entrepreneur, crazy enough to take the risk of losing everything."

—Ray Kroc, founder of McDonald's

"Being in your own business is working 80 hours a week so that you can avoid working 40 hours a week for someone else."

—Ramona E.F. Arnett, president, Ramona Enterprises, Inc.

Milestone 2

Ask students to respond to the questions in this section. They might think that $3,000 in profit is a lot of money. Explain that they need more information to put this figure in proper perspective. After all, a profit of $3,000 might be fine for Debbie, but it would be an insignificant profit for a giant corporation such as General Motors or IBM.

Have the class read up to **Decision Time 3**.

Milestone 3

Ask students to answer the first two questions in this section.

Debbie's profit as a return on sales is 1.5%.

Students are likely to think that a profit of 1.5% return on sales is low. Explain that once again they need more information to make a sound judgment about profit.

Have students read the rest of this part of the lesson and answer the final question.

Profit reported as a percentage of sales really doesn't mean very much. A million dollars in profit would be extremely low for Ford Motor Company, but it would be an enormous profit for a small hair salon.

Transit Firms Serve as Traffic Decongestants

TRANSIT can substantially reduce congestion. Every bus full of passengers at rush hour removes at least 40 cars from traffic; every full rail car removes 75–125 cars from traffic; and every van full of passengers removes 13 cars from traffic. One high-occupancy vehicle (HOV) lane carries the same number of people as three regular highway lanes.

—U.S. House Committee on Appropriations, 1993 hearing on Department of Transportation and related agencies' appropriations for 1994

So what profit calculation should Dave consider? Fortunately, Dave took an economics course in high school and knows the answer. He understands that profit may be reported in another way—as a **return on investment** in the business. What does that mean?

First you need to know what investment is. When a business buys equipment, tools, machinery, a building, or a bus, it is making an investment. To determine the return on investment, you must look at profit as a percentage of investment. For example, if the owners of a machine shop invested $100,000 in equipment and earned a profit of $3,000, they would receive a 3% return on investment. Debbie took a risk and made a $20,000 investment in a bus. She earned an economic profit of $3,000.

What was her return on investment? Express your answer as a percentage. Do your calculating on the following lines or on a separate sheet of paper.

Debbie's return on investment is 15%.

Milestone 4

Have students read the first paragraph of this section. Make sure they understand that investment refers to the purchase of capital goods, such as equipment, tools, machinery, or a factory. Then ask them to respond to the idea of Dave's starting a shuttle service.

Decision Time 4

Now it's time to decide if Dave is making a wise decision to enter the student transportation business. It's hard to tell if a $3,000 profit is a desirable amount. Debbie's 1.5% percent return on sales is difficult to interpret. Look at her profit as a return on investment, and explain whether it's a good idea for Dave to enter the same business as his cousin. (Hint: If Dave didn't invest his money in a bus, he could put it somewhere else, perhaps in a savings account, and earn

some sort of return.) Use the following lines or another sheet of paper for your response.

Dave knows his economics! Economists always recommend that people look at the percentage return on investment as the best indicator of how well a company is performing. It helps the owner consider how well the business is doing relative to other opportunities. Dave might take money from his savings account to invest in a bus. If he were earning 4% interest on his savings, explain why it's a smart move to switch his money into the student transportation business.

By looking at the return on investment, Dave could determine the best use of his funds. So he decided to enter the student transportation business. Of course, his move required a lot of planning. It took time to work out all the details. It always takes time for a business to enter into an industry. People can't just decide to go into business one day and make it happen the next.

It Won't Be Easy

"The reason a lot of people do not recognize opportunity is because it usually goes around wearing overalls looking like hard work."

—Thomas A. Edison, American inventor

"To open a business is very easy; to keep it open is very difficult."

—Chinese proverb

Decision Time 5

Dave operated his business in an area just south of Debbie's. It turned out that he was more convenient for some of Debbie's customers. To attract business, Dave offered a two-for-one special and provided refreshments on the bus. He drew a lot of customers, including 20 of his cousin's!

Responses should reflect these ideas: In making decisions about investments, people look at the rate of return that is expected for each possibility. A business might consider whether to invest in a particular piece of equipment. Its decision will be based on the return that the equipment will yield. If it yields only a 3% return, then the business owner would be better off putting the money in the bank and receiving 4% interest.

Ask students to read the second paragraph and to respond to the situation outlined there.

Explanations should include these ideas: Business owners must consider the opportunity cost of their investments. What is the firm giving up when it invests in capital goods? Profit as a percentage of investment provides the best information to make a sound economic decision. Dave can earn a 15% return on his investment if he enters the bus business. This is much more than the 4% he earns as return on his savings.

Have students read the last paragraph of this section.

Milestone 5

Have students read through **Decision Time 5**. Encourage them to answer the questions and to fill in the blanks.

Students are likely to realize that total revenue will decrease by $4,000 ($200 x 20); however, they may fail to realize that Debbie's explicit costs will also decrease by $170 for each customer lost.

Debbie's revenues fell to $196,000.

Debbie's explicit costs fell by $3,400 ($170 x 20) to $166,600.

As a result, her accounting profit will decrease ($196,000 – $166,600 = $29,400).

Debbie's implicit costs did not change.

When her implicit costs of $27,000 are subtracted from the $29,400 accounting profit, her economic profit falls to $2,400.

Her return on investment will decrease to 12% (2,400 ÷ 20,000 = 0.12 or 12%).

Milestone 6

Ask students to read the first two paragraphs of this section and to respond to the question raised. *Students might predict that more people may want to get into this profitable business. A 12% return on investment is attractive to many people. As more people enter the bus business, it will become increasingly difficult for Debbie to earn as much profit; therefore, her return on investment will fall.*

Have students read the rest of this section.

What do you think happened to Debbie's revenues, costs, accounting profit, economic profit, and return on investment? Complete the following on the lines provided or on a separate sheet of paper.

With fewer customers, Debbie's revenues fell to _____ .

Because she no longer incurred $170 in cost for each of the 20 customers she lost, Debbie's explicit costs fell to _____ .

As a result, her accounting profit decreased to _____ .

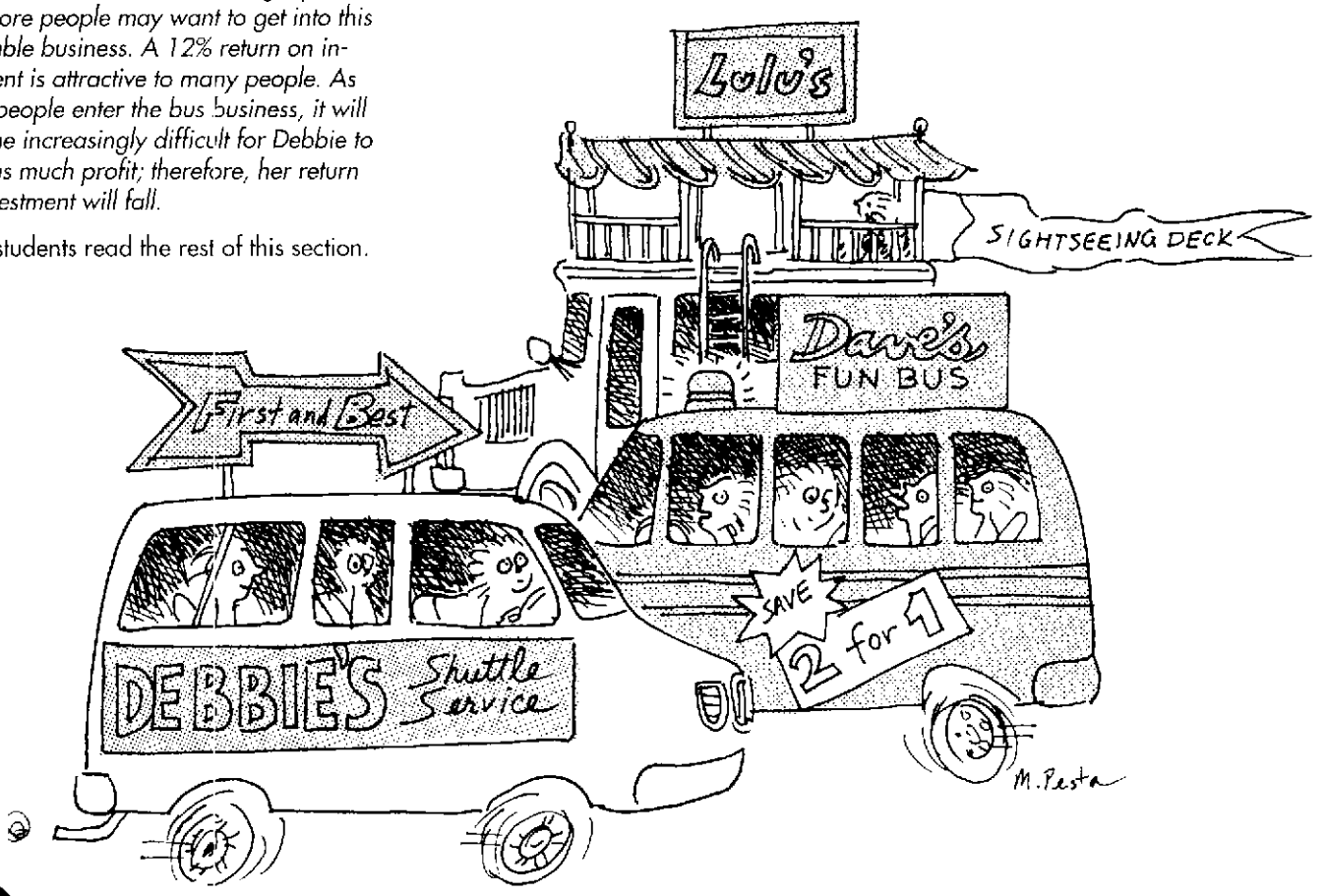
What happened to her implicit costs? _____

As a result of the new competition, Debbie's economic profit fell to _____ .

Her return on investment is now down to _____ %.

Decision Time 6

At first Debbie was upset with Dave for competing against her, but eventually she got over it and said, "Hey, there's always room for a little friendly competition!"



In the area where Debbie and Dave do business, what do you think will happen to competition in the student transportation business in the future? Explain why Debbie is not likely to continue earning her new return on investment. Write your response on the lines below or another piece of paper.

The Competitive Edge

"The race may not be to the swift nor the victory to the strong, but that's how you bet."

—Damon Runyon, American author

"I don't ride to beat the boys, just to win."

—Denise M. Boudrot, American jockey

Businesses can earn economic profit in the short run; however, when other people see an opportunity to earn an economic profit, they'll start similar businesses. As competition increases, it becomes increasingly difficult for firms to maintain their economic profits. In fact, in a highly competitive market, the tendency will always be for firms' economic profit to be driven to zero.

When firms break even and have no economic profit, economists say that those firms are earning only a normal profit. They cover all their costs, both explicit and implicit, but they earn nothing more. In the long run, firms in highly competitive markets tend to earn only a normal profit; that is, they break even. Remember, even if the firm is earning zero economic profit, it is still earning an accounting profit!

Talk This Over

Businesses want to earn the most economic profit possible. But, as you have just seen, economic profit is difficult to maintain in a highly competitive market. Now that you understand how this works, discuss the following questions with your classmates.

Sometimes a firm experiences an economic loss in the short run, which means that the company is not even earning a normal profit. What do you predict will happen to this firm in the long run?

Can you think of some industries in which competition has increased dramatically, thereby reducing the economic profit of existing firms? What are they?

Because firms in highly competitive markets tend to break even and earn only a normal profit in the long run, what methods have some firms used to try to avoid competition?

Milestone 7

Ask students to read the first paragraph of **Talk This Over**. When they have finished reading, lead a discussion of the questions raised in this section.

Students' responses should make these points:

In the long run, such a firm will leave the industry, and the economic loss will disappear as remaining firms increase their sales.

Industries in which competition has dramatically increased include computer games, shoes, cable-TV channels, long-distance telephone service, cellular phones, fast-food restaurants.

Businesses may try to get a patent to keep competitors from duplicating their products, or they might find a way to make their products different (or appear to be different) from others.

Ask students to provide some actual examples of products that are meant to appear to be different from their competitors. Are some brand-name five-pocket jeans really better than other brand-name five-pocket jeans? If people think so, even if there is no physical difference, then businesses whose jeans have a better image may continue to earn an economic profit in the long run.

CLOSING

Ask students to provide plausible answers to the questions that first appeared in the **Econ Briefing** at the beginning of the lesson.

Responses should reflect an understanding of these ideas:

Profits depend on both costs of production and revenue. Without further information, it is difficult to tell what the profit level might be.

Gasoline prices rise if crude-oil prices rise, if taxes rise, or if costs of production rise. Profit levels may remain the same, fall, or rise in response to these changes.

PUT IT TOGETHER

THE Econ Briefing at the beginning of this lesson posed three questions about profit. Draw from what you have learned, and respond to them. Use the lines below or a separate sheet of paper.

- Do you think the price of blue jeans is high because the manufacturers make too much profit? (What do you think now?)

_____

_____

_____

- Have gasoline prices risen because gas station owners are earning more and more profit? (How do you feel about this now?)

_____

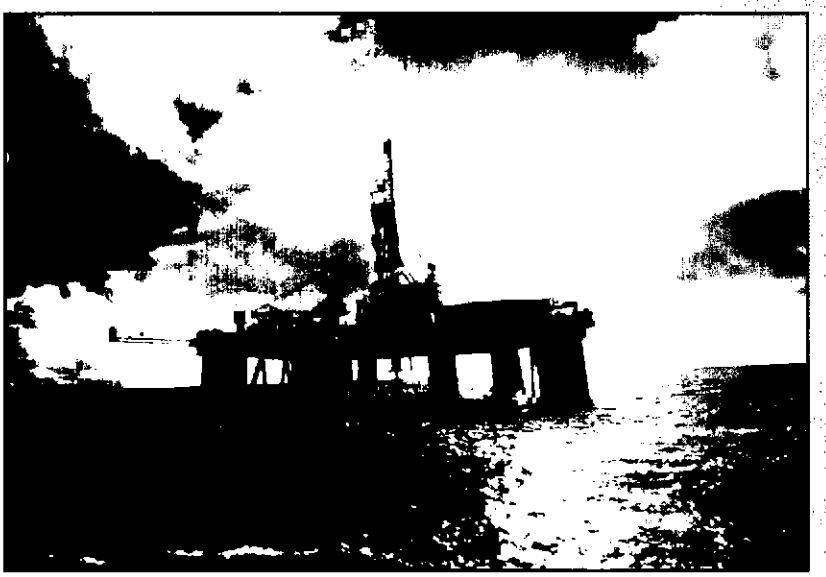
_____

_____

By the Gallon

"The United States has about 600,000 operating wells. Saudi Arabia has about 1,400. In 1992, U.S. oil productivity averaged 13.3 barrels per day per well. Saudi Arabia's wells averaged 5,800.... In the Middle East, $15 a barrel prices provide ample returns on exploration and production costs in the neighborhood of $1 a barrel."

—Arnold Nadler, "Oil Prices: What to Expect and Why It Matters," *Public Power* (January-February 1994)



Courtesy of Continental Oil Company and American Petroleum Institute Photographic and Film Services

"Art collectors are expected to bid $50 million for a Renoir oil painting. It's not high when you consider how expensive oil is these days."

—Gary Apple, *Quotable Quotes from 1990*

"At a typical refinery, 99.7% of the crude oil received is turned into a product such as gasoline or diesel fuel, and only 0.3% ends up as pollution. But for a community near an average-sized refinery, that 0.3% can mean over 10,000 gallons of oil released to the air, land, or water every day."

***—Environmental Defense Fund Letter* (January 1994)**

- Do grocery stores earn a lot of profit? (What's your opinion now?)

There is not enough information to answer the question. Profit as a return on sales is not the appropriate figure for comparison.

Now answer the next three questions, which you first saw in the Power Up section. Explain the reasons behind your answers.

Now have students answer the questions that first appeared in the **Power Up** section.

- The price of jeans at your favorite clothing store is higher than the price at the local discount store. Does this mean that the clothing store earns a greater profit?

Responses should be along these lines:

No, this does not mean the clothing store earns a greater profit. The store may also have higher costs than the local discount store.

- Mario's, one of the pizza restaurants in your town, has begun to deliver pizzas. No other pizza restaurant has home delivery. Do you think Mario's will increase its profit?

Mario's may increase its profits. It depends on whether their revenues increase by more than the extra costs of pizza delivery.

- Music Country had a buy-one-get-one-free sale on popular compact discs. Customers had to wait in line more than 45 minutes. Did Music Country earn greater profits?

Music Country may have earned greater profits if the additional revenue generated from the extra sales was greater than the extra costs of the sale.

As a final activity in this section, write a brief essay commenting on the following quotation by Winston Churchill, who served as prime minister of Great Britain during World War II.

> It is a socialist idea that making profits is a vice; I consider the real vice is making losses.

Draw students' attention to the Churchill quotation. Ask them to write a brief commentary on it. *Students should respond that profit is important in a market economy. It is an incentive for people to operate businesses. Businesses employ people and provide goods and services.*

You may wish to lead a class discussion based on their commentaries.

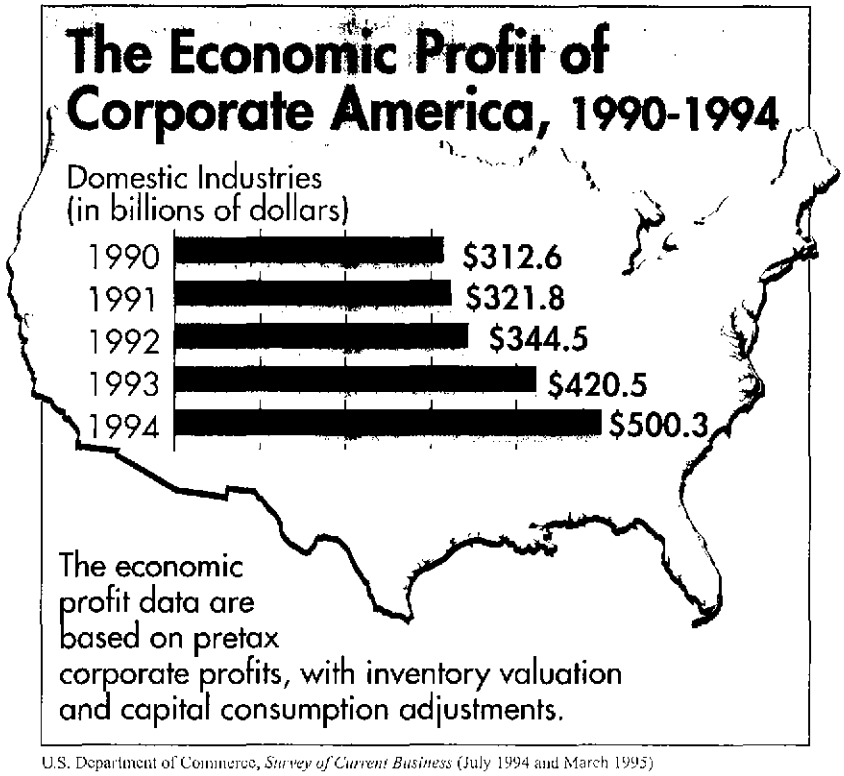
SUMMARY

Have students read **Net Gain**. Ask them to provide examples of each of the major points made in the lesson. Correct any misunderstandings they may have.

NET GAIN

WITH your knowledge of profit, you're on your way to becoming an accountant or economist. These are two great career options! You may want to think about these possibilities.

But no matter what career you choose, this lesson should help you understand the importance of profit in a market economy. At the very least, you have discovered that profit is important to people for different reasons, depending on whether they are employees, stockholders, owners, competitors, or suppliers, to name only a few. You have also seen that profit provides an incentive for someone to establish a business.



U.S. Department of Commerce, *Survey of Current Business* (July 1994 and March 1995)

Another thing you have learned is that the same word means different things to different people. An accountant and an economist might argue about the meaning of the word "profit." The economist wants the business owner to consider implicit costs as well as explicit costs in calculating profit. Your knowledge has become more sophisticated because you now realize that profit can be reported in several ways: revenues minus costs, return on sales, or return on investment. Finally, you now understand that profit levels can change over time. In the short run, businesses may earn an economic profit, an economic loss, or a normal profit. In the long run, however, firms in highly competitive markets tend to break even and earn a normal profit.

Your understanding of profits will help you make a valuable contribution to the success of the companies that employ you in the future—and your own success if you choose to go into business for yourself.

Here are major points made in this lesson:

1. Many people have a vested interest in profits.
2. Profit is calculated by subtracting costs of production from revenue received.
3. The total revenue of a firm is calculated by multiplying price times the quantity sold.

4. The economic costs of production reflect the use of all resources by the firm.
5. Explicit costs are those for which the firm is billed or for which it makes a payment that is recorded by accountants.
6. Implicit costs are those that are not billed and for which no direct financial payment is recorded.
7. Accounting profit equals total revenue minus explicit costs.
8. Economic profit equals total revenue minus explicit and implicit costs.
9. A firm is said to be earning a normal profit if revenue exactly covers all explicit and implicit costs.
10. Profit stated as a percentage return on investment is the preferred way to report profit.
11. Firms may earn an economic profit, suffer an economic loss, or break even in the short run.
12. Firms in competitive markets will tend to break even and earn a normal profit in the long run.

> ***"Business must be profitable if it is to continue to succeed, but the glory of business is to make it so successful that it may do things that are great chiefly because they ought to be done."***
>
> **—Charles Schwab, American businessman**

BUILDING ON SUCCESS

How does all of this economic theory work in the real world? Now's a good time to find out!

▶ Interview the owner of a local business, such as a gas station, restaurant, funeral home, or farm. Working in groups, develop questions related to profit and to explicit and implicit costs. Remember, the business owner might not have studied economics, so you might have to explain the terms you use. Don't be surprised if the owner does not want to reveal specific figures involving costs and profit. You may have to ask broader questions.

Here are a few samples:

- What products or services do you provide?
- Why did you decide to go into this business?
- What are the explicit costs of your business (for example, supplies, rent, utilities)?
- Did your business earn an accounting profit last year?

EXTENSION

Divide the class into groups of four or five students. Help each group select a local businessperson to interview.

Allow time for groups to develop questions related to the concepts in this lesson. Remind students that they should not be overly personal or prying during the interviews. Most business owners don't want to reveal their specific financial status.

- Have you ever considered what you could earn working somewhere else (that is, the opportunity cost)?

Ask each group to share the questions it develops with the class. The entire class should then develop a standardized survey that all groups can use.

Share your group's questions with the rest of the class. The entire class should develop a single questionnaire. Use the form to conduct your personal interview. Your interview may be conducted either by phone or in person.

Ask each group to develop a report about the business. Reports should include graphs or other pictorials that illustrate the firm's revenues, explicit costs, and profits. Reports should also explain the business's implicit costs, economic profit/loss, and normal profit. You may wish to have groups present their reports to the class.

Working with your group, use the information you gathered through the interview to develop a report about the business. The report should include graphs or other visual elements that illustrate the firm's revenues, explicit costs, and profits. There should also be some explanation of the business owner's implicit costs, economic profit or loss, and normal profit.

Ask each student to select a specific firm in an industry in which he or she would like to work. Students should conduct research regarding the costs, revenues, and profits of the firm.

▶ Select a major firm in the industry in which you would like to pursue your career. Go to the library for information about the firm's revenues, costs, and profits over the last three years. Develop a written report or an oral presentation, and be prepared to share your work with the class.

ASSESSMENT

Assessment questions are provided for you to evaluate students' comprehension and mastery of the material presented in this lesson. You may wish to assign the questions as homework or to use them as a formal in-class assessment tool.

QUALITY CONTROL

DEMONSTRATE your understanding of the concepts of profit and costs by answering the questions on page 45, which are based on the following situation. Circle the answers that you think are correct, or use a separate sheet of paper.

Your neighbor Susan has had a lawn-mowing service for the past two years. You've been working for her, earning $150 a week. You mow 15 lawns a week, and the normal mowing season is 10 weeks. Susan is finishing school this year and has a full-time job at a local auto repair and body shop. She has asked if you would like to buy her equipment and customer list so that you can operate the business yourself. She will sell the equipment and the customer list for $700.

Susan charges $25 for each lawn. You think you could make a lot of money. If you hired your friend Will to help you, you might be able to increase the number of lawns mowed each week. Of course, since you would be in charge, you wouldn't have as much free time as usual. You have $700 in a savings account earning 5% interest. You know you could also work for another lawn service that would pay you $150 a week.

In the long run, firms in competitive markets tend to break even; that is, they earn a normal profit.

1. If you mow 15 lawns a week at $25 each, your weekly revenue will be:
   a. $375
   b. $1.66
   c. $700
   d. Answer can't be determined. It depends on how much you pay Will.

2. Your implicit costs are:
   a. $700
   b. $150 per week plus foregone interest
   c. $700 plus foregone interest
   d. $150 per week plus $700

3. Which of the following is an explicit cost of operating the lawn service?
   a. the $150 per week you would have earned
   b. $35 in interest
   c. the cost of gasoline and oil for the mowers
   d. the free time you would give up

4. If you buy the equipment and customer list for $700, it is:
   a. an implicit cost
   b. profit
   c. revenue
   d. an investment

5. At the end of the summer, if your revenue equals the sum of your explicit and implicit costs, you have earned a(n):
   a. economic profit
   b. economic loss
   c. normal profit
   d. accounting profit

6. If you earned $70 profit and reported to your family that you had 10% profit, this means that you are reporting profit as:
   a. a return on sales
   b. a return on investment
   c. an explicit cost
   d. an implicit cost

Answers:

1. (a)—Total revenue is calculated by multiplying price times the quantity sold.

2. (b)—You are giving up your weekly earnings, plus any interest you would have earned on money in the bank.

3. (c)—You must purchase the gasoline and oil from an outside supplier; therefore, this is an explicit cost of operating the lawn service.

4. (d)—These represent a capital purchase for the firm; thus it is an investment.

5. (c) and (d)—If the firm is breaking even, it is earning a normal profit. Of course, that also means that the firm must be earning an accounting profit.

6. (b)—Based on the information provided, $70 is 10% of $700, which is the firm's investment in the equipment and the customer list.

Side 1
Graphical Database Barcodes

(Use "step still" function or barcodes below to advance within categories.)

Step Back

Step Forward

Elasticity

Role of Profits

Product Markets

Consumer Behavior Theory

Production Theory

Foreign Exchange Markets

Human Resource Market

Nonhuman Resource Market

Aggregate Supply & Demand

Loanable Funds Market

Side 1
Teacher-Track Barcodes

Introduction

The Role of Profit (audio only)*

More Roles for Profit

Choice and Profit

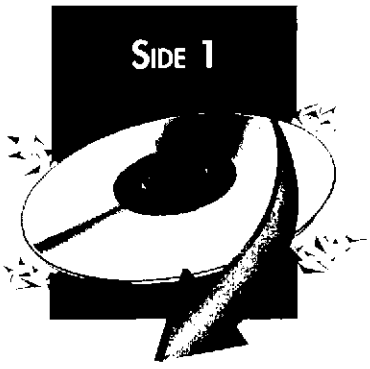
Competition

Follow-up Discussion Topics

*Swipe any other barcode to restore video.

ECONOMICS® at Work

Module 1, Lesson C



PERSONAL BEST

ECON BRIEFING

WHEN you were a little kid, did you ever set up a lemonade stand on a hot summer day? As you grew older, maybe you sold candy bars or cookies for your baseball team or the Girl Scouts—or maybe you tried to sell pizzas for a school fund-raiser. One thing is certain: As your efforts to make money got more complex, you became increasingly aware of how difficult it is to make a profit.

After a day at the lemonade stand, you counted your money, and you considered all of it as profit. There were no expenses, right? Of course there were, but kids seldom notice such details at "lemonade-stand age." When selling candy bars or cookies, you knew you were allowed to keep only a certain percentage of the revenue you collected. And by the time you were making pizzas, you recognized that you had to pay for the ingredients and that your time was also worth something—after all, you could have been doing something else instead of selling pizzas. All of these experiences helped you recognize how profits are calculated.

Profit is the money left over after all costs have been deducted from revenue. Profit is a major goal of firms operating in a market economy. The effort to make a profit helps drive a market economy. Companies compete for success, and the profit they make is a key way to measure their success. When one company succeeds in making a profit, other firms take notice, and some of them enter the same business. When a company isn't realizing a profit, it takes steps to boost its revenues and/or lower its expenses—and if that doesn't work, it gets out of the business.

WHAT YOU'LL LEARN IN THIS LESSON

- The possibility of making a profit is an incentive that leads people and businesses to provide the goods and services that others want.
- As more goods and services are produced, more jobs are created.

2 CLASS PERIODS

Materials

This lesson uses the videodisc (or videotape) program **Personal Best**. To complete the activities, students may use the following items: newspapers, calculators, and the yellow pages of the telephone book.

INTRODUCTION

In this lesson students learn that the ability to earn profits is the driving force of a market economy. Profit serves several functions. It encourages firms to produce what consumers want. When the firms within an industry are profitable, other individuals or businesses feel encouraged to enter that industry, and this results in increased production of goods and services in greatest demand. As new firms develop or as existing firms enter new markets, the demand for labor increases, resulting in more jobs. The lesson also points out that the entrepreneur must receive an income at least equal to what he or she could earn in an alternative enterprise. This is known as normal profit and is considered a cost of operating the firm. Any profit in excess of normal profit is economic profit. It is economic profit that encourages others to enter the industry. As more firms enter the industry, supply increases, price falls, and in the long run economic profit is eliminated.

GOALS

Students will be able to demonstrate their understanding that the ability to earn profits is essential if companies are to provide the goods and services that consumers demand. They will recognize that the goal of firms is to maximize profits and that, by doing so, firms increase economic activity and create more jobs.

OBJECTIVES

Upon completing this lesson, students will be able to:

- define profit as an incentive that leads individuals and businesses to provide the goods and services that consumers want
- explain how the ability to earn profits leads to job creation
- calculate profit as total revenue minus total costs
- explain how risk takers are rewarded by profit
- describe how the extent to which a firm can increase revenue or decrease costs determines its level of profit

LESSON DESCRIPTION

This lesson focuses on profit by examining how changes in the marketplace affect the owner of a small bicycle shop. The owner and her employees explore the changes that have caused the small shop to incur a loss, and they consider various methods to make the shop profitable again.

- Profit is the difference between revenues and the costs of producing or selling a good or service.
- Profit is the reward to the risk taker.
- The extent to which a firm can increase revenues and control costs determines how profitable it will be.

PAYBACK

With profit as their goal, companies in a competitive industry produce what consumers want: products of the highest quality at the lowest prices. As they strive to produce these goods, they create jobs and employ more people. But it isn't easy to sustain profits. The lure of making an economic profit encourages others to enter the market. As competition grows, the market is divided among more and more producers, and companies must pay closer attention to their costs and revenues. Entry of other firms into the market continues until all firms earn a normal profit.

What does all this mean for you? For one thing, you might someday be a business owner, striving to make a profit. In that case, what you learn in this lesson will be extremely important to your success. On the other hand, you might prefer to work for someone else—a company that you hope will be profitable, for its profitability will ensure that you keep receiving a paycheck instead of a layoff notice! And whether you're working or not, the availability of the goods you want depends on companies' being able to make a profit in producing those goods—no profit, no cars, no amusement parks, no stereos, no enchiladas...nothing, zero, zilch.

When competition from a cycling superstore forces the owner of Terhune Schwinn Cyclery to close shop, Anthony and Kim must start looking for new jobs.

Econcepts

costs—the payment for all the resources used to produce a good or service

economic profit—a firm's total revenue minus its explicit and implicit costs

equity—the dollar value of investment in a business or property

explicit costs—the monetary payment a firm makes to an outside supplier of a resource

fixed costs—any cost that, in total, does not change as production increases or decreases

implicit costs—the monetary value of the use of a resource owned by a firm

normal profit—the profit earned when all resources used by the firm are earning their opportunity costs

profit—the difference between total revenues and total costs; the return to the risk taker; percentage of return on equity

revenue—the price of the product multiplied by the quantity sold

variable costs—any cost that, in total, changes as production increases or decreases

Key Terms

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

PREVIEW

Ask students to read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 47–48). Discuss the main topics, and brainstorm any questions that students may have. You may want to put their questions on a chart or chalkboard and to display these questions throughout the lesson. Encourage students to keep notes as they develop ideas about the topics of their questions.

Ask volunteers to relate their personal experiences with profit seeking, including what the enterprise was and whether it was successful from the standpoint of profit and loss.

Introduce the **Econcepts**, and give contextual examples of each. Ask students to refer to them as needed during the lesson.

Ask students to read the **Power Up** section as far as **Normal Profit.** Encourage them to take notes on the steps toward starting a business and maintaining its profitability. Then have them record their ideas, including the steps they would take to start a business and to differentiate their product from similar ones in the market.

POWER UP

SUMMER vacation can be good news and bad news. You know the good news—no school! The bad news is the grass needs cutting, the bushes need trimming, and the flowers need planting, and these jobs usually go to the kids in the house. Chris and Karen were the only teenagers in their neighborhood. But they weren't bored—they turned the situation into an opportunity by starting their own lawn-care business, which they called Cutters & Clippers.

Establishing a new business takes a lot of planning. First you have to assess the demand for your services. Chris and Karen noticed that the adults in the neighborhood

were huffing and puffing behind their lawn mowers. Then they considered the costs of going into business: the price of gasoline, grass bags, and other materials, as well as the opportunities (which they would be giving up) to earn money at different jobs.

Massive Money Mulching

ACCORDING to the National Gardening Association, the 52 million U.S. households that care for their own lawns spent $6.4 billion in 1993—about $130 per household—to care for a total of 20 million acres.

If you started a business, what good or service would you offer? What steps would you take to plan your enterprise? How would you differentiate your product from that of your competitors? Take a few moments to answer these questions on the lines below or on a separate piece of paper.

Businesses use this same approach, though on a larger scale. To determine the demand for the product they wish to offer, they may do a market survey, and they might also look at how well other businesses offering a similar product are doing. Are businesses leaving the industry or doing well? Are they making profits, breaking even, or losing money?

Basically, profit is the money that is left over after a business has paid all its costs. Profit is often stated as the percent of return on equity, which means profit is expressed as a percentage of the amount of money the owner has invested in the company. (This percentage is calculated by dividing the company's profit by the amount of money the owner has invested.) But it's not quite this simple, for there are two different types of profit, and each has a different function.

Have students read **Normal Profit**. Encourage them to discuss the role of normal profit in attracting and retaining the entrepreneur.

Normal Profit

Normal profit is the payment that an entrepreneur must receive in order to enter into a business. Look at it this way: What if Chris and Karen were already working at other jobs? They would have to be sure to earn at least as much income from grass cutting as they were

making at their other jobs. Consider the following statement, which summarizes their first month in business.

Cutters & Clippers

Income Statement For Month Ending July 31

Revenue		$200.00
Operating expenses		
Gasoline	$20.00	
Advertising	5.00	
Equipment	5.00	
Total operating expenses		30.00
Net income		$170.00

Wow, it looks as though Cutters & Clippers made a cool profit of $170! Chris and Karen totaled their costs, and then they subtracted those costs from revenue. The result of $170 is exactly what an accountant would report as profit. But is it really a profit in economic terms?

Take another look at the income statement. The costs shown on it are those that Cutters & Clippers paid for the resources they purchased from other people. These are **explicit costs**. But there is another resource that is not shown on the statement, a resource that is owned by Chris and Karen themselves: their own entrepreneurial skills.

Chris and Karen each put in 17 hours per month cutting grass and trimming bushes. This works out to a $5-per-hour payment to each of them, which happens to be the same rate of pay they would earn if they worked at a local fast-food restaurant. But they don't want to work in a restaurant. They prefer being their own bosses and setting their own schedules, and the lawn-care business pays them a return equal to what they could be making in another endeavor.

Whenever someone makes a choice, the next best alternative that is given up is that person's **opportunity cost**. Chris and Karen's opportunity cost in choosing the lawn-care business is what they could earn in another job.

The profit reported on the income statement is exactly the amount they should expect in payment for the resource they contribute. In economic terms, this payment due the entrepreneurs is actually an additional cost of doing business. Cutters & Clippers must pay for all the resources they acquire—not just those they purchase from other sources, but also those they own themselves. The resources they purchase from others are their explicit costs; the resources they

"There is no such thing as profit. There are only costs. Costs of doing business and costs of staying in business, costs of labor and raw materials, costs of capital, as well as the costs of today's jobs, and costs of tomorrow's jobs and tomorrow's pensions."

—Peter Drucker, American business philosopher

own and use in the business are **implicit costs** to the company. Look at the income statement when implicit costs are included:

Cutters & Clippers

Income Statement For Month Ending July 31

Revenue		$200.00
Operating expenses (explicit costs)		
Gasoline	$20.00	
Advertising	5.00	
Equipment	5.00	
Return to the entrepreneur (implicit cost)	170.00	
Total operating expenses		200.00
Net income		$0.00

The bottom line shows there's nothing left from revenues after all explicit and implicit costs are deducted. Does this mean they will get out of the business? No way! They are making a normal profit. In other words, they are earning exactly what they could make at the other job available to them, their next best alternative.

Economic Profit

Have students read the first two paragraphs of **Economic Profit**. You may wish to generate a discussion of the role of economic profit in creating new enterprises. Then ask students to read the rest of this section and to complete the income statement in light of the higher opportunity cost that each of the entrepreneurs now faces. Encourage them to discuss the effect of changes in revenue on Cutters & Clippers' profitability.

What if Cutters & Clippers' revenue were $300 for the same amount of lawn work? The bottom line would show $100 left after both explicit and implicit costs were deducted. This would be an economic profit—what is left of their total revenue after all economic costs (both explicit and implicit) have been deducted.

When other businesspeople notice that a firm is experiencing an economic profit, they start looking for ways to cash in. These people will enter the profitable industry, and this will continue until economic profits in that industry fall to zero. If later some of those companies find they are no longer earning normal profits, they will leave the industry.

Back in Chris and Karen's neighborhood, it just so happens that the local fast-food restaurant is desperate for workers. After all, there aren't many youths in the area, and the fast-food labor force is generally made up of teens. The restaurant places a sign in the window offering $6 per hour and a flexible work schedule. Assuming Chris and Karen would each work 17 hours per month at the fast-food restaurant, how would this affect the Cutters & Clippers income statement?

Calculate the revised income statement below or on a separate piece of paper, and tell whether you think Chris and Karen should stay in business. Be sure to explain why you think so, then discuss your response with your classmates.

Cutters & Clippers

Income Statement For Month Ending July 31

Revenue		
Operating expenses (explicit costs)		
Gasoline	$20.00	
Advertising	5.00	
Equipment	5.00	
Return to the entrepreneur (implicit cost)		
Total operating expenses		
Net income		

What if their company's income amounted to $300? What if it were $136? What would you advise them to do in each case? Discuss these situations too.

Students should respond: Working 17 hours a month for $6 per hour means that Chris and Karen would each earn $102; as a result, their business's total implicit cost is $204. When $30 in explicit costs are added, their total operating expenses are $234. With $200 revenue, they sustain an economic loss of $34. With $300 revenue, they make an economic profit of $66. With $136 revenue, they have an economic loss of $98.

TAKE A CLOSER LOOK

ALL sorts of events affect a business's profit picture. For instance, Chris and Karen had to consider their opportunity costs in starting their own business. In other words, they had to be sure they were earning a normal profit. They also had to consider their explicit costs—the price of such things as gasoline and grass bags. As long as they had control over their revenue and costs, they could earn a profit. What happens to a firm when it has lost control over costs and revenue? What can it do to regain profitability? You will learn the answers to these questions as you watch the video.

To maximize profits, owners try to make their businesses more productive and profitable by using technology to stay on the cutting edge and by keeping costs down.

VIDEO CORE

Have students read the paragraph introducing **Take a Closer Look**. The first video segment presents the costs of operating a small firm and explains the difficulties the firm faces when costs are out of control. When costs exceed revenue, the company fails to earn a profit. The results are a loss of income for the entrepreneur and a loss of jobs for the employees.

Introduction to the Video

You may wish to approach this section of the lesson by leading a whole-class discussion about students' attitudes toward profit and the profit motive. Then have students read **What You'll See on the Screen**. Clarify any points in this section that they do not understand.

What You'll See on the Screen

No doubt about it, the primary goal of any firm is to maximize its profits. If this mercenary activity sounds a bit distasteful to you, try to reserve your judgment for a while. Every "actor" in the economy—not only businesspeople—acts in his or her own self-interest. As consumers, people look for the highest quality at the lowest price. As savers and investors, they want a high rate of return. As workers, they look for interesting jobs that let them make the best use of their skills and add to their sense of accomplishment—and they like getting paid well.

"As the owner, I have to look at what I've put into the business—my equity—and what I'm getting out of it."

Think about your favorite music store. Its employees, investors, and customers all have one thing in common: They all hope that the store will continue to be profitable. As long as the store is successful, the workers will be employed, the investors will get a return on their investment, and the consumers will get the CDs and tapes they want.

Where do you buy your CDs or sporting goods? Every big city has several large sporting-goods or music chain stores. Even smaller cities have a Wal-Mart or Kmart. How does a little neighborhood shop compete with the big boys?

In the opening segment of "Personal Best," you'll discover some of the problems that small stores face when competing with large chains. Because of their size, the chains can buy large quantities of stock at discounted prices. The ability to reduce their costs allows them to make greater profits.

Then, in the Economic Puzzle Challenge sequence, you will get involved with a small bicycle shop's efforts to compete against much larger outlets. As the video unfolds, watch for how profits affect business activity and jobs.

Video-Based Activities, Part 1

Start the videodisc (Side 1), and swipe this barcode to play:

Personal Best
(introductory segment)

Talk This Over

"Going Out of Business..." "Liquidation Sale..." "Everything Must Go..." No doubt you've seen signs like these more times than you can remember. Have you ever walked by a store in the mall where

several employees were just standing around waiting for a customer? It wouldn't come as much of a shock if that store went under. But sometimes it does come as a surprise when a "Going Out of Business" sign appears in the window.

As you saw in the video, Mrs. Terhune is losing her business, and Anthony and Kim are losing their jobs. This is a grim turn of events. Mrs. Terhune told Anthony that the store used to be profitable. Why is it now losing money? Before you can figure out what went wrong with the Terhune Schwinn Cyclery, you have to look at the power of profits.

> ***"The proper man understands equity, the small man profits."***
>
> **—Confucius, Chinese philosopher**

The video challenges you with two questions. Answer them on the lines below or a separate sheet of paper. Then discuss your ideas with the rest of the class.

What is the role of profit in a market economy?

_____

_____

_____

What actions do "losses" encourage in a market economy? Why?

_____

_____

_____

The video will pause on these two questions (which also appear in the *Student Guide*):

What is the role of profit in a market economy?

What actions do "losses" encourage in a market economy? Why?

Ask students to read **Talk This Over**, and then have them answer the questions in writing. When finished, they should discuss their answers as a class.

Responses should include these points:

Profitable industries encourage individuals and firms to enter, thereby increasing the supply of goods and services consumers want and creating new jobs.

Losses discourage businesses from entering the industry experiencing the losses. Furthermore, losses encourage firms to leave the industry, thereby reducing current jobs, future employment opportunities in that industry, and the supply of goods or services produced in that industry. Losses also encourage firms to reduce output and therefore jobs.

For More...

Mrs. Terhune has some serious problems. She is barely covering her explicit costs. As an entrepreneur, she expects to receive a payment from the business at least equal to what she could earn in another opportunity. In other words, she expects a normal profit. Chris and Karen's alternative opportunity was to work as fast-food clerks, so their firm's normal profit was based on what they could earn in those jobs.

Mrs. Terhune looks at her other opportunities in a different way. She has **equity** in her business. Equity is the dollar value of her investment. To understand the concept of equity, assume that Mrs. Terhune has $100,000 invested in the business—that is, she has goods and equipment valued at $100,000. If she were to put $100,000 in a savings account at the bank, her money might earn five percent interest annually. If she were to purchase a government bond, she might receive six- or seven-percent return on her money. She might even invest in another business that would provide a return of 20 percent!

Further Discussion

Have students read **For More...**beginning on this page. Ask them to discuss the questions that appear in this section.

Because Mrs. Terhune has options available for investing her money, she expects her bicycle shop to give her a return that is at least equal to what she could earn in an alternative opportunity.

Mrs. Terhune pays herself a salary, but she also expects a return on her equity. Discuss the following questions with your classmates.

- How much must Mrs. Terhune earn on her equity in the bike shop to equal the return she would get from a savings account?
- How much must she earn to equal the return she would get from a government bond?

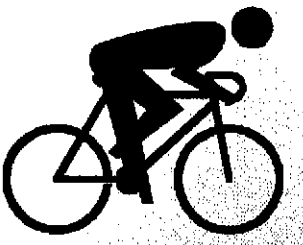
Mrs. Terhune must receive $5,000 annually in normal profit to equal the return she would get from a savings account. To equal the return she would get from a government bond, Mrs. Terhune must receive $6,000 annually.

Mrs. Terhune isn't earning a normal profit, much less an economic profit. It doesn't make sense for her to stay in business, unless she expects things to improve.

To Ride or Not to Ride?

Is America ready for bicycle commuting? Only one in 60 Americans rides a bike to work. But if better facilities were available, the numbers would change to one in five, according to a poll by *Bicycling Magazine.*

—Joe F. Pirro, "Trends: Two-Wheel Highway," *Amicus Journal* (Spring 1994)



Video-based Activities, continued

Have students read the opening paragraphs of the second **Talk This Over** section. Then swipe the next barcode to generate the following questions (which also appear in the *Student Guide*).

What happens to a firm's profit level if additional sellers enter the market?

Can you think of an example in your community?

Give students time to respond in writing. Encourage whole-class discussion.

As additional sellers enter the market, the price falls and so does each firm's profit. Entry continues until economic profits are eliminated.

Talk This Over

Think about the stores where you live. Are there several similar businesses in the same area? How about fast-food restaurants, gas stations, car washes, or grocery stores? Did you ever wonder what drew so many similar enterprises to the same area? Now you know: economic profit.

The video has two more questions for you. Write your answers on the lines provided or on a separate piece of paper—and explain the reasons behind your decisions. Remember that normal profit is the payment the entrepreneur must receive in order to stay in business, whereas economic profit is the revenue left over after all costs and normal profit have been deducted.

What happens to a firm's profit level if additional sellers enter the market?

Can you think of an example in your community?

_____

_____

_____

Local examples given by students will vary; however, some likely examples are pizza places, fast-food restaurants, dry-cleaning establishments, gas stations, and grocery stores.

For More...

The race to capture economic profit can change the face of a neighborhood. New businesses can pop up all over the community, which is exactly what happened when a young woman from Vietnam opened an ethnic restaurant in the U.S.A.

One Good Restaurant Leads to Another

As an immigrant from Vietnam, Mai Giap had her eye on the American dream of equality and prosperity. There were no Vietnamese restaurants in her heavily Asian neighborhood. In fact, there were no Vietnamese restaurants in the entire city. So Mai and her husband took a chance and introduced Vietnamese cuisine. They set up a small restaurant on a busy street. That was in 1989. Since then, another Vietnamese restaurant has opened in the same block, just a few doors away. A third has opened across the street, and several others are serving people elsewhere in town.

Without having specific information about the costs and revenues of Mai Giap's business, can you make an assumption about the profitability of her restaurant in the early 1990s? On what did you base your assumptions? Share your thoughts with your classmates.

Further Discussion

Have students read **For More...** on this page. Encourage them to speculate on the profitability of Mai Giap's restaurant and to share their views with one another. *They should observe that other entrepreneurs entered the Vietnamese restaurant business because they felt encouraged by the profitability of Mai Giap's enterprise.*

Economic Puzzle Challenge, Part 1

Profit is what's left over after costs have been deducted from revenue. There are two ways to increase profits: Boost revenue, or reduce costs.

Costs include a wide variety of items. Rent or mortgage payments, insurance, taxes, utilities, materials, and labor are some of the major expenses that a business must cover. Unfortunately, some costs cannot easily be reduced. For instance, rent, insurance, and taxes cost the company the same amount whether they produce 100 items or 1,000 items. These are known as fixed costs. On the other hand, some costs, such as materials and labor, vary with the number of items produced. To produce 100 items, a company doesn't need the same amount of materials and labor that it needs to produce 1,000 items. Costs that vary with the number of items produced are called variable costs, and these are the easiest to adjust.

Economic Puzzle Challenge, Part 1

Before swiping the barcode to continue, ask students to read the four paragraphs that introduce **Economic Puzzle Challenge, Part 1**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 1

"One way of looking at profits is that they are a signal—a message that the business making the profits is doing something right: providing products or services the market wants at the right price and quality."

Some costs may be fixed to some extent yet vary over wide ranges of production. These costs, which include such items as advertising and utilities, are called semivariable costs. For instance, if a company were forced to shut down for a while during periods of low demand for its product, there would be no reason to advertise. It might continue using utilities at minimal levels to keep security lights burning or pipes from freezing, but it certainly would not use as much power as it uses during full production.

When a company is reducing costs, where is it most likely to make adjustments? Think about this question as you watch the next part of the video.

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Where should Anthony begin his job search?

Assist students in analyzing each of the possible responses. Then swipe the barcode of each option you wish to view.

A. The less profitable company where he has experience

Analysis: The company having trouble earning a profit is likely to be searching for ways to increase revenue or reduce costs. Raising the price to increase revenue will reduce the quantity demanded for its bikes, and, depending on how sensitive consumers are to the price increase,

Decision Time

At the end of the first part of the Puzzle Challenge, the following question appears on the screen.

Where should Anthony begin his job search?

Use the space provided here or a separate piece of paper to mark your choice and to explain your answer. Then watch the video to see the results of your decision.

☐ A. The less profitable company where he has experience

_____

_____

_____

☐ B. The more profitable company that is new to the market

_____

_____

_____

For More...

If you were looking for a job, how would you investigate prospective employers to determine which would offer the highest level of job security? Discuss this question with your classmates.

When a bicycle company sponsors world-class levels of competition, it links its name with world-class cyclists and creates a feeling of corporate goodwill.

Economic Puzzle Challenge, Part 2

Anthony has several good ideas for increasing the company's profitability. The firm could develop high-end bikes; it could contract out the manufacturing of certain parts; and it could sponsor special events. As a matter of fact, a lot of companies employ the strategies Anthony has suggested. For instance, automakers produce "high-end" cars to satisfy the wants of the rich and famous; refrigerator manufacturers contract out certain parts, such as gaskets, the rubber scalers around the doors; and local businesses often sponsor softball, bowling, and other teams because it's good public relations and because the uniforms bear the names of the sponsors—that's good advertising.

> ***"Business without profit is not business any more than a pickle is candy."***
>
> **—Charles F. Abbott, American lawyer**

the company could actually see a decline in total revenue. The company is, therefore, more likely to look at reducing costs as a way to increase profit. Because fixed costs cannot be reduced in the short run, the firm will consider variable costs, including labor. The firm is likely to reduce hiring; it may even lay off workers.

B. The more profitable company that is new to the market

Analysis: The more profitable firm is likely to retain present workers and is more apt to increase employment. The profitable company will be looking for ways to expand its production. One way to accomplish this would be to reinvest its profit in the company. The increased capital can be used to buy more tools, machinery, or assembly lines, and these will prompt the need for laborers.

Further Discussion

Ask students to discuss the question in **For More...** on this page. *They should make these points: Companies with obvious demand for their product are likely to be profitable. Prospective employers would be those businesses with a lot of consumer activity.*

Economic Puzzle Challenge, Part 2

Before swiping the barcode, ask students to read the introductory paragraph to **Economic Puzzle Challenge, Part 2**. You may wish to encourage discussion of Anthony's suggestions for increasing the bike shop's profitability. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 2

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Which strategy would you recommend to improve profitability?

Help students analyze each of the possible responses. Then swipe the barcode of each option you wish to view.

A. Develop "high-end" (expensive) specialty bikes.

Analysis: This could be costly. Specialized bikes will mean new technology, more expensive materials, and greater expertise on the part of the employees. Also, the market for "high-end" bikes may be small. However, new technology and production methods needed in the development and production of specialized bikes is likely to improve production methods throughout all lines, increasing quality and reducing costs.

B. Contract out manufacturing of certain parts.

Analysis: This method works well in auto and computer manufacturing. Reducing costs is one method for improving profitability. But the company must be able to assure its customers that its product is made from the highest-quality parts. Its reputation depends on the overall quality of its product.

C. Sponsor racing and mountain bike competition.

Analysis: This method promotes goodwill while associating the company's name with events of interest to its potential customers. Good public relations could increase the demand for its product.

When developing higher-quality bicycles, the company may discover innovations that apply to the entire manufacturing process—the "lower-end" bicycles as well.

Decision Time

The video challenges you with another question:

> Which strategy would you recommend to improve profitability?

Use the space below or a separate piece of paper to mark your choice and to explain your answer. Discuss your response with the rest of the class, then watch the video to see the results of your decision.

☐ A. Develop "high-end" (expensive) specialty bikes.

_____

_____

_____

☐ B. Contract out manufacturing of certain parts.

_____

_____

_____

☐ C. Sponsor racing and mountain bike competition.

_____

_____

_____

One way a company can lower its costs is to buy cheaper parts from a manufacturer with lower labor costs. Since the bike company can keep costs down on some of the bike parts, it can offer a higher-value bicycle for a lower price.

"Don't you think there's some way Mrs. Terhune could stay open? The competition doesn't have to force her to close—just to find other ways to make the store profitable."

Economic Puzzle Challenge, Part 3

Maybe all is not lost with Terhune Schwinn Cyclery. Mrs. Terhune simply has to find a way to make a profit. How hard can that be? To make a profit, she must either increase revenue or decrease costs. It's time for a little creative thinking.

Competition is the driving force in a market economy. To be successful, businesses have to look for creative ways to compete. It may seem impossible to compete with the big chain stores, but remember, every business was once small.

Decision Time

The video pauses on this question:

What could Mrs. Terhune do to increase profit?

Use the space below or a separate piece of paper to mark your choice and to explain your answer. Then watch the video to see what happens.

☐ A. Lower costs.

_____

_____

_____

Economic Puzzle Challenge, Part 3

Before swiping the barcode, ask students to read the introductory paragraphs to **Economic Puzzle Challenge, Part 3**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 3

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

What could Mrs. Terhune do to increase profit?

Assist students in analyzing each of the three possible responses. Then swipe barcodes for the options you wish to view.

A. Lower costs.

Analysis: Lowering costs is one way to increase profitability; however, fixed costs cannot be adjusted in the short run, and Mrs. Terhune has lowered variable costs as much as possible.

B. Provide special services.

Analysis: Small firms cannot easily compete with larger companies in providing special services. Large firms can hire additional employees to provide special services because the volume of these services allows the cost of hiring the additional employee to be spread out over a large number of customers, keeping the cost per service call low.

C. Be more innovative in products and service.

Analysis: Large chains are based on large volume; therefore, catering to a niche market would not be cost-effective. This allows an opportunity for the smaller firm to enter a small, specialized market area. (This option will play directly into **Economic Puzzle Challenge, Part 4**.)

Mrs. Terhune could offer children's bikes and gear, and she could use marketing strategies such as balloon giveaways to attract new customers.

Economic Puzzle Challenge, Part 4

Option C of **Economic Puzzle Challenge, Part 3** played through the introduction to **Part 4**. If you wish to review the introductory part of the video, swipe the following barcode.

Economic Puzzle Challenge, Part 4

☐ B. Provide special services.

_____

_____

_____

☐ C. Be more innovative in products and service.

_____

_____

_____

Economic Puzzle Challenge, Part 4

Talk This Over

As you've seen throughout "Personal Best," large chain stores are powerful competitors of small stores. Terhune's Schwinn Cyclery certainly cannot compete in the area of costs or specialized services, but Mrs. Terhune could cater to consumers in a specialized area of the market. This is referred to as "niche marketing," which means that the firm can find a certain product that isn't being provided in the general market. Mrs. Terhune could offer a product that isn't available at other outlets in her community.

> *"There isn't a plant or a business on earth that couldn't stand a few improvements—and be better for them. Someone is going to think of them. Why not beat the other fellow to it?"*
>
> **—Roger Babson, American statistician**

> ***"While the law of competition may be sometimes hard for the individual, it is best for the race, because it ensures the survival of the fittest in every department."***
>
> **—Dale Carnegie, American author and lecturer**

When the video pauses, the following two questions appear on the screen. Discuss them with the other members of your class, and then respond on the lines provided or on another piece of paper.

What would make Personal Best a profitable competitor of Bicycle Mart?

_____

_____

_____

_____

_____

What other types of information do Anthony and Kim need in order to decide if the store is a good idea?

_____

_____

_____

_____

_____

The screen challenges you with another set of questions:

Think of two competing stores in your community…

Does one seem more profitable than the other? What makes them different?

_____

_____

_____

_____

_____

_____

Video-based Questions

The video will pause on a screen with the following two questions (which also appear in the *Student Guide*).

What would make Personal Best a profitable competitor of Bicycle Mart?

What other types of information do Anthony and Kim need in order to decide if the store is a good idea?

Ask students to read **Talk This Over**. Give them time to brainstorm responses to the questions and then to write their answers.

Students may respond:

It could address a niche market by offering high-tech, high-end merchandise; by stressing personalized service; and by providing a library of books and magazines.

The firm needs to investigate an arrangement with high-end bike manufacturers. It needs to explore these questions: Which high-tech manufacturer will accept Terhune's as a dealer? How much would this cost? What type of training would employees need to service high-tech bikes? Is there a market for this type of shop?

Swipe the next barcode for more questions (which also appear in the *Student Guide*):

Think of two competing stores in your community…

Does one seem more profitable than the other? What makes them different?

Answers will vary. Students may cite differences in location, advertising methods, size, or services offered.

Side 1 Menu

Quit Instructions

CLOSING

A brief case study about an entrepreneurial venture appears in **Put In Together**. The reading **Backroads Music** is followed by a series of questions that can be used to facilitate the generalization of material presented in this lesson. Encourage students to think about the economic concepts presented in the video program as they complete this activity.

PUT IT TOGETHER

OKAY, you've learned the economic theory, but is this how it happens in the real world? Absolutely! Economists use real-world events, called "empirical evidence" in economic terminology, to make their observations. Studying economics is like observing a composite picture of business activity—a picture composed of many different parts. The more you know about economics, the better your chances of succeeding in business. A good example of this is...

Backroads Music

Mike Holley is a former high school economics teacher who put into practice what he preached in the classroom for years. Holley recently opened his own business, Backroads Music, which features "music from out-of-the-way places."

The idea for the business took shape when Holley asked himself, "If I couldn't teach anymore, what would I do?" He decided that his "passion for music that's not mainstream" could be turned into a viable business at a time when alternative music of all kinds is drawing more and more fans.

Holley says that another economic incentive for starting his music store was the "low barrier to entry." The cost of getting a music store up and running is low compared to other businesses that have more expensive inventories, he explains.

When designing the store, Holley wanted an atmosphere where people would feel comfortable spending lots of time browsing around and listening to music. Two listening stations, complete with rocking chairs, are available to help customers relax while making their selections. In addition to its inventory of unusual music from around the world, Backroads stocks used CDs, which it buys from its customers.

As an economist, Holley knows there is risk and uncertainty in any business, but he believes that if you know your market and your product well, you can significantly reduce the risks. Even so, it's hard to get everything just right. Holley says he was a little late in his market timing: The big growth in popularity of the music he is selling occurred during the two years before he opened his store. On the other hand, the fact that there are no other music stores in the community gives Backroads Music the potential for future market growth.

Holley is on a leave of absence from teaching. When it's time to decide whether to return to the classroom, he will evaluate his business and decide if he should keep it going.

—Adapted from *The Word on Business* (St. Louis, October 1994)

"I'd risk the rent, but if it worked, I would start the business I always dreamed about. Risk taking is the cornerstone of empires."

—Estée Lauder, founder of Estée Lauder Cosmetics

Recall the economic concepts that were presented in the video, and answer the following questions about Mike Holley's business. Then discuss your responses with the other students in your class.

- What factors encouraged Holley to enter this market?

Answers:

Holley recognized the demand for alternative music; there were no other music stores in his area.

- What special services set Backroads Music apart from other music stores?

Backroads Music offers music from out-of-the-way places; the store purchases and sells used CDs.

- What does Holley mean by saying he plans to "take stock" of the business?

Holley will see if he is able to realize a normal profit. He will assess his opportunity cost by comparing his salary as a teacher to the return he gets from the music store.

- If Backroads Music continues to be successful, how might the local labor market be affected?

Backroads Music will employ more clerks. Others may open music stores in the area and employ workers from the community.

- What do you think Holley's chances of success are? Why do you think so?

Answers will vary. Those who answer positively might cite his niche market: Backroads is the only music store in the area, and it offers an unusual music selection and a used-CD market. Those who answer negatively might cite competition from large chains outside the neighborhood.

Courtesy of Steak 'n Shake

Restaurants have created many opportunities for teenagers to earn money and gain skills. In the casual-dining segment of the industry, Steak 'n Shake restaurants hire cashiers, servers, and short-order cooks to provide a core menu of steakburgers, french fries, and milkshakes.

SUMMARY

Have students read **Net Gain**. Review the five major points. Encourage students to state in their own words how the profitability of a business might affect them as consumers, employees, and investors.

NET GAIN

In this lesson you have studied the effect of profit on employment, investment, and market activity. Remember the following key points.

1. **Profit is an incentive that leads some people and businesses to provide the goods and services that other people want.** Look at it this way: Every time you lay a dollar on the counter you are casting a "vote" in favor of what you're buying and where you're buying it. Your votes tell the store owner to keep providing the things you want. You benefit as a consumer, and the business benefits by earning a profit. Profit is like winning an election. The stores that earn a profit stay in business and continue to provide the things you want. The stores that don't earn a profit are "voted out of office"—they leave the industry.

2. **As more goods and services are produced, more jobs are created.** Where do you or your friends work? As businesses start up or expand in your community, more employment opportunities arise. For instance, 40 years ago fast-food restaurants were virtually unknown. The few that were established hired teenagers as counter help and carhops. Those jobs were difficult to land because there were so few fast-food restaurants. But today fast-food places are everywhere. There are mile-long strips of them; they're in malls; they're even in schools and supermarkets! All these businesses provide many more opportunities for employment.

3. **Businesses will stick around in your community as long as they earn a normal profit.** If they also earn an economic profit, that's all the better for them and you. Their economic profit will lure more of the same types of businesses to your community, giving you more opportunities as a worker and greater selection as a consumer.

> ***"There is no resting place for an enterprise in a competitive economy."***
>
> **—Alfred P. Sloan,**
> **American automobile manufacturer**

4. **A business's profitability is the difference between revenues and the costs of producing or selling a good or service.** Don't forget that economic profit takes into account both explicit and implicit costs.

5. **Profit is the reward to the risk taker.** Business owners who make profits deserve to make them. Mrs. Terhune, whom you saw in the video, took her chances in entering the bike business. She also invested her time. Starting one's own business is not for the fainthearted, but the rewards can be great. After all costs have been paid, the revenue left over becomes the profit due the entrepreneur; therefore, business owners are constantly concerned with ways to boost revenue and cut costs. You may already have a small business going. If so, you know that your ability to control revenue and costs determines how profitable the business will be. Or maybe you would like to have your own business someday. In that case, your understanding of the importance of profit should get you off to a good start.

BUILDING ON SUCCESS

▶ THINK of the biggest private employer where you live. Though it may seem hard to believe, that company was once a small firm with not nearly so many employees.

Blockbuster Video began in Dallas as a small video rental store in 1985. As of March 31, 1995, a total of 4,035 stores belonged to

EXTENSION

Have students read **Building on Success**, which includes two activities.

For the first activity, assign pairs of students to prepare oral reports in response to the questions in their guides. Encourage creativity in their presentations by stressing the value of using visual aids, such as graphs, photos, charts, overhead transparencies, and other items to capture the interest of the audience.

Courtesy of Blockbuster Entertainment Corporation

Blockbuster Video is the leading video retailer in the U.S., generating more revenue than its closest 550 competitors combined. In 1993 the company's U.S. members rented an average of 1.4 million videos a day and made more than 600 million visits to Blockbuster stores.

Blockbuster Home Video Division, and Blockbuster Music Division had 540 outlets.

Blockbuster employs tens of thousands of employees, and it has had a powerful impact on employment in other firms. For instance, an advertising agency hired more than 40 new employees to handle Blockbuster's $100 million account.

With a partner, take a look at the past and present operation of a large company in your area. Obtain the background information you need at a public, school, or university library, or call the company and ask for information on its history. While you're on the phone, be sure to ask for the firm's most recent annual report to its shareholders.

Prepare an oral presentation on the evolution of the company, from its early activities to its present operations. Be sure to get the following information.

- In what year was the business established?
- What was the original product of the business?
- Why did the founder think the business would be profitable?
- What was the annual sales revenue in the first few years?
- Did the company realize a profit early in its history?
- How many people were employed at the beginning? How many were employed 10 years later, 20 years later, 30 years later? How many people work for the company today?
- What is the annual sales revenue of the business today? What was its most recently reported profit?

"There is perfect competition, pure competition, imperfect competition, monopolistic competition, nonprice competition, oligopolistic competition, cutthroat or destructive competition, predatory and discriminatory competition, unfair and fair competition, and effective or workable competition."

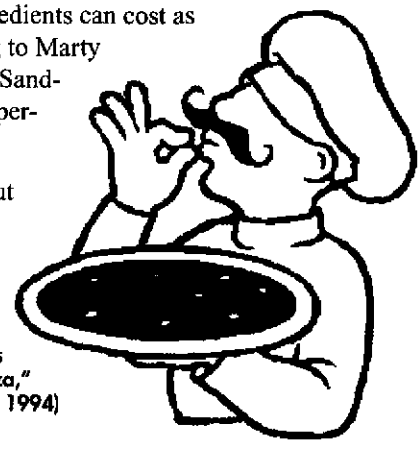
—Clair Wilcox, American economist

Hand-tossed Profit

PIZZA is an extremely profitable menu item. Ingredients can cost as little as 20 percent of the retail price, according to Marty Oberman, president of Noble Roman's–St. Louis. "Sandwiches, in contrast, have a high cost—as much 70 percent. That's before overhead and labor."

Ingredients for a medium pepperoni pizza cost about $1.75, notes Robert Triulizi, a wholesale food distributor whose business is primarily pizza, "but the finished product sells for $5.95 to $7.25. That's a pretty high profit margin."

—Adapted from "Everything You Always Wanted to Know about Pizza," *The Word on Business* (St. Louis, February 1994)



▶ At the beginning of this lesson, you jotted down your ideas for a product that you might offer and the steps you would take to start up a business. Think about it again. If you could open a shop of your own, what would you sell? Baseball cards? Swimsuits? Socks?

Charles Barnard sells socks. Though he wasn't the first person to come up with the idea, he deserves credit for recognizing a profitable business when he sees one. Barnard heard of the Sock Shop, a chain of stores in England selling nothing but socks. He did his homework and discovered that the market for socks was about four times the market for ties—and tie shops were everywhere. So he put up $7,500 and, along with two other investors, opened d.b.a. Socks in 1987.

Since then he has bought out his partners and established eight stores in malls across the country. Barnard places his stores only in upscale malls with heavy tourist traffic. His Los Angeles store alone sells $1 million in socks per year.

Could you establish a profitable business of some kind? Try it! Keep your eyes open for interesting items. Pay attention to what your friends are wearing. Try to think of unusual products that people might buy in a specialty store. Then write a brief essay telling how you would plan to market your idea. Be sure to explain:

- why you think your idea could be a successful business
- how your business would differentiate itself in the marketplace
- what your opportunity cost to enter this business would be

For the second activity, have students work as individuals to write reports on how they would set up a small business. Emphasize that their essays must address the questions in their guides.

ASSESSMENT

Two types of assessment are provided for you to evaluate students' comprehension and mastery of the material presented in this lesson.

ON YOUR OWN

A number of questions related to an income statement appear in **On Your Own**. To get started, students are asked to use the yellow pages to find the number of pizza restaurants in their community and to discuss, as a class, three preliminary questions. They are then asked to work as individuals to answer the actual assessment questions. Although these questions are intended to be used as a homework assignment, you may wish to have students complete some or all of them in class.

QUALITY CONTROL

ON YOUR OWN

DEMONSTRATE your understanding of the concept of profit by completing the activity in this section.

Look in the yellow pages of your phone book under "Pizza." Count how many pizza restaurants are listed, and note how many are in your neighborhood.

Then discuss these questions with your classmates:

- Which was the first pizza place in your neighborhood?
- Which was the latest one to enter the local market?
- Do you think more will enter the market? Why?

Pizza Parties to Go

Income Statement For Month Ending September 30

Revenue		$9,000.00
Operating expenses		
Rent	$2,000.00	
Management salaries	1,000.00	
Workers' wages	800.00	
Insurance	200.00	
Advertising	200.00	
Phone	100.00	
Utilities	500.00	
Packaging materials	200.00	
Ingredients	3,000.00	
Total operating expenses		8,000.00
Net income		$1,000.00

Use the information in the income statement to answer the following questions. Do your figuring and write your responses on the lines provided or on a separate sheet of paper.

1. What are the fixed costs associated with this business?

_____

_____

_____

Suitable responses:

1. Fixed costs include rent, management salaries, insurance.

2. What are the variable costs?

2. Variable costs include workers' wages, packaging materials, ingredients.

3. What costs are variable only over wide ranges of production?

3. Semivariable costs include advertising, utilities, phone.

4. Are these the only costs the owner must consider? Explain your answer.

4. The owner must consider the opportunity cost of staying in business. The business must earn a normal profit.

5. What methods do pizza restaurants in your community use to increase revenue?

5. Answers will vary, but they might include advertising, reduced-price specials, two-for-one specials, contests, etc.

6. What steps could the owners of a pizza restaurant take to reduce costs?

6. They could seek to reduce their variable costs. They could reduce their labor force by reducing services such as late-night hours or delivery. They could find alternative packaging such as paper wrap instead of boxes. They could use alternative ingredients or reduce the selection of toppings.

Assessment-Track Questions

Besides appearing in the *Student Guide*, the questions under the heading **In Class** are contained on a special assessment track of the videodisc for this module. Using the appropriate disc side, you can access each question by swiping its barcode. Each question is presented as a voice-over to part of a video program that students previously watched. The video will provide students with valuable cues, enabling them to generalize previously learned material to new situations.

Assessment Question 1

1. *Profit is the main incentive for firms in a market economy. It is the desire for profit that persuades entrepreneurs to establish new businesses, expand existing ones, and change the kinds of goods and services produced (for example, from big autos to small). Profitable firms fuel the engine of job creation in the economy.*

Assessment Question 2

2. *Profit is what remains after all costs have been subtracted from total sales revenue. Anything that increases revenue and/or lowers costs would increase profits. Investments in new technology are a way to increase average productivity and thereby lower the unit cost of producing a good or service. On the revenue side, an aggressive marketing or sales campaign that is designed to stimulate demand for the good or service may raise total revenue. The most profitable firms are those that can best stimulate revenues while keeping costs relatively low.*

In Class

These questions should be answered while you watch a special section of the videodisc that your teacher will play for you. Write your answers on the lines provided or on a separate piece of paper.

1. Profits and profit-making firms are essential in a market economy. How is the role of profits related to the creation of new jobs and products in an economy?

2. Profit is the return for risk taking. The hope of earning profit motivates business firms to incur the risks involved in producing goods and services for the market. What actions can a firm take to increase the profitability of its operations?

3. We've seen that profit is the residual leftover from total revenues and total costs. Why wouldn't a group of firms in the same industry all earn the same level of profits?

Assessment Question 3

3. *They shouldn't! Some firms, those that can stimulate demand and keep costs low, are profitable; others are not and eventually must adapt (as Terhune Cyclery did) or go out of business. Profits provide a signal to the firm that it is "doing something right" in its service to the marketplace. It is a reward to the firm for filling a consumer want. Similarly, losses (or negative profits) are a signal to move resources elsewhere. In a competitive market economy, profits and losses spur efficiency, growth, and change.*

4. Often firms in the same industry are more or less profitable than others. What factors made the Bicycle Mart more profitable than Terhune Cyclery?

Assessment Question 4

4. *Bicycle Mart, by having a large selection, was able to draw many customers and keep demand (and revenue) relatively high. Also, the volume of its sales and the size of its operations allowed the firm to keep unit costs down. Both of these factors support profitable operations. Although in this case the larger firm is more profitable, this is not always so. Small firms, often by offering high quality or specialized services or products, can also be profitable.*

Side 2
Graphical Database Barcodes

(Use "step still" function or barcodes below to advance within categories.)

Step Back

Step Forward

Elasticity

Role of Profits

Product Markets

Consumer Behavior Theory

Production Theory

Foreign Exchange Markets

Human Resource Market

Nonhuman Resource Market

Aggregate Supply & Demand

Loanable Funds Market

Side 2
Teacher-Track Barcodes

Technological Change

Technological Change—More

Invest to Produce

Role of Profit

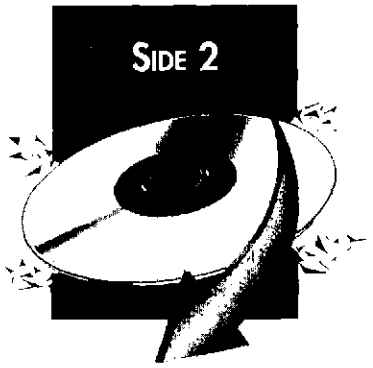
*Cost-Benefit Analysis (audio only)**

Input and Technology Mix

*Swipe any other barcode to restore video.

ECONOMICS® at Work

Module 1, Lesson D



THE CUTTING EDGE

ECON BRIEFING

IMAGINE you're walking along the boardwalk at Coney Island. Or you're cruising the strip at Myrtle Beach or Panama City. If images of these places don't pop into your head, then picture a hot August day at the county fair...or a firefighters' picnic...or a weekend carnival. At any of these events you're likely to find barkers everywhere calling out to lure you into playing games of chance: Toss a dart at a balloon...throw a softball at a stack of milk bottles...pitch a coin onto a plate.

Anyone who has played these games already understands an important principle that will be useful in this lesson: the more difficult or risky the game, the bigger and better the prize.

When a new firm enters an industry, it takes a big risk. Just as you have your eye on a prize at the county fair, a new firm hopes to be rewarded by earning an economic profit. This is a great incentive. Firms are more likely to take a risk and enter an industry if they see that other firms already in the industry are earning a profit. Think about it. If you're strolling down the midway and pass five people carrying life-size Elvis dolls away from the wheel-of-fortune booth, wouldn't you be more likely to take a chance?

In this lesson you will focus on the role of profit and loss as important signals in the economy. Learning to read these signals will give you valuable insights into the workings of the economy.

WHAT YOU'LL LEARN IN THIS LESSON

- When firms in an industry are making economic profits, other firms will want to enter the industry.
- It is harder for new firms to enter some industries because "barriers to entry" exist.
- The entry of new firms into an industry will lead to lower prices and lower profits for most firms.

2 CLASS PERIODS

Materials

This lesson uses the videodisc (or videotape) program **The Cutting Edge**. To complete the activities, students will need only writing paper or a notebook or journal.

INTRODUCTION

This lesson introduces students to the concept of a competitive market. Students learn the basic characteristics of competitive markets, and they examine the role of profit and losses in these markets. The tendency of competitive firms to adopt the same input and technology mix is also explored.

GOALS

Students will be able to demonstrate their understanding of why some markets are competitive and why others are not. They will also be able to show they understand the results of competitive markets.

Objectives

Upon completing this lesson, students will be able to:

- distinguish between normal profit and economic profit
- explain the impact of economic profit and loss in competitive industries
- identify and give examples of "barriers to entry"
- understand why competitive firms tend to adopt the same input and technology mix

Lesson Description

This lesson focuses on competitive markets to illustrate how the desire to earn a profit serves as an incentive for a firm to enter an industry. A landscaping service and an architectural firm provide contextual illustrations for the ease of entry and the incentive for competitive firms to adopt the most efficient mix of input and technology.

- Firms in competitive industries have an incentive to use the most efficient mix of technology and inputs so that they can increase their profits.

Payback

Have you ever wondered why there are many firms in some industries but only a few in others? The number of firms in an industry is one way you can tell if an industry is "competitive."

When you complete this lesson, you will be able to spot the industries that are competitive and the ones that are not so competitive. You will understand that, as a consumer, you are more likely to benefit when markets are competitive. Prices will be lower, and you will have more choices among products or services.

You will also see how firms in competitive industries react to one another. For instance, if one firm in the fast-food business lowers its costs by having patrons get their own drinks, other firms will soon adopt this method.

Your understanding of how competitive businesses stay on the cutting edge will help you make sense of what sometimes must look like market madness. You will learn that when more firms enter an industry, this will mean more money in your pocket. Consumers pay lower prices and have more choices when markets are competitive. As a consumer, **you** are better off because of competition.

To be competitive in an industry, you've got to use new technology. Computer-aided design (CAD) software has given architects the ability to create three-dimensional renderings and add visual texture to an image to help customers see how the finished product will look.

Econcepts

barriers to entry—factors that can prevent new firms from entering an industry; the requirement of extensive capital equipment and large-scale production may be a barrier to entry

economic profit—profit that is greater than normal profit; when firms are earning economic profit, new firms will have an incentive to enter the industry

industry—a group of firms producing similar goods or services

normal profit—the minimum amount it takes to keep owners and investors in an industry

Key Terms

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

POWER UP

Signals. The buzzer blasts to start the basketball game...a bell rings— the horses break from the starting gate...cars wait at the intersection for the light to turn green....When firms in an industry are earning economic profit, that profit is a signal that attracts new firms to the industry. Just like the buzzer, bell, and green light, profit tells entrepreneurs "Go!" It's like saying, "Come on in, the water's fine!" Firms that are willing and able to act on the signal will risk entering the market to get a piece of the profit.

If profit is the green light, economic losses are a big red light. When firms in an industry are losing money, other firms or entrepreneurs will not be attracted to that industry. No one wants to go through the hassle of starting a new business only to lose money.

How can you tell if firms in an industry are earning a profit or sustaining a loss? Most of the time it's fairly easy. Picture yourself in this situation: A friend invites you to eat at Mama's Spaghetti House. "Are you kidding?" you shoot back. "Go there on a Friday night? The place'll be packed—we'll wait two hours for a table. I'll starve before my salad comes!"

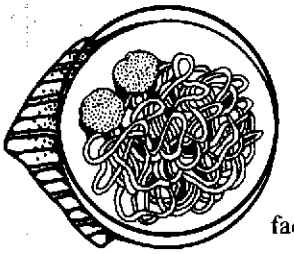
Do you think this restaurant is earning an economic profit? You bet it is! If the parking lot is always full and there's a long wait and everybody has heard of its famous mizethera cheese, Mama's Spaghetti House is displaying signs of being a profitable business.

Preview

Have students read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 75–76). Ask them to speculate about why the number of firms in an industry varies. Encourage whole-class discussion and accept all reasonable responses that students offer.

Introduce the **Econcepts**, and give contextual examples of each. Remind the class that these terms will be used throughout the lesson and that they should refer to them whenever necessary.

Have students read **Power Up** as far as **Enter and Sign in Please!** Ask them to think of local restaurants that they think are earning an economic profit. Encourage students to speculate about why these restaurants are popular. *Responses should touch on such issues as service, location, special recipes, etc.*



The Staying Power of Pasta

PASTA has been an Italian staple since 1292. More than 700 years later, it is still being made with the same basic ingredients of water and wheat. But today pasta is produced at state-of-the-art plants, such as Borden's $50-million facility in St. Louis.

About 300 employees work at the 300,000-square-foot hyperplant (North America's largest), which produces 250 million pounds of pasta per year. Borden makes the leading national brand, Creamette, as well as private-label regional brands, such as R.F.

The company's entry-level workers are trained to operate its computerized machinery. Borden also hires experienced, safety-certified drivers of industrial vehicles, such as forklifts. The plant's hourly employees belong to Teamsters Local 688.

—Adapted from *The Word on Business* (St. Louis, February 1995)

Three miles away from Mama's Spaghetti House is Papa's Pasta Palace. You can always get a table there -- the place is never crowded. Even so, service is slow, and there's no special atmosphere, no Mama, and definitely no mizethera cheese. Another missing ingredient is profit. Papa's is probably experiencing an economic loss.

If one pasta place is earning a profit and another is losing money, what signals will this send? Potential restaurant owners will know that there is profit to be made if they have a tasty product, good service, and pleasant surroundings. They will have an incentive to try to copy the successful restaurant. The money-losing restaurant will send out negative signals, and other entrepreneurs will not want to duplicate its formula for failure.

When new restaurants open near Mama's Spaghetti House, consumers will benefit. Prices are likely to be lower at the new eateries, and the increased competition will mean a shorter wait at all of the restaurants, including Mama's. But the additional competition will also mean lower profits for the restaurants.

The results of the increased competition—lower prices and lower profits -- will occur only if new restaurants can enter the industry and duplicate the successful recipe for profit. And while it is relatively easy to enter some industries, it is next to impossible to enter others.

Ask students to read the first paragraph of **Enter and Sign in Please!** Then have them work either in groups or as individuals to complete the activity.

"The toughest thing about success is that you've got to keep on being a success."

—Irving Berlin, American composer

Enter and Sign in Please!

The following activity will help you understand why some industries are easier to enter than others. Answer the questions about each of the industries listed. Base your answers on the industries as they exist where you live. Respond on the lines provided or on a separate sheet or paper, and then discuss your answers with your classmates.

Landscaping

a. Approximately how many firms are in this industry? _____

b. Does the business require a large factory or a big retail outlet?

_____

c. Describe some of the tools and equipment needed to provide this service.

_____

_____

Electric utility

a. Approximately how many firms are in this industry? _____

b. Are there any close substitutes for electric service?

_____

c. Does the production of electricity require small-scale or large-scale production? Explain why.

_____

_____

Fast-food hamburgers

a. Approximately how many firms are in this industry? _____

b. Are all "fast" burgers basically the same?

_____

c. Describe some of the tools and equipment needed to produce this good.

_____

_____

Airline

a. Approximately how many firms are in this industry?

b. Are there any close substitutes for airline travel?

_____

c. Describe some of the start-up costs that a new airline would face.

_____

_____

Students should respond along these lines:

Landscaping*—*(a) *Answers will vary, but usually many firms are in business (see the yellow pages);* ***(b)*** *The business requires no factory and little retail space;* ***(c)*** *Necessary capital includes mower, trailer and/or truck, lawn tools, weed cutter.*

Electric utility*—*(a) *Only one firm is in business;* ***(b)*** *Public utilities (electricity, natural gas, water, telephone) are producing a service with no close substitutes;* ***(c)*** *Large-scale production is required.*

Fast-food hamburgers*—*(a) *Many firms operate;* ***(b)*** *"Fast" burgers are essentially the same, with only slight differences;* ***(c)*** *Most fast-food outlets require minimal retail space; needed capital includes counters, grill, soft-drink and shake machines, refrigerator, deep fryer, microwave, drive-through technology, and dining facilities.*

Airline*—*(a) *About six major carriers compete; additional commuter airlines fly short-distance flights;* ***(b)*** *Trains, bus lines, and cars are substitutes but not "close substitutes" for long-distance air travel;* ***(c)*** *Start-up costs include airplanes, hangar space, and gate rights at airports.*

After discussing students' responses, ask them to speculate about which industries would be easier for new firms to enter.

VIDEO CORE

Ask students to read the introductory paragraph of **Take a Closer Look**. Make sure they understand the meaning of "barriers to entry." Emphasize that certain industries, such as lawn care or restaurants, are relatively easy to enter and present no significant barriers to entry.

TAKE A CLOSER LOOK

INDUSTRIES that don't require large factories or large amounts of retail space are usually easier to enter and leave. It's also easier for a newcomer to jump into an industry that doesn't require expensive or specialized tools and equipment. Most restaurants, landscaping services, and retail shops fit this mold.

Almost every industry looks for technology that will make it more productive. Over time, firms in an industry tend to adopt the same technology.

On the other hand, industries that do require huge plants and large-scale production to be efficient are usually more difficult (but not necessarily impossible) for new firms to enter. Sometimes governmental regulations prevent new firms from entering—in the case of electric utilities, for instance, the government prevents the establishment of new firms. In other words, even though the big bright profit light may be on, no new firms enter the industry because there are **barriers to entry**.

INTRODUCTION TO THE VIDEO

Have students read **What You'll See on the Screen**. As they prepare to watch the documentary segment of the video, ask them to think about their own definition of "competition."

WHAT YOU'LL SEE ON THE SCREEN

In the opening segment of "The Cutting Edge," you will meet Robert, the owner-operator of a small landscaping business.

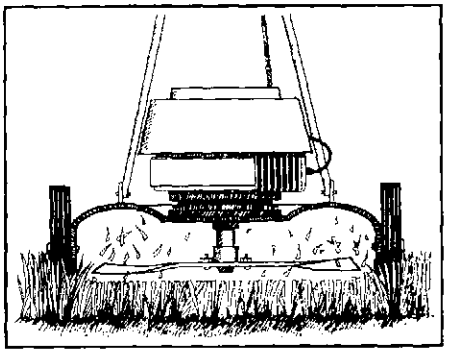
"To compete with existing firms," Robert says, "new firms often lower the prices they charge by using cost-saving technologies. Eventually, with increased competition and lower prices, firms in the industry earn a normal profit."

In most towns the landscaping business is "competitive." There's often a fairly large number of firms. The industry may include someone working out of the back of a pickup truck, as well as full-service nurseries.

Because the landscaping business is competitive, Robert is always on the lookout for new firms that are entering the industry. He must also keep up with the latest technology so that he can keep his costs down and his customer base up.

Then, in the Economic Puzzle Challenge sequence, you'll examine the case of Ramos and Ramos, Architects. You will follow this small firm as it faces increased competition and considers an investment in new technology to maintain its edge in the industry.

Making a Case for Robert's Organic Lawn Care



MANY benefits of lawns are clouded by the way we maintain them. We water and fertilize routinely, spray for diseases, treat for insects, and apply herbicides. Although beautiful, the result is a lawn that is potentially toxic and definitely an excessive use of resources. For example, we apply from five to 10 times the amount of pesticides on our lawns as farmers do on their fields.

—Megan Hughes, "Natural Lawn Care," *Kerr Center for Sustainable Agriculture Newsletter* (May-June 1994)

TALK THIS OVER

Today nearly everyone has an answering machine. Home computers, cable-TV, VCRs, and microwaves are also commonplace. Can you imagine life without them? Think about other ways that new technology has changed the way you do things at home. New technology has also changed the way you do things at work.

When the video pauses, the screen challenges you with the following question.

> What other industries have experienced a technological change recently?

Write your answer on the lines provided or on a separate sheet of paper, and then discuss your response with your classmates.

_____

_____

_____

Another question appears on the screen:

> What has happened to the price and quality of their products?

Again, write your answer and discuss it with the class.

_____

_____

_____

VIDEO-BASED ACTIVITIES, PART 1

Ask students to read the paragraph that begins **Talk This Over**. Then start the videodisc (Side 2), and swipe this barcode to play:

The Cutting Edge (introductory segment)

The video will pause on a screen with the following question (which also appears in the *Student Guide*):

What other industries have experienced a technological change recently?

Encourage students to respond in writing and to discuss their answers as a class. Because nearly every industry has experienced some degree of technological change, accept a wide variety of responses. *In the personal computer industry, for example, technological change has lowered the price and improved the quality of products.*

When discussion ends, swipe the next barcode for another question (which also appears in the *Student Guide*):

What has happened to the price and quality of their products?

Again have students respond in writing. Encourage discussion when they finish. *Suitable response: Most competitive industries will experience lower prices and/or improved product quality as a result of technological change.*

Further Discussion

Ask students to read **For More...** on this page. Have them answer the questions in writing. Encourage discussion.

Responses should include these points: Existing firms in an industry that is experiencing technological change will have to "adapt" to the new technology. If they recently purchased new equipment before the technological change, they may be reluctant to make a further investment. (Remind students that a new home computer or video unit can become outdated quickly. To make the point, ask if all consumers replaced Super Nintendo as soon as Sega CD became available.) *Existing firms may postpone investing to see if additional developments occur. They may also avoid new technology if their work forces are not adequately trained.*

For More...

The video emphasized the need for firms to keep up with the latest technology and equipment if they want to continue making profits.

When new firms enter an industry, they often use the latest and most efficient production methods. This forces existing businesses to consider upgrading their equipment. Why do you think this happens? To analyze this situation, answer the following questions on the lines provided or on a separate piece of paper. Then share your responses with the class.

- If the technology and equipment that new firms possess is so efficient, why don't existing firms, such as Robert's, buy it as soon as it becomes available?

- Can you think of any reasons why an existing firm might choose not to adopt new technology?

Video-Based Activities, Part 2

Have students read the introductory paragraph of **Talk This Over**. Then swipe this barcode to continue playing:

The Cutting Edge
(introductory segment, continued)

The video will pause on a screen with the following question (which also appears in the *Student Guide*):

Going back to the industry you discussed earlier...

What will happen to firms that use the new technology?

What about those that don't?

Ask students to respond in writing. Encourage discussion.

Students should respond along these lines: In competitive industries that have few barriers to entry, firms with new technology will be more efficient and more profitable. Firms that do not use the new technology will be at a disadvantage. They may incur losses and have to leave the industry.

Talk This Over

When firms use new technology, they become more efficient. As Robert pointed out in the video, a walk-behind mower with a sulky will let him cut a lawn in one-eighth the time it takes with a push mower. Firms that don't use the new technology may not continue to be profitable.

When the video pauses, the screen presents two more questions:

Going back to the industry you discussed earlier...

What will happen to firms that use the new technology?

What about those that don't?

Write your answer on the lines below or on a separate sheet of paper, and then discuss your response with your classmates.

Staying Competitive: *Read about it.*
To stay competitive, Shannon Gilligan, writer and producer of Intermagic Software, does a lot of reading, including several publications devoted to personal computers.

Staying Competitive: *Use new technologies.*
"We're using some very sophisticated computers," says Max Hsu, musician and video artist. "When we go to a recording, we've got 24 vertical tracks and 24 digital tracks. It's a lot of equipment to learn, especially if you want to get into audio engineering."

Staying Competitive: *Work smarter.*
With computer technology, Laurea Armstrong, owner of Armstrong Construction, can respond to her customers' needs. She can price a job, type a proposal, and fax a quote within an hour.

For More...

According to Robert, landscaping firms in his area are experiencing economic profit. This is profit above and beyond what it would take to keep owners and investors in the industry. As you saw earlier, Mama's Spaghetti House also earns economic profit.

There's a second kind of profit: **normal profit**. You might think it means the same thing as economic profit, but it doesn't. Normal profit is **less** than economic profit. Normal profit is the minimum amount it takes to keep an entrepreneur in business. It can be considered the "cost" of the entrepreneur's services. The entrepreneur expects at least this normal profit in exchange for taking the risk of owning and operating a business.

When most of the firms in an industry are earning only normal profit, this minimum amount will not attract new firms. But when crowds grow, lines form, and shelves empty, economic profit is likely. Also remember that economic profit is the green light for other firms that are ready to enter the industry.

Further Discussion

Ask students to read **For More...** on this page. Review the definitions of normal and economic profit, and make sure students can distinguish between the two.

Economic Puzzle Challenge, Part 1

Before swiping the barcode, ask students to read the paragraphs that introduce **Economic Puzzle Challenge, Part 1**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 1

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

What do you recommend for this business?

Assist students in analyzing each of the possible responses. Then swipe the appropriate barcode for either option you wish to view.

A. Profits are solid. Avoid a big investment in computers.

Analysis: No. Avoiding an investment in new technology may be the wrong decision. While profits are solid now, Ramos and Ramos will continue to lose clients as people seek out firms that have newer technology. If other firms are adopting the CAD technology, Ramos and Ramos will probably have to do the same, if the firm wants to remain competitive.

B. Invest in the new computer technology.

Analysis: Yes. Investing in the new computer technology now may cost less than losing business in the future. If Ramos and Ramos wants to remain competitive and profitable, the firm should take the risk and invest in the technology it needs.

Economic Puzzle Challenge, Part 1

As you have seen, landscaping services and restaurants are frequently "competitive" industries. If firms in these industries are earning economic profit, new firms will enter. Why? Because they want to earn a profit and because they **can** enter—there are few, if any, barriers to entry.

"Our profits are solid—for now," Ellen reasons. "It might be time to invest in computers."

The first part of the Puzzle Challenge introduces the owner and staff of an architectural services firm. Do you think new firms will be able to enter this industry easily? Will they bring the latest technology with them if they do enter? Keep these questions in mind as you watch the video.

Decision Time

When the first part of the Puzzle Challenge ends, this question appears on the screen:

What do you recommend for this business?

Use the lines below or a separate piece of paper to mark your choice and to explain your answer. Then watch the video to see the results of your decision.

☐ A. Profits are solid. Avoid a big investment in computers.

☐ B. Invest in the new computer technology.

As more firms enter the market, they must compete on price or quality. Either way, the consumer benefits.

Firms that don't keep up with their competitors in price, quality, and new technology will face economic losses and will probably go out of business.

Economic Puzzle Challenge, Part 2

When new firms enter an industry, such as landscaping or architectural services, they may enter with an "edge" over existing firms. This is because they are likely to have the latest equipment and technology. Existing firms may be set in their ways. They will have to make a decision whether to replace their old equipment.

Eventually, all firms in an industry must "bite the bullet" and adopt the most efficient production methods if they want to stay profitable. Now that the firm of Ramos and Ramos has the latest CAD system, can its partners relax and enjoy their decision?

Decision Time

The video presents the following challenge.

> Architectural firms are earning an economic profit. What do you think will happen to Ellen's firm?

Use the lines provided or a separate sheet of paper to check your choice and to explain why you think it's the best answer. Discuss your response with the rest of the class.

☐ A. Face even greater competition for customers

_____

_____

_____

Economic Puzzle Challenge, Part 2

Before swiping the barcode, ask students to read the introductory paragraphs of **Economic Puzzle Challenge, Part 2**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 2

Video-based Questions

The video will pause on a screen with the following information and question (which also appear in the *Student Guide*).

> **Architectural firms are earning an economic profit. What do you think will happen to Ellen's firm?**

Assist students in analyzing each of the three possible responses. Then swipe barcodes for the options you wish to view.

A. Face even greater competition for customers

Analysis: Yes. When an industry experiences profit, new firms will enter because the possibility of profit is an incentive and because few barriers to entry exist. (This option will play directly into the following question, which also appears in the *Student Guide* on the following page.)

> **What will happen in the architectural services market when competition increases?**

After students respond in writing, swipe the next barcode for more feedback.

Option A (continued)

Analysis: As more firms enter this industry, they will compete by lowering their prices or by improving the quality of their products. Increased competition usually results in lower prices and in firms' earning normal profits instead of economic profits. (This option will play directly into **Economic Puzzle Challenge, Part 3**.)

☐ B. Gain market power and raise its prices

_____

_____

_____

☐ C. Give up market power to a competitor

_____

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_____

Another question appears on the screen:

> What will happen in the architectural services market when competition increases?

Use the lines below or a separate piece of paper to respond, and then share your ideas with your classmates.

_____

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_____

B. Gain market power and raise its prices

Analysis: No. As new firms enter the industry in response to economic profit, Ellen's firm will not gain market power and/or raise its prices. As more firms enter, prices fall and economic profit is "competed away." Firms that are able to stay in the industry will be left earning normal profit.

C. Give up market power to a competitor

Analysis: No. As more firms enter the market, it's not likely that one firm will gain a significant edge. However, firms that don't keep up with the competition in price, quality, and technology will face economic losses and may end up going out of business.

As more firms enter the market, they must compete with either price or quality. Either way, the consumer benefits.

Economic Puzzle Challenge, Part 3

Option A of **Economic Puzzle Challenge, Part 2** played through the introduction to **Part 3**. If you wish to review this introductory part of the video, swipe the following barcode.

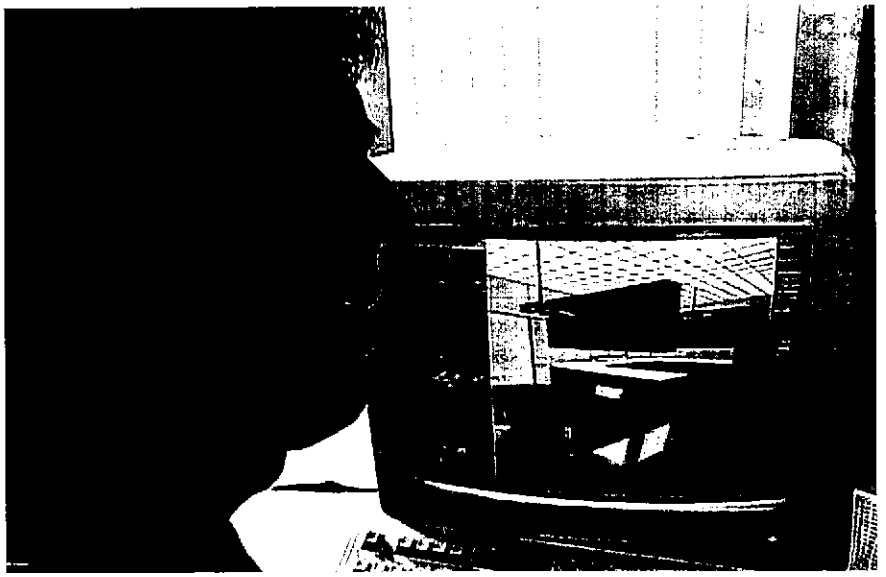
Economic Puzzle Challenge, Part 3

Economic Puzzle Challenge, Part 3

Decision Time

This part of the Puzzle Challenge examined how Ramos and Ramos must continually respond to competitive forces. Firms in competitive industries must stay on their toes and be ready to adapt to new circumstances. There's good news and bad news in this.

For consumers, the news is definitely good. Competition gives them more choices. For example, with a number of firms in the restaurant industry, a customer doesn't have to eat at a place where the service is slow. Competition also means lower prices.



In a competitive industry, firms are always looking for new ways to increase sales. If one firm is offering 3-D imaging at no extra charge, other firms will probably do the same to maintain sales.

For firms that can't (or won't) adapt to technological change and the entry of new firms, the news is bad. These firms may experience economic losses and have to leave the industry.

The video challenges you with another question:

Which would you predict for this industry?

Use the blank lines provided or a separate sheet of paper to indicate your choice and to explain why you think it's the best answer. Then discuss your response with the rest of the class.

☐ A. Firm offering 3-D drawing will earn economic profits.

_____

_____

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☐ B. 3-D drawings will soon be offered by most firms.

_____

_____

_____

☐ C. Extra costs of 3-D will raise the price of architectural services.

_____

_____

_____

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Which would you predict for this industry?

Help students analyze each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Firm offering 3-D drawing will earn economic profits.

Analysis: This may happen in the short run, but soon existing firms will also adopt this strategy; then new firms, attracted by the possibility of earning economic profits, will enter the industry. As a result, it's not likely that the firm offering 3-D images will earn an economic profit for long.

B. 3-D drawings will soon be offered by most firms.

Analysis: True. If one firm gains some technical advantage, other firms will soon adopt that same technology in order to remain profitable. This means that, over time, competitive firms tend to develop similar technologies, inputs, and ways of doing business. (This option will play directly into **Economic Puzzle Challenge, Part 4.**)

C. Extra costs of 3-D will raise the price of architectural services.

Analysis: Not likely. In a competitive industry, firms are always looking for new and unique ways to increase sales at existing prices. If one firm is offering 3-D imaging at no extra charge, other firms will probably soon do the same to maintain their sales.

Economic Puzzle Challenge, Part 4

Option B of **Economic Puzzle Challenge, Part 3** played through the introduction to **Part 4**. If you wish to review this introductory part of the video, swipe the following barcode.

Economic Puzzle Challenge, Part 4

Video-based Questions

The video will pause on a screen with the following questions (which also appear in the *Student Guide*).

Think of an industry with high levels of competition...

Do most of its firms have similar mixes of inputs or technology? Why?

Have students read **Talk This Over**. Encourage brainstorming in small groups, and then have students work individually to answer the questions in writing.

Students should respond along these lines: Firms in competitive industries (those with a large number of firms that produce similar products or services) do tend to adopt similar mixes of inputs and technology. If one firm uses a more efficient production technique or offers a better product, the other firms will have an incentive to copy the successful strategy.

Side 2 Menu

Quit Instructions

Economic Puzzle Challenge, Part 4

Talk This Over

Ramos and Ramos bought a CAD system. The firm is also offering 3-D computer renderings to its clients. The small architectural firm adapted to changing market conditions, and now, as Bernice puts it, "We've been swamped!"

Being the first firm to purchase expensive new technology can be risky. For one thing, the investment might not pay off—or maybe an even better technology will appear soon afterward. On the other hand, what if you're not the first to install a new technological system? That's risky too. If several other firms have already adopted the new technology, you run the risk of being left behind.

The video presents a final challenge:

> Think of an industry with high levels of competition...
>
> Do most of its firms have similar mixes of inputs or technology? Why?

Share your thoughts with your classmates. After listening to what they have to say, make your decision. Write your response on the lines provided or on a separate piece of paper.

"The computer software industry is one of the nation's greatest business success stories. From 1982 to 1992, the software industry grew by 269 percent in real terms, while the remainder of the U.S. economy grew by about 30 percent. Larger than all but five manufacturing industries, the core software industry (prepackaged software, custom programming, and computer-integrated design) accounts for $36.7 billion in value added to the U.S. economy."

—Robert Holleyman, president of the Business Software Alliance

PUT IT TOGETHER

YOU'RE rounding the final turn of a 10K run. You trained hard for the race, and you easily outpaced another runner who you know is in your age class. You've been secretly competing against her for the last five kilometers. Suddenly you hear footsteps, and there she is, breathing down your neck. You feel a burst of adrenaline and speed up. "Don't choke and lose it now," you tell yourself. Knowing your competition is right on your heels makes you run faster. You finish the race in your best time ever, 10 seconds ahead of your unknown challenger.

Competition makes things happen. Consider the impact that competition had on Ramos and Ramos. Knowing that other architectural firms were successfully using the new technology was a big incentive for Ellen. Her concern that profits were only solid "for now" pushed her into adopting the new technology. It was the right choice for her business.

> ***"If you can't win, make the fellow ahead of you break the record."***
>
> **—Anonymous**

And what about Robert and his landscaping service? Like Ellen, he knew other firms were using new technology that made them more efficient: a walk-behind mower with a sulky. The possibility of earning less profit—or going out of business!—is a powerful incentive.

Sometimes owners and investors do not respond to changing market conditions. Competitive industries have winners and losers. The following news item provides an example.

Kmart to Close 72 More Stores, Lay Off 5,800 Workers

DETROIT—The troubled Kmart Corporation will shut down 72 of its least profitable discount stores nationwide, cutbacks that will cost 5,800 jobs, the company said Thursday.

The retail chain's sales and profits have lagged in recent years partly because its aging stores have been unable to compete with its rivals' newer branches. Kmart also has had major inventory problems.

Under pressure from stockholders, the board ousted chief executive and president Joseph Antonini in March. It has yet to name a successor.

The cutbacks announced Thursday follow the closing of 110 stores late last year and early this year as part of a major corporate overhaul. Kmart also relocated, consolidated or closed 120 stores earlier in 1994.

Those changes, along with cuts at the company's suburban Detroit headquarters, eliminated about 7,100 jobs.

The announcement was expected so it did not surprise Wall Street. Kmart's stock closed up 12.5 cents at $12.875 a share on the New York Stock Exchange.

—Reprinted with permission of the Associated Press (June 2, 1995)

CLOSING

Ask students to read **Put it Together**. After they finish, encourage whole-class discussion about the results of competitive forces. Remind them that firms that do not adopt the newest equipment will not remain profitable. Competition ensures that consumers get maximum choice at the lowest price.

Ask students to read the news article about Kmart. After they finish reading, have them work as individuals to answer the questions that follow the article. Use the questions and responses to stimulate whole-class discussion.

After reading the article, answer the following questions—use the lines provided or a separate sheet of paper. Then discuss your ideas with your classmates.

Students should respond along these lines:

According to the article, the Kmart closings reflect the fact that the "chain's sales and profits have lagged in recent years partly because its aging stores have been unable to compete with its rivals' newer branches. Kmart also has had major inventory problems."

- According to the article, why did Kmart close 72 more stores (for a total of 182) nationwide?

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If they had served as consultants 10 years ago, students may have suggested building newer stores, renovating existing ones, or looking for a new "twist" for products or outlets. Perhaps new technology could have been used to deal with inventory problems—for instance, direct computer links with suppliers to provide "just in time inventory." If applicable, encourage students to discuss Kmart's competition in their own town or city.

- If you were a consultant for Kmart, what recommendations would you have made to them 10 years ago? Why?

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DILBERT by Scott Adams

SUMMARY

Have students read **Net Gain**. Review the four content statements, and encourage students to suggest examples.

NET GAIN

Now that you know what makes an industry "competitive" and now that you understand the incentive that competitive firms have to adopt new technology, what does it all mean for you?

When markets are competitive, you will have access to lower-priced and higher-quality goods and services. This means more money in your pocket! You will also have more choices. If you prefer to have power-packed chemicals on your lawn, you will not choose Robert's Organic Lawn Care. Competitive markets will provide you with op-

tions. As you analyze markets for signs of competition, try to remember the major points of this lesson:

> ***"Competition continually struggles trying to catch up. A moving target is harder to hit than a stationary one."***
>
> **—Al Ries and Jack Trout, Trout & Ries, Inc., advertising agency**

1. **Firms earning economic profit send out positive signals.** Economic profit is greater than the minimum normal profit needed to keep firms in an industry. The positive signals of economic profit entice new firms to enter the industry. These new firms want to duplicate the success of existing firms and to earn economic profit.

2. **As new firms enter an industry, the increased competition lowers prices and economic profits.** When consumers have more firms from which to choose, the increased supply of a product pushes prices down. Unless a producer can lower the costs of production or can think of a new twist—recall Robert's Organic Lawn Care— the lower prices will mean less economic profit.

3. **Firms experiencing economic losses send out negative signals.** New firms will not wish to enter an industry in which firms are losing money. Firms in a losing industry may temporarily close down, and some will abandon the industry. When that happens, the remaining firms will again earn normal profits.

4. **The likelihood that new firms can and will enter the industry gives firms an incentive to adopt the most efficient input and technology mix.** When a new firm enters a competitive industry, it may use new technology that lowers the cost of production and gives it an edge over existing firms. If a firm does not want to be forced out of the industry, it will have to use the same technology or offer a better, slightly different product.

BUILDING ON SUCCESS

▶ The 1990s have been characterized by an increase in "home work." People are running many types of small businesses from their homes. The '90s have also seen the rise of "telecommuting," which involves working at home for an employer. Use library or other resources to research the rise of "home work." Gather the information necessary to answer these questions:

- What kinds of businesses are people operating from their homes?

EXTENSION

Assign different members of the class the activities in **Building on Success**. Alternatively, you may wish to let students choose activities. Encourage them to apply the concepts they have learned in this lesson. Advise them to refer to the **Econcepts** (page 77) and to other parts of the lesson whenever necessary.

- Are these businesses in industries that are "competitive"—that is, businesses easy to enter and exit, with few barriers to entry?
- What kinds of workers telecommute, and why do they choose to do so?
- What role, if any, has technology played in the rise of "home work"?

Summarize your findings in a written report, and be prepared to share your work with your classmates.

▶ Sometimes an individual or firm will get a patent for a product or for a method of production. A patent is a legal document that prevents other firms from making the product or using the method of production for a specified period of time. Use library or other resources to research this topic. Gather information necessary to answer the following questions about patents.

- What kinds of products or production methods have been patented? Give examples.
- How do patents affect the entry of new firms into an industry?
- Do you think patents are a "barrier to entry"? Why or why not?

Summarize your findings in an oral report, and be prepared to present it in class.

▶ Public utilities such as the water, power, or gas company are not "competitive," as the concept has been used in this lesson. They do not face the possibility of new firms' entering their industries in response to economic profits. Invite a representative from a utility company in your community to visit the class. Develop a list of questions related to the concepts that you have learned in this lesson. Here are a few sample questions:

- Why is there only one firm in this industry?
- How do you decide what prices to charge for your service?
- What incentives do you have to adopt the most efficient technology?
- What happens if a utility is losing money? Will it leave the industry?

Add your own questions to the list. Take notes during the spokesperson's presentation, as well as during the question-and-answer period. Then use the information you obtain to write a report about the utility.

Get an Edge

"Compete, don't envy."
—Arabian proverb

"There is no finish line."
—Nike Corporation motto

"Business is a combination of war and sport."
— André Maurois, French writer

QUALITY CONTROL

On Your Own

Show that you understand the major topics of this lesson by completing the following activity.

Assume you are thinking about starting your own business. Answer the following questions for each of the businesses listed below. Use the lines provided or a separate piece of paper for your responses.

Hair Salon

a. Are firms in this industry currently experiencing economic profit or loss in your area? How do you know?

_____

_____

_____

b. How could you make your product or service different so that consumers would do business with you instead of your competitor?

_____

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_____

c. Is there new technology or equipment that you could use—technology that other firms have not yet adopted?

_____

_____

_____

d. Are there any barriers to entry?

_____

_____

_____

New Orleans Snocone Stand

a. Are firms in this industry currently experiencing economic profit or loss in your area? How do you know?

_____

_____

_____

ASSESSMENT

Two types of assessment are provided for you to evaluate students' comprehension and mastery of the concepts presented in this lesson.

On Your Own

Have students complete the activity by answering the questions for each of the businesses listed. This material may be used either as a homework assignment or as an in-class activity.

Possible responses:

The hair salon, snocone stand, and personal computer repair service are examples of firms in competitive industries, similar to the landscaping and architectural firms mentioned in this lesson. There are few barriers to entry in these industries. Extensive capital equipment or large-scale production is not required. Some signs that these businesses are profitable would be a crowd in the parking lot (snocone stand) or difficulty getting a timely appointment (hair salon and computer repair).

b. How could you make your product or service different so that consumers would do business with you instead of your competitor?

c. Is there new technology or equipment that you could use—technology that other firms have not yet adopted?

d. Are there any barriers to entry?

Personal Computer Repair Service

a. Are firms in this industry currently experiencing economic profit or loss in your area? How do you know?

b. How could you make your product or service different so that consumers would do business with you instead of your competitor?

c. Is there new technology or equipment that you could use—technology that other firms have not yet adopted?

d. Are there any barriers to entry?

_____

_____

_____

Local Cable-TV Company

a. Are firms in this industry currently experiencing economic profit or loss in your area? How do you know?

_____

_____

_____

b. How could you make your product or service different so that consumers would do business with you instead of your competitor?

_____

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_____

c. Is there new technology or equipment that you could use—technology that other firms have not yet adopted?

_____

_____

_____

d. Are there any barriers to entry?

_____

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The cable-TV industry in most areas is a regulated monopoly. (Remind students that network channels, satellite dishes, VCRs, and even reading do offer close substitutes for cable service.) There are significant barriers to entry. In most cases, local regulations prevent new firms from entering the cable industry. However, the development of new technology may lower the cost of providing some cable substitutes. Another possibility is that telephone companies will be allowed to carry television channels. This will lead to more firms and more competition, which in turn will provide more consumer choice and lower prices.

Assessment-Track Questions

Besides appearing in the *Student Guide*, the questions under the heading **In Class** are contained on a special assessment track of the videodisc for this module. Using the appropriate disc side, you can access each question by swiping its barcode. Each question is presented as a voice-over to part of a video program that students previously watched. The video will provide students with valuable cues, enabling them to generalize previously learned material to new situations.

Assessment Question 1

1. *The pursuit of profits is a basic motivation that leads people and businesses to provide goods and services that other people want. Profits provide firms the incentives to take risks and to try to improve their economic standing. The profit motive stimulates owners and managers to introduce cost-cutting technologies in production, to develop new products, to discover unmet consumer needs, and to compete more vigorously with other businesses for consumers' dollars. Also, previously earned profits provide an important source of funds for new investment and thereby stimulate economic growth.*

Assessment Question 2

2. *Whereas profits signal that a firm is "doing something right," losses send a signal for change. Losses flash a warning to move resources elsewhere. Firms that consistently earn losses will go out of business. Losses indicate that the firm is not combining resources to make output in an effective and sustainable way, especially relative to what other firms in the industry are doing. Revenues must rise and/or costs must fall, or the firm will go out of business. If the firm does go under, its economic resources could be freed for use in other endeavors that may prove more profitable.*

In Class

These questions should be answered while you watch a special section of the videodisc that your teacher will play for you. Write your answers on the lines provided or on a separate piece of paper.

1. Firms look at the bottom line—that is, their objective is to maximize profits. What is the economic role of profits?

2. Business can be risky, and high levels of profit are not guaranteed. Sometimes firms can earn a loss. What is the economic role of losses?

3. Economic profits attract new firms to the industry. What are some of the market outcomes of the entry of new firms?

Assessment Question 3

3. The entry of new firms drawn by economic profit reduces the market clearing price of the goods or services they produce. As price falls, the quantity demanded increases. These outcomes serve society well. Buyers get more value for their money because output is less expensive, has higher quality, and comes in a greater selection. Entry also guarantees that no one firm earns greater than a normal rate of profit.

4. This architecture firm went ahead with the new computer technology investment. Why do firms in the same industry tend to adopt a similar input and technology mix to produce goods and services?

Assessment Question 4

4. In any industry, close competition for profits among firms generates incentives for them to adopt a similar mix of input and technology over time. Because technological change and investment in physical capital and human capital increase productivity, firms adjust their input and technology mix in a way that is consistent with the goal of maximizing profit. If one firm can find a more profitable way to produce a good or service, it provides a new market standard or goal for other firms to follow.

SIDE 2
GRAPHICAL DATABASE BARCODES

(Use "step still" function or barcodes below to advance within categories.)

Step Back

Step Forward

Elasticity

Role of Profits

Product Markets

Consumer Behavior Theory

Production Theory

Foreign Exchange Markets

Human Resource Market

Nonhuman Resource Market

Aggregate Supply & Demand

Loanable Funds Market

SIDE 2
TEACHER-TRACK BARCODES

The Labor Market

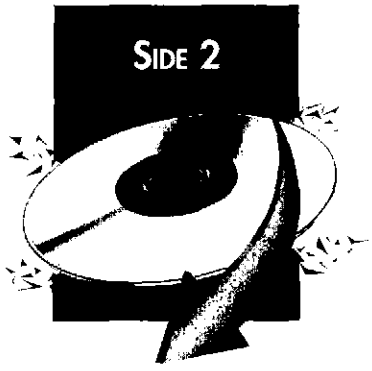
Labor Market Activity

Labor Productivity

Supply, Demand, and the Labor Market

ECONOMICS® at Work

Module 1, Lesson E



NOW HIRING

ECON BRIEFING

JOB market...labor market...human resource market...All of these names mean the same thing. But what kind of market is it? Well, think about it. A market is a place or mechanism that brings buyers and sellers together. A market gets its name from the item that is bought and sold: grain market...foreign exchange market...stock market. So a labor market must be a place where labor is bought and sold. That's an odd way of putting it, but it's true. In a labor market, workers "sell" their labor to the employers who hire them.

It doesn't matter if you are repairing computers, selling sport coats, or making banana splits, you are supplying labor. All employers, from a small mom-and-pop operation to a giant multinational corporation, are "demanding" or buying labor in a labor market. Workers supply the labor that employers demand—that's a labor market.

This lesson focuses on labor markets and how changes in individual labor markets can lead to unemployment. Most of the emphasis will be on the demand side of the market. By understanding why employers might change their demand for workers, you will be able to make more informed decisions about the labor you want to supply.

WHAT YOU'LL LEARN IN THIS LESSON

- An employer's demand for labor is tied to the demand for the product produced.
- If the demand for a product decreases, the demand for the labor to produce that good will also fall.
- Changes in technology can cause unemployment in some industries but can increase employment in others.
- If a firm has to close down temporarily, it will still have to pay its fixed costs—for example, rent and insurance premiums.
- Firms that cannot cover their costs will leave the industry in the long run.

2 CLASS PERIODS

Materials

This lesson uses the videodisc (or videotape) program **Now Hiring**. To complete the activities, students will need only writing paper or a notebook or journal.

INTRODUCTION

This lesson introduces students to the connection between the demand for a good or service and the demand for the labor used to produce it. Students learn how changes in the demand for a product or new developments in technology can lead to employment or unemployment. They also analyze situations in which firms are likely to close down in the short run and may leave the industry in the long run.

GOALS

Students will be able to demonstrate their understanding of the impact of changes in product demand and technology on the demand for labor. They will be able to identify situations in which firms are likely to close down temporarily and/or leave the industry.

Objectives

Upon completing this lesson, students will be able to:

- explain the relationship between product demand and the demand for labor
- predict the impact of a technological development on the demand for a specific type of labor
- define and give examples of fixed costs and variable costs
- understand that firms that cannot cover their costs will leave the industry in the long run.

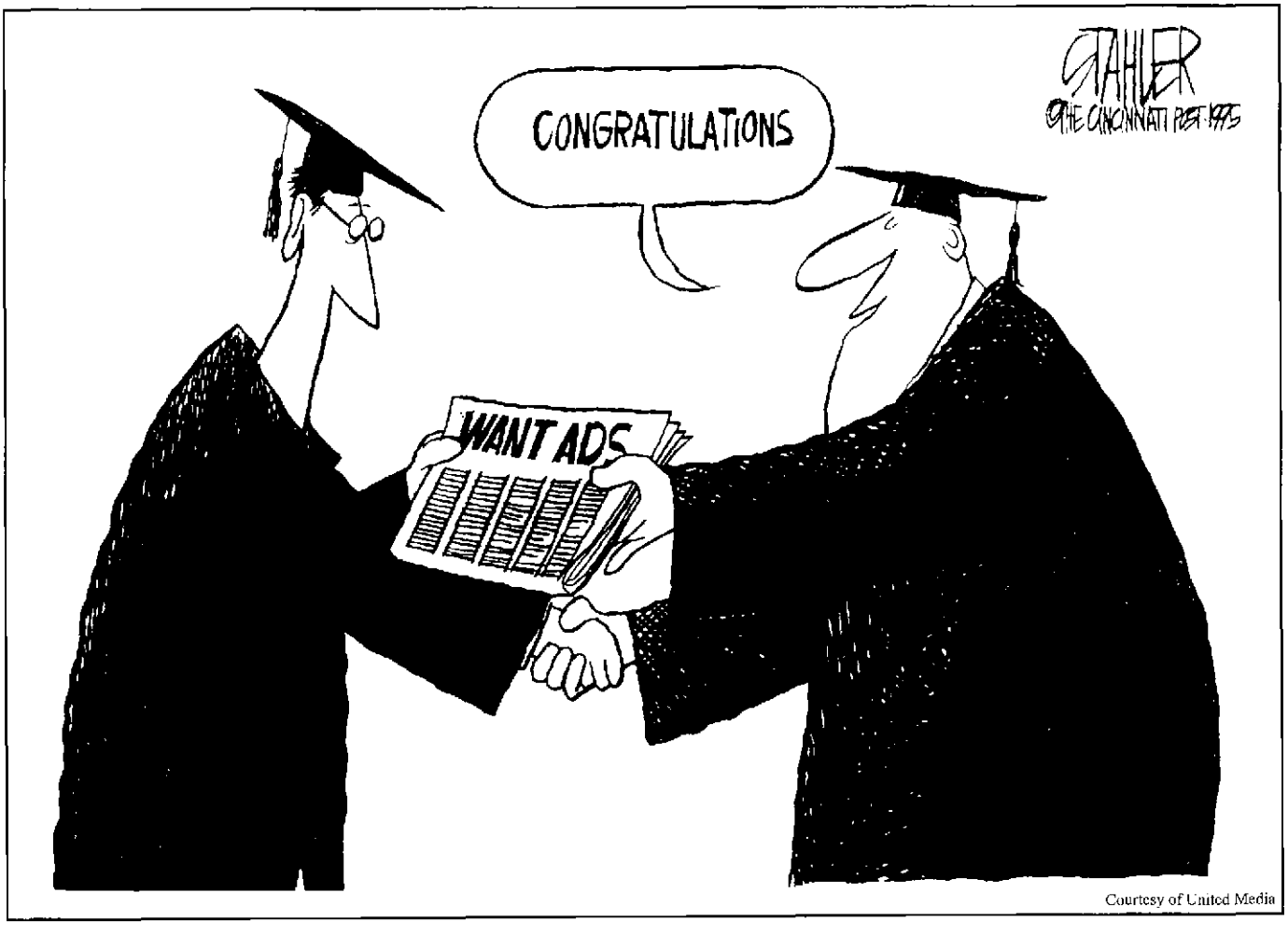
Lesson Description

This lesson focuses on the unemployment that results when firms "restructure" or

Payback

Most people will supply their labor for a major portion of their adult life. Some will work continuously, others off and on. Most people will change jobs a number of times— every seven years, on average. You might leave your job voluntarily, moving on to a better one; you might be laid off; or your company might go out of business.

Entering the labor market is both risky and rewarding. Understanding this market will help you pursue your own career. When you complete this lesson, you will understand how changes in the goods and services that consumers purchase might lead to your employment or unemployment. You will know how changes in technology or costs of materials and labor may cause a firm to shut down temporarily or to leave the industry in the long run. If a business goes belly up, its demand for labor—even hardworking, skilled, honest, dependable, labor—will be zero. You need to know these things so that you can make the right moves.



Courtesy of United Media

Econcepts

fixed costs—costs that do not change with the level of output—they stay the same

labor market—the buying and selling of human effort used in the production of goods and services

long run—that time period when all costs are variable and when a firm is not bound to any fixed costs in the long term

short run—that time period when a firm has at least one fixed factor, such as plant size

technology—applied science; the phrase "technological advance" usually refers to how sophisticated or technical a production process is; the uses of pesticides, fertilizers, irrigation systems, and hybrid crops are examples of technological advances in agriculture

variable costs—costs that change when the level of output changes

POWER UP

If employers have a high demand for workers, "Now Hiring" signs will pop up all over the place. When is this likely to happen? One factor that affects the number of job openings is the general health of the economy. A healthy economy means that spending on goods and services is high. Businesses will demand the input (labor) that is needed to produce these desired goods and services. When the economy slows and consumers spend less on everything—from computers to cars—employers will demand fewer workers, and the "Now Hiring" signs may be few and far between.

But the overall health of the economy is only part of the employment picture. Even when the economy is strong and the national unemployment rate is low, you may still see a local business shut down, leaving its workers unemployed. On the other hand, even when there is a recession and the national unemployment rate is rising, a new business may open and provide numerous jobs. Although the national economy provides important general information about employment and unemployment, it does not tell the whole story.

Read the following brief accounts, which deal with changes in three different kinds of workplaces. Look for clues on factors that will affect "downsize" in response to changes in demand or technology. The video follows the experiences of three workers who are laid off when their employer responds to market changes. Students analyze the experiences of each of the unemployed workers and predict the impact of demand changes and technological development on a firm's demand for labor.

Before showing the video, ask students if they know anyone who lost a job because of either restructuring or technological developments.

Key Terms

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

PREVIEW

Ask students to read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 99–100). Emphasize that in labor markets workers are supplying labor, not demanding jobs. Employers are on the demand side of labor markets. Ask students to think of examples of layoffs that have occurred in their community or state. Have them speculate about the circumstances leading to the layoffs. Conduct a class discussion, accepting all reasonable responses that students offer. Encourage students to keep notes as they develop ideas about the topics of the questions.

Introduce the **Econcepts**, and give contextual examples of each. Have students refer to them as needed throughout the lesson.

Ask students to read the first two paragraphs of **Power Up**. Then ask them to think of instances when one firm in an industry was hiring workers at the same time that another firm in the same industry was laying off workers. Encourage students to think of reasons why this can happen. Conduct a discussion of their responses.

Ask students to read the rest of **Power Up**. Have them work either in groups or as individuals to complete the activity by analyzing the three situations in this section.

fect employment in those industries. Think about each situation, and try to analyze what will happen to the workers who produce the goods or services involved. In each case, describe the specific kinds of jobs that will be affected, and explain how employment in each field will change. Use the lines provided below or a separate sheet of paper for your responses.

Students should respond along these lines:

By charging a higher price for teller transactions, the bank will discourage customers from using tellers. This will lead to a decrease in the demand for tellers by banks and other financial institutions.

▶ In Chicago, a local bank announces that it will begin charging customers $3 for any transaction that requires face-to-face contact with a teller in the downtown branch. There will be no $3 fee for automated teller machine (ATM) transactions.

Because there is a decrease in the demand for airplanes, Boeing will need fewer workers to produce aircraft. Boeing will decrease its demand for labor.

▶ In a recent news item, Frank Shrontz, chairman of Boeing Aircraft, said that the company is trying to design and build aircraft more efficiently. According to a transportation analyst, the decreased demand for airplanes means that airlines want to pay lower prices for the planes they buy. To keep profits growing, Boeing will have to cut its costs faster than prices fall.

The strong demand for health care will lead to an increased demand for most health care workers, including physicians, physician assistants, physical therapists, nurses, aides, radiologists, etc.

You may wish to discuss these responses with the class.

▶ Health care is hot. Most analysts predict that the health care industry will continue to grow throughout the 1990s and beyond. Two reasons for the strong demand for health care are the public's increased concern with health issues and the growing size of the elderly population.

Now read the following articles, which deal with the adoption and increased acceptance of new technology in the banking industry. After you finish reading, discuss the impact that automated teller machines have had on the workplace.

Citibank Cuts Fees for Teller Machines

Associated Press

NEW YORK—Figuring that rewards work better than punishment, Citibank is eliminating automatic teller fees levied against customers with low balances and waiving fees for home banking services.

The new pricing policy by the nation's biggest bank is meant to entice customers to use ATMs and electronic services for getting cash and paying bills, less expensive for banks than handling customers at the teller windows.

Citibank's approach is to offer a carrot to change customer behavior, rather than wield a stick by imposing fees for using human tellers, as First Chicago Corp. said it will do starting next month.

"We're making banking more affordable for all customers, no matter what their minimum balance is," said Karen Green, head of marketing for the New York region.

Citibank customers whose balances fall below $2,000 in checking or $6,000 in combined accounts will no longer pay a 35-cent fee for using one of the bank's ATMs. The change, which applies to customers in New York City and Connecticut, takes effect June 1.

Consumers have shifted to ATMs on their own because they like the convenience. Citibank hopes to nudge the stragglers by making the service free for everyone.

The fee waivers are a departure from an industry practice of making customers pay for services based on how much money they keep in the bank.

—Adapted with permission of the Associated Press (May 24, 1995)

Bank Tellers See Occupation Vanishing

By Janet L. Fix, USA TODAY

Bank tellers are disappearing. More than 40,000 have vanished since 1990, and half of those who remain could be gone in 10 years.

Those who survive won't be called tellers and they may not take deposits. They will try to sell you loans, mutual funds and insurance.

Traditional bank branches and tellers are just too expensive. Teller transactions cost a bank $1.07 on average—four times the cost of those done by automated teller machines. Across the USA, bank consolidations and high-tech banking are conspiring to make tellers obsolete.

Some banks are replacing branches with ATMs. Half the USA's 52,000 bank branches are expected to close within a decade. ATMs—more than 103,000 now—could grow 50% by 2000.

Other bankss are pushing customers toward ATMs by charging for teller service. First National Bank of Chicago is charging some customers $3.

BankAmerica and others are putting smaller branches with fewer tellers in supermarkets and shopping malls. Those branches let customers bank by machine and see and talk to bank officers miles away via a TV or computer screen.

Technology is also letting customers bank from home by telephone, personal computer and television. As banks beat a path to the Internet, the global computer link, they're exploring strategic alliances with high-tech companies.

Direct deposit of paychecks and benefit checks is also rising, leaving fewer check cashers in teller lines.

—Adapted with permission of *USA Today* (June 7, 1995)

Next have students read the two newspaper articles about Citibank's cutting its fees for electronic services and about bank tellers whose occupations are vanishing. Use whole-class discussion to elicit the point that as banks have adopted new technology (ATMs), they have reduced their demand for bank tellers. Ask students to think about this example as the lesson develops.

Shifting Jobs

The long-term shift from goods-producing to service-producing employment is expected to continue. Service-producing industries include transportation, communications, retail trade, government, finance, insurance, and real estate. Such industries are expected to account for approximately 24.5 million of the 26.4 million jobs added during the 1992-2005 period.

—Adapted from Bureau of Labor Statistics, *Occupational Outlook Handbook*, 1994-95 edition

VIDEO CORE

Ask students to read the two paragraphs that introduce **Take a Closer Look**. Make sure they grasp the strong link between the demand for a good or service and the employer's demand for the labor used to produce it.

TAKE A CLOSER LOOK

To understand why some firms may demand more labor (hire workers) at a time when other firms may not, you need to look at the individual markets for goods and services. The demand for labor is tied to the demand for the goods and services being produced. If consumers suddenly develop a craving for fried carp, then restaurants that are able to produce this dish may need to hire more workers. Likewise, a high demand for boomerangs would mean jobs for the workers who are able to produce them. So the next time you see that a business has stopped hiring or is laying off workers, think about the good or service that it produces. Has the demand for it changed? If it has, you can expect to see changes in the demand for the types of labor needed to produce that good or service.

Another reason why one firm or industry may be creating jobs while another one is eliminating them is technological change. In some industries, because of more sophisticated technology, it is possible to replace workers with robots and computers. This may mean a decrease in the demand for bank tellers, as customers adapt to the use of ATMs and as more and more banks use this technology. But remember, the business across town that services ATMs may have a "Now Hiring" sign in its window!

"You're not being singled out. We're re-evaluating a lot of our jobs, with plans to restructure and streamline."

WHAT YOU'LL SEE ON THE SCREEN

Downsizing...rightsizing...restructuring...These terms are common when a business is looking for a more efficient and less costly way to produce and sell goods and services. While "rightsizing" does not always spell doom for employees, reducing the number of workers is one way that producers may respond to market changes and new technology.

The video program "Now Hiring" features just such a case. As you watch, you will explore the possible causes of the need to restructure, and you will follow the experiences of three workers who must deal with having been "rightsized" right out of their jobs.

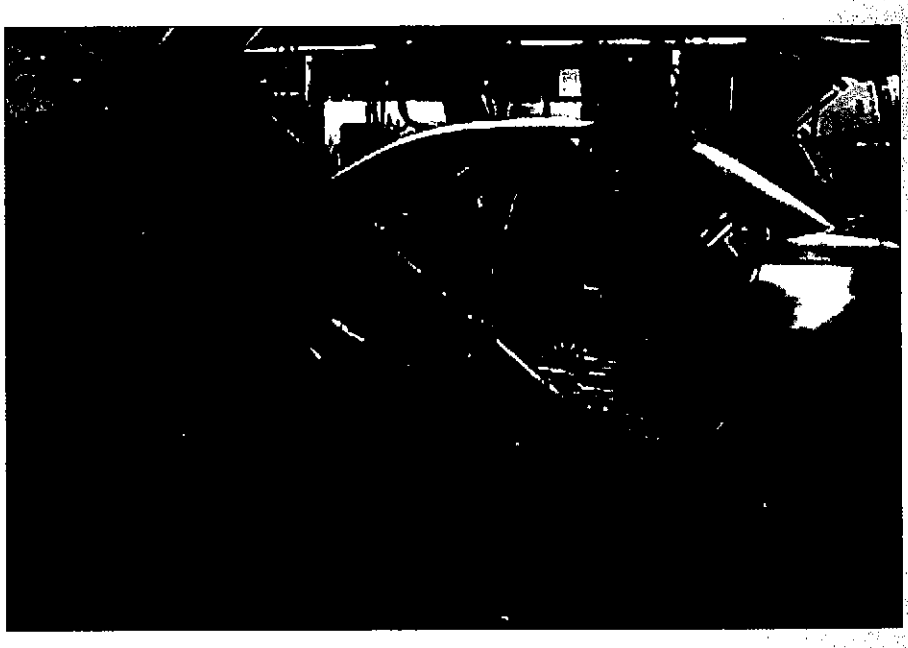
Then, in the Economic Puzzle Challenge sequence, you will see how those workers—Aaron, Julie, and Kit—deal with their unemployment.

INTRODUCTION TO THE VIDEO

Have students read **What You'll See on the Screen**. As they prepare to watch the first part of the video, ask them to think about their own understanding of the terms "restructuring" and "downsizing."

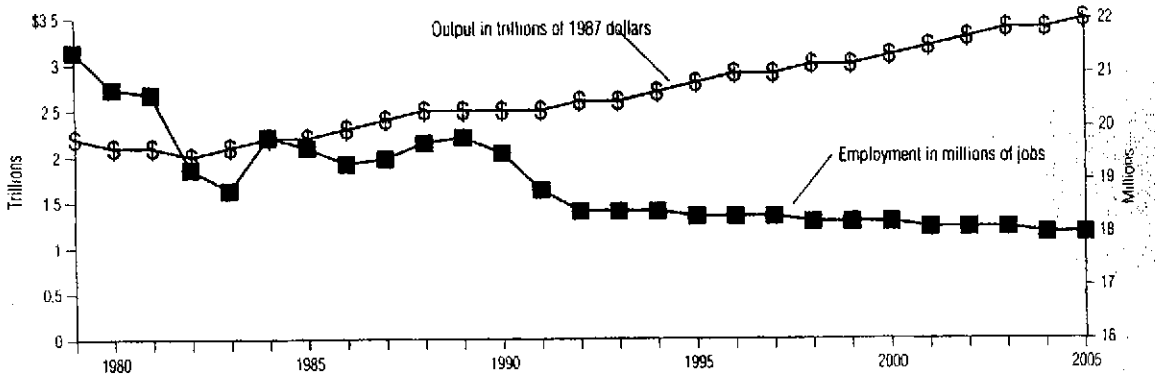
One of the basic factors that affect any company's employment of workers is demand for that company's products or services.

Entering the High-tech Labor Market



Many technology changes result in machines' performing tasks that used to be handled by workers. These changes can help companies improve productivity by lowering the cost of production.

The relationship between output and employment in manufacturing, 1979–92 and projected 1993-2005



—*Occupational Outlook Quarterly* (Fall 1994)

Talk This Over

If you study and work hard in school, gain a skill, find a job, and receive excellent performance reviews from your supervisor, does this mean your job is secure? Unfortunately, the answer is only "maybe." You'll learn why as you watch the opening segment of "Now Hiring." The video will then pause to challenge you with a question:

> Are layoffs in an industry the result of reduced demand for output or the result of changes in the technology?

Video-based Activities, Part 1

Have students read the introductory paragraph of **Talk This Over**. Then start the videodisc (Side 2), and swipe this barcode to play:

Now Hiring
(introductory segment)

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Are layoffs in an industry the result of reduced demand for output or the result of changes in the technology?

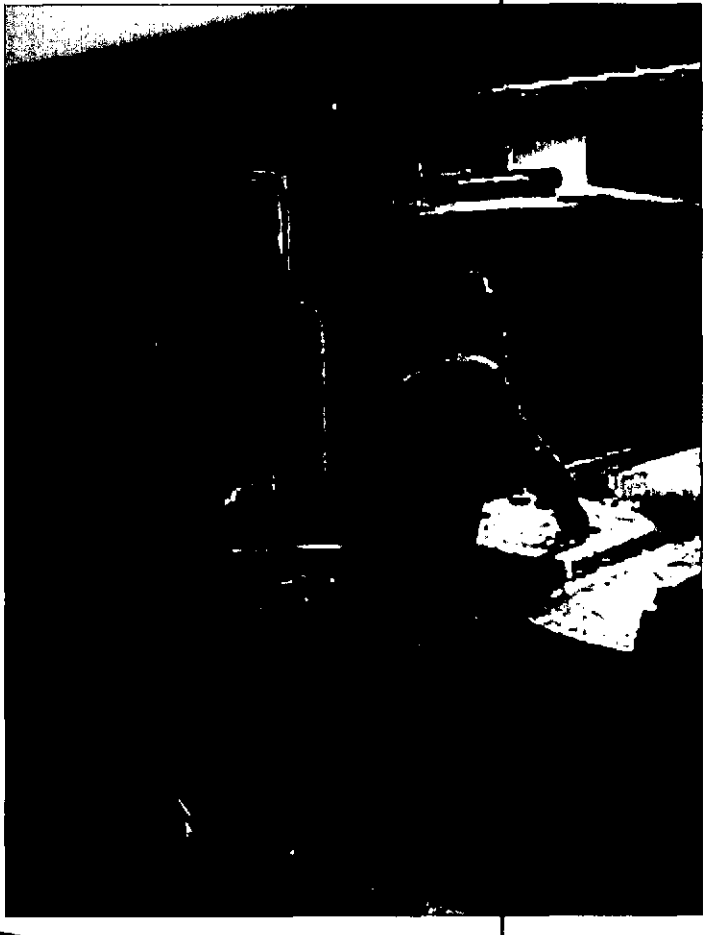
Have students respond in writing. Encourage discussion when they finish. *Responses should include these points:*

Layoffs in an industry can result from reduced demand for output or from changes in technology. If consumers demand less of a good or service, an employer may lay off some of the workers used to produce that output. If an employer can substitute a robot or computer for a worker, this too can lead to layoffs.

Write your answer to the question from the previous page and explain your conclusion on the lines below or on a separate piece of paper. Be prepared to discuss your views with your classmates.

Who Will Be Hiring in Manufacturing?

ALTHOUGH the overall number of manufacturing jobs may continue to decrease, some manufacturing industries will actually be adding new jobs. Many industries that are expected to create jobs from 1992 to 2005 are related to the fast-growing service sector of the economy:



INDUSTRY	NEW JOBS
Metal services	27,000
Books	28,000
Truck and bus bodies, trailers, and motor homes	28,000
Metalworking machinery	29,000
Converted paper products (except containers)	37,000
Miscellaneous publishing	37,000
Drugs	41,000
Millwork and structural wood members	60,000
Industrial machinery	61,000
Newspapers	61,000
Meat products	62,000
Commercial printing and business forms	78,000
Medical instruments, supplies	79,000
Aircraft and missiles parts, equipment	85,000
Miscellaneous plastic products	224,000

—*Occupational Outlook Quarterly* (Fall 1994)

For More...

The video revealed that Aaron and Julie lost their jobs at Dynamic Computer when the company streamlined its operations to cut costs.

Sometimes even restructuring and eliminating jobs to lower costs can't save a company. When customers' tastes and preferences change, or when technological development occurs, only the firms that can adapt to the new situation—only the firms that can respond efficiently—will survive.

Suppose you run a small, successful hamburger stand in a downtown business district. Then a new restaurant opens. It has a bigger menu and provides faster service. Pretty soon you're selling fewer hamburgers. Because you are selling fewer burgers, there's less sales **revenue** coming into your business.

To deal with the declining revenue, you try to lower your costs. First you reduce your **variable costs**. These are costs that change with your level of output. With fewer customers, you use less ground beef, hamburger buns, and pickles. You also schedule employees for fewer hours, or you lay off some workers. If conditions do not improve, you may even temporarily close down so that you can reduce your variable costs to zero. You might do this in hopes that customers will soon get tired of the new place and return to your stand. While you are closed, the rent and insurance for your stand will still have to be paid. Those are your **fixed costs**. You are stuck with them even if you close down in the short run. In fact, the **short run** is defined as however long you are bound to these fixed costs, no matter if you are losing money or making zillions of dollars.

"I thought if we were doing good work, our jobs were pretty secure."

What happens if customers never return to your stand? In the **long run**, you will get out of the hamburger business. You will sell the stand, the equipment, and the ketchup and other supplies, and you will close up shop for good. You can do this only in the long run.

Further Discussion

Have students read **For More...** beginning on this page. When they have finished, review the definitions of fixed and variable costs. Emphasize that variable costs change with the level of output, whereas fixed costs do not. Encourage students to think of other examples of fixed and variable costs.

Students' responses should reflect the fact that costs for labor, raw materials, and other inputs are "variable," whereas the costs associated with the plant, factory, or capital equipment are usually considered "fixed."

Video-based Activities, Part 2

Swipe this barcode to continue playing:

Now Hiring
(introductory segment, continued)

The video will pause on a screen with two questions (which also appear in the *Student Guide*):

Can you think of a reduction in demand for a product that resulted in unemployment?

How about an example of a new technology that resulted in unemployment?

Have students respond in writing. When they have finished writing, encourage whole-class discussion. Complete the discussion by asking students to think of instances when an increase in the demand for a product led to an increase in employment or when new technology resulted in higher employment. Discuss responses.

Further Discussion

Ask students to read **For More...** beginning on this page. After they finish, review the differences between short-run and long-run adjustments. Emphasize that short-run adjustments involve using more variable resources, such as labor, and long-run adjustments involve adding more plant space.

Ask students to work as individuals or in groups to complete the activity. Encourage whole-class discussion of answers.

Talk This Over

When the video pauses, the following questions appear on the screen.

> Can you think of a reduction in demand for a product that resulted in unemployment?
>
> How about an example of a new technology that resulted in unemployment?

Use the lines provided below or a separate piece of paper to answer these questions. Be sure to give examples. Then share your thoughts with your classmates.

For More...

Next summer the Orlando, Florida, area will again be one of the most popular destinations for vacationers. Millions of people will visit all or part of the Walt Disney empire—the Magic Kingdom, EPCOT, and MGM Studios.

From late May through the end of August, the Disney properties will be packed. The lines will be longest on the "cycle" rides, those that have a fixed number of people-carrying units. Dumbo is a good example. There are always 16 flying-elephant units in operation, regardless of the size of the crowd. There is no way to increase the operating capacity in the short run.

Amusing America

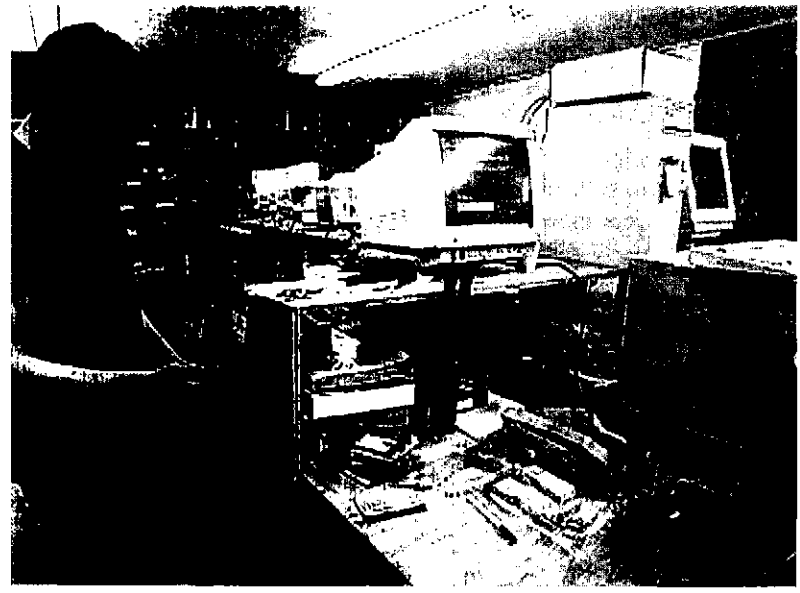
"Over the past decade, the number of amusement parks in America has increased by a third, to more than 600. With more than 140 million visitors a year, attendance at the top 40 theme parks in the country has more than doubled over the past decade."

—"Theme Parks: Feeling the Future," *The Economist* (February 19, 1994)

"You can dream, create, design, and build the most wonderful place in the world, but it requires people to make the dream a reality."

—Walt Disney, American film producer

Other rides, such as Big Thunder Mountain Railroad in Frontierland or the Maelstrom boat ride at EPCOT Center, can increase their carrying capacity by adding more units as crowds grow. They may start the day with only one train or Viking ship in operation and then bring others on line as demand increases. When Disney puts more units into operation or hires additional workers for peak seasons, these are examples of short-run adjustments. When Disney wants to expand capacity even further, the management takes a longer view. Building new rides and attractions and adding more hotels are examples of long-run adjustments. How do you think these adjustments affect employment in the Orlando area?



Julie's got it figured out: "There has been a change in consumer preferences for computer products—and Hal's has not kept up-to-date. So there's a decreasing demand for what the store has to sell."

Think about your own experiences at Disney World—or recall what you have heard about Disney or other large theme parks. Can you come up with more examples of short-run ways a park could adjust to the number of customers? What about long-run methods? Use the lines below or a separate piece of paper to record your ideas, and then discuss them with the other students in your class.

Short-run adjustments that students may mention: A park can extend its hours, add more workers on holidays or weekends, reassign workers to more popular rides (even the line at Dumbo moves faster with two workers to load and buckle children), add roving vendors (needing little capital) to sell concessions, give lower rates or discounts during less busy periods to lure customers away from busy times.

Economic Puzzle Challenge, Part 1

All right, now you know that companies can make short-run and long-run responses to changes in the demand for their products or services. Sometimes these adjustments will include creating or eliminating jobs.

In the case of Dynamic Computers, where Aaron, Julie, Kit, and Mr. Matthews used to work, the restructuring and other short-run attempts to deal with decreased demand were not successful. The company went out of business and left the industry.

As you watch the first part of the Puzzle Challenge, you will see how Aaron, Julie, and Kit have dealt with being laid off by Dynamic Computers. Aaron and Julie found new jobs. Do they look secure? Watch and find out.

Economic Puzzle Challenge, Part 1

Before swiping the barcode to continue, ask students to read the three paragraphs that introduce **Economic Puzzle Challenge, Part 1**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 1

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

The demand for Hal's output has decreased. How is this likely to affect the store's labor input decision?

Assist students in analyzing each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Increase the firm's demand for labor

Analysis: Not true. The demand for a labor input will move in the same direction as the demand for the output produced; thus, if the demand for Hal's output has decreased, the store will decrease and not increase its demand for labor. (This option, as well as option B, will play directly into **Economic Puzzle Challenge, Part 2**.)

B. Decrease the firm's demand for labor

Analysis: True. The demand for Hal's output has decreased; therefore, its demand for labor inputs will also decrease. Hal's will by laying off some employees. (This option, as well as option A, will play directly into **Economic Puzzle Challenge, Part 2**.)

Economic Puzzle Challenge, Part 2

Both options A and B of **Economic Puzzle Challenge, Part 1** played through the introduction to **Part 2**. If you wish to review this introductory part of the video, swipe the following barcode.

Economic Puzzle Challenge, Part 2

According to Aaron, "The company's going to be run by phone salespeople, with a small inventory management staff along with shipping and warehouse support. They're substituting high technology for labor."

Decision Time

At the end of the first part of the Puzzle Challenge, the following question appears on the screen.

> The demand for Hal's output has decreased. How is this likely to affect the store's labor input decision?

Use the space provided below or a separate piece of paper to mark your choice and to explain your answer. Then watch the video to see the results of your decision.

☐ A. Increase the firm's demand for labor

_____

_____

_____

☐ B. Decrease the firm's demand for labor

_____

_____

_____

Economic Puzzle Challenge, Part 2

Decision Time

Julie has a new job repairing computers at Hal's Computer Solutions. By her account, Hal's business is not doing well. The store is shabby and uninviting, and most of Hal's stock is outdated. In contrast, Hal's competition, the computer superstores, are eye-catching

and fast-paced. They stock all the latest hardware, software, manuals, and accessories.

All of this information has translated into an increase in the demand for the products and services of the computer superstores and a decrease in the demand for the output of Hal's Computer Solutions. The decreased demand for Hal's output causes a surplus there, leading the store to reduce its prices. The resulting revenue decrease sends Hal's scrambling for ways to reduce its costs.

Down the road, Computer Junction is responding to changes in the market differently. This is the store where Aaron found a job. As you watch the next part of the Puzzle Challenge, look for similarities and differences in the way Hal's Computer Solutions and Computer Junction deal with market changes.

The video challenges you with another question:

> How are Computer Junction's changes likely to affect its decision to hire workers?

Use the lines provided or a separate sheet of paper to check your choice and explain why you think it's the right answer. Discuss your response with the rest of the class.

☐ A. Increase the firm's demand for labor

_____

_____

_____

☐ B. Decrease the firm's demand for labor

_____

_____

_____

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

How are Computer Junction's changes likely to affect its decision to hire workers?

Ask students to read **Decision Time**. Assist them in analyzing each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Increase the firm's demand for labor

Analysis: Not true. Computer Junction is restructuring and substituting technology for labor. As a result, the company's demand for labor will not increase; it will decrease.

B. Decrease the firm's demand for labor

Analysis: True. By restructuring and by using new technology, Computer Junction will decrease its demand for labor.

Economic Puzzle Challenge, Part 3

Aaron, Julie, and Kit are all back in the labor market. Julie lost her job at Hal's Computer Solutions, and Aaron is concerned that Computer Junction's restructuring decisions may lead to his unemployment.

Remember, restructuring and laying off workers because of decreased demand or technological change doesn't always save a company. Sometimes a business will have to close down temporarily to limit its losses. This strategy will work only if the firm expects to operate profitably when it reopens. If a business cannot operate profitably, in the long run it will go out of business and leave the industry.

Economic Puzzle Challenge, Part 3

Before swiping the barcode, ask students to read the three introductory paragraphs of **Economic Puzzle Challenge, Part 3**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 3

As you watch the next part of the Puzzle Challenge, think about how these principles can be applied in another field, the ice-cream business.

Video-based Questions

The video will pause on a screen with the following information and question (which also appear in the *Student Guide*).

Chocolate Moose is closed for the winter; Ice Palace is out of business. Why are they closed while Jiffy Treet is still open?

Assist students in analyzing each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Chocolate Moose closed because of temporary losses; Ice Palace closed because of projected continuing losses.

Analysis: True. Chocolate Moose closes in the fall and winter when revenues aren't large enough to pay the company's variable costs and at least some of its fixed costs. By shutting down during the winter months, the firm reduces its variable costs to zero, but it is still stuck with its fixed costs.

B. In the ice-cream industry, demand has risen and supply has fallen.

Analysis: Not true. If the demand for ice cream increased while the supply decreased, this would cause prices to rise. With prices going up, the two companies are unlikely to be closed.

Decision Time

Are all ice-cream sundaes the same? The screen challenges you with some information and a question:

> Chocolate Moose is closed for the winter; Ice Palace is out of business. Why are they closed while Jiffy Treet is still open?

Use the following lines or a separate sheet of paper to explain your choice, and then watch the video to see the results of your decision.

☐ A. Chocolate Moose closed because of temporary losses; Ice Palace closed because of projected continuing losses.

_____

_____

_____

☐ B. In the ice-cream industry, demand has risen and supply has fallen.

_____

_____

_____

The Chocolate Moose reopens in warm weather when it expects to operate profitably because revenues will cover its fixed and variable costs.

For More...

The Ice Palace was an ice cream place (with great hot fudge, according to Aaron) that went out of business and left the industry. Jiffy Treet, on the other hand, also sells ice-cream treats and is doing a booming business. Although you can't say for sure why Jiffy Treet met market expectations efficiently whereas the Ice Palace did not, take a moment to brainstorm possible reasons for these developments. Use the space below or another sheet of paper to jot down your ideas, and then share your speculations with the class.

_____

_____

_____

Mr. Matthews did well in his own job interview several months earlier and now works as regional manager of the Computer World chain.

Economic Puzzle Challenge, Part 4

Did you wonder what happened to Mr. Matthews, the former supervisor at Dynamic Computers? He's back, and he's working at Computer World, where he put in a good word for the computer squad – Aaron, Julie, and Kit.

Computer World is another chain selling computer-related goods and services. As you consider the future of Computer World and evaluate the job security of Aaron, Julie, Kit, and Mr. Matthews, remember what happened to some of the other companies in the industry. Could the same thing that happened at Dynamic Computer, Hal's Computer Solutions, or Computer Junction also happen at Computer World? Think about this possibility as you watch the last part of the Puzzle Challenge.

Further Discussion

Have students read **For More...**on this page. Ask them to work as individuals or in groups to complete the activity in writing. After they finish writing, encourage them to share their responses in a whole-class discussion.

Some reasons why Jiffy Treet may be meeting market expectations are: better location, tastier product, better service, more convenient hours, lower prices, and a more appealing menu.

Encourage students to think of reasons why Jiffy Treet may have had lower costs. Explain that firms able to produce and sell a desirable good efficiently will be successful. Perhaps Jiffy Treet has a new soft-serve ice-cream machine. Or maybe it buys its inputs in bulk from a supplier at a lower cost than the other ice-cream places.

Economic Puzzle Challenge, Part 4

Before swiping the barcode, ask students to read the introductory paragraphs to **Economic Puzzle Challenge, Part 4**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 4

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Can you think of businesses that closed either temporarily or permanently, affecting employment in your community?

Have students respond in writing by citing examples and by describing the effect on employment. Encourage whole-class discussion of their responses.

Talk This Over

The video pauses to challenge you with a series of questions. Talk them over with the other members of the class. Then write your own decision on the following lines or on another piece of paper.

The first screen asks:

> Can you think of businesses that closed either temporarily or permanently, affecting employment in your community?

Swipe the next barcode for a screen containing these questions (which also appear in the *Student Guide*):

Which better reflects the near-future outlook in your career area of choice?

- **demand-side change**
- **technology-based change**

Which could result in layoffs?

Ask students to respond in writing and to give reasons for their answers. Use their responses to stimulate more class discussion. Encourage students to speculate about demand and technology in their career areas 10 or 15 years in the future.

Side 2 Menu

Quit Instructions

The second screen poses these questions:

> Which better reflects the near-future outlook in your career area of choice?
>
> - demand-side change
>
> - technology-based change
>
> Which could result in layoffs?

PUT IT TOGETHER

In a growing, dynamic economy, changes in the demand for various goods and services are normal. For example, as consumers' tastes and preferences change, they may demand more computers with built-in CD-ROMs that they can purchase by phone. And they may demand fewer computers that don't have this feature and that are sold in full-service stores. Demand changes such as these will contribute to layoffs in some industries and to more jobs in others.

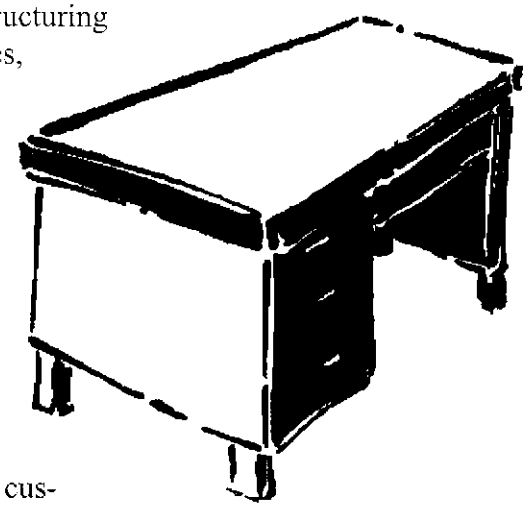
It's also a fact that technology will continue to change the way business is done and the way goods and services are produced. From distance learning in education to robotic milking machines to the worldwide impact of the Internet, technology will continue to make workers more productive and to generate new products and services. This too will mean job creation in some industries and job losses in others.

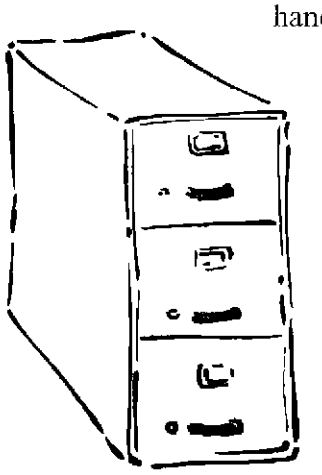
To be successful in the 21st century, companies and workers will have to be in the right place at the right time, producing the right good in the right way.

There is one more point that needs to be made—workers must have the right skills. Think about this as you read the following case study.

Omni Office Direct

Omni Office Direct went through a major restructuring three years ago. The company designs, produces, and installs office equipment. It has always specialized in projects involving large office buildings and corporate headquarters. Omni can provide everything needed, including file cabinets, computers, partitions, cubicles, workstations, phone systems, desks, and miscellaneous furnishings. The firm can handle new structures as well as renovations.





Before the restructuring, getting a project bid to a customer took at least four to six weeks. First, a sales rep from Omni met with the client to review the products and services that Omni provides. Second, a product representative visited the site to answer specific questions, assess client needs, and take measurements. Third, the information gathered by the

CLOSING

Ask students to read **Put it Together**, including **Omni Office Direct**, and to complete the activity at the end of the section. After they finish writing, use their responses to stimulate whole-class discussion.

Students should respond in words to this effect:

Omni's restructuring will decrease its demand for labor. To prepare a bid formerly required the efforts of four or five workers; now it takes only one.

The nature of Omni's demand for labor will also change. The firm will have an increased demand for specialized, skilled workers who can use laptops.

Omni's restructuring will make the company more competitive and less likely to leave the industry. By reducing the time needed to prepare a bid, Omni will have an edge over firms that have not restructured and have not adopted the new technology. The firm is not likely to close if "business has doubled."

Conclude the discussion by emphasizing that even though Omni has a decreased demand for mid-level or administrative workers, it has an increased demand for specialized, trained labor. Also, because business has increased since the restructuring, Omni may have an increased demand for workers who build and install its products. By making the firm more competitive, the downsizing, while eliminating some jobs, will actually protect others.

product rep was given to a designer at Omni. The designer drew up a plan and a materials list based on client specifications. Fourth, the design and materials list was sent to a cost estimator to prepare the actual bid. Fifth, the finished bid was sent back to the sales rep who had made the original client contact. Sixth, the sales rep set up an appointment with the client to go over the bid.

Now, after restructuring, getting a project bid to a customer takes less than eight hours. A sales rep shows up at the site with a laptop computer, and the customer has a bid by the end of the day. Business has doubled.

Take a minute to think about this case, and then answer the questions in the space provided or on another piece of paper.

- How will Omni's restructuring affect its demand for labor? Why?

- How will Omni's restructuring affect its demand for designers who can use laptops? Why?

- Will Omni's restructuring make the company more likely to close temporarily or less likely to close and leave the industry? Why?

The Chips Are Up

THERE were probably fewer than two million computers in the world in 1980. By 1993 an estimated 148 million computers existed—18 million of them added in 1992 alone. Computer use is heavily concentrated in industrialized nations. In 1993 there were 265 computers per 1,000 people in the U.S., 57 per 1,000 in Italy, and only one per 1,000 in China and India. The United States has almost 50 percent of the world's computers, but only five percent of the world's people.

—Adapted from John E. Young, "Global Network: Computers in a Sustainable Society," *Worldwatch Paper* (September 1993)

NET GAIN

SUMMARY

Ask students to read **Net Gain**. Review the four content statements, and encourage students to suggest additional examples of each.

SOMETIMES being a loyal, honest, and skillful employee just isn't enough. When a company restructures in order to survive, it usually means jobs are eliminated and entire plants are temporarily or permanently closed.

If you ever find yourself "downsized," remember how Aaron, Julie, and Kit handled their layoffs. They began looking for new jobs immediately, and they took less-than-ideal positions in order to gain experience. In the end it was Mr. Matthews, their former supervisor, who provided a reference. This brings up another valuable tip—even if you get laid off, you still have the experience that you gained on the job, and you can leave with a good reference that will help you find a new position. Always try to leave on good terms. After all, you never know, someday you might want to work for the same employer again.

Now that you've seen "Now Hiring," try to remember the following four points about the economics of getting hired.

1. **When companies experience a decrease in the demand for their product or service, they will in turn demand less of the labor used to produce it.** Often the term "restructuring" is used to describe companies that are dealing with a decrease in product demand by eliminating jobs and trying to cut costs.

2. **Technological changes can cause a decrease in the demand for labor, leading to unemployment.** Certain technological developments can enable employers to substitute machines for workers. If technological changes lower costs and increase the supply of the product, this situation will contribute to a decrease in the demand for labor.

3. **There are times when even the best restructuring plan cannot save a company.** If a company is not able to produce a good or service efficiently and to sell its output at a price that will cover all costs, the firm is likely to leave the industry in the long run.

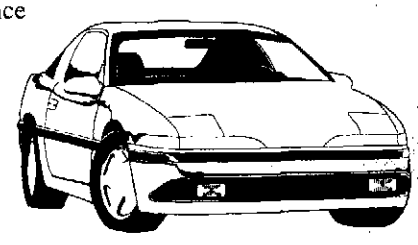
Auto Plants Now Hiring

THOMAS WILLIAMS quit his job as a high school teacher two years ago to help fit doors, hoods, and fenders in Ford Motor Company's assembly plant [in Avon Lake, Ohio].

The slender 43-year-old, who almost runs from van to van as he works, earned $50,000 last year, more than double his private-school salary the year before. "I've changed my focus," he says, "from molding lives to molding products."

It wasn't long ago that the auto industry didn't want educated people in its factories. But now, as the industry opens its doors again after years of little hiring and lots of layoffs, it is looking for a different kind of worker. Ford and Chrysler Corporation both expect to replace nearly half their work forces over the next decade, hiring up to 75,000 workers between them, and many of these jobs will go to highly motivated, sometimes highly educated workers.

Car makers are hoping that these new workers will be quicker to learn new jobs, require less supervision, and, ultimately, be more productive than the current workers. Detroit's goal is to develop a highly skilled work force that is better suited for the brutal global competition that has confronted it since the 1980s. Just as Ford and Chrysler have imitated the lean manufacturing techniques of the Japanese, they are now imitating the more selective employee-screening techniques used by the Japanese to staff their new U.S. and European car plants. While General Motors Corporation continues to shrink its work force, it is using similar screening techniques to pick workers for coveted skilled-trades jobs....



—Neal Templin, "Auto Plants, Hiring Again, Are Demanding Higher-Skilled Labor," *Wall Street Journal* (March 11, 1994); reprinted by permission of the *Wall Street Journal*, ©1994 Dow Jones & Company, Inc.; all rights reserved worldwide

Looking Healthy

HEALTH services will continue to be one of the fastest-growing industries in the economy. A growing and aging population, along with improvements in medical technology, will increase the demand for health services. Employment in home health care services, nursing homes, and offices and clinics of physicians and other health practitioners is projected to increase rapidly.

—Adapted from Bureau of Labor Statistics, *Occupational Outlook Handbook*, 1994-95 edition

4. **Firms can make short-run and long-run adjustments to deal with changes in demand.** Hiring more workers or extending hours are examples of short-run adjustments. Building a bigger factory is an example of a long-run adjustment.

BUILDING ON SUCCESS

▶ MOST people know that the Tea Act of 1773 was one of Great Britain's policies that angered the American colonists and led to the Revolutionary War. But did you know that the policy was an attempt by Great Britain to streamline or restructure the way tea was exported to the colonies from England? Use the library, classroom, or other resources to prepare an oral report entitled "Restructuring in 1773: The Impact of the Tea Act on the American Colonists." Be prepared to present your report to the rest of the class.

▶ Choose an industry or type of business that interests you. Use the library, classroom, or other resources to research the impact of technological developments in that industry. Then prepare an oral or written report to share with your classmates.

▶ Research an employer in your area who recently hired or laid off a significant number of workers. Write a report explaining why the change occurred. Be sure to analyze any significant changes in the demand for the product or service that the company produces. Share your report with your classmates

EXTENSION

Assign different members of the class the activities in **Building on Success**. Alternatively, ask students to choose which activities they would like to complete.

Encourage them to apply the concepts they have learned in this lesson. Remind them to refer to the **Econcepts** (page 101) and to other parts of the lesson whenever necessary.

ASSESSMENT

Two types of assessment are provided for you to evaluate students' comprehension and mastery of the material presented in this lesson.

ON YOUR OWN

Brief essay answers are required for the four situations presented in **On Your Own**. Encourage students to read each case and to explain in writing the impact of the situation on the demand for labor.

QUALITY CONTROL

ON YOUR OWN

READ and analyze each of the following situations. For each case, write a brief statement about the impact of new developments on the demand for labor that is used to produce the good or service discussed. Write your responses on page 119 or a separate sheet of paper.

1. Two weeks of swim time have been cut from the Belleville pool schedule to save money. This year the pool will not open until June 3, and it will close August 27. In the past the pool opened on the Sunday before Memorial Day and closed on Labor Day. "There just aren't enough numbers there to pay our costs, with

kids still in school," said the parks and recreation director. "We thought we'd cut our losses."

Students should respond along these lines:

With the pool closed, there will be no demand for labor to run the pool—lifeguards, concession operators, etc. The pool will reduce its variable costs to zero for the time it is closed.

2. Attempts to balance the federal budget have caused Congress and the President to focus on streamlining or "reinventing" the federal government. As a result, NASA's administrator recently unveiled plans to overhaul every part of the sprawling agency. The plan will trim and restructure each of 10 NASA centers.

Restructuring NASA will decrease the demand for government workers at the agency.

3. Robot milkmaids have been introduced in the Netherlands and will soon appear in the United States. Dairy cows wear collars with computer chips that record their last milking. The animals enter the milking pens on their own when their udders are full. Studies indicate that the use of robots has significantly increased milk output.

Robot milkmaids will reduce the need for farm labor, which was used to herd cows into their pens; the animals now enter the milking pens by themselves. The cows are also milked automatically, without the need of human milkers.

4. Sears Roebuck discontinued its U.S. catalog sales, saying that catalog orders had been declining for several years. The company cited increased competition from Wal-Mart and other discount retailers as a reason for the catalog's demise.

The demise of the Sears catalog will decrease the firm's demand for labor required to provide catalog service.

Assessment-Track Questions

Besides appearing in the *Student Guide*, the questions under the heading **In Class** are contained on a special assessment track of the videodisc for this module. Using the appropriate disc side, you can access each question by swiping its barcode. Each question is presented as a voice-over to part of a video program that students previously watched. The video will provide students with valuable cues, enabling them to generalize previously learned material to new situations.

Assessment Question 1

1. *A firm's demand for an input, such as labor, is said to be "derived" from the demand for the firm's output. Firms hire inputs not merely for the sake of hiring them but solely to produce output and satisfy market wants. If the demand for a firm's output is increasing, the firm has an incentive to hire more inputs, including labor, and profitably meet the increased demand. If the demand for the output is falling, the firm no longer uses as many inputs, including labor, and produces fewer goods and services. Thus, a firm's demand for labor is derived from the demand for its output.*

Assessment Question 2

2. *Suppose a technological change results in a relatively cheaper mechanical method of doing a job that was previously performed by labor. This technology increase makes the capital input more productive and, therefore, relatively cheaper than the labor input; hence, more capital will be profitably "hired" relative to labor. Layoffs in a particular job result when a technology increase allows a machine to make obsolete the labor it replaces.*

In Class

These questions should be answered while you watch a special section of the videodisc that your teacher will play for you. Write your answers on the lines provided or another sheet of paper.

1. Firms hire inputs, such as labor, solely for the purpose of producing and selling output. How does a change in the demand for a product by consumers affect a firm's decision to hire or lay off employees?

2. Besides labor, firms require other inputs, such as land and capital, to produce and sell their goods and services. How can advances in the technology of producing output affect a firm's decision to lay off employees?

3. Over time, markets adapt to economic conditions. Profitable industries tend to grow in size; new firms enter the marketplace; and unprofitable industries shrink or exit the market. Why do some firms close temporarily, while others exit an industry completely?

Assessment Question 3

3. When firms cannot profitably compete in an existing industry, they earn economic losses. Losses are what drive firms' decisions to close plants, downsize, or go out of business. The decision to close temporarily or even to close permanently and reallocate all resources depends on whether the losses are expected to be temporary or permanent. If the losses are expected to be permanent, the firm's best option is to shut its operations permanently, thereby freeing up labor, land, and capital resources to find profitable activities elsewhere.

4. Increases in technology and firms' closing or exiting an industry result in increased unemployment. But how can these events lead to **better** market outcomes in the future?

Assessment Question 4

4. Unemployment is painful to people who lose their jobs (and to family members who depend on them for support). It is also painful to society in general, which suffers from the lost output. However, the dynamic nature of a market economy can turn this short-term loss into a long-run benefit. Increases in technology often create better output for consumers and more diverse, skilled, and high-paying jobs than they displace. Technology sometimes even creates entire tangential industries. Similarly, when long-term losses are expected, a firm has a signal to go out of business. The resultant selling of assets and freeing of labor allows each to search for and find more productive uses in other endeavors. The best way to protect oneself from becoming "obsolete" or "replaceable" is to acquire a high level of skills.

Side 3
Graphical Database Barcodes

(Use "step still" function or barcodes below to advance within categories.)

Step Back

Step Forward

Elasticity

Role of Profits

Product Markets

Consumer Behavior Theory

Production Theory

Foreign Exchange Markets

Human Resource Market

Nonhuman Resource Market

Aggregate Supply & Demand

Loanable Funds Market

Side 3
Teacher-Track Barcodes

Introduction

The Quest for Demand

Comparative Advantage

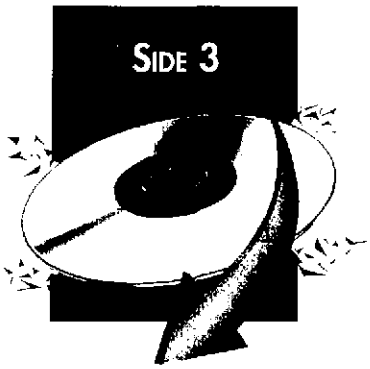
Patents and Competition

Imports and the Economy

Demand Curves

ECONOMICS® at Work

Module 1, Lesson F



NICE SHOES!

ECON BRIEFING

IT's back-to-school time, which means it's time to start looking for new shoes. What kind will you buy? Where will you buy them? Why do different stores charge different prices for the same shoes? Are foreign-made shoes less expensive than those made in this country? Are shoes that are made in the United States better than imports? Making a choice isn't easy.

Today nearly everyone—old and young, man and woman, city dweller and suburbanite—likes to wear athletic shoes. Styles range in price from less than $30 to more than $200. Some people wear them for comfort; others wear them for style; and some people even wear them for athletic activities! Whatever the reason, athletic shoes are popular and appealing.

Studying the athletic shoe industry will help you understand how competition results in lower prices, how sellers respond to competition and price changes, and how international trade affects the market.

WHAT YOU'LL LEARN IN THIS LESSON

- Sellers produce those products in which they have a comparative advantage.
- Competition among sellers brings prices down.
- Both costs and benefits are associated with the process of international trade.
- Free trade is sometimes restricted by barriers.
- Prices indicate the scarcity of different products.
- Many factors determine supply and demand.
- The interaction of supply and demand for goods and services determines prices.

2 CLASS PERIODS

Materials

This lesson uses the videodisc (or videotape) program **Nice Shoes!** To perform the activities, students may use the following items: colored pencils, pens, or markers; recent issues of newspapers; calculators; computers with word-processing and graphics software; and standard reference works, particularly encyclopedias, almanacs, and atlases.

INTRODUCTION

This lesson introduces students to the concept of comparative advantage. They learn how voluntary trade benefits both trading partners. They are reminded that no decision is without a cost and that competition from foreign producers may result in unemployed workers in the U.S. The concepts of supply and demand are revisited, and the nonprice determinants of supply and demand are discussed.

GOALS

Students will be able to demonstrate their understanding that free trade involves both costs and benefits, that scarcity affects prices, and that many factors affect the supply of and demand for goods and services worldwide.

PAYBACK

Have you ever encountered any mysteries—events and circumstances you couldn't explain? What you will learn in this lesson will help you recognize and solve some mysteries in economics. Why don't farmers grow oranges in Iowa? Why do prices rise and fall? Why do producers in different countries voluntarily exchange their goods and services? Why is voluntary exchange sometimes restricted?

When you complete this lesson, your payback will be a better understanding of how the economy works. This will have both immediate and long-term benefits. You'll be able to use your new understanding right now—in school and in your part-time job—and throughout your lifetime.

Serious athletes, status seekers, and comfort-minded consumers have turned athletic shoes into a billion-dollar industry.

Econcepts

absolute advantage—the ability to produce something with fewer resources than other producers use

comparative advantage—the ability to produce something at a lower opportunity cost than other producers face

competition—the actions of companies to increase sales

demand—the quantity of goods or services that consumers are willing and able to buy at all possible prices

input prices—the cost of materials used to produce a good or service

international trade—the exchange of goods and services among people and institutions in different nations

market clearing or **equilibrium price**—that one price at which quantity supplied equals quantity demanded

price—the amount of money that people pay when they buy a good or service

relative prices—the price of one good or service in comparison with the prices of other goods and services; relative prices are the basic measure of the relative scarcity of a product when prices are set by market forces (supply and demand)

supply—the quantity of goods or services that producers are willing and able to sell at all possible prices

POWER UP

HAVE you ever wondered why different stores charge different prices for the same products? Have you ever checked the newspaper to find the best price for roller blades, a pair of jeans, or a new CD player? Have you ever bought something and then, a few days later, seen an ad for the same item at a lower price?

If you live in an area where many suppliers of goods and services compete against one another, you are benefiting because competition usually results in lower prices for products. On the other hand, if you live in a place where there's not much competition, then you might pay more, as in the story on the next page.

OBJECTIVES

Upon completing this lesson, students will be able to:

- describe the principle of comparative advantage
- explain how competition among sellers lowers price
- list the costs and benefits of free trade
- define "tariffs" and "quotas" as they relate to trade barriers
- show that scarcity affects price
- give examples of the nonprice determinants of supply and demand
- explain how the interaction of supply and demand determines price

LESSON DESCRIPTION

This lesson focuses on athletic shoes to illustrate how competition and trade affect prices. Juan, a domestic shoe designer, observes his company making decisions in response to foreign competition, input prices, and changes in worldwide demand.

Before showing the video, encourage students to think about the advantages and disadvantages of trade.

KEY TERMS

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

PREVIEW

Ask students to read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 123–124). Discuss the main topics, and then brainstorm any questions that students may have. You may wish to list these questions on a chart or chalkboard and to display it throughout the lesson. Encourage students to keep notes as they develop ideas about the topics of the questions.

Ask students to work in pairs and to choose a product to analyze. They should use reference works, a computer database, or the Internet to research the product. Have them try to answer the following questions.

- Where is the product made?
- What are its component parts?
- What materials are used to produce it?
- Who uses it?
- How can it be adapted for a new use?
- What performed its job 50 years ago?
- What might replace it 50 years from now?

Introduce the **Econcepts**, and give contextual examples of each. Ask students to refer to them as needed during the lesson.

Have students read the first two paragraphs of **Power Up** (page 125) and the section entitled **A Stormy Start** on this page.

Use the questions as whole-class discussion prompts. Students should discuss the choices Jack had and write down their ideas. *Students might respond: He could have gone to a flea market, checked newspaper ads for used furniture, bought unfinished furniture and decorated it himself, used recycled items such as bricks and boards for bookshelves, or traveled to a larger shopping area.*

A Stormy Start

McGraw's Furniture Mart is located near the small town of Storm Point. Storm Point has a population of only 2,700 people and is more than 50 miles from the nearest large city, Bristol (population 26,000). When Jack Hanlon completed a technical school program in refrigeration, he landed a job with Grumman Heating and Air-Conditioning in Storm Point. After renting an apartment in town, he wanted to buy furniture. The only store in the area was McGraw's, so Jack stopped in one afternoon to look around.

"Mighty nice sofa here, Jack," said Mr. McGraw. "It'll last a long time. Good springs and cushions."

"How much is it?" asked Jack.

"Only $600."

Jack hadn't budgeted that much money for a sofa. He had estimated that he might be able to buy **all** the furniture he needed for about $1,500, but if he spent $600 on just one item, he would never be able to afford the rest. Still, what could he do? There was no other store around Storm Point where he could shop.

Mr. McGraw was unlikely to lower the price. Did Jack have any options? Can you think of other ways Jack could furnish his apartment less expensively? Think about the consequences of each of Jack's choices, and justify the decision you would make if you were Jack. Write your ideas on the lines below or on a separate sheet of paper.

When there is little competition, consumers do not have many choices. With more furniture stores, Jack would have had a larger selection of sofas from which to choose, and the prices would have been lower.

Sellers also benefit from competition. Mr. McGraw, for example, must buy his merchandise from other firms. These firms try to keep their costs down so that they can produce goods at a lower price and make a profit. How can furniture manufacturers keep their costs low?

One way to keep costs down is for sellers to specialize and trade. The following example shows how this works.

Absolute Advantage

Ask students to read **Absolute Advantage**. Ensure that students understand the concept featured in this section.

Oak is a popular wood for making furniture. Oak trees could be commercially grown in Texas, but special soil additives and cultivation techniques would be necessary to make oak production successful. Moreover, these special procedures would increase the cost of growing oak trees there. In contrast, the forests of North Carolina produce many oak trees; the climate and soil of North Carolina are naturally suited to oaks. Growers in North Carolina can produce the trees much more cheaply and efficiently than those in Texas can; therefore, it seems logical to grow oak trees in North Carolina, not Texas.

It takes more than wood to make furniture. If you want to make comfortable sofas and chairs, you need furniture coverings, among other things. Leather is a high-quality covering. Farmers in North Carolina could raise cattle for leather production, but the hilly land and rocky soil would force farmers to use special methods that would increase their costs of production. On the other hand, the plains and climate of Texas are well-suited to cattle raising. It's logical to raise cattle in Texas, not North Carolina.

Early economists, such as Adam Smith in the 18th century, called this situation **absolute advantage**.

They stated that one group of people should produce those goods in which they have an absolute advantage and should trade their surplus

"It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy....What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage."

—Adam Smith, Scottish economist, author of *Wealth of Nations*

Engraving by George L. Craik and Charles MacFarlane

for goods that another group can produce at an absolute advantage. According to this advice, lumber should be produced in North Carolina, cattle in Texas.

The following table shows the amount of lumber and the number of cattle that can be produced on a typical 10-acre piece of land in each state.

	Oak	Cattle
North Carolina	3,000 feet	8 head
Texas	1,000 feet	12 head

When there is little competition, consumers do not have many choices.

If both oak and cattle were produced in each state, total productivity on 20 acres of land would be:

Oak: 4,000 feet
Cattle: 20 head

However, if oak were produced in North Carolina and cattle in Texas, productivity on 20 acres would increase to:

Oak: 6,000 feet
Cattle: 24 head

Specialization provides greater output of both oak and cattle! Clearly, because producers in Texas have an **absolute advantage** in the production of cattle, they should produce cattle, and because producers in North Carolina have an **absolute advantage** in the production of oak, they should produce oak.

But what happens if one producer has an advantage in the production of **both** goods? Keep this question in mind as you read about the two printing firms in the next section.

Have students read **Comparative Advantage**. Explain that both printers benefit by specializing. They produce the good in which they have a comparative advantage and trade for the other good.

Comparative Advantage

Precision Printing can produce a calendar in 10 minutes or a greeting card in five minutes. Moyer's Type & Print can produce a calendar in 15 minutes or a greeting card in 20 minutes. The following table compares their outputs.

	Time for Calendar	Time for Greeting Card
Precision	10 minutes	5 minutes
Moyer's	15 minutes	20 minutes

Precision Printing has an absolute advantage in the production of **both** calendars and greeting cards. In other words, it can produce both kinds of jobs more efficiently than Moyer's Type & Print can. Would it be better for these companies to divide their time and do both kinds of work or to specialize in just one kind?

To help them decide, answer the following questions. Use the blank lines or a separate sheet of paper.

Students may respond:

1. How long will it take Precision Printing to produce a calendar and a card?

   1. 15 minutes

2. How long will it take Precision to produce two cards?

   2. 10 minutes

3. Should Precision specialize? _____
   If so, in what?

   3. Yes. Precision should specialize in cards because it has a comparative advantage. (Precision should trade with Moyer's for calendars.)

4. How long will it take Moyer's Type & Print to produce a calendar and a card?

   4. 35 minutes

5. How long will it take Moyer's to produce two calendars?

   5. 30 minutes

6. Should Moyer's specialize? _____
   If so, in what?

   6. Yes. Moyer's should specialize in calendars because it has a comparative advantage. (Moyer's should trade with Precision for cards.)

After you have written your answers, discuss this situation with the rest of the class. As your teacher will explain, the principle of **comparative advantage** is at work here.

Speaking of Competition...

"The underdog in many products...can pick and choose where it wants to hit the giant; the giant, by contrast, must defend itself everywhere."

—George H. Lesch, president, Colgate-Palmolive Company

"The competitor to be feared is one who never bothers about you at all, but goes on making his own business better all the time."

—Henry Ford, Sr., American automobile designer and manufacturer

This principle of comparative advantage was devised by David Ricardo, a successful businessman and economist who lived from 1772 to 1823. He theorized that firms can benefit from trade if they (1) produce and **export** those goods in which they have a comparative advantage and (2) trade for and **import** those goods in which they do **not** have a comparative advantage.

The 14-Year-Old Stockbroker

Detail of painting by Thomas Phillips, Esq.

DAVID RICARDO was only 14 when he entered his father's business on the London Stock Exchange in 1786. His understanding of the economics of business soon led to his first successes, and he made a fortune on the stock exchange while still in his 20s.

He began publishing his economic theories in 1810, releasing his chief work, *Principles of Political Economy and Taxation*, in 1817. Ricardo once wrote that "nothing contributes so much to the prosperity and happiness of a country as high profits."

One way to such prosperity, he believed, was through understanding how comparative advantage works in the marketplace. His principle of comparative advantage became the basis for the modern theory of international trade. Ricardo retired from business at the age of 42. He was elected to Parliament five years later and served there until his death in 1823 at the age of 51.

VIDEO CORE

Ask students to read the introductory paragraph of **Take a Closer Look**. The first video segment establishes that athletic shoes are a billion-dollar industry. Celebrity endorsements, product development, and competition all affect the prices of these shoes.

INTRODUCTION TO THE VIDEO

Have students read **What You'll See on the Screen**. After they finish reading, have them take an informal survey in class to answer these questions: How many different brands of shoes are students wearing? How many different countries produced the shoes? Can they remember the price they paid for their shoes? What characteristic caused them to choose one shoe over another? Invite further questions.

Have students use colored pencils, pens, or markers to make posters displaying the responses to their survey. Encourage them to use graphs and charts as well as narrative explanations.

TAKE A CLOSER LOOK

ATHLETIC shoes are everywhere. Whether they're Air Jordans or Reebok Pumps or glow-in-the-dark high tops, these shoes are big business. People all over the world buy the shoes that their favorite athletes wear, and shoe companies try to design shoes that will attract more buyers.

WHAT YOU'LL SEE ON THE SCREEN

The opening segment of "Nice Shoes!" explains that youths spend a lot of money on athletic shoes, that manufacturers spend millions of dollars creating and advertising new styles, and that U.S. companies ship their athletic shoes all over the world. Engineers, artists, designers, technicians, and laborers combine to produce shoes that do just about everything but wake you up and prepare your breakfast.

In the Economic Puzzle Challenge sequence, you will see how athletic shoes are made and how a manufacturer adjusts to competition from other companies.

Talk This Over

You probably have a lot to say about what kind of shoes you buy and wear. Price is one consideration, of course, but what about style, comfort, and durability? The screen asks:

What do you think the perfect athletic shoe would look like?

Describe that shoe on the following lines or on a separate sheet of paper, and then share your ideas with your classmates.

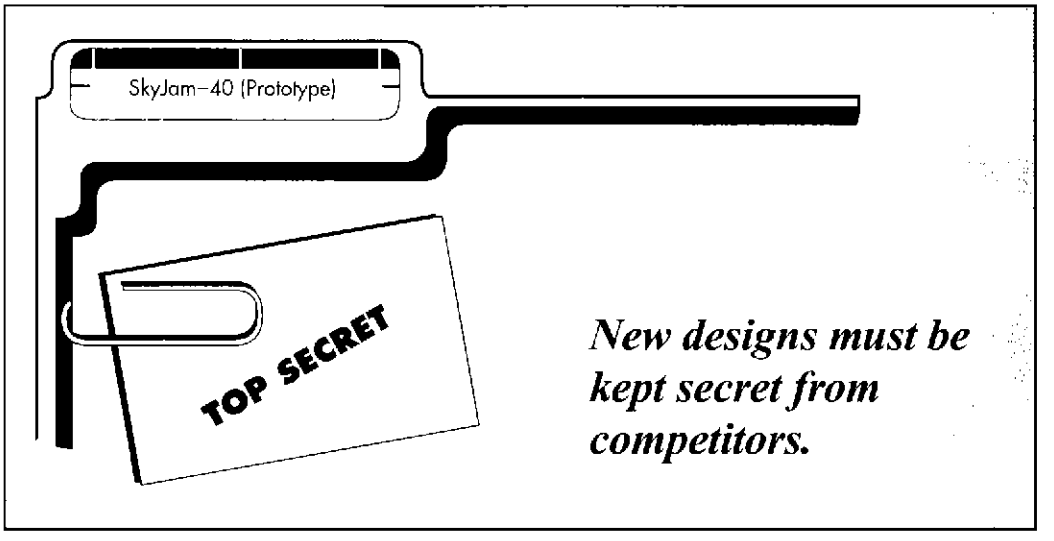
For More...

Where would you get the materials to design and construct your "perfect shoe"? You may need to do some research to find out where the materials can be obtained.

Will your shoe have a "secret ingredient" or special feature that makes it better than others? How would you develop this particular characteristic?

It takes more than pencil and paper to design a new athletic shoe. Space-age materials that are rugged and lightweight must be developed. Model shoes have to be tested. Would you need to build a factory to manufacture your shoes efficiently? How would such an investment in construction affect your business?

New designs must be kept secret from competitors. What would you do if another manufacturer came up with an idea similar to yours? How would your shoe's success be affected by this competition?



Video-based Activities

Start the videodisc (Side 3), and swipe this barcode to play:

Nice Shoes! (introductory segment)

The video will pause on this question (which also appears in the *Student Guide*):

What do you think the perfect athletic shoe would look like?

Have students read **Talk This Over** and respond in writing. When all have finished, encourage them to discuss their answers. Encourage diverse responses, and emphasize that creativity, research, and innovation are important in the design of a new product.

Further Discussion

Have students read **For More...** on this page. Assign a group of students to do research on materials needed to produce athletic shoes. These students should report to the class. Remind students that input costs, such as building new factories and hiring skilled employees, affect the choices that producers make. Competition also affects manufacturing decisions. Encourage students to formulate other questions regarding the design and marketing of athletic shoes.

VIDEO-BASED ACTIVITIES, CONTINUED

Ask students to read the paragraph that introduces the second **Talk This Over** section. Then swipe the next barcode to generate the following question (which also appears in the *Student Guide*).

How would competition, technology, and changes in the prices of inputs affect that shoe?

This question requires students to brainstorm ideas about how technology, competition, and input prices can affect the development of a new product. Allow time for discussion of ideas, and encourage illustrations from real-world situations. Make newspapers available in class so that students may look for examples. Then have students respond to the question in writing.

Possible responses are: ***Competition*** *from other sellers may force prices down; lower prices might mean less profit, layoffs, or cutbacks in quality.* ***Technology*** *can increase productivity so that more shoes are produced with the same amount of input; technology might also mean that producers must invest in new equipment, a decision that would increase production costs; producers would have to decide if the possibility of future profits justifies current investment.* ***Changes in prices of inputs*** *can either increase or decrease production costs. If costs go up, higher prices or a reduction in work force might have to follow; if costs go down, producers will have to decide whether to pass the savings on to their customers or to invest the additional income in new equipment.*

"Converse's people come from very diverse backgrounds," says John Ambrose Hayes, "and from those backgrounds we can draw on their knowledge of different types of technology...not only in our industry but in industries like the automotive industry, aerospace, computer science, things like that. Our people's ability to utilize the technologies that are around us and to develop new technologies from that, I think, is Converse's comparative advantage in the industry."

TALK THIS OVER

If you create a new athletic shoe, you must think about how you will manufacture and sell it.

The screen asks:

> How would competition, technology, and changes in the prices of inputs affect that shoe?

Write your answer on the following lines or a separate sheet of paper. Then discuss the issue with the class.

For More...

You have examined the principle of comparative advantage, and you have seen that trade benefits both trading partners. Although most economists advocate free trade, some people oppose it. These people are called **protectionists**—they believe that limits ought to be placed on foreign-made goods and services that are imported into a country. They argue that free trade may be harmful in some ways, and they call for restrictions. The most common restrictions are tariffs and quotas.

Tariffs are taxes on imported goods. What do you think would happen to the price of automobiles in America if taxes were imposed on all foreign cars brought into this country? Some people argue that American cars would become less expensive than imports and that more people would buy American cars. But this is not necessarily true. With a tariff, the supply of imports and the total supply of autos would decrease, and the prices of all cars—imports and domestics—would increase.

Quotas also restrict free trade. Quotas restrict the quantity of goods that may be imported. When supply decreases, foreign and domestic cars become more expensive. Consumers pay more for automobiles.

Further Discussion

Ask students to read **For More...** on this page. Explain how tariffs and quotas, while intended to protect American industry and consumers from foreign imports, can have the effect of raising prices of domestic products as well as the foreign ones at which they are aimed. Encourage students to think about the effect on American car prices if tariffs are imposed on imports. Display current newspaper stories regarding trade policies, and invite the class to look through newsmagazines and to bring relevant articles to class to share with others.

Draw students' attention to the political cartoon. Ask them to analyze what the cartoonist is saying. *Students should respond in words to this effect: Tariffs, while seeming to force foreign producers to pay an additional cost, actually are passed on to American consumers in the form of higher prices.*

Economic Puzzle Challenge, Part 1

Before swiping the barcode, ask students to read the introductory paragraph to **Economic Puzzle Challenge, Part 1**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 1

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

How will Juan's company respond to increased price competition from a foreign import?

Assist students in analyzing each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Lower prices on its shoes.

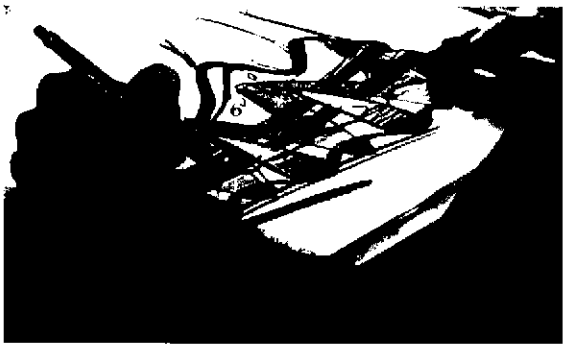
Analysis: Initially, Juan's company could lower prices, but to be profitable at this lower price, the firm must also cut costs. If cost cutting is not possible, the company may have to drop the unprofitable line of shoes.

B. Cut costs.

Analysis: This solution would work if Juan's company is willing to cut input costs by laying off workers, streamlining production techniques, investing in more efficient equipment, or moving its operations to a place where labor is cheaper; however, there is an opportunity cost to this decision: American workers would lose jobs.

Economic Puzzle Challenge, Part 1

Juan studied Computer Assisted Drawing (CAD) at a technical college, and now he designs athletic shoes. Besides creating new ideas for shoes, Juan has to be alert to what his competitors are doing. If they create a popular model, his shoes will have more competition. What can Juan's company do if a competitor sells shoes at a lower price? Should Juan's company lower its prices as well? How would that affect its profits? Maybe Juan could find a cheaper way to produce shoes. Would people still buy his shoes if they were not made quite so well? Juan's firm might even choose to discontinue a certain line of shoes, a strategy that would lower its production costs. What should be done? Think about these questions as you watch the video.



"Trade secrets are so closely guarded," Juan says, "that some athletic shoe manufacturers won't even show their upcoming models at trade shows because another company could rip off their design."

Decision Time

At the end of the first part of the Puzzle Challenge, the video asks you the following question.

> How will Juan's company respond to increased price competition from a foreign import?

Use the space provided below or a separate sheet of paper to mark your choice and to explain your answer. Then watch the video to see the results of your decision.

☐ A. Lower prices on its shoes.

_____

_____

_____

☐ B. Cut costs.

_____

_____

_____

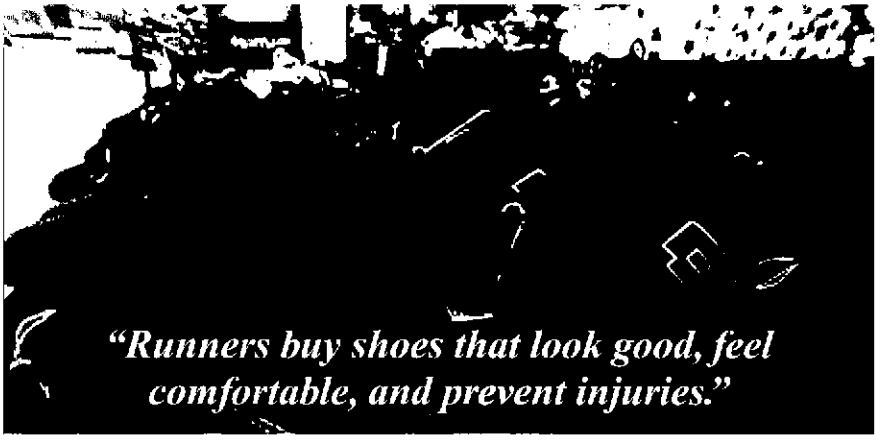
☐ C. Drop that line of shoes.

For More...

Would your answer change if you found out that Juan's company recently invested a million dollars in new equipment? Why would that make a difference? Discuss these questions with your classmates.

Economic Puzzle Challenge, Part 2

Runners buy shoes that look good, feel comfortable, and prevent injuries. Juan's company is hoping to attract serious athletes by offering a line of shoes that use a new kind of cushioning. The shoes are not yet in production; nevertheless, the company has been buying supplies and stockpiling them in its warehouses.



Juan knows that big shipments of leather have been arriving at the warehouse. Would the price of leather affect the company's decision to stock up? What does the firm's decision to store leather in a warehouse tell you about its inventory policy? Does the company use a just-in-time procedure for inventory, which means that materials arrive at the plant just before they will be used?

Decision Time

Now that you've seen this part of the video, you should be able to answer the preceding questions.

The video pauses on a screen that asks:

Why is Juan's firm stocking up on leather?

C. Drop that line of shoes.

Analysis: Juan's company could lower the price of its shoes to be competitive with the foreign producer. To maintain his company's profits, Juan might try to increase consumer demand in another line of shoes through expanded marketing. By dropping the unprofitable line, Juan's company would shift its productive resources to a line of shoes that people want to buy. Consumers would benefit by getting a high-quality shoe at a low price.

Further Discussion

Ask students to respond to the questions posed in **For More...** on this page. *Responses should be in words to this effect: If Juan's company just made a big investment in equipment, it might not be wise to lower prices; it may be forced to drop a line of shoes in order to reduce production costs.*

Economic Puzzle Challenge, Part 2

Before swiping the barcode, ask students to read the introductory paragraphs to **Economic Puzzle Challenge, Part 2**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 2

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Why is Juan's firm stocking up on leather?

Assist students in analyzing each of the possible responses. Then swipe barcodes (page 136) for the options you wish to view.

Discuss the three options with your classmates, and then mark the response you think is best. Write your answer in the space provided, or use a separate sheet of paper. Be prepared to defend your choice. Then watch the video for the results of your choice.

☐ A. For "Just in Time" inventory

_____

_____

_____

☐ B. Leather's price has risen.

_____

_____

_____

☐ C. Leather's price has fallen.

_____

_____

_____

A. For "Just in Time" inventory

Analysis: Juan's company probably does not use the just-in-time procedure. If it did, it would buy input materials only in the amounts needed for immediate use. Having a stock of leather on hand would increase costs; it would have to be stored and inventoried.

B. Leather's price has risen.

Analysis: If the price of leather has risen, it would mean that less leather is available. If that were the case, Juan's company would probably look for a substitute for leather; that way it would not incur increased production costs.

C. Leather's price has fallen.

Analysis: If the price of leather has fallen, it would most likely mean that there is a surplus of leather. The surplus may have been caused by increased supply and/or decreased demand. Whatever the cause, Juan's company must have calculated that the additional cost of storing the excess leather is less than the higher price it expects in the future.

For More...

Would Juan's managers have made a different decision if they had expected the price of leather to fall drastically within the next six months? How would this information have affected their actions? Read the following article for some insights that can help you answer these questions.

Baseball Card Brings Nearly Half a Million Bucks

John Peter "Honus" Wagner was an American professional baseball player whom historians of the game regard as the greatest shortstop ever. In three seasons (1897–99), Wagner achieved a .331 batting average. In 1900, he joined the Pittsburgh Pirates and led the league in doubles and triples and compiled a league-leading .381 batting average. Wagner led the league in stolen bases five times and ranks fifth in bases stolen (720) in a career. He holds NL records for hitting and for most triples. Wagner retired with a career batting average of .328, and when the Baseball Hall of Fame was established in 1936, he was one of the first five inductees.

—Mac Davis, *100 Greatest Baseball Heroes* (1974)

A Honus Wagner baseball card recently sold for the whopping price of $451,000. Its buyers were Wayne Gretzky, the

Further Discussion

Have students read **For More...** including the article about baseball cards. They should think of other scarce commodities that command high prices. Discuss the concept of scarcity (see page 137), and remind students that defining scarcity as "not enough" is not completely correct.

A good way to demonstrate this would be to display a plate of 15 small candy bars and a plate of 10 brussels sprouts. Ask which item is scarce. Students might respond that the brussels sprouts are scarce because there are fewer of them. Ask how

hockey star, and Bruce McNall, owner of the Los Angeles Kings hockey team.

Why did the Wagner card fetch such a high price? The answer lies in the economic concept of **scarcity**. Something is scarce if there is not enough of it for people to have as much as they want. Look at the baseball card as an example.

Fred Snodgrass played baseball around the same time as Honus Wagner. There were probably as many Fred Snodgrass cards printed as there were Honus Wagner cards. In fact, probably more Wagner cards were printed, because he was a better and more popular player. Why then, if there are fewer Snodgrass cards, are the Wagner cards more scarce?

Remember, there are two aspects to the economic definition of scarcity: (1) not enough (2) for people to have all they want. Because there are very few (if any) people who want Fred Snodgrass cards, there are more than enough for people to have all they want. On the other hand, there are many collectors who would love to add a Wagner card to their albums. There are not enough Wagner cards to satisfy everyone's wants; therefore, the Wagner cards have a higher price tag than the Snodgrass ones.

National Baseball Library and Archive, Cooperstown, New York

One Honus Wagner baseball card is today worth much more than the salary he earned for playing.

The astronomical value of a single baseball card is a great example of how **price reflects scarcity**. Because there are more buyers than sellers of Honus Wagner cards, the quantity demanded exceeds the quantity supplied. Whenever this situation occurs, a shortage exists. As price increases, a shortage is eliminated.

many students would like a candy bar and how many would prefer a brussels sprout? Because more students will undoubtedly choose the candy, it is more scarce. In fact, unless 10 students choose the brussels sprouts, they are not scarce at all, at least not in your classroom. Explain that in a market economy, price is a measure of scarcity. Usually, the more scarce an item is, the higher the price.

Economic Puzzle Challenge, Part 3

Before swiping the barcode, ask students to read the introductory paragraphs to **Economic Puzzle Challenge, Part 3**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 3

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

How will increased competition (more sellers) change the price of non-status shoes?

Assist students in analyzing each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Price will rise.

Analysis: As the number of sellers rises, the number of shoes available will also increase. This increased supply will tend to bring prices down.

B. Price will fall.

Analysis: As new sellers enter the market, the supply of shoes will rise. An increase in supply tends to bring prices down, provided there is not, at the same time, an equal increase in demand.

C. Price will remain the same.

Analysis: It is unlikely that, with an increase in the number of sellers, the price would remain the same. It is more likely that prices will fall.

Economic Puzzle Challenge, Part 3

Serious athletes don't buy shoes because of a high price tag or a clever logo. They look for quality and comfort. To them and others, a low price is an incentive to buy.

If Juan's competitors design a new shoe and enter the market with lower prices, Juan's company will have to adjust its prices as well. How will the firm deal with competition? Will it change the price of its shoes? Think about these questions, and then tackle the next part of the Puzzle Challenge.

Decision Time

When the video pauses, the screen asks you another question:

> How will increased competition (more sellers) change the price of non-status shoes?

Use the following lines or a separate sheet of paper to explain your choice, and then watch the video to see the results.

☐ A. Price will rise.

_____

_____

_____

☐ B. Price will fall.

_____

_____

_____

☐ C. Price will remain the same.

_____

_____

_____

According to Juan, only about 22 percent of athletic shoe buyers are what we call impressionables—people who buy shoes based on brand name and advertising. As you might guess, young people make up the biggest part of those impressionables.

Economic Puzzle Challenge, Part 4

Athletic shoes made in America are becoming highly popular in foreign markets. Maybe companies such as Juan's have used their technology to produce and export better shoes. Perhaps prices have come down because of better production methods. Or maybe physical fitness and sports are becoming more popular all over the world. Whatever the reason, Juan's company is preparing to export more shoes.

Decision Time

The video has paused to challenge you with this question:

> What will happen as Juan's firm exports more shoes?

Use the blank lines or a separate sheet of paper to respond to the question. Be sure to explain your answer. Then watch the video to see the results of the decision you make.

When firms make what consumers want at the lowest cost, they maximize profits. When a firm's sales are increasing, it will hire new employees or pay overtime, buy new machinery, and increase the number of resources used in the athletic shoe industry.

☐ A. The firm will hire more employees.

_____

_____

_____

☐ B. The firm will make more profit.

_____

_____

_____

☐ C. U.S. consumers will benefit.

_____

_____

_____

Economic Puzzle Challenge, Part 4

Before swiping the barcode, ask students to read the introductory paragraph to **Economic Puzzle Challenge, Part 4**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 4

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

What will happen as Juan's firm exports more shoes?

Ask students to examine carefully each of the possible responses, because every response appears reasonable. Encourage them to support their opinions with facts from news media.

A. The firm will hire more employees.

Analysis: As Juan's firm exports more shoes, profits rise. Firms respond to higher sales by expanding production, hiring employees, or investing in equipment.

B. The firm will make more profit.

Analysis: Firms wish to maximize profits. Consumers benefit because companies are producing what consumers want. The company can use its profits to expand, to hire new employees, and to reinvest.

C. U.S. consumers will benefit.

Analysis: When a company makes a profit, it can expand and reinvest. It also signifies that the company is producing a product that consumers want at a price they are willing to pay. This benefits buyers and keeps the economy healthy.

Economic Puzzle Challenge, Part 5

Before swiping the barcode, ask students to read the introductory paragraphs to **Economic Puzzle Challenge, Part 5**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 5

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

What does international exchange mean for you as a consumer, a worker, a business owner?

Give students time to brainstorm responses. Each student should then write his or her preferred answer.

Explain that international trade leads to increased competition. Competition encourages innovation and lower prices; however, increased foreign competition may result in unemployment for some American workers. Managers of firms, faced with foreign competition, must make decisions that maximize profits; this may include lowering prices, reducing production costs, laying off workers, or eliminating some product lines.

Side 3 Menu

Quit Instructions

Economic Puzzle Challenge, Part 5

The next time you buy a pair of athletic shoes, think of Juan's company and the decisions that had to be made. Company officials had to think about competition, technology, innovation, workers, and prices. Juan realized that competition can bring prices down and encourage new styles in athletic shoes.

Lower prices and better designs are good for you as a consumer. As you watch the final part of the Puzzle Challenge, think about shoe production in other countries. Also think about how trade affects the prices of shoes in the United States.

Competition encourages companies to be efficient and to produce at the lowest cost. It also sparks creative people to come up with new and better ideas for products.

Talk This Over

When the video pauses, the following question appears on the screen.

> What does international exchange mean for you as a consumer, a worker, a business owner?

Discuss this question with your classmates, and then write your response on these lines or on a separate sheet of paper.

PUT IT TOGETHER

Where Those Dollars Go

HAVE you ever wondered what foreign producers do with all the American dollars paid for Adidas or K-Swiss shoes? The answer is they convert them into their own currencies. In the long run, any purchase of foreign-made goods by Americans means the purchase of foreign currency. Here's how it works:

When you buy a pair of Japanese-made athletic shoes, you pay for them with American dollars. The store owner probably pays his or her supplier with dollars too. That supplier—or some other supplier down the line—must finally pay the Japanese manufacturer with yen. The exchange of goods and services among nations also means the exchange of currencies. Some currencies are more valuable than others because they are more in demand (just like the Honus Wagner baseball card). If a currency becomes less in demand, its price will decrease.

In 1995 political unrest in Mexico made investors nervous. They did not want to own pesos, and so demand for the peso decreased. Its price also decreased. The devalued peso made Mexican goods less expensive in the United States, but American-made goods became more costly in Mexico. The price of currencies can have important effects on world trade.

Earthquake!

The supply of goods can have a big effect on prices. Sometimes the effect travels halfway around the world—and shakes up a lot of people.

The worst earthquake to hit Japan in nearly 70 years caused death and destruction in the city of Kobe in January 1995. Kobe is a major food-processing and industrial region. The quake killed more than 5,000 people and injured tens of thousands more. At least 190,000 were left homeless, and many more saw their homes severely damaged. About 44,000 buildings were destroyed.

Kurt Stechlia/International Conference of Building Officials

The damage that Nagata Ward sustained during the Kobe earthquake increased dramatically as fires spread through this manufacturing area. The large amount of combustible material used to make shoes in this area fueled the fires caused by the quake.

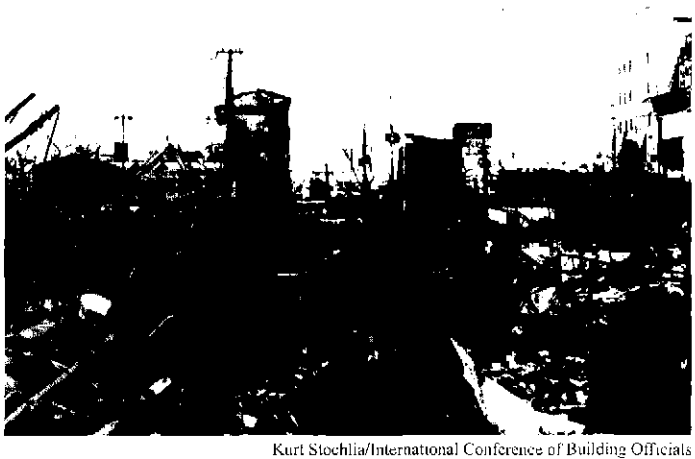
CLOSING

Three short readings appear in **Put It Together**. These pieces can be used to facilitate the generalization of material taught in this lesson. Encourage students to identify parallels between the readings and the video. You may wish to divide the class into groups and assign one reading to each group. Give the groups time to discuss the readings, and then have one member of each group present a brief oral report to the class. The report should include a synopsis of the reading and a summary of the discussion.

Invite students to read **Where Those Dollars Go**. Ask students who have traveled in foreign countries to share examples of how one currency is exchanged for another.

Invite a banker to class to answer questions about exchange rates; invite a foreign-born parent to class to relate stories of currency value fluctuations.

Ask students to read **Earthquake!** Explain that as price increases, producers will supply more. Then ask students to list the nonprice determinants of supply. (The determinants appear in boldface type in the last five paragraphs of the reading.) Discuss each determinant, and encourage students to suggest examples with which they are familiar. *Students might respond: Technology—robots in auto plants work faster than people, so supply increases; number of producers—as new video stores open in town, the supply of videos increases.*



Kurt Stochlia/International Conference of Building Officials

Shipping sites were demolished; communication lines were broken; and neighborhoods and businesses were without gas, electricity, and water for hours, sometimes even days.

Because of Kobe's critical role as a trading center (its port handles 12 percent of Japan's exports) the effects of the quake reached far beyond the area touched by the tremor. In what ways can a disaster on the other side of the globe affect people in the United States? How did the quake affect the quantity of goods that Kobe supplied to the rest of the world? How do you think supply and prices were affected by the Kobe quake?

An incident on one side of the globe can have serious consequences thousands of miles away. Factors in one country can cause supply to increase or decrease in another. Because many of Kobe's factories were damaged, they could no longer produce manufactured goods. When the **number of producers** is reduced, supply will decrease.

Computer networks and telephone communications were cut because of the powerful tremor, which reached 7.2 on the Richter scale. Without access to information, rescue teams had difficulty reaching people trapped in the rubble. Kobe's shattered **technology** resulted in a decreased supply of emergency services and rescue materials.

Port access was limited because of damage to coastal areas, and incoming raw materials had to be rerouted to other harbors. As shipping costs went up, even factories that had escaped damage faced higher **costs of production**. They reduced their supply, because it was too expensive to maintain a normal level.

In other parts of the world, suppliers of agricultural products predicted an increase in the amount of grain that would have to be shipped to Kobe's food-processing plants. Producers recognized that the market for their products would increase. This increase in consumer demand would result in higher prices. Suppliers in America, Europe, and other countries reacted to the **expectations of higher prices** and increased the supply of goods needed in Kobe.

Finally, in other parts of the world, producers responded to price signals and manufactured more of the things needed to rebuild Kobe. For example, as the price of electrical conduit increased, firms that produced tubing for patio furniture, a related output, began producing electrical conduit and decreased their production of furniture tubing. The supply of conduit increased as firms reponded to the higher **price of a related output**.

Beatles Invade the U.S.

In the 1960s, a group of four young men with a new look and a new sound sprang onto the rock music scene. Their shaggy hair and colorful harmonies had an impact that stretched around the world. They were the Beatles, and from London to New York to Tokyo their screaming fans lined up to purchase millions of 45-rpm records. Concerts were sold out, and crowds followed them wherever they went. Demand for their music zoomed.

In what ways can a phenomenon like Beatlemania affect the economy? How can the behavior of consumers in Liverpool, England, make a difference for producers in Los Angeles, California? Think of some ways that excitement about a musical group can affect the economy of many nations.

The popularity of the Beatles was really spectacular. Not since swooning girls had thrown themselves at young Elvis Presley had the pop music scene experienced such excitement. Barbers began to receive thousands of requests for Beatle haircuts. Because people's **tastes** had changed, the demand for the "mop top" increased.

When John Lennon, Paul McCartney, George Harrison, and Ringo Starr first performed in Germany and England, they sang in small coffee shops and clubs. By the time they burst on the American scene, their concerts filled baseball stadiums. The **number of consumers** who wanted to see them perform had grown; therefore, demand for concert tickets increased.

Archive Photos

With their imaginative songs, the Beatles helped give rock music a new direction in the 1960s. By the time the group broke up in 1971, its records had outsold those of any other popular music performers in history.

Going to a Beatles concert was similar to attending a rock concert today. Besides the music on stage, there were vendors selling souvenirs, food, and beverages. Often sellers might reduce the price of certain items in order to increase the

Have students read **Beatles Invade the U.S.** As they read the narrative about the Beatles, explain that consumer demand is affected by the nonprice determinants of demand described in the lesson. (The determinants appear in boldface type throughout the reading, and they are repeated in the final paragraph.) An increase in the number of consumers, for example, can increase the demand; expectations of lower prices in the future can decrease demand now. Students should be aware that prices of complementary and substitute goods can affect demand. Each has an opposite effect. Encourage students to brainstorm products and their complements or substitutes and to explain how demand for one good shifts as the price of the other changes.

demand for other things. For example, by lowering the price of hot pretzels, sellers hoped to increase the quantity of pretzels people would buy. Salty pretzels make people thirsty, so the demand for beverages rises. Pretzels and beverages are complementary goods. They are usually purchased together—one goes with the other. Usually when the price of one good goes down, the quantity demanded increases and the demand for its complement increases.

On the other hand, if sellers raise the price of pretzels at concerts, people might buy popcorn instead. Pretzels and popcorn are substitute goods—you often buy one instead of the other. If the price of one good goes up, the quantity demanded goes down, whereas the demand for its substitute goes up. In terms of economic demand, the **price of related goods** can have a significant effect.

Today wealthy collectors buy old Beatles records, buttons, lunch boxes, and dolls at auctions and pay many times the original price. The **income of consumers** can affect the demand for collectibles.

Finally, when Paul McCartney toured North America in the early 1990s, the demand for his things increased, and so did the prices. Collectors, however, wanted to buy the items before the tour, while prices were still low. Demand for McCartney guitars and clothing rose before the tour because people **expected future price increases**.

To sum it all up, a variety of forces can have an impact on the demand for goods, such as Beatles products. The most important forces are consumer taste, the number of consumers, prices of related goods (substitutes or complements), the income of consumers, and expectations of future price changes.

NET GAIN

SUMMARY

Have students read **Net Gain**. Review the six content statements, and encourage students to identify real-life examples for each statement.

WHAT have you learned about trade and competition in this lesson? If you think about the decisions that Juan's company faced, you should remember these points:

1. **Companies specialize and trade based upon comparative advantage.** Juan's company decided to export a new design of shoe for the serious athlete. The company enjoyed a comparative advantage because it had the advanced technology to produce this shoe. The products you buy will be better and less expensive when companies specialize and trade according to each one's comparative advantage.

2. **Free trade involves both benefits and costs.** When Juan's company faced increased competition from foreign imports, it lowered

Speaking of Competition, Again...

"We were fairly arrogant, until we realized the Japanese were selling quality products for what it cost us to make them."

—Paul A. Allaire, president, Xerox Corporation

"In business, the competition will bite you if you keep running; if you stand still, they will swallow you."

—William Knudsen, Jr., former chairman, Ford Motor Company

shoe prices. That is a benefit for you as a consumer—but if you work in a shoe factory, you might face the cost of losing your job if shoe production in this country falls.

3. **Foreign trade increases competition.** As imported shoes become more popular in this country, producers such as Juan's company must make decisions about how to compete. One decision the company made was to lower prices. As a buyer, you benefit from this kind of competition.

4. **Price changes can affect supply.** If Juan's company discovered that the best price it could get for its shoes was only $29 a pair, it might decide to stop producing that line of shoes. Moreover, manufacturers who were just entering the shoe business might decide to make some other product that would reward them better. This results in a more efficient use of resources, which benefits everyone, including you.

5. **Price is an indication of scarcity.** Juan's company began to stockpile leather because a surplus of leather existed and because the price was down. On the other hand, if there were a shortage of leather, the price would rise. You would pay more for shoes too!

6. **Exports help an economy grow.** Juan's firm used a new technology to design shoes and to export them. With more buyers, the company will have to manufacture more shoes. In order to produce them, the company may have to build a new factory and hire more workers—you could be one of them! New workers will have additional income to buy more consumer goods, and they might even be able to save some of their earnings. An economy grows when you buy and when you save.

EXTENSION

Have students read **Building on Success.** Assign pairs of students to prepare oral reports and posters in response to the questions in their guides. Encourage creativity in student presentations; some may choose to draw maps, graphs, charts, or diagrams to enhance their reports.

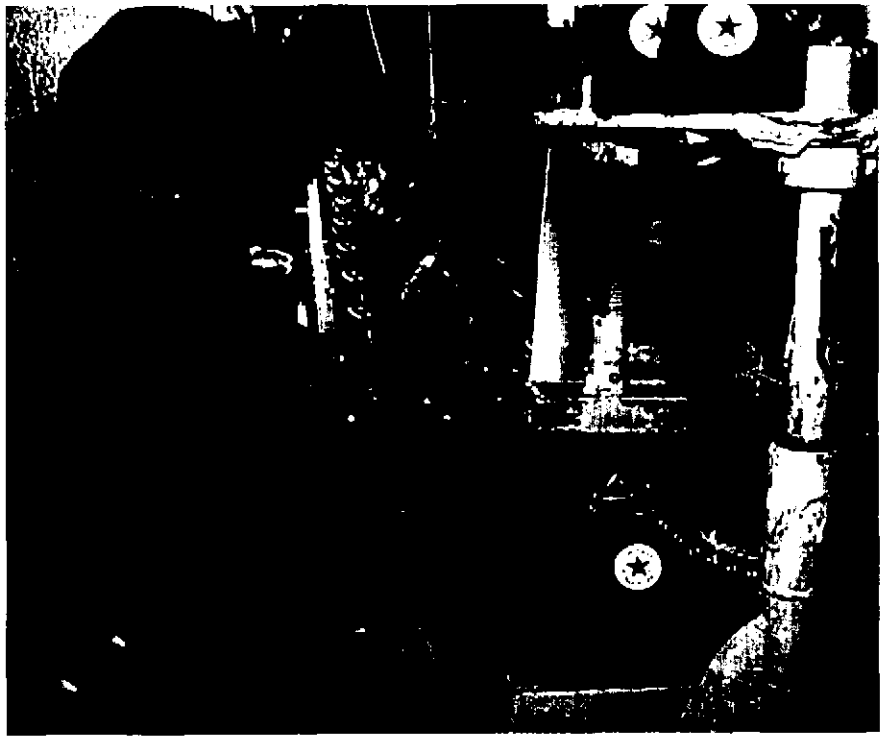
BUILDING ON SUCCESS

CHOOSE a partner whose career interests are similar to yours. List the "human capital" that the two of you would need to start up a business. For example, if you want to be landscape architects, you would need human capital in the form of math skills for measuring and estimating, physical strength for digging and planting, reading skills for understanding instructions and blueprints, communication skills for dealing with customers, and so on. Then list other resources you would need—shrubs, fertilizers, gravel, rocks, sod, bulldozers, etc.

Think of where those resources might originate. Because some must be imported from foreign countries, U.S. trade policy will be important to you. Do some research to find out who your most likely trading partners might be. What products that are produced in the United States would those countries need? Remember the principle of comparative advantage.

Prepare an oral report and a poster that answer these questions:

- What is your comparative advantage?
- What is your trading partner's comparative advantage?
- Why will trade benefit both of you?
- What factors might affect the supply of resources you need?
- What factors might affect the demand for resources you need?
- How will changes in supply and demand affect prices?



This woman is making Converse athletic shoes at a plant in Lumberton, North Carolina. Even in an age of high-tech equipment, employees are still among the most important resources in any business.

QUALITY CONTROL

On Your Own

Show that you understand the factors that determine supply and demand by analyzing the situations listed below. In the blank spaces provided or on a separate sheet of paper, identify the factor that is at work in each situation.

Example: A national report says in-line skate wheels are defective; as a result, people buy fewer in-line skates. Explanation: Demand for in-line skates decreased because of a change in people's taste.

1. Sugar prices rise; therefore, manufacturers produce less soda pop.

   Explanation: _____

   _____

   _____

2. New robots produce cars faster; therefore, manufacturers produce more cars.

   Explanation: _____

   _____

   _____

3. College students flock to Fort Myers Beach for spring break, and they buy more pizzas.

   Explanation: _____

   _____

   _____

4. Wages increase; therefore, people buy more new cars.

   Explanation: _____

   _____

   _____

5. More shoe stores open in the mall; therefore, more shoes are available.

   Explanation: _____

   _____

   _____

ASSESSMENT

Two types of assessment are provided for you to evaluate students' comprehension and mastery of the material presented in this lesson.

On Your Own

Some assessment questions appear in the *Student Guide* under the heading **On Your Own**. While these questions are intended to be used as a homework assignment, you may wish to have students complete some or all of them in class.

Before responding to these questions, students may benefit from a review of the nonprice determinants of supply and demand.

Answers:

1. *Supply of soda pop decreased because of increased production costs, and price increased.*
2. *Supply of autos increased because of new technology, and price decreased.*
3. *Demand for pizzas in Fort Myers Beach increased because the number of buyers increased, and price increased.*
4. *Demand for autos increased because incomes increased, and price increased.*
5. *Supply of shoes increased because of an increase in the number of stores, and price decreased.*

Assessment-Track Questions

Besides appearing in the *Student Guide*, the questions under the heading **In Class** are contained on a special assessment track of the videodisc for this module. Using the appropriate disc side, you can access each question by swiping its barcode. Each question is presented as a voice-over to part of a video program that students previously watched. The video will provide students with valuable cues, enabling them to generalize previously learned material to new situations.

Before responding to the assessment-track questions, students may benefit from a review of the earlier discussion of comparative advantage.

Assessment Question 1

1. *Comparative advantage stems from the ability to produce something at a lower opportunity cost than other producers face. For example, if the United States could conduct research and development or could acquire other inputs, such as canvas and leather, at a lower cost than other producers could, the U.S. would have a comparative advantage.*

Assessment Question 2

2. *An increase in foreign trade and competition means that U.S. firms must be innovative and must streamline production if they hope to compete effectively. This will require a high-quality work force. You will need the kinds of skills and training that will make you a more productive worker so that the firm that hires you can succeed in a challenging economic environment.*

In Class

These questions should be answered while you watch a special section of the videodisc that your teacher will play for you. Write your answers on the lines provided or on a separate sheet of paper.

1. What factors would give the United States a comparative advantage in producing and exporting tennis shoes?

2. Markets for all types of goods and services are becoming increasingly international. How does this increased foreign trade affect you and the firm that will hire you?

3. One result of increased foreign trade is price competition. Name another way that firms compete when faced with increased foreign competition.

Assessment Question 3

3. Firms also compete on the basis of quality. Increased competition, both foreign and domestic, drives firms to upgrade their products through innovation and improvement. For companies trying to compete successfully, this is a continuous process aimed at satisfying their customers' wants.

4. Many goods, such as tennis shoes, are made with leather. How is the price of leather related to the relative scarcity of leather?

Assessment Question 4

4. Relative prices indicate scarcities. If the price of leather has risen, this indicates that leather is now relatively more scarce than it was before the price went up. In fact, all relative price changes provide information about the relative scarcities of the products or services that are being sold.

5. More and more of a country's total commerce comes from foreign trade. The amount of trade among nations of the world is really "taking off." How do exports affect a nation's economic growth and stability?

Assessment Question 5

5. Exports are a vital component of economic activity. Exports create new opportunities in production and consumption for a country's people. Exports also create additional income-earning activities, which ultimately increase the country's standard of living.

Side 3
Graphical Database Barcodes

(Use "step still" function or barcodes below to advance within categories.)

Step Back

Step Forward

Elasticity

Role of Profits

Product Markets

Consumer Behavior Theory

Production Theory

Foreign Exchange Markets

Human Resource Market

Nonhuman Resource Market

Aggregate Supply & Demand

Loanable Funds Market

Side 3
Teacher-Track Barcodes

Economic Efficiency

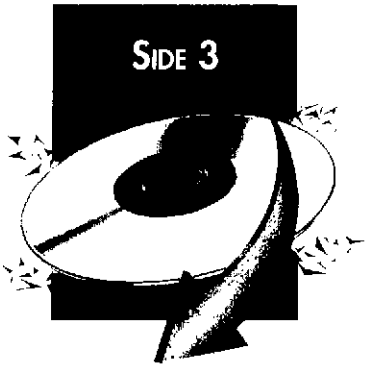
***History of Efficiency** (audio only)**

***An "Efficient" Activity** (audio only)**

*Swipe any other barcode to restore video.

ECONOMICS® at Work

Module 1, Lesson G



WHAT'S EFFICIENT?

ECON BRIEFING

So much to do! So little time! What with school, work, team practice, club meetings, and homework, it's hard to find time to have fun. So how do you handle your tough schedule? You allocate your time in the most efficient manner. In other words, you try to get the most out of the time you have available.

Think about time as a resource, and think about good grades in school or a good performance on the ball field as outputs. How much more will you learn if you study three hours instead of two? How much better does each hour of baseball practice make you? In other words, how much additional benefit do you get from additional hours of each activity? And what are your costs in devoting time to each activity? An additional hour of baseball might make you more productive on the field, but what are you giving up? You wouldn't want to sacrifice that "A" in economics!

Businesses apply the same allocative technique. It's referred to as **cost-benefit analysis**. They examine the various inputs that could be used to produce their output.

You might think there wouldn't be much flexibility in how something is produced. After all, if you're producing corn, you need seeds, soil, water, sunlight, and someone to plant and harvest it. Well, that's all you need if you're growing corn in your garden. But if you're planting 1,000 acres, you look at it a little differently. A thousand acres of corn—that's a lot of ground to plow and a lot of corn to pick. To get the crop in, you could use lots of machines and a few people or lots of people and a few machines. The method you choose depends on which resources will allow you the greatest output at the least cost.

WHAT YOU'LL LEARN IN THIS LESSON

- The application of new knowledge in the process of producing goods and services can increase productivity.

2 CLASS PERIODS

Materials

This lesson uses the videodisc (or videotape) program **What's Efficient?** To perform the activities, students may find recent issues of newspapers and newsmagazines helpful. Reference materials such as almanacs and encyclopedias, as well as computerized databases, may also prove useful.

INTRODUCTION

If a society is to operate at its most productive level, it must allocate its resources so that it acquires the greatest output per unit of input. In this lesson students study allocative efficiency in the areas of choice of output, production, and distribution. In general, allocative efficiency is an exercise in cost-benefit analysis directed at the three basic questions every society must answer: "What to produce?" "How to produce?" and "For whom to produce?"

GOALS

Students will be able to demonstrate their understanding that societies seek allocative efficiency in three areas: production, choice of output, and distribution. In the area of production, societies strive to use production techniques that produce the greatest amount of output per unit of input. Students will also be able to show

that for societies to allocate resources most efficiently they must take full advantage of the resources that occur most abundantly. In the area of choice of output, students will recognize their roles, as well as society's role, in determining what will be produced. In the area of distribution, students will understand that goods and services are distributed to those who value them most. Students will also recognize that although a society's productive capabilities are limited to the quantity of resources available, productivity can be increased by investing in capital resources, human capital, and new technologies.

Objectives

Upon completing this lesson, students will be able to:

- explain what factors determine allocative efficiency in an economy
- explain, using the concept of allocative efficiency, why the resource mix used to produce a good may vary from nation to nation
- explain why allocative efficiency may not be present in some markets
- Labor productivity can be increased by investing in capital resources (machines, tools, etc.), by investing in human capital (increasing the skills of workers through training and education), and by developing new technology.
- The quantity and quality of productive resources available in different nations vary widely.
- Allocative efficiency in production happens when societies use resources in the least costly ways.
- Allocative efficiency in choice of output occurs when societies allocate resources to produce the efficient amount of output.
- Allocative efficiency in distribution is achieved when output is distributed to those who value it most highly.
- Allocative efficiency can be fully achieved only in perfectly competitive markets.

Payback

You've been weighing costs and benefits all your life. Have you ever listed the pros and cons of some decision? When you and your friends were looking for something to do, did you ever argue in favor of doing one thing instead of another? If so, you were applying cost-benefit analysis. The better you are at analyzing the costs and benefits of different options, the better your decisions will be. The goal is to spend your time as productively as possible.

In the garment industry, allocative efficiency may mean investing in labor-saving technology or relying on human labor. It all depends on where the clothing manufacturer is located and which resources are available.

Why the emphasis on productivity? Unfortunately, your good looks and great personality will take you just so far. The more productive you are, the higher the rewards. Nowhere is this more true than where you are right now: in school. The harder you work, the higher your grades. And in the workplace, employers are quick to recognize the more productive employees. They're the ones most likely to get the raises and promotions.

As you are promoted through the ranks, each higher position will carry more responsibility. You'll handle it. As a manager, you'll be able to use what you learn in this lesson and apply cost-benefit analysis in directing resources to their most productive uses.

Econcepts

allocative efficiency in choice of output—determining the efficient amount of a particular output

allocative efficiency in distribution—directing output to those who value it most highly

allocative efficiency in production—using the least costly combination of inputs to produce a given level of output

capital resources—manufactured goods produced for the purpose of making other goods; capital resources include such things as buildings, tools, and machinery

human capital—the stock of knowledge and ability that people possess

input prices—the dollar value of resources

marginal benefit—the extra satisfaction associated with an additional unit of output

marginal cost—the extra (additional) cost of producing one more unit of output

marginal physical product—the additional output produced when one additional unit of a resource is employed

marginal revenue product—the change in the total revenue of the firm when it employs one additional unit of a resource

productivity—the amount of output produced for every input used

technology—new knowledge and processes

POWER UP

WHERE were your shoes produced? How about your shirt? Your TV? Chances are none of them was produced in the United States. That's not to say that companies in the U.S. do not or cannot produce these things. Each of these goods has been produced here at one time or another. But U.S. producers have chosen not to make shoes, shirts, or TVs at the high levels they once did because producing these goods has become too costly.

Every resource that is devoted to producing a pair of shoes, a shirt, or a TV set can't be used to produce something else. For instance,

LESSON DESCRIPTION

This lesson focuses on differences in how shirt manufacturers in the United States and China allocate resources to achieve efficiency. In a larger sense, the lesson explains the method by which societies seek to allocate scarce resources in a way that will produce the highest level of output possible. Students are asked to identify examples of allocative efficiency in production, choice of output, and distribution; they are also asked to analyze situations that interfere with allocative efficiency.

KEY TERMS

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

PREVIEW

Ask students to read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 151–152). Discuss the main topics, and brainstorm any questions that students have. You may want to put their questions on a chart or chalkboard and to display it throughout the lesson.

Ask students to volunteer their experiences in allocating their time among activities.

Introduce the **Econcepts**, and give contextual examples of each. Ask students to refer to them as needed during the lesson.

Have students read **Power Up**. Divide the class into three groups, and assign each group a different task, as described in the section.

perhaps Tom could either sew shoes or assemble a computer. At the end of an eight-hour shift, Tom could have produced 20 pairs of shoes or assembled one computer. Suppose the value of 20 pairs of shoes is $1,200 and the value of one computer is $2,400. It would take 40 pairs of shoes to equal the value of one computer—but it would take Tom twice as long to sew 40 pairs of shoes, which means the shoes would cost twice as much in labor as one computer.

U.S. producers would just as soon make computers and "trade" them for shoes produced elsewhere. By concentrating production on the least costly goods, they get the most out of their resources. This is the principle of **comparative advantage**, which you studied in the last lesson. Keep this principle in mind as you complete the following activity.

Possible responses:

Group 1—woven rugs, shoes, televisions, VCRs

Group 2—automobiles, rice, computer chips

Group 3—financial services, computers, computer software, wheat, corn

Your teacher will divide your class into three groups. If you are in Group 1, your task is to think of products that are manufactured primarily in another country and to develop a list of reasons why they are not made in the United States. If you are in Group 2, think of products that are made both in another country and in the U.S., and develop a list of reasons why those products are produced in both countries. If you are in Group 3, think of products made primarily in the U.S., and list the reasons why it is more efficient to produce them domestically.

Take a few minutes to compile your list, and then select one member of your group to report to the class. Consider what other groups report, and challenge any products you feel are on the wrong list.

It takes a variety of skills to produce everything people want, and skills vary from worker to worker, just as other resources differ from one another.

VIDEO CORE

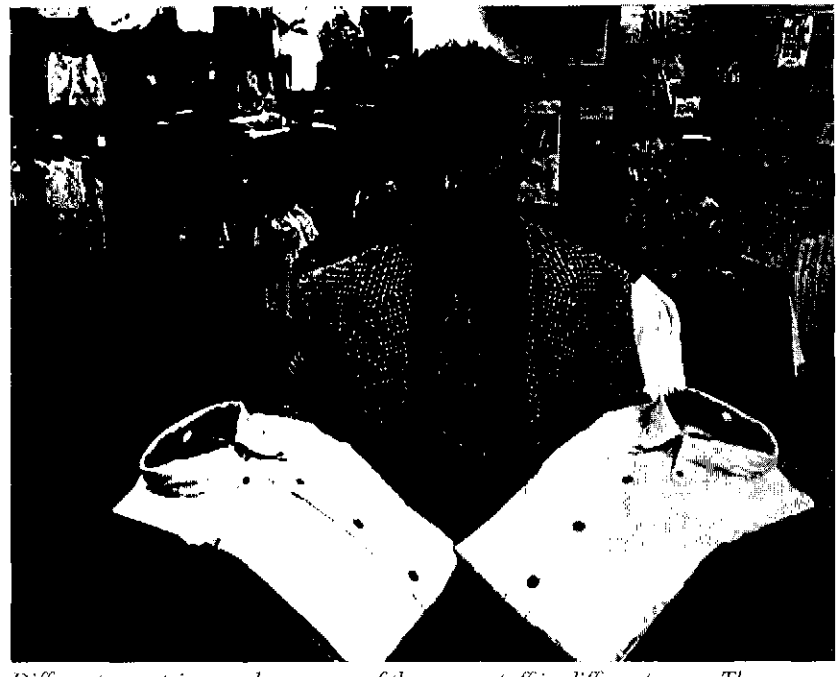
Have students read the four paragraphs that introduce **Take a Closer Look**. Clarify any points that they do not understand.

TAKE A CLOSER LOOK

"THEN one day he was shootin' at some food, and out from the ground came a-bubblin' crude." Lucky Jed! He got to move to Beverly Hills. You could probably dig in your backyard for the next 50 years and not strike oil—or anything else of great value. Resources are scarce. Take natural resources, for example. You can't simply rely on luck to find them. Geological studies are very sophisticated these days, and scientists think they know where valuable resources such as oil or coal may be located. Unlike the Beverly Hillbillies,

most people don't strike it rich. The world has only so many resources—a fixed supply—and because what is produced depends on resources, companies produce the goods that use the resources their countries possess.

Okay, there's a fixed supply of natural resources.... But what about human resources—workers? How can workers be scarce when more people are born every day and the population keeps growing? It might sound strange, but human resources **are** scarce. It takes a variety of skills to produce everything people want, and skills vary from worker to worker, just as other resources differ from one another. For example, oil and water are both natural resources, but don't try to substitute water for oil in your furnace—you'll be a little chilly this winter. Just as oil and water have different properties and uses, people have different talents and abilities. Mary the pilot and Sue the reservationist may work for the same airline, but if Mary gets sick, it wouldn't be too smart to have Sue fly the plane.



Different countries produce some of the same stuff in different ways. These shirts may look alike, but the one from China was made using lots of relatively cheap labor. The one from the U.S. was made using labor-saving technology.

Capital resources are also scarce. A building devoted to producing airplanes can't be used to produce cars. And the truck that brings milk to your house is not equipped to deliver dry cleaning.

Although all resources are scarce, some are more scarce than others, depending on the location. Some countries have vast areas that can be farmed, whereas other countries are located on rocky islands. Some countries have huge populations; others have relatively few people. Producers will gain the greatest output at the least cost by taking advantage of their countries' most abundant resources.

What You'll See on the Screen

How efficient are you? You probably put your shoes on after your jeans. You scoop the ice cream into the dish before you squirt on the whipped cream. You outline your thoughts before writing an essay. Maybe you don't give it a lot of thought, but you constantly try to minimize effort and avoid wasting time. That's what "efficiency" is all about—acting or producing effectively, with a minimum of effort and waste.

Introduction to the Video

Ask students to read **What You'll See on the Screen**. The documentary segment of the video presents a discussion of how societies allocate scarce resources. Societies seek to maximize output by applying the concepts of allocative efficiency in choice of output, production, and distribution. Allocative efficiency in choice of output addresses the question "What to produce?" Allocative efficiency in production addresses the question "How to produce?" Allocative efficiency in distribution addresses the question "For whom to produce?"

In the opening segment of "What's Efficient?" you'll examine how societies allocate resources in the most efficient manner. Societies, particularly the businesses and individuals within them, seek efficiency. To avoid wasting resources and effort, they look for the least costly method of production and they allocate resources in the least costly ways.

In the Economic Puzzle Challenge sequence, you will analyze particular cases in which workers and companies must allocate their resources efficiently.

Healthy Outlook Predicted for U.S. Medical-Device Firms

From 1980 to 1990, the medical-device industry blossomed into one of America's strongest sectors. In 1980, U.S. manufacturers produced $11.7 billion of equipment. By 1990, output had more than doubled to $29 billion. Even more impressively, U.S. medical exports increased more than 300 percent, from $1.7 billion to $5.8 billion between 1980 and 1990. In the 1990s, the world demand for medical devices is expected to grow dramatically, especially in Europe and eastern Asia.

Forty-nine percent of the world's medical devices are supplied by the U.S., 29 percent by Western Europe, and 17 percent by Japan. Surgical and medical instruments and invitro diagnostic products are the fastest-growing product groups in the medical-device industry. The U.S. is the world's largest net exporter of medical devices, with a $4.1 billion trade surplus in 1992. America captured 43 percent of the European market and has increased its share in the Japanese import market to 59.4 percent in 1992. Japanese exports to the U.S. since 1990 have been flat, whereas imports from the U.S. are up almost 50 percent.

—Adapted from Daniel Drexler, "A Healthy Outlook in World Markets for Medical Technology," *Global Connection* (March 1995); Indiana Department of Commerce–International Trade Division

Video-based Activities

Have students read the introductory paragraph of **Talk This Over**. Then start the videodisc (Side 3), and swipe this barcode to play:

What's Efficient?
(introductory segment)

Talk This Over

China is a good example of a country that has relatively abundant human resources compared with its capital resources. Other "developing" countries—those in the process of becoming industrialized—are also likely to have labor as an abundant resource. The availability of a large labor force has two effects: (1) A large labor force will determine **which** products will be made; (2) A large labor force will determine **how** products will be made. Although shirts are being produced in both the U.S. and China, textiles are a major industry in China, whereas the textile industry in the U.S. has greatly diminished over the years. Furthermore, while China uses relatively little capital but many people, the U.S. employs more capital but far fewer people.

The video will pause to ask you this question:

> What countries have labor resources that are relatively abundant and therefore less expensive?

Use an almanac, encyclopedia, or other reference works to help you respond. Write your answer below or on another sheet of paper, and then discuss your ideas with the other students in your class.

Another question appears on the screen:

> What countries have capital resources that are relatively abundant and therefore less expensive?

Use the same reference works to respond. As usual, write your answer on the lines provided or on your other sheet of paper.

For More...

Have you ever heard the saying "You can't make a silk purse out of a sow's ear"? Societies that have an abundance of pigs but few silkworms don't belong in the silk-purse business. The point is that the products that a society produces are based on the resources available within that society.

Make a list of products that are likely to be produced in societies where labor is the most abundant resource. Write your list on the following lines or a separate sheet of paper. Then discuss your ideas with the class.

Talk This Over

The productivity of people—human resources—can vary widely from nation to nation. Societies that devote their resources to educating and training their people will develop a more highly skilled and productive labor force. A highly educated labor force is likely to

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

What countries have labor resources that are relatively abundant and therefore less expensive?

Have students respond in writing. After they complete their answers, encourage whole-class discussion.

Responses should name developing nations, such as Mexico, China, and India.

Swipe the next barcode for another question (which also appears in the *Student Guide*):

What countries have capital resources that are relatively abundant and therefore less expensive?

Again have students respond in writing. When all have finished, encourage discussion.

Responses should name industrialized nations, such as the United States, Canada, Japan, and Germany.

Further Discussion

Ask students to read **For More...** on this page and to complete the activity presented in the section.

Video-based Activities, continued

Have students read the opening paragraphs of the second **Talk This Over** section. Then swipe the next barcode to generate the following question (which also appears in the *Student Guide*).

How does the relative scarcity of inputs affect the way output is produced?

develop new technologies that will increase production. Think about the new technologies that have been developed in recent history: personal computers, extremely sophisticated software, lasers, fiber optics, nuclear power plants—the knowledge behind all this technology has increased productivity and has stimulated economic growth.

As societies add capital resources to the mix, productivity increases even more, because people can use the tools that help them work faster and better. It takes careful planning to develop capital resources—they don't just happen. You might say that developing countries have an abundance of labor, whereas industrialized countries have an abundance of capital. That would be true. But you could certainly find two countries with the same population density, yet one is developing and the other is already industrialized. It is not because they are industrialized that industrialized countries have an abundance of capital. Every country was once a developing country; however, those countries that are now industrialized reached that stage because they invested in capital. Investing in capital leads to industrialization, and this leads to economic growth.

When the video pauses, the screen challenges you with this question:

> How does the relative scarcity of inputs affect the way output is produced?

Respond on the lines below or on another sheet of paper, and discuss your ideas with your classmates.

Encourage students to respond in writing. When they are finished, encourage whole-class discussion.

They should respond along these lines: The more abundant the resource, the less expensive it is. Societies seek to use their scarce resources in the most efficient manner. This involves taking advantage of the most abundant, least costly resources. If labor is less costly, society will employ labor-intensive production techniques. If capital is less costly, society will employ capital-intensive production techniques.

For More...

The populations of Pakistan and Japan are nearly the same: Approximately 125 million people live in each country. If both nations have a high number of labor resources, you might expect firms in both places to engage mainly in production that requires relatively inexpensive human resources.

Pakistan is a developing nation. Its chief industries are textiles and food processing—the typical labor-intensive production of developing nations. But Japan's chief industries are electrical and electronic equipment, autos, and machinery—the typical capital-intensive production of industrialized nations. How can these striking differences be explained?

Further Discussion

Have students read **For More...** on this page. You may wish to encourage students to consult news and reference materials and to explain why Japanese and Pakistani production techniques differ.

On the following lines or on a separate piece of paper, explain why Japanese firms produce goods that require capital-intensive production techniques, whereas Pakistani firms produce labor-intensive goods. Be prepared to share your ideas with your classmates.

They may respond: Japan has been politically stable in recent history, whereas Pakistan has experienced civil strife and a war of independence. Political stability leads to a more efficient allocation of resources toward consumer and capital goods. Japan devotes more resources to the development of human capital through education and training—investment in human capital increases productivity. An educated population is more likely to develop the technological advances that lead to higher productivity.

Quality Apparel uses the latest technology to produce shirts in the United States.

Economic Puzzle Challenge, Part 1

According to economist J. Maurice Clark, "Economic efficiency consists of making things that are worth more than they cost." This sums up the goal in allocating resources. As you will see in the video, Mariano, Xiang Chen, and Ben are trying to determine the most efficient combination of ways to use resources in a Chinese factory and an American factory. Mariano doesn't have a clue, but Xiang Chen and Ben recognize that it is most efficient to use the least costly resource—the resource that produces the most output at the least expense.

Decision Time

The video challenges you with another question:

> How should the U.S. or Chinese manufacturers change their allocations to achieve higher allocative efficiency?

Economic Puzzle Challenge, Part 1

Before swiping the barcode, ask students to read the paragraph introducing **Economic Puzzle Challenge, Part 1**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 1

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

How should the U.S. or Chinese manufacturers change their allocations to achieve higher allocative efficiency?

Assist students in analyzing each of the possible responses. Then swipe barcodes (page 160) for the options you wish to view.

Use the lines below or a separate sheet of paper to mark your choice and to explain your answer. Then watch the video to see the result of your decision.

☐ A. Chinese—use more labor

_____

_____

_____

☐ B. U.S.—use more capital inputs and fewer labor inputs

_____

_____

_____

☐ C. Chinese—use more capital inputs and fewer labor inputs

_____

_____

_____

In China we have plenty of people, so the wage rate is about $3 per hour. To produce at the lowest cost, we use more labor in the production of shirts.

For More...

Nervously Sue walked up to the clerk and asked, "May I fill out a job application?"

"Sorry," the clerk said. "We're not hiring right now."

Tough break. Sue had been looking for work all week, but she always got the same reply.

She walked out feeling rejected. "Why won't anyone hire me?" she said under her breath.

Sue shouldn't take it so personally. The clerk can't tell by looking at her whether she'd be a productive worker or not. Business owners base their hiring decisions on two factors: how much revenue new workers will generate for the firms and how much those new workers will cost the firms in wages.

A. Chinese—use more labor

Analysis: The Chinese plant produces 1.66 shirts per $1 spent on capital and 2.33 shirts per $1 spent on labor. If $1 spent on capital resources were diverted to labor resources, the Chinese plant would lose 1.66 shirts produced with capital resources but would gain 2.33 shirts produced with labor resources. The net gain would be 0.67 shirts. This is the correct option.

B. U.S.—use more capital inputs and fewer labor inputs

Analysis: The U.S. plant produces two shirts per $1 spent on capital and two shirts per $1 spent on labor. If $1 spent on capital resources were shifted to labor resources, the net production would be the same as before the shift. The U.S. plant is allocating resources efficiently.

C. Chinese—use more capital inputs and fewer labor inputs

Analysis: The Chinese plant would be less efficient by employing more capital resources relative to labor resources. See analysis A.

Further Discussion

Ask students to read **For More...** on this page. This section introduces the concept of marginalism. Ensure that students understand the concept. Clarify points they do not understand, and answer any questions they raise.

These two factors can be expressed in more precise economic terms: (1) the change in the total revenue of the firm when it employs one additional unit of a resource (in this case, labor); (2) the change in total resource cost (again in this case, labor) when an additional unit of resource is employed. This means that a firm will compare the **marginal revenue product** (MRP) – the market price of the output—with the **marginal resource cost** (MRC), which in this case is how much the firm is paying the employee. If the increase in revenue exceeds the increase in cost, the firm will hire another worker. It's another type of cost-benefit analysis.

Economists measure the **marginal benefit** of an activity against the **marginal cost** of that activity. Measuring something marginally simply means to measure incremental or step-by-step increases or decreases.

Economic Puzzle Challenge, Part 2

When Gina Logan graduated, she knew exactly how she wanted to spend her gift money. She walked into the electronics store with a sense of purpose and headed straight for the stereos. She carefully examined every system. They all had similar features, but one was tagged "Made in the USA." For Gina, this was a real selling point. Whether you prefer to buy goods manufactured domestically or you really don't care where they're made, one thing is certain—you can't tell where something was produced just by looking at it.

Economic Puzzle Challenge, Part 2

Have students read the two paragraphs that introduce **Economic Puzzle Challenge, Part 2**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 2

"It's all about using what you have efficiently. If you have abundant natural resources, you use them. If you have plentiful and low-cost labor, you use that."

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Which efficiency concept best explains why the resource mix used to produce similar goods will vary from nation to nation?

Assist students in analyzing each of the possible responses, and then swipe barcodes for the options you wish to view.

A. Allocative efficiency in distribution

Analysis: Allocative efficiency in distribution answers the question "Who gets what?" The price set in a competitive market equates the quantity demanded to the quantity supplied and allocates a fixed amount of a good. At this equilibrium price there is an efficient allocation among potential users—the good is distributed to those who value it most highly. This option does not provide a satisfactory answer to the question.

B. Allocative efficiency in production

Analysis: Production efficiency is achieved if a given level of output is produced using the least costly combination of inputs. The least costly resources will be those that are most abundant. Countries with an abundance of human resources will find labor-intensive production techniques less costly. Countries with an abundance of capital resources will find capital-intensive production techniques less costly. This concept best answers the question. (This option will play directly into **Economic Puzzle Challenge, Part 3**.)

C. Allocative efficiency in choice of output

Analysis: This efficiency concept answers the question "What to produce?" In a

In the video, Mariano, Xiang Chen, and Ben all agree that the shirt produced by Quality Apparel and the one that Xiang Chen is wearing are pretty much the same, even though they were made in different countries. Whether the shirt was produced using labor-intensive or capital-intensive production techniques, the end result was the same. That's all the more reason to use the least costly resources.

Decision Time

When the video pauses, the following question appears on the screen.

> Which efficiency concept best explains why the resource mix used to produce similar goods will vary from nation to nation?

Discuss the three possible responses, and mark which one you think is best. Write your explanation on the lines below or on another piece of paper. When you have finished writing, watch the video to see the consequences of your decision.

☐ A. Allocative efficiency in distribution

_____

_____

_____

☐ B. Allocative efficiency in production

_____

_____

_____

☐ C. Allocative efficiency in choice of output

_____

_____

_____

"My capital belongs to me—it's my head, and I would never be stupid enough to let someone cut it off."

—Bernard Tapie, French industrialist

For More...

Every society must answer three basic questions: "Do you want original or deep dish?" "What toppings would you like?" "Is this for carryout or delivery?" Okay, these are important questions, but actually the larger questions for society are: "What to produce?" "How to produce?" and "For whom to produce?"

What to produce? involves the concept of allocative efficiency in choice of output—what to make. It is answered by the consumer's demand for goods and services. Resources will be allocated to the goods that consumers want most. Those products in greatest demand will get the greatest proportion of the resources needed in their production. For instance, there are lots of products made from tomatoes. Two of those products are pizza sauce and stewed tomatoes. Every time you order a pizza, you indicate to society that you want tomatoes devoted to pizza sauce production rather than stewed tomatoes.

Allocative efficiency in choice of output considers individual or collective preferences and determines the composition of an economy's output.

How to produce? involves the concept of allocative efficiency in production. This question involves using the least costly method of production. If human resources are relatively abundant, companies will use more workers and less capital to produce goods and services. If human resources are relatively scarce, companies will acquire more capital resources for production. For example, pizza stores usually employ unskilled workers. Teenagers are new to the work force and have not acquired work-related skills and experience—but many of them are eager to get jobs. A machine could knead the dough, roll it out, spread tomato sauce, and sprinkle cheese; however, allocating the resources necessary to build such a machine would be expensive compared with the cost of having a worker do these tasks.

For whom to produce? involves the concept of allocative efficiency in distribution. In a market economy, those who are willing to pay the price get the goods they want. It all depends on how people prioritize their wants. Here's an example:

> Bev and Rickie stopped at Pizza Plus after a movie. They each had $7, the exact amount needed for a one-topping pizza and a large soft drink. Bev ordered black olives on her pizza, and Rickie ordered onions. Rickie was willing to give up a black olive pizza for one with onions, and Bev was willing to give up onions for black olives. They were both able and willing to pay the price for what they wanted most.

market economy the goods and services that are valued most highly will be allocated the greatest proportion of resources necessary in their production. This option does not answer the question.

Further Discussion

Encourage students to read **For More...** on this page. This section further explains the concepts of allocative efficiency in choice of output, production, and distribution.

Economic Puzzle Challenge, Part 3

Option B of **Economic Puzzle Challenge, Part 2** played through the introduction to **Part 3**. If you wish to review the introductory part of the video, swipe the following barcode:

Economic Puzzle Challenge, Part 3

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

How likely is it for allocative efficiency in production, choice of output, and distribution to be achieved in the real world?

Ask students to read **Decision Time**, and then assist them in analyzing each of the possible responses. Swipe barcodes for the options you wish to view.

A. Very likely. Most markets are perfectly competitive.

Analysis: Allocative efficiency can be achieved only in a perfectly competitive environment. In fact, there are few examples of perfect competition in the U.S. economy. Perfect competition exists in markets where there are many buyers and sellers, a homogeneous product, and freedom to enter the market. If there are many buyers and sellers, no one buyer or seller can effect a change in the demand for or the supply of the product. If the product is homogeneous, there is no reason to prefer one producer's output over another's. A perfectly competitive market can exist only if those who wish to enter the market are not subject to barriers to entry.

Economic Puzzle Challenge, Part 3

Decision Time

Apparently Mariano knows more than he's letting on. By using the lowest-cost resources, societies can produce more goods and services. In the case of the Chinese shirt factory, releasing some amount of capital in favor of using the lower-cost labor resources will free up capital resources for other types of production. This all sounds logical, but will it work?

The video has another question for you:

> How likely is it for allocative efficiency in production, choice of output, and distribution to be achieved in the real world?

Write your answer below or on a separate sheet of paper. Then watch the video to see what happens.

☐ A. Very likely. Most markets are perfectly competitive.

"Absolute allocative efficiency may not exist, but it can be used as a kind of standard for measuring market performance—a benchmark, just like me!"

☐ B. It [allocative efficiency] is rare but still a useful goal.

☐ C. It [allocative efficiency] can never happen; therefore, it is not useful.

Allocative efficiency is achieved when resources—labor, capital, or technology—are allocated to uses where they're most highly valued.

For More...

How would you describe perfect competition? Think about a prizefight or a chess game in which the opponents are so well-matched that no one feels sure who will win. The boxers' or chess players' skills are homogeneous—that is, they are very much the same.

A market that is perfectly competitive contains many sellers who have products that are very much alike and many buyers who are interested in the products. There aren't many products like this. Even things that seem similar, such as brands of orange juice, toilet paper, or aspirin, are advertised in ways that emphasize their differences. About the best example of perfect competition comes from the farm. String beans, for example, are all pretty much alike, and buyers generally don't care which farm produced them.

Talk This Over

The video program ends with a final on-screen challenge:

> Think of a consumer good or service. How does that good or service meet the efficiency conditions of what, how much (or how many), and for whom?

B. It [allocative efficiency] is rare but still a useful goal.

Analysis: Although perfect competition is rare, the concept of allocative efficiency is nevertheless instructive. Societies may not be able to achieve perfect efficiency, but they can certainly increase their levels of efficiency by allocating resources in the most efficient manner possible. This is the best option in response to the question. (This option will play directly into a screen containing a final discussion question in **Talk This Over**.)

C. It [allocative efficiency] can never happen; therefore, it is not useful.

Analysis: In fact, a certain level of efficiency is achieved. Although there can never be perfect allocative efficiency, any move toward allocating resources in the least costly manner conserves resources and increases productivity. This is not the best answer to the question.

Further Discussion

Ask students to read **For More...** on this page. The section offers a brief explanation of perfect competition.

Video-based Questions

Option B of **Economic Puzzle Challenge, Part 3** played directly to the following discussion question (which also appears in the *Student Guide*).

Think of a consumer good or service. How does that good or service meet the efficiency conditions of what, how much (or how many), and for whom?

Assign students to groups, and allow time for group discussion. Encourage the groups to share their ideas as a class.

Side 3 Menu

Quit Instructions

Discuss this question with the members of the group that you formed at the beginning of this lesson. Then jot down the group's ideas, and share them with the rest of the class.

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_____

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_____

CLOSING

Have students read **Put It Together** as far as the calculation problem on page 168.

PUT IT TOGETHER

You've learned that when a firm measures the cost of production, it measures it in terms of marginal changes. To see why this is important to a firm, take a look at the case of Tough Totes, Inc.

Tough Totes, Inc.

Tina Thompson, the founder of Tough Totes, set up her factory with three workstations. The first station was for cutting—she put a pair of scissors on the table. At the second station she installed a sewing machine. The third station was for packaging. But she had no workers, and so at this point the output produced—**total product** (TP)—was zero.

Tina hired Tony, who worked very hard running from station to station. At the end of the day, the TP was 10 tote bags. The incremental increase in the number of tote bags produced—**marginal physical product** (MPP)—that could be attributed to Tony was 10. Ted started work the next day. Tony cut while Ted sewed, and Tony sewed while Ted packed. There was much less running around, and TP increased to 25. The MPP attributed to Ted was 15. When Tony was the only worker, the MPP was 10. Does this mean that Tony was lazy? No, it simply means that two workers could work more efficiently than one.

> ***"Obviously, the highest type of efficiency is that which can utilize existing material to the best advantage."***
>
> **—Jawaharlal Nehru, prime minister of India**

When Tom joined the crew, every worker had his own station. They stayed put, not wasting time running around. They became very proficient at their jobs, because each of them performed only one task. TP increased to 50, and the MPP attributed to Tom, the third worker, was 25.

If each of the workers earned the same wage ($50 per day), what happened to the cost of each bag as more workers were hired? The MPP of the first worker was 10, and he was paid $50; at that point, the labor cost per bag was $5. When Ted came aboard, MPP increased to 15, but he was paid $50 also; for this worker, the labor cost per bag dropped.

It might look as though Tina should keep hiring workers to reduce costs. Eventually, however, MPP would have started to decline, and costs would have increased. Suppose Tina hired a fourth worker. Where would he work? There are only three stations. Things would definitely get crowded.

Before long, the cost of hiring another worker would exceed the revenue the company would receive from his MPP. Tough Totes couldn't keep increasing MPP by adding workers because the firm has a fixed number of workstations and other equipment.

Tina had it all figured out: Three workers were just right. But then something unexpected happened. Tina picked up the mail and found stacks of orders from her retailers! Apparently lots of guys were having trouble carrying their wallets, combs, keys, beepers, cellular phones, and all that extra stuff that their girlfriends couldn't fit into their purses.

Guys had run out of pockets, and the demand for Tina's tote bags had gone through the roof!

Tina watches her costs carefully. Remember, after she hired the first worker, production went from zero to 10 bags, and the MPP associated with the first worker was 10. When she hired the second worker, TP increased to 25, and the MPP associated with that employee was 15. When she hired the third worker, TP jumped to 50, and the MPP associated with the third worker was 25.

These TP and MPP figures are shown in the table on the following page.

The MPP Spin on Making Pins

More than 200 years ago, the Scottish economist Adam Smith realized how dividing tasks among workers could increase the marginal physical product output. In the pin-making business, productivity and output soared, Smith noted, when the process was divided into a number of specific trades: "One man draws out the wire, another [straightens] it, a third cuts it, a fourth points it, a fifth grinds at the top for receiving the head...it is even a trade by itself to put them into the paper."

In this way, making pins was divided into about 18 different steps that could be performed by 18 workers. As Smith put it:

> I have seen a small manufactory of this kind where 10 men only were employed, and where...each person [averaged] 4,800 pins a day. But if they had all wrought separately and independently...they certainly could not each of them make 20, perhaps not one pin in a day.

Worker	TP	MPP
0	0	
1	10	10
2	25	15
3	50	25

Every time a worker was hired, the cost of producing the bags went down. Do you see why? Every worker made $50 per day. But an increasing amount of output was produced every time a worker was hired. The first worker's MPP was 10. If you divide his wages ($50) by his MPP (10), you find the cost per bag is $5.

Use the following space or a separate sheet of paper to calculate the labor cost per bag as each worker was hired. (Don't forget that each worker earns $50 per day.)

The cost per bag after hiring the second worker is ***$3.33*** *($50 ÷ 15 = $3.33).*

The cost per bag after hiring the third worker is $2 ($50 ÷ 25 = $2).

Ask students to continue reading as far as the questions.

Tina hired a fourth worker, but the factory got crowded and, although TP increased to 60, the MPP decreased to 10. That meant the cost of making a bag was $5 again. Because Tina sells the bags for $6 each, this output was also profitable, but the factory still wasn't keeping up with demand.

Tina hired a whole second shift...and then a third. They were finally keeping up with the orders, and the cost per bag was only $2. Tina was sitting behind her desk daydreaming about what she would do with her sudden wealth, when the phone rang. The Regal Discount chain wanted to place an order for each of its 300 stores.

Now Tina has to make a choice. She can hire an additional worker, but she knows what will happen to MPP from past experience. She suspects that MPP will decrease to 10 and the cost per bag will rise to $5. She just read about the latest models in cutting, sewing, and packaging workstations, and she figures it would cost $40 per unit of capital to produce 10 extra units of output (10 bags).

"There are only two qualities in the world: efficiency and inefficiency; and only two sorts of people: the efficient and the inefficient."

—George Bernard Shaw, English dramatist

What should Tina do?

Think about this question, and then select one of the following options. Write your explanation on the lines provided or on a separate piece of paper.

☐ A. Tough Totes should use more capital and less labor.

☐ B. Tough Totes should use more labor and less capital.

☐ C. Tough Totes should refuse Regal's order.

Now, think about allocative efficiency in production, choice of production, and distribution, and answer the following questions on the lines provided or on another piece of paper.

- Remember that allocative efficiency in production refers to the question "How to produce?" How will Tough Totes alter its production, and why?

- Allocative efficiency in choice of production refers to the question "What to produce?" How is this question being addressed in the example of Tough Totes?

For the first question, encourage students to choose an option and to explain their answers.

They should respond along these lines:

A. *Capital is now less costly than labor. It wasn't always like this, but Tina's plant has reached capacity, and every new unit of labor employed is going to be more costly than the last until the capacity is enlarged.*

B. *No. Capital is now less costly relative to labor.*

C. *Tough Totes can be profitable as long as the firm keeps the cost of the bags equal to or less than the price it gets for the bags ($6). It should accept the order.*

To the next questions, students should respond along these lines:

Tough Totes will employ more capital as the cost of capital decreases relative to the cost of labor.

The question is addressed in that resources will be allocated to tote bags according to the demand for the product and according to Tina's willingness and ability to produce the product at the market price.

Those who value the tote bags highly will get the tote bags. They will go to whoever is willing to pay the price.

- Allocative efficiency in distribution refers to the question "For whom to produce?" Who will get Tough Totes' bags, and why?

_____

_____

_____

_____

SUMMARY

Have students read **Net Gain**. Review the content statements, and encourage students to describe in their own words allocative efficiency in choice of output, production, and distribution. Ask them to explain how allocative efficiency applies to cost-benefit analysis and how they can apply cost-benefit analysis to prepare for their future as a "labor resource."

NET GAIN

In this lesson you have come a long way toward understanding what is required for allocative efficiency. To help you grow in your own career and in your decisions on consumption, remember these points:

1. **New knowledge in the production process can increase productivity.** Have you ever thought of a new product that could make a particular task easier? Maybe someday you will. Every year thousands of people apply for patents on new products and inventions. Many of the devices represent technologies that will make labor more productive. Whether or not you someday develop a new process, you will certainly work with one.

2. **Labor productivity can be increased by investing in capital resources (machines, tools, etc.), by investing in human capital (training and education), and by developing technology.** Does every day at school bring something new and exciting? Probably not. As a matter of fact, some days you might wonder why you're there. On those days, try to remember that you are building your future by increasing your human capital. Human capital, along with capital resources and new technology, will increase your productivity. And guess what—productivity is directly related to wages. In other words, on average, the higher your productivity, the more money you will make.

"To me, the most important element in management is the human being. You can have the best plans in the world; you can have the most marvelous equipment. But it is people that carry out the plans and use the equipment. Without willing workers, you have nothing. So the first essential is to treat people with consideration."

—Yoshiki Yamasaki, Japanese business executive

3. **The quantity and quality of productive resources available in different nations vary widely.** Certain nations are fortunate to have many natural resources, whereas others have few. But human and capital resources can be cultivated. If a society is willing to invest in human and capital resources, it can achieve greater economic growth. The catch is that it takes resources to develop re-

sources. This means a society must give up something today in order to ensure economic growth in the future. It's the same with you. You could quit school and work full-time. You'd probably pull down about $170 per week. Instead, you are devoting your time and energy to investing in your future.

4. **Allocative efficiency in production occurs when societies use resources in the least costly ways.** Societies with a relatively greater supply of labor resources will employ labor-intensive production techniques, whereas societies with a relatively greater supply of capital resources will employ capital-intensive methods. You are a labor resource. Industries in the United States rely heavily on capital-intensive production. This type of production requires a skilled labor force. It's not necessary that you know exactly what career path you will follow. It is important that you recognize that investing in your human capital now will make you more productive in the future.

5. **Allocative efficiency in choice of outputs occurs when societies allocate resources to produce the efficient amount of output.** The quantities of goods and services that you are willing and able to buy depend on their prices. The quantities of goods and services that producers are willing and able to supply also depend on prices. It is actually the equilibrium price—the price at which the quantity that a producer is willing and able to supply equals the quantity that a consumer is willing and able to buy—that ensures society is producing the good or service in the right amount. That is, the society is producing the good or service and is allocating resources at the level that is most highly valued.

6. **Allocative efficiency in distribution is achieved when output is directed to those who value it most highly.** How do you prioritize your wants for goods and services? This is the key to who will get what. Those products you value most will be those for which you are willing to pay the market price. Most likely this will mean giving up other goods and services, because few people have the income to purchase everything they want.

Made in America and Out of Fashion?

WHAT do you look for when you go shopping for clothes? If you're like most people, you think about style, fit, fabric, and price. The place where a T-shirt or pair of shoes was manufactured probably doesn't influence your decision to buy one item or another.

But for the 800,000 Americans who hold apparel production jobs, the "Made in the USA" label makes a big difference. Those workers know that in the mid-1970s there were 460,000 more domestic manufacturing jobs, and they know that imports continue to rise.

According to the American Apparel Manufacturers Association, U.S. apparel production totaled $46 billion in 1993 and wholesale imports reached $32 billion. But economists tally import statistics differently. Some economists include duties, and sometimes garments that are sewn elsewhere but cut here turn up in the U.S. rather than the import column.

What everyone agrees on is this: Even before the passage of NAFTA and GATT (trade agreements that will lower or eliminate import duties), American apparel companies were moving their operations overseas to take advantage of inexpensive labor.

According to Allen Dawson, regional organizing director of the International Ladies' Garment Workers' Union, a member of the union earns from $7 to $10 an hour plus benefits. In Sri Lanka, the hourly wage is about 15 cents. Nationally, membership in the ILGWU has dropped from 450,000 in 1964 to 120,000 in 1994.

Although labor costs are higher in the U.S., many domestic apparel manufacturers, such as Oscar de la Renta and Norton McNaughton, are planning to keep at least some of their American plants in operation. Faster turnaround and better quality control are the primary advantages of domestic production, they say.

—Adapted from "Is the U.S. Apparel Industry Really Out of Fashion?" *The Word on Business* (St. Louis, February 1995)

EXTENSION

Two activities appear in **Building on Success.** In the first activity, students are asked to write a report on the effects of trade restrictions on allocative efficiency.

BUILDING ON SUCCESS

▶ How often have you heard that U.S. jobs are moving overseas? The U.S. used to be a major producer of shoes and clothing. Today many of the plants producing shoes and clothes are located in developing nations. The wage rate in those countries is lower than in the U.S. because developing countries have an abundance of lower-skilled labor.

Many Americans are worried about losing jobs to other countries. Some favor putting trade barriers in place in order to protect certain domestic industries. When trade agreements, such as the North American Free Trade Agreement (NAFTA), come before Congress for ratification, they often face stiff opposition. Write an essay explaining why certain segments of society would oppose an agreement such as NAFTA. Be sure to explain how protectionism affects the allocative efficiency of production, choice of output, and distribution.

Because labor is relatively expensive, industries in the United States rely heavily on capital-intensive production to achieve allocative efficiency.

In the second activity, students are asked to look for examples of labor-intensive and capital-intensive production in rural and urban areas.

▶ As you saw in the video, whether a good is produced using labor-intensive or capital-intensive production techniques depends on the relative scarcity of resources. Thus far you've compared production techniques in different countries; however, such differences can also occur within the same country. For instance, urban areas have a high concentration of business activity that demands large amounts of labor resources, which can bring

about a shortage of labor. When a shortage develops, the price of labor goes up—wages increase. Small towns in rural areas, however, have fewer businesses. People in these areas are likely to work for lower wages. Therefore, you may often see more capital-intensive production taking place in urban areas and more labor-intensive production taking place in small towns.

Interview someone in one of the businesses in a small town. Ask the following questions. "What does the business produce?" "Is the production method relatively labor-intensive?" "What is the average wage rate?" "Has the business always been located in this town, or did it move from an urban location?" "Would this business ever consider moving to an urban area? Why or why not?" Prepare an oral report in which you answer these questions, and then share your findings with the class.

Technology Tidbits

"In all human activities, it is not ideas or machines that dominate; it is people."

—Philip Hilts, American author and reporter

"One machine can do the work of 50 ordinary men. No machine can do the work of one extraordinary man."

—Elbert Hubbard, American writer

"The great, growing engine of change—technology."

—Alvin Toffler, American educator

QUALITY CONTROL

On Your Own

A. In the video, you learned that allocative efficiency is not likely to be achieved in the real world. Based on what you have learned in this lesson, answer the following questions. Use the lines provided or another sheet of paper.

1. How might the existence of trade unions affect allocative efficiency in production?

_____

_____

_____

"Knowledge is the only instrument of production that is not subject to diminishing returns."

—John Bates Clark, American economist

ASSESSMENT

Two types of assessment are provided for you to evaluate students' comprehension and mastery of the material presented in this lesson.

On Your Own

Two assessment activities appear under the heading **On Your Own**. Though they are designed as take-home work, you may wish to have students complete them in class. Answers should make these points:

***A. 1**—Contractual arrangements with unions often protect labor and limit the production options of the firms. Because companies are contractually obligated to pay a specified wage and to employ a specified number of employees, labor-intensive production techniques may be employed in situations where less costly capital-intensive techniques could be employed.*

2—Government allocates resources to provide for the basic needs of those who otherwise could not afford them. The money used to pay for these resources comes from taxes. When people pay taxes, they don't have that money to spend on other goods and services. There is a decrease in the demand for goods and services; as a result, resources are not allocated to those goods and services in the proportion they would have been without the tax.

2. In a market economy, allocative efficiency in distribution is determined by those who are able and willing to pay the price of the good or service. In other words, it goes to those who most highly value the product, as demonstrated by how many dollars they are willing to devote to it. However, it's obvious that some members of society can't obtain even their most basic wants, such as housing and food. Explain how society distributes such products to those who are not able to pay for them and how this may affect allocative efficiency in distribution.

3—A patent gives exclusive rights of production and distribution of a product to the patent holder for a period of 17 years. For that length of time, others are prohibited from entering the market for that product.

3. Government guarantees protection of new inventions by issuing patents. How might this affect allocative efficiency in choice of output?

B. The following article appeared on America Online.

STOUGHTON, MA (June 9, 1995): Reebok International Ltd. (NYSE:RBK) announced today that it has reached an agreement with Byron Donzis to settle a lawsuit and to acquire certain patent rights relating to inflatable technology. Donzis sued Reebok and its then wholly owned subsidiary, Ellesse USA, Inc., on February 5, 1993, in the United States District Court for the District of Massachusetts. The complaint, including a follow-on complaint that was later consolidated with the original lawsuit, alleged that Reebok misappropriated trade secrets in connection with the development of the Company's The Pump™ technology. Ellesse was dropped from the actions earlier this year.

"We are pleased to be able to bring this litigation to a conclusion," said Jack Douglas, Reebok senior vice president and general counsel, "while also moving to further solidify our proprietary position in inflatable technology."

The terms of the settlement are otherwise confidential.

Reebok International Ltd. is a leading worldwide designer, marketer, and distributor of sports, fitness, and casual footwear, apparel, and equipment. Principal operating units include the Reebok brand, Avia Group International, Inc., and The Rockport Company, Inc. Sales for 1994 approximated $3.3 billion.

—Reprinted with permission of Business Wire, an international media-relations wire service with headquarters in San Francisco

1. What is meant by "Reebok misappropriated trade secrets?"

B. *1—Reebok allegedly acquired trade secrets dishonestly for the purpose of using them in the production of its own product development.*

2. How did U.S. patent law protect Byron Donzis?

2—Patent protection guaranteed Byron Donzis exclusive rights to the product, denying Reebok the opportunity to enter into the market any product using the technology developed by Donzis.

3. In what way does the availability of protection through patents reduce perfect competition?

3—Those who do not hold the patent are denied access to the market.

4. Companies that develop a new product are allowed to be the exclusive producer and seller of that product for 17 years. How does the availability of patent protection affect allocative efficiency?

4—Allocative efficiency in choice of output is affected because companies that would like to allocate their resources to the production of a product for which they do not hold the patent are denied the right to do so. Allocative efficiency in distribution is also affected because the price of the product is likely to reflect the limited supply. If the supply could be increased by the ability of other producers to enter the market, the price would decrease (all other things being equal). As the price came down, the quantity demanded would increase, and more people would be willing to pay the price to have the product.

"The person who knows how will always have a job. The person who knows why will always be his boss."

—Diane Ravitch, American educator

Assessment-Track Questions

Besides appearing in the *Student Guide*, the questions under the heading **In Class** are contained on a special assessment track of the videodisc for this module. Using the appropriate disc side, you can access each question by swiping its barcode. Each question is presented as a voice-over to part of a video program that students previously watched. The video will provide students with valuable cues, enabling them to generalize previously learned material to new situations.

Assessment Question 1

1. *Allocative efficiency is achieved when resources are allocated in the most efficient manner. Allocative efficiency occurs in three contexts: choice of output, production, and distribution. Choice-of-output efficiency relates to what goods are produced; it is achieved when resources are allocated to the goods and services that consumers want most. Production efficiency relates to how goods are produced; it is achieved when a good or service is produced using the least costly combination of inputs. Distribution efficiency relates to "who gets what"; it is achieved when scarce goods are allocated to those individuals who value them most highly. Competitive markets generate outcomes that satisfy each of these objectives; therefore, competitive markets are efficient.*

Assessment Question 2

2. *Different nations have different qualities and quantities of inputs that can be used to produce output. For example, shirts produced in developing countries, such as China, use more labor and less capital than similar shirts produced in the U.S., and vice versa. The efficient combination of inputs differs among firms around the world*

In Class

These questions should be answered while you watch a special section of the videodisc that your teacher will play for you. Write your answers on the lines provided or on a separate sheet of paper.

1. It's been said that markets that are competitive lead to an overall efficient allocation of resources. How do competitive markets bring about allocative efficiency in an economy?

2. Firms in different countries make identical goods, which are then sold in domestic and foreign markets. Why might the best input mix used to produce the same good differ among firms located in different countries?

3. Allocative efficiency is an ideal condition, a goal. Why is allocative efficiency not present in some markets in an economy?

4. If allocative efficiency is not present but is a desired result in an economy, what steps can be taken to enhance allocative efficiency?

because of the different scarcities, prices, and productivities of the inputs available to firms in different markets.

Assessment Question 3

3. Allocative efficiency requires markets to be perfectly competitive, and perfect competition is a rather restrictive requirement. Many markets have elements that restrict competition; some occur naturally, and some are created by governments. Monopolies, for instance, can occur when one firm owns land on which most of a natural resource, such as diamonds, is located. Restrictions and licenses, such as the granting of exclusive patent rights or the licensing of lawyers, lead to noncompetitive outcomes that restrict allocative efficiency in a market.

Assessment Question 4

4. Because perfect competition is required for allocative efficiency, policy designed to promote market competition will also promote efficiency. For example, most monopolies are illegal in the U.S. Governmental restrictions, such as rent and price controls, are used less often today, partly because of the widespread recognition that they have an undesirable effect on market efficiency.

SIDE 4
GRAPHICAL DATABASE BARCODES

(Use "step still" function or barcodes below to advance within categories.)

Step Back

Step Forward

Elasticity

Role of Profits

Product Markets

Consumer Behavior Theory

Production Theory

Foreign Exchange Markets

Human Resource Market

Nonhuman Resource Market

Aggregate Supply & Demand

Loanable Funds Market

SIDE 4
TEACHER-TRACK BARCODES

Introduction

Aggregate Supply

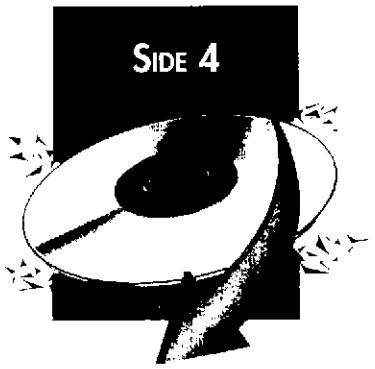
Aggregate Supply & Demand

Aggregate Demand—More Information

Government and the Economy

ECONOMICS® at Work

Module 1, Lesson H



GET A JOB

ECON BRIEFING

"WHAT do you do for a living?" This simple, everyday question, which two persons often ask each other when they meet for the first time, demonstrates the central role that work plays in people's lives and in the economy.

Everyone knows the intent of this question. The inquiring mind wants to know your job, your work, your line of business—what you do (or intend to do) to put food on the table, clothes on your back, and a roof over your head. The kind of work you perform, how much of it you do, and how many years you must work will be the main factors that determine the kind of "living" you will have.

In this lesson you will focus on why people work and what happens in the economy when people are not working. Studying employment and unemployment will help you understand the importance of the nation's most valuable resource, labor. Work is essential to prosperity and happiness. As Benjamin Franklin said, "When men are employed they are best contented."

WHAT YOU'LL LEARN IN THIS LESSON

- People work to earn money to buy goods and services.
- Employers hire qualified workers to produce goods and services.
- The economy is at "full employment" when there is five to six percent unemployment or less.
- Information about economic conditions and the specific job skills and education of a worker can be used to determine the type of unemployment the worker is experiencing.
- The Aggregate Demand/Aggregate Supply model can be used to show the impact of the government's spending and taxing policies on cyclical unemployment.
- Individual choices about education, training, and relocation are important determinants of the level of unemployment.

2 CLASS PERIODS

Materials

This lesson uses the videodisc (or videotape) program **Get a Job**. To complete the activities, students will need only writing paper or a notebook or journal.

INTRODUCTION

This lesson introduces students to the concepts of employment and unemployment. Students learn how unemployment is measured, and they examine the major characteristics of the different types of unemployment. The impact of governmental policy and individual choices on the level of unemployment is also analyzed.

GOALS

Students will be able to demonstrate their understanding of why some unemployment is inevitable in a growing economy and why governmental policies are of limited effect in combating unemployment.

PAYBACK

When should you get your first job? Should you get a part-time job while still in school? What are your job prospects if you drop out of school? If you can't find a job after graduation, should you move somewhere else? Is it ever a "good thing" to be unemployed?

Whether they swing a hammer, harvest corn, or write reports, American workers provide the nation's most valuable resource—labor.

Thinking about these questions and looking at possible answers can have a big payback. This lesson will help you understand that some unemployment (even your own) can be the natural result of a growing economy. It will also help you identify the types of unemployment that you should avoid like the plague, and what you can do to avoid them. By understanding what causes unemployment and what you can do about it, you can make this lesson work for you the rest of your life.

OBJECTIVES

Upon completing this lesson, students will be able to:

- explain why people work
- define "full employment"
- distinguish between persons who are "unemployed" and persons who are "not in the labor force"
- explain the types of unemployment that will still exist at full employment
- identify and give examples of the major types of unemployment
- explain cyclical unemployment by using the aggregate demand/aggregate supply model
- understand the limitations of governmental policy in combating unemployment

The Best Workers in the World

WHAT country has the most qualified workers? The United States? Japan? Germany? New Zealand?...

Actually, it's none of the above. According to the *World Competitiveness Report*, the most qualified work force in the world is in Singapore, a tiny nation in Southeast Asia. Denmark ranks second, followed by Germany, Japan, Norway, and then the U.S.

These rankings are based on the quality of public education that a country provides, the level of training that workers receive in secondary school and on the job, the computer literacy of its workers, and the level of motivation that workers display.

In today's global economy, where many companies do business all over the world, the countries with the most highly qualified work forces have the best chances of attracting employers that provide good jobs.

Ranked sixth in 1994, the U.S. work force is certainly among the most qualified in the world, but competition keeps increasing. In a global economy, it is easy for jobs to migrate from one country to another. If American workers hope to keep their jobs and maintain a high standard of living, they must make sure they have the skills and training the 21st century will demand.

Econcepts

aggregate demand—the total amount of spending by consumers, businesses, and all levels of government on newly produced goods and services

aggregate supply—the total amount of goods and services produced in the economy

cyclical unemployment—the condition of people who are unemployed during a recession, when economic activity slows down; these people usually have job skills and will be rehired when economic activity increases

frictional unemployment—the condition of people who are just entering the labor force or who are between jobs

full employment—the state of the economy when Gross Domestic Product (output) is growing in the range of two to five percent and when the unemployment rate is six percent or less

structural unemployment—the condition of people who are unemployed because they do not have the right skills or because they do not live in the right place to fill existing job openings

unemployment—a situation in which a person is willing and able to work and is looking for a job but can't find one; students, homemakers, and retirees are not considered unemployed if they have chosen not to work or look for work

POWER UP

Most people don't work for free. Oh sure, many people volunteer hours of service for churches, schools, Girl Scouts, Red Cross, or other charitable organizations, but few work as volunteers full-time. Those who do so are frequently retired (after many years of paid employment), or their families have other breadwinners with sufficient earnings.

Many families today have two or more members working for pay outside the home. Why? To earn money to buy the goods and services that the household members want. What happens if a household member becomes unemployed? The household will have less income available to purchase goods and services. Some short-term assistance

Lesson Description

This lesson focuses on unemployment to illustrate the role of work and the importance of a fully employed economy. The video uses contextual illustrations and case studies to teach the concept of full employment and the types of unemployment. Students also analyze the impact of governmental policy on unemployment.

Key Terms

Prepare a poster listing the **Econcepts**, or write these key terms on the chalkboard.

PREVIEW

Have students read **Econ Briefing**, including **What You'll Learn in This Lesson** and **Payback** (pages 179–180). Ask them to speculate about circumstances when unemployment may be a good thing. Conduct a whole-class discussion, and accept all reasonable responses that students offer. You may wish to list their ideas on a chart or chalkboard and to display it throughout the lesson. Encourage students to keep notes as they develop ideas about the topics of the questions.

Introduce the **Econcepts**, and give contextual examples of each. Ask students to refer to them as needed during the lesson.

Have students read **Power Up** as far as **What Works**. Ask them to think of people they know who are employed, unemployed, or not in the labor force. Encourage whole-class discussion.

programs may be available to those who are unemployed. But one basic fact about America's economic system is that people who stay employed will have, on average, the highest standard of living and the greatest access to goods and services. Government programs can help families through the rough spots, but they will not provide the "good life."

Unemployed individuals usually have less access to goods and services. So does this mean that everyone should be working? In the best of all possible worlds, would there be "zero" unemployment? Strange as it may seem, the answer to both of these questions is no.

In the U.S. economy, some people are not working and are not looking for work. These persons are not considered unemployed. They may be at home caring for children; they may be retired; or they may be full-time students. For whatever reason, these non-lookers are described as "not in the labor force."

Who then, according to official statistics, is "unemployed," and how many unemployed people should there be? People who are 16 or older, who are not working, who are willing and able to work, and who are actively looking for jobs are considered "unemployed." When 94 to 95 percent of the labor force is employed, the economy is considered to have reached the goal of "full employment." But this means that even with the economy operating at full capacity, there will be five to six percent unemployment instead of "zero."

To get started on the right track, you'll need the right training.

To understand why society does not work toward a goal of zero unemployment, focus on the five to six percent who remain unemployed. This group is characterized by two types of unemployment: frictional and structural.

The **frictional unemployment** category is comprised of people just entering the work force or those "between jobs." A full-time student about to graduate who begins reading the want ads and sending out résumés will go from "not in the labor force" to "frictionally unemployed." This type of unemployment is the result of a growing, dynamic economy.

A high school dropout looking for a job in an urban area where most of the job openings require highly skilled persons is experiencing **structural unemployment**. This occurs when people either do not have the

right skills or do not live in the right place to fill existing job openings. Sometimes these workers' skills have become obsolete because of technological changes. Another example of this type of unemployment occurs when changes in technology and the global economy lead to the permanent restructuring or downsizing of an entire industry. Unemployed manufacturing workers living in the "rust belt" are examples of this type of structural unemployment.

Those people who are frictionally and structurally unemployed make up the five to six percent unemployment that exists even when the economy is at "full employment." There are several reasons why. For example, students will graduate from school and start looking for jobs; other workers will change jobs; and homemakers may return to work. These are economic facts of life.

You Mean I Get Paid for Doing This?

"The best career advice given to the young is, 'Find out what you like doing best and get someone to pay you for doing it.'"

—Katharine Whitehorn, British columnist

"Choose a job you love, and you will never have to work a day in your life."

—Confucius, Chinese philosopher

It's also true that, despite the warnings, many students continue to drop out of school and enter the labor market without the training or skills they need to find and keep a job. Furthermore, a progressive nation cannot be expected to protect workers from structural unemployment if that means refusing to use new technology that increases productivity or leads to the development of new products. The bottom line is that it would be difficult and unnecessary to try to pursue "zero" unemployment in a growing, dynamic economy. For this reason, a rate of five to six percent is often referred to as the "natural" jobless rate.

What Works

To check your understanding of who is unemployed and who isn't, read each of the following scenarios. In the space provided or on a separate sheet of paper, choose the description that best fits the individual in each case, and then explain your choice.

1. Jan is a full-time student completing an associate degree at Meramec Vocational College. She is looking for a job as a radiology technician. Last week she sent out five résumés, and she already has an interview scheduled for Monday.

   ☐ Employed ☐ Unemployed ☐ Not in the labor force

   Why? _____

   _____

   _____

Ask students to read the paragraph that introduces **What Works**. Then have them work either in groups or as individuals to complete the activity by responding to the six scenarios in this section. Encourage students to refer to the information in **Power Up** and the **Econcepts** as needed during the activity.

Students should respond along these lines:

1. *Jan is **unemployed** because she is not working (she is a full-time student) and she is looking for work.*

*2. Darius is **not in the labor force** because he is not working and is not looking for a job.*

2. Darius quit his job last month at the Shoe Circus. The long hours left little time to study. His father told him to concentrate on his studies and wait until next year to look for more part-time work.

☐ Employed ☐ Unemployed ☐ Not in the labor force

Why? _____

_____

_____

*3. Stephen is **employed** because he is working part-time. (Emphasize to students that, even though he is looking for a different job, his part-time work classifies him as employed, according to government statistics.)*

3. Stephen has just finished his degree in criminal justice. He is looking for a full-time job in law enforcement, preferably close to his hometown because he does not want to relocate. He intends to keep his current part-time job as a security guard until he finds the job he wants.

☐ Employed ☐ Unemployed ☐ Not in the labor force

Why? _____

_____

_____

*4. Georgia is **unemployed** because she is not working and is looking for work.*

4. Georgia liked her job as a teacher's aide. But she has her degree in early childhood education, and she would like her own classroom and a better salary. She decided to quit her aide position and concentrate her efforts on finding a better job. She is even considering moving to a larger city in her state where she knows there are several openings.

☐ Employed ☐ Unemployed ☐ Not in the labor force

Why? _____

_____

_____

*5. Randall is **not in the labor force** because he is not working and is not looking for work.*

5. Randall takes care of his two-year-old, Bridgette, during the day and goes to school at night. They are able to survive financially on his wife's salary. His father-in-law can't believe Randall isn't even looking for a job. But Randall insists, "I'm better off finishing this program in PC repair as quickly as possible."

☐ Employed ☐ Unemployed ☐ Not in the labor force

Why? _____

_____

_____

6. Lou dropped out of high school in the 10th grade. He has held odd jobs over the last five years, but nothing paid very much. His last job was at a body shop that went out of business more than a year ago. For a while he looked for work, but then he gave up looking.

☐ Employed ☐ Unemployed ☐ Not in the labor force

Why? _____

_____

_____

*6. Lou is **not in the labor force** because he is not working and is not looking for work.*

Feeling Discouraged?

WHAT is a "discouraged worker"? A girl in your class who just found out she has to work the night of the big game? No. At least not according to the Bureau of Labor Statistics (BLS).

The bureau's definition of a discouraged worker is one who is not working and is not looking for work. Technically, such a person is not even part of the labor force.

How does a discouraged worker differ from a full-time student or a parent who chooses not to work outside the home (two other types of people who are not part of the labor force)? The difference is that a discouraged worker would like to be employed but has given up trying to find a job.

To BLS policymakers, workers who have stopped trying to find jobs can no longer be counted as unemployed; however, because they would really like to work, they become part of the "hidden unemployment" scene.

How many discouraged workers are there? Estimates vary. In 1994 the BLS added some questions to its household survey, which is used to gather information about the labor force. By using a more extensive survey, the BLS hopes to have more accurate data on these discouraged workers.

After discussing students' responses, have them read the feature **Feeling Discouraged?** Ask them to look back at the three individuals in the activity who are "not in the labor force" (Darius, Randall, and Lou). Ask, "Are these individuals 'discouraged workers'? Why or why not?" *Students should respond in words to this effect: Only Lou can be considered a "discouraged worker" because he has "given up" looking, but presumably he would like to have a job. Darius and Randall have chosen to postpone working or looking in order to pursue education and training.*

TAKE A CLOSER LOOK

THIS lesson has shown that a certain amount of unemployment, not more than about six percent, is common even when the economy is doing well and operating at full capacity. But what happens to the level of joblessness when the economy slips into a recession and the output of goods and services falls below full capacity?

The answer is **cyclical unemployment**. During a recession, when economic activity slows down, unemployment may rise above the five to six percent range. This increase will be made up of cyclically unemployed workers. These workers frequently have job skills and

VIDEO CORE

To prepare students for the video program, review frictional and structural unemployment, the two types that were introduced in **Power Up**. Ask students to read **Take a Closer Look** to learn about a third type, "cyclical" unemployment. (Note: You may also wish to access the electronic database, which contains information about the different types of unemployment.)

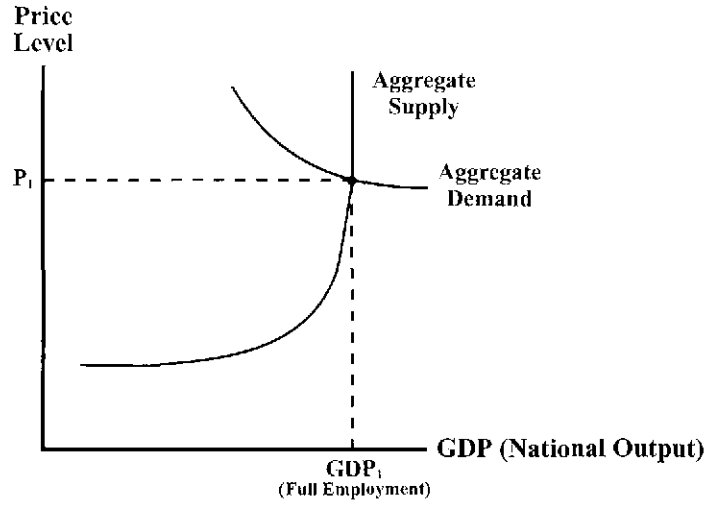
As students read this section, clarify any points they have trouble understanding. When they have finished reading, challenge them by using the following questions as whole-class discussion prompts.

- When the economy is "fully employed," will there be any cyclical unemployment? *Students may respond: No. Although there will still be some frictional and structural unemployment, cyclical unemployment is associated with a recession and with decreases in total spending and is not present at full employment.*
- Why did the 1920s "roar" (from an economic point of view)? *Students may answer: The 1920s were characterized by lots of spending on homes and automobiles. Business spending on new factories and equipment was also high. This spending created jobs and generated income and output.*
- Why did economic activity "sputter" in the 1930s? *Students may respond: The depression began when spending on homes, automobiles, factories, and equipment decreased. Cyclical unemployment resulted, as factories closed and building slowed because of the decline in total spending.*
- What kinds of governmental policies can be used to increase spending on goods and services? *Students may respond: The government might spend money on public projects or reduce taxes to allow people to keep more of the money they earn. The aim of these policies would be to increase spending.*

will be rehired when economic activity picks up again. The government may initiate specific changes in national economic policies to try to speed up this process and reduce cyclical unemployment.

To understand which policy changes will be most helpful, take a closer look at the problem of cyclical unemployment. A model called "Aggregate Demand/Aggregate Supply" can be used to explain this type of unemployment.

Where Is Cyclical Unemployment?

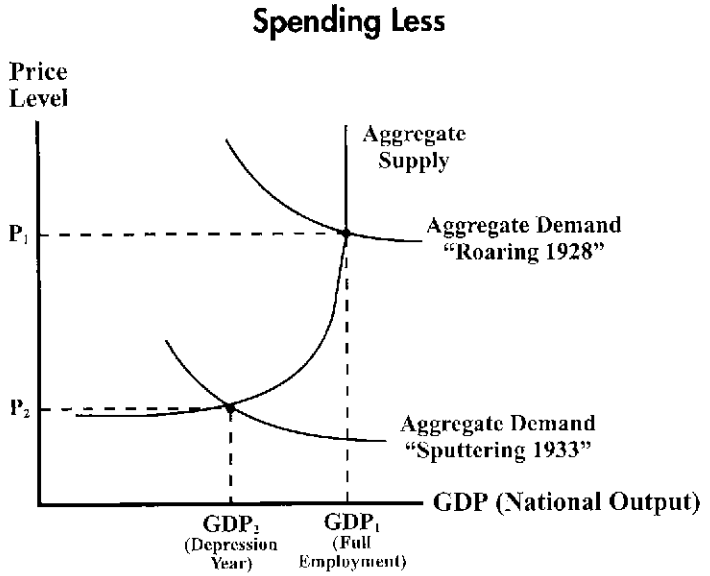


- ▶ The aggregate supply curve shows the total amount of goods and services produced in the economy at different price levels.
- ▶ The aggregate demand curve shows the total amount of spending on goods and services at different price levels.
- ▶ The intersection of aggregate supply and aggregate demand will generate the level of output labeled "GDP_1" and the price level of "P_1."

According to the above graph, the economy is operating at full capacity. Because the horizontal axis measures output and not "employment" or "unemployment," can an assumption be made about the level of unemployment at "full employment"? Absolutely. As you have learned, "full employment" means not more than six percent unemployment. If this is so, where is cyclical unemployment? The answer is there is none. Cyclical unemployment occurs when the economy is not fully employed and when unemployment rises above six percent.

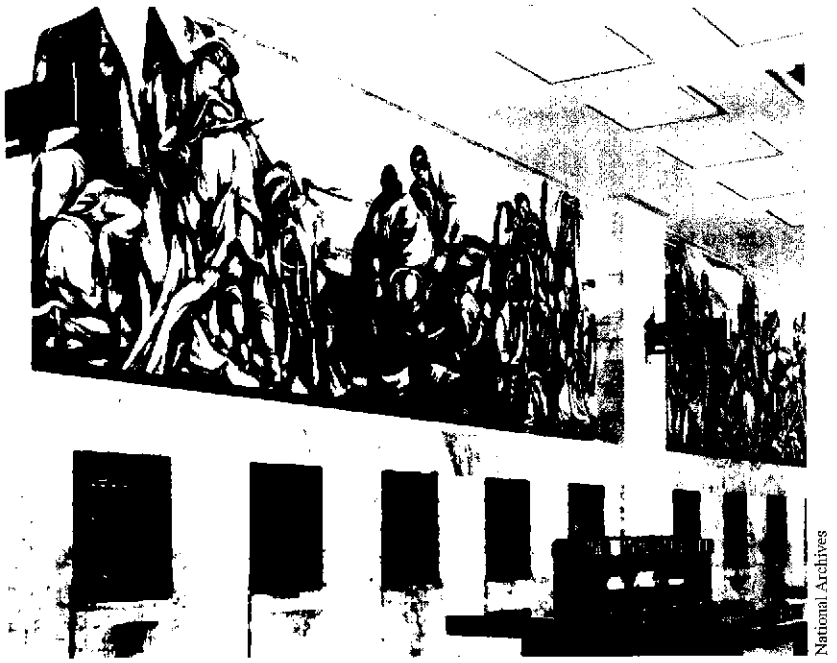
Now look at the next graph. Think back to all you have heard and read about the 1930s and the Great Depression. During that period

the economy slowed drastically, output fell, and cyclical unemployment rose to –get this—25 percent of the labor force!



When the total spending (aggregate demand) on goods and services fell from the high levels of the 1920s, output fell and cyclical unemployment leaped. During the 1920s, consumers were busy buying new homes and automobiles. Businesses contributed to the spending spree by building new factories and buying new equipment. In the late 1920s this frenzy of spending began to slow, and the aggregate demand curve decreased.

How was national economic policy used to combat cyclical unemployment in the 1930s? This type of unemployment is sometimes called "deficient-demand unemployment," and policies were designed to try to offset the fall in aggregate demand. These policies included government spending programs on public projects– for example, the Civilian Conservation Corps and the Works Progress Administration. Such programs employed more than 11 million people building parks, roads, and bridges from 1933 to 1942. Cyclical unemployment declined as these people went back to work and used their earnings to buy goods and services. The increased spending bolstered aggregate demand. More recently, in 1982 and 1991,



The mural shown above was painted by Edward Millman and Mitchell Siporin in the post office in St. Louis, Missouri, for the Section of Fine Arts. During the Great Depression, the Section of Fine Arts in the Treasury Department and the Federal Art Project of the Works Progress Administration provided work for American artists.

> ***"But with the slow menace of a glacier, [the great] depression came on. No one had any measure of its progress; no one had any plan for stopping it. Everyone tried to get out of its way."***
>
> **—Frances Perkins, American social worker**

Introduction to the Video

Have students read **What You'll See on the Screen**. As they prepare to watch the first part of the video, ask them to think about their own experiences in job hunting.

Video-based Activities

Have students read the introductory paragraph of **Talk this Over**. Then start the videodisc (Side 4), and swipe this bar-code to play:

Get a Job
(introductory segment)

The video will pause on a screen with two questions (which also appear in the *Student Guide*):

Why do you have a job, or why will you be looking for a job in the future?

Why would a firm hire you?

Have students respond in writing. When all have finished, encourage whole-class discussion.

Responses should include these points: People get jobs to earn money to purchase goods and services to satisfy their wants. Firms and governments hire people because they need labor as an input to produce goods and services. Employers hire workers whose labor matches their needs.

the economy experienced recessions and cyclical unemployment. Can you think of any other policies that could be used to increase spending on goods and services?

What You'll See on the Screen

In the opening segment of "Get a Job," you will explore why people willingly give up their leisure time to go to work. Would you still work if you won the lottery? This segment also explains how the government defines and measures unemployment, and it looks at some of the costs and benefits associated with unemployment.

In the Economic Puzzle Challenge sequence, you will follow the adventures of three youths—David, Tonya, and Bret—as they look for summer jobs. You will also have the opportunity to think about what types of governmental policies work best at reducing unemployment.

Talk This Over

Think for a moment about your own job-hunting experiences. Have you ever looked for a job and not been able to find one? Do you think cyclical economic conditions played a role in your inability to find a job? Why?

When the video pauses, the screen presents two questions. Write your answers on the lines below or on a separate sheet of paper, then discuss your responses with your classmates.

Why do you have a job, or why will you be looking for a job in the future?

_____

_____

_____

_____

_____

Why would a firm hire you?

_____

_____

_____

_____

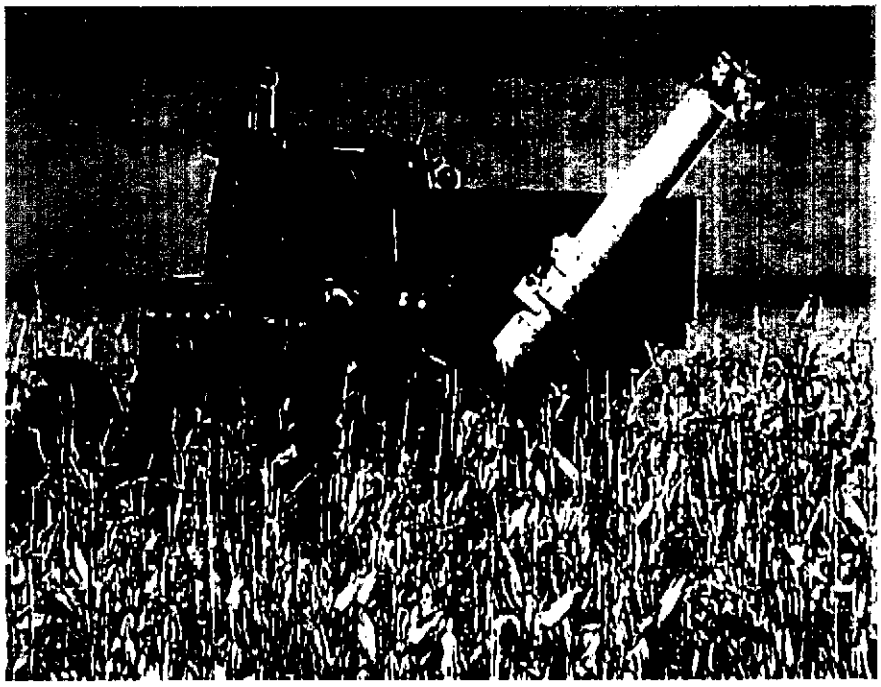
_____

The screen challenges you with another question. Again, write your answer in the space provided or on your sheet of paper.

Why does society work toward a goal of 94–95% employment instead of 100%?

For More...

The video emphasized that in some ways a certain amount of unemployment can be a good thing. Why is this so? List other instances when unemployment or its effects might be beneficial to you or the economy. Record your thoughts below or on a separate piece of paper, then share your response with the class.



Weather is one cyclical economic condition that affects employment in farming.

Swipe this barcode for a third question (which also appears in the *Student Guide*):

Why does society work toward a goal of 94–95% employment instead of 100%?

Again have students respond in writing, and encourage class discussion.

Responses should include these points: When 94 to 95% of the labor force is employed, this is considered "full employment." The 5 or 6% of the labor force that remains unemployed includes those just entering the work force, those "between jobs," and those who don't have the right skills or who don't live in the right place to fill existing job vacancies. It would be difficult and unnecessary to pursue "zero" unemployment in a growing economy.

Further Discussion

Ask students to read **For More...** on this page. Have them respond to the question and complete the activity. Encourage whole-class discussion of answers.

Some "positive" aspects of unemployment that students may mention: Unemployment gives people a chance to look for better jobs; it gives firms an opportunity to install machines to do more of the work; it may encourage people to seek additional training and education. The possibility of unemployment may also discourage students from dropping out of school in the first place, because they would face diminished prospects of finding jobs and they would likely have lower incomes in the future.

Before starting the **Economic Puzzle Challenge**, you may wish to swipe the next barcode to access the database for a review of the different types of unemployment.

Unemployment-Types Database

Once you have accessed the database, swipe these barcodes for information about specific types of unemployment. To quit the database, swipe the last barcode, which will take you back to the video program.

A. Frictional unemployment

B. Seasonal unemployment

C. Structural unemployment

D. Cyclical unemployment

E. Go to Puzzle Challenge

Economic Puzzle Challenge, Part 1

Two teens, David and Bret, are discussing David's search for a summer job. He has previous experience baling hay, so he has been talking to local farmers. But he's not had any luck finding work. Why? If the economy is in the middle of a recession, then the resulting cyclical unemployment may be responsible for his frustrating search. What other factors could be at work? Is David really considered unemployed? Think about these issues as you watch the video.

*David needs to decide whether the **benefit** of the income he'd earn on the three-week hay-baling job is worth the **cost** of giving up three weeks of summer school.*

During a recession, falling agricultural prices can reduce a farm's income. When this happens, farmers will hire fewer workers.

Economic Puzzle Challenge, Part 1

Before swiping the barcode, ask students to read the paragraph that introduces **Economic Puzzle Challenge, Part 1**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 1

Tough Times

"It's a recession when your neighbor loses his job. It's a depression when you lose your own."

—Harry S. Truman, 33rd president of the United States

"The rate of unemployment is 100 percent if it's you who is unemployed."

—David L. Kurtz, American educator and business writer

Decision Time

When the first part of the Puzzle Challenge ends, this question appears on the screen:

Which type of unemployment applies to David? Why?

Use the lines below or a separate piece of paper to mark your choice and to explain your answer. Then watch the video to see the results of your decision.

☐ A. Frictional unemployment

_____

_____

_____

☐ B. Seasonal unemployment

_____

_____

_____

☐ C. Structural unemployment

_____

_____

_____

☐ D. Cyclical unemployment

_____

_____

_____

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

Which type of unemployment applies to David? Why?

Help students analyze each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Frictional unemployment

Analysis: Frictional unemployment, which is often by choice, describes people who are either between jobs or just entering the work force. Because David is looking for work in an industry (agriculture) that has been affected by technological change, another type of unemployment probably applies to him.

B. Seasonal unemployment

Analysis: If David were looking for a job during the winter, when farm work slows down, then his employment could be seasonal. But David is looking during the summer, the peak farming season, and so his unemployment is not seasonal.

C. Structural unemployment

Analysis: It's very likely that structural unemployment applies to David's case. High-tech machinery, such as combines and hay balers, have replaced farm labor in his area. Moreover, there seems to have been a permanent decline in farming in the area; this represents another structural factor.

D. Cyclical unemployment

Analysis: Cyclical unemployment occurs during a recession, when there is less

spending on most goods and services, including agricultural products. Because there is no evidence of a recession, David's unemployment is not cyclical.

E. Unemployment-Types Database

(Note: Barcodes for accessing the database appear on page 190.)

Further Discussion

Ask students to respond to the question in **For More...** on this page. Have students share their ideas. *Possible responses are: By completing high school and then pursuing additional training and education, the chance of structural unemployment is minimized. Using the library and career counseling resources to research future growth industries is also a good strategy. Being open to the possibility of retraining or relocating if structural unemployment strikes can reduce the length of time you are without work.*

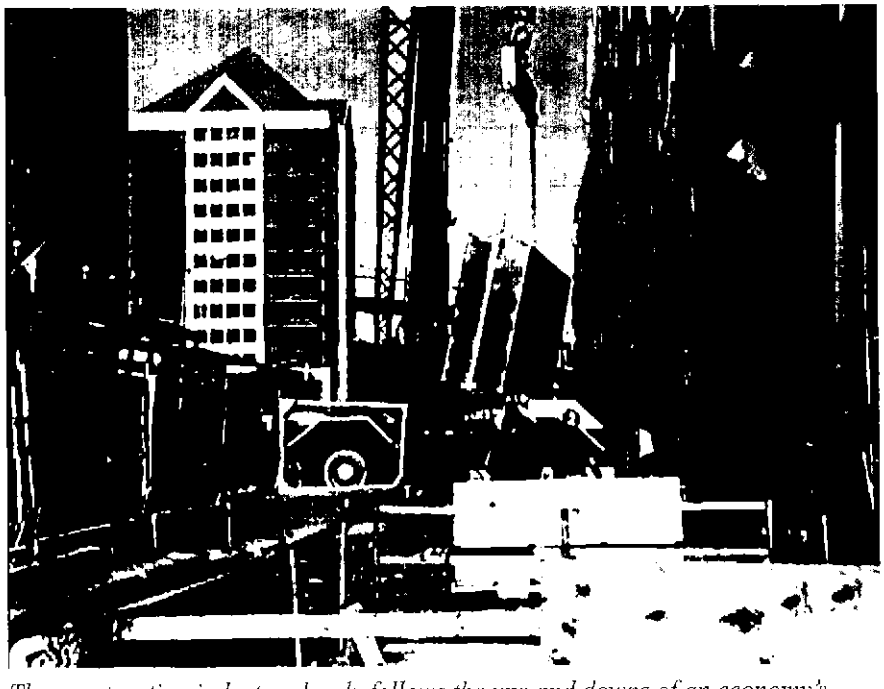
Conclude the discussion by emphasizing that strategies to reduce structural unemployment, such as encouraging workers to seek more training, are a win-win situation for all involved—the worker, the employer, and the economy as a whole.

For More...

What kinds of choices can you make right now that will minimize the possibility that you will become structurally unemployed in the future? Use the lines provided or a separate sheet of paper to summarize your ideas, and then discuss them with your classmates.

Economic Puzzle Challenge, Part 2

David and Bret continue their conversation about their options for summer work. As you saw in the first part of the Puzzle Challenge, David has been unable to find work baling hay.



The construction industry closely follows the ups and downs of an economy's business cycle.

Economic Puzzle Challenge, Part 2

Before swiping the barcode, ask students to read the introductory paragraphs to **Economic Puzzle Challenge, Part 2**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 2

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

How would you classify Bret's unemployment? Why?

Bret, on the other hand, is looking for a job in construction. He has the experience and the skills—thanks to his training—that will qualify him for local openings. Will he be successful?

As you watch the video, remember the characteristics of the different types of unemployment. Because the construction industry is especially sensitive to the business cycle, an economic slowdown or recession will often cause construction workers to be cyclically unemployed.

If there is an overall recession, Bret may have trouble finding a job. If there is no recession, will Bret be assured of a job? Watch and find out.

Decision Time

At the conclusion of the second part of the Puzzle Challenge, the following question appears on the screen.

How would you classify Bret's unemployment? Why?

Use the lines below or a separate piece of paper to mark your choice and to explain your answer.

☐ A. Frictional unemployment

_____

_____

_____

☐ B. Seasonal unemployment

_____

_____

_____

☐ C. Structural unemployment

_____

_____

_____

☐ D. Cyclical unemployment

_____

_____

_____

Assist students in analyzing each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Frictional unemployment

Analysis: Because Bret is just entering the work force, he could be considered frictionally unemployed. But other economic factors are probably having a greater effect on Bret's ability to find a construction job.

B. Seasonal unemployment

Analysis: Whereas seasonal unemployment in the construction industry is common during the winter months, Bret is looking during peak construction time; therefore, he's probably not seasonally unemployed.

C. Structural unemployment

Analysis: Structural unemployment probably applies to Bret's case. His training in construction does not match local job openings. His training does match construction openings in Dayton, Ohio. Relocating to Dayton, where the construction industry is booming, may be a good move for Bret.

D. Cyclical unemployment

Analysis: Cyclical unemployment is associated with a recession when spending on new homes and other construction projects decreases. Because there is a building boom in Dayton, there does not seem to be an overall economic slowdown. It is not likely that Bret's unemployment is cyclical.

E. Unemployment-Types Database

(Note: Barcodes for accessing the database appear on page 190.)

Further Discussion

Ask students to respond in writing to the question posed in **For More...** on this page. *Responses should in essence be: Jan is frictionally unemployed because she is just entering the work force after completing her education. Georgia is frictionally unemployed because she is "between jobs," looking for a better one; however, if she is unable to find a teaching job in her hometown and must relocate, she may experience structural unemployment because her training does not match local job openings.*

Conclude the discussion by emphasizing that, according to statistics compiled by the government, only Georgia and Jan are considered "unemployed," because they are "actively seeking work."

Economic Puzzle Challenge, Part 3

Before swiping the barcode, ask students to read the introductory paragraphs of **Economic Puzzle Challenge, Part 3**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 3

Video-based Questions

The video will pause on a screen with the following question (which also appears in the *Student Guide*).

On which type of unemployment does government spending, taxing, and monetary policy work best?

Help students analyze each of the possible responses. Then swipe barcodes for the options you wish to view.

A. Frictional unemployment

Analysis: No. Frictional unemployment is due to normal activity in the labor market; government spending, taxing, and monetary policies will have little, if any, impact.

For More...

Take a moment to look back at the activity "What Works" on pages 183–185. For each of the people you designated "unemployed," explain the type of unemployment you think the person is experiencing.

Use the lines below or another piece of paper for your answer, then compare your decisions with those of other students.

By the last class session, Bret has decided to relocate to Dayton and Tonya is still looking for work.

Economic Puzzle Challenge, Part 3

Bret and David have been joined by their friend Tonya. Bret has decided to go to Dayton, Ohio, for the summer to look for a job. Tonya is also hunting for summer work. Does she have any skills to offer an employer?

This part of the Puzzle Challenge explores governmental policies that might make it easier for Bret, David, and Tonya to find summer jobs. Then again, maybe those policies won't affect their job search after all. As you watch the video, keep your eyes and ears open for clues to the connection between the government's policies and employment.

Decision Time

The video challenges you with another question:

> On which type of unemployment does government spending, taxing, and monetary policy work best?

*Unemployment happens when a person can't find work in a particular industry or at a satisfactory wage. It doesn't mean that you could not find **any** work at **any** wage.*

Use the lines below or a separate sheet of paper to check your choice and explain why you think it's the best answer.

Discuss your response with the rest of the class.

☐ A. Frictional unemployment

_____

_____

_____

☐ B. Seasonal unemployment

_____

_____

_____

☐ C. Structural unemployment

_____

_____

_____

☐ D. Cyclical unemployment

_____

_____

_____

B. Seasonal unemployment

Analysis: No. Government spending, taxing, and monetary policies would not reduce seasonal unemployment. It's the nature of some industries to need more employees during part of the year and fewer employees during other times of the year.

C. Structural unemployment

Analysis: No. This type of unemployment does not respond to fiscal or monetary policy. Structural unemployment can be reduced only if workers complete needed education, training, or retraining programs to gain marketable skills. Relocation may also be necessary.

D. Cyclical unemployment

Analysis: Yes. Government spending, taxing, and monetary policy work best on cyclical unemployment. This type of unemployment usually occurs during a recession, when output is falling, or when output is growing slowly. The government may use tax cuts or spending programs if the unemployment rate exceeds 6%, indicating the presence of cyclical unemployment.

E. Unemployment-Types Database

(Note: Barcodes for accessing the database appear on page 190.)

Conclude the discussion on the use of governmental policy to combat cyclical unemployment by asking students to turn to **Take a Closer Look** (page 185). Review the AD/AS model, and use it to show the role of governmental policy in combating cyclical unemployment during the depression of the 1930s. You may also wish to swipe the following barcode to access the AD/AS graphical database on the videodisc.

Aggregate Supply & Demand Database

Further Discussion

Have students read **For More...** on this page. Ask them to work as individuals or in groups and to complete the activity in writing. When they are finished writing, encourage them to share their responses in a whole-class discussion.

For More...

Yes, it's true that the government's spending, taxing, and monetary policies aimed at reducing unemployment work best on one type of unemployment. But there are other methods that individuals, businesses, and the government can use to minimize all types of unemployment. The video gave several examples. Can you think of others?

Use the space below or a separate piece of paper to record your own ideas on how each of the following types of unemployment can be minimized.

Possible responses are:

- Frictional unemployment

To reduce frictional unemployment, individuals should obtain as much information as possible about job openings. Friends, relatives, teachers, and even former employers can be resources. Other sources are job fairs, career counseling services, newspapers, and on-line services.

- Structural unemployment

To reduce structural unemployment, programs that improve access to education, training, and retraining programs are helpful. The willingness to relocate in order to improve economic opportunities is also an important strategy.

- Cyclical unemployment

To reduce cyclical unemployment, an individual may choose to avoid employment in industries sensitive to the business cycle—for example, construction. Otherwise, workers should budget their expenditures and maintain savings in anticipation of downturns in economic activity.

Discuss your ideas with the other members of your class.

Economic Puzzle Challenge, Part 4

Before swiping the barcode, ask students to read the introductory paragraph to **Economic Puzzle Challenge, Part 4**. Then swipe this barcode to play:

Economic Puzzle Challenge, Part 4

Economic Puzzle Challenge, Part 4

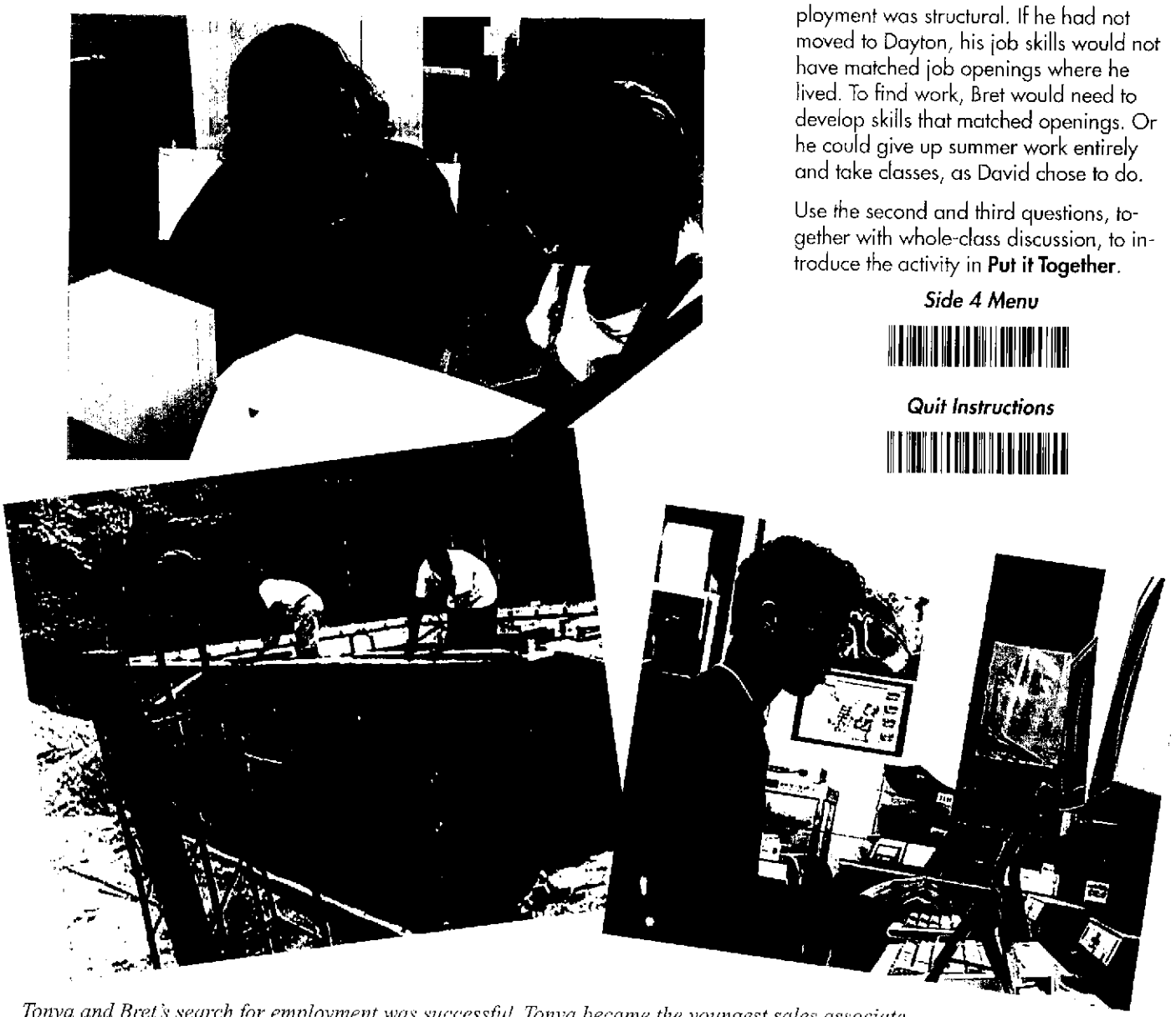
Now you know that the individual choices you make—to stay in school, to get additional training, or to look for a job in one town or another—will play a big part in your future employment. Making the right decisions now can reduce the chance of unemployment later. Watch the final part of the Puzzle Challenge to see what kind of choices Tonya, Bret, and David must make regarding their summer activities. If you were in their shoes, would you make the same choices?

Talk This Over

The screen challenges you with three questions:

> What would it have taken for Bret to find work if he hadn't moved?
>
> How does your level of education affect job security and the wages you earn?
>
> How will it in the future?

Discuss these questions with your classmates.



Tonya and Bret's search for employment was successful. Tonya became the youngest sales associate at the computer superstore, and Bret found a construction job in Dayton. David's decision to attend summer school may lead to better job opportunities in the future.

Video-based Questions

The video will pause on a screen with the following questions (which also appear in the *Student Guide*).

> **What would it have taken for Bret to find work if he hadn't moved?**
>
> **How does your level of education affect job security and the wages you earn?**
>
> **How will it in the future?**

Use these questions to stimulate class discussion. Remind students that Bret's unemployment was structural. If he had not moved to Dayton, his job skills would not have matched job openings where he lived. To find work, Bret would need to develop skills that matched openings. Or he could give up summer work entirely and take classes, as David chose to do.

Use the second and third questions, together with whole-class discussion, to introduce the activity in **Put it Together**.

Side 4 Menu

Quit Instructions

CLOSING

Ask students to read **Put it Together** and to respond in writing to the questions in this section. Use the questions and responses to stimulate whole-class discussion.

More education will leave young workers in a better position to find jobs and to advance in the job market.

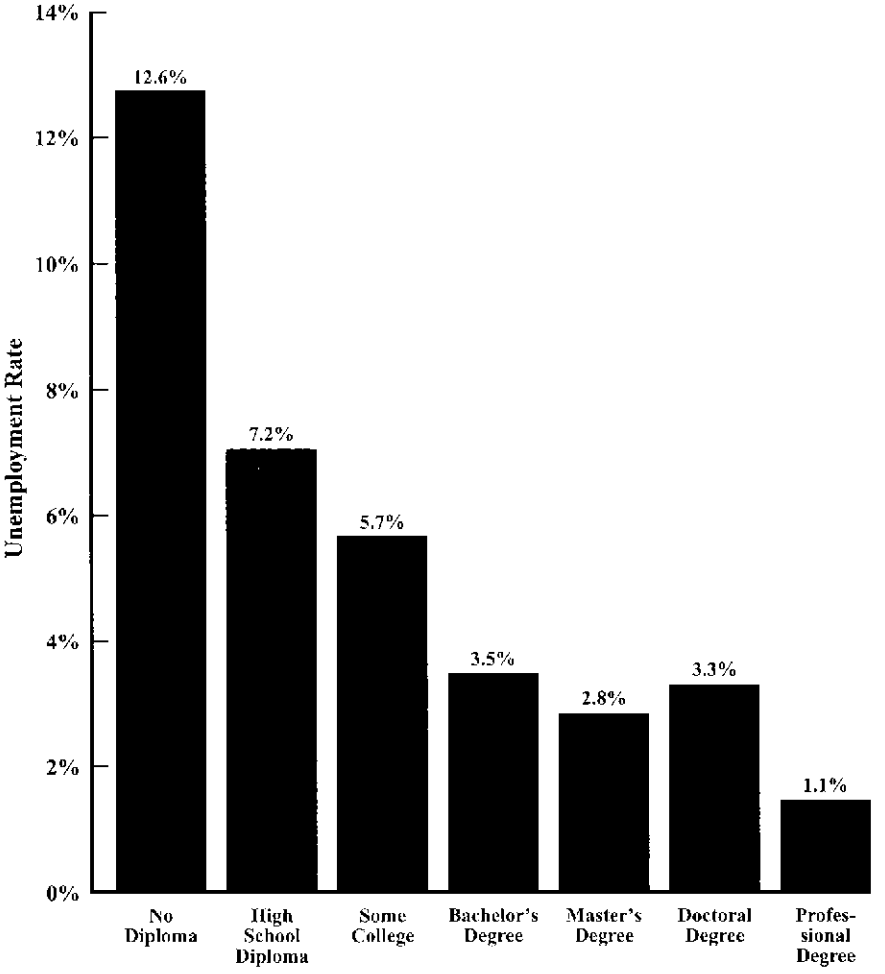
PUT IT TOGETHER

WHILE the government's fiscal and monetary policies can be used to reduce cyclical unemployment, most of the decisions that have the greatest impact on unemployment levels are made by individuals. A governmental policy may open the door to an education or training program, but it will take hard work and sacrifice to complete one.

Will it be worth it? You bet it will! Consider the following information on education and unemployment rates. Completing more education now can reduce your chances of being unemployed later.

Look at the following bar graph, and use the information it contains to answer the questions on the next page. Write your answers in the space provided or on a separate sheet of paper.

Making Education Work for You



Note: Data relate to workers aged 25–64

—U.S. Department of Labor, "Economic Report of the President" (February 1994)

- If the data were collected when the overall unemployment rate was six percent, was the economy "fully employed"? Why or why not?

Students should respond in words to this effect:

Yes, if the national unemployment rate was six percent, the economy was "fully employed" (remind students of the definition of full employment).

- While the overall unemployment rate was six percent, the rate for subgroups was different. Which two groups have the highest unemployment rates?

The data indicate that individuals without a high school diploma and those with only a high school diploma have the highest unemployment rates.

- Which two groups have the lowest unemployment rates?

Individuals with professional degrees—for instance, doctors and lawyers—and those with master's and other advanced degrees have the lowest unemployment rates.

- Use your understanding of the types of unemployment to explain why these rates vary with the level of education.

Unemployment rates are lower for those with more education because these individuals have the skills and training that "match" the labor requirements of employers in today's economy. The work force of the 21st century will require literate, trained participants.

Putting more money into training and education programs is one way the government can increase aggregate demand. Better-trained workers are more productive, which makes them more likely to be hired.

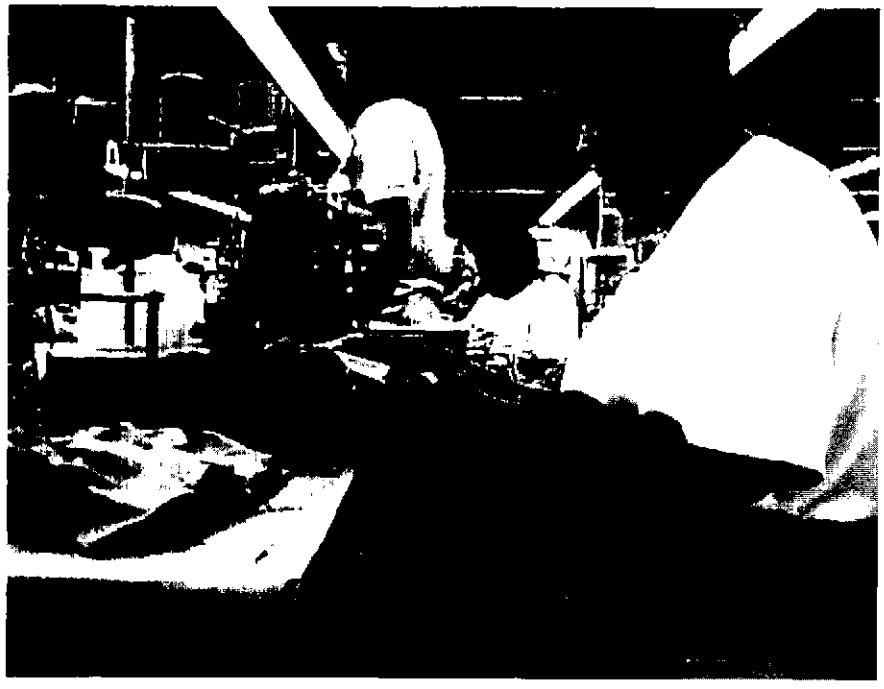
SUMMARY

Ask students to read **Net Gain**. Review the three content statements with the class.

NET GAIN

You have learned a great deal in this lesson about the role of work in the economy and about different types of unemployment. As you complete your education and begin (or continue) working for a living, remember these key points:

1. **There will never be zero unemployment.** A percentage of the labor force will always be at the point of entering the job market or between jobs. These people will be frictionally unemployed. And, in a dynamic economy, there will always be some workers with skills that do not match those needed by existing employers. These people are categorized as structurally unemployed. As a result, even when the economy is "fully employed," there may be as much as six percent of the work force unemployed.



More than 130 million people are in the U.S. work force. In May 1994, approximately 7.9 million of them were unemployed. That amounts to slightly more than six percent.

2. **If you want to get a job and keep a job, you must have the skills employers need and you must live in an area where they need them.** As you saw in the Puzzle Challenge, both Bret and David had job skills that did not match local openings. Bret was able to move to an area where there were job openings. David did not move; he chose to leave the work force to gain more skills. Both of these strategies can reduce structural unemployment in the long run.

3. **The government's spending, taxing, and monetary policies work best at reducing cyclical unemployment.** Cyclical unemployment occurs when there is a recession. People who are cyclically unemployed usually have job skills and will be re-employed when the economy picks up and moves closer to full employment. Governmental policies can help to speed up this process by encouraging businesses or consumers to spend more. Or government spending projects can be used to put people back to work.

BUILDING ON SUCCESS

- INTERVIEW an unemployed person you know. Use the information to write a report about the type of unemployment that person is experiencing. Make sure to include some information on the current national unemployment rate.

- People work to earn money to buy goods and services. But jobs that require little training and education usually do not pay very much. Does this mean that a young person like yourself should not take them? No. Working hard at a less-than-ideal job for a less-than-ideal wage can provide the experience, references, and motivation needed to get a better job.

  Use the library to locate books, newspaper articles, or magazine stories about a successful person whom you admire. Write a report about the different jobs this man or woman held on the path to success. Also include a description of the education and special skills that were acquired along the way. Share your report with the class.

> ***"I was a newspaper seller, a worker in a printing shop, a toy maker, a glass blower, a delivery boy, etc. But while working at all these occupations, I never lost sight of my final goal, which was to become an author."***
>
> **—Joseph Conrad, British (Polish-born) novelist**

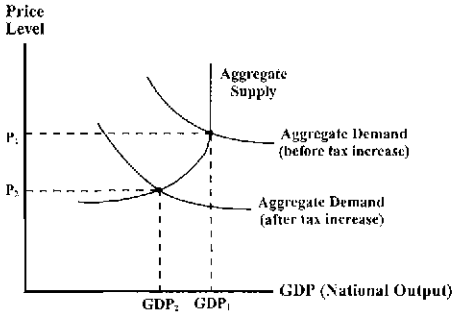
- In 1932 President Herbert Hoover, believing that the federal budget should be balanced every year, pushed a huge income tax increase through Congress.

  Use the AD/AS model to explain the impact of a tax increase on the level of cyclical unemployment in the 1930s. Do you think

EXTENSION

Assign different members of the class the activities in **Building on Success**—or ask students to choose activities. Encourage them to apply the concepts they have learned in this lesson—they should refer to the **Econcepts** (page 181) and to other parts of the lesson whenever necessary.

Here is a possible response to the third activity, which deals with the government's economic policies during the 1930s: President Hoover's tax increase hindered recovery by decreasing spending; the impact of the tax increase was to decrease aggregate demand, causing output to fall and unemployment (cyclical) to increase. President Roosevelt's New Deal policies attempted to stimulate spending.



this tax policy helped or hindered economic recovery during the Great Depression? Use a separate sheet of paper to draw your graph and to explain your answer.

▶ Do you remember how "full employment" is defined? Would you recognize full employment if you saw it?

Read the following "Top 10 Signs the Economy Has Probably Reached Full Employment." Then use the list to develop your own "Top 10 Signs the Economy Has Probably Not Reached Full Employment." Record your list below or on a separate sheet of paper.

Top 10 Signs the Economy Has Probably Reached Full Employment

10. Alan Greenspan is looking around every corner for signs of inflation.

9. Gross Domestic Product (GDP), the total market value, expressed in dollars, of all final goods and services produced in the economy, has been growing at an annual rate of 4%.

8. The new bathroom fixtures that your parents want are on back order, even though the factory is operating at close to full capacity.

7. New building permits are up for the ninth month in a row. A local contractor tells your parents he is so busy that it will be months before he can remodel their kitchen.

6. The unemployment rate has fallen to 5.4%.

5. With unemployment below 6%, there is no cyclical unemployment.

4. Factory orders for new durable goods (tools, equipment, appliances) are up for the sixth month in a row.

3. Automobile producers have reported record sales for the past three years. Everyone in your neighborhood seems to own a new minivan.

2. Every store at the mall has a "Help Wanted" sign in its window.

And the Number 1 sign:

1. Even your cousin Joyce has a job.

Top 10 Signs the Economy Has Probably Not Reached Full Employment

10. _____

9. _____

8. _____

7. _____

6. _____

5. _____

4. _____

3. _____

2. _____

And the Number 1 sign:

1. _____

For students who undertake the fourth activity, encourage them to be creative in developing their "Top 10" lists. The following sample is provided only as a guide.

Top 10 Signs the Economy Has Probably Not Reached Full Employment

10. *Alan Greenspan is hinting that interest rates may go lower.*
9. *GDP fell last quarter.*
8. *Producers' shelves are loaded with inventory.*
7. *New building permits are down for the ninth month in a row. Construction is in a slump everywhere.*
6. *The unemployment rate has risen to 7.2%.*
5. *With unemployment above 6%, there is evidence of cyclical unemployment.*
4. *Factory orders for new durable goods are down for the sixth month in a row.*
3. *Auto producers are reporting sagging sales.*
2. *There are no "Help Wanted" signs at the mall.*
1. *Your cousin Joyce lost her job hanging drywall.*

Psychic Income

Some people love their jobs; some people don't. If you enjoy what you do, then you earn "psychic income" from your work. This is the satisfaction you receive from what you do or where you do it. There's only one problem. You can't pay the rent or buy gas with psychic income. If you do love your job and receive this psychic income, does this mean you should be willing to accept a lower real wage? Maybe, maybe not. What do you think?

ASSESSMENT

Two types of assessment are provided for you to evaluate students' comprehension and mastery of the material presented in this lesson.

ON YOUR OWN

Ask students to read the article "More Learning Means More Earning According to Census Bureau Study" and the anonymous quotation below it. Then have them respond in writing to the questions.

Appropriate responses are:

1. *Anonymous is glad to have faced an unemployment rate of 8.5% because the presence of an economic downturn and the inability to get a job provided an incentive to return to school. By obtaining more education, this individual was assured of higher average earnings and less likelihood of unemployment. A booming economy and a low unemployment rate may be harmful to young workers in the long run, if they choose to work instead of finishing their education.*

   Young workers can take advantage of a "booming economy" by combining part-time or summer work with school or classes, as demonstrated by the youths in the video. Choosing a career path and pursuing the necessary education is easier in the long run than dropping out now and trying to finish later.

QUALITY CONTROL

ON YOUR OWN

SHOW that you understand the major topics of this lesson by completing the following activities. Use the space provided or a separate sheet of paper for your answers.

1. Read the following newspaper article and the anonymous quotation accompanying it. Then answer the questions about them.

More Learning Means More Earning According to Census Bureau Study

WASHINGTON—Higher education can help you earn a lot more money.

According to a report from the U.S. Census Bureau, *Education Attainment in the United States*, a person with an associate's degree can expect to earn more than $1 million in a lifetime. And the more you learn, the more you will earn.

"Persons with more education can expect even higher lifetime earnings," according to Robert Kominski, who wrote the report. For example, a person with a professional degree, such as a doctor, can expect to earn more than twice what a person with a bachelor's degree earns—$3 million compared with $1.4 million.

"Our country is more educated than ever," Kominski added. "Four-fifths of all adults aged 25 and over have completed high school; over one-fifth have completed at least a bachelor's degree. Both levels represent all-time national highs."

According to the report, a person without a high school diploma might expect to earn $609,000; with a high school diploma, $821,000; with some college, $993,000; with an associate's degree, $1,062,000; with a bachelor's degree, $1,421,000; with a master's degree, $1,619,000.

"When I got out of high school in 1975, the unemployment rate was 8.5 percent. It was the best thing that ever happened to me. I couldn't find a job anywhere. So I went back to school and finished my associate degree in aviation maintenance and got my A&P (Airframe and Powerplant) license. Yes sir, a lousy economy at just the right time was the key to my success."

—Anonymous

- Why is Anonymous glad to have faced an unemployment rate of 8.5 percent?

_____

_____

_____

- Explain why a booming economy and a low unemployment rate may actually hurt young workers in the long run.

_____

_____

_____

2. Read each of the following scenarios. Decide if the individual is experiencing frictional, structural, or cyclical unemployment, and explain why you think so.

Ron is a high school dropout. He used to work as a dishwasher, but he quit because he didn't like the hours. He has been looking for another job but can't seem to find one, even though the economy is strong and the national unemployment rate is only 5.3%.

2. *Ron is structurally unemployed. He does not have the skills or education to fill local job openings.*

Sandra was laid off from her job on the assembly line of a major automobile manufacturer. The plant is closing and will not reopen. She is considering moving to Kentucky, where there may be job openings for which she is qualified.

Sandra is also structurally unemployed. Even though she has job skills, there are no longer any local openings because of plant closings.

Bobbi Jo has decided to go back to work now that her two children are in school full-time. She is looking for a part-time job so that she can still pick up the kids after school. She's already had three interviews, and she hopes to have something soon.

Bobbi Jo is frictionally unemployed. She is "just entering" the labor force after she was "not in the labor force."

Lucas is an experienced bricklayer. He is usually busy building new homes from late February through early November. This year it's different. He's been out of work for five months. But he's not alone. The national unemployment rate is higher than 7%. People just don't buy houses when they're afraid they might lose their jobs.

Lucas is cyclically unemployed. The construction industry is usually sensitive to the business cycle, and the high national unemployment rate indicates an economic downturn.

IN CLASS

These questions should be answered while you watch a special section of the videodisc that your teacher will play for you. Write your answers on the lines provided or on a separate sheet of paper.

1. When you work, what do you gain? What do you give up? How about employers—what do they gain from hiring you? What do they give up?

2. Economists agree that a steady 0% unemployment rate would not be ideal. Why can some unemployment be good for an economy?

ASSESSMENT-TRACK QUESTIONS

Besides appearing in the *Student Guide*, the questions under the heading **In Class** are contained on a special assessment track of the videodisc for this module. Using the appropriate disc side, you can access each question by swiping its barcode. Each question is presented as a voice-over to part of a video program that students previously watched. The video will provide students with valuable cues, enabling them to generalize previously learned material to new situations.

Assessment Question 1

1. *You work to satisfy your consumer wants. Leisure is defined as "time not spent working"; therefore, you sacrifice leisure when you work. Leisure can be "expensive." The higher the income you forego by not working, the higher the price of leisure. Firms hire when a new employee creates more output (value) than the cost of employing that person. Each input has an opportunity cost to the firm (e.g., output lost from not hiring someone else or buying new equipment). The value of this foregone output is what the employer sacrifices when it hires each new "input."*

Assessment Question 2

2. *One component of total unemployment is frictional unemployment resulting from normal labor turnover, new entrants, those searching for better jobs, etc. This dynamic nature of the labor market, with labor free to seek more productive (and higher paying) returns, is beneficial and contributes to a dynamic, growing economy. For this reason, frictional unemployment is of less concern to economists and policymakers than is cyclical unemployment, which results from national recessions.*

3. Why do teenagers have relatively high rates of unemployment? What type of unemployment best describes this situation?

Assessment Question 3

3. *Teenagers have some of the highest unemployment rates. Teens typically do not yet possess the skills and experience (and human capital) that firms need to produce output in the marketplace. This mismatch of skills is structural unemployment. As additional schooling, on-the-job training, and work experience are acquired, young workers become more employable.*

4. How are jobs created by a public sector different from those created by a private sector?

Assessment Question 4

4. *Private-sector jobs are created because additional value is created when a consumer want is satisfied by a producer. A voluntary exchange occurs as money is exchanged for the final good. Both buyer and seller voluntarily enter into the transaction, and employment is created to produce this output.*

Public-sector jobs are different. Resources used to finance public-sector jobs must originally come not from the voluntary exchange of goods and services but from tax revenues. Unlike private-sector exchanges, no voluntary exchange occurs to "create" the public-sector work; instead there's a transfer of resources from one group (taxpayers) to another (public-sector employees) to perform some governmental function.

GLOSSARY

absolute advantage—the ability to produce something with fewer resources than other producers use

accounting profit—revenues minus all explicit costs

aggregate demand—the total amount of spending by consumers, businesses, and all levels of government on newly produced goods and services

aggregate supply—the total amount of goods and services produced in the economy

allocative efficiency in choice of output—determining the efficient amount of a particular output

allocative efficiency in distribution—directing output to those who value it most highly

allocative efficiency in production—using the least costly combination of inputs to produce a given level of output

barriers to entry—factors that can prevent new firms from entering an industry; the requirement of extensive capital equipment and large-scale production may be a barrier to entry

capital resources—manufactured goods produced for the purpose of making other goods; capital resources include such things as buildings, tools, and machinery

comparative advantage—the ability to produce something at a lower opportunity cost than other producers face

competition—the actions of companies to increase sales

consuming—satisfying individual and collective wants

costs—the payment for all the resources used to produce a good or service

cyclical unemployment—the condition of people who are unemployed during a recession, when economic activity slows down; these people usually have job skills and will be rehired when economic activity increases

demand—the quantity of goods or services that consumers are willing and able to buy at all possible prices

economic profit—a firm's total revenue minus its explicit and implicit costs; (economic profit is greater than normal profit; when firms are earning economic profit, new firms will have an incentive to enter the industry)

equity—the dollar value of investment in a business or property

exchanging—trading goods and services for money or for other goods and services

explicit costs—costs that take the form of payments for resources purchased by the firm and that are recorded by accountants

fixed costs—costs that do not change with the level of output—they stay the same

frictional unemployment—the condition of people who are just entering the labor force or who are between jobs

full employment—the state of the economy when Gross Domestic Product (output) is growing in the range of two to five percent and when the unemployment rate is six percent or less

human capital—the stock of knowledge and ability that people possess

implicit costs—the firm's opportunity cost of using its own resources or those provided by the owners without a corresponding cash payment

industry—a group of firms producing similar goods or services

input prices—the cost of materials used to produce a good or service

international trade—the exchange of goods and services among people and institutions in different nations

investing—improving productive resources; for example, if a business buys a new piece of equipment or trains its employees, that's investing

labor market—the buying and selling of human effort used in the production of goods and services

long run—that time period when all costs are variable and when a firm is not bound to any fixed costs in the long run

marginal benefit—the extra satisfaction associated with an additional unit of output

marginal cost—the extra (additional) cost of producing one more unit of output

marginal physical product—the additional output produced when one additional unit of a resource is employed

marginal revenue product—the change in the total revenue of the firm when it employs one additional unit of a resource

market clearing or **equilibrium price**—that one price at which quantity supplied equals quantity demanded

normal profit—the situation that exists when a firm's revenue just covers all implicit and explicit costs; the minimum amount it takes to keep owners and investors in an industry

producing—transforming resources into goods and services

productive resources—natural resources (land), human resources (labor and the entrepreneur), and capital resources (tools and equipment), all of which are used to produce goods and services

price—the amount of money that people pay when they buy a good or service

productivity—the amount of output produced for every input used

profit—the difference between revenues and total costs entailed in producing or selling a good or service; a return for risk taking

relative prices—the price of one good or service in comparison with the prices of other goods and services; relative prices are the basic measure of the relative scarcity of a product when prices are set by market forces (supply and demand)

revenue—the price of the product multiplied by the quantity sold

saving—postponing consumption

scarcity—the condition in which resources are limited and the desire for goods and services is unlimited

short run—that time period when you have at least one fixed factor, such as plant size

structural unemployment—the condition of people who are unemployed because they do not have the right skills or because they do not live in the right place to fill existing job openings

supply—the quantity of goods or services that producers are willing and able to sell at all possible prices

technology—applied science; the phrase "technological advance" usually refers to how sophisticated or technical a production process is; the uses of pesticides, fertilizers, irrigation systems, and hybrid crops are examples of technological advances in agriculture

unemployment—a situation in which a person is willing and able to work and is looking for a job but can't find one; students, homemakers, and retirees are not considered unemployed if they have chosen not to work or look for work

variable costs—costs that change when the level of output changes

ADDITIONAL RESOURCES

BACKGROUND ON ECONOMICS

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Help with Using Technology

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Organizations Providing Information for High School Economics Teachers

- Agency for Instructional Technology
  P.O. Box A
  Bloomington, Indiana 47402-0120
  (800) 457-4509

  (Call or write for information on *Understanding Taxes* and *Taxes in U.S. History.*)

▶ ERIC Clearinghouse for Social Studies/Social Science Education (ERIC/Chess)
855 Broadway
Boulder, Colorado 80302
(303) 492-8434

(Write for list of free materials. Custom computer searches and duplicate printouts of computer searches of social studies materials are available.)

▶ National Council on Economic Education
1140 Avenue of the Americas
New York, New York 10036
(212) 730-7007

(Ask for checklist of publications.)

▶ U.S. Federal Reserve Board

(Write the banks—a partial list follows—for instructional materials and educational services of the Federal Reserve system.)

- Board of Governors of the Federal Reserve System
  Publications Services
  20th and C Streets, N.W.
  Washington, DC 20551
  (202) 452-3244
- Federal Reserve Bank of New York
  Public Information Department
  33 Liberty Street
  New York, NY 10045
  (212) 791-6134
- Federal Reserve Bank of Atlanta
  Research Department, Publications Unit
  104 Marietta Street, N.W.
  Atlanta, GA 30303
  (404) 586-8788
- Federal Reserve Bank of Chicago
  Public Information Center
  230 South LaSalle Street
  Chicago, IL 60690
  (312) 322-5112
- Federal Reserve Bank of St. Louis
  Bank Relations and Public Information
  411 Locust Street
  St. Louis, MO 63102
  (314) 444-8320
- Federal Reserve Bank of Richmond
  Public Services Department
  701 East Byrd Street
  Richmond, VA 23219
  (804) 643-1250
- Federal Reserve Bank of Kansas City
  Public Affairs Department
  925 Grand Avenue
  Kansas City, MO 64198
  (816) 881-2402
- Federal Reserve Bank of San Francisco
  Public Information Department
  101 Market Street
  San Francisco, CA 94105
  (415) 974-2246

Internet Resources

Economic Bulletin Board (EBB)
Gopher://una.hh.lib.umich.edu/11/ebb

Economic Education
http://unicorn.unomaha.edu/dept/econ/econed.htm

Economic Resources
http://soig.escr.bris.ac.uk.subjects/econ.html

Reach-Net
reach.ICEE.niu.edu

Resources for Economists on the Internet
This resource can be accessed through: *Shortcut to All Resources Link*
http://econwpa.wustl.edu/EconFAQ/EconFAQ.html

YaHoo's Economy Economics
http:/www.yahoo.com/Economy/Economics/

More Instructional Resources from AIT

The Learning Source

Geography in U.S. History

Investigate the relationship between geography and history to help students place historical events and trends in the contexts of time and place. This award-winning video series for grades 9-12 demonstrates how knowledge of geography contributes to historical understanding and develops historical and geographical literacy. ***Geography in U.S. History*** is ten 20-minute video programs and a 100-page teacher's guide.

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The Road to School-to-Work: A Map for Implementation

A complete School-to-Work Transition implementation resource for educators, businesses, and communities. Explore the nature of the School-to-Work movement, introduce a model for implementing a School-to-Work program in your school or district, and take the first step toward drafting an action plan. ***The Road to School-to-Work*** is one 74-minute video program, one 136-page School Implementation Resource, and one 32-page workshop facilitator's guide in a vinyl album.

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For more information on these and other resources, call AIT Customer Service at 800-457-4509.

Economics at Work is divided into five instructional modules, each organized around a central economic activity:

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Each ***Economics at Work*** teacher's guide contains:

- annotated student guide pages
- suggestions for implementing and directing student activities
- barcodes for accessing the interactive video segments
- barcodes for accessing "Assessment Track" questions
- barcodes for accessing "Teacher Track" instructional suggestions

Each teacher's guide lesson introduces an economic event and related concepts. The lesson then continues with either interactive videodisc segments and problem-solving challenges or written activities. Each lesson concludes with summary and assessment activities. The appendix to each teacher's guide includes a complete glossary of terms and an extensive resource list; a correlation to the National Council on Economic Education's *Scope and Sequence Guidelines, K-12;* and a barcoded database of charts and graphs available on the videodiscs.

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