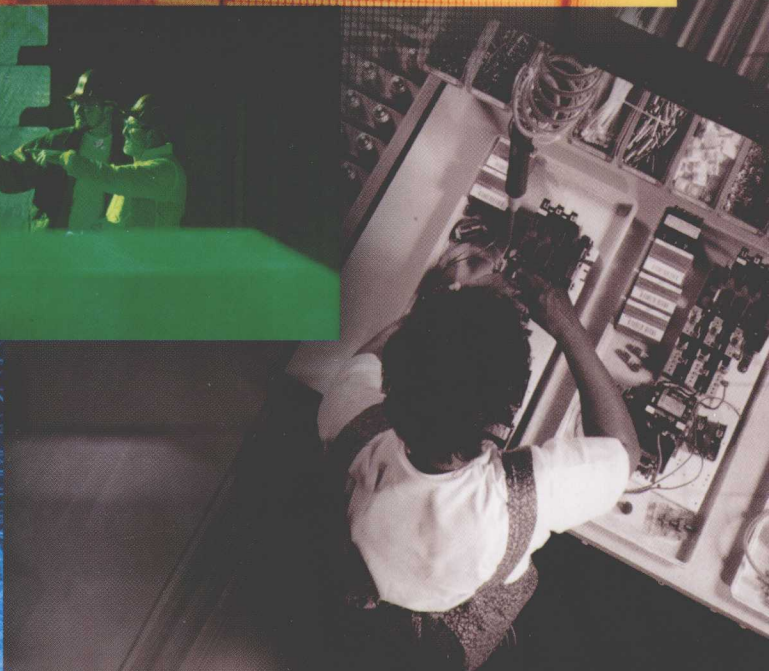
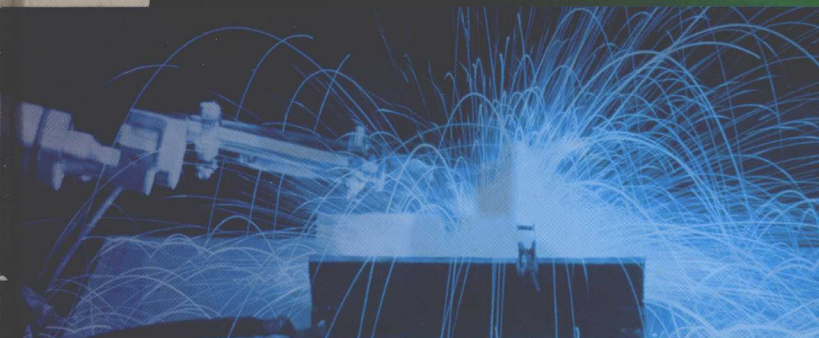
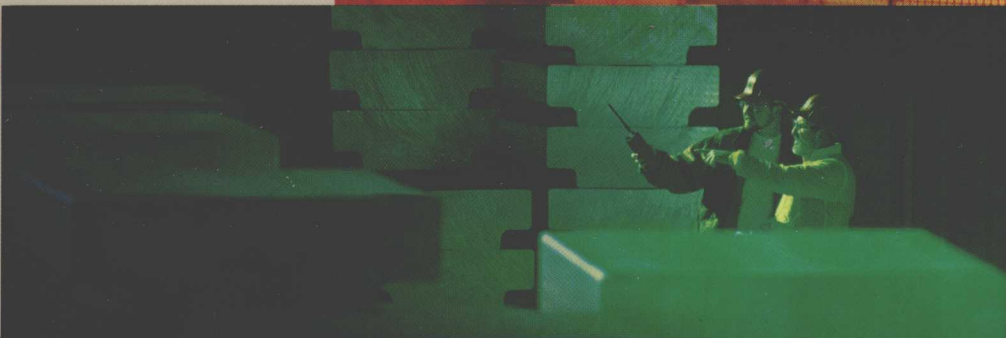
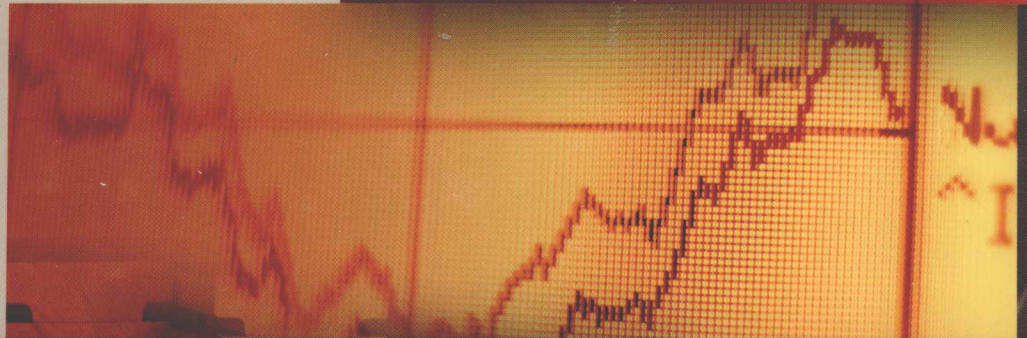


Managerial Accounting

A Focus on Decision Making

3e



Jackson/Sawyers

Managerial Accounting

3e

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Preface

"If by education we mean the cramming of a pupil's mind with facts or rules, without any real conception of their meaning or of the relations in which they stand to each other, it is perfectly safe to say that it is a waste of time. This kind of education fits a man for a certain groove, in which he moves in a routine way, a mere piece of mechanical machinery, incapable of independent thought or action. If confronted with a new condition, to which his rules do not apply, he is helpless, and is liable to make mistakes that are disastrous, because his action is based on insufficient knowledge of the foundation principles." (*Journal of Accountancy*, 1917).

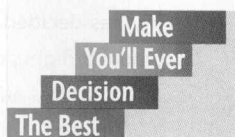
While 1917 may seem a little dated, more recently the Institute of Management Accountants has stressed that accounting programs should redirect their focus away from curricula that emphasize in-depth, technical, and procedural subject matter to a more general approach that emphasizes concepts and problem-solving skills. Similar sentiments are echoed in the American Institute of Certified Public Accountants' *CPA Vision Project* and in the monograph *Accounting Education: Charting a Course through a Perilous Future*.

These views provide the underlying motivation for this textbook. That is, we believe that it is critical to educate students in the principles and concepts of managerial accounting in a way that teaches and improves their problem-solving skills. While we believe that students should be exposed to traditional concepts and tools in learning to make good decisions, we also feel strongly that an accounting education in the new millennium demands that students be able to apply critical-thinking skills in unstructured settings.

The third edition of **Managerial Accounting** provides students with the necessary understanding of fundamental accounting concepts and tools, while simultaneously emphasizing the analysis and interpretation of information rather than its preparation. This approach enables us to teach students to think not only about "how" the accounting takes place, but also "why" that accounting takes place and how the resultant information improves the decision-making process. Our approach does not rely on the extensive use of journal entries or other accounting procedures because our primary focus is on the use of accounting information by managers in organizations. Accordingly, we provide numerous business examples throughout the text of how actual companies are using managerial accounting in strategic ways to improve their business. We also took care to maintain and improve the understandability and readability of the text—an important feature of the first two editions.

We present an approach that we eagerly invite you to explore—an approach that allows students to discover an understanding of business decision making and prepare for success in their business careers.

This third edition is intended for all students who wish to gain a greater understanding of business and how accounting information is used by managers to make decisions. The text is written in a manner that uses real-world companies to present information that appeals to a wide audience, including students who are studying accounting, management, marketing, finance, human resources, general business, and even students who are not pursuing business degrees. Indeed, the text is intended for all who will use accounting information to make decisions.



We anticipate that most students taking a course in managerial accounting have taken one financial accounting course. As such, the text is designed to stand alone and work well in succession to any of the popular financial accounting texts currently on the market. However, with supplemental instruction in basic financial accounting transaction analysis and an introduction to financial statements, **Managerial Accounting** serves equally well as the primary text for students who take managerial accounting first or only take one accounting course.

New to This Edition

- **End-of-Chapter Assignments** have been substantially revised and now include a variety of formats: **Multiple Choice Questions, Concept Questions, Exercises, Problems, Cases, and Group and Internet Exercises.** The Cases are designed to allow students to work with less structured contexts. Also, all assignments are identified by learning objective, and most chapters include **spreadsheet assignments** and questions related to **decision making and ethics**, all of which are identified by unique icons.

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3 Units started and completed: \$90,000

51. The Meekma Beverage Corporation manufactures flavored bottled water and uses process costing to account for the cost of the products manufactured. Raw materials and labor are incurred at the same rate during the production process. Data for Meekma's mixing department for March are as follows:

	Units	Production Costs
Work in process, March 1 (80% complete)	5,000	\$ 60,000
Started during March	100,000	1,187,500

- **Hitting the Bottom Line** features short discussions of how managerial accounting decisions impact a company's financial health. The discussions are based on real-world events and feature a broad range of companies, including American Airlines, Volkswagen AG, General Electric, and the Royal Dutch/Shell Group. The intent of *Hitting the Bottom Line* is to encourage students to understand the links between managerial accounting, financial accounting, and business decision making.

Hitting the Bottom Line.

"DON'T CHANGE THAT LIGHT BULB!"

One thing is true about flying an airplane—the gas tank has to be full whether there are 15 passengers or 75 passengers. This is the brutal reality of operating an airline—there are many fixed costs. Few airlines have faced this reality like American Airlines, which has lost more than \$6.6 billion since late 2001. The company is now taking steps to curb its losses and is finding that questioning long-held beliefs about the industry can pay dividends. For example, the company has decided to spread out its schedule, rather than bunch flights close together, which required employees to staff gates and aircraft at the same time. Also, the company now purchases less expensive blankets for first-class passengers from

China rather than Italy, and lightbulbs over seats are changed less frequently than they once were. Other cost savings efforts include replacing passenger windows less frequently—each window costs \$1,000, and polishing the exterior of airplanes every two years rather than every year as done in the past. These and other cost savings efforts have allowed American Airlines to slash its annual costs by an astounding \$2.2 billion! However, if schedules are less convenient, layovers are longer, passengers are left sitting in the dark, or passengers become concerned about safety, short-term savings may result in long-term costs.

- **The Ethics of Business** features discussions of companies whose employees have behaved unethically in the conduct of business. Each of these discussions is followed by “*It’s Your Choice*,” a series of short questions designed to encourage students to think about how they would act in similar circumstances. Companies that are included in *The Ethics of Business* features include Ford Motor Company, Gillette, Philip Morris USA, and WorldCom (now MCI).

THE ETHICS OF BUSINESS

Cut Your Price or Else!

The Big Three U.S. automakers (Ford, GM, and DaimlerChrysler) have been under tremendous competition from foreign manufacturers for the last decade. Unable to cut labor costs because of collective bargaining agreements with employee labor unions, the companies have turned their attention to their suppliers. For example, Ford and GM contacted Superior Industries International, a supplier of wheels for the companies, and requested that Superior match the price offered by a potential new supplier located in China. The only way that Superior Industries can meet the price is by outsourcing some of their own labor. Essentially, while GM and Ford cannot outsource their labor and reduce that component of product cost, they have forced their suppliers to cut costs for them.

It’s Your Choice—Imagine you are the owner of a company that supplies components to Ford and GM and you are approached with the above dilemma. What would you do? What are your ethical obligations to your company, family, employees, community, and customers? What do you think is the ultimate impact of this type of forced outsourcing?

- **Doing Business** features short discussions of how real-world companies are using managerial accounting concepts to think about and solve everyday business problems.

Doing Business.

TERRORIST ATTACKS WREAK HAVOC ON SUPPLY CHAINS

Disruptions in shipments of air freight and heightened security at border crossings following the World Trade Center terrorist attacks exposed one of the risks facing companies operating just-in-time factories. Without needed parts, several auto makers were forced to temporarily shut down assembly lines in the days immediately following the attacks. New transportation security rules enacted in October 2003 further tighten border security by requiring companies to provide the U.S. government with advance notification for incoming shipments of international cargo. These notification re-

quirements range from 30 minutes for trucks to 24 hours for ships and may result in goods sitting in port waiting for approval and or inspection. Companies must factor in the risks of the interruption of deliveries into the supply chain management process and either have an alternative source and/or have a buffer like that in a traditional manufacturing system (“Flight Ban Slows ‘Just in Time’ Factories,” *Wall Street Journal*, September 13, 2001, B3 and “Shippers Say New Border Rules Could Delay Just-in-Time Cargo,” *Wall Street Journal*, August 29, 2003, A1)

- **Chapter 11—Decentralization and Performance Evaluation** This chapter now includes a discussion of performance evaluation in a multinational environment and the use of cash-based, stock-based, and other forms of managerial compensation to motivate managers.
- **Chapter 12—Performance Evaluation Using the Balanced Scorecard** This chapter includes a new section on measuring and controlling environmental costs.
- **Chapter 13—The Strategic Use of Managerial Accounting Information** This new chapter examines how managerial accounting information is used by companies in developing, monitoring, and maintaining a long-term competitive strategy.
- **Chapter 14—Internal Control, Corporate Governance, and Ethics** This new chapter includes revised and expanded coverage of fraud and internal control and up-to-date coverage of the forces shaping corporate governance and business ethics. Unique to managerial accounting textbooks, the material in this chapter exposes students to some of the most significant issues affecting the business profession today. Topical coverage includes fraudulent financial reporting, misappropriation of assets, common methods of perpetrating fraud, elements of internal control, common control activities, corporate governance practices, ethics programs, codes of ethics, and appropriate responses to ethics violations.

Specific Chapter Coverage

Managerial Accounting is organized into five parts and follows a logical progression of topics. After an introductory chapter dealing with accounting information systems and managerial decisions, Part I consists of Chapters 2 through 4 and includes a variety of topics focused on the costing of products and services. Chapter 2 discusses manufacturing processes, cost terminology, and cost flows, Chapter 3 discusses the use of job, process, and operations costing, and Chapter 4 discusses activity-based costing. Part II of the text consists of Chapters 5 through 8 and includes material on cost behavior and relevant costs (Chapter 5), cost-volume-profit analysis and variable costing (Chapter 6), short-term tactical decision making (Chapter 7) and long-term capital investment decisions (Chapter 8). Part III of the text consists of Chapters 9 through 12 and includes the preparation and use of budgets in planning and decision making (Chapter 9), variance analysis (Chapter 10), decentralization and performance evaluation (Chapter 11), and performance evaluation using the balanced scorecard (Chapter 12). Part IV of the text includes two capstone chapters dealing with strategic decision making. Chapter 13 introduces the concept of the strategic use of managerial accounting information, and Chapter 14 deals with issues of internal control, corporate governance, and ethics. Part V includes chapters on financial statement analysis (Chapter 15) and the statement of cash flows (Chapter 16).

Chapter 1 Accounting Information and Managerial Decisions

This chapter defines accounting information and contrasts the needs for accounting information by internal and external users. The third edition includes significant new coverage of the importance of knowledge management in the business environment and the use and benefits of knowledge warehouses, enterprise resource planning (ERP), and electronic data interchange (EDI) as knowledge management tools. The chapter also discusses the decision-making role of management in planning, operating, and controlling, describes the various functional areas of management, and provides a decision framework for assessing decisions that commonly face managers of organizations.

Chapter 2 Product Costing: Manufacturing Processes, Cost Terminology, and Cost Flows

This chapter begins with a description of basic production processes used by manufacturing companies and identifies the benefits and costs of implementing a just-in-time production

system. The chapter provides an introduction into basic cost terminology applicable to manufacturing companies, merchandising companies, and service providers and concludes with a description and analysis of cost flows. The third edition includes relevant journal entries associated with the purchase of raw materials, the transfer of raw materials into work in process, the incurrence of overhead costs, the transfer of work in process to finished goods, and the sale of finished goods.

Chapter 3 Job Costing, Process Costing, and Operations Costing

This chapter begins with a discussion of the basic systems that companies use to accumulate, track, and assign costs to products and services and contrasts and compares job costing, process costing, and operations costing. The chapter introduces the concept of cost pools and cost drivers and how they are used to allocate overhead, using plantwide and departmental overhead rates. The chapter includes a discussion of the use of overhead estimates (predetermined overhead rates) in product costing and the treatment of over- or under-applied overhead. The appendix to the chapter includes a detailed discussion of process costing.

Chapter 4 Activity-Based Costing

In this chapter, we revisit the problems of overhead application and discuss the use of activity-based costing (ABC). We define and identify typical activities and cost drivers in an ABC system and demonstrate the costing of products, using ABC as compared to traditional volume-based costing systems. The benefits and limitations of ABC are discussed, as is the application of ABC to nonmanufacturing activities and in a JIT environment.

Chapter 5 Cost Behavior and Relevant Costs

This chapter introduces concepts and tools that will be used in Chapter 6 through Chapter 8. Chapter 5 begins with a definition of cost behavior and illustrates the concepts of fixed costs, variable costs, and mixed costs. Mixed costs are analyzed using both the high/low method and regression analysis. Next, the chapter revisits the concept of relevant costs as they apply to variable and fixed costs and describes the impact of income taxes on costs.

Chapter 6 Cost-Volume-Profit Analysis and Variable Costing

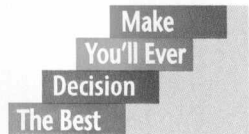
In this chapter, we develop a set of tools that focus on the distinction between fixed and variable costs. These tools include measures of a company's contribution margin, contribution margin ratio, and operating leverage—the cornerstones of cost-volume-profit (CVP) analysis. The chapter illustrates the use of break-even analysis in both a single and multiproduct environment and discusses the impact of income taxes on CVP analysis.

Chapter 7 Short-Term Tactical Decision Making

In Chapter 7 we analyze a variety of short-term decisions, including the pricing of special orders, the decision to outsource labor, the decision to make or buy a component, the decision to drop a product or service, the utilization of limited resources, and the decision to sell or process further. The theory of constraints is also introduced.

Chapter 8 Long-Term (Capital Investment) Decisions

In this chapter, we develop tools that aid managers in making long-term decisions to purchase new property, plant, and equipment (capital investment decisions). The use of the net present value and internal rate of return methods in both screening decisions and preference decisions is discussed, as is the impact of income taxes on the analysis. The impact of new manufacturing techniques on capital investment decisions and the importance of qualitative factors in the analysis are also discussed. The payback method, an approach to long-term purchasing decisions that does not take into consideration the time value of money, is also mentioned. The appendix of the chapter provides a detailed introduction to time value of money concepts for students that have not been previously exposed to these concepts.



Chapter 9 The Use of Budgets in Planning and Decision Making

In this chapter, we introduce the concept of budgeting and discuss how budgets assist managers in planning and decision making. We discuss and demonstrate the preparation of budgets for a traditional manufacturing company with inventory, as well as for a company operating in a JIT environment. This chapter also covers the use of budgets in merchandising and service companies. We pay special attention to the preparation and use of the cash budget for managerial decision making and tie it into the preparation of the statement of cash flows. Finally, we discuss static and flexible budgets, with particular emphasis on the impact of ABC on flexible budgets and the preparation and use of nonfinancial budgets.

Chapter 10 Variance Analysis—A Tool for Cost Control and Performance Evaluation

In this chapter, we expand the discussion of flexible budgeting and introduce the concept of standard costs and variance analysis as tools to help managers “manage by exception” and evaluate performance in their control function. Included is a discussion of the overall flexible budget variance, the sales price variance, price (rate) and usage (efficiency) variances for direct material, direct labor, and variable overhead, and fixed overhead spending and volume variances. The chapter ends with a discussion of considerations in using and interpreting variances.

Chapter 11 Decentralization and Performance Evaluation

In this chapter, we discuss the structure and management of decentralized organizations, with an emphasis on the impact of responsibility accounting and segment reporting on decision making in decentralized organizations. We discuss performance evaluation in cost, revenue, profit, and investment centers and introduce measures of performance such as return on investment (ROI), residual income, and economic value added (EVA), commonly used in investment centers. New material in the third edition includes a discussion of performance evaluation in a multinational environment and the use of cash-based, stock-based, and other forms of managerial compensation to motivate managers. We conclude the chapter with a discussion of transfer pricing, including a discussion of international issues.

Chapter 12 Performance Evaluation Using the Balanced Scorecard

In this chapter, we introduce the concept of the balanced scorecard and discuss how the balanced scorecard integrates financial and nonfinancial measures of performance. We discuss the four perspectives of the balanced scorecard approach: the financial perspective, the customer perspective, the internal business perspective, and the learning and growth perspective. The chapter defines quality costs and explains the tradeoffs among prevention costs, appraisal costs, internal failure costs, and external failure costs. We relate measures of quality, environmental impact, productivity, efficiency, timeliness, and marketing effectiveness to each perspective of the balanced scorecard. New to the third edition is a section on measuring and controlling environmental costs.

Chapter 13 The Strategic Use of Managerial Accounting Information

In this new chapter, we examine the strategic use of managerial accounting information; that is, how managerial accounting information is used by companies in developing, monitoring and maintaining a long-term competitive strategy. In the first section of the chapter, we discuss the general strategies used by companies in creating a competitive advantage. In the second section, we discuss pricing and strategy, including the use of cost-based pricing and target pricing. In the third section, we discuss the influence of cost management on strategy, including such topics as value chain analysis, supply chain management, customer relationship management, and activity-based management.

Chapter 14 Internal Control, Corporate Governance, and Ethics

This chapter includes revised and expanded coverage of fraud and internal control and up-to-date coverage of the forces shaping corporate governance and business ethics. Unique to managerial accounting textbooks, the material in the chapter exposes students to some of the most significant issues affecting the business profession today. Topical coverage includes fraudulent financial reporting, misappropriation of assets, common methods of perpetrating fraud, elements of internal control, common control activities, corporate governance practices, ethics programs, codes of ethics, and appropriate responses to ethics violations.

Chapter 15 Financial Statement Analysis

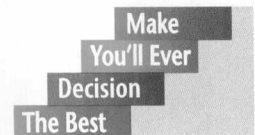
In this chapter, we discuss the use of analytical tools in financial statement analysis. Included is a discussion of the limitations of financial statement analysis, the use of comparative and common-size financial statements, liquidity ratios, solvency ratios, and profitability ratios.

Chapter 16 The Statement of Cash Flows

In this chapter we present an in-depth discussion of the preparation and use of the cash flow statement. While this statement is primarily used by parties external to the organization, we discuss its importance to managerial decision making and its links to the cash budget produced for internal purposes.

Supplements for Instructors

- **Solutions Manual** This comprehensive manual contains all the solutions to the end-of-chapter items.
- **Instructor's Manual** This resource provides teaching tips and chapter outlines.
- **Test Bank** Completely revised for the third edition, the Test Bank contains more than 1,500 questions to evaluate students' progress through the course material. A selection of various question types is available, including multiple choice, short answer exercises, and short problems. The printed Test Bank is also available in electronic format, **ExamView® Pro**, which enables instructors to preview and edit questions and add their own questions.
- **Instructor's Resource CD-ROM** This CD is a convenient source for instructor materials, including the Solutions Manual, Instructor's Manual, Test Bank with Exam View, and PowerPoint presentations.
- **WebTutor™ Advantage on WebCT™ and WebTutor Advantage on Blackboard®** are platform-driven systems for complete Web-based course management and delivery. WebTutor Advantage provides a concept review and reinforcement in the form of quizzing, videos, and much more. When students purchase this product, they also get automatic access to Personal Trainer.
- **Product Support Web Site at <http://jackson-managerial.swlearning.com>** A variety of instructor resources are available through South-Western's password-protected Web site. Downloadable instructor supplement files are available for the Solutions Manual, Instructor's Manual, Test Bank, ExamView, and PowerPoint, each organized by chapter.



Supplements for Students

- **Personal Trainer** Specifically designed to ease the instructor's time-consuming task of grading homework, Personal Trainer 3.0 lets students complete online their assigned homework from the text or practice on unassigned homework. The results are instant-

neously entered into a gradebook. Personal Trainer provides an unprecedented real-time, guided, self-correcting learning reinforcement system outside the classroom.

- **Xtra!** Available as an optional, free bundle with every new textbook, Xtra! Gives students FREE access to the following online learning tools:
 - Quizzes** that measure a student's "test readiness" on the concepts in the chapter.
 - Quiz Bowl** is a fun way for students to test their understanding of a chapter's material.
 - Crossword Puzzles** is excellent for students to review their understanding of the key terms in a chapter.
 - PowerPoint** provides a quick review of the chapter material.
- **Product Support Web Site** at <http://jackson-managerial.swlearning.com> provides students with a wealth of resources, including quizzing, Internet applications questions, and a review of the chapter concepts.
- **Management Accounting Course Guide** provides tips for successfully completing the managerial accounting course. It includes multiple choice questions for students to use in testing their understanding of a chapter's concepts.

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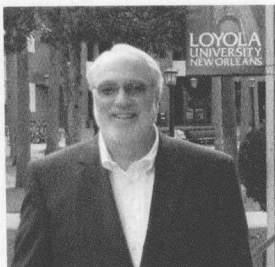
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Western Kentucky
University

To those who influence our decisions:
Cheryl, Christina, Kent, and Ben
Amber and Robyn
Elaine, Anna, and Claire

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Professor Jackson has published articles in such refereed journals as *Journal of Accounting and Finance Research*, *Journal of Economic and Social Measurement*, *Journal of Economic and Business Perspectives*, *Journal of Business and Economic Research*, *Accounting Educators Journal*, and *Journal of Accountancy*. His research interests are in accounting education and behavioral issues. He has more than 20 years of teaching experience and has held faculty positions at Northern Arizona University, Western New England College, the University of Southern Mississippi, the University of Southern Maine, and the University of Tennessee at Martin. Dr. Jackson has taught courses in managerial and strategic cost management, auditing and assurance, and financial accounting at both the undergraduate and graduate levels.

Professor Jackson has received numerous teaching awards, including three excellence-in-teaching awards while a doctoral student at Arizona State University. He was named outstanding faculty member by the University of Southern Mississippi Gulf Coast Accounting Society. He was the recipient of the Faculty Senate Intellectual Contributions award while at the University of Southern Maine and the Excellence in Research award at the University of Tennessee at Martin.

Dr. Jackson's professional activities include membership in the American Institute of Certified Public Accountants, the American Accounting Association, the Institute of Management Accountants, and the Institute of Internal Auditors. He is a former staff accountant with Touche Ross & Co. in Seattle and has more than 12 years of public accounting experience.

Professor Jackson and his wife Cheryl live in D'Iberville, Mississippi. They have three grown children, Christina, Kent, and Benjamin, and a grandson Charles.



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Professor Sawyers has published articles in a variety of journals, including *Journal of Accountancy*, *Journal of Business Ethics*, *Journal of the American Taxation Association*, *Advances in Taxation*, *National Tax Journal*, *The Tax Adviser*, *Tax Notes*, *The CPA Journal*, and *Auditing: A Journal of Practice and Theory*. He is a contributing author of *Advanced Business Entity Taxation* and was the primary author of a monograph on the future of the estate tax, published by the American Institute of Certified Public Accountants. His research interests include individual behavior and decision making in a variety of contexts, as well as corporate ethics. He has more than 15 years of teaching experience and has taught courses in managerial and cost accounting, strategic cost management, individual and business taxation, and the taxation of estates, gifts, and trusts.

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