

MICROECONOMY TODAY

Bradley R. Schiller

Karen Gebhardt





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THE MICRO ECONOMY TODAY

SIXTEENTH EDITION

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THE MICROECONOMY TODAY, SIXTEENTH EDITION

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1 2 3 4 5 6 7 8 9 LWI 24 23 22 21

ISBN 978-1-264-27341-6 (bound edition) MHID 1-264-27341-X (bound edition) ISBN 978-1-264-27344-7 (loose-leaf) MHID 1-264-27344-4 (loose-leaf)

Portfolio Manager: *Anke Weekes* Lead Product Developer: *Kelly Delso* Content Project Managers: *Kathryn D. Wright, Ann Courtney, and Emily Windelborn* Senior Buyer: *Laura Fuller* Senior Designer: *Matt Diamond* Content Licensing Specialist: *Traci Vaske* Cover Image: *city vector/Shutterstock* Compositor: *Aptara*[®], *Inc.*

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Library of Congress Cataloging-in-Publication Data

Names: Schiller, Bradley R., 1943- author. | Gebhardt, Karen, author. Title: The microeconomy today / Bradley R. Schiller, with Karen Gebhardt. Description: Sixteenth edition. | New York, NY : McGraw Hill Education, [2022] | Includes index. Identifiers: LCCN 2020047123 | ISBN 9781264273416 (hardcover) | ISBN 9781264273447 (spiral bound) Subjects: LCSH: Microeconomics. Classification: LCC HB172 .S3625 2022 | DDC 338.5–dc23 LC record available at https://lccn.loc.gov/2020047123 The Internet addresses listed in the text were accurate at the time of publication. The inclusion of a website does not indicate an endorsement by the authors or McGraw Hill LLC, and McGraw Hill LLC does not guarantee the accuracy of the information presented at these sites.

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ABOUT THE AUTHORS



Courtesy of Bradley R. Schiller

Bradley R. Schiller has more than four decades of experience teaching introductory economics at American University, the University of Nevada, the University of California (Berkeley and Santa Cruz), and the University of Maryland. He has given guest lectures at more than 300 colleges ranging from Fresno, California, to Istanbul, Turkey. Dr. Schiller's unique contribution to teaching is his ability to relate basic principles to current socioeconomic problems, institutions, and public policy decisions. This perspective is evident throughout *The Microeconomy Today*.

Dr. Schiller derives this policy focus from his extensive experience as a Washington consultant. He has been a consultant to most major federal agencies, many congressional committees, political candidates, and presidents. In addition, he has evaluated scores of government programs and helped design others. His studies of poverty, discrimination, training programs, tax reform, pensions, welfare, Social Security, and lifetime wage patterns have appeared in both professional journals and popular media. Dr. Schiller is also a frequent commentator on economic policy for television and radio, and his commentary has appeared in *The Wall Street Journal, The Washington Post, The New York Times,* and *Los Angeles Times,* among other major newspapers.

Dr. Schiller received his Ph.D. from Harvard and his B.A. degree, with great distinction, from the University of California (Berkeley). On his days off, Dr. Schiller is on the tennis courts, the ski slopes, or the crystal-blue waters of Lake Tahoe.



Courtesy of Karen Gebhardt

Dr. Karen Gebhardt is a faculty member in the Department of Economics and is the Director of the Online Economics Program at the University of Colorado Boulder. Dr. Gebhardt has a passion for teaching economics. She regularly instructs courses in all modalities (online, on campus, hybrid, remote) from introductory courses in macro- and microeconomics, to upper-division courses in microeconomics, international trade, and managerial economics and graduate courses in environmental economics and public finance.

She is an early adopter of teaching with technology and advocates strongly for it because she sees the difference it makes in student engagement and learning. Dr. Gebhardt was the recipient of the Water Pik Excellence in Education Award in 2006 and was awarded the Best Teacher Award in 2015 while she was at Colorado State University.

Dr. Gebhardt's research interests, publications, and presentations involve the economics and online education and the economics of human-wildlife interaction. Before returning to academia, she worked as an economist at the U.S. Department of Agriculture/Animal and Plant Health Inspection Service/Wildlife Services/National Wildlife Research Center, conducting research related to the interactions of humans and wildlife. Her current research focuses on using data to improve student learning outcomes in economics education with an emphasis on improving grades and completion rates in online courses.

In her free time, Dr. Gebhardt enjoys learning about new teaching methods that integrate technology and going rock climbing and camping in the Colorado Rockies and beyond.

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PREFACE

CURRENT, POLICY FOCUSED, READABLE

Current

Every edition of *The Microeconomy Today* has offered a level of currency that no other text has matched. Maintaining that front-page advantage has been particularly important to this edition. First and foremost is the integration of the coronavirus pandemic into the narrative. The pandemic – and the responses to it – changed the behavior and performance of economies around the world. Among other things, the pandemic prompted breathtaking expansions in the scope of government intervention. It also focused more attention on the supply side of the economy, especially the potential for external shocks to shut down production and government subsidies to restore it. In micro, we have seen how the pandemic changed both consumer and producer behavior – and wreaked havoc on domestic and international financial markets. The pandemic also changed political priorities, contributing to President Biden's 2020 Election. This edition examines those developments and their implications for ongoing policy and personal decision-making. This 16th edition offers the latest data on U.S. economic performance, global comparisons, policy initiatives, court cases, and political controversies over economic policy and priorities. Among the more visible updates are the following:

Policy Focused

The Microeconomy Today was one of the first economics textbooks to supplement the narrative with boxed illustrations of institutional and policy applications of core concepts. The goal has always been to help students see the relevance of studying economics to themselves and the world around them. Schiller and Gebhardt make sure students understand the challenges of economic policy and the consequences of specific actions like tariffs, regulation, and tax reform. They provide a balanced discussion of these issues, allowing students to recognize and assess different perspectives on critical issues. This Policy focus is reinforced by (a) attaching explanatory captions to every boxed insert, (b) referencing all of the boxed material in the body of the text, and (c) referencing the boxed material in end-of-chapter discussions questions and problems. Even the photos are captioned, to assure that students see their relevance.

Front Page Economics.

The *Front Page Economics* boxes are used to illustrate domestic applications of core concepts that make economics ever more relevant today. Student-focused examples cover everything from Starbucks price hikes, COVID-19 externalities, antitrust lawsuits, and Disney+ subscription pricing to the CARES Act and Mike Trout's \$426 million baseball contract. Some of the 20 new *Front Page Economics* stories are:

- "COVID-19 Cases Surpass 1 Million" illustrates externalities in Chapter 4.
- "Risky Business: Start-ups Face High Failure Rates" emphasizes entrepreneurial risk in Chapter 8.
- "Streaming Wars Heat Up" illustrates how competition evolves in Chapter 11.

- "House approves \$15 minimum wage" highlights pros and cons of wage floors in Chapter 16.
- "Taxes: Bernie vs. Biden" showcases the difference between nominal and effective tax rates in Chapter 19.

World View.

The *World View* boxes focus on global illustrations of core concepts that allow students to see economics in action beyond U.S. borders to help them become an educated global citizen. Among the 16 new *World View* boxes in this edition are:

- "Venezuela's Food Crisis" illustrates how price controls cause market shortages in Chapter 3.
- "Tesla Starts Rolling Out Cars from Shanghai Gigafactory" highlights investment vs. production decisions in Chapter 7.
- "Nations Scrambling to End Oil-Price War" emphasizes the need for coordination in oligopoly in Chapter 11.
- "JetBlue Looks to London" describes how landing slots are an entry barrier in Chapter 13.
- "Imported WineSqueezes U.S. Vintners" explains the resistance to free trade in Chapter 21.

Decisions for Tomorrow.

At the end of every chapter, students are challenged to use critical thinking skills to apply core concepts to a real-world phenomenon. The challenges may relate to public policy issues or life situations. All of these provocative questions not only challenge students to apply critical thinking but also to recognize the relevancy of core principles to the real world. Notice that all of the *Decisions* are posed as questions. The intent here is to encourage classroom discussion and debate. Among the *Decisions* challenges in this edition are:

- "What Is the Cost of Going Green?," in Chapter 1, explores opportunity costs.
- "Do 'Influencers' Really Matter?" questions how consumers make decisions in Chapter 5.
- "\$29 AirPods?" emphasizes the power of competition to drive innovation and prices in Chapter 9.
- "Do We Need a Billionaire's Tax?" examines the pros and cons of taxation in Chapter 19.
- "Who Wins Trade Wars?" looks at the impacts of trade wars in Chapter 21.

All of the *Decisions* are posed as questions to encourage classroom discussion.

Questions for Discussion.

End-of-chapter questions are common in textbooks. What distinguishes the *questions* in *The Microeconomy Today* is their explicit integration with the core narrative and the boxed features in each chapter. There are 80 new questions in this 16th edition.

Problems.

Problems are also provided at the end of each chapter. Like the *Questions for Discussion*, the *Problems* are closely integrated with chapter material and often require the student to review a boxed feature and apply

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data contained therein. There are 227 new problems (!) in this 16th edition.

Readable

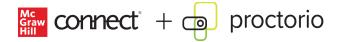
The one adjective invariably used to describe *The Microeconomy Today* is "readable." Professors often express a bit of shock when they realize that students actually enjoy reading the text. The writing style is lively and issue-focused. Unlike any other text on the market, every boxed feature, every graph, and every table is explained and analyzed. Every feature is also referenced in the text, so students actually learn the material rather than skipping over it. Because readability is ultimately in the eye of the beholder, you might ask a couple of students to read and compare a parallel chapter in *The Microeconomy Today* and in another text. This is a test *The Microeconomy Today* usually wins.

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Robust Integration with Connect

Connect is designed to support teaching and learning goals through providing graded and ungraded activities that can be integrated into a lecture, or assigned as part of a discussion board or problem set. Activities such as assignable discussion, graphing, and algorithmic problems; interactive graphs; and videos make it easy to enhance learning with just a few clicks. One unique feature of this text is that Schiller and Gebhardt personally have created the text-specific Connect content, leveraging their combined 60 years of teaching undergraduate face-to-face, online, hybrid, and remote courses to help you improve *your* students' learning. The author team assures that the text and all supplemental materials are harmonized and robustly integrated with Connect, providing peace of mind for both the professor and students.

Remote Proctoring & Browser-Locking Capabilities



New remote proctoring and browser-locking capabilities, hosted by Proctorio within Connect, provide control of the assessment environment by enabling security options and verifying the identity of the student.

Seamlessly integrated within Connect, these services allow instructors to control students' assessment experience by restricting browser activity, recording students' activity, and verifying students are doing their own work.

Instant and detailed reporting gives instructors an at-a-glance view of potential academic integrity concerns, thereby avoiding personal bias and supporting evidence-based claims.

CHAPTER-BY-CHAPTER CHANGES: PURPOSE, APPROACH, AND UPDATES

Every chapter of this edition has been thoroughly reviewed and subjected to careful revision, editing, and updating. The following paragraphs provide a quick overview of each chapter and a list of the most notable updates.

Chapter 1: Economics: The Core Issues introduces the core issues of What, How, and For Whom goods and services are produced. It also highlights debates of how those decisions are made—by free markets, by governments, or by some mix of both. The intent is to give students a sense that "the economy" is not an abstract phenomenon but instead a vital determinant of our collective well-being. Heritage Organization "free market" 2020 rankings illustrate how different economies are structured and global military spending levels illustrate some of the "guns vs. butter" outcomes that result. A new "Decisions for Tomorrow" feature highlights the goals and trade-offs of the "Green revolution."

Chapter 2: The U.S. Economy: A Global View is uniquely designed to give students an empirical perspective on the dimensions of the U.S. economy–specifically, what we produce, how we produce, and for whom we produce. Within each of these dimensions, comparisons are provided to the rest of the world, giving students a truly global view of how the U.S. economy stacks up. This is a critical foundation for informing students about the economic world we want them to understand.

Chapter 3: Supply and Demand introduces the core elements of the market mechanism. It does this in a much more empirical context, however, than most texts. Illustrations include a Front Page Economics story on the pricing of Disney+ subscriptions, a World View on the supply shifts due to the 2019 missile attacks on Saudi oil fields, a World View on Venezuelan price controls, and a discussion of how the coronavirus pandemic prompted alleged price gouging. The end-of-chapter Decisions for Tomorrow feature confronts students with the deadly consequences of prohibiting the purchase and sale of human organs.

Chapter 4: The Role of Government focuses on the justifications for government intervention Page xii and the institutions—federal, state, and local—that have been developed to perform those functions. The chapter not only details the scope of government(s) but also looks at public perceptions about how well the public sector performs. A World View on Israel's "Iron Dome" missile defense (a public good), a Front Page Economics on vaping bans (externalities), and a Front Page Economics on public confidence in government enliven the discussion. The end-of-chapter Decisions for Tomorrow feature highlights the shortcomings of collective decision making, including public choice theory.

Chapter 5: Consumer Choice introduces consumer choice by first contrasting sociopsychiatric and economic explanations of consumer behavior, thereby highlighting the differences between the desire for goods and the demand for goods. Utility theory, consumer surplus, price discrimination, and consumer choice are all covered. The Decisions for Tomorrow feature looks at how "influencers" affect consumer choices.

Chapter 6: Elasticity explores price, income, and cross-price elasticities with illustrations of Netflix price hikes, iPhone sales, and California's increased tax on cigarettes. The Decisions for Tomorrow feature ponders how falling gasoline prices will affect consumers' demand for electric vehicles.

Chapter 7: The Costs of Production introduces students to the supply side of markets. The production function is discussed in detail, emphasizing the embryotic relationship between productivity and cost

measures. Changes in ATC are illustrated with the volume of Uber rides, and economies of scale are illustrated with a World View on Tesla's Shanghai gigafactory. The Decisions for Tomorrow feature examines the substance of President Trump's accusation of "unfair" competition from foreign producers.

Chapter 8: The Competitive Firm starts by looking at the nature of profits and public (mis)perceptions about their scope and origins. It then illustrates the spectrum of market power, ranging from the perfectly competitive firm to monopoly. With this foundation, the chapter proceeds to examine the production decisions of perfectly competitive firms in the context of static equilibrium. Front Page Economics on start-up failure rates, public views of profits, and corporate shutdown decisions provide illustrative context.

Chapter 9: Competitive Markets is a unique, second chapter on competition that focuses on the dynamics of competitive markets—the heart and soul of market economies. The core story traces the evolution of the personal computer industry from the original Apple 1 to the latest iPhone. The emphasis is on how the profit motive drives innovation, entry, cost reductions, price cuts, and even exit in low-barrier markets. The Decisions for Tomorrow feature applies these insights to the current competition in AirPods.

Chapter 10: Monopoly takes students to the other end of the market structure spectrum and shows how monopoly decision making and outcomes differ from those of perfect competition. A unique, step-by-step contrast of behavior patterns drives the message home. The 2020 Justice Department suit against Live Nation and the continuing EU antitrust actions against Google should spark student interest.

Chapter 11: Oligopoly starts by showing how common oligopoly is in familiar product markets, using product-specific concentration ratios found in no other text. This empirical base is followed by an analysis of how oligopolies would like to behave (replicating monopoly outcomes), the mechanisms they use in pursuit of that goal, and the obstacles they confront. Front Page Economics on the ongoing streaming wars, the 2020 oil-price war, the T-Mobile-Sprint merger, and Dr Pepper's "Fansville" ad campaign enliven the theoretical analysis. The Decisions for Tomorrow feature examines recent proposals to break up Big Tech companies.

Chapter 12: Monopolistic Competition stresses the unique structure, behavior, and outcomes of this common industry structure. Data on brand values and ad spending underscore the importance of product differentiation in monopolistic competition. The Front Page Economics on the latest Starbucks price hike illustrates the low price elasticity of demand that brand loyalty creates. The Decisions for Tomorrow feature considers proposals for requiring truth in advertising.

Chapter 13: Natural Monopolies: (De)Regulation? goes beyond the depiction of this unique industry structure to explore the regulatory dilemmas that result. Quite simply, how can regulators compel natural monopolies to deliver the benefits of economies of scale without stifling innovation and productivity advance? And how much will regulation cost? These questions are illustrated in the trucking, airline, cable, and electricity industries. A World View on landing rights at Heathrow airport highlights the importance of entry barriers in sheltering natural monopolies from potential competition.

Chapter 14: Environmental Protection addresses one of the world's greatest challenges—namely, saving the planet. The role of market incentives in both environmental degradation and, potentially, environmental protection is emphasized. Also discussed are the pros and cons of several nonmarket approaches. Front Page Economics on pollution-induced deaths, the 2021 closing of New York's

nuclear plant, and California's cap-and-trade program enliven the discussion. The Decisions for Tomorrow feature assesses the costs of the Green New Deal.

Chapter 15: The Farm Problem looks at the unique circumstances of the farm sector that have motivated government interventions. Low price and income elasticities combine with the vagaries of the weather to keep farm prices and incomes volatile. The history of farm incomes and subsidies is depicted, including a summary of the 2018 Farm Act. A World View on the U.S.-China trade war points to another source of income instability on the farm.

Chapter 16: The Labor Market analyzes the determinants of labor demand and supply, and then shows how they interact to set market wages and employment levels. The issues of wage inequality and minimum wage floors are discussed at length. A critical distinction between *effective* and *ineffective* legislated wage hikes helps resolve empirical disputes. Front Page stories on Amazon's Career Day, Mike Trout's \$426 million baseball contract, and the proposed "Raise the Wage Act" drive home the relevance of this chapter. The Decisions feature examines proposals for capping CEO pay.

Chapter 17: Labor Unions looks at the character, history, and prevalence of labor unions. The core of the chapter focuses on union wage/employment goals and their strategies for achieving them. Monopsonist strategies are also described and the parameters of collective bargaining established. A Front Page Economics on the 2019 UAW strike against GM illustrates the breadth of bargaining issues.

Chapter 18: Financial Markets emphasizes the economic function of financial markets in reallocating resources to new ventures and products. The stock, bond, and venture-capital markets are all analyzed. Examples range from the financing of Columbus's expedition to the Uber IPO. Stock market data on Apple, Google, and Uber are used to illustrate risk and present values.

Chapter 19: Taxes: Equity versus Efficiency sheds critical light on continuing debates about tax policy. The discussion begins with a look at the U.S. pre-tax and post-tax distributions of income. Actual tax burdens are illustrated with the tax returns of Joe Biden and Bernie Sanders (President Trump declined to provide his tax returns for this analysis) and 2020 tax brackets. Trump's tax cuts and Biden's proposed tax hikes are reviewed. The Decisions feature assesses billionaires' tax proposals.

Chapter 20: Transfer Payments: Welfare and Social Security focuses on the second tool of income redistribution. The discussion emphasizes the same trade-off between equity and efficiency that permeates tax policy. Welfare and social security illustrations showcase implicit marginal tax rates and their impact on labor-supply behavior.

Chapter 21: International Trade not only explains the theory of comparative advantage but also examines the opposition to free trade and the trade barriers that result. President Trump's trade wars with China and his national security argument about TikTok are discussed, followed by a Decisions feature on "Who Wins Trade Wars?" The USMCA is reviewed, as are the latest data on trade flows. World Views on the dumping of Korean cigarettes and competition from wine imports and a Front Page Economics on the cost of sugar quotas keep the discussion lively.

Chapter 22: International Finance goes beyond the mechanics of exchange-rate determination Page xiv to identify the gainers and losers from exchange-rate fluctuations. A World View on the effects of the 2014–2020 appreciation of the U.S. dollar helps illustrate those redistributive effects (and the opposition thereto). The collapse of the Venezuelan bolivar adds further insight. A World View on the weakest global currencies is insightful as well.

Chapter 23: Global Poverty draws attention to the persistent depravation that still afflicts nearly 40 percent of the world's population. The discussion begins with a comparison of U.S. poverty thresholds with official global poverty measures. A survey of global poverty incidence is followed by an analysis of causation and potential remedies.

Student Problem Set

We firmly believe that students must *work* with key concepts in order to really learn them. Weekly homework assignments are *de rigueur* in our own classes. To facilitate homework assignments, we have prepared the student problem set at the end of each chapter. These sets include built-in numerical and graphing problems that build on the tables, graphs, and boxed material that align with each chapter's learning objectives. Students cannot complete all the problems without referring to material in the chapter. This increases the odds of students actually *reading* the chapter, the tables, and the boxed applications.

The student problem set at the end of each chapter is reproduced in Connect. This really helps students transition between the written material and online supplements. It also means that the online assignments are totally book-specific.

NEW AND IMPROVED SUPPLEMENTS

The following ancillaries are available for quick download and convenient access via the Instructor Resource material available through McGraw-Hill Connect: PowerPoint Presentations, Accessible PowerPoint Presentations, Instructor's Manual, Solution's Manual, and Test Builder Access.

ACKNOWLEDGMENTS

This 16th edition of *The Microeconomy Today* represents a continuing commitment to disseminate the core principles of economics to a broad swath of college students.

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Like earlier editions, it has benefited greatly from the continuing stream of ideas and suggestions from both instructors and students. For all that feedback we are most grateful. Among those who have contributed to this and prior editions are the following instructors:

Reviewers

Cynthia E. Abadie Southwest Tennessee Community College Mark Abajian San Diego Mesa College Steve Abid Grand Rapids Community College Ercument G. Aksoy Los Angeles Valley College Mauro Cristian Amor Northwood University **Catalina Amuedo-Dorantes** San Diego State University Dr. Michael Aubry Cuyamaca College Gerald Baumgardner Penn College Mack A. Bean Franklin Pierce University Adolfo Benavides Texas A&M University-Corpus Christi Anoop Bhargava Finger Lakes Community College **Joerg Bibow** Skidmore College **Eugenie Bietry** Pace University John Bockino Suffolk County Community College **Peter Boelman** Norco College Walter Francis Boyle Fayetteville Technical Community College Amber Brown Grand Valley State University **Don Bumpass** Sam Houston State University Suparna Chakraborty Baruch College, CUNY Stephen J. Conroy University of San Diego Sherry L. Creswell Kent State University Manabendra Dasgupta University of Alabama-Birming ham **Antony Davies** Duquesne University **Diane de Freitas** Fresno City College **Diana Denison** Red Rocks Community College Alexander Deshkovski North Carolina Central University John A. Doces Bucknell University **Ishita Edwards**

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We would like to express our sincere appreciation to Gregory Gilpin of Montana State University and Christina Esparza-Luna at Hartnell College for preparing the PowerPoint Presentations, Christopher Blake of Emory University, Deborah Thorsen of Palm Beach State College, Emily Bello, and Stephen Slice of University of South Carolina for their contributions in revising the Testbank, Dan Mizak of Frostburg University for authoring the Instructor's Manual, and Jody Lotz for her detailed edit of the Connect content, as well as Mark Wilson of West Virginia State University, Joseph Euculano of Wilming ton University, and Susan Bell of Seminole State College for their careful accuracy review. The text itself and all the accompanying supplements could not make it to the marketplace without the prodigious efforts of the production team at McGraw-Hill. In this regard, we want to extend special thanks to Kelly Delso, who managed the product development process required to produce a text today. Anke Weekes served once again as a valued portfolio director of the entire project. Let us conclude by thanking all the instructors and students who are going to use *The Microeconomy Today* as an introduction to economic principles. We will welcome any reactions and suggestions you'd like to pass on for future editions.

> -Bradley R. Schiller -Karen Gebhardt



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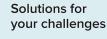
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Students: Get Learning that Fits You

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- Jordan Cunningham, Eastern Washington University



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We Take Students Higher

As a learning science company, we create content that supports higher order thinking skills. Within Connect®, we tag assessments accordingly so you can filter your search, assign it, and receive reporting on it. These content asset types can be associated with one or more levels of Bloom's Taxonomy.

The chart below shows a few of the key assignable economics assets with *McGraw Hill Connect* aligned with Bloom's Taxonomy. Take your students higher by assigning a variety of applications, moving them from simple memorization to concept application.



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SmartBook 2.0

Adaptively aids students to study more efficiently by highlighting where in the chapter to focus, asking review questions and pointing them to passages in the text until they understand. Assignable and assessable

Adaptive Econ Prep

Math and graphing preparedness assignments help students refresh important prerequisite topics necessary to be successful in economics. New Adaptive Econ Prep Tool provides students just-in-time math and graphing remediation that are prerequisite to success in Economics courses and adapt to each student.

Videos

Tutorial videos provide engaging explanations to help students grasp challenging concepts. Application videos bring economics to life with relevant, real world examples. All videos include closed captioning for accessibility and are assignable with assessment questions for improved retention.

Exercises

Exercises with algorithmic variations provide ample opportunities for students to practice and hone quantitative skills. Graphing Exercises provide opportunities for students to draw, interact with, manipulate, and analyze graphs.

Interactive Graphs

Interactive Graphs provide visual displays of real data and economic concepts for students to manipulate. All graphs are accompanied by assignable Assessment questions and feedback to guide students through the experience of learning to read and interpret graphs and data.

Application-Based Activities

Immersive real-life scenarios engage students and put them in the role of everyday economists. Students practice their economic thinking and problemsolving skills as they apply course concepts and see the implications of their decisions as they go. Each activity is designed as a 15-minute experience, unless students eagerly replay for a better outcome.

ECON Everyday Current Events Blog

Our Econ Everyday blog saves instructors time bringing current, student-centered content into their course all semester long. Short articles, written for principleslevel students, is tagged by topic to bring currency into your course. We also provide discussion questions to help you drive the conversation forward. Visit www.econeveryday.com and subscribe for updates.

Writing Assignment Plus

Writing Assignment Plus delivers a learning experience that helps students improve their written communication skills and conceptual understanding. Faculty can assign, monitor, grade, and provide feedback on writing projects efficiently. Built-in grammar and writing review helps students improve writing quality while an originality check helps students correct central plagiarism before submission. End result? Improved workplace skills of writing in critical thinking.

For more information, please visit: www.mheducation.com/highered/economics















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