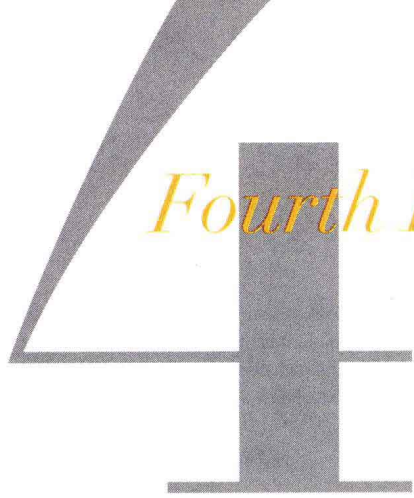


*Fourth Edition*

# Managerial Accounting

Ronald W. Hilton



*Fourth Edition*

# **Managerial Accounting**

**Ronald W. Hilton**  
*Cornell University*



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## MANAGERIAL ACCOUNTING

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# **Managerial Accounting**

**To my wife, Meg, and our sons, Tim and Brad.**



# About the Author

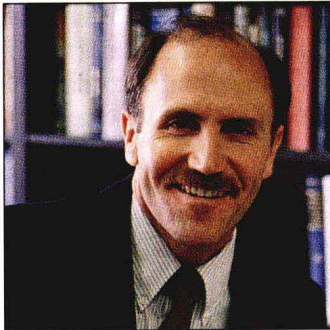


Photo by Jon Reis/PHOTOLINK

**Ronald W. Hilton** is a Professor of Accounting at Cornell University. With bachelor's and master's degrees in accounting from The Pennsylvania State University, he received his Ph.D. from The Ohio State University.

A Cornell faculty member since 1977, Professor Hilton also has taught accounting at Ohio State and the University of Florida, where he held the position of Walter J. Matherly Professor of Accounting. Prior to pursuing his doctoral studies, Hilton worked for Peat, Marwick, Mitchell and Company and served as an officer in the United States Air Force.

Professor Hilton is a member of the Institute of Management Accountants and has been active in the American Accounting Association. He has served as associate editor of *The Accounting Review* and as a member of its editorial board. Hilton also has served on the editorial board of the *Journal of Management Accounting Research*. He has been a member of the resident faculties of both the Doctoral Consortium and the New Faculty Consortium sponsored by the American Accounting Association.

With wide-ranging research interests, Hilton has published articles in many journals, including the *Journal of Accounting Research*, *The Accounting Review*, *Management Science*, *Decision Sciences*, *The Journal of Economic Behavior and Organization*, and *Contemporary Accounting Research*. He also has published a monograph in the AAA *Studies in Accounting Research* series, is a co-author of *Budgeting: Profit Planning and Control*, and is a co-author of *Cost Accounting: Concepts and Managerial Applications*. Professor Hilton's current research interests focus on contemporary cost management systems and international issues in managerial accounting. In recent years, he has toured manufacturing facilities and consulted with practicing managerial accountants in North America, Europe, Asia, and Australia.



Guided by former students, Professor Hilton tours one of the world's largest steel mills, which is located near Tokyo. In recent years, Professor Hilton has consulted with practicing managerial accountants throughout the world.

# Preface

Managers in all types of organizations rely heavily on managerial accounting information for decision making, planning, and control. The goal of this text is to acquaint students of management with the fundamentals of managerial accounting. The emphasis throughout the book is on *using* accounting information in managing an organization. *Managerial Accounting* is intended to be used by students after they have completed a basic course in financial accounting. Most of the material in the text can be covered in one semester or one and one-half quarters. The book includes enough material, however, to allow an instructor some choice of topics when designing the course.

In preparing the fourth edition of *Managerial Accounting*, many features of the first three editions were retained. However, the fourth edition of *Managerial Accounting* has benefited from the most extensive review process ever in the history of this text. Several improvements and changes have been made based on the comments of the reviewers, instructors, and students who have used the text. This preface provides a summary of the text's key features and the changes in the fourth edition.

## Key Features of This Textbook

Each chapter is built around one major illustration, in which all aspects of the chapter's coverage are addressed. The illustration is used consistently throughout the chapter, allowing students to gain a deeper understanding of all dimensions of the topic. Each illustration has a management case flavor, with enough descriptive background to involve students in the scenario. These illustrations are built around realistic situations with plausible decisions and believable people. The types of illustrations vary widely across chapters. Although these major chapter illustrations are set in fictitious organizations, they are generally based on real-world companies and situations. As a result the illustrations, though not real, are extremely realistic.

The text includes frequent descriptions of the actual managerial-accounting practices of real-world organizations. These illustrations from *management accounting practice* are highlighted to catch the students' attention and are dispersed throughout the book. Among the many organizations represented in these real-world scenarios are Aetna Casualty and Life; American Can; American Express; Arnot Ogden Memorial Hospital; Blue Shield; British Airways; B. F. Goodrich; Caterpillar; Chrysler; Compaq; Cornell University; Corning Glass Works; Cummins Engine, Daihatsu; Deere & Company; Dow Chemical; Dutch Pantry; Federal Express; Firestone Tire & Rubber; General Electric; Harley-Davidson; Hewlett-Packard; Honeywell; H. J. Heinz; ITT; Ingersoll-Rand; J. C. Penney; Leonard Morse Hospital; McDonald's; Motorola; Rockwell International; Southwest Airlines; Toyota; United Parcel Service; Xerox; and Wal-Mart.

A large percentage of the students pursuing studies in management will choose careers in nonmanufacturing environments. It is important that students realize the applicability of managerial accounting to a variety of organizations. Some managerial accounting topics are integrally related to the manufacturing sector; others are just as applicable in nonmanufacturing settings. The major illustrations, around which the chapters in this text are built, are drawn from a wide variety of enterprises. As the chapter outline on the front endpaper shows, nine of the illustrations are set in the manufacturing sector, six illustrations involve service-industry firms, three illustrations are built around retail companies, and three illustrations involve nonprofit or governmental settings.

Conveying the importance of managerial accounting and stimulating students' interest

Balanced coverage of managerial accounting topics in manufacturing, retail, nonprofit, and service-industry settings



**Flexible sequence of chapters written in modular style**

Since managerial accounting instructors often have differing views on the optimal chapter sequence, flexibility in usage was a paramount objective in writing the text. Each chapter is a module, which can be assigned out of sequence if the instructor desires. For example, some instructors might prefer to cover cost behavior and estimation (Chapter 7) and cost-volume-profit analysis (Chapter 8) before delving into cost-accumulation issues. Other instructors may wish to cover these two topics in the section of the course on decision making. In this text, Chapter 7 and 8 can be assigned as early as immediately after Chapter 2, or as late as just prior to Chapter 14. The decision-oriented chapters (14, 15, 16, and 17) can be moved up to an earlier point in the course if the instructor prefers. These four chapters could be assigned any time after the students have completed Chapters 1, 2, 7, and 8. Chapter 18 covers the details of cost allocation for service departments and joint products. These two modules in Chapter 18 could be covered along with the cost accumulation chapters (3, 4, and 5) if the instructor prefers. Chapters 12 and 13, which cover a variety of issues pertaining to responsibility accounting and decentralization, can be assigned later in the course if desired.

Instructors' preferences vary widely with respect to the best place in the course for the topic of variable versus absorption costing. Some instructors prefer to cover the topic immediately after cost-volume-profit analysis (covered in Chapter 8). Others prefer to cover the topic after standard costing and overhead variances, so that the effect of the fixed-overhead volume variance can be included in the discussion. To satisfy both approaches, variable and absorption costing is covered in Chapter 19. However, the main body of Chapter 19, excluding the appendix, can be covered immediately after Chapter 8 (CVP) by instructors who want to emphasize the connection between CVP relationships and variable costing. Alternatively, instructors who wish to cover the fixed-overhead volume variance (in Chapter 11) first, can assign Chapter 19 after Chapter 11 has been completed. The effect of the volume variance on the variable versus absorption costing issue is examined in the Appendix to Chapter 19. Or, the main body of Chapter 19 can be assigned immediately after Chapter 8, and the Appendix to Chapter 19 can be covered after Chapter 11.

In short, the instructor has a great deal of flexibility in course design and topical sequence when using *Managerial Accounting*.

**Blend of traditional material and up-to-date coverage of emerging topics in managerial accounting**

There is no doubt that managerial accounting is undergoing a revolution in thought and practice. Much of this change is due to recent changes in manufacturing technology and philosophy. Such innovations as just-in-time inventory systems, flexible manufacturing, and computer-integrated manufacturing systems are dramatically changing the manufacturing environment. As a result, managerial accounting systems are changing as well. New concepts and procedures have been devised, and many traditional approaches have been challenged.

*Managerial Accounting* provides thorough coverage of these contemporary issues. Two complementary approaches are taken. First, these emerging issues are thoroughly integrated throughout the text. Virtually every chapter includes major coverage of some aspect of contemporary cost management systems and the new manufacturing environment. This provides for continual reinforcement of these topics throughout the course, and also allows students to study the issues in a variety of organizational contexts.

Second, Chapters 5 and 6 are devoted entirely to contemporary cost management systems. Issues such as cost drivers, activity-based costing, activity-based management, non-value-added costs, target costing, and kaizen costing are covered in these chapters. By covering many of these topics together, in the context of a particular company, students are better able to understand how these diverse issues are interrelated.



This textbook is thoroughly comprehensive in that it includes all topics of relevance for an introductory managerial accounting course. Moreover, the book provides enough depth to give students an appreciation for the relationship of each topic to the management process. When appropriate, the behavioral implications of managerial accounting information and procedures are explored. For a thorough understanding of managerial accounting, students should not only be able to produce accounting information, but also understand how managers are likely to use and react to the information.

Breadth and depth of coverage

To help students learn managerial accounting and gain an appreciation for its importance, *Managerial Accounting* includes a wide range of pedagogical features.

Pedagogical features designed to enhance the learning process

- *Learning objectives.* Each chapter begins with a list of learning objectives to help students identify the most important issues in the chapter. The learning objectives are repeated in the margin throughout the chapter to direct students' attention to material related to each learning objective. Moreover, the learning objectives covered in each exercise, problem, and case are indicated in the end-of-chapter material.
- *Comprehensive illustrations with a real-world flavor.* As noted previously, each chapter is built around a major illustration that progresses throughout the chapter. These diverse illustrations include enough background to add realism to the presentation and stimulate the students' interest in the topic. To engage student interest, each chapter begins with a simulated news article highlighting the organization featured in the chapter.
- *Photos.* A photograph at the beginning of each chapter and a logo for each organization add to the realism of the presentation. In addition, numerous photos from practice are included throughout each chapter. These photos are intended to enhance the students' interest and emphasize key points.
- *Clarity and step-by-step presentation.* Great care was taken to write this text in a clear, readable, and lively style. Extensive review by managerial accounting instructors coupled with extensive classroom use have helped in achieving this goal. The text contains numerous exhibits, graphs, tables, and step-by-step instructions to help students master the material.
- *Management accounting practice.* As noted previously, the managerial accounting practices of well-known, real-world organizations are highlighted in these numerous illustrations. They are intended to stimulate student interest and provide a springboard for classroom discussion.
- *Review problems.* Most chapters include a review problem along with its solution to provide students with a vehicle for testing their understanding of the material.
- *Key terms.* Each chapter includes a list of key terms with page references. A complete glossary is included at the end of the text. The key terms, along with their definitions, are also repeated in the margin throughout each chapter for ease of reference.
- *Review questions, exercises, problems, and cases.* Each chapter includes a wide selection of assignment material. This end-of-chapter material, which has been classroom tested, is comprehensive in covering the points in the chapter. The assignment material exhibits a wide range of difficulty, and the *Instructor's Guide* provides guidance for the instructor on the difficulty level and time required for each problem. Numerous adapted CMA and CPA problems are included in the text. In many cases, these problems were very heavily adapted to preserve the essence of the problems while ensuring that they were pitched at a level appropriate for the text.
- *Current Issues in Managerial Accounting.* A new end-of-chapter element has been added in the fourth edition. This assignment material is drawn from the business news media, such as *The Wall Street Journal* and *Business Week*. It highlights current events of relevance to the practice of managerial accounting.

## Changes in the Fourth Edition

The key features of the first three editions have been retained. However, several changes have been made to improve on those strengths. Some of the more significant changes are described here.

### ***Expanded Pedagogical Material***

In responding to the comments of adopters and reviewers of the third edition, new pedagogical material has been added where indicated. For example, at the suggestion of a reviewer, graphical presentations have been added to the coverage of total quality management, now covered in Chapter 12. The learning objectives are repeated in the margins throughout each chapter to help students identify the coverage of each learning objective. The relevant learning objectives are also shown with each exercise, problem, and case in the end-of-chapter assignment material. The key terms are repeated, along with their definitions, in the margins throughout each chapter for easy student reference.

### ***Significant Revision of Introductory Chapter***

Students are introduced to managerial accounting in Chapter 1, and this chapter has been heavily revised to reflect the ongoing changes in the field. The definition of managerial accounting has been revised, and the role of the managerial accountant has been revised and updated. The goal of the revision is to emphasize to students that managerial accounting is an integral part of the management process and managerial accountants are important strategic partners in an organization's management team. The management team seeks to create value for the organization by managing resources, activities, and people to achieve the organization's goals effectively. *Added* to the objectives of managerial accounting activity is "assessing the organization's competitive position, and working with other managers in ensuring the organization's long-run competitiveness in its industry." Particular emphasis is given to the *proactive* participation of managerial accountants as part of the management team in the decision making and planning processes.

The revision of Chapter 1 also expands and updates the coverage of many other important topics. The goal here is to acquaint students with some of the important issues in the ever-changing contemporary business environment. The coverage of global competition is expanded to include a brief discussion of multinationals and exchange rate issues. The importance of having a customer focus is discussed, as is the prevalence of cross-functional teams in managing an enterprise. The discussion of total quality management has been updated and expanded. The topic of time-based competition is explored, with its emphasis on time-to-market issues.

The traditional discussion of computer information systems has been replaced with a contemporary treatment of information and communication technology. Explored here are the effects of networked personal computers, spreadsheet programs, the Internet, and integrated business software systems, such as *SAP* and *PeopleSoft*.

Chapter 1's overview of many other topics has been retained from the third edition. Among the topics discussed are cost management systems, activity-based costing, activity-based management, strategic cost management, and the value chain. The coverage of the ethical standards for management accountants has been updated to incorporate the recent modifications made by the Institute of Management Accountants.



## ***Reorganization of Process-Costing Coverage***

Chapter 4, which covers process costing, has been reorganized as follows:

- *Main part of Chapter 4:* Covers general concepts of process costing, such as equivalent units, and the *weighted-average* process-costing method in a *single production department*.
- *Appendix to Chapter 4:* Covers process costing in *sequential production departments* using the weighted-average method.

These changes in the process-costing coverage were made to provide instructors with the maximum flexibility in course design. Based on the recommendations of an overwhelming majority of reviewers, the FIFO method is no longer covered in Chapter 4. This change is consistent with practice, since the weighted-average method is virtually always used in practice. However, for any instructor who still desires to cover FIFO process costing, this material will be made available by the publisher on a custom-publishing basis. (Free upon adoption.)

## ***Coverage of Total Quality Management***

The discussion of total quality management has been revised, expanded and updated. In the fourth edition, this material appears in Chapter 12, “Responsibility Accounting and Total Quality Management.” Included in the coverage are measuring and reporting quality costs, product grade, quality of design, quality of conformance, observable versus hidden quality costs, and the changing view of experts on the optimal level of product quality. The discussion is augmented by graphical analyses of optimal product quality. Cause and effect diagrams and Pareto diagrams are explored as means of identifying quality-control problems. The concept of total quality management (or TQM) is discussed, as are the ISO 9000 standards, which are used internationally for assessing the effectiveness of a company’s quality control system.

## ***Coverage of Financial Statement Analysis and the Statement of Cash Flows***

These primarily financial accounting topics, covered in Chapters 19 and 20 in the third edition, have not been included in the fourth edition. This decision was based on consistent reviewer comments that the chapters were not widely used. However, these chapters are available from the publisher on a custom-publishing basis. (Free upon adoption.)

## ***Further Integration of Material on Cost Management Systems and Today’s Manufacturing Environment***

In the fourth edition, virtually every chapter includes significant coverage of various emerging topics in managerial accounting and the contemporary business environment. Some of the topics covered in various chapters are as follows:

**Chapter 1.** Managerial accounting as an integral part of the management process; the proactive role of the managerial accountant as part of the management team; global competition; focus on the customer; cross-functional teams; time-based competition; information and communication technology; just-in-time production and inventory management; total quality management; cost management systems; strategic cost management and the value chain.



**Chapter 2.** Cost drivers; volume-based versus operations-based cost drivers.

**Chapter 3.** Discussion and exhibits covering two-stage cost allocation and departmental overhead rates.

Also in Chapter 3 is an introduction to activity-based costing. The main part of the chapter includes a conceptual introduction to ABC, without getting into the details. Then the Appendix to Chapter 3 provides follow-up material with a straightforward numerical illustration. The appendix briefly shows the effects on product costs of the following three alternative approaches to product costing: plantwide overhead rate, departmental overhead rates, and activity-based costing.

The ABC coverage in Chapter 3 is intended for those instructors who prefer to introduce activity-based costing early in the course, without getting into a lot of details about ABC systems. A much more in-depth treatment of ABC is given in Chapter 5.

**Chapter 4.** Hybrid product-costing systems and operation costing.

**Chapter 5.** This chapter provides an in-depth treatment of activity-based costing and cost management systems. The fourth edition includes many pedagogical devices to help students understand how an activity-based costing system works, and how ABC reduces product cost distortion. To make room for the expanded pedagogical material, several topics have been moved to other chapters. This has increased the integration of the material on contemporary cost management systems throughout the text.

**Chapter 6.** This chapter covers activity-based management and the new manufacturing environment. Topical coverage includes the implications of advanced manufacturing technology for managerial accounting, just-in-time inventory and production management systems, two-dimensional activity-based costing, activity-based management, elimination of non-value-added costs, target costing, kaizen costing, continuous improvement, and the keys to successful implementation of ABC and ABM.

The Aerotech Corporation illustration runs throughout Chapters 5 and 6. Chapter 5 focuses on activity-based *costing*. Chapter 6 is devoted more to activity-based *management*. In general, Chapter 5 is more quantitative while Chapter 6 is more qualitative. In the fourth edition, the two chapters follow the natural evolution of a new cost management system from focusing primarily on cost assignment to impacting management of the organization's activities.

Chapters 5 and 6 make up a module on cost management systems. In general, Chapters 5 and 6 should be covered consecutively. However, the two-chapter module can be shifted around in the design of a course; they could be covered at either the beginning or end of the course.

**Chapter 7.** Shifting cost structure in the new manufacturing environment; volume-based versus operations-based cost drivers.

**Chapter 8.** The implications of activity-based costing for CVP analysis; impact on CVP relationships of labor intensive production systems versus advanced manufacturing systems; and the implications of JIT and flexible manufacturing systems.

**Chapter 9.** Budgeting product life-cycle costs; and JIT versus EOQ views of inventory planning (appendix).

In addition, this chapter includes a considerable amount of pedagogical material to help students understand the linkage between production and purchasing, and how cash receipts and cash disbursements are budgeted.

**Chapter 10.** Performance measurement in today's manufacturing environment; limitations of standard costing; and relationships between ABC and standard costing.

**Chapter 11.** Implications of activity-based costing and contemporary cost management systems for flexible budgeting.

**Chapter 12.** Activity-based responsibility accounting; total quality management.

**Chapter 13.** International and ethical issues in cost management systems.

**Chapter 14.** Implications of activity-based costing for relevant cost analysis.

**Chapter 15.** Pricing based on target costing; pricing implications of activity-based costing; and impact of distorted product costs on cost-based prices.

**Chapter 16.** Justification of investments in advanced manufacturing systems.

**Chapter 17.** Real-world capital-budgeting practices, including an international discussion.

**Chapter 18.** Relationships between service department cost allocation, two-stage allocation, and ABC systems.

**Chapter 19.** Implications of a JIT manufacturing environment for variable and absorption costing issues.

### ***Revision of End-of-Chapter Assignment Material***

Many new exercises, problems, and cases have been added in the fourth edition. In addition to the new assignment items, most of the exercises, problems, and cases in the third edition have been revised. The result is that roughly three-quarters of the items in the fourth edition are new or revised.

Every chapter in the text includes one or more problems and cases dealing with ethical issues. Moreover, there is an increase in the number of problems and cases that include international issues, critical thinking skills, and written communications requirements. Icons have been placed in the margins to identify exercises, problems, and cases involving ethics or international issues. Another icon identifies each assignment item which explicitly requires an oral or written response by the student or which lends itself well to such an assignment by the instructor. An additional icon appears in the Current Issues in Managerial Accounting section to identify where students will be asked to work in groups.



Ethics



Oral/Written



International



Group Work

The assignment material also includes many missing-data problems. These problems help students think through the conceptual linkages in a technique by requiring them to "work backwards" from the information given to reconstruct the missing data. Also, several integrative cases are included, for example, in the budgeting and standard costing chapters.

Many exercises and problems can be solved using the spreadsheet software (SPATS). Icons have also been placed in the margins next to these exercises and problems for easy identification.





## Supplements for the Instructor

**Solutions Manual** (ISBN 0-07-561979-2), prepared by Ronald W. Hilton, Cornell University. Contains complete solutions to all of the text's end-of-chapter review questions, exercises, problems, cases, and current issues in managerial accounting.

**Key Figures** (ISBN 0-07-228423-4) prepared by Ronald W. Hilton, Cornell University. Provided for end-of-chapter exercises, problems, and cases in the text. Available in class quantities.

**Annotated Instructor's Edition** (ISBN 0-07-290291-4). Annotations were created by Al Chen of North Carolina State University. The fourth edition is made more instructor-friendly with the new annotated edition. Useful teaching tips, additional service examples, and related press articles are located in the margin of the annotated edition.

**Instructor's Resource Manual** (ISBN 0-07-059341-8), authored by Lanny Solomon of the University of Texas at Arlington. A comprehensive guide for instructors. In addition to chapter outlines and topical summaries, this supplement topically cross-references all the key supplements including the Study Guide, Test Bank, Managerial Accounting Video Series, and PowerPoint slides. Instructors no longer have to waste valuable time trying to coordinate their lecture with videos, PowerPoint, and assignment material. It has been done for them in the Instructor's Resource Manual.

**Test Bank** (ISBN 0-07-059342-6), authored by Lanny Solomon of the University of Texas at Arlington. The test bank contains true/false questions, matching exercises, and short problems. Each test item is coded for length of time and level of difficulty.

**Computerized Test Bank** (ISBN 0-07-290292-2). The computerized version of the test bank (available in Windows version).

**Teletest** allows instructors to call a toll-free number, specify the content of desired exams, and have a laser-printed copy of the exam mailed to them.

**Solutions Transparencies** (ISBN 0-07-290294-9). Solutions to all the end-of-chapter exercises, problems, and cases in the text.

**Ready Shows** (ISBN 0-07-561978-4) and **Ready Slides** (ISBN 0-07-228424-2) are teaching enhancement packages prepared by Jon A. Booker, Charles W. Caldwell, Susan C. Galbreath, and Richard S. Rand, all of Tennessee Technological University. *Ready Shows* are PowerPoint slides that illustrate key chapter topics. *Ready Slides* are four-color teaching transparencies of selected PowerPoint slides.

**Irwin/McGraw-Hill Managerial/Cost Accounting Video Series**. These short, action-oriented videos provide the impetus for lively classroom discussion and illustrate managerial accounting issues in manufacturing, service, retail, and governmental/nonprofit enterprises.

**Presentation Manager** (ISBN 0-07-290293-0). This integrated CD-ROM allows instructors to customize their own classroom presentations. It contains key instructor supplements such as PowerPoint, Test Bank, Instructor's Resource Manual, Solutions Manual, and Videos. The Presentation Manager makes it easy for instructors to create multimedia presentations.

**SPATS-Instructor** (ISBN 0-07-290296-5). Spreadsheet Application Template Software allows students to solve selected end-of-chapter assignments using Excel templates.



**Interactive Managerial Accounting Lab**, created by Diane Pattison (University of San Diego), Patrick McKenzie (Arizona State University), and Rick Birney (Arizona State University). This Windows-based program gives students a hands-on, highly interactive environment in which to learn managerial accounting. It is available in a network version (0-07-561333-2), as well as a take-home version (0-07-561332-8).

**Web Page.** Located at [www.mhhe.com/business/accounting/hilton](http://www.mhhe.com/business/accounting/hilton), this homepage provides additional resources for the instructor and student. Check it out.

## Supplements for the Student

**Study Guide** (ISBN 0-07-059343-4), created by Jeannie Folk (College of DuPage). Developed to help students study more effectively, the study guide incorporates many of the accounting survival skills essential to student success. Each chapter contains the following sections: *Chapter Focus Suggestions*; *Read and Recall Questions*; *Self-Test Questions and Exercises*; *Solutions to the Self-Test Questions and Exercises*; and *Ideas for Your Study Group*. In addition to reinforcing and applying the key concepts in the text, the study guide teaches students how to study, individually and in groups.

**SPATS-Student** (ISBN 0-07-228422-6). Spreadsheet Application Template Software includes Excel templates for selected exercises and problems from the text.

**Tutorial Software** (ISBN 0-07-290297-3). Fill-in-the-blank, multiple-choice, true/false, journal entry, and glossary review questions can be randomly accessed by students. This software reinforces the key concepts of the text and provides the student with explanations for correct and incorrect answers.

**Ramblewood Manufacturing, Inc.** (ISBN 0-256-17807-0). This computerized practice set was created by Leland Mansuetti and Keith Weidkamp (both of Sierra College). This software simulates the operation of a company that manufactures customized fencing. It can be used to illustrate Job-order costing systems with JIT inventory in a realistic setting. The entire simulation requires 10 to 14 hours to complete.

**The Phish Corporation**, A Practice Case in Managerial Accounting, prepared by Mark Zmijewski, University of Chicago; Sanford Gunn, State University of New York, Buffalo; Ronald Huefner, State University of New York, Buffalo; and Robert Derstine, Villanova University. This comprehensive application brings together all of the elements of managerial accounting in a realistic on-the-job environment. Thirteen modules cover such topics as cost classification, product costing, budgeting, standard costs, cost-volume-profit analysis, and special decisions. All assignments are drawn from a common database for a manufacturing company.

**Interactive Managerial Accounting Lab** (ISBN 0-07-561520-4), prepared by Diane Pattison, University of San Diego; Patrick McKenzie, Arizona State University; and Rick Birney, Arizona State University. A Windows-based program giving students a hands-on, highly interactive environment in which to learn managerial accounting. This software includes exercises, activities, and problems on content covered throughout the course.

**Web Page.** Located at [www.mhhe.com/business/accounting/hilton](http://www.mhhe.com/business/accounting/hilton), this homepage provides additional resources for the instructor and student. Check it out.

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