McGraw Hill's
Taxation of Individuals

Brian C. Spilker
Brigham Young University
Editor

Benjamin C. Ayers
The University of Georgia

John A. Barrick
Brigham Young University

Troy K Lewis
Brigham Young University
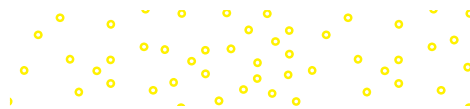
John R. Robinson
Texas A&M University

Connie D. Weaver
Texas A&M University

Ron G. Worsham
Brigham Young University

Mc
Graw
Hill

McGRAW HILL'S TAXATION OF INDIVIDUALS, 2022 EDITION, THIRTEENTH EDITION

mheducation.com/highered

Dedications

We dedicate this book to:

My family and to Professor Dave Stewart for his great example and friendship.

Brian Spilker

My wife Marilyn, daughters Margaret Lindley and Georgia, son Benjamin, and parents Bill and Linda.

Ben Ayers

My wife Jill and my children Annika, Corinne, Lina, Mitch, and Connor.

John Barrick

My wife Mindy; sons Tyler, Braden, and Connor; and parents Kent and Wendy.

Troy Lewis

JES, Tommy, and Laura.

John Robinson

My family: Dan, Travis, Alix, Alan, and Anna.

Connie Weaver

My wife Anne, sons Matthew and Daniel, and daughters Whitney and Hayley.

Ron Worsham

In Memoriam

On May 20, 2019, we lost one of our beloved authors, Edmund (Ed) Outslay, aged 67. During his tenure at Michigan State University from 1980 to 2019, Ed was known as a passionate academic, impactful mentor, and devoted community volunteer.

Over the course of his long and distinguished career, Ed gathered a remarkable list of accomplishments. He coauthored three tax textbooks, testified before the U.S. Senate Finance Committee, and presented to the Treasury, the IRS, and the Office of Tax Analysis. He won numerous awards from the Eli Broad College of Business at MSU, including the Distinguished Faculty Award, the Presidential Award for Outstanding Community Service, the Withrow Teacher-Scholar Award, and the Curricular Service-Learning and Civic Engagement Award, in addition to numerous departmental teaching and research awards.

Ed enjoyed volunteering his time and was involved in many community programs, such as Lansing's Meals on Wheels program and MSU's Volunteer Income Tax Assistance (VITA) program. He was also an assistant baseball coach at East Lansing High School.

Ed was an avid reader and enjoyed visiting baseball parks and the zoo; he enjoyed coaching baseball and celebrating Halloween.

He earned his bachelor's degree from Furman University in Greenville, South Carolina, and his MBA and PhD from the University of Michigan.

Ed's guidance, energy, and contributions will be deeply missed.

Courtesy Ed Outslay

About the Authors

Brian C. Spilker (PhD, University of Texas at Austin, 1993) is the Robert Call/Deloitte Professor in the School of Accountancy at Brigham Young University. He teaches taxation at Brigham Young University. He received both BS (Summa Cum Laude) and MAcc (tax emphasis) degrees from Brigham Young University before working as a tax consultant for Arthur Young & Co. (now Ernst & Young). After his professional work experience, Brian earned his PhD at the University of Texas at Austin. He received the Price Waterhouse Fellowship in Tax Award and the American Taxation Association and Arthur Andersen Teaching Innovation Award for his work in the classroom. Brian has also been awarded for his use of technology in the classroom at Brigham Young University. Brian researches issues relating to tax information search and professional tax judgment. His research has been published in journals such as *The Accounting Review, Organizational Behavior and Human Decision Processes, Journal of the American Taxation Association, Behavioral Research in Accounting, Issues in Accounting Education, Accounting Horizons, Journal of Accounting Education, Journal of Corporate Taxation, Journal of Accountancy,* and *The Tax Adviser.*

Courtesy of Brian Spilker

Ben Ayers (PhD, University of Texas at Austin, 1996) holds the Earl Davis Chair in Taxation and is the dean of the Terry College of Business at the University of Georgia. He received a PhD from the University of Texas at Austin and an MTA and BS from the University of Alabama. Prior to entering the PhD program at the University of Texas, Ben was a tax manager at KPMG in Tampa, Florida, and a contract manager with Complete Health, Inc., in Birmingham, Alabama. He is the recipient of 11 teaching awards at the school, college, and university levels, including the Richard B. Russell Undergraduate Teaching Award, the highest teaching honor for University of Georgia junior faculty members. His research interests include the effects of taxation on firm structure, mergers and acquisitions, and capital markets and the effects of accounting information on security returns. He has published articles in journals such as *The Accounting Review, Journal of Finance, Journal of Accounting and Economics, Contemporary Accounting Research, Review of Accounting Studies, Journal of Law and Economics, Journal of the American Taxation Association,* and *National Tax Journal*. Ben was the 1997 recipient of the American Accounting Association's Competitive Manuscript Award, the 2003 and 2008 recipient of the American Taxation Association's Outstanding Manuscript Award, and the 2016 recipient of the American Taxation Association's Ray M. Sommerfeld Outstanding Tax Educator Award.

Courtesy of Ben Ayers

John Barrick (PhD, University of Nebraska at Lincoln, 1998) is currently an associate professor in the Marriott School at Brigham Young University. He served as an accountant at the United States Congress Joint Committee on Taxation during the 110th and 111th Congresses. He teaches taxation in the graduate and undergraduate programs at Brigham Young University. He received both BS and MAcc (tax emphasis) degrees from Brigham Young University before working as a tax consultant for Price Waterhouse (now PricewaterhouseCoopers). After his professional work experience, John earned his PhD at the University of Nebraska at Lincoln. He was the 1998 recipient of the American Accounting Association, Accounting, Behavior, and Organization Section's Outstanding Dissertation Award. John researches issues relating to tax corporate political activity. His research has been published in journals such as *Organizational Behavior and Human Decision Processes, Contemporary Accounting Research,* and *Journal of the American Taxation Association*.

Courtesy of John Barrick

Courtesy of Troy K Lewis

Troy K Lewis (CPA, CGMA, MAcc, Brigham Young University, 1995) is an associate teaching professor in the School of Accountancy at Brigham Young University—Marriott School of Business. He teaches graduate and undergraduate courses in introductory taxation, property transactions, pass-through entity taxation, advanced individual taxation, and accounting for income taxes. He is the past chair of the Tax Executive Committee of the American Institute of CPAs (AICPA) in Washington, D.C., as well as the president of the Utah Association of CPAs (UACPA). He has testified six times before the United States Finance Committee and the House Committee on Small Business. Prior to joining the faculty at BYU, he was a tax manager at Arthur Andersen and KPMG in Salt Lake City, Utah. In addition, he was employed for over a decade as the CERMO and Tax Director of Heritage Bank in St. George, Utah. He is the recipient of the AICPA Tax Section Distinguished Service Award, the BYU Marriott Ethics Teaching Award, and the UACPA Distinguished Service Award. Troy researches and publishes in professional tax journals in the areas of individual and pass-through taxation, qualified business income deduction, and property transactions as well as professional tax practice standards. His work has been published in journals such as *Practical Tax Strategies, Journal of Accountancy, Issues in Accounting Education,* and *The Tax Adviser*.

Courtesy of John Robinson

John Robinson (PhD, University of Michigan, 1981) is the Patricia '77 and Grant E. Sims '77 Eminent Scholar Chair in Business. Prior to joining the faculty at Texas A&M, John was the C. Aubrey Smith Professor of Accounting at the University of Texas at Austin, Texas, and he taught at the University of Kansas, where he was the Arthur Young Faculty Scholar. In 2009–2010 John served as the Academic Fellow in the Division of Corporation Finance at the Securities and Exchange Commission. He has been the recipient of the Henry A. Bubb Award for outstanding teaching, the Texas Blazer's Faculty Excellence Award, and the MPA Council Outstanding Professor Award. John also received the 2012 Outstanding Service Award from the American Taxation Association (ATA) and in 2017 was named the Ernst & Young and ATA Ray Sommerfeld Outstanding Educator. John served as the 2014–2015 president (elect) of the ATA and was the ATA's president for 2015–2016. John conducts research in a broad variety of topics involving financial accounting, mergers and acquisitions, and the influence of taxes on financial structures and performance. His scholarly articles have appeared in *The Accounting Review, The Journal of Accounting and Economics, Journal of Finance, National Tax Journal, Journal of Law and Economics, Journal of the American Taxation Association, The Journal of the American Bar Association,* and *The Journal of Taxation.* John's research was honored with the 2003 and 2008 ATA Outstanding Manuscript Awards. In addition, John was the editor of *The Journal of the American Taxation Association* from 2002–2005. Professor Robinson received his JD (*Cum Laude*) from the University of Michigan in 1979, and he teaches courses on individual and corporate taxation and advanced accounting.

Courtesy of Connie Weaver

Connie Weaver (PhD, Arizona State University, 1997) is the KPMG Professor of Accounting at Texas A&M University. She received a PhD from Arizona State University, an MPA from the University of Texas at Arlington, and a BS (chemical engineering) from the University of Texas at Austin. Prior to entering the PhD program, Connie was a tax manager at Ernst & Young in Dallas, Texas, where she became licensed to practice as a CPA. She teaches taxation in the Professional Program in Accounting and the Executive MBA program at Texas A&M University. She has also taught undergraduate and graduate students at the University of Wisconsin–Madison and the University of Texas at Austin. She is the recipient of several teaching awards, including the American Taxation Association/Deloitte Teaching Innovations award, the David and Denise Baggett Teaching award, and the college and university level Association of Former Students Distinguished Achievement award in teaching. Connie's current research interests include the effects of tax and financial incentives on corporate decisions and reporting. She has published articles in journals such as *The Accounting Review, Contemporary Accounting Research, Journal of the American Taxation Association, National Tax Journal, Accounting Horizons, Journal of Corporate Finance,* and *Tax Notes*. Connie is an editor of *The Accounting Review* and has served as the senior editor of *The Journal of the American Taxation Association* and on the editorial board of *Contemporary Accounting Research*.

Ron Worsham (PhD, University of Florida, 1994) is an associate professor in the School of Accountancy at Brigham Young University. He teaches taxation in the graduate program at Brigham Young University. He has also taught as a visiting professor at the University of Chicago. He received both BS and MAcc (tax emphasis) degrees from Brigham Young University before working as a tax consultant for Arthur Young & Co. (now Ernst & Young) in Dallas, Texas. While in Texas, he became licensed to practice as a CPA. After his professional work experience, Ron earned his PhD at the University of Florida. He has been honored for outstanding innovation in the classroom at Brigham Young University. Ron has published academic research in the areas of taxpayer compliance and professional tax judgment. He has also published legal research in a variety of areas. His work has been published in journals such as *Journal of the American Taxation Association, The Journal of International Taxation, The Tax Executive, Tax Notes, The Journal of Accountancy,* and *Practical Tax Strategies*.

Courtesy of Ron Worsham

TEACHING THE CODE IN CONTEXT

The bold, innovative approach used by McGraw Hill's Taxation *series has become the most popular choice of course materials among instructors and students—a remarkable achievement in just over 10 years since first publishing. It's apparent why the clear, organized, and engaging delivery of content, paired with the most current and robust tax code updates, has been adopted by more than 650 schools across the country.*

McGraw Hill's Taxation is designed to provide a unique, innovative, and engaging learning experience for students studying taxation. The breadth of the topical coverage, **the storyline approach to presenting the material,** the emphasis on the tax and nontax consequences of multiple parties involved in transactions, and the integration of financial and tax accounting topics make this book ideal for the modern tax curriculum.

> "Do you want the best tax text? This is the one to use. It has a storyline in each chapter that can relate to real life issues."
>
> Leslie A. Mostow
> – University of Maryland—College Park

> "This text provides broad coverage of important topics and does so in a manner that is easy for students to understand. The material is very accessible for students."
>
> Kyle Post
> – Tarleton State University

Since the first manuscript was written in 2005, 450 professors have contributed 500 book reviews, in addition to 30 focus groups and symposia. Throughout this preface, their comments on the book's organization, pedagogy, and unique features are a testament to the **market-driven nature of *Taxation*'s development.**

> "I think this is the best book available for introductory and intermediate courses in taxation."
>
> Shane Stinson
> – University of Alabama

x

A MODERN APPROACH FOR TODAY'S STUDENT

McGraw Hill's Taxation series was built around the following five core precepts:

1 **Storyline Approach:** Each chapter begins with a storyline that introduces a set of characters or a business entity facing specific tax-related situations. Each chapter's examples are related to the storyline, providing students with opportunities to **learn the code in context.**

2 **Integrated Examples:** In addition to providing examples in context, we provide **"What if"** scenarios within many examples to **illustrate how variations in the facts might or might not change the answers.**

3 **Conversational Writing Style:** The authors took special care to write *McGraw Hill's Taxation* in a way that fosters a friendly dialogue between the content and each individual student. The tone of the presentation is intentionally conversational—creating the impression of *speaking with* **the student,** as opposed to *lecturing to* the student.

4 **Superior Organization of Related Topics:** *McGraw Hill's Taxation* provides two alternative topic sequences. In the *McGraw Hill's Taxation of Individuals and Business Entities* volume, the individual topics generally follow the tax form sequence, with an individual overview chapter and then chapters on income, deductions, investment-related issues, and the tax liability computation. The topics then transition into business-related topics that apply to individuals. This volume then provides a group of specialty chapters dealing with topics of particular interest to individuals (including students), including separate chapters on home ownership, compensation, and retirement savings and deferred compensation. Alternatively, in the *Essentials of Federal Taxation* volume, the topics follow a more traditional sequence, with topics streamlined (no specialty chapters) and presented in more of a life-cycle approach.

5 **Real-World Focus:** Students learn best when they see how concepts are applied in the real world. For that reason, real-world examples and articles are included in **Taxes in the Real World** boxes throughout the book. These vignettes demonstrate current issues in taxation and show the relevance of tax issues in all areas of business.

A STORYLINE APPROACH THAT RESONATES WITH STUDENTS

Michaeljung/Shutterstock

Storyline Summary

Taxpayers:	Bill and Mercedes
Family description:	Bill and Mercedes are married with one daughter, Margaret, and live in Tampa, Florida.
Employment status:	Bill is an economics professor; Mercedes is a small business owner.
Filing status:	Married, filing jointly
Current situation:	Bill and Mercedes face an IRS audit involving a previous year's interest deductions.

Bill and Mercedes received a notice from the Internal Revenue Service (IRS) that their tax return is under audit for certain interest deductions. As you might expect, they are quite concerned, especially because it has been several years since they claimed the deductions and they worry that all their supporting documentation may not be in place. Several questions run through their minds. How could the IRS audit a tax return that was filed so long ago? Why was their tax return selected, and what should they expect during the audit? The interest deductions they reported were based on advice from their CPA. What would cause the IRS and a CPA to interpret the law differently? What is their financial exposure if the deductions are ultimately disallowed? Will they have to pay interest and penalties in addition to the tax they might owe? ■

Vectorfusionart/Shutterstock

Each chapter begins with a storyline that introduces a set of characters facing specific tax-related situations. This revolutionary approach to teaching tax emphasizes real people facing real tax dilemmas. Students learn to apply practical tax information to specific business and personal situations. As their situations evolve, the characters are brought further to life.

Examples

Examples are the cornerstone of any textbook covering taxation. For this reason, *McGraw Hill's Taxation* authors took special care to create clear and helpful examples that relate to the storyline of the chapter. Students learn to refer to the facts presented in the storyline and apply them to other scenarios—in this way, they build a greater base of knowledge through application. Many examples also include "What if?" scenarios that add more complexity to the example or explore related tax concepts.

Example 2-1

Bill and Mercedes file their 2017 federal tax return on September 6, 2018, after receiving an automatic extension to file their return by October 15, 2018. In 2021, the IRS selects their 2017 tax return for audit. When does the statute of limitations end for Bill and Mercedes's 2017 tax return?

Answer: Assuming the six-year and "unlimited" statute of limitation rules do not apply, the statute of limitations ends on September 6, 2021 (three years after the later of the actual filing date and the *original* due date).

What if: When would the statute of limitations end for Bill and Mercedes for their 2017 tax return if the couple filed the return on March 22, 2018 (before the original due date of April 17, 2018)? The original due date was April 17th because April 15th fell on a Sunday and April 16th was a holiday.

Answer: In this scenario, the statute of limitations would end on April 17, 2021, because the later of the actual filing date and the original due date is April 17, 2018.

THE PEDAGOGY YOUR STUDENTS NEED TO PUT THE CODE IN CONTEXT

Taxes in the Real World

Taxes in the Real World are short boxes used throughout the book to demonstrate the real-world use of tax concepts. Current articles on tax issues, the real-world application of chapter-specific tax rules, and short vignettes on popular news about tax are some of the issues covered in Taxes in the Real World boxes.

> **TAXES IN THE REAL WORLD**   Is It a Deductible State Tax Payment or Charitable Contribution?
>
> In recent years, it has become popular for state and local governments to provide state or local tax credits for contributions to certain qualified charities (for example, local hospitals, certain scholarship funds, etc.). While there was no "official" IRS guidance on the federal tax treatment of these contributions, in "unofficial" guidance, the IRS Office of Chief Counsel (see Chief Counsel Advice Memorandum 201105010) advised that a payment to a state agency or charitable organization in return for a tax credit might be characterized as either a deductible charitable contribution or a deductible state tax payment. The 2011 CCA advised that taxpayers could take a charitable deduction for the full amount of the contribution without subtracting the value of the state tax
>
> to reduce the taxpayer's state tax liability. Because individuals deduct both state taxes and charitable contributions as itemized deductions, the IRS was not too concerned with these types of state tax credit programs.
>
> As you might expect, the IRS's laissez-faire stance changed in 2018 with the enactment of the $10,000 limit on the itemized deduction for state and local taxes. Specifically, the IRS revisited the federal tax consequences of state and local tax credit programs out of concern that taxpayers may use these programs to bypass the $10,000 limit on state and local tax deductions. After further review, the news was not favorable for taxpayers. In Reg. §1.170A-1(h)(3), the IRS states that, effective for contributions after August 27, 2018, taxpayers

The Key Facts

The Key Facts provide quick synopses of the critical pieces of information presented throughout each chapter.

> The **tax base** defines what is actually taxed and is usually expressed in monetary terms, whereas the **tax rate** determines the level of taxes imposed on the tax base and is usually expressed as a percentage. For example, a taxable purchase of $30 times a sales tax rate of 6 percent yields a tax of $1.80 ($1.80 = $30 × .06).
>
> Federal, state, and local jurisdictions use a large variety of tax bases to collect tax. Some common tax bases (and related taxes) include taxable income (federal and state income taxes), purchases (sales tax), real estate values (real estate tax), and personal property values (personal property tax).
>
> Different portions of a tax base may be taxed at different rates. A single tax applied
>
> **THE KEY FACTS**
> **How to Calculate a Tax**
> - Tax = Tax base × Tax rate
> - The tax base defines what is actually taxed and is usually expressed in monetary terms.
> - The tax rate determines the level of taxes imposed

Exhibits

Today's students are visual learners, and *McGraw Hill's Taxation* understands this student need by making use of clear and engaging charts, diagrams, and tabular demonstrations of key material.
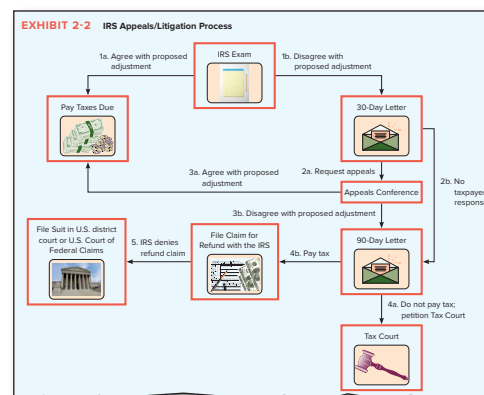
(*Legal Notepad*) Imageroller/Alamy Stock Photo;
(*US Supreme Court*) Jill Braaten/McGraw Hill

> "This is the best text I have found for both my students and myself. Easier to read than other textbooks I have looked at, good examples, and, as mentioned before, I appreciate the instructor resources."
>
> Esther Ehrlich, CPA – The University of Texas at El Paso

PRACTICE MAKES PERFECT WITH A WIDE VARIETY OF ASSIGNMENT MATERIAL

Summary

Summary	
LO 2-1	Identify the filing requirements for income tax returns and the statute of limitations for assessment.

- All corporations must file a tax return annually regardless of their taxable income. Estates and trusts are required to file annual income tax returns if their gross income exceeds $600. The filing requirements for individual taxpayers depend on the taxpayer's filing status, age, and gross income.
- Individual and C corporation tax returns (except for C corporations with a June 30 year-end) are due on the fifteenth day of the fourth month following year-end. For C corporations with a June 30 year-end, partnerships, and S corporations, tax returns must be filed by the fifteenth day of the third month following the entity's fiscal year-end. Any taxpayer unable to file a tax return by the original due date can request an extension to file.
- For both amended tax returns filed by a taxpayer and proposed tax assessments by the IRS, the statute of limitations generally ends three years from the *later* of (1) the date the tax return was actually filed or (2) the tax return's original due date.

LO 2-2 Outline the IRS audit process, how returns are selected, the different types of audits, and what happens after the audit.

Summary

A unique feature of *McGraw Hill's Taxation* is the end-of-chapter summary organized around learning objectives. Each objective has a brief, bullet-point summary that covers the major topics and concepts for that chapter, including references to critical exhibits and examples. All end-of-chapter material is tied to learning objectives.

Learning Objectives

Upon completing this chapter, you should be able to:

LO 2-1 Identify the filing requirements for income tax returns and the statute of limitations for assessment.

LO 2-2 Outline the IRS audit process, how returns are selected, the different types of audits, and what happens after the audit.

LO 2-3 Evaluate the relative weights of the various tax law sources.

LO 2-4 Describe the legislative process as it pertains to taxation.

LO 2-5 Perform the basic steps in tax research.

LO 2-6 Describe tax professional responsibilities in providing tax advice.

LO 2-7 Identify taxpayer and tax professional penalties.

DISCUSSION QUESTIONS

Discussion Questions are available in Connect®.

McGraw Hill connect

LO 2-1 1. Name three factors that determine whether a taxpayer is required to file a tax return.

LO 2-1 2. Benita is concerned that she will not be able to complete her tax return by April 15. Can she request an extension to file her return? By what date must she do so? Assuming she requests an extension, what is the latest date that she could file her return this year without penalty?

LO 2-1 3. Agua Linda Inc. is a calendar-year corporation. What is the original due date for the corporate tax return? What happens if the original due date falls on a Saturday?

LO 2-2 4. Approximately what percentage of tax returns does the IRS audit? What are the implications of this number for the IRS's strategy in selecting returns for audit?

Discussion Questions

Discussion questions, available in Connect, are provided for each of the major concepts in each chapter, providing students with an opportunity to review key parts of the chapter and answer evocative questions about what they have learned.

Problems

Problems are designed to test the comprehension of more complex topics. Each problem at the end of the chapter is tied to one of that chapter's learning objectives, with multiple problems for critical topics.

PROBLEMS

Select problems are available in Connect®.

connect

LO 2-1 43. Ahmed does not have enough cash on hand to pay his taxes. He was excited to hear that he can request an extension to file his tax return. Does this solve his problem? What are the ramifications if he doesn't pay his tax liability by April 15?

LO 2-1 44. Molto Stancha Corporation had zero earnings this fiscal year; in fact, it lost money. Must the corporation file a tax return?

Tax Form Problems

Tax form problems are a set of requirements included in the end-of-chapter material of the 2022 edition. These problems require students to complete a tax form (or part of a tax form), providing students with valuable experience and practice with filling out these forms. These requirements—and their relevant forms—are also included in Connect, with select problems available in both static and algorithmic format. Each tax form problem includes an icon to differentiate it from regular problems.

Research Problems

Research problems are special problems throughout the end-of-chapter assignment material. These require students to

37. Tim is 45 years old and is considering enrolling in an insurance program that provides for long-term care insurance. He is curious about whether the insurance premiums are deductible as a medical expense. If so, he wants to know the maximum amount that can be deducted in any year.

LO 6-2

research

38. Doctor Bones prescribed physical therapy in a pool to treat Jack's broken back. In response to this advice (and for no other reason), Jack built a swimming pool in his backyard and strictly limited use of the pool to physical therapy. Jack paid $25,000 to build the pool, but he wondered if this amount could be deducted as a medical expense. Determine if a capital expenditure such as the cost of a swimming pool

LO 6-2

research

do both basic and more complex research on topics outside of the scope of the book. Each research problem includes an icon to differentiate it from regular problems.

Planning Problems

Planning problems are another unique set of problems included in the end-of-chapter assignment material. These require students to test their tax planning

57. The IRS recently completed an audit of Shea's tax return and assessed $15,000 additional tax. Shea requested an appeals conference but was unable to settle the case at the conference. She is contemplating which trial court to choose to hear her case. Provide a recommendation based on the following alternative facts:

a) Shea resides in the 2d Circuit, and the 2d Circuit has recently ruled against the position Shea is litigating.

b) The Federal Circuit Court of Appeals has recently ruled in favor of Shea's position.

c) The issue being litigated involves a question of fact. Shea has a very appealing

LO 2-2

planning

skills after covering the chapter topics. Each planning problem includes an icon to differentiate it from regular problems.

Comprehensive and Tax Return Problems

Comprehensive and tax return problems address multiple concepts in a single problem. Comprehensive problems are ideal for cumulative topics; for this reason, they are located at the end of all chapters. **Tax return problems are also available in *Connect and Instructor Resource Center.* These problems range from simple to complex and cover individual taxation, corporate taxation, partnership taxation, and S corporation taxation.**
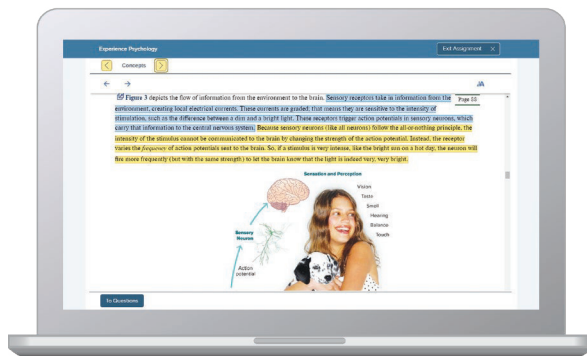
McGraw Hill **connect**®

Instructors: Student Success Starts with You

Tools to enhance your unique voice

Want to build your own course? No problem. Prefer to use our turnkey, prebuilt course? Easy. Want to make changes throughout the semester? Sure. And you'll save time with Connect's auto-grading too.

65%
Less Time Grading

Study made personal

Incorporate adaptive study resources like SmartBook® 2.0 into your course and help your students be better prepared in less time. Learn more about the powerful personalized learning experience available in SmartBook 2.0 at **www.mheducation.com/highered/connect/smartbook**

Laptop: McGraw Hill; Woman/dog: George Doyle/Getty Images

Affordable solutions, added value

Make technology work for you with LMS integration for single sign-on access, mobile access to the digital textbook, and reports to quickly show you how each of your students is doing. And with our Inclusive Access program you can provide all these tools at a discount to your students. Ask your McGraw Hill representative for more information.

Padlock: Jobalou/Getty Images

Solutions for your challenges

A product isn't a solution. Real solutions are affordable, reliable, and come with training and ongoing support when you need it and how you want it. Visit **www.supportateverystep.com** for videos and resources both you and your students can use throughout the semester.

Checkmark: Jobalou/Getty Images

SUPPORT AT
every step

Students: Get Learning That Fits You

Effective tools for efficient studying

Connect is designed to make you more productive with simple, flexible, intuitive tools that maximize your study time and meet your individual learning needs. Get learning that works for you with Connect.

Study anytime, anywhere

Download the free ReadAnywhere app and access your online eBook or SmartBook 2.0 assignments when it's convenient, even if you're offline. And since the app automatically syncs with your eBook and SmartBook 2.0 assignments in Connect, all of your work is available every time you open it. Find out more at **www.mheducation.com/readanywhere**

"I really liked this app—it made it easy to study when you don't have your text-book in front of you."

– Jordan Cunningham, Eastern Washington University

Calendar: owattaphotos/Getty Images

Everything you need in one place

Your Connect course has everything you need—whether reading on your digital eBook or completing assignments for class, Connect makes it easy to get your work done.

Learning for everyone

McGraw Hill works directly with Accessibility Services Departments and faculty to meet the learning needs of all students. Please contact your Accessibility Services Office and ask them to email accessibility@mheducation.com, or visit **www.mheducation.com/about/accessibility** for more information.

Top: Jenner Images/Getty Images, Left: Hero Images/Getty Images, Right: Hero Images/Getty Images

DIGITAL LEARNING ASSETS TO IMPROVE STUDENT OUTCOMES

> "The quality of the online materials in Connect and Learnsmart are market-leading and unmatched in the tax arena."
>
> Jason W. Stanfield
> – Ball State University

Connect helps students learn more efficiently by providing feedback and practice material when they need it, where they need it. Connect grades homework automatically and gives immediate feedback on any questions students may have missed. The extensive assignable, gradable end-of-chapter content includes problems, comprehensive problems (available as auto-graded tax forms), and discussion questions. Also, select questions have been redesigned to test students' knowledge more fully. They now include tables for students to work through rather than requiring that all calculations be done offline.

Auto-Graded Tax Forms

The auto-graded **Tax Forms,** also called the Comprehensive Problems—Static (Tax Form) in Connect, provide a much-improved student experience when solving the tax-form–based problems. The tax form simulation allows students to apply tax concepts by completing the actual tax forms online with automatic feedback and grading for both students and instructors.

Source: irs.gov.

Guided Examples

The **Guided Examples,** or "hint" videos, in Connect provide a narrated, animated, step-by-step walk-through of select problems similar to those assigned. These short presentations can be turned on or off by instructors and provide reinforcement when students need it most.

Tableau Dashboard Activities

Tableau Dashboard Activities allow students to explore live Tableau dashboards directly integrated into Connect through interactive filters and menus as well as auto-graded questions focused on both calculations and analysis. Students can check their understanding and apply what they are learning within the framework of analytics and critical thinking.
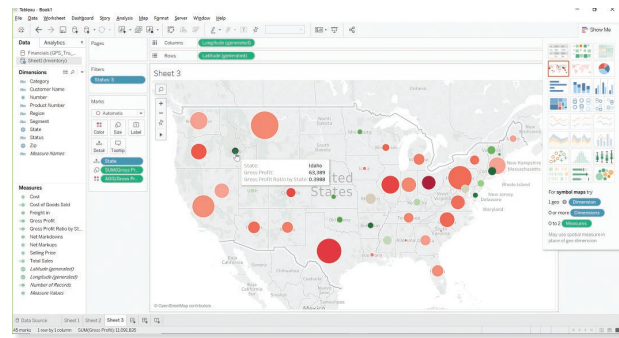
TaxACT®

TaxAct *McGraw Hill's Taxation* features an integrated software package from TaxAct, one of the leading preparation software companies in the market today. TaxAct features in-depth form instructions that supplement *Individuals* and *Business Entities*, making it easier than ever to integrate software into the classroom. Students are provided with the latest tax forms via the Check for Updates from the Online tab in the program, so that at the start of the semester, each student will be prepared to work with the most up-to-date information available. With over 120 tax forms, schedules, and worksheets, TaxAct is sure to have the course materials you will need throughout the semester.

Please note, TaxAct is only compatible with PCs and not Macs. However, we offer easy-to-complete licensing agreement templates that are accessible within Connect and the Instructor Resources Center to enable school computer labs to download the software onto campus hardware for free.

Roger CPA

UWorld | **ROGER** *CPA Review* McGraw Hill has partnered with Roger CPA Review (Powered by UWorld), a global leader in CPA Exam preparation, to provide students a smooth transition from the accounting classroom to successful completion of the CPA Exam. While many aspiring accountants wait until they have completed their academic studies to begin preparing for the CPA Exam, research shows that those who become familiar with exam content earlier in the process have a stronger chance of successfully passing the CPA Exam. Accordingly, students using these McGraw Hill materials will have access to Roger CPA Review multiple choice questions supported by explanations written by CPAs focused on exam preparation. McGraw Hill and Roger CPA Review are dedicated to supporting every accounting student along their journey, ultimately helping them achieve career success in the accounting profession. For more information about the full Roger CPA Review program, exam requirements, and exam content, visit www.rogercpareview.com.

McGraw Hill Customer Experience Group Contact Information

At McGraw Hill, we understand that getting the most from new technology can be challenging. That's why our services don't stop after you purchase our products. You can contact our Product Specialists 24 hours a day to get product training online. Or you can search the knowledge bank of Frequently Asked Questions on our support website. For Customer Support, call **800-331-5094,** or visit www.mhhe.com/support. One of our Technical Support Analysts will be able to assist you in a timely fashion.

SUPPLEMENTS FOR INSTRUCTORS

Assurance of Learning Ready

Many educational institutions today are focused on the notion of *assurance of learning,* an important element of many accreditation standards. *McGraw Hill's Taxation* is designed specifically to support your assurance of learning initiatives with a simple, yet powerful, solution.

Each chapter in the book begins with a list of numbered learning objectives, which appear throughout the chapter as well as in the end-of-chapter assignments. Every test bank question for *McGraw Hill's Taxation* maps to a specific chapter learning objective in the textbook. Each test bank question also identifies topic area, level of difficulty, Bloom's Taxonomy level, and AICPA and AACSB skill area.

AACSB Statement

McGraw Hill Education is a proud corporate member of AACSB International. Understanding the importance and value of AACSB accreditation, *McGraw Hill's Taxation* recognizes the curricula guidelines detailed in the AACSB standards for business accreditation by connecting selected questions in the text and the test bank to the general knowledge and skill guidelines in the revised AACSB standards.

The statements contained in *McGraw Hill's Taxation* are provided only as a guide for the users of this textbook. The AACSB leaves content coverage and assessment within the purview of individual schools, the mission of the school, and the faculty. While *McGraw Hill's Taxation* and the teaching package make no claim of any specific AACSB qualification or evaluation, we have, within the text and test bank, labeled selected questions according to the eight general knowledge and skill areas.

Tegrity: Lectures 24/7

Tegrity in Connect is a tool that makes class time available 24/7 by automatically capturing every lecture. With a simple one-click start-and-stop process, you capture all computer screens and corresponding audio in a format that is easy to search, frame by frame. Students can replay any part of any class with easy-to-use, browser-based viewing on a PC, Mac, iPod, or other mobile device.

Educators know that the more students can see, hear, and experience class resources, the better they learn. In fact, studies prove it. Tegrity's unique search feature helps students efficiently find what they need, when they need it, across an entire semester of class recordings. Help turn your students' study time into learning moments immediately supported by your lecture. With Tegrity, you also increase intent listening and class participation by easing students' concerns about note-taking. Using Tegrity in Connect will make it more likely you will see students' faces, not the tops of their heads.

Test Builder in Connect

Available within Connect, Test Builder is a cloud-based tool that enables instructors to format tests that can be printed or administered within an LMS. Test Builder offers a modern, streamlined interface for easy content configuration that matches course needs, without requiring a download.

Test Builder allows you to:

- access all test bank content from a particular title.
- easily pinpoint the most relevant content through robust filtering options.
- manipulate the order of questions or scramble questions and/or answers.
- pin questions to a specific location within a test.
- determine your preferred treatment of algorithmic questions.
- choose the layout and spacing.
- add instructions and configure default settings.

Test Builder provides a secure interface for better protection of content and allows for just-in-time updates to flow directly into assessments.

Four Volumes to Fit Four Course Approaches
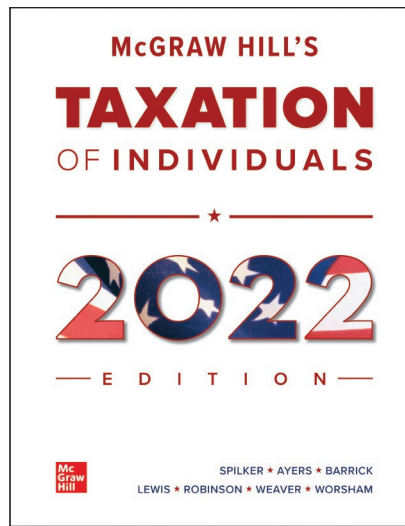
McGraw Hill's Taxation of Individuals is organized to emphasize topics that are most important to undergraduates taking their first tax course. The first three chapters provide an introduction to taxation and then carefully guide students through tax research and tax planning. Part II discusses the fundamental elements of individual income tax, starting with the tax formula in Chapter 4 and then proceeding to more discussion on income, deductions, investments, and computing tax liabilities in Chapters 5–8. Part III then discusses tax issues associated with business-related activities. Specifically, this part addresses business income and deductions, accounting methods, and tax consequences associated with purchasing assets and property dispositions (sales, trades, or other dispositions). Part IV is unique among tax textbooks; this section combines related tax issues for compensation, retirement savings, and home ownership.

Part I: Introduction to Taxation
  1. An Introduction to Tax
  2. Tax Compliance, the IRS, and Tax Authorities
  3. Tax Planning Strategies and Related Limitations

Part II: Basic Individual Taxation
  4. Individual Income Tax Overview, Dependents, and Filing Status
  5. Gross Income and Exclusions
  6. Individual Deductions
  7. Investments
  8. Individual Income Tax Computation and Tax Credits

Part III: Business-Related Transactions
  9. Business Income, Deductions, and Accounting Methods
  10. Property Acquisition and Cost Recovery
  11. Property Dispositions

Part IV: Specialized Topics
  12. Compensation
  13. Retirement Savings and Deferred Compensation
  14. Tax Consequences of Home Ownership

McGraw Hill's Taxation of Business Entities begins with the process for determining gross income and deductions for businesses, and the tax consequences associated with purchasing assets and property dispositions (sales, trades, or other dispositions). Part II provides a comprehensive overview of entities and the formation, reorganization, and liquidation of corporations. Unique to this series is a complete chapter on accounting for income taxes, which provides a primer on the basics of calculating the income tax provision. Included in the narrative is a discussion of temporary and permanent differences and their impact on a company's book "effective tax rate." Part III provides a detailed discussion of partnerships and S corporations. The last part of the book covers state and local taxation, multinational taxation, and transfer taxes and wealth planning.

Part I: Business-Related Transactions
  1. Business Income, Deductions, and Accounting Methods
  2. Property Acquisition and Cost Recovery
  3. Property Dispositions

Part II: Entity Overview and Taxation of C Corporations
  4. Business Entities Overview
  5. Corporate Operations
  6. Accounting for Income Taxes
  7. Corporate Taxation: Nonliquidating Distributions
  8. Corporate Formation, Reorganization, and Liquidation

Part III: Taxation of Flow-Through Entities
  9. Forming and Operating Partnerships
  10. Dispositions of Partnership Interests and Partnership Distributions
  11. S Corporations

Part IV: Multijurisdictional Taxation and Transfer Taxes
  12. State and Local Taxes
  13. The U.S. Taxation of Multinational Transactions
  14. Transfer Taxes and Wealth Planning
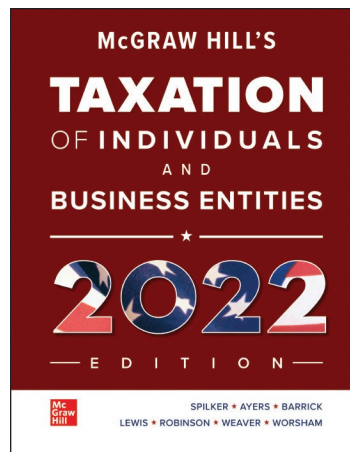
McGraw Hill's Taxation of Individuals and Business Entities covers all chapters included in the two split volumes in one convenient volume. See Table of Contents.

Part I: Introduction to Taxation
  1. An Introduction to Tax
  2. Tax Compliance, the IRS, and Tax Authorities
  3. Tax Planning Strategies and Related Limitations

Part II: Basic Individual Taxation
  4. Individual Income Tax Overview, Dependents, and Filing Status
  5. Gross Income and Exclusions
  6. Individual Deductions
  7. Investments
  8. Individual Income Tax Computation and Tax Credits

Part III: Business-Related Transactions
  9. Business Income, Deductions, and Accounting Methods
10. Property Acquisition and Cost Recovery
11. Property Dispositions

Part IV: Specialized Topics
12. Compensation
13. Retirement Savings and Deferred Compensation
14. Tax Consequences of Home Ownership

Part V: Entity Overview and Taxation of C Corporations
15. Business Entities Overview
16. Corporate Operations
17. Accounting for Income Taxes
18. Corporate Taxation: Nonliquidating Distributions
19. Corporate Formation, Reorganization, and Liquidation

Part VI: Taxation of Flow-Through Entities
20. Forming and Operating Partnerships
21. Dispositions of Partnership Interests and Partnership Distributions
22. S Corporations

Part VII: Multijurisdictional Taxation and Transfer Taxes
23. State and Local Taxes
24. The U.S. Taxation of Multinational Transactions
25. Transfer Taxes and Wealth Planning
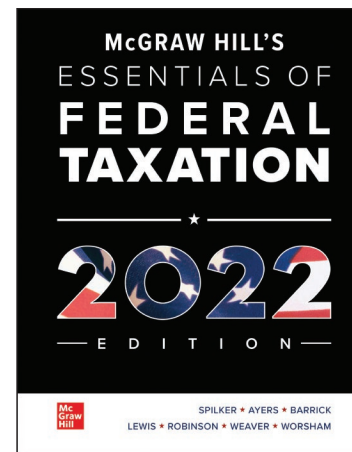
McGraw Hill's Essentials of Federal Taxation is designed for a one-semester course, covering the basics of taxation of individuals and business entities. To facilitate a one-semester course, *McGraw Hill's Essentials of Federal Taxation* folds the key topics from the investments, compensation, retirement savings, and home ownership chapters in *Taxation of Individuals* into three individual taxation chapters that discuss gross income and exclusions, for AGI deductions, and from AGI deductions, respectively. The essentials volume also includes a two-chapter C corporation sequence that uses a life-cycle approach covering corporate formations and then corporate operations in the first chapter and nonliquidating and liquidating corporate distributions in the second chapter. This volume is perfect for those teaching a one-semester course and for those who struggle to get through the 25-chapter comprehensive volume.

Part I: Introduction to Taxation
  1. An Introduction to Tax
  2. Tax Compliance, the IRS, and Tax Authorities
  3. Tax Planning Strategies and Related Limitations

Part II: Individual Taxation
  4. Individual Income Tax Overview, Dependents, and Filing Status
  5. Gross Income and Exclusions
  6. Individual For AGI Deductions
  7. Individual From AGI Deductions
  8. Individual Income Tax Computation and Tax Credits

Part III: Business-Related Transactions
  9. Business Income, Deductions, and Accounting Methods
10. Property Acquisition and Cost Recovery
11. Property Dispositions

Part IV: Entity Overview and Taxation of C Corporations
12. Business Entities Overview
13. Corporate Formations and Operations
14. Corporate Nonliquidating and Liquidating Distributions

Part V: Taxation of Flow-Through Entities
15. Forming and Operating Partnerships
16. Dispositions of Partnership Interests and Partnership Distributions
17. S Corporations

A HEARTFELT THANKS TO THE MANY COLLEAGUES WHO SHAPED THIS BOOK

The version of the book you are reading would not be the same book without the valuable suggestions, keen insights, and constructive criticisms of the reviewers below. Each professor listed here contributed in substantive ways to the organization of chapters, coverage of topics, and use of pedagogy. We are grateful to them for taking the time to read chapters or attend reviewer conferences, focus groups, and symposia in support of the development for the book:

Previous Edition Reviewers

Donna Abelli, *Mount Ida College*
Joseph Assalone, *Rowan College at Gloucester County*
Dr. Valeriya Avdeev, *William Paterson University*
Robyn Barrett, *St. Louis Community College*
Kevin Baugess, *ICDC College*
Christopher Becker, *Coastal Carolina University*
Jeanne Bedell, *Keiser University*
Marcia Behrens, *Nichols College*
Michael Belleman, *St. Clair County Community College*
David Berman, *Community College of Philadelphia*
Tim Biggart, *Berry College*
Cynthia Bird, *Tidewater Community College*
Lisa Blum, *University of Louisville*
Rick Blumenfeld, *Sierra College*
Cindy Bortman Boggess, *Babson College*
Cathalene Bowler, *University of Northern Iowa*
Justin Breidenbach, *Ohio Wesleyan University*
Suzon Bridges, *Houston Community College*
Stephen Bukowy, *UNC Pembroke*
Esther Bunn, *Stephen F. Austin State University*
Holly Caldwell, *Bridgewater College*
James Campbell, *Thomas College*
Alisa Carini, *University of California San Diego Extension*
Ronald Carter, *Patrick Henry Community College*
Cynthia Caruso, *Endicott College*
Paul Caselton, *University of Illinois–Springfield*
Amy Chataginer, *Mississippi Gulf Coast Community College*
Machiavelli (Max) Chao, *University of California–Irvine*
Christine Cheng, *Louisiana State University*
Lisa Church, *Rhode Island College*
Marilyn Ciolino, *Delgado Community College*
Wayne Clark, *Southwest Baptist University*
Ann Cohen, *University at Buffalo, SUNY*
Sharon Cox, *University of Illinois–Urbana-Champaign*
Terry Crain, *University of Oklahoma–Norman*
Roger Crane, *Indiana University East*
Cheryl Crespi, *Central Connecticut State University*
Brad Cripe, *Northern Illinois University*
Curtis J. Crocker, *Southern Crescent Technical College*
Richard Cummings, *University of Wisconsin–Whitewater*
Joshua Cutler, *University of Houston*
William Dams, *Lenoir Community College*
Nichole Dauenhauer, *Lakeland Community College*
Susan Snow Davis, *Green River College*
Jim Desimpelare, *University of Michigan–Ann Arbor*
Julie Dilling, *Moraine Park Technical College*
Steve Dombrock, *Carroll University*
Dr. Vicky C. Dominguez, *College of Southern Nevada*
Michael P. Donohoe, *University of Illinois–Urbana-Champaign*
John Dorocak, *California State University–San Bernardino*
Amy Dunbar, *University of Connecticut–Storrs*
John Eagan, *Morehouse College*
Reed Easton, *Seton Hall University*

Esther Ehrlich, CPA, *The University of Texas at El Paso*
Elizabeth Ekmekjian, *William Paterson University*
Ann Esarco, *Columbia College Columbia*
Frank Faber, *St. Joseph's College*
Michael Fagan, *Raritan Valley Community College*
Frank Farina, *Catawba College*
Andrew Finley, *Claremont McKenna*
Tim Fogarty, *Case Western Reserve University*
Wilhelmina Ford, *Middle Georgia State University*
George Frankel, *San Francisco State University*
Lawrence Friedken, *Penn State University*
Stephen Gara, *Drake University*
Robert Gary, *University of New Mexico*
Greg Geisler, *Indiana University*
Earl Godfrey, *Gardner Webb University*
Thomas Godwin, *Purdue University*
David Golub, *Northeastern University*
Marina Grau, *Houston Community College*
Brian Greenstein, *University of Delaware*
Patrick Griffin, *Lewis University*
Lillian Grose, *University of Holy Cross*
Rosie Hagen, *Virginia Western Community College*
Marcye Hampton, *University of Central Florida*
Cass Hausserman, *Portland State University*
Rebecca Helms, *Ivy Tech Community College*
Melanie Hicks, *Liberty University*
Mary Ann Hofmann, *Appalachian State University*
Robert Joseph Holdren, *Muskingum University*
Bambi Hora, *University of Central Oklahoma*
Carol Hughes, *Asheville Buncombe Technical Community College*
Helen Hurwitz, *Saint Louis University*
Rik Ichiho, *Dixie State University*
Kerry Inger, *Auburn University*
Paul Johnson, *Mississippi Gulf Coast CC–JD Campus*
Athena Jones, *University of Maryland Global Campus*
Andrew Junikiewicz, *Temple University*
Susan Jurney, *University of Arkansas–Fayetteville*
Sandra Kemper, *Regis University*
Jon Kerr, *Baruch College–CUNY*
Lara Kessler, *Grand Valley State University*
Janice Klimek, *University of Central Missouri*
Pamela Knight, *Columbus Technical College*
Satoshi Kojima, *East Los Angeles College*
Dawn Konicek, *Idaho State University*
Jack Lachman, *Brooklyn College*
Brandon Lanciloti, *Freed-Hardeman University*
Stacie Laplante, *University of Wisconsin–Madison*
Suzanne Laudadio, *Durham Tech*
Stephanie Lewis, *Ohio State University–Columbus*
Teresa Lightner, *University of North Texas*
Robert Lin, *California State University–East Bay*
Chris Loiselle, *Cornerstone University*
Bruce Lubich, *Penn State–Harrisburg*
Elizabeth Lyon, *California State University–Sacramento*

Narelle Mackenzie, *San Diego State University, National University*
Michael Malmfeldt, *Shenandoah University*
Kate Mantzke, *Northern Illinois University*
Robert Martin, *Kennesaw State University*
Anthony Masino, *East Tennessee State University*
Paul Mason, *Baylor University*
Lisa McKinney, *University of Alabama at Birmingham*
Allison McLeod, *University of North Texas*
Lois McWhorter, *Somerset Community College*
Janet Meade, *University of Houston*
Michele Meckfessel, *University of Missouri–St. Louis*
Frank Messina, *University of Alabama at Birmingham*
R. Miedaner, *Lee University*
Ken Milani, *University of Notre Dame*
Karen Morris, *Northeast Iowa Community College*
Stephanie Morris, *Mercer University*
Michelle Moshier, *University at Albany*
Leslie Mostow, *University of Maryland–College Park*
James Motter, *Indiana University–Purdue University Indianapolis*
Jackie Myers, *Sinclair Community College*
Michael Nee, *Cape Cod Community College*
Liz Ott, *Casper College*
Sandra Owen, *Indiana University–Bloomington*
Edwin Pagan, *Passaic County Community College*
Jeff Paterson, *Florida State University*
Ronald Pearson, *Bay College*
Martina Peng, *Franklin University*
Michael Wayne Penn Jr., *University of Illinois–Urbana-Champaign*
James Pierson, *Franklin University*
Sonja Pippin, *University of Nevada–Reno*
Jonathan David Pittard, *University of California–Riverside*
Anthony Pochesci, *Rutgers University*
Kyle Post, *Tarleton State University*
Christopher Proschko, *Texas State University*
Joshua Racca, *University of Alabama*
Francisco Rangel, *Riverside City College*
Pauline Ash Ray, *Thomas University*
Luke Richardson, *University of South Florida*

Rodney Ridenour, *Montana State University Northern*
John Robertson, *Arkansas State University*
Susan Robinson, *Georgia Southwestern State University*
Morgan Rockett, *Moberly Area Community College*
Miles Romney, *Michigan State University*
Ananth Seetharaman, *Saint Louis University*
Alisa Shapiro, *Raritan Valley Community College*
Deanna Sharpe, *University of Missouri*
Wayne Shaw, *Southern Methodist University*
Sonia Singh, *University of Florida*
Georgi Smatrakalev, *Florida Atlantic University*
Lucia Smeal, *Georgia State University*
Pamela Smith, *University of Texas at San Antonio*
Adam Spoolstra, *Johnson County Community College*
Joe Standridge, *Sonoma State*
Jason Stanfield, *Ball State University*
George Starbuck, *McMurry University*
James Stekelberg, *University of Arizona*
Shane Stinson, *University of Alabama*
Terrie Stolte, *Columbus State Community College*
Gloria Jean Stuart, *Georgia Southern University*
Kenton Swift, *University of Montana*
MaryBeth Tobin, *Bridgewater State University*
Erin Towery, *University of Georgia*
Ronald Unger, *Temple University*
Karen Wallace, *Ramapo College*
Natasha Ware, *Southeastern University*
Luke Watson, *University of Florida*
Sarah Webber, *University of Dayton*
Cassandra Weitzenkamp, *Peru State College*
Marvin Williams, *University of Houston–Downtown*
Chris Woehrle, *American College*
Jennifer Wright, *Drexel University*
Massood Yahya-Zadeh, *George Mason University*
James Yang, *Montclair State University*
Scott Yetmar, *Cleveland State University*
Xiaoli (Charlie) Yuan, *Elizabeth City State University*
Zhen Zhang, *Towson University*
Mingjun Zhou, *DePaul University*

Acknowledgments

Changes in *Taxation of Individuals,* 2022 Edition

For the 2022 edition of McGraw Hill's *Taxation of Individuals,* many changes were made in response to feedback from reviewers and focus group participants:

- All tax forms have been **updated for the latest available tax form as of 2021.** In addition, **chapter content** throughout the text has been **updated to reflect tax law changes through March 11, 2021.**

Other notable changes in the 2022 edition include:

Chapter 1

- Updated tax rates for 2021 and Examples 1-3 through 1-7.
- Updated Social Security wage base for 2021.
- Updated unified tax credit for 2021.
- Updated Taxes in the Real World: National Debt for current debt limit.

Chapter 2

- Updated gross income thresholds by filing status for 2021.
- Updated penalty amounts for failure to file a tax return and failure to pay tax owed.

Chapter 3

- Updated tax rates for 2021.
- Updated Exhibit 3-3 for 2021 tax rates.
- Updated Example 3-8 for 2021 tax brackets.
- Updated Taxes in the Real World: Cheating the IRS.

Chapter 4

- Updated for changes in the child tax credit introduced by the American Rescue Plan of 2021, signed into law on March 11, 2021.
- Updated for tax law changes introduced by the Consolidations Appropriations Act, 2021, signed into law on December 27, 2020. This includes updating the individual income tax formula, text discussion, and associated examples and problems to include the from AGI charitable deduction for taxpayers who do not itemize deductions and updating the medical expense deduction AGI floor.
- Updated tax rates to 2021 rates.
- Updated tax forms to 2020 tax forms.
- Edited discussion of Form 1040 to match up with revised tax forms for 2020.
- Revised discussion on net capital loss deduction.
- Added footnotes explaining that for higher-income taxpayers capital gains and dividends could be subject to a 3.8% net investment income tax.

- Updated Exhibit 4-7 to reflect standard deduction amounts for 2021.
- Added colors to boxes in flowcharts in Appendices A, B, and C.
- Added new Taxes in the Real World box dealing with pets as dependents.
- Clarified discussion on qualifying person for head of household filing status.

Chapter 5

- Updated for 2021 rules for student loan forgiveness.
- Updated for 2021 dependent care benefit exclusion amount.
- Updated for 2021 amounts for qualified transportation benefits.
- Updated for 2021 flexible spending account contributions and carryover amounts.
- Updated for 2021 foreign income exclusion amounts.
- Updated for annual gift tax exclusion and unified tax credit for 2021.
- Updated U.S. Series EE bond interest income exclusion for 2021.
- Updated tax forms to 2020.

Chapter 6

- Updated excess business loss limitation for 2021.
- Updated discussion of deduction for interest on qualified education loan for 2021.
- Eliminated discussion of expired qualified education expense deduction.
- Updated discussion of medical expense AGI limitation.
- Updated mileage rate for medical expense itemized deduction for 2021.
- Revised Taxes in the Real World on state and local tax credits and charitable contributions.
- Revised discussion of charitable contribution limits.
- Added discussion of special 2021 from AGI charitable contribution deduction for taxpayers not itemizing deductions.
- Updated standard deduction amounts for 2021 amounts.
- Updated discussion for deduction for qualified business income for 2021.
- Updated tax forms to 2020.

xxv

Chapter 7

- Updated tax rates in all examples and problems for 2021.
- Updated Exhibit 7-3 for 2021 capital gains tax brackets.
- Updated examples for changes in capital gains tax rate thresholds.
- Updated tax forms to 2020.

Chapter 8

- Updated tax rate schedules for 2021.
- Updated discussion of kiddie tax for 2021.
- Updated AMT exemption and tax rate schedule for 2021.
- Updated Social Security tax wage base and self-employment tax base for 2021.
- Updated for 2021 additional child tax credit.
- Updated for 2021 revised child and dependent care credit.
- Updated for 2021 individual recovery credit.
- Updated lifetime learning credit phase-out for 2021.
- Updated earned income credit amounts for 2021.
- Updated tax forms to 2020.

Chapter 9

- Updated tax forms from 2019 to 2020.
- Integrated gross receipts test into accounting limitations.
- Added explanations of new regulations limiting entertainment and travel deductions including revised examples.
- Updated for changes enacted in PL 116-260 (Consolidated Appropriations Act, 2021).
- Updated mileage deductions for travel in 2021.
- Expanded examples of business interest limitation and cash method elections.
- Updated Taxes in the Real World on rebates and the all-events test.
- Added 2½ month exception to accrued compensation rule.

Chapter 10

- Updated Exhibit 10-2 for Weyerhaeuser's 2019 assets.
- Updated tax rates for 2021.
- Revised section on §179 amounts to reflect the inflation adjustments for 2021.
- Updated examples for 2021 §179 amounts.
- Updated discussion and Exhibit 10-10 relating to automobile depreciation limits.
- Updated §179 amount for SUVs for 2021 inflation amount changes.
- Updated tax forms to 2020.
- Updated and revised end-of-chapter problems for §179 amounts and bonus depreciation rules.

Chapter 11

- Updated tax rates for 2021.
- Added new footnote to Exhibit 11-7 to correct ordering of §1239 and §1245.
- Updated tax forms from 2019 to 2020 forms.

Chapter 12

- Updated fringe benefit Exhibit 12-10 for CARES Act.
- Updated qualified transportation fringe benefit amounts for 2021.
- Updated tax forms to 2020.
- Updated Taxes in the Real World for 2020 proxy statement information.

Chapter 13

- Updated footnote 1 to reflect the 2020 OASDI Trustees report.
- Updated the discussion to exceptions to penalties for early distributions for the medical expense floor as provided in the Consolidated Appropriations Act, 2021, signed on December 27, 2020.
- Updated inflation-adjusted contribution limits for defined benefit plans, defined contribution plans, and individually managed plans.
- Added new Taxes in the Real World about employee contributions and employer matching contributions to defined contribution accounts.
- Included discussion of updated life expectancy and distribution tables for distribution years beginning on or after January 1, 2022.
- Updated modified AGI phase-out thresholds for deductible contributions to traditional IRAs and contributions to Roth IRAs.
- Updated calculations for limits on self-employed retirement accounts to reflect updated 2021 Social Security wage base limitation.
- Updated saver's credit information for 2021.

Chapter 14

- Revised problems 43, 44, 49, 51, 58, 59, 63, 67, and 68.
- Updated solutions to reflect 2021 inflation-adjusted numbers.
- Updated tax forms to 2020.
- Updated settlement statement in Appendix B to reflect 2021 information.
- Updated examples to current mortgage interest rates.
- Updated for CCA 2021 laws regarding principal debt forgiveness and mortgage insurance.
- Added new Taxes in the Real World regarding ownership of a home without legal title.

As We Go to Press

The 2022 Edition includes tax law enacted as part of the Consolidated Appropriations Act, 2021 (CAA), signed into law on December 27, 2020, and the American Rescue Plan Act of 2021 (ARP), signed into law on March 11, 2021. The 2022 Edition is current through March 11, 2021. You can visit the *Connect Library* for updates that occur after this date.

Table of Contents

9   Business Income, Deductions, and Accounting Methods

10   Property Acquisition and Cost Recovery

McGraw Hill's

Taxation *of* Individuals

chapter

1

An Introduction to Tax

Learning Objectives

Upon completing this chapter, you should be able to:

LO 1-1 Demonstrate how taxes influence basic business, investment, personal, and political decisions.

LO 1-2 Discuss what constitutes a tax and the general objectives of taxation.

LO 1-3 Describe the three basic tax rate structures and calculate a tax.

LO 1-4 Identify the various federal, state, and local taxes.

LO 1-5 Apply appropriate criteria to evaluate alternative tax systems.

Pixelheadphoto Digitalskillet/Shutterstock

Storyline Summary

Taxpayer:	Margaret
Employment status:	Margaret is a full-time student at the University of Georgia.
Current situation:	She is beginning her first tax class.

Margaret is a junior beginning her first tax course. She is excited about her career prospects as an accounting major but hasn't had much exposure to taxes. On her way to campus she runs into an old friend, Eddy, who is going to Washington, D.C., to protest recent proposed changes to the U.S. tax system. Eddy is convinced the IRS is evil and that the current tax system is blatantly unfair and corrupt. He advocates for a simpler, fairer method of taxation. Margaret is intrigued by Eddy's passion but questions whether he has a complete understanding of the U.S. tax system. She decides to withhold all judgments about it (or about pursuing a career in taxation) until the end of her tax course. ◾

1-1

LO 1-1   WHO CARES ABOUT TAXES AND WHY?

A clear understanding of the role of taxes in everyday decisions will help you make an informed decision about the value of studying taxation or pursuing a career in taxation. One view of taxation is that it represents an inconvenience every April 15th (the annual due date for filing federal individual tax returns without extensions). However, the role of taxation is much more pervasive than this view suggests. Your study of this subject will provide you a unique opportunity to develop an informed opinion about taxation. As a business student, you can overcome the mystery that encompasses popular impressions of the tax system and perhaps, one day, share your expertise with friends or clients.

What are some common decisions you face that taxes may influence? In this course, we alert you to situations in which you can increase your return on investments by up to one-third! Even the best lessons in finance courses can't approach the increase in risk-adjusted return that smart tax planning provides. Would you like to own your home someday? Tax deductions for home mortgage interest and real estate taxes can reduce the after-tax costs of owning a home relative to renting. Thus, when you face the decision to buy or rent, you can make an informed choice if you understand the relative tax advantages of home ownership. Would you like to retire someday? Understanding the tax-advantaged methods of saving for retirement can increase the after-tax value of your retirement nest egg—and thus increase the likelihood that you can afford to retire, and do so in style. Other common personal financial decisions that taxes influence include choosing investments, evaluating alternative job offers, saving for education expenses, and performing gift or estate planning. Indeed, taxes are a part of everyday life and have a significant effect on many of the personal financial decisions all of us face.

The role of taxes is not limited to personal finance. Taxes play an equally important role in fundamental business decisions such as the following:

- What organizational form should a business use?
- Where should the business be located?
- How should business acquisitions be structured?
- How should the business compensate employees?
- What is the appropriate mix of debt and equity for the business?
- Should the business rent or own its equipment and property?
- How should the business distribute profits to its owners?

Savvy business decisions require owners and managers to consider all costs and benefits in order to evaluate the merits of a transaction. Although taxes don't necessarily dominate these decisions, they do represent large transaction costs that businesses should factor into the financial decision-making process.

Taxes also play a major part in the political process. United States presidential candidates often distinguish themselves from their opponents based upon their tax rhetoric. Indeed, the major political parties generally have very diverse views of the appropriate way to tax the public.[1] Determining who is taxed, what is taxed, and how much is taxed are tough questions with nontrivial answers. Voters must have a basic understanding of taxes to evaluate the merits of alternative tax proposals. Later in this chapter, we'll introduce criteria you can use to evaluate alternative tax proposals.

---

[1]The U.S. Department of the Treasury provides a "history of taxation" on its website (www.treasury.gov/resource-center/faqs/Taxes/Pages/historyrooseveltmessage.aspx). You may find it interesting to read this history in light of the various political parties in office at the time.

TAXES IN THE REAL WORLD　Tax Policy: Republicans versus Democrats

Both Democrats and Republicans desire the same things: a civilized society and a healthy economy. However, neither party can agree on what defines a civilized society or which path best leads to a healthy economy. As of September 2020 the national debt was $26.8 trillion, up from $22.6 trillion the year before, and growing, yet the only thing we might agree on is that something has gone wrong. Regardless of which party or candidate you support, each party's agenda will affect your income and taxes in various ways.

To explore the divide, let's examine excerpts from each party's National Platform from our most recent presidential election (2020).

Republicans

"We are the party of a growing economy that gives everyone a chance in life, an opportunity to learn, work, and realize the prosperity freedom makes possible."

"Government cannot create prosperity, though government can limit or destroy it. Prosperity is the product of self-discipline, enterprise, saving and investment by individuals, but it is not an end in itself. Prosperity provides the means by which citizens and their families can maintain their independence from government, raise their children by their own values, practice their faith, and build communities of cooperation and mutual respect."

"Republicans consider the establishment of a pro-growth tax code a moral imperative. More than any other public policy, the way government raises revenue—how much, at what rates, under what circumstances, from whom, and for whom—has the greatest impact on our economy's performance. It powerfully influences the level of economic growth and job creation, which translates into the level of opportunity for those who would otherwise be left behind."

"A strong economy is one key to debt reduction, but spending restraint is a necessary component that must be vigorously pursued."* www.gop .com/platform/restoring-the-american-dream/.

Democrats

"Our tax system has been rigged against the American people by big corporations and their lobbyists, and by Republican politicians who dole out tax cuts to their biggest donors while leaving working families to struggle."

"Democrats will take action to reverse the Trump Administration's tax cuts benefiting the wealthiest Americans and rewarding corporations for shipping American jobs overseas. We will crack down on overseas tax havens and close loopholes that are exploited by the wealthiest Americans and biggest corporations. We will make sure the wealthy pay their fair share in taxes. We will make sure investors pay the same tax rates as workers and bring an end to expensive and unproductive tax loopholes, including the carried interest loophole. Corporate tax rates, which were cut sharply by the 2017 Republican tax cut, must be raised, and 'trickle-down' tax cuts must be rejected. Estate taxes should also be raised back to the historical norm."

"Democrats will reform the tax code to be more progressive and equitable, and reduce barriers for working families to benefit from targeted tax breaks, including the Earned Income Tax Credit and the Child Tax Credit. Our program of reform will provide immediate, marked relief for working families, including more generous, refundable tax credits to benefit low- and middle-income families, and easier and more equitable access to tax provisions that help working families build wealth, including by equalizing tax benefits for retirement contributions and providing more accessible tax breaks for homeownership."† www .democrats.org/where-we-stand/party-platform/.

Conclusion

Each party fundamentally believes the government should create/maintain cities and states that form a civilized society, and that government should foster a healthy economy. However, they choose very different paths to reach this objective. Democrats want to raise taxes on the wealthy and create government programs that cost more money, while Republicans wish to lower taxes and decrease government size and spending. Both motives are authentic; however, current and cumulative deficits indicate that current revenue is insufficient to meet government spending. Solving these problems will require civil discourse, education, and research/information in order to find realistic, effective solutions.

*GOP, "Restoring the American Dream," www.gop.com/ platform/restoring-the-american-dream/.

†Democratic Platform Committee, "The 2020 Democratic Party Platform," www.democrats.org/where-we-stand/party-platform/.

In summary, taxes affect many aspects of personal, business, and political decisions. Developing a solid understanding of taxation should allow you to make informed decisions in these areas. Thus, Margaret can take comfort that her semester will likely prove useful to her personally. Who knows? Depending on her interest in business, investment, retirement planning, and the like, she may ultimately decide to pursue a career in taxation.

LO 1-2   ## WHAT QUALIFIES AS A TAX?

THE KEY FACTS

What Qualifies as a Tax?

- The general purpose of taxes is to fund government agencies.
- Unlike fines or penalties, taxes are not meant to punish or prevent illegal behavior; however, "sin taxes" are meant to discourage certain behaviors.
- To qualify as a tax, three criteria must be met. The payment must be:
  - Required;
  - Imposed by a government agency; and
  - Not tied directly to the benefit received by the taxpayer.

"Taxes are the price we pay for a civilized society." —Oliver Wendell Holmes Jr.

Taxes have been described in many terms: some positive, some negative, some printable, some not. Let's go directly to a formal definition of a tax, which should prove useful in identifying alternative taxes and discussing alternative tax systems.

A **tax** *is a payment required by a government that is unrelated to any specific benefit or service received from the government*. The general purpose of a tax is to fund the operations of the government (to raise revenue). Taxes differ from fines and penalties in that taxes are not intended to punish or prevent illegal behavior. Nevertheless, by allowing deductions from income, our federal tax system encourages certain behaviors like charitable contributions, retirement savings, and research and development. Thus, we can view it as discouraging other legal behavior. For example, **sin taxes** impose relatively high surcharges on alcohol and tobacco products.[2] Cigarette taxes include a $1.01 per pack federal tax, a state tax in all 50 states, and also a few municipal taxes as well.[3]

Key components of the definition of a tax are that the payment is:

- Required (it is not voluntary);
- Imposed by a government agency (federal, state, or local); and
- Not tied directly to the benefit received by the taxpayer.

This last point is not to say that taxpayers receive no benefits from the taxes they pay. They benefit from national defense, a judicial system, law enforcement, government-sponsored social programs, an interstate highway system, public schools, and many other government-provided programs and services. The distinction is that taxes paid are not *directly* related to any specific benefit received by the taxpayer. For example, the price of admission to Yellowstone National Park is a fee rather than a tax because a specific benefit is received.

Can taxes be assessed for special purposes, such as a 1 percent sales tax for education? Yes. Why is an **earmarked tax,** a tax that *is* assessed for a specific purpose, still considered a tax? Because the payment made by the taxpayer does not directly relate to the specific benefit *received by the taxpayer*.

Example 1-1

Margaret travels to Birmingham, Alabama, where she rents a hotel room and dines at several restaurants. The price she pays for her hotel room and meals includes an additional 2 percent city surcharge to fund roadway construction in Birmingham. Is this a tax?

Answer: Yes. The payment is required by a local government and does not directly relate to a specific benefit that Margaret receives.

Example 1-2

Margaret's parents, Bill and Mercedes, recently built a house and were assessed $1,000 by their county government to connect to the county sewer system. Is this a tax?

Answer: No. The assessment was mandatory and it was paid to a local government. However, the third criterion was not met because the payment directly relates to a specific benefit (sewer service) received by the payees. For the same reason, tolls, parking meter fees, and annual licensing fees are also not considered taxes.

[2]Sin taxes represent an interesting confluence of incentives. On the one hand, demand for such products as alcohol, tobacco, and gambling is often relatively inelastic because of their addictive quality. Thus, taxing such a product can raise substantial revenues. On the other hand, one of the arguments for sin taxes is frequently the social goal of *reducing* demand for such products.

[3]Federal excise taxes on cigarettes are found in §5701(b). State taxes are as much as $4.35 per pack in Connecticut and New York. The District of Columbia imposes a tax of $4.50 per pack. Anchorage, New York City, and Chicago impose municipal taxes on cigarettes as well. The taxes on a pack of cigarettes in Chicago are $8.26 ($1.01 federal, $2.98 state, $3.00 county, and $1.98 city).

HOW TO CALCULATE A TAX

In its simplest form, the amount of tax equals the tax base multiplied by the tax rate:

Eq. 1-1 $$\text{Tax} = \text{Tax Base} \times \text{Tax Rate}$$

The **tax base** defines what is actually taxed and is usually expressed in monetary terms, whereas the **tax rate** determines the level of taxes imposed on the tax base and is usually expressed as a percentage. For example, a taxable purchase of $30 times a sales tax rate of 6 percent yields a tax of $1.80 ($1.80 = $30 × .06).

Federal, state, and local jurisdictions use a large variety of tax bases to collect tax. Some common tax bases (and related taxes) include taxable income (federal and state income taxes), purchases (sales tax), real estate values (real estate tax), and personal property values (personal property tax).

Different portions of a tax base may be taxed at different rates. A single tax applied to an entire base constitutes a **flat tax.** In the case of **graduated taxes,** the base is divided into a series of monetary amounts, or **brackets,** and each successive bracket is taxed at a different (gradually higher or gradually lower) percentage rate.

Calculating some taxes—income taxes for individuals, for example—can be quite complex. Advocates of flat taxes argue that the process should be simpler. But as we'll see throughout the text, most of the difficulty in calculating a tax rests in determining the tax *base,* not the tax rate. Indeed, there are only three basic tax rate structures (proportional, progressive, and regressive), and each can be mastered without much difficulty.

> **THE KEY FACTS**
>
> **How to Calculate a Tax**
>
> - Tax = Tax base × Tax rate
> - The tax base defines what is actually taxed and is usually expressed in monetary terms.
> - The tax rate determines the level of taxes imposed on the tax base and is usually expressed as a percentage.
> - Different portions of a tax base may be taxed at different rates.

DIFFERENT WAYS TO MEASURE TAX RATES

Before we discuss the alternative tax rate structures, let's first define three different tax rates that will be useful in contrasting the different tax rate structures: the marginal, average, and effective tax rates.

Tax is computed on a tax base, which is generally taxable income. Taxable income is gross income minus deductions (see the Individual Tax Overview Chapter for a detailed discussion of the individual income tax formula). The **marginal tax rate** is the incremental tax paid on an incremental amount of additional income or deductions.

Eq. 1-2

$$\text{Marginal Tax Rate} = \frac{\Delta \text{Tax*}}{\Delta \text{Taxable Income}} = \frac{(\text{New Total Tax} - \text{Old Total Tax})}{(\text{New Taxable Income} - \text{Old Taxable Income})}$$

*Δ means *change in.*

Specifically, where "old" refers to the current tax and "new" refers to the revised tax after incorporating the additional income (or deductions) in question. In graduated income tax systems, additional income (deductions) can push a taxpayer into a higher (lower) tax bracket, thus changing the marginal tax rate.

Example 1-3

Margaret's parents, Bill and Mercedes, file a joint tax return. They have $160,000 of taxable income this year (gross income minus deductions). Assuming the following federal tax rate schedule applies, how much federal income tax will they owe this year?[4]

[4] The tax rate schedules for single, married filing jointly, married filing separately, and head of household are included in Appendix C.

Married Filing Jointly (and Surviving Spouses)	
Not over $19,900	10% of taxable income
Over $19,900 but not over $81,050	$1,990 + 12% of taxable income in excess of $19,900
Over $81,050 but not over $172,750	$9,328 + 22% of taxable income in excess of $81,050
Over $172,750 but not over $329,850	$29,502 + 24% of taxable income in excess of $172,750
Over $329,850 but not over $418,850	$67,206 + 32% of taxable income in excess of $329,850
Over $418,850 but not over $628,300	$95,686 + 35% of taxable income in excess of $418,850
Over $628,300	$168,993.50 + 37% of taxable income in excess of $628,300

Answer: Bill and Mercedes will owe $26,697, computed as follows:

$$\$26{,}697 = \$9{,}328 + 22\% \,(\$160{,}000 - \$81{,}050)$$

Note that in this graduated tax rate structure, the first $19,900 of taxable income is taxed at 10 percent, the next $61,150 of taxable income (between $19,900 and $81,050) is taxed at 12 percent, and Bill and Mercedes's last $78,950 of taxable income (between $81,050 and $160,000) is taxed at 22 percent.

Many taxpayers incorrectly believe that all their income is taxed at their marginal rate. This mistake leads people to say, "I don't want to earn any additional money because it will put me in a higher tax bracket." Bill and Mercedes are currently in the 22 percent marginal tax rate bracket, but notice that not all their income is taxed at this rate. Their *marginal* tax rate is 22 percent. This means that small increases in income will be taxed at 22 percent, and small increases in deductions will generate tax *savings* of 22 percent. If Bill and Mercedes receive a large increase in income (or in deductions) such that they change tax rate brackets, we could not identify their marginal tax rate simply by knowing their current tax bracket.

Example 1-4

What if: Bill, a well-known economics professor, signs a publishing contract with an $80,000 royalty advance. Using the rate schedule from Example 1-3, what would Bill and Mercedes's marginal tax rate be on this $80,000 of additional income?

Answer: 23.68 percent, computed as follows:

Description	Amount	Explanation
(1) Taxable income with $80,000 of additional income	$240,000	$80,000 of additional income plus $160,000 taxable income (Example 1-3)
(2) Tax on $240,000 taxable income	$ 45,642	Using the rate schedule in Example 1-3, $45,642 = $29,502 + 24%($240,000 − $172,750)
(3) Taxable income before $80,000 of additional income	$160,000	Example 1-3
(4) Tax on $160,000 taxable income	$ 26,697	Example 1-3
Marginal tax rate on $80,000 of additional income	**23.68%**	$\dfrac{\Delta\text{Tax}}{\Delta\text{Taxable income}} = [(2) - (4)]/[(1) - (3)]$

Note that Bill and Mercedes's marginal tax rate on the $80,000 of additional income rests *between* the 22 percent and 24 percent bracket rates because a portion of the additional income ($172,750 − $160,000 = $12,750) is taxed at 22 percent, with the remaining income ($240,000 − $172,750 = $67,250) taxed at 24 percent.

Example 1-5

What if: Assume now that, instead of receiving a book advance, Bill and Mercedes start a new business that *loses* $90,000 this year (it results in $90,000 of additional deductions). What would be their marginal tax rate for these additional deductions?

Answer: 20.77 percent, computed as follows:

Description	Amount	Explanation
(1) Taxable income with $90,000 of additional deductions	$ 70,000	$160,000 taxable income (Example 1-3) less $90,000 of additional deductions
(2) Tax on $70,000 taxable income	$ 8,002	Using the rate schedule in Example 1-3, $8,002 = $1,990 + 12%($70,000 − $19,900)
(3) Taxable income before $90,000 of additional deductions	$160,000	Example 1-3
(4) Tax on $160,000 taxable income	$ 26,697	Example 1-3
Marginal tax rate on $90,000 of additional deductions	**20.77%**	$\frac{\Delta \text{Tax}}{\Delta \text{Taxable income}} = [(2) - (4)]/[(1) - (3)]$

Bill and Mercedes's marginal tax rate on $90,000 of additional deductions (20.77 percent) differs from their marginal tax rate on $80,000 of additional income (23.68 percent) in these scenarios because the relatively large increase in deductions in this example causes some of their income to be taxed in a lower tax rate bracket, while the relatively large increase in income in Example 1-4 causes some of their income to be taxed in a higher tax rate bracket. Taxpayers often will face the same marginal tax rates for small changes in income and deductions.

The marginal tax rate is particularly useful in tax planning because it represents the rate of taxation or savings that would apply to additional income (or deductions). In the Tax Planning Strategies and Related Limitations chapter, we discuss basic tax planning strategies that use the marginal tax rate.

The **average tax rate** represents a taxpayer's average level of taxation on each dollar of taxable income. Specifically,

Eq. 1-3

$$\text{Average Tax Rate} = \frac{\text{Total Tax}}{\text{Taxable Income}}$$

The average tax rate is often used in budgeting tax expense as a portion of income (i.e., determining what percent of taxable income earned is paid in tax).

THE KEY FACTS

Different Ways to Measure Tax Rates

- Marginal tax rate
  - The tax that applies to the next increment of income or deduction.
    $$= \frac{\Delta \text{Tax}}{\Delta \text{Taxable income}}$$
  - Useful in tax planning.
- Average tax rate
  - A taxpayer's average level of taxation on each dollar of *taxable* income.
    $$= \frac{\text{Total tax}}{\text{Taxable income}}$$
  - Useful in budgeting tax expense.
- Effective tax rate
  - A taxpayer's average rate of taxation on each dollar of *total* income (taxable *and* nontaxable income).
    $$= \frac{\text{Total tax}}{\text{Total income}}$$
  - Useful in comparing the relative tax burdens of taxpayers.

Example 1-6

Assuming Bill and Mercedes have $160,000 of taxable income and $10,000 of nontaxable income, what is their average tax rate?

Answer: 16.69 percent, computed as follows:

Description	Amount	Explanation
(1) Taxable income	$160,000	
(2) Tax on $160,000 taxable income	$ 26,697	Example 1-3
Average tax rate	**16.69%**	$\frac{\text{Total tax}}{\text{Taxable income}} = (2)/(1)$

We should not be surprised that Bill and Mercedes's average tax rate is lower than their marginal tax rate because, although they are currently in the 22 percent tax rate bracket, not all of their taxable income is subject to tax at 22 percent. The first $19,900 of their taxable income is taxed at 10 percent, their next $61,150 is taxed at 12 percent, and only their last $78,950 of taxable income is taxed at 22 percent. Thus, their average tax rate is considerably lower than their marginal tax rate.

The **effective tax rate** represents the taxpayer's average rate of taxation on each dollar of total income (sometimes referred to as economic income), including taxable *and* nontaxable income. Specifically,

Eq. 1-4

$$\text{Effective Tax Rate} = \frac{\text{Total Tax}}{\text{Total Income}}$$

Relative to the average tax rate, the effective tax rate provides a better depiction of a taxpayer's tax burden because it gives the taxpayer's total tax paid as a ratio of the sum of both taxable and nontaxable income.

Example 1-7

Again, given the same income figures as in Example 1-6 ($160,000 of taxable income and $10,000 of nontaxable income), what is Bill and Mercedes's effective tax rate?

Answer: 15.70 percent, computed as follows:

Description	Amount	Explanation
(1) Total income	$170,000	$160,000 taxable income plus $10,000 in nontaxable income (Example 1-6)
(2) Tax on $160,000 taxable income	$ 26,697	Example 1-3
Effective tax rate	**15.70%**	$\frac{\text{Total tax}}{\text{Total income}} = (2)/(1)$

Should we be surprised that the effective tax rate is lower than the *average* tax rate? No, the effective tax rate will always be equal to or less than the average tax rate. When a taxpayer has no nontaxable income, the effective and average tax rates will be equal, but anytime a taxpayer has nontaxable income, the effective tax rate will be less than the average tax rate.

TAX RATE STRUCTURES

There are three basic tax rate structures used to determine a tax: proportional, progressive, and regressive.

Proportional Tax Rate Structure

A **proportional tax rate structure,** also known as a flat tax, imposes a constant tax rate throughout the tax base. As the tax base increases, the taxes paid increase proportionally. Because this rate stays the same throughout all levels of the tax base, the marginal tax rate remains constant and, in fact, equals the average tax rate (see Exhibit 1-1). The 21 percent corporate tax rate is an example of a flat tax. Sales tax is another example of a flat tax.

To calculate the tax owed for a proportional tax, simply use Equation 1-1 to multiply the tax base by the tax rate. Specifically,

Eq. 1-5 $$\text{Proportional Tax} = \text{Tax Base} \times \text{Tax Rate}$$

EXHIBIT 1-1   **Proportional Tax Rate**
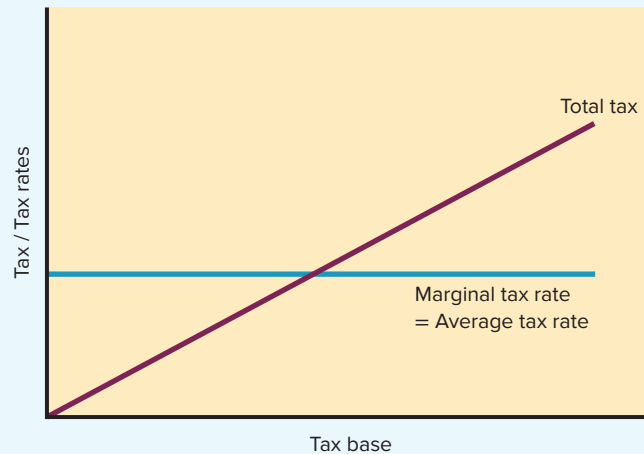
Example 1-8

Knowing her dad is a serious Georgia Bulldog fan, Margaret buys a $100 sweatshirt in downtown Athens. The city of Athens imposes a sales tax rate of 7 percent. How much tax does Margaret pay on the purchase?

Answer: $100 purchase (tax base) × 7% (tax rate) = $7

Progressive Tax Rate Structure

A **progressive tax rate structure** imposes an increasing marginal tax rate as the tax base increases. Common examples of progressive tax rate structures include federal and most state income taxes. The tax rate schedule in Example 1-3 is a progressive tax rate structure. As illustrated in Exhibit 1-2, the average tax rate in a progressive tax rate structure will always be less than or equal to the marginal tax rate.

EXHIBIT 1-2 **Progressive Tax Rate**

Total tax

Marginal tax rate

Average tax rate

Marginal tax rate

Tax / Tax rates
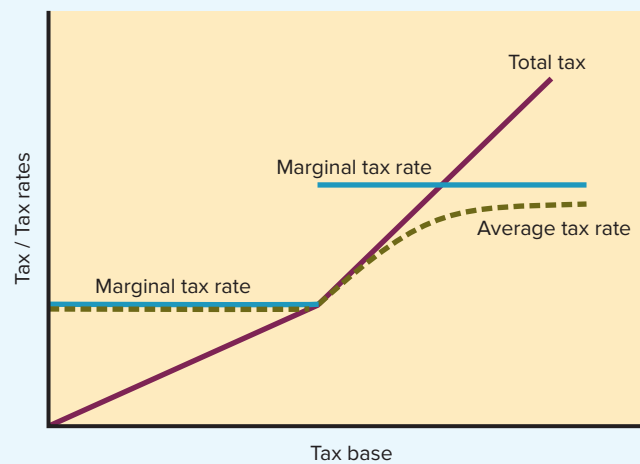
Tax base

Regressive Tax Rate Structure

A **regressive tax rate structure** imposes a decreasing marginal tax rate as the tax base increases (see Exhibit 1-3). Regressive tax rate structures are not common. In the United States, the Social Security tax and federal and state unemployment taxes employ a regressive tax rate structure.[5]

Some taxes are regressive when viewed in terms of effective tax rates. For example, a sales tax is a proportional tax by definition because as taxable purchases increase, the sales tax rate remains constant.[6] Nonetheless, when you consider that the proportion of your total income spent on taxable purchases likely decreases as your total income increases, you can see the sales tax as a regressive tax.

EXHIBIT 1-3 **Regressive Tax Rate**

Marginal tax rate

Total tax

Average tax rate

Marginal tax rate

Tax / Tax rates
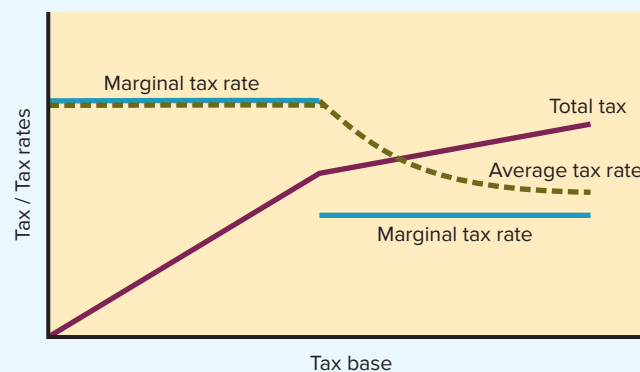
Tax base

[5]Wages subject to the Social Security tax are capped by an annual limit indexed for inflation. For 2021, the cap is $142,800. Wages in excess of the cap are not subject to the tax. Likewise, the federal and state unemployment tax bases and related unemployment benefits are capped. Alternatively, wages subject to the Medicare tax are proportional because the Medicare tax is not capped.

[6]For example, a destitute taxpayer likely spends all he makes on food and other items subject to the sales tax; thus, all of his income is subject to a sales tax. In contrast, a wealthy taxpayer likely spends only a small fraction of his income on items subject to sales tax (while saving the rest). Thus, less of a wealthy taxpayer's total income is subject to the sales tax, which ultimately results in a lower effective tax rate.

Example 1-9

Bill and Mercedes invite two single friends, Elizabeth and Marc, over for dinner. Elizabeth earns $300,000 annually as CFO of a company and spends $70,000 on purchases subject to the 7 percent sales tax. Marc, who earns $75,000 as a real estate agent, spends $30,000 of his income on taxable purchases. Let's compare their marginal, average, and effective tax rates for the sales tax with those of Bill and Mercedes, who spend $50,000 of their income on taxable purchases:

		Elizabeth	Bill and Mercedes	Marc
(1)	Total income	$300,000	$170,000	$75,000
(2)	Total purchases subject to 7% sales tax	$ 70,000	$ 50,000	$30,000
(3)	Sales tax paid	$ 4,900	$ 3,500	$ 2,100
	Marginal tax rate	7.0%	7.0%	7.0%
	Average tax rate (3)/(2)	7.0%	7.0%	7.0%
	Effective tax rate (3)/(1)	1.6%	2.1%	2.8%

Is the sales tax regressive?

Answer: Yes. In terms of *effective* tax rates, the sales tax is regressive.

When we consider the marginal and average tax rates in Example 1-9, the sales tax has a proportional tax rate structure. But when we look at the *effective* tax rates, the sales tax is a regressive tax. Indeed, Marc, who has the smallest total income, bears the highest effective tax rate, despite all three taxpayers being subject to the same marginal and average tax rates. Why do we see such a different picture when considering the effective tax rate? Because unlike the marginal and average tax rates, the effective tax rate captures the *incidence* of taxation, which relates to the ultimate economic burden of a tax. Thus, a comparison of effective tax rates is more informative about taxpayers' relative tax burdens.

TYPES OF TAXES

LO 1-4

"You can't live with 'em. You can't live without 'em." This statement has often been used in reference to bosses, parents, spouses, and significant others. To some degree, it applies equally well to taxes. Although we all benefit in multiple ways from tax revenues, and all civilized nations impose them, it would be hard to find someone who *enjoys* paying them. Most people don't object to the idea of paying taxes. Instead, it's the way taxes are levied that many people, like Margaret's friend Eddy, dislike. Hence, the search for fairness or the "perfect" tax system can be elusive. The following paragraphs describe the major types of taxes currently implemented by federal, state, and local governments. After this discussion, we describe the criteria for evaluating alternative tax systems.

Federal Taxes

The federal government imposes a variety of taxes to fund federal programs such as national defense, Social Security, an interstate highway system, educational programs, and Medicare. Major federal taxes include the individual and corporate income taxes, employment taxes, estate and gift taxes, and excise taxes (each discussed in detail in the following paragraphs). Notably absent from this list are sales tax (a common tax levied by most state and local governments) and **value-added tax** (a type of sales tax also referred to as a VAT). Value-added taxes are imposed on the producers of goods and services

- Employment taxes consist of the Old Age, Survivors, and Disability Insurance (OASDI) tax, commonly called the Social Security tax, and the Medical Health Insurance (MHI) tax, also known as the Medicare tax.
- Unemployment taxes fund temporary unemployment benefits for individuals terminated from their jobs without cause.
- Excise taxes
  - Third-largest group of taxes imposed by the U.S. government.
  - Levied on the *quantity* of products sold.
- Transfer taxes
  - Levied on the fair-market values of wealth transfers upon death or by gift.

based on the value added to the goods and services at each stage of production. They are quite common in Europe.

Income Tax   The most significant tax assessed by the U.S. government is the individual **income tax,** representing approximately 49.6 percent of all tax revenues collected in the United States in 2019. Despite the magnitude and importance of the federal income tax, its history is relatively short. Congress enacted the first U.S. personal income tax in 1861 to help fund the Civil War. This relatively minor tax (with a maximum tax rate of 5 percent) was allowed to expire in 1872. In 1892, Congress resurrected the income tax, but not without dissension among the states. In 1895, the income tax was challenged in *Pollock v. Farmers' Loan and Trust Company,* 157 U.S. 429 (1895). The U.S. Supreme Court ruled that the income tax was unconstitutional because direct taxes were prohibited by the Constitution unless the taxes were apportioned across states based upon their populations. This ruling, however, did not deter Congress. In July 1909, Congress sent a proposed constitutional amendment to the states to remove any doubt as to whether income taxes were allowed by the Constitution—and in February 1913, the 16th Amendment was ratified.

Congress then enacted the Revenue Act of 1913, which included a graduated income tax structure with a maximum rate of 6 percent. The income tax has been an important source of tax revenues for the U.S. government ever since. Today, income taxes are levied on individuals (maximum rate of 37 percent), corporations (flat rate of 21 percent), estates (maximum rate of 37 percent), and trusts (maximum rate of 37 percent). Higher-income taxpayers must also pay a 3.8 percent tax on their net investment income. As Exhibit 1-4 illustrates, the individual income tax and employment taxes represent the largest sources of federal tax revenues. We discuss each of these taxes in greater detail later in the text.

Employment and Unemployment Taxes   Employment and unemployment taxes are the second-largest group of taxes imposed by the U.S. government. **Employment taxes** consist of the Old Age, Survivors, and Disability Insurance (OASDI) tax, commonly called the Social Security tax, and the Medical Health Insurance (MHI) tax, known as the Medicare tax. The **Social Security tax** pays the monthly retirement, survivor, and

EXHIBIT 1-4   **U.S. Federal Tax Revenues**

Excise taxes 2.9%

Other taxes 4.9%

Employment taxes 35.9%

Individual tax 49.6%

Corporate income tax 6.7%
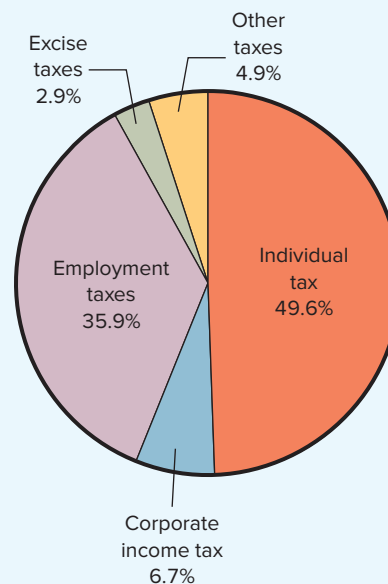
Source: Treasury Department (Fiscal Year 2020).

disability benefits for qualifying individuals, whereas the **Medicare tax** pays for medical insurance for individuals who are elderly or disabled. The tax base for the Social Security and Medicare taxes is wages or salary, and the rates are 12.4 percent and 2.9 percent, respectively. In 2021, the tax base for the Social Security tax is capped at $142,800 (wages over this cap are not subject to the tax). The tax base for the Medicare tax is not capped. Employers and employees split these taxes equally (both pay 6.2 percent Social Security tax and 1.45 percent Medicare tax). Self-employed individuals, however, must pay these taxes in their entirety. In this case, the tax is often referred to as the **self-employment tax.** We discuss these taxes in more depth later in the text. Individual taxpayers with earned income over a threshold amount are also subject to a 0.9 percent additional Medicare tax (see the Individual Income Tax Computation and Tax Credits chapter for details).

In addition to the Social Security and Medicare taxes, employers are also required to pay federal and state **unemployment taxes,** which fund temporary unemployment benefits for individuals terminated from their jobs without cause. Employers pay federal unemployment tax based on employees' wages or salaries. The Federal Unemployment Tax Act (FUTA) tax is 6.0% on only the first $7,000 of income for each employee. Most employers receive a maximum credit of up to 5.4% against this FUTA tax for allowable state unemployment tax. Consequently, the effective FUTA rate may be as low as .6 percent $(6.0\% - 5.4\% = .6\%)$.[7]

Excise Taxes   **Excise taxes** are taxes levied on the retail sale of particular products. They differ from other taxes in that the tax base for an excise tax typically depends on the *quantity* purchased, rather than a monetary amount. The federal government imposes a number of excise taxes on goods such as alcohol, diesel fuel, gasoline, and tobacco products and on services such as telephone use, air transportation, and the use of tanning beds. In addition, states often impose excise taxes on these same items.

Example 1-10

On the drive home from Florida to Athens, Georgia, Margaret stops at Gasup-n-Go. On each gallon of gasoline she buys, Margaret pays 18.4 cents of federal excise tax and 42.3 cents of state excise tax (plus 4 percent sales tax). Could Margaret have avoided paying excise tax had she stopped in Florida instead?

Answer: No. Had she stopped in Florida instead, Margaret would have paid the same federal excise tax. Additionally, Florida also imposes a state excise tax on gas.

Because the producer of the product pays the excise tax to the government, many people are not even aware that businesses build these taxes into the prices consumers pay. Nevertheless, consumers bear the burden of the taxes because of the higher price.

Transfer Taxes   Although they are a relatively minor tax compared to the income tax in terms of revenues collected, federal **transfer taxes**—estate and gift taxes—can be substantial for certain individual taxpayers and have been the subject of much debate in recent years. The **estate tax** (labeled the "death tax" by its opponents) and **gift taxes** are based on the fair market values of wealth transfers made upon death or by gift, respectively. Today, the maximum rate imposed on gifts is 40 percent. Most taxpayers, however, are not subject to estate and gift taxation because of the annual gift exclusion and gift and estate unified tax credits. The annual gift exclusion allows a taxpayer to transfer $15,000 of gifts per donee (gift recipient) each year without being subject to gift taxation. In 2021, the unified tax credit exempts from taxation $11,700,000 in bequests (transfers upon

---

[7]Although employers pay both federal and state unemployment taxes, all unemployment benefits are actually administered and paid by state governments.

death) and lifetime gifts. Thus, only taxpayers with substantial wealth are subject to the gift and estate taxes.

State and Local Taxes

Like the federal government, state and local governments (such as counties, cities, and school districts) use a variety of taxes to generate revenues for their programs (such as education, highways, and police and fire departments). Some of the more common **state** and **local taxes** include income taxes, sales and use taxes, excise taxes, and property taxes. Typically, as shown in Exhibit 1-5, the largest state tax revenues are generated by individual income taxes and state sales taxes—while federal revenues rely primarily on income and employment taxes. Local tax revenues are predominantly from sales and property taxes.

THE KEY FACTS

State and Local Taxes

- Income taxes
  - Most state taxable income calculations largely conform to the federal taxable income calculations, with a limited number of modifications.
- Sales and use taxes
  - The tax base for a sales tax is the retail price of goods and some services.
  - The tax base for the use tax is the retail price of goods owned, possessed, or consumed within a state that were *not* purchased within the state.
- Property taxes
  - Property taxes are ad valorem taxes, meaning that the tax base for each property is the fair market value of that property.
  - Real property taxes consist of taxes on land, structures, and improvements permanently attached to land.
  - Personal property taxes include taxes on all other types of property, both tangible and intangible.
- Excise taxes
  - States typically impose excise taxes on items subject to federal excise tax.

EXHIBIT 1-5   **Average State Tax Revenues**

- Other 25.4%
- Individual income tax 37.8%
- Corporate income tax 3.7%
- Sales tax 31.3%
- Property tax 1.8%
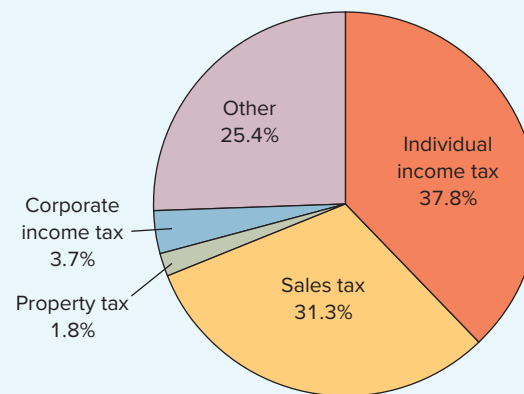
Source: U.S. Bureau of Census. www.census.gov.

Income Taxes   Currently, most states and the District of Columbia impose income taxes on individuals and corporations who either reside in or earn income within the state.[8] This requires individuals working in these states to file a state tax return in addition to the federal return they already file. Calculations of individual and corporate taxable income vary with state law. Nonetheless, state taxable income calculations generally conform to the federal taxable income calculations (California is a notable exception because it has numerous modifications). State income tax rates are signficantly less than the federal rates. Certain local governments such as New York City also impose an income tax and, again, the local calculations generally follow the respective state taxable income calculation.

Sales and Use Taxes   Most states, the District of Columbia, and local governments impose sales and use taxes. The tax base for a **sales tax** is the retail price of goods and some services, and retailers are responsible for collecting and remitting the tax; typically, sales tax is collected at the point of sale. The tax base for the **use tax** is the retail price of

---

[8]Currently, Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming have no personal income tax, and New Hampshire and Tennessee only tax individual dividend and interest income. South Dakota and Wyoming are the only states not imposing either a corporate income or gross receipts tax, although South Dakota does impose a bank franchise tax. Washington imposes a gross receipts tax instead of a corporate income tax. Texas and Ohio have an activity-based tax that is based on net income or gross receipts.

goods owned, possessed, or consumed within a state that were *not* purchased within the state. The purpose of a use tax is to discourage taxpayers from buying goods from retailers without sales tax collection responsibilities in order to avoid or minimize the sales tax in their home state. At the same time, by eliminating the incentive to purchase goods from retailers without sales tax collection responsibilities, a use tax removes any competitive disadvantage a retailer may incur from operating in a state with a high sales tax. To avoid the potential of double-taxing residents on sales taxes, states that impose a sales tax allow residents to take a credit for sales tax paid on goods purchased out of state.

Example 1-11

Margaret buys three new shirts for her dad for $100 from a seller without sales tax collection responsibilities. The seller does not collect Florida sales tax (Margaret's home state). Does Margaret's purchase escape Florida taxation?

Answer: No. Because Florida has a 6 percent use tax, Margaret is liable for $6 in use tax on the purchase ($100 × .06 = $6). Margaret will pay the use tax by filing a Florida use tax return.

Despite the potential importance of the use tax as a source of state tax revenue, states have only recently begun to enforce it. Poor compliance is therefore not surprising; indeed, many individuals have never heard of the use tax. While it is relatively easy to enforce sales tax on goods subject to a registration requirement, such as automobiles, it is quite difficult for states to tax most other untaxed purchases. Recent judicial changes to sales tax collection responsibilities has made the use tax less important. The state of Florida is not likely to search your closet to look for tax-evaded shirts. Note, however, there are several bills before Congress to modernize Internet taxation and to try to subject all Internet sales to sales taxes.

Property Taxes   State and local governments commonly use two types of property taxes as sources of revenue: **real property taxes** and **personal property taxes.** Both are **ad valorem taxes,** meaning that the tax base for each is the fair market value of the property, and both are generally collected annually (when imposed).

Real property consists of land, structures, and improvements permanently attached to land, whereas *personal property* includes all other types of property, both tangible and intangible. Common examples of tangible personal property potentially subject to state and local taxation include automobiles, boats, private planes, business inventory, equipment, and furniture. *Intangible personal property* potentially subject to state and local taxation includes stocks, bonds, and intellectual property—although no state currently imposes property taxes on these intangibles.

Of the two types, real property taxes are easier to administer because real property is not movable and purchases often have to be registered with the state, thereby making it easy to identify the tax base and taxpayer. Furthermore, the taxing body can estimate market values for real property without much difficulty. In contrast, personal property is generally mobile (thus easier to hide) and may be more difficult to value; therefore, personal property taxes are difficult to enforce. Accordingly, whereas all states and the District of Columbia provide for a real property tax, only a majority of states currently impose personal property taxes, most of which are assessed at the time of licensing or registration. However, most states do collect personal property taxes on business property.

Excise Taxes   We've said that the tax base for excise taxes is typically the quantity of an item or service purchased. States typically impose excise taxes on items subject to federal excise tax. Transactions subject to state excise tax often include the sale of alcohol, diesel fuel, gasoline, tobacco products, and telephone services.

Implicit Taxes

All the taxes discussed above are **explicit taxes;** that is, they are taxes directly imposed by a government and are easily quantified. **Implicit taxes,** on the other hand, are indirect taxes—not paid directly to the government—that result from a tax advantage the government grants to certain transactions to satisfy social, economic, or other objectives. Implicit taxes are defined as the reduced before-tax return that a tax-favored asset produces because of its tax-advantaged status. Let's examine this concept more closely.

First of all, what does it mean to be *tax-favored*? An asset is said to be tax-favored when the income the asset produces is either excluded from the tax base or subject to a lower (preferential) tax rate, or if the asset generates some other tax benefit such as large tax deductions. These tax benefits, *all other things equal,* result in higher after-tax profits (or lower after-tax costs) from investing in the tax-advantaged assets.

Why do tax-advantaged assets bear an implicit tax, or a reduced before-tax rate of return as a result of the tax advantage? The answer is simple economics. The tax benefits associated with the tax-favored asset increase the demand for the asset. Increased demand drives up the price of the asset, which in turn reduces its before-tax rate of return, which is an implicit tax by definition. Consider Example 1-12.

Example 1-12

Consider two bonds, one issued by the Coca-Cola Co. and the other issued by the State of Georgia. Both bonds have similar nontax characteristics (risk, for example), the same face value of $10,000, and the same market interest rate of 10 percent. The only difference between the two bonds is that the interest income from the Coca-Cola Co. bond is subject to a 22 percent income tax rate, whereas the interest income from the State of Georgia bond is tax-exempt with a 0 percent tax rate. Which of the two bonds is a better investment and should therefore have a higher demand?

	Price	Before-Tax Rate of Return*	Interest Income	Income Tax[†]	After-Tax Income	After-Tax Rate of Return*
Coca-Cola Co. Bond	$10,000	10%	$1,000	$220	$ 780	7.8%
State of GA Bond	$10,000	10%	$1,000	$ 0	$1,000	10%

*Before-tax rate of return is calculated as the before-tax income divided by the price of the bond. Likewise, After-tax rate of return is calculated as the after-tax income divided by the price of the bond.
[†]Income tax equals the taxable interest income ($1,000) multiplied by the assumed income marginal tax rate (22 percent).

Answer: Compare the after-tax rate of return on the bonds. Given the difference between the after-tax rate of return (10 percent vs. 7.8 percent), the better investment—again, all other investment features being equal—is the State of Georgia bond because it provides a higher after-tax rate of return. Because all investors in this example should prefer to buy the State of Georgia bond, the demand for the bond will be high, and its price should increase. This increase in price leads to a lower before-tax rate of return due to the bond's tax-favored status (this is an implicit tax).

Example 1-12 is a basic illustration of the need to consider the role of taxes in investment decisions. Without understanding the relative tax effects associated with each bond, we cannot correctly compare their after-tax returns.

At what point in Example 1-12 would you be indifferent between investing in the Coca-Cola Co. bond and the State of Georgia bond? Assuming both bonds have the same nontax characteristics, you would be indifferent between them when they both provide the same after-tax rate of return. This could occur if the State of Georgia raised the price

of its bond from \$10,000 to \$12,820.51 (\$1,000 interest/\$12,820.51 price = 7.8% return). Or the State of Georgia could lower its bond interest payment from \$1,000 to \$780 (\$780 interest/\$10,000 price = 7.8% return). Either way, the State of Georgia benefits from selling the tax-exempt bonds—either at a higher price or at a lower interest rate relative to other bonds. Let's look more closely at this latter option because it is, in fact, what many tax-exempt bond issuers choose to do.

	Price	Before-Tax Rate of Return	Interest Income	Income Tax	After-Tax Income	After-Tax Rate of Return
Coca-Cola Co. Bond	\$10,000	10%	\$1,000	\$220	\$780	7.8%
State of GA Bond	\$10,000	7.8%	\$ 780	\$ 0	\$780	7.8%

Assuming each bond has the same nontax characteristics, an investor should be indifferent between the Coca-Cola Co. bond and the State of Georgia bond. What is the tax burden on investors choosing the Coca-Cola Co. bond? Coca-Cola Co. bond investors are paying \$220 of income taxes (explicit taxes). What is the tax burden on investors choosing the State of Georgia bond? While it is true they are subject to zero income taxes (explicit taxes), they are subject to implicit taxes in the form of the \$220 less in interest income they accept. This \$220 of reduced interest income (2.2 percent reduced before-tax rate of return) is an implicit tax. Although the investors in the State of Georgia bond are not paying this tax directly, they are paying it indirectly.

Does this happen in real life? Yes. Municipal bond interest income (interest income paid on bonds issued by state and local governments) generally is not subject to federal income taxation. Because of their tax-advantaged status, municipalities are able to pay a lower interest rate on their bond issuances and investors are willing to accept the lower rate. This type of indirect federal subsidy allows municipalities to raise money at a reduced cost without the need for direct federal subsidy or approval.

Although we were able to quantify the implicit taxes paid in the above example, in reality it is very difficult to estimate the amount of implicit taxes paid. For example, the federal government subsidizes housing by allowing taxpayers to deduct mortgage interest on their principal residence. Does this subsidy result in an implicit tax in the form of higher housing prices? Probably. Nevertheless, it would be difficult to quantify this implicit tax.

Despite the difficulty of quantifying implicit taxes, you should understand the concept of implicit taxes so you can make informed judgments about the attractiveness of alternative investments and the relative total tax burdens of tax-advantaged investments (considering both explicit and implicit taxes).

THE KEY FACTS

Implicit Taxes

- Implicit taxes are indirect taxes that result from a tax advantage the government grants to certain transactions to satisfy social, economic, or other objectives.
- Implicit taxes are defined as the reduced before-tax return that a tax-favored asset produces because of its tax-advantaged status.
- Implicit taxes are difficult to quantify but important to understand in evaluating the relative tax burdens of tax-advantaged investments.

EVALUATING ALTERNATIVE TAX SYSTEMS

LO 1-5

Although it may appear that tax systems are designed without much forethought, in truth lawmakers engage in continuous debate over the basic questions of whom to tax, what to tax, and how much to tax. Margaret's friend Eddy is obviously upset with what he views as an unfair tax system. But fairness, as we will discuss shortly, is often like beauty—it is in the eye of the beholder. What is fair to one may seem blatantly unfair to others. In the following paragraphs, we offer various criteria (sufficiency, equity, certainty, convenience, and economy) you can use to evaluate alternative tax systems.[9] Satisfying everyone at the same time is difficult—hence, the spirited debate on tax fairness and reform, especially leading up to election years when you get to choose between political parties and their platforms.

---

[9]Adam Smith identified and described the latter four criteria in *The Wealth of Nations.*

<div style="float:left; width:30%;">

THE KEY FACTS

Evaluating Alternative Tax Systems—Sufficiency

- Judging sufficiency requires assessing the aggregate amount of the tax revenues that must be generated and ensuring that the tax system provides these revenues.
- Static forecasting ignores how taxpayers may alter their activities in response to a proposed tax law change and bases projected tax revenues on the existing state of transactions.
- Dynamic forecasting attempts to account for possible taxpayer responses to a proposed tax law change.

</div>

Sufficiency

Judging the **sufficiency** of a tax system means assessing the amount of tax revenues it must generate and ensuring that it provides them. For a country's tax system to be successful, it must provide sufficient revenues to pay for governmental expenditures for a defense system, social services, and so on. This sounds easy enough: Estimate the amount of governmental expenditures that will be required, and then design the system to generate enough revenues to pay for these expenses. In reality, however, accurately estimating governmental expenditures and revenues is a rather daunting and imprecise process. Estimating governmental expenditures is difficult because it is impossible to predict the unknown. For example, in recent years governmental expenditures have increased due to the growth of Homeland Security, the Afghanistan and Iraq wars, natural disasters, economic stimulus packages due to COVID-19, and health care. Likewise, estimating governmental revenues is difficult because tax revenues are the result of transactions influenced by these same national events, the economy, and other factors. Thus, precisely estimating and matching governmental expenditures with tax revenues is nearly impossible.

The task of estimating tax revenues becomes even more daunting when the government attempts to make significant changes to the existing tax system or design a new one. Whenever Congress proposes changing who is taxed, what is taxed, or how much is taxed, its members must consider the taxpayer response to the change. That affects the amount of tax collected, and forecasters' prediction of what taxpayers will do affects the amount of revenue they estimate to collect.

Static versus Dynamic Forecasting   One option in forecasting revenue is to ignore how taxpayers may alter their activities in response to a tax law change and instead base projected tax revenues on the existing state of transactions, a process referred to as **static forecasting.** However, this type of forecasting may result in a large discrepancy in projected versus actual tax revenues collected if taxpayers do change their behavior.

The other choice is to attempt to account for possible taxpayer responses to the tax law change, a process referred to as **dynamic forecasting.** Dynamic forecasting is ultimately only as good as the assumptions underlying the forecasts and does not guarantee accurate results. Nonetheless, considering how taxpayers may alter their activities in response to a tax law change is a useful exercise to identify the potential ramifications of the change, even if the revenue projections ultimately miss the mark.[10]

Example 1-13

> The city of Heflin would like to increase tax revenues by $2,000,000 to pay for needed roadwork. A concerned taxpayer recently proposed increasing the cigarette excise tax from $1.00 per pack of cigarettes to $6.00 per pack to raise the additional needed revenue. Last year, 400,000 packs of cigarettes were sold in the city. Will the proposal be successful in raising the additional $2,000,000 in proposed tax revenue?
>
> **Answer:** Not likely. The proposed tax increase of $5, and the assumption that 400,000 packs will still be sold, is an example of static forecasting: It ignores that many taxpayers may respond to the tax change by quitting, cutting down, or buying cheaper cigarettes in the next town.

In some cases, static forecasting can lead to a tax consequence that is the opposite of the desired outcome. In Example 1-13, we might estimate that given Heflin's close proximity to other cities with a $1.00 cigarette tax, the number of packs of cigarettes sold within the city would drop significantly to, say, 50,000. In this case, the tax increase would actually *decrease* tax revenues by $100,000 ($400,000 existing tax − $300,000 new tax)—not a good outcome if the goal was to increase tax revenues.

---

[10]For more information about the congressional revenue estimating process, including dynamic scoring, see the Joint Committee on Taxation explanation at www.jct.gov/publications.html?func=startdown&id=4687.

Income versus Substitution Effects   Example 1-13 described proposed changes in an excise tax, which is a proportional tax. In terms of a progressive tax such as an *income* tax, a tax rate increase or an expansion of the tax base can result in one of two taxpayer responses, both of which are important for dynamic forecasting. The **income effect** predicts that when taxpayers are taxed more, they will work harder to generate the same after-tax dollars. The **substitution effect** predicts that when taxpayers are taxed more, rather than working more, they will substitute nontaxable activities like leisure pursuits for taxable ones because the marginal value of taxable activities has decreased. Which view is accurate? The answer depends on the taxpayer. Consider the following examples.

Example 1-14

Margaret's friend George, who earns $40,000 taxable income as a self-employed mechanic, is taxed at an average rate of 10 percent (resulting in $4,000 of tax). If Congress increases the income tax rate such that George's average tax rate increases from 10 percent to 25 percent, how much more income tax will he pay?

Answer: It depends on whether the income effect or the substitution effect is operating. Assuming George is single and cannot afford a net decrease in his after-tax income, he will likely work more (the income effect rules). Prior to the tax rate increase, George had $36,000 of after-tax income ($40,000 taxable income less $4,000 tax). With the increased tax rate, George will have to earn $48,000 of taxable income to keep $36,000 after taxes [$48,000 − ($48,000 × .25) = $36,000]. Thus, if the income effect rules, the government will collect $12,000 of federal income tax from George, or $8,000 more than under the previous lower tax rate. In this scenario, the tax change increases government revenues because of the increased tax rate *and* the increased tax base.

Whether the substitution effect or the income effect will describe any individual taxpayer's reaction to a tax increase is something we can only guess. But some factors—such as having higher disposable income—are likely to correlate with the substitution effect.

Example 1-15

What if: Now let's assume that George is married and has two young children. Both he and his wife work, and they file a tax return jointly with a 10 percent average tax rate. Either of their incomes is sufficient to meet necessities, even after the tax rate increase. But fixed child care costs make the marginal wage rate (the after-tax hourly wage less hourly child care cost) more sensitive to tax rate increases. In this case, the lower-earning spouse may choose to work less. Suppose George quits his full-time job and takes a part-time position that pays $10,000 to spend more time with his kids and to pursue his passion, reading sports novels. What are the taxes on George's income?

Answer: In this case, George will owe $2,500 tax ($10,000 × .25 = $2,500). Here, the substitution effect operates and the government collects much less than it would have if George had maintained his full-time position because the tax rate increase had a negative effect on the tax base.

As Examples 1-14 and 1-15 illustrate, the response to a tax law change can vary by taxpayer and can greatly affect the magnitude of tax revenues generated by the change. Herein lies one of the challenges in significantly changing an existing tax system or designing a new one: If a tax system fails to generate sufficient revenues, the government must seek other sources to pay for governmental expenditures. The most common source

of these additional funds for the federal government is the issuance of debt instruments such as Treasury bonds. This, however, is only a short-term solution to a budget deficit. Debt issuances require both interest and principal payments, which require the federal government to identify even more sources of revenue to service the debt issued or to cut governmental spending (both of which may be unpopular choices with voters). A third option is for the government to default on its debt obligations. However, the costs of this option are potentially devastating. If the historical examples of Mexico, Brazil, Argentina, and Greece are any guide, a U.S. government default on its debt obligations would likely devalue the U.S. dollar severely and have extreme negative consequences for the U.S. capital markets.

The best option is for the government to match its revenues with its expenses—that is, to not spend more than it collects. State governments seem to be more successful in this endeavor than the U.S. federal government. Indeed, all states except Vermont require a balanced budget each year, whereas the federal government has had deficit spending for most of the last 40 years.

TAXES IN THE REAL WORLD   National Debt

How much debt does the U.S. have?   As of September 2020, it was $26.8 trillion. Almost $20.9 trillion of the national debt is held by public investors, including individual bondholders, institutional investors, and foreign governments such as China, Japan, the United Kingdom, and Brazil. The $5.9 trillion remaining amount represents intra-governmental holdings—primarily Social Security.

Is $26.8 trillion too much to handle?   The key issue is fiscal sustainability: the ability to pay off a debt in the future. Rising debt also has other negative consequences, such as higher interest payments, a need for higher taxes, restrictions on policy makers' fiscal policy choices, and the increased probability of a sudden fiscal crisis. If nothing is done to change the national debt trajectory, the debt will grow faster than the economy.

Is the national debt sustainable?   The federal government has recently been recording budget deficits that are a larger share of the economy than any year since the end of World War II. With an aging population, Social Security and other benefits will require larger expenditures. By the end of the current decade, barring any significant policy shifts, the vast majority of federal tax revenue will be consumed by just four expenditures: interest on the debt, Medicare, Medicaid, and Social Security. To finance other governmental expenditures, including defense and all other discretionary programs, policy makers will have to borrow the money to pay for them.

Source: www.treasurydirect.gov/govt/reports/pd/mspd/mspd.htm

Equity

We've looked at the challenges of designing a tax system that provides sufficient revenues to pay for governmental expenditures. An equally challenging issue is how the tax burden should be distributed across taxpayers. At the heart of this issue is the concept of **equity,** or fairness. Fairness is inherently subject to personal interpretation, and informed minds often disagree about what is fair. There is no "one-size-fits-all" definition of equity or fairness. Nevertheless, it is informative to consider in broad terms what makes a fair or equitable tax system.

In general terms, a tax system is considered fair or equitable if the tax is based on the taxpayer's ability to pay. Taxpayers with a greater ability to pay tax pay more tax. In broad terms, each of the federal, state, and local taxes we've discussed satisfies this criterion. For example, those individuals with greater taxable income, purchases, property, and estates (upon death) generally pay higher dollar amounts in federal income tax, sales tax, property tax, and estate tax. If this is the case, why is there so much debate over the fairness of the U.S. income tax system? The answer is that equity is more complex than our first definition suggests. Let's take a closer look.